



Province of  
British Columbia

Ministry of  
Energy, Mines and  
Petroleum Resources

ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
Geological, Geochemical, Geophysical, Physical	\$196,769.74

AUTHOR(S) .. Gerald F. McArthur ..... SIGNATURE(S) .. *G. F. McArthur* .....

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED ..... December 15 ..... YEAR OF WORK .. 87 ..

PROPERTY NAME(S) .. Whitewater (Highland Surprise) .....

COMMODITIES PRESENT .. Au, Ag, Cu, Pb, Zn .....

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN ..... 82 K/SW-37 .....

MINING DIVISION .. Slocan ..... NTS .. 82 K/3W .....

LATITUDE .. 50° 03' N ..... LONGITUDE .. 117° 07' W .....

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

See attached Appendix A .....

OWNER(S)

(1) .. Abermin Corporation .....

**FILMED**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

MAILING ADDRESS

1500 - 1075 West Georgia St.  
Vancouver, B.C. V6E 3C9

**16,758**

OPERATOR(S) (that is, Company paying for the work)

(1) .. As Above .....

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Upper Paleozoic Kaslo greenstones and ultramafic rocks near the Whitewater fault are cut by quartz-carbonate shear zone containing sulphide veins. Sulphide veins contain pyrite, chalcopyrite, galena, sphalerite. Regional structural trend is 132°.

REFERENCES TO PREVIOUS WORK .. Ass Reports - 3225, 3921, 3926, 3930, 4126, 5401  
7835, 8480, 8516, 8529, 9060, 10070 .....

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)	1:500, 1:2500	All claims, Lyle Grid	
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	54 km	Whitewater Group I - 32.5, Group II - 21.5 km	
Electromagnetic	54 km	" " "	
Induced Polarization	2.5 km	Group II	
Radiometric			
Sedamic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil	206 Au, Ag (Cu, Pb, Zn)		
Silt			
Rock	188 Au, Ag (Cu, Pb, Zn)		
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying	135 Au, Ag (Cu, Pb, Zn)		
Petrographic	19 samples		
Mineralogie			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)	1:5000		
Line/grid (kilometres)	71 km		
Road, local access (kilometres)	6 km upgrade, 1 km reconstruct		
Trench (metres)	reopen level 3, 4	Highland Surprise (ML 346)	
Underground (metres)			

TOTAL COST

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted . . . . . Date	Rept. No.			Information Class

GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL  
REPORT ON THE WHITEWATER PROJECT  
LYLE AND, WHITEWATER GROUP CLAIMS  
SLOCAN MINING DIVISION, KASLO, B.C.

NTS: 82 K/3W

50° 04' N Latitude 117° 08' W Longitude

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

16,758

Abermin Corporation  
1500 - 1075 West Georgia  
Vancouver, B.C.

November 1987  
Report No. 13-87

G. F. McArthur  
A. D. McLaughlin  
W. B. Girling

## LIST OF FIGURES

	<u>Page</u>
Figure 1 Location Map	3
Figure 2 Whitewater Claim Group	5
Figure 3 Stratigraphic Column	8
Figure 4 Geological Legend	9
Figure 5 Au-Ag Ratio Graph	16
Figure 6 Highland Surprise Mine - Underground Plan & Geology	21
Figure 7 Highland Surprise Mine - Surface Sampling	22
Figure 8 Highland Surprise Mine - Underground Level 4	23
Figure 9 Gold Quartz Adit	29

## LIST OF PLATES (In Back Pockets)

	<u>Scale</u>
Plate 1 Property Geology A and B	1:5000
Plate 2 Surface Geology Lyle Grid	1:2500
Plate 3 Rock Sample Location Map A and B	1:5000
Plate 4 Soil Geochemistry Lyle-Ibex	1:2500
Plate 5 Soil Geochemistry Whitewater Grid	1:2500
Plate 6 Whitewater Grid, Ground Magnetometer Survey Total Field Data	1:5000
Plate 7 Whitewater Grid, Ground Magnetometer Survey Total Field Contour Plan	1:5000
Plate 8 Whitewater Grid, VLF-EM Survey	1:5000
Plate 9 Whitewater Grid, VLF-EM Survey Frazer Filter Data	1:5000
Plate 10 Whitewater Grid, VLF-EM Survey Frazer Filter Contour Plan	1:5000

List of Plates (Cont'd)

Plate 11	Lyle-Ibex Grid, Ground Magnetometer Survey Total Field Data	1:5000
Plate 12	Lyle-Ibex Grid, Ground Magnetometer Survey Total Field Contour Plan	1:5000
Plate 13	Lyle-Ibex Grid, VLF-EM Survey	1:5000
Plate 14	Lyle-Ibex Grid, VLF-EM Survey Frazer Filter Data	1:5000
Plate 15	Lyle-Ibex Grid, VLF-EM Survey Frazer Filter Contour Plan	1:5000

APPENDICES

Appendix I	Geochemistry
	A) Soils
	B) Rock Geochemistry & Assay
	C) Rock Sample Descriptions
Appendix II	Geophysics
	A) Whitewater - VLF Data
	- Mag Data
	B) Lyle - VLF Data
	- Mag Data
	- IP Data
	C) Report By Jerry Thornton
Appendix III	Petrographic Report - J. Harris
Appendix IV	Engineers Report
Appendix V	Expenditures
Appendix VI	Statement of Qualifications

## 1. SUMMARY

This report describes the gold exploration program undertaken by Abermin Corporation on the Whitewater property between June 1 through September 15, 1987. The 147 unit property covers the upper reaches of Lyle and Whitewater drainages in the Slocan Mining Division and includes the old Highland Surprise gold mine. This mine produced a reported 5,151 tons of ore grading 0.314 oz gold per ton from 1937 to 1941. Geologically the property is predominantly underlain by a structurally complex Permian age andesitic volcanic sequence. Jurassic age felsic dykes intrude the volcanics. The dykes seem to be associated with potentially economic precious metal mineralization.

Exploration work carried out included partial excavation of two Highland Surprise adits, reconstruction of access roads, linecutting, geological mapping, prospecting and geochemical sampling. In addition, IP, magnetometer and VLF-EM surveys were performed.

Results indicate that three types of precious metal vein mineralization are present on the property. The most promising - referred to as a Type 1 vein - are associated with northwest trending near vertical shear zones (e.g. Highland Surprise). At the Highland Surprise the Shear Zone is at least 200 metres long and contains three quartz-carbonate-albite veins with a strike length up to 100 metres. Assay results include 0.463 oz/ton Au and 0.25 oz/ton Ag over 2.0 metres.

A brief underground examination of the mine confirmed the earlier work and seems to indicate the potential for gold mineralization both down dip and along strike.

A subparallel structure immediately east of the Highland Surprise trend has been identified and is marked by a strong gold soil anomaly with values up to 2600 ppb Au. This trend is 300 metres in length and is open to the southeast.

Exploration work outside the Highland Surprise area located numerous gold and/or silver showings. While precious metal values can be high, often greater than 1 oz/ton Au, narrow widths and a lack of strike continuity down grades their significance.

It is recommended that a small diamond drill program (1,000 metres) be carried out in the Highland Surprise Mine area in 1988. This would test the strike length of the known mineralization. Estimated cost would be \$100,000 Canadian. If successful further work would be carried out including more drilling and possibly re-opening all the old workings.

## 2. GENERAL

### 2.1 INTRODUCTION

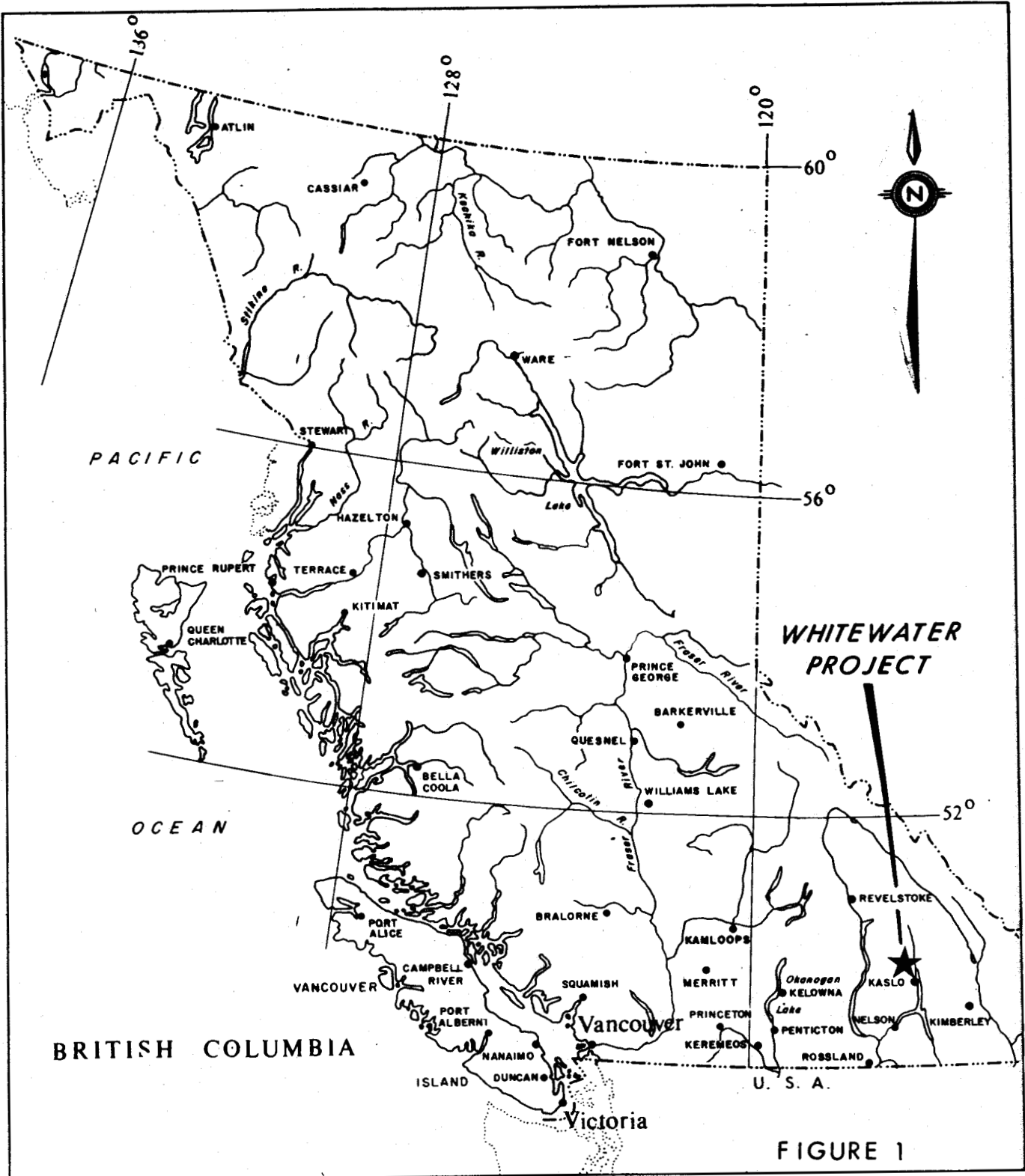
This report describes work undertaken on the 147 unit Whitewater property. The property is of interest as a potential host to economic precious metal mineralization. All claims except for ML 346 are on option from Dennis Tyers and Peter Leontowicz. The property, located approximately midway between New Denver and Kaslo, covers the upper reaches of Whitewater and Lyle Creek drainages, in the Slocan Mining Division, B.C.

### 2.2 LOCATION, ACCESS, PHYSIOGRAPHY

The property is located at the south end of the Goat Range in the Selkirk Mountains on Lyle and Whitewater Creeks, tributaries of the Kaslo River. It lies to the north side of Highway 31A, approximately midway between New Denver and Kaslo (Figure 1).

At Retallack, an abandoned mining community 18 kilometres northeast of New Denver, a gravel road extends one kilometre north where it forks, the northeast branch extending two kilometres up the Whitewater Valley and the eastern branch 2.7 kilometres up the Lyle Valley. Trails then lead for several kilometres to the heads of both valleys. In addition, a road extends up the eastern side of the claim group to the Eureka and Solo workings. Some sections of these roads are only accessible by 4-wheel-drive vehicles during the summer season.

The property lies between elevations 1300m and 2895m. Slopes at lower elevations are of the order of 25 to 30 degrees, increasing to 50 degrees or more near ridge crests. Vegetation is generally sparse with abundant outcrop. The area is at a juvenile stage of weathering and erosion, with actively accreting scree fans at the base of all slopes.



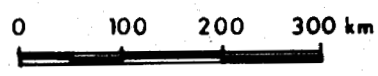
**WHITESTONE  
PROJECT**

**FIGURE 1**

TO ACCOMPANY REPORT NO. 13-87 BY G. F. M.



**WHITESTONE PROJECT  
GENERAL LOCATION MAP**



DATE DEC. 1987.	SCALE 1: 7 500 000	NTS	DRWG NO.
--------------------	-----------------------	-----	----------



The field season is only four to five months in duration. The property is generally snow free by June, with the first winter snowfalls in October or November. Snowfall is in the order of 3 metres annually.

The claim group is within easy commuting distance of Kaslo and New Denver. Both towns offer all the usual facilities with regard to food, accomodation, repairs etc. Nelson, one and a half hours drive to the south, is the closest major centre.

### 2.3 CLAIMS

The Whitewater property consists of twelve reverted crown grants, 13 M.G.C. claims and ML 346 totaling 147 units. These claims are grouped into the Whitewater and Lyle groups and are in good standing until 1988. All relevant data is outlined below. The claims are shown in Figure 2.

#### Lyle Group

Claim Name	Record No.	Size	Expiry Date
Lyle 1	1847	18 MGC	March 25, 1988
Lyle 2	4992	15 "	May 13, "
Lyle 3	5153	12 "	December 15, "
PD	5117	16 "	October 31, "
PT	5116	16 "	October 31, "
Tetra	386	4 "	June 09, "
Howard	353	1 RCG	March 29, "
Defender	352	1 "	March 29, "
Revenue	351	1 "	March 29, "
Garnett	1674	1 "	January 17, "
Emerald Fr.	1662	1 "	January 10, "
Cuba & Ruby Fr.	1661	1 "	January 10, "
Whistler	1660	1 "	January 08, "
Paisley	1659	1 "	January 08, "
Connie 2 Fr.	5231	1 "	September 11, "
ML 346		3 CG	December 31, "

Totaling 93 units, ML 346, 9 RCGs and 6 MGCs containing 81 units.

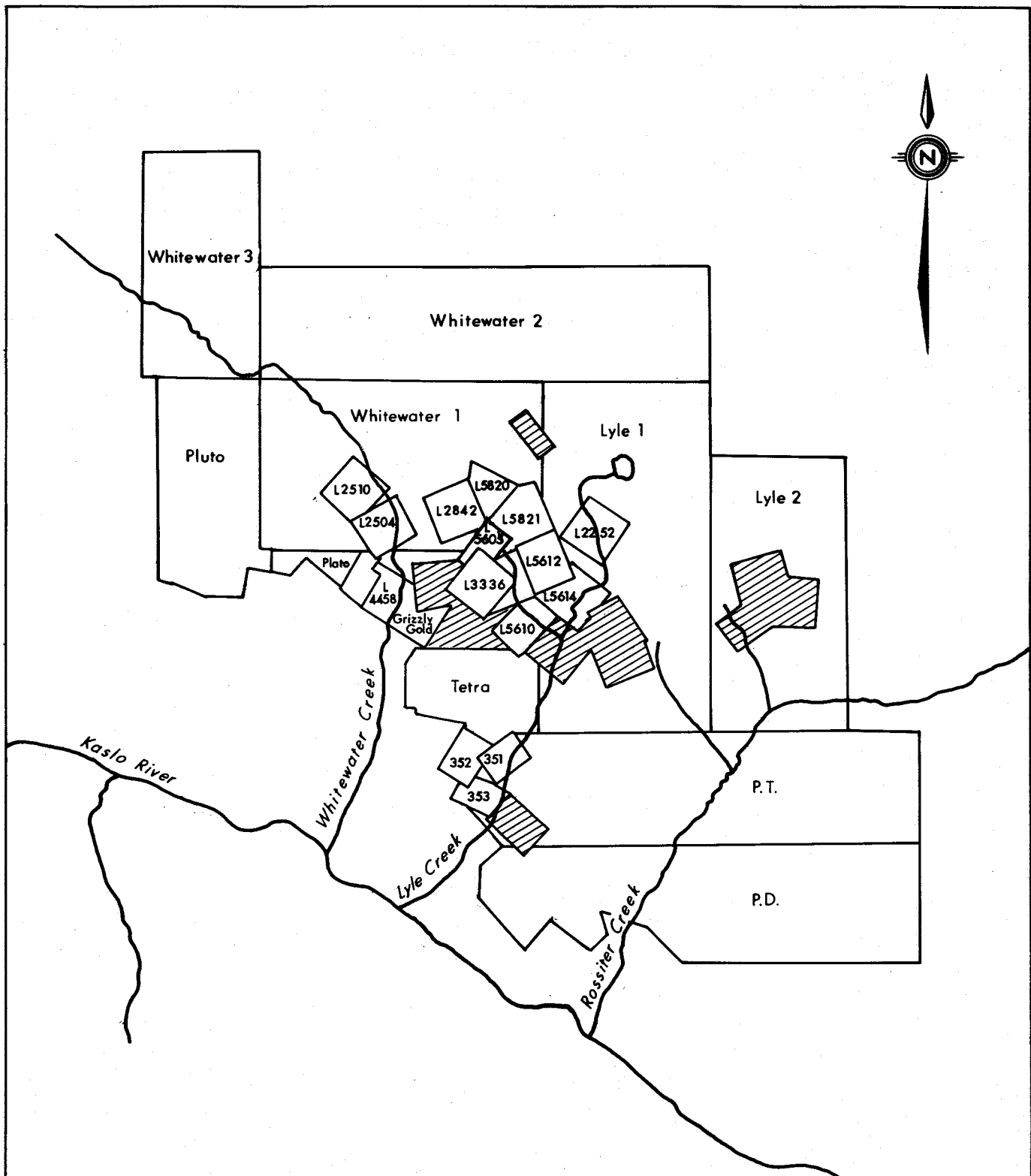


FIGURE 2



<b>ABERMIN</b> CORPORATION		
WHITewater CLAIM GROUP		
Whitewater Creek		Retailack, B.C.
Date: March 1987	Drawn by BJM	NTS: 82 K/3 E

Whitewater Group

Whitewater 1	5078	15	MGC	September 05, 1988
Whitewater 2	5079	16	MGC	September 05, "
Whitewater 3	5080	8	MGC	September 05, "
Robin	803	1	RCG	August 23, "
Wild Swan	804	1	RCG	August 23, "
Grizzly Gold	843	1	TPC	September 07, "
Grizzly Gold 1	844	1	TPC	September 07, "
Mayflower	1428	1	RCG	September 10, "
Pluto	2905	8	MGC	June 11, "
Plato	2750	2	MGC	October 22, "

Totaling 54 units, 3 RCGs, 2 TPCs and 5 MGCs consisting of 49 units.

2.4 HISTORY AND PREVIOUS WORK

The area has had a history of exploration dating back to the turn of the century. Lead, zinc, silver mineralization hosted by Slocan sediments has received the greatest exploration effort to date (Cairnes, 1934). This exploration resulted in numerous discoveries, one of the largest being the Whitewater Mine. This mine, located 1 kilometre south of the property, produced 260,542 tons of ore containing 1435 oz gold, 3,152,130 oz silver, 28,017,903 lbs lead and 36,260,370 lbs zinc during the period 1892 to 1945. The ore bodies were found adjacent to a thrust fault zone within slate and limestone of the Slocan Group (Hedley 1945).

During this period of base metal exploration, gold was discovered at the present location of the Highland Surprise Mine. This precious metal mineralization is hosted by Upper Paleozoic Kaslo Group volcanics. The mine produced 1,617 oz gold from 5,151 tons of ore grading 0.314 oz per ton, during the period 1937 to 1941 (Maconachie, 1940).

Other mineral occurrences discovered during this period of exploration include: the Gold Quartz showings located to the west on the Whitewater 2 claim;

the Ibex crown grant located within the Whitewater 1 claim; the Eureka and the Iron Crown showings located on Lyle 2 claim and the Solo Best occurrences located within the Lyle 1 claim (Plate 1A, 1B).

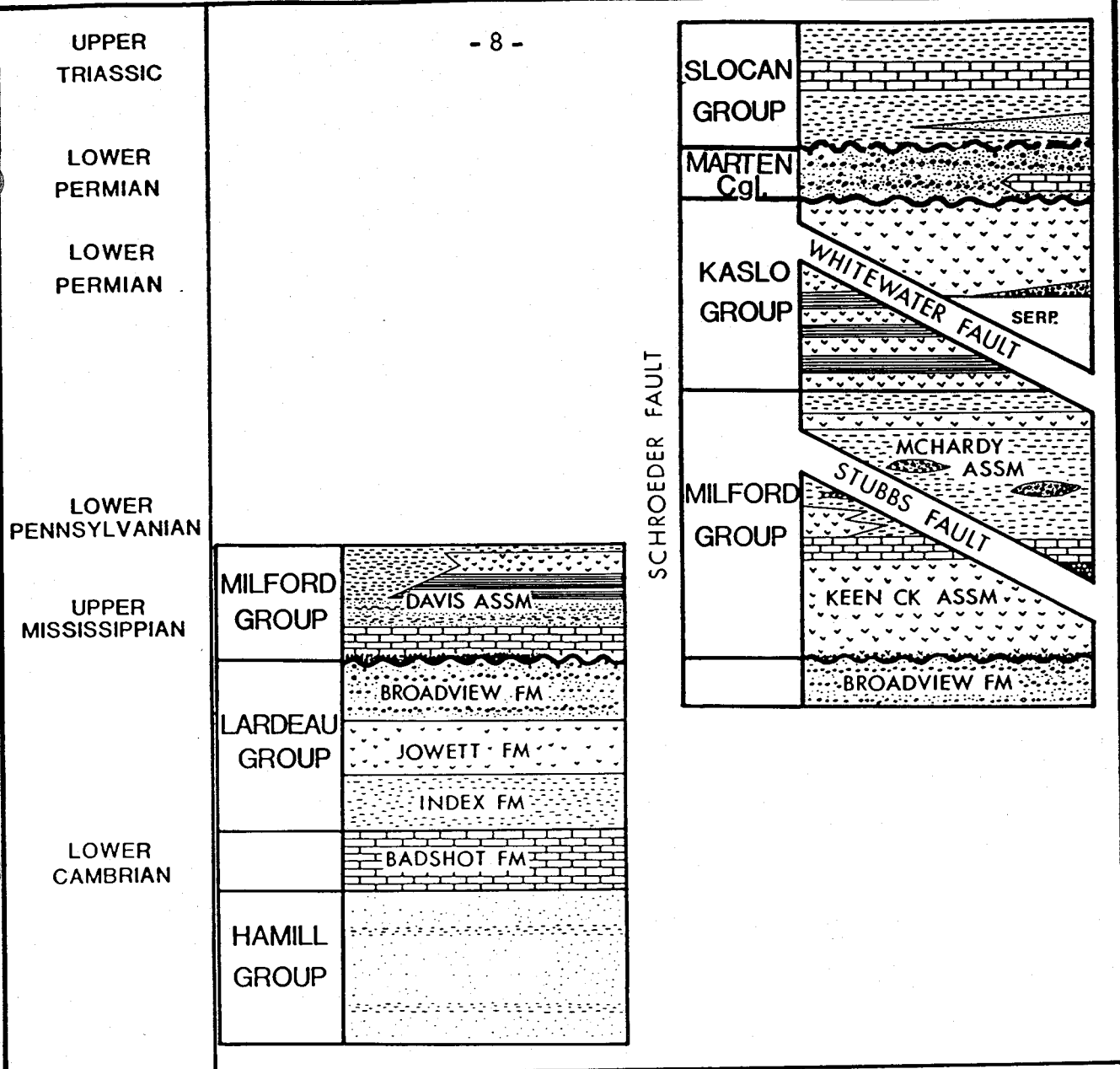
A considerable amount of exploration has been conducted in the immediate vicinity of the property during the last twenty years. The first recorded work was done by Pan Ocean Oil Ltd. in 1971 through 1973. This work focused on the nickel mineralization occurring within the ultramafic portion of the Kaslo Group which transects the property. The next exploration activity was conducted by Amoco Canada Petroleum Co Ltd. during 1979 through 1982. This work concentrated on the gold potential within the Kaslo volcanics. The last work performed on the property was by Almine Resources Ltd. during 1983, who also keyed on the precious metal potential.

### 3. GEOLOGY

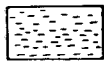


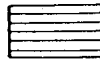

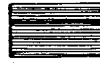

#### 3.1 REGIONAL GEOLOGY

The property lies within the central Kootney Arc, an arcuate structural zone which marks the transition from North American rocks of the Cordilleran miogeosyncline to the tectonic collage of allochthonous terranes that are accreted to it (Archibald et al 1983). North American rocks are locally represented by the Lardeau Group, a Lower Paleozoic sequence of metamorphosed clastic sediments and minor limestones. The younger allochthonous terrane is comprised of Late Paleozoic to Early Mesozoic sedimentary and volcanic assemblages. This terrane was accreted during a mid-Jurassic - Early Cretaceous collisional event. A second collisional event during Late Cretaceous-Paleocene was accompanied by uplift, erosion and intrusion of two-mica granites. Tertiary age extensional faulting with lesser intrusive activity complete the geological history of the area.

Within the project area three major rock groups are exposed (Figures 3 and 4). The oldest is the Upper Mississippian to Pennsylvanian age Milford Group



Legend

-  argillite, slate, phyllite
-  conglomerate
-  sandstone, quartzite
-  limestone
-  grit, schist
-  cherty, tuff
-  tholeiitic volcanics

Tectonic and stratigraphic relationships of stratified rocks in the Goat Range. Stratigraphic ages determined from fossil collections are shown on the left margin. (after Klepacki, 1985).

FIGURE 3  
WTEWATER PROJECT  
Stratigraphic Column

Geological Boundary: \_\_\_\_\_ Fault: \_\_\_\_\_

Axial Surface, Dryden Anticline: ~~~~~

UPPER TRIASSIC

**RSd** SLOCAN GROUP:  
Slate/phyllite, limestone, sandstone

~~~~~ Disconformity ~~~~~

LOWER PERMIAN

**PMc** MARTEN Conglomerate:  
Greenstone conglomerate

~~~~~ Unconformity ~~~~~

PERMIAN AND(?) CARBONIFEROUS

**PKv** KASLO GROUP:  
Tholeiitic volcanics

**PKub** KASLO GROUP:  
Ultramafic Unit

UPPER MISSISSIPPIAN AND PENNSYLVANIAN  
MILFORD GROUP

**MPM** McHardy assemblage:  
Siliceous argillite, diorite  
tholeiitic volcanics, limestone

INTRUSIVE ROCKS

MIDDLE JURASSIC

**Jg** KUSKANAX-NELSON Granitic rocks:  
Hornblende-biotite granite, aegerine granite  
feldspar porphyry

LOWER PERMIAN

**Wwd** Whitewater diorite:  
Medium- to coarse-grained  
foliated diorite

PERMIAN AND(?) CARBONIFEROUS

**PKd** Kane Creek diorite:  
Medium-grained porphyritic  
hornblende diorite

Stubbs Thrust Fault

**MPK** Keen Creek assemblage:  
Tholeiitic volcanics,  
limestone, clastics

**MPD** Davis assemblage:  
Siliciclastics, limestone,  
tholeiitic volcanics

~~~~~ Angular Unconformity ~~~~~

LOWER PALEOZOIC

**IPL** LARDEAU GROUP:  
Calcareous schist, mafic volcanics, grit

LOWER CAMBRIAN

**ICB** BADSHOT FORMATION  
White marble, calc-silicate gneiss

**ICH** HAMILL GROUP  
Mica Schist, quartzite, micaceous quartzite

(After Klepacki, 1985)

FIGURE 4  
WTEWATER PROJECT  
Stratigraphic Column

which regionally is divided into three assemblages but with only one, the McHardy, present on the property. This assemblage is comprised of basal limestones and calcareous sandstone overlain by tuffaceous sandstone and conglomerate. This in turn is overlain by a thick sequence of argillite with minor chert and volcanics (Klepacki and Wheeler 1985). The limestones have yielded Upper Mississippian age fossils (Orchard 1985).

Conformably overlying the Milford Group is the Permian age and possibly older Kaslo Group. This group is a sequence of tholeiitic volcanics with minor interbedded cherty tuff and tuffaceous greenstone intruded by syn and post volcanic diorites. Structural repetitions by thrust faulting have led to the group being divided into two units or plates, with the upper plate resting on an ultramafic base. Unconformably overlying the Kaslo volcanics is a greenstone conglomerate referred to as the Martin Conglomerate. Completing the geologic record is the Slocan Group, an Upper Triassic age sequence of argillites locally interbedded with quartzites and limestones.

All three groups are intruded by felsic dykes and small stocks, part of the Jurassic age plutonic event.

The tectonic history of the area is dominated by Permian age thrusting and Jurassic age folding, with normal faulting. These events overprint a pre-Mississippian age deformation which affected the older Lardeau Group. The early thrusting event displaced the McHardy assemblage onto the other two Milford assemblages via the Stubbs Fault. It also generated the Whitewater Fault which formed the two Kaslo plates. Diorite intrusions predate and postdate the thrust faulting. Uplift and erosion of the Kaslo volcanics provided detritus for the Martin Conglomerate. Following Slocan Group sedimentation the complete sequence, including the early thrust faults, was folded into the Dryden Anticline. This was accompanied by penetrative deformation and regional metamorphism, locally to amphibolite grade. This event also reactivated some of the early thrust faults. In addition, the normal

Schroder Fault placed the Slocan Group adjacent to the Lardeau Group at this time. Major granitic intrusion took place concurrently often plugging the major fault zones.

Two later poorly documented coaxial fold phases are also locally present. Small scale faulting of the Jurassic age intrusions and dykes may be related to a second collisional event in the mid-Cretaceous.

### 3.2 PROPERTY GEOLOGY

Geological mapping was performed at a scale of 1:5000 covering the whole property, while mapping at 1:2500 was undertaken on part of the Lyle grid. Additional detailed examinations of the numerous mineral occurrences and old workings were also undertaken. Prospecting of the many inaccessible parts of the property was aided by the use of a Bell 206 helicopter leased from Vernon Helicopters.

#### 3.2.1 STRATIGRAPHY

The oldest rocks on the property are in the core of the Dryden Anticline. These rocks crop out at upper Lyle Lakes, Rossiter Creek, and the upper reaches of South Copper Creek (Plate 1A, 1B). This sequence is tentatively correlated with the McHardy Assemblage of the Milford Group (Klepacki and Wheeler 1985). The assemblage is mainly black argillite with subordinate chert, mudstone and sandstone. Local occurrences of mafic volcanics and diorite are also present.

Most of the property is underlain by the Kaslo Group. As noted by Klepacki (1983) and Klepacki et al (1985), and Klepacki and Wheeler (1985) the group has been divided into an upper and lower plate sequence. The upper plate lies west of the baseline, south of the Whitewater Fault on the southern limb of the Dryden Anticline. Flows, flow breccia and pillows with fine grained synvolcanic diorite form the bulk of this plate. The andesites are slightly porphyritic with up to five percent hornblende phenocrysts and, locally, feldspar crystals



in a fine grained chloritic ground mass. Lesser volcanic conglomerate and sediments are also present. The plate is floored by a peridotitic ultramafic section which now consists primarily of talc-carbonate schist and cataclastic breccia due to varying structural deformation. A conglomerate which immediately overlies the ultramafic contains clasts of volcanic, ultramafic, fine and coarse grained diorite, and rare granite.

The lower plate is comprised of at least 500 metres of tholeiitic pyroxene porphyry volcanics and lesser sediments. Pillow breccia and pillows with variolitic texture are most common within the basal portion of the sequence. These are overlain by a thick sequence of andesitic flows and flow breccia which are in turn overlain by thin discontinuous lenses of chert, cherty tuff, argillite and conglomerate. Two distinct types of conglomerate are observed. The most common contains clasts of volcanic and fine grained diorite while the other also contains rare clasts of ultramafic and granite. This latter conglomerate may be correlated with the conglomerate found in the upper plate sequence.

The youngest sedimentary rocks in the project area belong to the Slocan Group. This thick unit of calcareous flysch disconformably overlies the Kaslo Group. It is dominated by dark grey phyllite with lesser interbedded limestone and sandstone.

Three major types of intrusive rocks occur in the area: synvolcanic fine grained hornblende diorite, syntectonic coarse grained hornblende diorite (Whitewater Diorite) and post-tectonic granitic rocks. Synvolcanic diorite (Kane Creek Diorite) is generally found in the McHardy assemblage and in the Kaslo Group and appear to be feeders to the volcanic pile. The Whitewater diorite is medium to coarse grained equigranular diorite with a lower colour index than the feeder diorite. It often displays glomerophyric texture. Several large intrusive masses occur on the property, especially in the Gold

Quartz and Eureka areas (Plate 1A, 1B). These intrusives are considered to be Early Permian or older in age (Klepcki, 1983; Klepcki et al, 1985).

Granitic rocks consist of hornblende-feldspar and feldspar (albite) porphyry dykes. The dykes post-date the major folding event and appear to have been emplaced along the axial plane fabric of the Dryden Anticline.

### 3.2.2 STRUCTURE

Distribution of the major stratigraphic units in the project area is controlled largely by the Whitewater Fault and the Dryden Anticline. The Whitewater Fault is a major northwest trending structure which has divided the Kaslo Group into the two plates. The structure is a Permian age thrust fault with later imbricate normal faulting during the Jurassic. As a result, it is a complex sliver zone containing various slices of the Kaslo Group. The presence of felsic dyke rock in some of the fault slices indicates at least one major movement since the Jurassic.

The second deformational event in the Jurassic formed the Dryden Anticline. The fold generated a strong axial planar cleavage. The axial surface of the anticline is steeply to moderately inclined to the southwest and plunges to the southeast at  $15^\circ$ . Local variations occur due to the interference of younger structures.

Five structural trends were noted on the property. Trend I structures are oriented parallel to the regional foliation at  $135^\circ \pm 15^\circ$  and are axial planar to the Dryden Anticline. Trend II structures are perpendicular to the regional foliation at  $045^\circ \pm 15^\circ$ . Trend III and IV structures occur at  $095^\circ \pm 15^\circ$  and  $05^\circ \pm 15^\circ$  while trend V is subhorizontal.

Trend I and II structures appear to represent orthogonal fractures which formed during Jurassic northeasterly directed compression, with Trend I parallel to the principle compressive stress and Trend II perpendicular to it. Trend

III and IV appear to be conjugate shear fractures to the principle stress. Trend I, II and V structures may be the result of a strongly anisotropic triaxial stress pattern often characteristic of a mesozonal environment (Linner and Williams-Jones 1987). Several later episodes of fracture reactivation were noted but only minor displacements are evident. Trend II structures cut Trend I structures but are displaced by later reactivation of Trend I.

Trend I, II and III structures are commonly mineralized. Trend IV and V are only weakly developed and may occasionally contain minor sulphides with very low precious metal values (Plate 3A, 3B).

Major faults on the property mostly parallel Trend I at  $135^{\circ} \pm 15^{\circ}$  and include the Whitewater fault zone and the Ibex-Lyle Lake fault. A number of Trend IV structures located on Mt. Brennan are evident in the field and on airphotos but they do not substantially displace the early Trend I structures. The Ibex-Lyle Lakes fault is in part responsible for exposing the McHardy assemblage at Lyle Lakes. It occurs in the crest of the Dryden Anticline (Plate 1A, 1B).

### 3.2.3 METAMORPHISM

All rock units exposed on the property have undergone some degree of regional metamorphism. The most extensive metamorphism, locally to amphibolite grade, is tentatively correlated with the second deformation event which is responsible for northwesterly oriented folds (eg. Dryden Anticline).

The Kaslo Group has been subjected to two periods of low grade metamorphism. The first is an early spilitic alteration which albitized the Kaslo volcanic rocks. The second period is a regional event where the Kaslo volcanics are subjected to low grade greenschist metamorphism during the Jurassic. The common mineral assemblage developed in these volcanics rock is albite-epidote- actinolite  $\pm$  chlorite. Additional alteration is evident on the

property but it is thought to be of a hydrothermal origin related to the mineralizing process. This assemblage includes quartz, albite, iron carbonate and biotite and is commonly spatially associated with felsic dyking.

#### 3.2.4 MINERALIZATION

Numerous precious metal showings have been outlined on the property. All are hosted by quartz veins and occur with varying amounts of base metal sulphides. They have been categorized into three main types based primarily on the gold-silver ratios (Figure 5). Type 1 with high gold but little silver, Type 2 with similar gold and silver contents, and Type 3 with high silver but very minor gold. A fourth minor category Type 4 has also been defined.

Type 1 is the most significant. These are veins consisting of quartz with disseminations to blebs of pyrite and chalcopyrite. The gold is generally microscopic and occurs within pyrite grains or more rarely adjacent to chalcopyrite (Harris, Appendix 3). Individual veins are less than 50 cm wide but multiple veins can form a "vein system" (Maconachie, 1940) up to 2 m wide. Assays have returned gold values greater than 3 ounces per tonne (opt). Silver however is generally less than 0.2 opt.

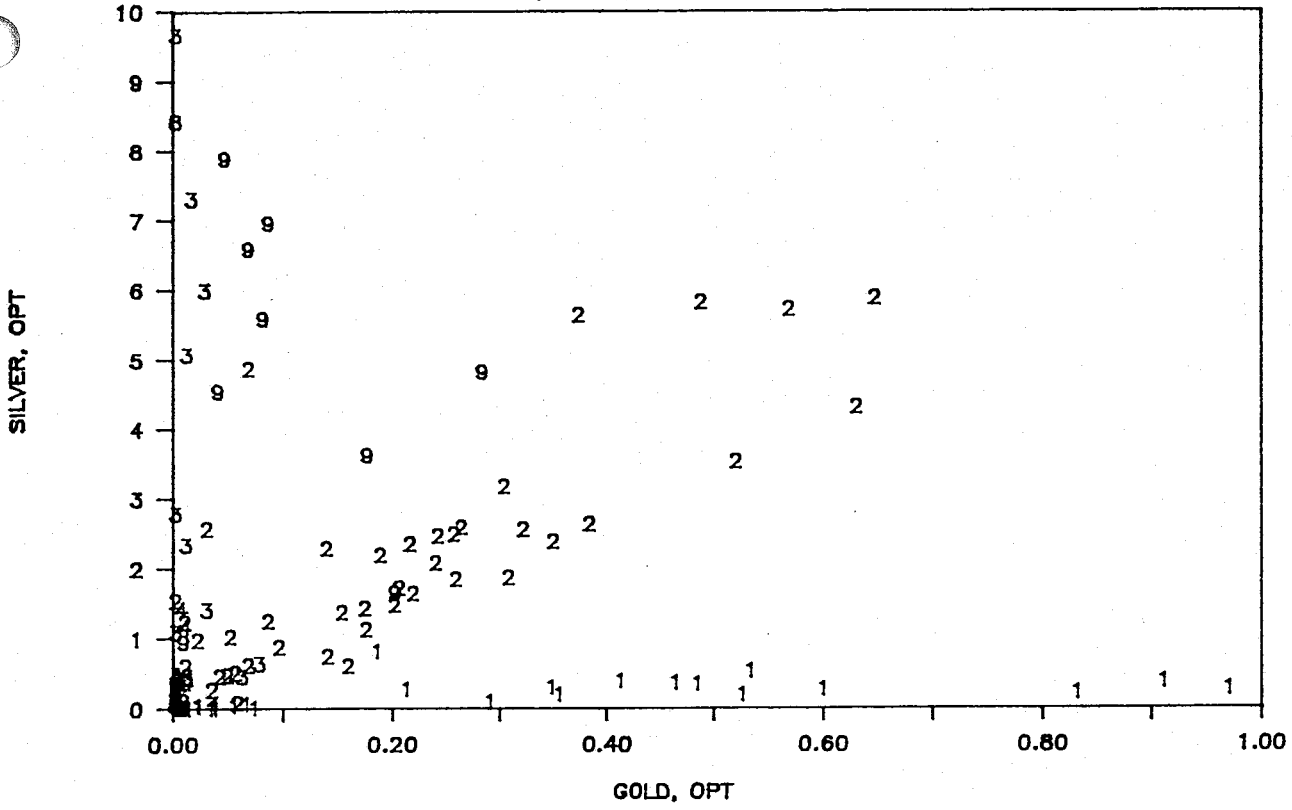
The veins are enveloped by up to three metre wide alteration zones. These zones are generally pervasive consisting of silica, albite, carbonate and often pyrite which imparts a brown colouration to the rock. Quartz stockworks are locally present.

Type 1 veins are found in Trend I structures. The majority occur adjacent to the Whitewater Fault in the Kaslo Group lower plate. This includes the Highland Surprise trend and the Solo Best showing.

The Type 2 veins are essentially base metal veins containing significant amounts of gold and silver. The latter occur as argentite, electrum and, in one instance native gold. Galena, sphalerite, chalcopyrite and pyrite are the base

# WHITewater PROJECT

## GOLD/SILVER RATIO BY VEIN TYPE



metal minerals. Gangue material consists of quartz, carbonate and albite. Single veins are less than ten centimetres wide but often occur in groups up to one metre wide similar to the Type 1 vein zones. Strike length seems to be limited however to less than 100 metres. The wallrock alteration is also identical and can contain slightly elevated metal values. As previously noted the gold and silver values are comparable (Figure 5) but usually less than 1 opt combined.

These veins are hosted by Trend I and III structure and occur in the lower plate of the Kaslo Group commonly near the fold axis of the Dryden Anticline. Although there is no clear evidence, Type 1 and 2 veins are likely the same age based on similarity of vein textures and wallrock alteration. Type 2 vein examples include most of the Gold Quartz showings.

The next category, Type 3, is less interesting. Although silver values can be quite spectacular (>87 opt Ag in Sample 51313) the gold content is negligible. These veins, hosted by Trend II fractures, are relatively young having been observed cutting both Type 1 and 2 veins and also the felsic dykes. Typically the veins are drusy, open space quartz veins with galena, sphalerite, minor chalcopyrite and pyrite. Siderite along with lead and zinc carbonates are also present. Wallrock alteration is less pronounced than the other vein types, consisting of siderite, iron oxides and clay. It is generally present as fracture coatings and rarely extends more than one metre from the vein. Mineralogically they are similar to the discordant vein mineralization found in the Upper Triassic Slocan Group.

The final group, Type 4, is actually the earliest vein system. Located only in the Gold Quartz area these veins consist of white quartz with pyrite and minor galena. These veins are found in Trend III structures. Precious metal values are low.

Type 1 and 2 mineralization have many characteristics in common with discordant precious metal veins in Archean gold occurrences for which a metamorphic replacement origin has been proposed (Phillips et al 1987, Roberts 1987). It is thought that during the Jurassic age deformation dehydration and desulphidation mineral reactions resulted in the production of an ore fluid. The low saline fluids would have been saturated with carbon dioxide and been carrying gold and other metals leached from country rock undergoing prograde

amphibolite metamorphism. Fluid discharge would be focused by channelways and fractures developed during both brittle and ductile shearing. Ascending fluids then react with low tensile strength iron-rich volcanic host rocks and deposit the mineralization in response to changing physical and chemical conditions.

Feldspar porphyry dykes which intrude the volcanic pile are strongly albitic in composition (Albitites). These dykes may be involved in the mineralizing process since not only are they emplaced along similar structural trends to the mineralization (Type 1) but they have a close spatial relationship to mineralization and alteration. It is therefore suggested that late magmatic fluids are involved in the mineralizing process. Samples of both Type 1 & 2 mineralization which were examined contain a strong component of albite along with quartz, carbonate and biotite. It would appear that the presence of biotite is in part responsible for the dark colouration within the Highland Surprise mineral zone. Harris (Appendix III) indicates that the biotite may be of a hydrothermal origin as the biotite appears to only be associated with the mineralization. Both the dykes and wall rocks have been altered by the mineralizing fluid.

#### 4. 1987 EXPLORATION PROGRAM

##### 4.1 INTRODUCTION

During the period June 1 to September 15, 1987 Abermin conducted a field program to evaluate the Whitewater property. Geological mapping and prospecting were conducted on most of the property. A total of 300 rock samples were collected for analysis. Geochemical soil sampling was performed on four areas of the two grids with 260 samples collected. Contract geophysics included a 2.2 kilometre I.P. test of the Highland Surprise area and 52.5 kilometres of magnetometer and VLF-EM surveying; 20.0 kilometres on the Lyle Grid and 32.5 kilometres on the Whitewater. The Highland Surprise road was reconstructed allowing levels 4 and 3 at the Highland Surprise Mine to be re-opened.

## 4.2 PHYSICAL WORK

Eagle Mapping was contracted prior to field season to produce a topographic base map at a scale of 1:5000 covering the entire property. Existing B.C. Government airphotos were used as control.

Access roads were upgraded in May and June utilizing a John Deere 550 cat supplied by vendor P. Leontowicz.

The two grids established on each of the claim groups were the Whitewater with 38.5 kilometres of line and the Lyle with 32.5 kilometres. Grid lines were located by topofil and compass. Most lines have 100 metre separations with picketed 25 metre station intervals. A portion of the Lyle grid was chain saw cut prior to the geophysical program.

The Highland Surprise Mine road was reconstructed in July and August by vendors P. Leontowicz and D. Tyers utilizing a JD 550 cat and JD 450 loader. During this period minor trenching was performed on a structure subparallel to the Highland Surprise, located at L8+50S - 0+75E on the Lyle Grid (Plate 2).

At the Highland Surprise Mine the lowest level, #4, was re-opened to allow examination and evaluation of ground and mine conditions. A mining engineer contracted from consulting engineers Steffan, Robertson and Kirsten indicated (Appendix IV) that the ground conditions were very good and that only a small amount of scaling to remove loose material is required in the adit on the 4th level. However, he also notes that all timbers in the mine would have to be replaced, along with ladders and platforms in the manways. Ventilation is adequate for mapping and sampling purposes.

## 4.3 MINERAL OCCURRENCES

### 4.3.1 HIGHLAND SURPRISE MINE

An evaluation of the Highland Surprise Mine was the main priority of the 1987 exploration program. This included a geological and structural examination of Level 4 and extensive resampling of the mineralized zones to confirm the earlier work. The surface geology is presented on Plate 2 and Figure 6 is a map



of the underground workings and geology mainly after Maconachie (1940). Since outcrop exposure is poor and Level 4 was not considered safe enough for a detailed mapping program most of the geological data presented here is a re-assessment of Maconachie's work. The rock sample results are in Figures 7 and 8.

The mine lies at the top of the lower plate of the Kaslo Group adjacent to the Whitewater Fault. Porphyritic andesite flows are the most common rock type but a significant pyroclastic component is also present. Kane Creek diorites are found throughout.

The most important structure is the Whitewater fault. However in the mine area the fault departs from its regional northwest trend to form a curving S-shaped fault line. The potential significance of this is not yet known and, in fact, it is not clear whether this is a real arcuate trend or a series of offsets of the fault giving the curved impression. Much smaller scale Trend I structures are represented by numerous thin shear zones ranging from parallel to the main fault ( $140^\circ$ ) to approximately  $30^\circ$  oblique to it ( $170^\circ$ ). The shears are generally marked by the development of a strong almost schistose fabric in a very dark green chloritic groundmass. The other structural trends referred to in Section 3.2.2 are not common. A thin Trend II shear is found near the entrance of Level 4 and a felsic dyke on Level 3 has contacts parallel to Trend II.

At least three feldspar porphyry dykes cut the volcanic stratigraphy. Ranging from 1-5 metres in thickness the dykes strike subparallel to the Whitewater fault and normally dip steeply to the northeast. On a local scale, these orientations are extremely variable making correlations difficult. The dykes follow the Trend I structures and seem to be pinching out at surface over Levels 1 and 2.

Precious metal mineralization is contained in Type 1 veins following the Trend I structures (Highland Surprise Trend). This trend is at least 200 metres in length. The veins are associated, at least spatially, with the felsic dykes

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

16,758



Whitewater Fault Zone

3a

LEVEL 100  
# 1

LEVEL 110  
# 2

LEVEL 120  
# 3

LEVEL 130  
# 4

**LITHOLOGY**

- 7 Felsic dyke
- Kaslo Group
- 3a Ultramafic
- 3d Kane Creek Diorite
- 2a Andesite

**Mineralization**

- Vein
- 8 Vein zone and/or alteration
- ☒ Raise
- 201 Drift number

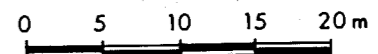
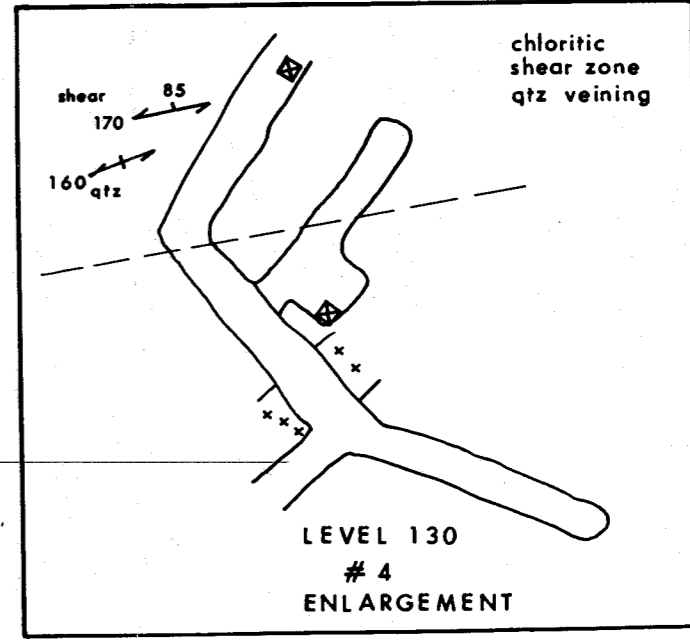


FIGURE 6

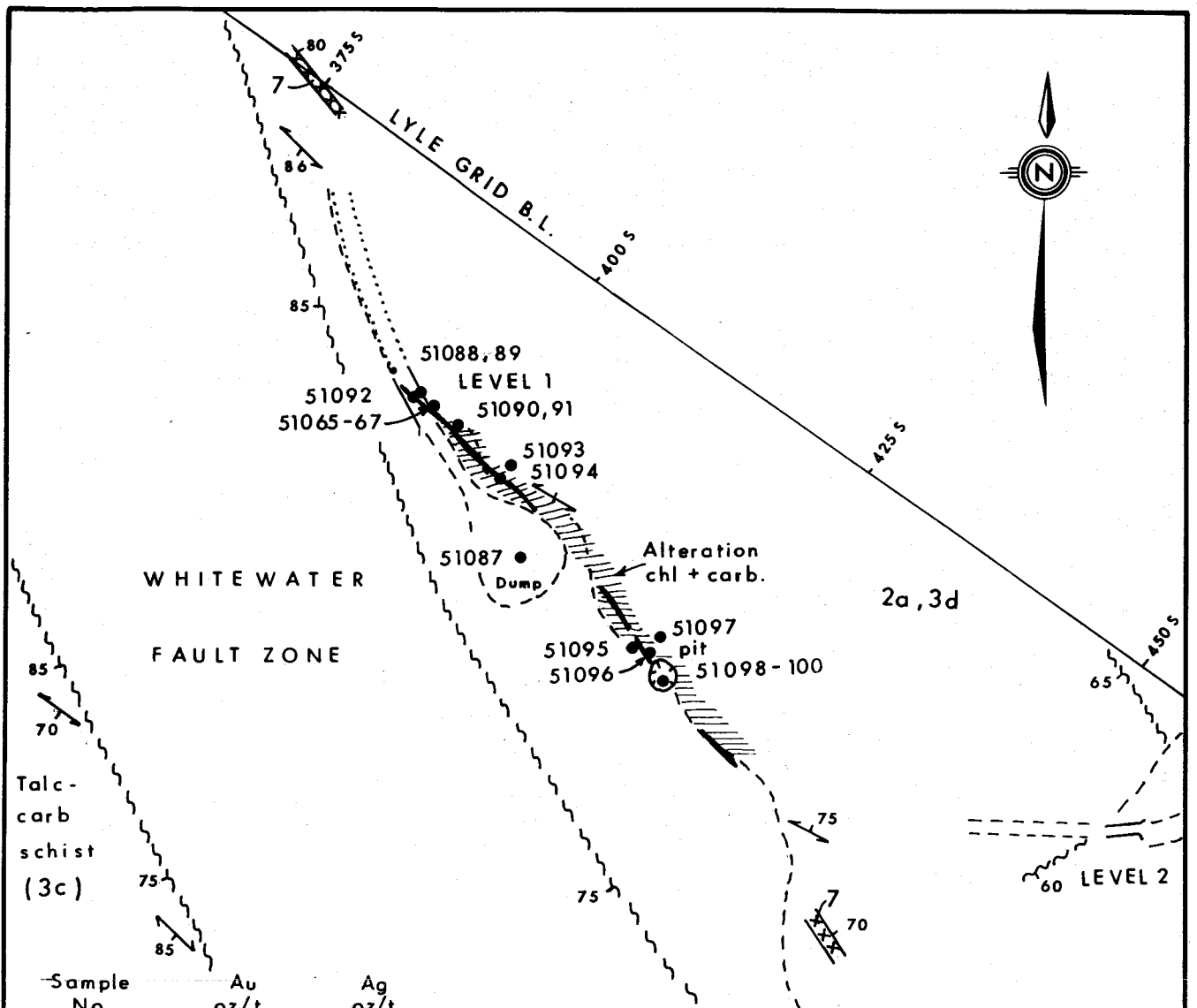
TO ACCOMPANY REPORT NO. 13-87 BY G.F.M.

ABERMIN

CORPORATION

WHITEWATER PROJECT  
 HIGHLAND SURPRISE MINE  
 UNDERGROUND PLAN AND GEOLOGY  
 (mainly after Maconachie)

|                    |                |                 |                   |
|--------------------|----------------|-----------------|-------------------|
| DATE<br>FEB. 1988. | SCALE<br>1:500 | NTS<br>82 K /3W | DRAWING NO.<br>B- |
|--------------------|----------------|-----------------|-------------------|



| Sample No. |              | Au oz/t  | Ag oz/t  |
|------------|--------------|----------|----------|
| 51065      | grab         | 1.862    | 1.06     |
| 51066      | grab         | 1.552    | 1.15     |
| 51067      | grab         | 1.259    | 0.56     |
| 51087      | grab         | 1250 ppb | 20.1 ppm |
| 51088      | chip (0.10m) | 1.673    | 0.87     |
| 51089      | chip (0.15m) | 0.60     | 8.6 ppm  |
| 51090      | grab         | 9600 ppb | 4.5 ppm  |
| 51091      | grab         | 0.449    | 0.29     |
| 51092      | chip (0.40m) | 2200 ppb | 0.6 ppm  |
| 51093      | grab         | 1.076    | 16 ppm   |
| 51094      | chip (0.50m) | 0.291    | 3.2 ppm  |
| 51095      | grab         | 1100 ppb | 20.1 ppm |
| 51096      | chip (0.30m) | 0.970    | 8.6 ppm  |
| 51097      | chip (0.30m) | 0.965    | 11 ppm   |
| 51098      | grab         | 1.230    | 0.74     |
| 51099      | grab         | 0.534    | 16 ppm   |
| 51100      | grab         | 0.349    | 9.4 ppm  |

See Figure 6 for Geology Legend.

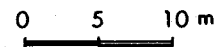
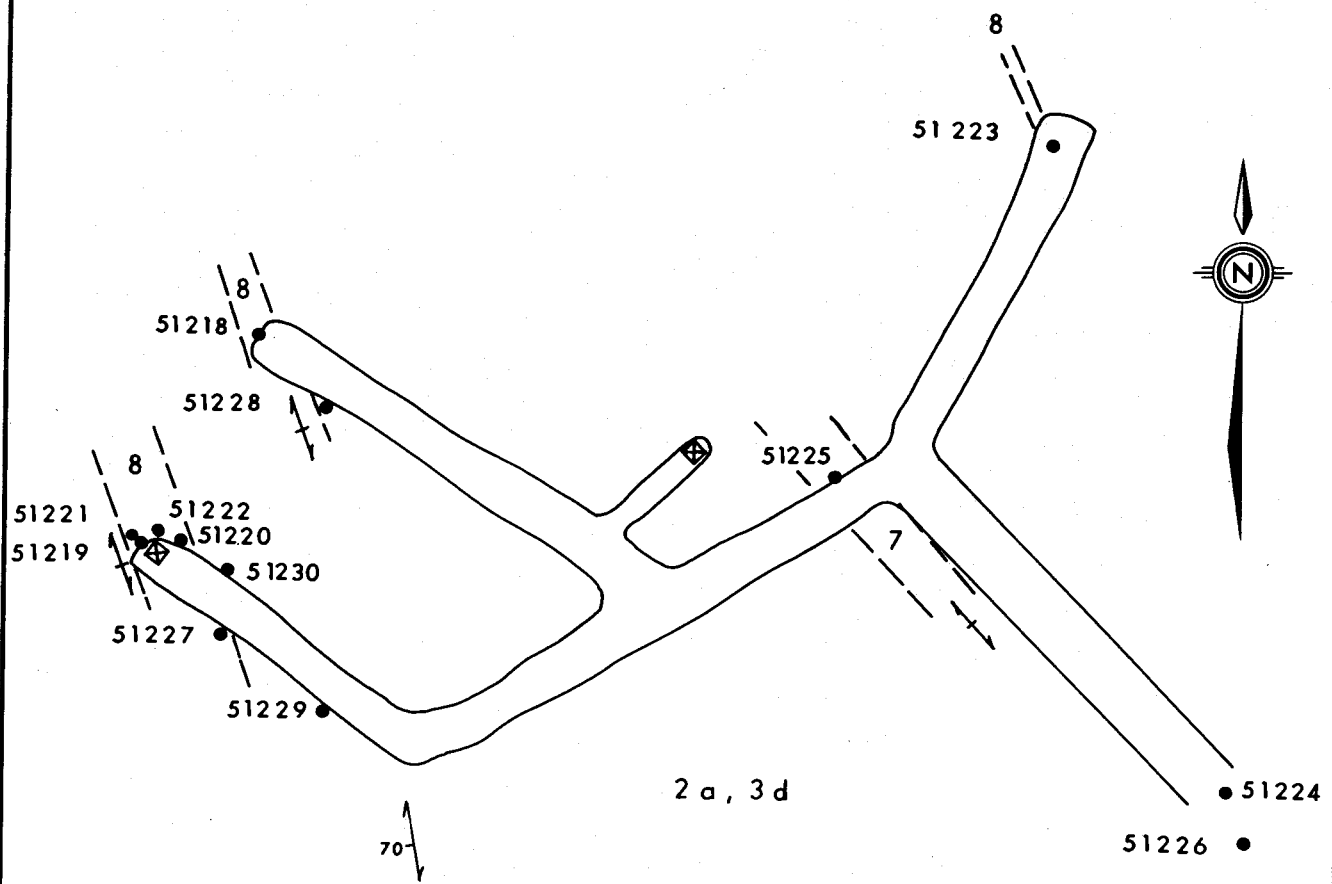


FIGURE 7

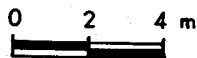
|                                                                             |                |                   |          |
|-----------------------------------------------------------------------------|----------------|-------------------|----------|
| <b>ABERMIN</b><br>CORPORATION                                               |                |                   |          |
| WHITEWATER PROJECT<br>HIGHLAND SURPRISE MINE<br>SURFACE SAMPLING<br>LEVEL 1 |                |                   |          |
| DATE<br>NOV. 1987.                                                          | SCALE<br>1:500 | NTS<br>82 K / 3 W | DRWG NO. |



| Sample No |                 | Au<br>oz / ton | Ag<br>oz / ton |
|-----------|-----------------|----------------|----------------|
| 51218     | 2 m chip        | 0.036 (0.045)  | < 0.2 (0.2)    |
| 51219     | 1 m chip        | 0.526 (0.620)  | 0.22 (0.22)    |
| 51220     | 1 m chip        | 0.356 (0.306)  | 0.22 (0.28)    |
| 51221     | 1.5 m chip/grab | 0.066          | 0.08           |
| 51222     | 20 cm grab vein | 1.96           | 0.58           |
| 51223     | 1.5 m grab      | 0.022          | 0.05           |
| 51224     | 6 grab          | 0.91 (0.877)   | 0.40 (0.37)    |
| 51225     | dike grab       | 0.004          | 0.02           |
| 51226     | grab            | 0.034          | 0.02           |
| 51227     | grab            | 0.002          | < 0.02         |
| 51228     | grab            | 0.376          | 5.3 ppm        |
| 51229     | grab 1 m        | 2400 ppb       | 1.2 ppm        |
| 51230     | grab 1 m        | 0.485          | 0.37           |

FIGURE 8

See Figure 6 for Geology Legend.



**ABERMIN**  
CORPORATION

WHITewater PROJECT  
HIGHLAND SURPRISE MINE  
UNDERGROUND LEVEL 4

|                    |                  |                   |          |
|--------------------|------------------|-------------------|----------|
| DATE<br>NOV. 1987. | SCALE<br>1 : 200 | NTS<br>82 K / 3 W | DRWG NO. |
|--------------------|------------------|-------------------|----------|

but are even more irregular in style. As noted by Maconachie, mineralization can be found in single quartz veins up to 0.30 metres wide but is usually found in "vein zones" up to 2.0 metres wide. These zones consist of multiple quartz veins to stockworks within intensely altered wallrock. Typically a vein contains quartz, albite and carbonate as gangue material along with up to 10% pyrite, chalcopyrite and rarely zinc or lead sulphides. Gold occurs as the native variety plus electrum. Silver is also present in argentite. Wallrock within the vein zones can be mineralized as is the marginal wallrock - albeit weakly. Vein zones can vary rapidly along strike into a single vein or even into sulphide poor quartz stockworks. This also seems to take place along dip as well. However significant precious metals only occur with the sulphide rich sections.

Wallrock alteration is pervasive but narrow consisting of silica-albite-carbonate ± pyrite extending up to 3 metres from a vein zone. It is similar to the albitization documented in the felsic dykes (Harris-Appendix 3). The two may be related since the dykes can be weakly mineralized. However veins have not been observed cutting the dyke rock in the mine area. A strong biotitization along with pyrite is developed in sheared wallrock.

The best vein outlined in the mine is exposed mainly on Level 3 with southern extensions present on Level 2 and Level 4. Total strike length is at least 100 metres with reported grades including 1.04 opt Au and 0.5 opt Ag over 0.36 metres, and 0.10 opt Au and trace Ag over 1.45 metres (Maconachie, 1940).

Two other veins are found slightly to the southwest with proven strike lengths of up to 30 metres. Sampling from the first vein returned 0.045 opt Au and <0.2 opt Ag (51218) over 2.0 metres while a grab sample contained 0.376 opt Au and 5.3 ppm Ag (51228). The second vein returned 0.463 opt Au and 0.25 opt Ag over 1.0 metres (51219, 512120). A possible extension to the first vein found on Level 4 returned 0.911 opt Au and 0.40 opt Ag (51224) in a grab sample adjacent to a felsic dyke. This indicates a possible strike length of 100 metres.

A possible second zone has been located downhill to the northeast subparallel to the Highland Surprise trend. Rock exposure is poor but at L8+50S/1+00E sheared Kaslo Group andesites and diorite have been intruded by a felsic dyke. Here thin Trend I quartz veins and stockworks occur with silicia-albite-carbonate-pyrite alteration. The shear zones strikes at 160° for 250 metres between L6+50S/1+50E to L8+00S/0+60E.

The zone is best defined by soil geochemistry and geophysics (VLF and IP). The soil anomaly contains values up to 2600 ppb Au, 1.0 ppm Ag and 155 ppm Cu (Section 4.3.1). The rock samples of both the felsic dyke and alteration zone (51080, 51239-41, 51185-86, 51160-61) carried only weakly elevated gold values.

#### 4.3.2 MINERAL OCCURRENCES - LYLE GRID

Numerous precious metal showings are located on the Lyle Grid (Plates 1B and 2B). The most interesting of these, the Cuba and the Solo Best, may represent extensions to the Highland Surprise trend. The Cuba is located to the northwest at BL 0+00/0+75E on the ridge separating the Lyle and Whitewater drainages. It comprises several scattered arsenopyrite-pyrite quartz veins in subcrop, hosted by lower plate Kaslo Group diorite and andesite close to the Whitewater Fault. The veins, possibly up to 1.0 metres wide, contain up to 3.287 opt Au and 0.6 ppm Ag in grab samples (51144-45). However the exposed strike length was only five metres.

The Solo Best adit is approximately 1 kilometre to the southeast. Reportedly lower plate Kaslo andesite and diorite are strongly sheared and intruded by felsic dykes with quartz-albite-carbonate-pyrite-chalcopyrite veins striking parallel to the regional foliation (Type I?).

Elsewhere in the Lyle Creek area many Type 1 and 2 veins are present especially near the centre of the Mt. Dryden Anticline. One area of veining is southeast of the Lyle Lakes (L1+00S to L8+00S) and northeast of Lyle Creek. Here multiple quartz-carbonate-albite alteration zones have been outlined generally associated with shear zones and felsic dykes in Trend 1 structures.

Locally thin and irregular mineralized veins are present. Precious metal values are low however. The highest values obtained for a Type 1 vein is sample 51250 with 0.046 opt Au and 0.29 opt Ag in a 0.30 metre vein. Sample 51034 contain the highest values for a Type 2 vein with 0.025 opt Au and 0.99 opt Ag from a galena rich 0.15 metre wide vein. Individual veins rarely exceed 0.10 metres in width and are very discontinuous along strike. Gold and silver values were commonly less than 50 ppb and 0.2 ppm respectively.

A similiar area is present on the southeast ridge of Mt. Brennan west of Ibex Creek. Again multiple alteration zones are found hosted by Trend 1 structures. Most veins analyzed are <25 ppb Au and  $\leq$ 0.2 ppm Ag. Pyrite rich quartz vein float with pyrrhotite (Type 1?) was found 300 metres northeast of TL 10+00E. An assay (51195) returned 0.647 opt Au and 5.90 opt Ag. The source has not been located.

Most of the other showings are Type 3 veins. One is located at the southeast corner of Lyle Lake. This vein also cuts across earlier quartz veins of Type 1. Samples 51052-53 and 51068 carry high silver and low gold values.

Other veins of this type are found east of Lyle Creek at Eureka, and Rossiter Creek. The former contains several adits driven through the veins. Samples 51164-65, 51177-80 and 51257-59 have the typical high silver and low gold content. Below the workings weak mineralization is present adjacent to a felsic dyke following a Trend 1 structure. Samples taken in quartz-carbonate-pyrite altered andesite returned up to 0.12 opt Au and 0.04 opt Ag over 0.90 metres. The dyke was not mineralized.

The two remaining showings are in the Rossiter Creek drainage. They are Type 3 veins containing high silver but variable gold contents.

#### 4.3.3 GOLD QUARTZ AREA

The Gold Quartz area is an informal grouping of precious metal showings located on the northeast side of the Whitewater Creek valley. Originally described by Maconachie (1940), the area consists mainly of Type 2 veins. Since a considerable amount of work had been done in this area including trench and adit construction Abermin's work concentrated primarily on resampling and attempting to prove continuity of the mineralized zones. For purposes of discussion the area has been divided into three zones designated A, B and C. The geology and rock geochemistry results are presented on Plates 1-A and 3-A.

Zone A is an area 1000 x 300 metres located along the southeast side of Mt. Brennan ridge. It is underlain by lower plate Kaslo Group andesites intruded by Kane Creek diorites and later Jurassic age felsic dykes.

Most of the precious metal mineralization is contained in Type 2 quartz veins. Striking parallel to the regional foliation, individual veins can be up to 0.40 metres thick or can occur in vein zones up to 1.0 metres wide. The strike length is limited, with veins rarely being exposed for more than 10 metres. Widths are quite variable along strike as is the base metal content. The veins are generally enveloped by quartz-carbonate albite alteration zones up to 3 metres wide. Felsic dykes are often present adjacent to the veins. It should be noted that both the alteration zones and the felsic dykes have been observed without any mineralization.

Rock analysis indicates significant precious metal contents correlatable with increased base metal sulphides. Some of the highest results include Sample 51004 with 0.374 opt Au and 0.566 opt Ag, and chip samples 51305-06 with 0.215 opt Au and 1.89 opt Ag over 1.4 metres. The analyses also reflect the erratic nature of the mineralization. Sample 51307 taken 30 metres along strike from the above chip samples returned 640 ppb Au and 6.7 ppm Ag over 1.2 metres. In this case the vein has changed from a base metal rich vein zone to minor quartz stockworks with pyrite the only visible sulphide.



Several Type 4 veins have been located in this area. Maximum vein widths are less than 1 metre and strike lengths are short. The best assay result is Sample 51278 with 0.086 opt Au and 1.26 opt Ag.

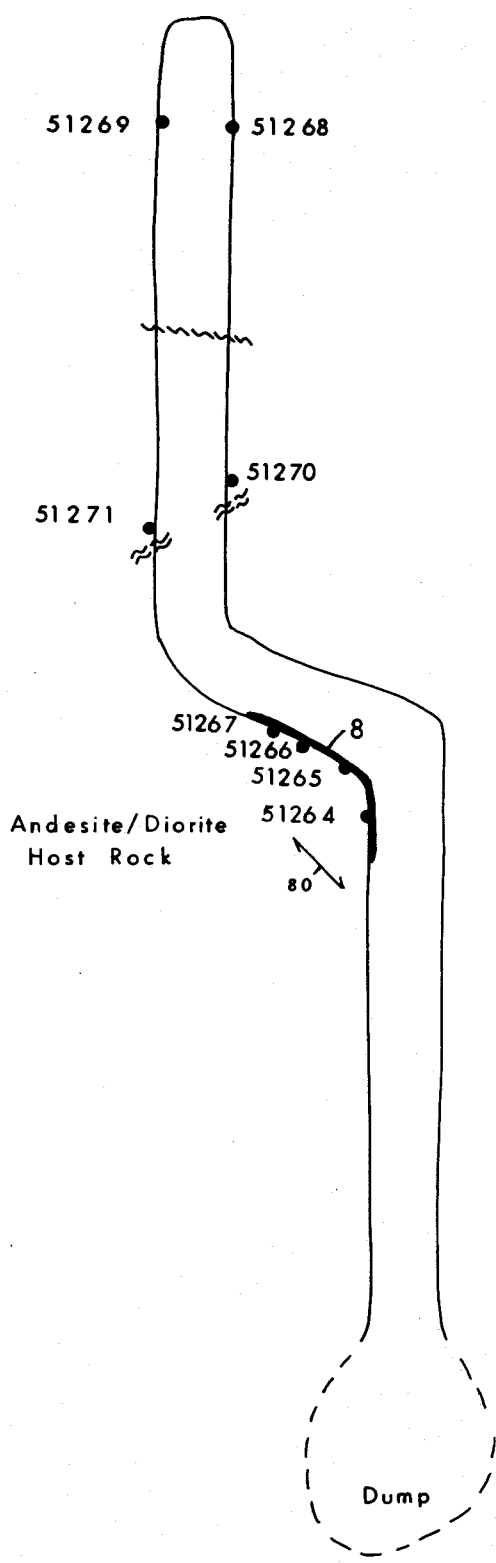
The second area of interest is Zone B. This is a narrow zone of Type 2 veining in a narrow shear zone cutting predominantly Kane Creek diorite. The zone strikes 330° for at least 300 metres from L13+00N/7+00E to L15+00N/7+50E. The shear itself appears to be present beyond L17+00N but this area is inaccessible.

The zone is a 4.0 metre wide schistose chlorite shear cut by multiple quartz veins and a felsic dyke. The veins are pyritic with minor amounts of galena and chalcopyrite. A grab sample (51110) contained 0.242 opt Au and 2.48 opt Ag. Chip samples over the best exposure returned 2384 ppb Au over 1.7 metres (51106, 501107).

Zone C, also referred to as the Gold Quartz adit, is a ridge of Kaslo Group andesites cut by quartz-albite-carbonate alteration with thin multiple quartz veins (Figure 9). Most of the veins are barren of sulphides but a single vein containing pyrite and chalcopyrite recorded 0.630 opt Au and 4.33 opt Ag over 0.40 metres. A chip sample taken over a two metre width contained 2800 ppb Au maximum (51302). A brief examination of an adit driven into the ridge (Figure 9) indicates the alteration zone is up to 10 metres thick but it narrows rapidly along strike before being covered by overburden within 10 metres. The zone strikes approximately 120° and dips vertically to steeply north paralleling the foliation. The veins themselves though have variable strikes ranging from 090° to 140° dipping to the north.

An extension to this zone may be present at L13+00N/4+25E. Here a 0.2 to 1.0 metre Type 2? vein adjacent to a felsic dyke cuts a Kane Creek diorite. The mineralization is mainly pyrite with minor chalcopyrite and galena. The best analysis is Sample 51104 with 1450 ppb Au and 20 ppm Ag.

This zone has been classified as Type 1 based on the association with chalcopyrite. However the high silver contents from the adit and its proximity to the main Gold Quartz Zone A suggest it may represent a transitional phase to Type 2.



| Sample No. | Au oz/t      | Ag oz/t    | Sample type |
|------------|--------------|------------|-------------|
| 51264      | 0.520        | 3.55       | grab        |
| 51265      | 1.132        | 7.65       | grab        |
| 51266      | 0.630        | 4.33       | 0.40m chip  |
| 51267      | 0.350<br>ppb | 2.4<br>ppm | 0.40 m chip |
| 51268      | 1050         | 3.3        | grab        |
| 51269      | 880          | 4.3        | grab        |
| 51270      | 3400         | 13.0       | grab        |
| 51271      | 4900         | 20.0       | grab        |

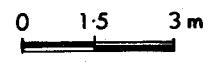


FIGURE 9

|                                                                          |                 |                   |          |
|--------------------------------------------------------------------------|-----------------|-------------------|----------|
| <b>ABERMIN</b><br>CORPORATION                                            |                 |                   |          |
| WHITEWATER PROJECT<br>GOLD QUARTZ ADIT<br>L21+60N - 6+25E<br>EL. 2065-70 |                 |                   |          |
| DATE<br>NOV. 1987.                                                       | SCALE<br>1: 150 | NTS<br>82 K / 3 W | DRWG NO. |

Overall the Gold Quartz is a problematic area. Despite significant precious metal values, the lack of continuity for the mineralization makes it difficult to outline linear zones warranting further work. Although several weakly mineralized trends have been outlined for several hundred metres, significant mineralization (i.e.  $>0.1$  opt Au) is very erratic. This is somewhat surprising since the Type 2 veins have been emplaced along the Trend 1 structures which contains the pre-existing and more continuous alteration zones and felsic dykes. Perhaps the intersection of a yet unrecognized structure with the Trend 1 fabric is a critical factor.

#### 4.3.4 OTHER WHITEWATER CREEK MINERAL OCCURRENCES

Other precious metal showings have been located in the Whitewater area. These include the Pluto, Robin, Wildswan, Garnett and an unnamed occurrence near L22+00N/2+75E. The latter is the most interesting, consisting of a thin Type 1 vein adjacent a felsic dyke intruding Kaslo Group andeistes. The vein contains pyrite and blebs of chalcopyrite. It also shows the erratic nature of the previous metal mineralization with gold values ranging from 0.058 opt (sample 51299) to 0.569 opt (sample 51300) in grab samples. The vein does not outcrop elsewhere.

The remaining showings are found in upper plate Kaslo Group volcanics. The Robin and Wildswan (L12+00N/west of baseline) are cross-cutting chlorite-carbonate-quartz veins containing pyrite and chalcopyrite with only minor precious metal values (samples 51039-51042). The Garnett is actually two exposures of polymetallic mineralized felsic dyke. The sulphides, chalcopyrite, galena, and sphalerite, occur with quartz filled tension fractures. Two grab samples taken, 51353 and 51354 carried  $<0.02$  opt Au but silver values up to 8.43 opt. This is the only place where base metals other than chalcopyrite are found in a felsic dyke. The final showing, Pluto, is a Type 3 vein occurring 1000 metres west of L25+00N/0+00. It is hosted by a Trend 2 structure containing pyrite, galena with lesser sphalerite and chalcopyrite. As expected for this vein type the gold content was low (0.002 opt) but silver high (87.47 opt) in sample 51313.

#### 4.4 SOIL GEOCHEMISTRY

Since the property had been extensively sampled by Almine Resources Ltd. (1983) and Amoco Petroleum Co. Ltd. (1979-1982), Abermin carried out only limited soil sampling in 1987. Sampled on the Lyle Grid were: (1) the upper Lyle Lakes area, (2) northwest towards Mt. Brennan, (3) east of the Highland Surprise trend. On the Whitewater grid part of the Gold Quartz Cirque was sampled. The results are presented in Plate 4 for Lyle Grid and Plate 5 for the Whitewater Grid. The data is compiled in Appendix IA along with a description of the sample preparation procedure. All samples are from the "B" soil horizon.

##### 4.4.1 LOWER LYLE GRID - HIGHLAND SURPRISE TREND

Forty-seven samples were taken here and analysed for gold, silver and copper. The most significant result is a narrow gold anomaly striking at 160° for 300 metres between L5+00S/2+00E and L7+50S/1+00E. Highest values are 2600 ppb Au, 1.6 ppm Ag and 155 ppm Cu. The zone overlies exactly the 160° trending fault zone east of the Highland Surprise trend and is still open to the southeast.

Elsewhere several single point gold anomalies are present to grid east. These occur at or slightly downslope from a pyrrhotite-bearing andesite. Rock analysis of this unit, however, returned 10 ppb Au or less (Plate 5).

##### 4.4.2 UPPER LYLE GRID

East of the Lyle Lakes seventy-three samples were analyzed for gold, silver and copper. As noted in Plate 5 the results show a few minor gold anomalies weakly grouped around the Ibex Creek Fault or adjacent to felsic dyke outcroppings. The best values obtained were 240 ppb Au, 2.5 ppm Ag and 200 ppm Cu.

Further east towards Mt. Brennan, thirty-seven samples were taken on Lines 5+00N to 3+00N. The samples were analysed for gold, silver, copper, lead and

zinc. Similar to the Lyle Lakes area, the results show several scattered gold anomalies up to 400 ppb. There is a slight silver correlation but the maximum value is only 1.2 ppm Ag. The high lead, zinc and silver values west of L4+00N/10+00E are due to the Type III veining of the Ibez trend located uphill of the grid line.

Overall, none of these results suggest a gold-bearing system similar to the Highland Surprise trend.

#### 4.4.3 WHITEWATER GRID

Forty-nine samples were taken in the Gold Quartz adit area (Zone C) between L24+00N to L21+00N. The samples were analyzed for gold, silver, copper, lead and zinc. The data, presented in Plate 5, has been contoured for gold and copper.

The survey defined three northwest ( $160^\circ$ ) trending copper anomalies ( $\text{Cu} > 80\text{ppm}$ ) two of which have coincident gold anomalies ( $\text{Au} > 200\text{ ppb}$ ). Each anomaly is up to 50 metres wide and all but one is open along strike. Although not contoured the lead results define trends similar to the copper.

The anomalies indicate Type 2 mineralization controlled largely by northwest structures rather than the Trend 1 structures. In fact the upper anomaly straddles a well defined fault above BL 8+00E which is locally intruded by felsic dyke. The results also suggest an extension of the mineralization from the Gold Quartz adit along the  $160^\circ$  trend.

The broad gold anomaly ( $\text{Au} > 100\text{ ppb}$ ) in the northeastern corner of the sampled area is likely influenced by the topographically higher Gold Quartz Zone A located to the east.

#### 4.5 GEOPHYSICS - WHITEWATER CREEK GRID

##### 4.5.1 INTRODUCTION

During the period July 15 to 29, 1987 approximately 32.5 kilometres of ground magnetometer and VLF-EM data were gathered from the Whitewater Creek grid at 12.5 metre intervals on lines 100 metres apart. Contract field work was carried out under the supervision of Jerry Thornton for Scott Geophysics.

Data was gathered using a Scintrex Integrated Geophysical System (IGS-2) which consists of a micro processor based magnetometer and VLF-EM unit in a common housing. Up to 16 kilometres of data can be stored in the internal memory.

A total field magnetometer base station recording system was used to monitor the diurnal variations and to remove these variations from the field data before transferring the data to floppy disk for archival storage and later processing. As time permitted, profiles and plan maps of the data were produced in the field, both to monitor the data quality and to provide preliminary maps for field personnel. Profiles of magnetometer and VLF-EM in-phase, quadrature and field strength were produced at a scale of 1:2500. Final computer generated maps of the data were produced at a scale of 1:5000. All data are presented on Plates 7-11.

#### 4.5.2 RESULTS

The magnetometer survey indicates a strong magnetic contrast between the ultramafic complex and all other rocks on the Whitewater grid. Besides having a very high magnetic susceptibility the complex also shows zones of high relief parallel to the Whitewater fault. This appears to reflect the contrasting magnetic response between the talc-carbonate schist and the massive peridotite. This is especially noticeable between L25+00N to L22+00N. Several interpreted northwest (160°) trending structures are observed cutting the ultramafic unit and the Whitewater fault zone.

The Kaslo Group has a very homogenous magnetic character and considerably lower than the ultramafic unit. There is not discernable difference between the volcanics and their intrusive feeder rocks (Kane Creek diorite). The flat nature of the group makes it difficult to recognize structural trend.

The VLF-EM survey outlined a number of weak northwest trending linear conductive zones which are thought to be faults or the result of topography. Many of the anomalies are weak and poorly defined because the northwest trending structural grain is at a poor angle to the station direction and as a result very little current is induced into these conductors. Signal strengths were adequate for the survey although influenced by extreme topography in some places.

In summary, the geophysical surveys conducted on the Whitewater Creek Grid were inconclusive. None of the feldspar dykes, mineral zones or associated alteration were detected. This is apparently due to two factors. The first is due to the grid orientation, where the geological features cross-cut the station signal at small angles thereby giving a weak response. The second is due to the grid spacing (25 metres) as compared to the geological target (1-3 metres) size.

No new mineral zones were discovered but major rock type boundaries and structural trends were outlined.

#### 4.6 GEOPHYSICS - LYLE CREEK GRID

A detailed discussion of the procedures and results of this area is in a report by J. Thornton in Appendix II. The data are presented in Plates 12-20.

#### 5. CONCLUSIONS

Three types of mineralization have been located on the property. Type 1 mineralization and possibly Type 2 are of economic interest since they contain significant gold concentrations. Type 1 mineralization at the Highland Surprise area is of a metamorphic replacement type and is associated with carbonatization, chloritization and silicification. It contains three zones of gold enrichment associated with sulphide deposition within a Trend 1 parallel ductile shear adjacent to the Whitewater fault. The Highland Surprise mine contains widths (2 to 3 metres) and grades (0.3 to 0.4 oz/t) which are potentially economic (Figure 7, 8).

In addition, the property has a number of positive features which include: numerous mineral occurrences, the ability to generate electric power locally, the abundance of water and timber, potential for numerous ore shoots, a simple ore type which may be easily processed with potentially high recoveries, good ground conditions in the mine, and proximity to established mining areas and communities.

## 6. RECOMMENDATIONS

It is recommended that additional exploration work be performed on the property and that the work be staged so that results from earlier stages may be utilized to guide later exploration.

The initial work proposed would be to drill test from surface a subparallel or en echelon mineral zone downhill from the Highland Surprise Mine. This coincident geochemical, geophysical anomaly is located 100-200 metres grid east of the baseline and runs from Line 5+50S to 8+50S. Drilling would entail two holes being drilled from at least three drill stations which would test the zone along its strike length. This program is estimated to cost approximately \$100,000 CDN for 1,000 metres of drilling. Any further work would be dependant on positive results being obtained in Stage I exploration.

Stage II exploration would entail a drill test of the Highland Surprise trend with approximately 1,000 metres of surface drilling to test the zone below the 4th level.

Stage III exploration would entail rehabilitation of the Highland Surprise underground workings for mapping and sampling. Additional drilling, either from surface or underground, would be carried out to define ore below the 4th level.



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8. ASSESSMENT REPORTS - LYLE CLAIM GROUP

No.

- 3225 Magnetometer survey on Whitewater Claim Group,  
By John R. Kerr for Pan Ocean Oil Ltd., August, 1971.
- 3921 Geological Report on Whitewater Claim Group by  
R. Jay Trimble and R.J. MacNeill for Pan Ocean Ltd.  
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- 3926 Geological & Geophysical Report on Whitewater  
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- 3930 Geological Report on Nico Claims by R.J. Trimble  
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November 14, 1972
- 4126 Report on Geology of Mineral Lease M346 Retallack  
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- 5401 Whitewater Creek - Group #2 Assessment Work by  
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- 7835 Whitewater Group: Soil Geochemistry by Paul Brown  
for Amoco Canada Petroleum Co. Ltd. October 30, 1979
- 8480 Soil Geochemistry Slocan Silver Prospect by  
M. Lancaster for Asarco Exploration Co. of Canada Ltd.  
October 28, 1980
- 8516 Soil Geochemistry Slocan Silver Prospect by M. Lancaster  
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August 29, 1980.

ASSESSMENT REPORTS - LYLE CLAIM GROUP - continued

- 8529 Lyle Group Assessment Report by D. Visagie for Amoco Canada Petroleum Co. Ltd. November 30, 1980.
- 9060 Whitewater: Drilling Report - Hole WBC-80-4 by David Visagie. February 1, 1981
- 10,070 Assessment Report - Cuba Ruby Fr., Paisley, Whistler, Emerald, Garnett & Lyle Mineral Claims by Jim Cuttle for Amoco Canada Petroleum Co. Ltd. November 3, 1981.

## ASSESSMENT REPORT

NUMBERDESCRIPTION

- 3225 Magnetometer survey over upper Whitewater Creek in order to delineate magnetic anomalies that may lead to the discovery of Ni-bearing sulphide veins. Several anomalies are indicated, one of which corresponds to a known zone of nickel mineralization.
- 3921 Geological mapping of the north and northwest faces of Whitewater Mountain. Two formations, the Kaslo Ultrabasic belt and the Kaslo Group volcanics were delineated, copper mineralization was discovered.
- 3926 Mapping, prospecting, magnetometer surveys and diamond drilling completed on an area centered about the upper Whitewater Valley. A copper occurrence and an asbestos occurrence were located and evaluated, both were considered of insufficient grade and size to warrant any further work.
- 3930 Geological mapping of the ridge between Rossiter and Lyle Creeks. The area is underlain by Kaslo Group metavolcanics and the Kaslo Ultrabasic Belt. No concentrations of sulphide were discovered.
- 4126 Geological mapping of the ridge between the Lyle and Whitewater Valleys. The area is underlain by Kaslo Group volcanics and the Kaslo Ultrabasic Belt. No nickel or copper mineralization was discovered.
- 5401 Prospecting of the ridge between the Whitewater and Lyle Valleys.
- 7835 Soil geochemical survey over the Whitewater Valley, essentially that area covered by the present Whitewater 1-3 mineral claims. The samples were analysed for Au, Ag, and Cu, with several anomalous concentrations of gold being indicated.
- 8480 Soil geochemical survey over the drainage basin of Goat Creek, to the west of Whitewater Creek. Samples were analysed for Cu, Pb, Zn, and Ag. No significant anomalies were discovered.

ASSESSMENT REPORT  
NUMBER

DESCRIPTION

- 8516 Soil geochemical survey over the same area as described in Report 8480, part of the same programme of work. No further anomalies were discovered.
- 8529 Soil geochemical survey over the area of those crown grants which are part of the present claim group. Samples were analysed for Au and Cu. One major and several smaller anomalies were identified.
- 9060 Report on one of several drill holes sited in an attempt to locate the source of the Au anomalies, as described in Reports 7835 and 8529. The hole which this report describes is located immediately above the northwest end of the major anomaly in the Whitewater Valley, it did not intersect any significant gold mineralization.
- 10,070 Drill hole located on the lower part of the ridge between the Lyle and Whitewater Valleys. It was collared in serpentinite, angled to the north to intersect the contact with the Kaslo Group. It did not intersect any significant mineralization.

ASSESSMENT REPORTS - ADJACENT GROUND

No.

- 434 Geological Report on Skyline Group of Mineral Claims by T.R. Buckham. August 14, 1962.
- 573 Geophysical & Geochemical Report on Kat Group by Donald W. Smellie. September 30, 1964.
- 824 Geophysical Report on Kat Group by Donald W. Smellie. October 13, 1966.
- 1164 Geophysical & Geochemical Report on Kat Group by Donald W. Smellie. November 30, 1967.
- 1622 Geochemical Report on Kat Group by Donald W. Smellie. September 12, 1968.
- 1997 Lead & Silver Geochemical Soil Survey Mineral Claims on Jardine Mountain, by Alfred A. Burgayne. August 1, 1969.
- 2037 Geochemical Report on Kat Group by Donald W. Smellie. October 23, 1969.
- 2661 Geophysical Report on Kat Group by Donald W. Smellie. October 23, 1970.
- 3925 Geological, Geochemical and Geophysical Report on the J.K. Property by R.J. Trimble and R.J. MacNeill. September 29, 1972.





APPENDIX I

GEOCHEMISTRY

- A) Soils
- B) Rock Geochemistry and Assay
- C) Rock Sample Descriptions
- D) Au/Ag Ratio for Veins

Whitewater

Sample Preparation and Analytical Procedure  
Bondar Clegg Laboratory, Vancouver, B.C.

All rock samples were crushed and pulverized to -150 mesh. Gold was analysed using a 1 assay ton sample weight with either an atomic absorption or assay bead detection. Silver, copper, lead and zinc were analysed using an aqua regia digestion and atomic absorption detection.

Soil samples were sieved to -80 mesh, 2 grams of sample were digested in aqua regia and copper, lead, zinc and silver determined by atomic absorption. Gold was determined using a fire assay-atomic absorption combination.





REPORT: 127-6234

PROJECT: WHITEWATER

PAGE 1

| SAMPLE NUMBER | ELEMENT UNITS | Cu PPM | Pb PPM | Zn PPM | Ag PPM | Au PPB |
|---------------|---------------|--------|--------|--------|--------|--------|
| S1 L3N 10+25E |               | 79     | 20     | 105    | 0.3    | <5     |
| S1 L3N 10+60E |               | 116    | 24     | 90     | 0.2    | 70     |
| S1 L3N 10+75E |               | 58     | 15     | 61     | 0.2    | 10     |
| S1 L3N 11+00E |               | 66     | 11     | 105    | 0.4    | 70     |
| S1 L3N 11+25E |               | 73     | 12     | 90     | 0.3    | 20     |
| S1 L3N 11+50E |               | 31     | 6      | 52     | 0.1    | <5     |
| S1 L3N 11+75E |               | 48     | 26     | 75     | 0.3    | 45     |
| S1 L3N 12+00E |               | 65     | 28     | 110    | 0.2    | 20     |
| S1 L3N 12+25E |               | 42     | 9      | 72     | 0.3    | 240    |
| S1 L3N 12+50E |               | 15     | 23     | 45     | 0.2    | 40     |
| S1 L3N 12+75E |               | 69     | 13     | 100    | 0.3    | 15     |
| S1 L3N 13+00E |               | 75     | 12     | 106    | 0.2    | 40     |
| S1 L3N 13+25E |               | 45     | 13     | 95     | 0.2    | 120    |
| S1 L3N 13+50E |               | 65     | 8      | 125    | 0.2    | 40     |
| S1 L3N 13+75E |               | 36     | 9      | 52     | 0.4    | 90     |
| S1 L3N 14+00E |               | 50     | 9      | 82     | 0.2    | 15     |
| S1 L4N 7+25E  |               | 92     | 12     | 95     | 1.2    | 220    |
| S1 L4N 9+75E  |               | 51     | 1200   | 2400   | 1.2    | 40     |
| S1 L4N 10+00E |               | 135    | 705    | 860    | 4.0    | 85     |
| S1 L4N 10+50E |               | 35     | 35     | 146    | 0.4    | 50     |
| S1 L4N 10+75E |               | 82     | 25     | 192    | 0.3    | 40     |
| S1 L4N 11+00E |               | 72     | 72     | 177    | 0.5    | 55     |
| S1 L4N 11+25E |               | 13     | 18     | 52     | 0.2    | 170    |
| S1 L4N 11+50E |               | 19     | 19     | 39     | 0.4    | 65     |
| S1 L4N 11+75E |               | 31     | 15     | 45     | 0.2    | 60     |
| S1 L4N 12+00E |               | 87     | 11     | 96     | 0.3    | 90     |
| S1 L4N 12+25E |               | 73     | 22     | 96     | 0.2    | 85     |
| S1 L4N 12+50E |               | 86     | 14     | 106    | 0.3    | 80     |
| S1 L4N 12+75E |               | 69     | 26     | 68     | 0.2    | 15     |
| S1 L4N 13+00E |               | 45     | 12     | 40     | 0.3    | 50     |
| S1 L4N 13+25E |               | 87     | 11     | 80     | 0.4    | 90     |
| S1 L4N 13+50E |               | 66     | 18     | 74     | 0.3    | 75     |
| S1 L4N 13+75E |               | 60     | 4      | 86     | 0.2    | 30     |



REPORT: 127-6234

PROJECT: WHITEWATER

PAGE 2

| SAMPLE NUMBER | ELEMENT UNITS | Cu PPM | Pb PPM | Zn PPM | Ag PPM | Au PPB |
|---------------|---------------|--------|--------|--------|--------|--------|
| S1 L4N 14+00E |               | 198    | 8      | 70     | 0.6    | 220    |
| S1 L5N 7+00E  |               | 83     | 27     | 115    | 1.3    | 320    |
| S1 L5N 7+38E  |               | 12     | 13     | 11     | 0.1    | 5      |

|                     |  |     |     |     |     |     |
|---------------------|--|-----|-----|-----|-----|-----|
| S1 L5N 9+75E        |  | 35  | 70  | 103 | 0.3 | 45  |
| S1 L8+50S 0+75E "B" |  | 104 | 8   | 115 | 0.3 | 75  |
| S1 L8+50S 1+00E "B" |  | 114 | 10  | 98  | 0.2 | 340 |
| S1 L8+50S 0+75E "C" |  | 530 | 156 | 410 | 0.8 | 180 |

|                     |  |     |    |    |     |     |
|---------------------|--|-----|----|----|-----|-----|
| S1 L8+50S 1+00E "C" |  | 210 | 8  | 86 | 0.2 | 800 |
| S1 HS-001 "B"       |  | 56  | 3  | 35 | 0.8 | 25  |
| S1 HS-002 "B"       |  | 37  | 3  | 28 | 0.2 | 5   |
| S1 HS-003 "B"       |  | 47  | 4  | 32 | 0.2 | 560 |
| S1 HS-004 "B"       |  | 106 | 17 | 70 | 0.3 | 35  |

|               |  |    |    |    |     |     |
|---------------|--|----|----|----|-----|-----|
| S1 HS-005 "B" |  | 54 | 2  | 40 | 0.3 | 100 |
| S1 HS-006 "B" |  | 44 | 6  | 36 | 0.1 | 180 |
| S1 HS-007 "B" |  | 4  | 14 | 59 | 0.2 | 130 |
| S1 HS-001 "C" |  | 53 | 5  | 30 | 0.2 | 400 |
| S1 HS-002 "C" |  | 43 | 5  | 28 | 0.1 | <5  |

|               |  |    |   |    |     |     |
|---------------|--|----|---|----|-----|-----|
| S1 HS-003 "C" |  | 71 | 8 | 34 | 0.1 | 90  |
| S1 HS-004 "C" |  | 32 | 2 | 22 | 0.4 | 35  |
| S1 HS-005 "C" |  | 45 | 7 | 50 | 0.4 | 20  |
| S1 HS-006 "C" |  | 61 | 4 | 28 | 0.1 | 340 |
| S1 HS-007 "C" |  | 63 | 9 | 37 | 0.4 | 150 |

REPORT: 127-6235

PROJECT: WHITEWATER

PAGE 1

| SAMPLE NUMBER    | ELEMENT UNITS | Cu PPM | Ag PPM | Au PPB | SAMPLE NUMBER              | ELEMENT UNITS | Cu PPM       | Ag PPM         | Au PPB        |
|------------------|---------------|--------|--------|--------|----------------------------|---------------|--------------|----------------|---------------|
| S1 L1+50N 7+00E  |               | 48     | 0.4    | 110    | S1 L3+00S 9+75E            |               | 23           | 2.4            | 50            |
| S1 L1+75N 7+00E  |               | 78     | 2.1    | 120    | S1 L3+00S 10+00E           |               | 62           | 0.2            | 45            |
| S1 L1 S 7+00E    |               | 120    | 0.2    | 15     | S1 L3+00S 10+25E           |               | 35           | 0.2            | 25            |
| S1 L1 S 7+25E    |               | 35     | 0.4    | 60     | S1 L3+00S 10+50E           |               | 37           | 0.2            | 15            |
| S1 L1 S 7+50E    |               | 220    | 0.4    | 35     | S1 L3+00S 10+75E           |               | 23           | 0.2            | 10            |
| S1 L1 S 7+70E    |               | 43     | 0.3    | 100    | S1 L3+00S 11+00E           |               | 76           | 0.1            | 25            |
| S1 L1 S 7+95E    |               | 47     | 0.2    | 180    | S1 L3+00S 11+25E           |               | 32           | 0.1            | 20            |
| S1 L1 S 8+30E    |               | 62     | 0.5    | 55     | S1 L3+00S 11+50E           |               | 31           | 0.1            | 15            |
| S1 L1 S 8+50E    |               | 62     | 0.2    | <5     | S1 L3+00S 11+75E           |               | 36           | 0.1            | 20            |
| S1 L1 S 8+75E    |               | 80     | 1.0    | 100    | S1 L3+00S 12+00E           |               | 24           | 0.3            | 25            |
| S1 L1 S 8+93E    |               | 72     | 0.3    | 140    | S1 L3+00S 12+25E           |               | 37           | 0.3            | 110           |
| S1 L1 S 9+25E    |               | 56     | 0.9    | 120    | S1 L3+00S 12+50E           |               | 38           | 0.3            | 75            |
| S1 L1 S 9+50E    |               | 42     | 0.6    | 110    | S1 L3+00S 12+75E           |               | 15           | 0.2            | 5             |
| S1 L1 S 9+75E    |               | 46     | 0.5    | 240    | S1 L4+00S 8+50E            |               | 80           | 0.5            | 130           |
| S1 L1+25S 10+00E |               | 33     | 0.4    | 35     | S1 L4+00S 8+75E            |               | 84           | 0.4            | 85            |
| S1 L1+25S 10+25E |               | 42     | 0.2    | 95     | S1 L4+00S 9+00E            |               | 21           | 0.6            | 45            |
| S1 L1+25S 10+50E |               | 55     | 0.4    | <5     | S1 L4+00S 9+25E            |               | 47           | 0.4            | 30            |
| S1 L1+25S 10+75E |               | 30     | 0.3    | 55     | S1 L4+00S 9+50E            |               | 32           | 0.8            | 55            |
| S1 L1+25S 11+00E |               | 60     | 0.2    | 35     | S1 L4+00S 9+75E            |               | 85           | 0.5            | 120           |
| S1 L1+25S 11+25E |               | 57     | 0.3    | 65     | S1 L4+00S 10+00E           |               | 37           | 0.1            | 55            |
| S1 L1+25S 11+50E |               | 78     | 0.4    | 65     | S1 L4+00S 10+25E           |               | 69           | 0.1            | 20            |
| S1 L1+25S 11+75E |               | 64     | 0.3    | 35     | S1 L4+00S 10+50E           |               | 30           | 0.5            | 10            |
| S1 L1+25S 12+00E |               | 44     | 0.2    | 35     | S1 L4+00S 10+75E           |               | 33           | 0.1            | 30            |
| S1 L1+25S 12+25E |               | 52     | 0.4    | 65     | S1 L4+00S 11+00E           |               | 24           | 0.2            | 10            |
| S1 L1+25S 12+50E |               | 37     | 0.4    | 35     | S1 L4+00S 11+25E           |               | 85           | 0.1            | 15            |
| S1 L2+00S 7+00E  |               | 67     | 0.5    | 65     | S1 L4+00S 11+50E           |               | 70           | 0.2            | 45            |
| S1 L2+00S 7+25E  |               | 39     | 0.3    | 35     | S1 L4+00S 11+75E           |               | 67           | 0.2            | 15            |
| S1 L2+00S 7+50E  |               | 102    | 0.3    | 60     | S1 L4+00S 12+00E           |               | 76           | 0.3            | 25            |
| S1 L2+00S 7+75E  |               | 74     | 0.6    | <5     | S1 L4+00S 12+25E           |               | 30           | 0.2            | 30            |
| S1 L3+00S 7+00E  |               | 60     | 0.6    | 15     | S1 L4+00S 12+50E           |               | 156          | 0.9            | 140           |
| S1 L3+00S 7+25E  |               | 39     | 0.4    | 5      | S1 L4+00S 12+75E           |               | 110          | 0.2            | 85            |
| S1 L3+00S 7+50E  |               | 65     | 0.3    | 55     | S1 L4+00S 13+00E           |               | 46           | 0.3            | 40            |
| S1 L3+00S 7+75E  |               | 14     | 0.3    | <5     | S1 L4+00S 13+25E           |               | 62           | 0.2            | 20            |
| S1 L3+00S 8+00E  |               | 80     | 0.2    | 25     | <del>S1 L5+00S 1+75E</del> |               | <del>5</del> | <del>0.2</del> | <del>30</del> |
| S1 L3+00S 8+25E  |               | 200    | 0.3    | 45     | S1 L5+00S 2+00E            |               | 35           | 0.8            | 480           |
| S1 L3+00S 8+50E  |               | 27     | 0.5    | 50     | S1 L5+00S 2+25E            |               | 44           | 0.1            | 90            |
| S1 L3+00S 8+75E  |               | 40     | 0.7    | 30     | S1 L5+00S 2+50E            |               | 43           | 0.2            | 60            |
| S1 L3+00S 9+00E  |               | 8      | 0.4    | 20     | S1 L5+00S 2+75E            |               | 15           | 0.1            | 90            |
| S1 L3+00S 9+25E  |               | 42     | 0.7    | 55     | S1 L5+00S 2+95E            |               | 149          | 0.2            | 100           |
| S1 L3+00S 9+50E  |               | 63     | 0.3    | 95     | S1 L5+00S 3+25E            |               | 30           | 0.2            | 75            |



REPORT: 127-6235

PROJECT: WHITEWATER

PAGE 2

| SAMPLE NUMBER   | ELEMENT UNITS | Cu PPM | Ag PPM | Au PPB | SAMPLE NUMBER | ELEMENT UNITS | Cu PPM | Ag PPM | Au PPB |
|-----------------|---------------|--------|--------|--------|---------------|---------------|--------|--------|--------|
| S1 L5+25S 1+75E |               | 78     | 0.4    | 40     |               |               |        |        |        |
| S1 L5+25S 2+50E |               | 75     | 0.1    | <5     |               |               |        |        |        |
| S1 L5+25S 2+75E |               | 183    | 0.1    | <5     |               |               |        |        |        |
| S1 L5+50S 2+00E |               | 60     | 0.1    | 40     |               |               |        |        |        |
| S1 L5+50S 2+12E |               | 122    | 0.1    | <5     |               |               |        |        |        |
| S1 L5+50S 2+25E |               | 38     | 0.2    | 15     |               |               |        |        |        |
| S1 L5+50S 2+50E |               | 53     | 0.1    | 45     |               |               |        |        |        |
| S1 L5+50S 2+75E |               | 70     | <0.1   | 75     |               |               |        |        |        |
| S1 L5+50S 3+00E |               | 30     | 0.1    | 150    |               |               |        |        |        |
| S1 L5+75S 1+75E |               | 42     | 0.1    | 10     |               |               |        |        |        |
| S1 L6+00S 0+50E |               | 72     | 0.4    | 320    |               |               |        |        |        |
| S1 L6+00S 0+75E |               | 50     | 0.2    | 420    |               |               |        |        |        |
| S1 L6+00S 1+12E |               | 57     | 0.1    | 680    |               |               |        |        |        |
| S1 L6+00S 1+37E |               | 25     | 0.1    | 700    |               |               |        |        |        |
| S1 L6+00S 1+50E |               | 37     | 0.3    | 70     |               |               |        |        |        |
| S1 L6+00S 1+75E |               | 67     | <0.1   | 10     |               |               |        |        |        |
| S1 L6+00S 2+00E |               | 29     | 0.1    | 30     |               |               |        |        |        |
| S1 L6+00S 2+25E |               | 66     | 0.1    | 5      |               |               |        |        |        |
| S1 L6+00S 2+50E |               | 35     | 0.1    | 35     |               |               |        |        |        |
| S1 L6+00S 2+75E |               | 71     | 0.1    | 20     |               |               |        |        |        |
| S1 L6+00S 3+00E |               | 73     | 0.1    | 240    |               |               |        |        |        |
| S1 L6+00S 3+25E |               | 8      | 0.1    | 45     |               |               |        |        |        |
| S1 L7+00S 0+25E |               | 55     | 0.1    | 20     |               |               |        |        |        |
| S1 L7+00S 0+50E |               | 45     | 0.1    | 50     |               |               |        |        |        |
| S1 L7+00S 0+75E |               | 260    | 0.1    | 90     |               |               |        |        |        |
| S1 L7+00S 1+00E |               | 88     | 0.1    | 95     |               |               |        |        |        |
| S1 L7+00S 1+25E |               | 79     | 1.1    | 2600   |               |               |        |        |        |
| S1 L7+00S 1+50E |               | 37     | <0.1   | 190    |               |               |        |        |        |
| S1 L7+50S 0+25E |               | 97     | <0.1   | 130    |               |               |        |        |        |
| S1 L7+50S 0+50E |               | 75     | 0.8    | 100    |               |               |        |        |        |
| S1 L7+50S 0+75E |               | 28     | <0.1   | 120    |               |               |        |        |        |
| S1 L7+50S 1+00E |               | 155    | 1.6    | 400    |               |               |        |        |        |
| S1 L7+50S 1+25E |               | 81     | 0.4    | 400    |               |               |        |        |        |
| S1 L7+50S 1+50E |               | 129    | 0.7    | 1100   |               |               |        |        |        |
| S1 L7+50S 1+75E |               | 40     | <0.1   | 45     |               |               |        |        |        |
| S1 L7+50S 1+95E |               | 75     | 0.1    | 120    |               |               |        |        |        |

GROUNDWATER GEOCHEMICAL ANALYSIS, 1987

| Sample ID | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Au<br>ppb | Ni<br>ppm | As<br>ppm |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51001     | 2150      | 10000     | 1550      | 50.0      | 4100      |           |           |
| 51002     | 1300      | 10000     | 46        | 50.0      | 5900      |           |           |
| 51003     | 54        | 730       | 20        | 50.0      | 9000      |           |           |
| 51006     | -9        | -9        | -9        | 0.6       | 90        |           |           |
| 51007     | -9        | -9        | -9        | 0.4       | 20        |           |           |
| 51012     | -9        | -9        | -9        | 0.5       | 20        |           |           |
| 51013     | 440       | 3200      | 125       | 50.0      | 7500      |           |           |
| 51014     | -9        | -9        | -9        | 1.2       | 50        |           |           |
| 51015     | -9        | -9        | -9        | 0.8       | 60        |           |           |
| 51017     | -9        | -9        | -9        | 0.1       | 5         |           |           |
| 51018     | -9        | -9        | -9        | 0.1       | 10        |           |           |
| 51019     | 1150      | -9        | -9        | 1.0       | 15        |           |           |
| 51021     | 2150      | -9        | -9        | 50.0      | 10000     |           |           |
| 51022     | -9        | -9        | -9        | -9.0      | 180       |           |           |
| 51023     | 61        | 8500      | 8         | 8.7       | 130       |           |           |
| 51024     | -9        | 2200      | -9        | 3.2       | 140       |           |           |
| 51025     | -9        | -9        | -9        | -9.0      | 10        |           |           |
| 51026     | -9        | -9        | -9        | -9.0      | 10        |           |           |
| 51027     | -9        | -9        | -9        | -9.0      | -5        |           |           |
| 51028     | -9        | -9        | -9        | -9.0      | -5        |           |           |
| 51029     | -9        | -9        | -9        | -9.0      | 10        |           |           |
| 51030     | -9        | -9        | -9        | -9.0      | -5        |           |           |
| 51031     | -9        | -9        | -9        | -9.0      | -5        |           |           |
| 51032     | -9        | -9        | -9        | -9.0      | 95        |           |           |
| 51033     | -9        | -9        | -9        | -9.0      | 150       |           |           |
| 51035     | -9        | -9        | -9        | -9.0      | -5        |           |           |
| 51036     | -9        | -9        | -9        | -9.0      | 320       |           |           |
| 51037     | 3300      | -9        | -9        | -9.0      | 80        |           |           |
| 51038     | 102       | 3000      | 34        | 7.3       | 960       |           |           |
| 51039     | 20000     | -9        | -9        | 6.3       | 25        |           |           |
| 51040     | -9        | -9        | -9        | -9.0      | 180       |           |           |
| 51041     | -9        | -9        | -9        | -9.0      | 20        |           |           |
| 51042     | -9        | -9        | -9        | -9.0      | 10        |           |           |
| 51043     | -9        | -9        | 295       | 45.0      | 6600      |           |           |
| 51044     | -9        | -9        | -9        | 50.0      | 5900      |           |           |
| 51045     | -9        | -9        | -9        | 50.0      | 10000     |           |           |
| 51046     | -9        | -9        | -9        | 50.0      | 6300      |           |           |
| 51049     | -9        | -9        | -9        | 50.0      | 5100      |           |           |
| 51054     | -9        | -9        | -9        | 1.4       | 130       |           |           |
| 51055     | -9        | -9        | -9        | 0.7       | 95        |           |           |
| 51056     | -9        | -9        | -9        | 17.0      | 2700      |           |           |
| 51057     | -9        | -9        | -9        | -0.1      | 45        |           |           |
| 51058     | -9        | -9        | -9        | 6.6       | 1000      |           |           |
| 51059     | -9        | -9        | -9        | -0.1      | 25        |           |           |
| 51060     | -9        | -9        | -9        | 15.0      | 1950      |           |           |
| 51061     | -9        | -9        | -9        | -0.1      | 15        |           |           |
| 51062     | -9        | -9        | -9        | 0.1       | 20        |           |           |
| 51063     | -9        | -9        | -9        | -0.1      | 5         |           |           |
| 51064     | -9        | -9        | -9        | -0.1      | 45        |           |           |
| 51069     | -9        | -9        | -9        | 0.2       | 30        |           |           |
| 51070     | -9        | -9        | -9        | 0.1       | 5         |           |           |
| 51072     | -9        | -9        | -9        | -0.1      | -5        |           |           |



GROUNDWATER GEOCHEMICAL ANALYSIS, 1987

| Sample ID | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Au<br>ppb | Ni<br>ppm | As<br>ppm |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51074     | -9        | -9        | -9        | 0.3       | 160       |           |           |
| 51075     | 14        | 64        | -9        | 0.2       | 40        |           |           |
| 51076     | -9        | -9        | -9        | -0.1      | 220       |           |           |
| 51077     | -9        | -9        | -9        | -0.1      | -5        |           |           |
| 51078     | -9        | -9        | -9        | -0.1      | -5        |           |           |
| 51079     | -9        | -9        | -9        | -0.1      | -5        |           |           |
| 51080     | -9        | -9        | -9        | -0.1      | 55        |           |           |
| 51081     | -9        | -9        | -9        | -0.1      | 15        |           |           |
| 51082     | -9        | -9        | -9        | -0.1      | -5        |           |           |
| 51083     | -9        | -9        | -9        | -0.1      | -5        |           |           |
| 51084     | -9        | -9        | -9        | -0.1      | 20        |           |           |
| 51085     | -9        | -9        | -9        | 0.2       | 120       |           |           |
| 51086     | -9        | -9        | -9        | -0.1      | 260       |           |           |
| 51087     | -9        | -9        | -9        | -0.1      | 1250      |           |           |
| 51089     | 1500      | -9        | -9        | 3.6       | 10000     |           |           |
| 51090     | -9        | -9        | -9        | 4.5       | 9600      |           |           |
| 51091     | -9        | -9        | -9        | 12.0      | 10000     |           |           |
| 51092     | -9        | -9        | -9        | 0.6       | 2200      |           |           |
| 51093     | -9        | -9        | -9        | 16.0      | 10000     |           |           |
| 51094     | -9        | -9        | -9        | 3.2       | 10000     |           |           |
| 51095     | -9        | -9        | -9        | -0.1      | 1100      |           |           |
| 51096     | -9        | -9        | -9        | 3.6       | 10000     |           |           |
| 51097     | -9        | -9        | -9        | 11.0      | 10000     |           |           |
| 51098     | -9        | -9        | -9        | 26.0      | 10000     |           |           |
| 51099     | -9        | -9        | -9        | 16.0      | 10000     |           |           |
| 51100     | -9        | -9        | -9        | 9.4       | 10000     |           |           |
| 51101     |           |           |           | 0.4       | 30        |           |           |
| 51102     |           |           |           | 0.7       | 20        |           |           |
| 51103     |           |           |           | 1.4       | 30        |           |           |
| 51104     |           |           |           | 20.0      | 1450      |           |           |
| 51105     |           |           |           | 0.4       | 10        |           |           |
| 51106     |           |           |           | 35.0      | 3900      |           |           |
| 51107     |           |           |           | 1.9       | 220       |           |           |
| 51108     |           |           |           | 1.8       | 220       |           |           |
| 51113     |           |           |           | 0.7       | 15        |           |           |
| 51114     |           |           |           | 0.3       | 5         |           |           |
| 51125     |           |           |           | 0.5       | -5        |           |           |
| 51134     |           |           |           | 0.7       | 10        |           |           |
| 51135     |           |           |           | 0.2       | 10        |           |           |
| 51136     |           |           |           | 0.1       | -5        |           |           |
| 51137     |           |           |           | 0.3       | -5        |           |           |
| 51138     |           |           |           | 6.0       | 160       |           |           |
| 51139     |           |           |           | 22.0      | 150       |           |           |
| 51140     |           |           |           | 1.6       | 90        |           |           |
| 51141     |           |           |           | 0.3       | -5        |           |           |

WHITENATER GEOCHEMICAL ANALYSIS, 1987

| Sample ID | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Au<br>ppb | Ni<br>ppm | As<br>ppm |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51142     |           |           |           | 0.1       | -5        |           |           |
| 51144     |           |           |           | 0.6       | 7800      |           |           |
| 51146     |           |           |           | 0.9       | 60        |           |           |
| 51147     |           |           |           | 0.2       | 35        |           |           |
| 51148     |           |           |           | 0.1       | -5        |           |           |
| 51155     |           |           |           | 0.1       | 5         |           |           |
| 51156     |           |           |           | 0.1       | -5        |           |           |
| 51160     |           |           |           | 0.6       | -5        |           |           |
| 51161     |           |           |           | 0.3       | 60        |           |           |
| 51162     |           |           |           | 4.1       | 35        |           |           |
| 51163     |           |           |           | 1.1       | 280       |           |           |
| 51164     |           |           |           | 3.4       | 70        |           |           |
| 51165     |           |           |           | 0.5       | -5        |           |           |
| 51166     |           |           |           | 0.2       | -5        |           |           |
| 51167     |           |           |           | 0.1       | -5        |           |           |
| 51168     |           |           |           | 0.1       | -5        |           |           |
| 51169     |           |           |           | -0.1      | -5        |           |           |
| 51170     |           |           |           | 0.2       | 40        |           |           |
| 51171     |           |           |           | -0.1      | -5        |           |           |
| 51172     |           |           |           | -0.1      | -5        |           |           |
| 51173     |           |           |           | 0.1       | -5        |           |           |
| 51174     |           |           |           | 0.2       | 25        |           |           |
| 51175     |           |           |           | 0.2       | -5        |           |           |
| 51176     |           |           |           | 0.9       | 25        |           |           |
| 51177     |           |           |           | -0.1      | -5        |           |           |
| 51178     |           |           |           | 6.8       | 10000     |           |           |
| 51179     |           |           |           | 50.0      | 830       |           |           |
| 51180     |           |           |           | 2.8       | 620       |           |           |
| 51181     |           |           |           | 1.6       | 10        |           |           |
| 51182     |           |           |           | 0.1       | 10        |           |           |
| 51184     |           |           |           | 0.6       | 160       |           |           |
| 51185     |           |           |           | 0.1       | -5        |           |           |
| 51186     |           |           |           | 0.4       | 15        |           |           |
| 51187     |           |           |           | 0.5       | 140       |           |           |
| 51188     |           |           |           | 0.7       | 200       |           |           |
| 51189     |           |           |           | 2.0       | 360       |           |           |
| 51190     |           |           |           | 0.2       | 20        |           |           |
| 51191     |           |           |           | 50.0      | 10000     |           |           |
| 51192     |           |           |           | 32.0      | 4200      |           |           |
| 51193     |           |           |           | 16.0      | 1550      |           |           |
| 51194     |           |           |           | 7.3       | 1050      |           |           |
| 51195     |           |           |           | 50.0      | 10000     |           |           |
| 51196     |           |           |           | 13.0      | 860       |           |           |
| 51198     |           |           |           | 12.0      | 220       |           |           |

WHITENATER GEOCHEMICAL ANALYSIS, 1937

| Sample ID | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Au<br>ppb | Ni<br>ppm | As<br>ppm |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51210     |           |           |           | 1.2       | -5        |           |           |
| 51228     |           |           |           | 5.3       | 10000     |           |           |
| 51229     |           |           |           | 1.2       | 2400      |           |           |
| 51231     |           |           |           | 0.7       | 50        |           |           |
| 51232     |           |           |           | 0.3       | 65        |           |           |
| 51233     |           |           |           | 1.4       | -5        |           |           |
| 51234     |           |           |           | 1.4       | -5        |           |           |
| 51235     |           |           |           | 0.4       | -5        |           |           |
| 51236     |           |           |           | 0.6       | -5        |           |           |
| 51237     |           |           |           | 0.3       | -5        |           |           |
| 51239     |           |           |           | 0.3       | 5         |           |           |
| 51240     |           |           |           | 0.3       | -5        |           |           |
| 51241     |           |           |           | 0.3       | -5        |           |           |
| 51242     |           |           |           | 0.1       | -5        |           |           |
| 51243     |           |           |           | 1.4       | 150       |           |           |
| 51244     |           |           |           | -0.1      | -5        | -9        | -9        |
| 51245     |           |           |           | 0.1       | 5         | -9        | -9        |
| 51246     |           |           |           | 0.1       | 30        | -9        | -9        |
| 51247     |           |           |           | 0.1       | -5        | -9        | -9        |
| 51248     |           |           |           | 0.5       | 60        | -9        | -9        |
| 51249     |           |           |           | -0.1      | -5        | -9        | -9        |
| 51250     |           |           |           | 16.0      | 1200      | -9        | -9        |
| 51251     |           |           |           | 3.1       | 540       | -9        | -9        |
| 51252     |           |           |           | 1.3       | 160       | -9        | -9        |
| 51253     |           |           |           | 0.4       | 40        | -9        | -9        |
| 51254     |           |           |           | 0.2       | 45        | -9        | -9        |
| 51255     |           |           |           | 0.3       | 10        | -9        | -9        |
| 51256     |           |           |           | 0.6       | 260       | -9        | -9        |
| 51260     |           |           |           | 7.6       | 300       | -9        | -9        |
| 51261     |           |           |           | 6.8       | 620       | -9        | -9        |
| 51262     |           |           |           | 0.6       | 340       | -9        | -9        |
| 51263     |           |           |           | 0.8       | 340       | -9        | -9        |
| 51268     |           |           |           | 3.3       | 1050      | -9        | -9        |
| 51269     |           |           |           | 4.3       | 580       | -9        | -9        |
| 51270     |           |           |           | 13.0      | 3400      | -9        | -9        |
| 51271     |           |           |           | 20.0      | 4900      | -9        | -9        |
| 51272     |           |           |           | 1.1       | 150       | -9        | -9        |
| 51273     |           |           |           | 5.1       | 980       | -9        | -9        |
| 51274     |           |           |           | 3.7       | 780       | -9        | -9        |
| 51275     |           |           |           | 1.0       | 180       | -9        | -9        |
| 51276     |           |           |           | 35.0      | 3600      | -9        | -9        |
| 51288     |           |           |           | 50.0      | 7800      | -9        | -9        |
| 51289     |           |           |           | 36.0      | 280       | -9        | -9        |
| 51291     |           |           |           | 4.3       | 580       | -9        | -9        |
| 51292     |           |           |           | 1.8       | 170       | -9        | -9        |
| 51293     |           |           |           | 0.4       | 45        | -9        | -9        |
| 51297     |           |           |           | 1.1       | 160       | -9        | -9        |
| 51301     |           |           |           | 7.7       | 1200      | -9        | -9        |

WHITewater GEOCHEMICAL ANALYSIS, 1987

| Sample ID | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Au<br>ppb | Ni<br>ppm | As<br>ppm |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51302     |           |           |           | 15.0      | 2800      | -9        | -9        |
| 51303     |           |           |           | 6.4       | 780       | -9        | -9        |
| 51304     |           |           |           | 1.2       | 90        | -9        | -9        |
| 51307     |           |           |           | 6.7       | 640       | -9        | -9        |
| 51308     |           |           |           | 4.0       | 460       | -9        | -9        |
| 51309     |           |           |           | 13.0      | 900       | -9        | -9        |
| 51310     |           |           |           | 0.5       | 50        | -9        | -9        |
| 51311     |           |           |           | 0.6       | 30        | -9        | 6         |
| 51316     |           |           |           | 1.2       | 200       | -9        | -9        |
| 51325     |           |           |           | 0.1       | -5        | 16        | -9        |
| 51330     |           |           |           | 0.7       | 15        |           |           |
| 51331     |           |           |           | 0.3       | -5        |           |           |
| 51334     |           |           |           | 3.9       | 5         |           |           |
| 51335     |           |           |           | 0.4       | 15        |           |           |
| 51336     |           |           |           | 0.3       | 120       |           |           |
| 51337     |           |           |           | 0.8       | 15        |           |           |
| 51338     |           |           |           | 0.2       | 10        |           |           |

WHITewater ASSAY ANALYSIS, 1987

| Sample ID | Au<br>oz/t | Ag<br>oz/t | Cu<br>% | Pb<br>% | Zn<br>% | Cd<br>% | Ge<br>% |
|-----------|------------|------------|---------|---------|---------|---------|---------|
| 51004     | 0.374      | 5.66       | 0.60    | 3.90    | 0.59    |         |         |
| 51008     | 0.219      | 1.65       | 0.32    | 0.72    | 0.55    |         |         |
| 51009     | 0.257      | 1.86       | 0.57    | 0.12    | 0.03    |         |         |
| 51010     | 0.011      | 2.34       | 0.15    | 0.12    | 26.30   |         |         |
| 51011     | 0.074      | 0.02       | -0.01   | -0.01   | 0.04    |         |         |
| 51020     | 0.012      | 5.08       | 0.14    | 1.07    | 3.77    |         |         |
| 51034     | 0.022      | 0.99       | 0.13    | 2.88    | 0.22    |         |         |
| 51039     | -0.002     | 0.11       | 2.19    | -9.00   | -9.00   |         |         |
| 51047     | 0.968      | 11.90      | 0.18    | 7.95    | 1.95    |         |         |
| 51048     | 0.189      | 2.20       | 0.26    | 0.69    | 0.11    |         |         |
| 51050     | 0.012      | 0.39       | 0.37    | 0.04    | 0.12    |         |         |
| 51051     | 0.002      | 0.44       | 0.40    | 0.01    | 0.10    |         |         |
| 51052     | 0.002      | 9.67       | 2.70    | 0.02    | 0.04    |         |         |
| 51053     | 0.007      | 17.19      | 2.05    | 15.68   | 21.30   |         |         |
| 51065     | 1.862      | 1.06       | 0.53    | -9.00   | -9.00   |         |         |
| 51066     | 1.552      | 1.15       | 0.64    | -9.00   | -9.00   |         |         |
| 51067     | 1.257      | 0.56       | 0.33    | -9.00   | -9.00   |         |         |
| 51068     | 0.014      | 11.29      | 5.40    | 2.33    | 3.72    |         |         |
| 51071     | 0.007      | 0.33       | 0.41    | 0.03    | 0.09    |         |         |
| 51088     | 1.673      | 0.37       | 0.61    | -9.00   | -9.00   |         |         |
| 51109     | 0.068      | 0.63       |         |         |         |         |         |
| 51110     | 0.242      | 2.48       |         |         |         |         |         |
| 51111     | 0.035      | 0.28       |         |         |         |         |         |
| 51112     | 0.206      | 1.73       |         |         |         |         |         |
| 51115     | 0.081      | 5.60       | 1.56    | 11.58   | 28.50   |         |         |
| 51116     | 0.068      | 6.60       | 4.18    | 0.07    | 1.04    |         |         |
| 51117     | 0.040      | 4.55       | 2.94    | 0.56    | 3.40    |         |         |
| 51118     | 0.177      | 3.63       | 0.20    | 11.16   | 4.70    |         |         |
| 51145     | 3.237      | 0.05       | -9      | -9      | -9      |         |         |
| 51199     | 0.007      | 1.42       | -9      | -9      | -9      |         |         |
| 51200     | 0.068      | 4.88       | -9      | -9      | -9      |         |         |
| 51201     | 0.030      | 2.58       | 2.45    | 6.55    | -9      |         |         |
| 51218     | 0.038      | -0.02      |         |         |         |         |         |
| 51219     | 0.526      | 0.22       |         |         |         |         |         |
| 51220     | 0.356      | 0.22       |         |         |         |         |         |
| 51221     | 0.066      | 0.08       |         |         |         |         |         |

WHITEWATER ASSAY ANALYSIS, 1987

| Sample ID | Au<br>oz/t | Ag<br>oz/t | Cu<br>% | Pb<br>% | Zn<br>% | Cd<br>% | Ge<br>% |
|-----------|------------|------------|---------|---------|---------|---------|---------|
| 51222     | 1.960      | 0.58       |         |         |         |         |         |
| 51223     | 0.022      | 0.05       |         |         |         |         |         |
| 51224     | 0.911      | 0.40       |         |         |         |         |         |
| 51225     | 0.004      | 0.02       |         |         |         |         |         |
| 51226     | 0.034      | -0.02      |         |         |         |         |         |
| 51227     | 0.002      | -0.02      |         |         |         |         |         |
| 51230     | 0.485      | 0.37       |         |         |         |         |         |
| 51257     | 0.021      | 34.02      | 0.03    | 31.19   | 25.72   |         |         |
| 51258     | 0.012      | 0.46       | -0.01   | 0.40    | 0.40    |         |         |
| 51259     | 0.002      | 1.09       | -0.01   | 1.59    | 2.45    |         |         |
| 51264     | 0.520      | 3.55       |         |         |         |         |         |
| 51265     | 1.132      | 7.65       |         |         |         |         |         |
| 51266     | 0.630      | 4.33       |         |         |         |         |         |
| 51267     | 0.350      | 2.40       |         |         |         |         |         |
| 51277     | 0.042      | 0.47       |         |         |         |         |         |
| 51278     | 0.086      | 1.26       |         |         |         |         |         |
| 51279     | 0.049      | 0.49       |         |         |         |         |         |
| 51280     | 0.056      | 0.52       |         |         |         |         |         |
| 51281     | 0.176      | 1.14       |         |         |         |         |         |
| 51282     | 0.052      | 1.04       |         |         |         |         |         |
| 51283     | 0.140      | 2.30       |         |         |         |         |         |
| 51284     | 0.488      | 5.85       |         |         |         |         |         |
| 51285     | 0.304      | 3.19       |         |         |         |         |         |
| 51286     | 0.322      | 2.58       |         |         |         |         |         |
| 51287     | 0.264      | 2.60       |         |         |         |         |         |
| 51290     | 0.062      | 0.46       |         |         |         |         |         |
| 51294     | 0.078      | 0.64       |         |         |         |         |         |
| 51295     | 0.008      | 0.19       |         |         |         |         |         |
| 51296     | 0.006      | 0.03       |         |         |         |         |         |
| 51298     | 0.096      | 0.29       |         |         |         |         |         |
| 51299     | 0.058      | 0.09       |         |         |         |         |         |
| 51300     | 0.569      | 5.74       |         |         |         |         |         |
| 51305     | 0.154      | 1.38       | 0.05    |         |         |         |         |
| 51306     | 0.240      | 2.09       | 0.03    |         |         |         |         |
| 51312     | 0.030      | 1.41       |         |         |         |         |         |
| 51313     | 0.002      | 87.47      |         |         |         |         |         |
| 51314     | 0.002      | 2.79       |         |         |         |         |         |
| 51317     | 1.565      | 0.24       |         |         |         |         |         |
| 51321     | 0.002      | 0.49       |         |         |         |         |         |
| 51322     | 0.160      | 0.62       |         |         |         |         |         |
| 51323     | 0.002      | 0.31       |         |         |         |         |         |
| 51326     | 0.009      | -0.02      |         |         |         |         |         |
| 51327     | -0.002     | -0.02      |         |         |         |         |         |
| 51328     | -0.002     | 0.07       |         |         |         |         |         |
| 51329     | 0.012      | 0.04       |         |         |         |         |         |
| 51339     | -0.002     | -0.02      |         |         |         |         |         |
| 51340     | -0.002     | -0.02      |         |         |         |         |         |
| 51341     | -0.002     | -0.02      |         |         |         |         |         |
| 51342     | -0.002     | -0.02      |         |         |         |         |         |

WHITewater ASSAY ANALYSIS, 1937

| Sample ID | Au<br>oz/t | Ag<br>oz/t | Cu<br>% | Pb<br>% | Zn<br>% | Cd<br>% | Ge<br>% |
|-----------|------------|------------|---------|---------|---------|---------|---------|
| 51344     | 0.010      | 1.24       |         |         |         |         |         |
| 51345     | -0.002     | 0.16       |         |         |         |         |         |
| 51346     | 0.011      | 0.62       |         |         |         |         |         |
| 51347     | -0.002     | 0.08       |         |         |         |         |         |
| 51348     | -0.002     | 0.14       |         |         |         |         |         |
| 51349     | -0.002     | 0.08       |         |         |         |         |         |
| 51350     | 0.208      | 16.13      |         |         |         |         |         |
| 51351     | 0.002      | 0.20       |         |         |         |         |         |
| 51352     | -0.002     | 0.20       |         |         |         |         |         |
| 51353     | 0.002      | 8.43       |         |         |         |         |         |
| 51354     | -0.002     | 0.33       |         |         |         |         |         |

WHITewater PROJECT, CHECK ASSAYS, 1987

| Sample ID | Au<br>oz/t | Au2nd<br>oz/t | Ag<br>oz/t | Ag2nd<br>oz/t |
|-----------|------------|---------------|------------|---------------|
| 51034 2ND | 0.025      |               | 0.99       |               |
| 51037 2ND | 0.006      |               | 0.21       |               |
| 51045 2ND | 1.027      |               | 8.23       |               |
| 51065 2ND | 2.371      |               | 1.19       |               |
| 51091 2ND | 0.449      |               | 0.29       |               |
| 51098 2ND | 1.297      |               | 0.74       |               |
| 51116 2ND | 0.074      |               | 7.11       |               |
| 51178     | 2.444      | 2.506         | 6.80       | 0.18          |
| 51179     | 0.016      |               | >50.0      |               |
| 51218 2ND | 0.046      |               | 0.02       |               |
| 51219 2ND | 0.620      |               | 0.22       |               |
| 51220 2ND | 0.306      |               | 0.23       |               |
| 51224 2ND | 0.377      |               | 0.37       |               |
| 51227 2ND | 0.002      |               | -0.02      |               |
| 51250 2ND | 0.046      |               | 0.28       |               |



ROCK ANALYSIS WHITewater PROJECT (1987)

All rock samples were sent to Bondar-Clegg of Vancouver, B.C. for assay or geochemical analysis. All geochem analyses with Au >10,000 ppb or Ag >50.0 ppm were also assayed.

Assay results are presented in percent (%) except Au and Ag which are in ounces per ton (OPT). Geochem results are in ppm except Au which is in ppb.

| EXAMPLE | SAMPLE NUMBER | LOCATION AND DESCRIPTION         |
|---------|---------------|----------------------------------|
|         | 51344         |                                  |
|         |               | GEOCHEM Au - Ag - Cu - Pb - Zn - |
|         | OR            |                                  |
|         |               | ASSAY Au - Ag - Cu - Pb - Zn -   |

SAMPLE LOCATION AND DESCRIPTION  
NUMBER

- 51001 Qtz vein from L25+00N-11+00E. Disseminations of Py, Gl and possibly Spl. Qtz vein abuts carbonate altered zone. Width approx 2 feet.  
Geochem Au 4100 Ag >50.0 Cu 2150 Pb 10000 Zn 1550  
Assay 0.76
- 51002 Vuggy qtz. carbonate vein from old pit in cliffs to north of L25+00N-10+00W. Calcite, malachite and disseminations of Gl, Py, Cpy and possible Spl.  
Geochem Au 5900 Ag >50.0 Cu 1300 Pb >10000 Zn 46  
Assay 1.49 1.33
- 51003 Qtz vein from old hand pit about 25m W of 51002. Approx 7% Py and no other visible mineralization. No vugginess to qtz in contrast to 51002.  
Geochem Au 9000 Ag >50.0 Cu 54 Pb 730 Zn 20  
Assay 1.88
- 51004 Qtz vein float from talus train off cliffs where 51002 & 51003 were taken. Massive sulphide veins in qtz approx 1-3 inches. Not calcareous, appears to be different vein from 51002.  
Assay Au .374 Ag 5.66 Cu 0.60 Pb 3.90 Zn 0.59
- 51006 From Lyle grid L3+50-9+00S-3+50E. From slide before bluffs. Qtz-Carbonate veined basalt disseminated Pyrrhotite 1%. White and Blackish veins.  
Geochem Au 90 Ag 0.6
- 51007 Area SE of Lyle Lakes toward the Eureka Slide. Strong albite and carbonate altered basalt. Disseminated Py approx 1%. Pale green mica mineral.  
Geochem Au 20 Ag 0.4
- 51008 Float from North side of Whitewater Ck. basin. From drainage approximately opposite BL 13+00N.  
Spl, Gl, Cpy, Py disseminations in white qtz veins. Total sulphide content approx 3-5%.  
Assay Au .219 Ag 1.65 Cu 0.32 Pb 0.72 Zn 0.55
- 51009 Same as 51008 except 5% Py and traces of Gl, Cpy, Zn.  
Assay Au .259 Ag 1.86 Cu 0.57 Pb 0.12 Zn 0.03
- 51010 Massive Spl with a blob of Cpy from Ibex vein.  
Assay Au .011 Ag 2.34 Cu 0.15 Pb 0.12 Zn 26.30
- 51011 Quartz-Carbonate breccia from Highland Surprise. 1% disseminated Py.  
Assay Au .074 Ag 0.02 Cu <0.01 Pb <0.01 Zn 0.04

- 51012 Quartz vein with minor disseminated Py. From 200m West of L25+00N-9-10+00E.  
Geochem Au 20 Ag 0.5
- 51013 Quartz vein-iron carbonate. 1/2% Py with traces of Cpy and Gl. 215m. at 220 deg. from L25N 10+55E  
Geochem Au 7500 Ag >50.0 Cu 440 Pb 3200 Zn 125  
Assay 2.50
- 51014 Quartz vein Lyle Ck. Rock slide at L8+00S-3+00E. Iron stain, carbonate, calcite with trace Py.  
Geochem Au 50 Ag 1.2
- 51015 Float from Highland Surprise trail at approximately 25+00. Sheared Quartz-Sericite with a trace of Py.  
Geochem Au 60 Ag 0.8
- 51017 From saddle below Mt. Brennan. Brecciated vuggy Quartz vein. Weakly altered wall rock. Minor Py.  
Geochem Au 5 Ag 0.1
- 51018 Float from Eureka shoot above Lyle Ck. Silicified dyke with Iron Carbonate and minor Py.  
Geochem Au 10 Ag 0.1
- 51019 From East side of Lyle Lake. Small Quartz vein, calcite with 1% Py and minor Cpy.  
Geochem Au 15 Ag 1.0 Cu 1150
- 51020 Dump material from Sure Thing adit. Quartz vein with Py, Gl, Spl and Cpy. Banded sulphides approx 5-10%.  
Assay Au .012 Ag 5.08 Cu 0.14 Pb 1.07 Zn 3.77
- 51021 Gold Quartz(?) - L25+00N. Quartz vein with carbonate altered volcanic. Py 8% with trace of Cpy.  
Assay Au 0.384 Ag 2.65 Cu 2150 (ppm)
- 51022 From old soil geochem anomaly at approximately 19+20 on the Highland Surprise trail. Silicified medium grained andesite. Rusty with disseminated Py.  
Geochem Au 180
- 51023 From 100m West of L25+00N-12+00E. 50cm wide Quartz vein containing 1% Gl and trace Py. Attitude 059/80NW.  
Geochem Au 130 Ag 8.7 Cu 61 Pb 8500 Zn 8
- 51024 Location same as 51023. Intersection of 2 Quartz veins. Contains approx 2% Py and trace of Gl. Orange clay coating.  
Geochem Au 140 Ag 3.2 Pb 2200
- 51025 Approximately 7+75S-3+00E. White Quartz vein. No sulphides in fracture at 144/90.  
Geochem Au 10

- 51026 From L7+50S-3+00E on Lyle Ck. Rock slide. Sheared feldspar porphyry (?) dyke. 076/60N Azimuth.  
Geochem Au 10
- 51027 From East of HS-25+00, Lyle Ck. Chert horizon, medium green with faint orange banding. 0.75m wide.  
Geochem Au <5
- 51028 From 50m SE of 51027. Chert horizon with clear to milky white quartz veins.  
Geochem Au <5
- 51029 From edge of Lyle Ck. Ravine at 1950m elevation. Grey to red banded chert.  
Geochem Au 10
- 51030 From East of Lyle Lakes. Quartz vein with carbonate alteration in silicified volcanic host. Trace of sulphides.  
Geochem Au <5
- 51031 From same location as 51030. Milky white quartz, no carbonate alteration.  
Geochem Au <5
- 51032 From West side of Lyle Lake at 1980m elevation. Strongly carbonate altered andesite adjacent to chert horizon. 2% disseminated Py, also calcite and quartz veins.  
Geochem Au 95
- 51033 From West side of Lyle Lake. Similar to Gold Quartz area. 40cm wide zone of quartz veining in carbonate altered, silicified volcanic. Py disseminated and in stringers. Total Py approx 2%.  
Geochem Au 150
- 51034 Adjacent to 51033. 15cm wide milky white and grey quartz vein. Py approx 30% with cubes to 1/2 cm, steel blue Gl approx 1-3% with trace Cpy.  
Assay Au .022 Ag 0.99 Cu 0.13 Pb 2.88 Zn 0.22  
Check .025 0.99
- 51035 From North-East side of Mt. Brennan at 2375m. Feldspar porphyry dyke with 15% quartz eyes and quartz veining with Py cubes to 2mm.  
Geochem Au <5
- 51036 Float from North-East side of Lyle Ck. at the 1750m level. Brecciated Feldspar porphyry dyke with dissem Py approx 2%.  
Geochem Au 320

- 51037 Float from the East slope north of Lyle Ck. at the 1860m level. Quartz vein with Py and trace Cpy in carbonate altered andesite. Approximately 3% Py in andesite.  
Geochem Au 80 Cu 3300  
Check .006 Ag 0.21
- 51038 From L25+00N-12+75E at the 2525m level. Quartz veining in a rusty shear zone. Py approx 5%, Gl 1%, Cpy 1%.  
Geochem Au 960 Ag 7.3 Cu 102 Pb 3000 Zn 34
- 51039 From L12N 2+75W. 3cm wide CB altered Qtz vein with 30% Cpy in a rusty orange CB altered andesite.  
Assay Au <0.002 Ag 0.11 Cu 2.19 (2.66)
- 51040 From L12N 2+76W. CB altered andesite with Qtz veining, 4% diss Py as euhedral cubes to 2mm. Fresh surface of andesite is white-orange-green.  
Geochem Au 180
- 51041 From L12N 2+60W. Similar to L12N 2+76W with veins of well developed calcite crystals.  
Geochem Au 20
- 51042 From L12N 0+35W. Float. Medium green silicified andesite, diss clusters of Py 5%. Calcite on fracture surfaces.  
Geochem Au 10
- 51043 L15N 7+35E. From trench. Rusty weathering CB altered Qtz with 1% diss euhedral Py to 1mm, tr Gl. Much of Py is weathered out.  
Geochem Au 6600 Ag 45 Pb 295
- 51044 Float from baseline on south side of Lyle Ck. at 12+25S Rusty Qtz-Carb vein, mal, gl approx 1/2 %. Finer grained Qtz with some vuggy Qtz with crystals to 1/8". Minor Py and v minor Cpy.  
Geochem Au 5900 Ag >50  
Assay Ag 1.66
- 51045 Qtz-carb vein/alteration through flat lying shear at L22+00N-11+25E. Veining cut by Porphyry dike. Py 20+% vynn Cpy. some areas of vuggy Qtz.  
Geochem Au 10,000 Ag >50  
Assay Au 1.111 Ag 9.12 Check Au 1.027 Ag 8.23
- 51046 Float from L22+00N-9+25E. Finer grained light gray Qtz with fine grained Py and Gl. Gl 10% Py 10% with vynn Cpy. Little carb. altn. apparent.  
Geochem Au 6300 Ag >50  
Assay Ag 2.36

- 51047 Float from SE tie line at 23+50N. Gl 12-15%, Py 6-10%.  
Gl crystals well formed 2-4mm. Qtz rusty where  
weathered, lt blue grey on fresh surfaces.  
Assay Au 0.968 Ag 11.9 Cu 0.18 Pb 7.95 Zn 1.95
- 51048 Float from 8+25E L25+00N. Light blue-grey Qtz with  
white laminations (more carb in lam) chalky in  
appearance. Also a rusty vuggy lamination or veinlet  
parallel to white laminations with mal on margins.  
Mineralization predominately in blue-grey Qtz. Py 4%  
Cpy 1/2% Minor fine grained tarnished blue gl and  
possible Sp.  
Assay Au 0.189 Ag 2.20 Cu 0.26 Pb 0.69 Zn 0.11
- 51049 Qtz vein in carb alteration in shear at L22+00N-11+25E  
on Whitewater Grid Cpy 1-2% some in cross cutting veinlets.  
Py 2%. Sample from 5m south of 51045.  
Geochem Au 5100 Ag >50 Cu  
Assay Ag 1.44
- 51050 Qtz vein above Lyle Creek, 2100m elevation. Tetra, aspy,  
cpy, malachite, azurite.  
Assay Au 0.12 Ag 0.38 Cu 0.37 Pb 0.04 Zn 0.12
- 51051 Same as above  
Assay Au 0.002 Ag 0.44 Cu 0.4 Pb 0.01 Zn 0.1
- 51052 Qtz-siderite vein, upper Lyle Lake SE corner  
Py, spl, gl, cpy, with altered wallrock fragments.  
Similar to Ibex Vein.  
Assay Au 0.002 Ag 9.67 Cu 2.7 Pb 0.02 Zn 0.04
- 51053 Same as above, except more spl gl rich.  
Assay Au 0.007 Ag 17.19 Cu 2.05 Pb 15.68 Zn 21.3
- 51054 Qtz-carb altered basalts above SE corner Lyle Lake at  
2050m elevation. Zebra spotted carb alteration, 1-2% py.  
Geochem Au 130 Ag 1.4
- 51055 Brown-red altered lt grey-green felsite dyke? Coarse  
py cubes 1-2%, small gy alteration fractures. Above Lyle  
Lakes at 2100m elevation.  
Geochem Au 95 Ag 0.7
- 51056 Float of lt gy rusty felsic dyke or altered volc. at  
L16+00N/9+00E Whitewater Grid. 5% py cubes to 1cm.  
Geochem Au 2700 Ag 17.0
- 51057 Lower carb alteration zone on Ibex trail. Orangish  
weathering cream carb alteration with 1% diss euh py.  
Ibex A  
Geochem Au 45 Ag <0.01

- 51058 Upper carb alteration zone on Ibex trail. Qtz veining in chl sheared mfc volc or diorite with 1-2% diss py. Ibex B. Geochem Au 1000 Ag 6.6
- 51059 Carb altered mfc rock with cream to mauve colored carb, mnr py. NE of Ibex by small lake. Ibex 21-7 6x Geochem Au 25 Ag <0.01
- 51060 Qtz-carb vein with 3-5% py in vein and by wallrock margins. NE of Ibex as above. Geochem Au 1950 Ag 15
- 51061 Fldspr porhy felsic dyke; wht weath, qtz veinlets, mnr alteration, <1% py. Lyle Grid L5+75/2+50E. Geochem Au 15 Ag <0.01
- 51062 Hornfels And; f gr, green, blk calcereous shaly veinlets Lyle Grid L5+055 1+50E Geochem Au 20 Ag 0.1
- 51063 Hornfels And; fine gr, massive. Lyle Grid L5+005/ 2+75E. Geochem Au 5 Ag <0.01
- 51064 Diorite; olive-rusty weath, orangish fldsp rich, 1% diss py. Lyle Grid L4+50S/2-3E. Geochem Au 45 Ag <0.01
- 51065 Qtz vein; gy, laminated, 5% py and cpy. Highland Surprise-upper showing. Lyle Grid BL 4+00S.  
Assay Au 1.862 Ag 1.06 Cu 0.58  
Check 2.371 1.19
- 51066 Qtz vein; wht, granular, 5% diss to veinlets py and cpy. Highland Surprise-upper showing. Lyle Grid BL 3+75S.  
Assay Au 1.552 Ag 1.15 Cu 0.64
- 51067 Qtz vein; with carb, malachite, 3-5% py and cpy. Marginal veinlet to Highland Surprise-upper showing. Lyle Grid BL 3+80S  
Assay Au 1.259 Ag 0.56 Cu 0.38
- 51068 Qtz vein; with mult siderite bands, wallrock frags (And?) 5% cpy, 1% py, <1% gl, pos tetra and spl, later open space qtz microveins. Lyle Grid L3+00S/12+75E. East side of upper Lyle Lake.  
Assay Au 0.014 Ag 11.29 Cu 5.4 Pb 2.33 Zn 3.72
- 51069 Altered And.; perv carb and Fe, qtz-calc microveins, adjacent Felsic Dyke. Lyle Grid L3+50S/13+00E. Location as above except 15m south.  
Geochem Au 30 Ag 0.2
- 51070 Altered And.-Diorite; with mnr rusty qtz veins, str carb and Fe alt. Ridge SE of upper Lyle Lake at 2140m.  
Geochem Au 5 Ag 0.1

- 51071 Qtz vein; in And., 1% tetra, mnr cpy, aspy, plus malachite, azurite, scorodite, 5-15cm thick, St. 024/18-25E  
Same local as #51050  
Assay Au 0.007 Ag 0.38 Cu 0.41 Pb 0.03 Zn 0.09
- 51072 Felsic Dyke; with mnr qtz veins, <5% py diss to along fracs, wk sil. At 2152m below cliffs on eastern side of Whitewater Creek  
Geochem Au <5 Ag <0.1
- 51074 Shear zone; 3m wide in And., with mnr qtz stockworks, orange altered wallrock frags and bands, tr py. East side of Ibex Creek at 2263m approx 065Az from main Ibex trench  
Geochem Au 160 Ag 0.3
- 51075 Shear zone; in And., str carb and Fe altered, qtz-calc stockworks, 2% py, trcpy and spl. East of Ibex SW corner small lake at 2290m  
Geochem Au 40 Ag 0.2 Cu 14 Zn 64
- 51076 Qtz vein; subcrop, rusty, mnr clay and calc, <50cm wide. Upper extension (NE) of Highland Surprise at 1903m.  
Geochem Au 220 Ag <0.1
- 51077 Shear zone; at 014Az/V, mnr qtz microveins and Fe staining. intersecting Highland Surprise trend at 1990m.  
Geochem Au <5 Ag <0.1
- 51078 Shear zone; in And., wk chl, calc, mnr diss py, Lyle Grid L6+00S 1+47E  
Geochem Au <5 Ag <0.1
- 51079 Qtz vein; euh qtz xls with altered wallrock frags, mnr calc, rusty. NE end of Ibex trenching  
Geochem Au <5 Ag <0.1
- 51080 And.; Hangingwall to Fel Dyke (#51081), str Fe, calc, mnr qtz microveins dcrs away from dyke. Chip sample 1.0m. Lyle Grid 25m at 251Az. from L8+50S 1+00E.  
Geochem Au 55 Ag <0.1
- 51081 Felsic Dyke; Lt br-gy, wk porph(fldsp), sil, 1-10% py diss and along fracs, mnr orange Fe and clay alteration. Chip sample 1.5m. Same locale as 51080.  
Geochem Au 15 Ag <0.1
- 51082 And.; Footwall to dyke above. Mn r chl, calc dcrs from dyke. Chip sample 1.0m. Same locale 51080  
Geochem Au <5 Ag <0.1
- 51083 And.; Footwall to dyke in 51084. Str chl, py, calc dcrs from dyke. Py gen str oxidized. Chip sample 1.0m. Lyle Grid 50m at 006Az. from L8+50S 0+25E.  
Geochem Au <5 Ag <0.1



- 51084 Felsic Dyke; lt br-gy, wk porph(fidsp) esp margins, sil  
 <5%py gen oxidized, <2% qtz veins. Chip sample 2.0m.  
 Same locale as 51083.  
 Geochem Au 20 Ag <0.1
- 51085 And.; Hangingwall to dyke in 51084, str chl, mod Fe  
 staining, mod calc, <1%py, dcrs from dyke. Chip sample  
 1.0m. Same locale as 51083.  
 Geochem Au 120 Ag 0.2
- 51086 Shear zone; in And., str chl, <1%qtz veins-rr folded,  
 ST 162Az/84E. Chip sample 1.6m. Same locale as 51083  
 except 2m to grid east.  
 Geochem Au 260 Ag <0.1
- 51087 And.; pale tan to yel colored chl altered, qtz-tourmaline  
 -py veins, py xls <1cm in wallrock and frags. Highland  
 Surprise upper adit dump on Lyle Grid BL/3+87S 25W  
 Geochem Au 1250 Ag <0.1
- 51088 Qtz vein; 3%cpy, 5%py, smoky blue-grey qtz with very fine  
 grained diss sulphides, main vein 45-50cm wide; only able  
 to sample eastern 10cm. Upper level of Highland Surprise.  
 Assay Au 1.673 Ag 0.87 Cu 0.61
- 51089 Qtz vein; sugary wht to rusty br, mnr carb vein adjacent  
 wallrock, 2%cpy, 3%ph, mnr malachite. 15cm wide, crosscutting  
 vein of 51088. Chip sample 15cm.  
 Geochem Au >10,000 Ag 8.6 Cu 1500  
 Assay 0.60
- 51090 Qtz vein; gy to wht, rusty carb stained, <1% diss py, rare  
 cpy bleb, malachite. Branch vein pll to main vein of  
 51088.  
 Geochem Au 9600 Ag 4.5
- 51091 Qtz vein; sugary wht fine grained veinlets with rusty  
 br wallrock frags marginal to veins, shear fol, 1%cpy+py.  
 Sample located 10cm from main vein 51088  
 Geochem Au >10,000 Ag 12  
 Assay 0.413 Check Au 0.449 Ag 0.29
- 51092 And.; Gy to creamish blk chl wispy shears, mnr diss py,  
 carb alteration. Wallrock on west side of vein in 51088  
 Chip sample 0.40m.  
 Geochem Au 2,200 Ag 0.6
- 51093 And.; rusty ankeritic wallrock with wht sugary qtz, vein-  
 lets, chl shears, 1-2%cpy+py. NE wall of Highland Surprise  
 Southwall A. Chip sample 0.5m.  
 Geochem Au >10,000 Ag 16  
 Assay 1.076

- 51094 Qtz vein;wht fine gr qtz,1-2%/cpy+py,rusty ankeritic  
And. wallrock.Highland Surprise-Southwall B.  
Chip sample 0.50m  
Geochem Au >10,000 Ag 3.2  
Assay 0.291
- 51095 Mfc volc?;str sheared and chl,qtz veins with blich  
envelopes,1-2%py. Highland Surprise 25m below upper adit  
Geochem Au 1100 Ag <0.1
- 51096 Qtz vein;sugary wht,rusty boudined,sheared margins with  
brittle frags.Chip sample 0.30m.Same locale as 51095.  
Geochem Au >10,000 Ag 8.6  
Assay 0.970
- 51097 Mfc volc? Vein margin of above sample containing qtz  
vein,rusty ankeritic wallrock frags.Chip sample 0.30m  
Geochem Au >10,000 Ag 11.0  
Assay 0.465
- 51098 Vein breccia; Ankeritic and albitic rock with qtz,2-3%py,  
2-3%cpy.Highland Surprise lower dump.  
Geochem Au >10,000 Ag 26.0  
Assay 1.230 Check Au 1.297 Ag 0.74
- 51099 Mfc volc;str albitized and sil,5%qtz-sulph veins with  
0.5% cpy+py.Same locale as above.  
Geochem Au >10,000 Ag 16.0  
Assay 0.534
- 51100 Mfc volc;sane as above except with 3-5%cpy+py.  
Geochem Au >10,000 Ag 9.4  
Assay 0.349
- 51101 Felsic dyke;nrr py,nrr qtz veins,sil,str Fe and carb  
alteration in andestic wallrock up to 10m loc.Whitewater  
Grid L13+00N/2+90E on trail.  
Geochem Au 30 Ag 0.4
- 51102 Felsic dyke;1%py,1%qtz veins,Fe clay alteration on  
fracs,loc sil.Whitewater Grid 15m at 274Az from L13+00N/  
4+50E.  
Geochem Au 20 Ag 0.7
- 51103 Qtz vein;wht to gy,1%py,Fe staining,in str altered (Fe  
and carb) mfc volc? with qtz stockworks.Whitewater Grid  
L13+00N/4+90E in old trench.  
Geochem Au 80 Ag 1.4
- 51104 Qtz vein;sane as above except with up to 5%py xls <3mm  
diss to along frags,nrr cpy.Same location as above  
except 15m along 250Az.  
Geochem Au 1450 Ag 20

- 51105 Diorite; sheared, str Fe and carb alteration, mnr py and  
qtz veinlets, hanging wall (Grid east) to #51106.  
Chip sample 1.0m on Whitewater Grid 17m at 333Az from  
L13+00N/6+72E  
Geochem Au 10 Ag 0.4
- 51106 Qtz veins; 70% wht to gy qtz veins <40cm within str  
altered diorite as above, 1% py.  
Chip sample 1.0m. Same location as #51105  
Geochem Au 3900 Ag 35
- 51107 Felsic dyke; str porphy texture (fldsp), sil, 5% py diss  
to along fracs.  
Chip sample 0.70m. Same location as #51105  
Geochem Au 220 Ag 1.9
- 51108 Qtz vein; wht to gy, 2% py, tr cpy, in str Fe and carb  
altered diorite adjacent felsic dyke. Whitewater Grid  
50m at 166Az from L15+00N/7+40E.  
Geochem Au 220 Ag 1.8
- 51109 Rusty quartz vein carb. altn.; cpy, py 2/3, tr. Pb  
Pit uphill 15m NW from L 13 N 6+72E  
Assay Au 0.068 Ag 0.63
- 51110 Rusty quartz vein carb. shear tr. cpy, py  
Pit uphill 20m NW from 51109  
Assay Au 0.242 Ag 2.48
- 51111 Rusty to white quartz vein and fps. porphyry dyke tr. py  
Pit uphill NW at L14N/7+25E  
Assay Au 0.035 Ag 0.23
- 51112 Rusty quartz vein carb. altn. calcite tr. py  
Pit uphill NW at L15N/7+40E  
Assay Au 0.206 Ag 1.73
- 51113 Brn weathering sideritized argillite with qtz vein  
tr. py float from Slocan, Kaslo contact. L9S/7W  
Geochem Au 15 Ag 0.7
- 51114 Lt. brn. rusty sideritized argillite wh. qtz. tr. py  
L9S/7W Lyle 51113  
Geochem Au 5 Ag 0.3
- 51115 Rusty quartz vein sph. 10% gn. cpy. py 1-2%  
L13S/1+25E Lyle WBG 29/1  
Assay Au 0.081 Ag 5.6 Cu 1.56% Pb 11.58% Zn 28.5%
- 51116 Creamy carb. vein rusty qtz vein cpy 10%  
L13S/1+25E Lyle WBG 29/2  
Assay Au 0.680 Ag 6.6 Cu 4.18% Pb 0.07% Zn 1.04%  
Check 0.074 7.1

- 51117 Rusty brn. qtz carb. vein creamy Fe/dol. cpy,sph,gn,py  
L13S/1E Lyle WEG 29/3  
Assay Au 0.040 Ag 4.55 Cu 2.94% Pb 0.56% Zn 3.40%
- 51118 Rusty brn. pinkish laminated qtz. vein vuggy ,sulphides  
gl 10%, sph 2%, py10%  
L13S/1E WEG29/4  
Assay Au 0.177 Ag 3.63 Cu 0.20% Pb 11.16% Zn 4.70%
- 51125 Rusty brn. sheared vol. Mn stained qtz py 1%  
Leontowicz zone 1% py cubes  
Geochem Au <5 Ag 0.5
- 51134 Grey green fine grained volcanic,rusty,pyrrhotite to  
20% from falls east of L10+00S.  
Geochem Au 10 Ag 0.7
- 51135 Grey green volcanic with 1 mm quartz veins.  
Disseminated Py. From L10+25S/3+50E E of falls.  
Geochem Au 10 Ag 0.2
- 51136 Rusty quartz carb chl alt. basalt(?),sheared, minor  
qtz vein. Disseminated Py cubes to 1 mm. Large fault.  
from L10+75/3+50E  
Geochem Au <5 Ag 0.1
- 51137 Brown to tan rusty felsite dyke(aphanitic).  
Disseminated Py. from L11+25S/3+25E  
Geochem Au <5 Ag 0.3
- 51138 Rusty weathering creamy Fe-dol vein with wallrock  
fragments and disseminated Py <1%.From L10+75S/3+60E  
Geochem Au 160 Ag 6.0
- 51139 Rusty to tan brown creamy Fe-dol vein with quartz  
veinlets with dissem Cpy.From L11+25S/3+00E  
Geochem Au 150 Ag 22.0
- 51140 Rusty quartz carb altered volcanic.Disseminated Py.  
from L10+00S/3+50E  
Geochem Au 90 Ag 1.6
- 51141 White quartz vein, w breccia local euhedral  
crystals in andesite. Rusty along fractures. L6+00S/  
2+35W.  
Geochem Au <5 Ag 0.3
- 51142 45 cm chip sample across white quartz vein.Rusty along  
fractures.Vein through andesite ST 44'/66'NW.  
from L16S/2+35W  
Geochem Au <5 Ag 0.1

- 51144 Rusty white grey quartz vein, breccia texture, minor Py and possible arsenopy vein in volc?. From 110 m up ridge from BL 0+00.  
Geochem Au 7900 Ag 0.6
- 51145 Massive Arsenopy vn; up to 5cm wide rimmed by quartz vein same locale as 51144  
Assay Au 3.287 Ag 0.5
- 51146 Porphyritic felsic dyke, minor quartz veins with minor Py, 5% pyr crystals <2mm disseminated along fractures from 2120 elevation up ridge to north of BL 0+00.  
Geochem Au 60 Ag 0.9
- 51147 Andesite, strongly fractured, Fe staining, carb alteration, vugs < 1 mm, microveins, minor Py. From southern ridge on Lyle 535 meters SW of BL 0+00  
Geochem Au 35 Ag 0.2
- 51148 Sugary white recrystallized quartz vein. Rusty along fractures. Vein thru andesite. From L5S/2+80W  
Geochem Au <5 Ag 0.1
- 51155 Rusty quartz carb vein. Creamy grey Fe-dol from L5S/14+50E  
Geochem Au 5 Ag 0.1
- 51156 Rusty white quartz vein, Pyrrhotite < 1%. Altered brown andesite wallrock, from L1+25S/15E.  
Geochem Au <5 Ag 0.1
- 51160 Porphyry felsic dyke and vein. Altered vein or dyke, wht bleached, dissem Py <1% green Chl (bi?) galena <1%. From L8+50S/1+00E.  
Geochem Au 5 Ag 0.6
- 51161 Porphyry dyke. White, bleached, Py < 1%. Dyke or vein rusty margins. From L8+50S/1+00E.  
Geochem Au 60 Ag 0.3
- 51162 Creamy carb zone, tr cpy, from L14+00S/1+00E.  
Geochem Au 35 Ag 4.1
- 51163 Rusty quartz carb, tr cpy, from L14+25s/1+00E.  
Geochem Au 280 Ag 1.1
- 51164 40cm chip of fault gauge adjacent to vein, from the lower caved adit on the Eureka.  
Geochem Au 70 Ag 3.4
- 51165 Quartz vein breccia. Drusy quartz coating, altered wallrock fragments. Same location as above.  
Geochem Au <5 Ag 0.5

- 51166 90cm chip sample across felsic dyke, moderately silicified, 1-2% Py, strongly fractured. From Lyle grid TL 10+00E/2+75S.  
Geochem Au <5 Ag 0.2
- 51167 Felsic dyke, moderately silicified, Py <1%. From L3+41S/12+95E.  
Geochem Au <5 Ag 0.1
- 51168 Strongly altered andesite with Fe carb, brown pervasive, minor quartz veinlets sheared texture; 25m at 332' Azimuth from L4+00S/12+77E.  
Geochem Au <5 Ag 0.1
- 51169 Strongly altered and sheared volc, light green-grey, str blich, very strongly calcareous, minor sericite. From L4+00S/13+00E.  
Geochem Au <5 Ag <0.1
- 51170 1.5m chip sample. Felsic dyke, non-porphyritic, light brown, moderately silicified, minor calcite, quartz veins, 1-2 % Py, strongly fractured. From 50 m at 132' from L4+00S-13+00E.  
Geochem Au 40 Ag 0.2
- 51171 1.0m chip sample. Strongly fractured andesite with Fe and calcite alteration. Chl, minor Py and Fe staining NE wallrock to 51170.  
Geochem Au <5 Ag <0.1
- 51172 Andesite. Same as 51171 except SW wallrock. 1.0m chip sample.  
Geochem Au <5 Ag <0.1
- 51173 Non-porphyritic felsic dyke; light brown, weak clay alteration, disse Py <2%, moderate Fe staining, from L4+00S/12+00E.  
Geochem Au <5 Ag <0.1
- 51174 1.0m chip sample. Shear zone with strongly bleached and Fe altered andesite (?) wallrock with quartz stockworks. From same locale as 51173 except 2m east.  
Geochem Au 25 Ag 0.2
- 51175 Felsic dyke. Light brown-grey porphyritic, silicified including feldspars, 7% oxidized py, weakly calcareous 26 meters at 123' from L3+00S/8+50E.  
Geochem Au <5 Ag 0.2
- 51176 Qtz vn; rusty, calc, in str altered volc from Ugly Jim at end of adit.  
Geochem Au 25 Ag 0.9

- 51177 Qtz-siderite vn;with calc-clay altered wallrock frags.  
From lower caved in adit at Eureka.  
Geochem Au <5 Ag <0.1
- 51178 Felsic dyke;non-porph,wk sil,mnr qtz and py, in Eureka cirque at 2170m above ultramafic.  
Geochem Au >10,000 Ag 6.8 Check Au 2.506 Ag 0.18  
Assay 2.608 Check Au 2.444 Ag 6.80
- 51179 Qtz-siderite vn;1%gl,lt br altered wallrock frags.  
Float from upper Eureka Adit  
Geochem Au 880 Ag 50.0  
Assay 7.31 Check Au 0.016
- 51180 Qtz vn;rusty,calc-clay altered wallrock frags,tr py.  
Float from upper Eureka Adit.  
Geochem Au 620 Ag 2.8
- 51181 And volc?;str carb-Fe altered zone,qtz stockworks in very contorted wallrock. Ibox, L3+00N/9+34E then 130Az for 25m.  
Geochem Au 10 Ag 1.6
- 51182 Qtz vn;fractured,rusty,mnr py,in felsic dyke. Ibox, L3+00N/8+44E.  
Geochem Au 10 Ag 0.1
- 51184 Qtzvn;rusty,fractured,in carb alteration zone,2%py.  
Ibox,L6+00N/9+00E.  
Geochem Au 160 Ag 0.6
- 51185 Felsic dyke;fldsp porphy(,1cm),wh weathering,mnr py, limonite.Lyle Grid L5+25S/2+70E over Alvine Geochem anomaly.  
Geochem Au <5 Ag 0.1
- 51186 Felsic dyke;fldsp porphy,rusty,1cm qtz vns,tr py, limonitic fractures.Lyle Grid L6+00S/0+050E.  
Geochem Au 15 Ag 0.4
- 51187 Qtz-carb alteration zone;rusty brown,tr py,resembles crackel breccia.Ibox L1+75N/7+00E.  
Geochem Au 140 Ag 0.5
- 51188 Qtz-carb vn;2% py crystals <2mm,wispy chl wallrock frags,sheared,same location as #51187.  
Geochem Au 200 Ag 0.7
- 51189 Qtz-carb alteration zone;brown to creamy coloured, 1% diss pyr.Ibox,L5+00N/6+50E.  
Geochem Au 360 Ag 2.0
- 51190 Andesite volc;dark brown-black weathering,20% finely diss po. Ibox,L6+00N/6+75E.  
Geochem Au 20 Ag 0.2

- 51191 Massive py; amr bleb of cpy. Same location as #51190.  
Geochem Au >10,000 Ag >50  
Assay 5.519 41.66
- 51192 Qtz-carb alteration zone; rusty, 3% py, chl wallrock.  
Ibex, L7+00N/7+25E.  
Geochem Au 4200 Ag 32.0
- 51193 Qtz vn; rusty, blue-grey coloured, limonitic. Ibex L7+50N  
7+00E.  
Geochem Au 1550 Ag 16.0
- 51194 Qtz vn; rusty, 1% cpy, malachite, tr py and po, chl wisps, in  
altered andesite. East side of top of draw above Ibex.  
Geochem Au 1050 Ag 7.3
- 51195 Qtz vn; rusty, blue-grey coloured, 1% finely diss po, tr  
cpy. Same location as #51194.  
Geochem Au >10,000 Ag >50  
Assay 0.647 5.90
- 51196 Qtz vn; 20cm, granular margins, 1% diss cpy and py,  
malachite. Same location as #51195 except 25m downhill.  
Geochem Au 860 Ag 13.0
- 51198 Qtz-carb alteration zone, rusty, 1% cpy as diss to blebs,  
1% py, altered wallrock frags often rimmed by sulphides,  
Ibex, 200m north of L7+00N in gully above TL10+00E.  
Geochem Au 220 Ag 12.0
- 51199 Qtz vn; rusty, limonitic, 5% massive to blebs cpy, from  
"flat vein". Same location as #51198 but 50m west.  
Assay Au 0.007 Ag 1.42
- 51200 Qtz vn; rusty, granulated, 5% gl, 2% cpy, from "vertical vein"  
Same location as #51198.  
Assay Au 0.068 Ag 4.88
- 51201 Qtz vn; rusty, 5-6% gl, 2% cpy, 10% py, from "vertical vein"  
Same location as #51198.  
Assay Au 0.03 Ag 2.58 Cu 2.45% Pb 6.55%
- 51210 Felsic dyke; non-porphy, grey-brown altered wallrock  
frags, 3% py cubes <3mm, Fe staining on frags. Top of  
Whitewater Creek.  
Geochem Au <5 Ag 1.2
- 51218 Zn chip from the north stope - raise vein zone,  
stockwork, minor Py, Cpy, very schistose, black  
chl or biotite, 2% Py in wallrock, strongly  
calcareous, Fe stain, longest vein qtz 1 cm in width.  
Underground in Highland Surprise Mine.  
Assay Au 0.038 Ag <0.2  
Check 0.045 0.02



- 51219 1m chip from south loading bay wall. Main qtz vein, Py, Cpy 1/2 %, chl, calc, py, in qtz vein. Wallrock-layers creamy, cpy in qtz only. Underground in Highland Surprise Mine.  
 Assay Au 0.526 Ag 0.22  
 Check 0.620 0.22
- 51220 1m chip from south bay. Qtz vein 2% cpy in vein, minor py. Altered wallrock with minor creamy alteration and frags in vn, rusty py. Underground in Highland Surprise Mine.  
 Assay Au 0.356 Ag 0.22  
 Check 0.306 0.28
- 51221 GFM sample up the raise ladder in the south bay, qtz vein. Wallrock strongly altered, some creamy aith cpy, stockworks not main vein. Underground in Highland Surprise Mine.  
 Assay Au 0.066 Ag 0.08
- 51222 High grade (?) from main vein in south bay. Qtz vein cpy-py approx 20%. Minor altered wallrock, malachite. Underground in Highland Surprise Mine.  
 Assay Au 1.96 Ag 0.58
- 51223 Random grab samples from north crosscut. Qtz vein with qtz stockwork and breccia. Andesite wallrock with 7% py. Cpy & py in qtz veins. Later qtz and qtz cal veins. Underground in Highland Surprise Mine.  
 Assay Au 0.022 Ag 0.05
- 51224 Qtz vein in main drift halfway back to portal entrance. 3-5% cpy in blebs. Coarse grained diorite, epidote alteration, fps, calc wallrock adjacent to vein, silic, dark chl on fractures. Underground in Highland Surprise Mine.  
 Assay Au 0.911 Ag 0.40  
 Check 0.877 0.37
- 51225 From crosscut at end of main drift. Grey porph silic felds dyke. Py 1%, trace cpy, calcareous, chl and calc on fractures. Underground in Highland Surprise Mine.  
 Assay Au 0.004 Ag 0.02
- 51226 Dyke-volc; vein zone halfway along drift. Grey dyke white silic fldspr calc matrix, 1% py, veining qtz rich, dark green black sheared wallrock, calcareous, minor py, qtz-cal veining and weakly banded creamy alteration. Underground in Highland Surprise Mine.  
 Assay 0.034 Ag 0.02

- 51227 Southeast wall by south raise. Grey qtz vein with cal py, trace cpy, possible qtz filling texture. strongly sheared chl carb altered wall rock, thin py laminae along foliation and fractures, trace cpy. Underground in Highland Surprise Mine.  
 Assay Au 0.002 Ag <0.02  
 Check 0.002 <0.02
- 51228 South wall of north raise. Wallrock from #51218, strongly sheared chl-carb altered wall rock. Qtz-cal with creamy alteration seams of py marginal to vein, 4% py. Underground in Highland Surprise Mine.  
 Geochem Au >10,000 Ag 5.3  
 Assay 0.376
- 51229 Wallrock to sample 51219. Strongly sheared, dark green to black chl-carb altered wallrock with a multitude of qtz-carb stockworks, creamy alteration, minor folding, 3% dissem py trace cpy. Underground in Highland Surprise Mine.  
 Geochem Au 2400 Ag 1.2
- 51230 Qtz vein material from near sample 51220. White qtz vein 2% cpy, 4% py in strongly sheared qtz carb altered wallrock. Creamy alteration marginal to vein. Underground in Highland Surprise Mine.  
 Assay Au 0.485 Ag 0.37
- 51231 Lower Eureka area DM 66. Shear zone with qtz stockworks. Qtz vein brecciated with brown altered wallrock frags. Fe alteration minor Mn.  
 Geochem Au 50 Ag 0.7
- 51232 Lower Eureka DM 67. Qtz carb alteration zone with sheared chl-cal altered wallrock. 1% py.  
 Geochem Au 65 Ag 0.3
- 51233 Peter's trenches PD-PT claims. Calcite veins within chl, Fe-carb altered andesite, minor ser, Fe stain, lim, vuggy, 1% dissem py adjacent to vein.  
 Geochem Au <5 Ag 1.4
- 51234 Same loc'n as 51233, trenches at end of road. Strongly altered andesite, Fe alteration, limonitic, clay, minor qtz and qtz carb veins.  
 Geochem Au <5 Ag 1.4
- 51235 Same loc'n as 51233. 83m point. Sheared str altered andesite, minor qtz-carb vein, weak cal, sil, trace py.  
 Geochem Au <5 Ag 0.4

- 51236 Same loc'n as above. Strongly altered sheared andesite. Limonite on fractures and foliation, minor finely diss py.  
Geochem Au <5 Ag 0.6
- 51237 Trench on lower road PT-PD claims. Strongly sheared andesite with cal, chl alteration, limonitic fractures and foliation. Gypsum.  
Geochem Au <5 Ag 0.3
- 51239 Trench at L8+50S - 0+75E. Altered dark grey, non-porph dyke, limonitic fracture, py, calcareous, altered to light grey to white, weakly calcareous, sil dyke. 7% disseminated py, chl in matrix, hairline fractures with gl, and black mineral(=?). Rare py vein, trace cpy.  
Geochem Au 5 Ag 0.3
- 51240 Same loc'n as above. Mid-dyke sample. Same non-porph with bleaching on fractures, clay alteration, disseminated py on fractures.  
Geochem Au <5 Ag 0.3
- 51241 Same loc'n as above. Similarly altered and fractured dyke. 7% py, chl, trace cpy on fractures.  
Geochem Au <5 Ag 0.3
- 51242 Solo cat trench, elev 1860. Vuggy quartz vein crosscutting altered andesite. Open space quartz filling, radiating from wall rock frags.  
Geochem Au <5 Ag 0.1
- 51243 Solo cat trench. Qtz-carbonate altered andesite. Light brown quartz breccia, calc wallrock frags, sheared andesite, trace py, gl, sph.  
Geochem Au 150 Ag 1.4
- 51244 Qtz vein; gy, 0.5% disseminated py, weakly calc, lt br altered wall-rock frags. Occurs in Fe-carbonate altered andesite adjacent felsic dyke. 2190m on east ridge over Lyle Lakes.  
Geochem Au <5 Ag <0.1
- 51245 Qtz vein; gy, minor py, limonitic, in Fe-carbonate altered andesite. Same location as #51244 except at 2275m.  
Geochem Au 5 Ag 0.1
- 51246 Qtz stockworks; tr py, weakly calc, str limonite, in clay and Fe altered andesites. Top of ridge at 2270m to east overlooking Lyle Lakes.  
Geochem Au 30 Ag 0.1
- 51247 Altered andesite? lt gy, 2% py, quartz microveins. Float sample from small cirque NW of Eureka Cirque along NW wall at 2225m.  
Geochem Au <5 Ag 0.1

- 51248 Altered andesite? It br, wky sil, 5% py, qtz microvns, mnrcalc along fracs. Same location as #51246 except 25m downhill to Lyle Lakes.  
Geochem Au 60 Ag 0.5
- 51249 Qtz vn; tr py, in Fe-carb altered andesites with up to 2% py. Possible NW extension of "flat" tetrahedrite vn 100m to south above Lyle Creek (#51050).  
Geochem Au <5 Ag <0.1
- 51250 Chl shear zone; in qtz-carb zone, 20-30 cm wide, rusty qtz vn with diss py and cpy. Lyle Lakes L5+50N/14+50E  
Geochem Au 1200 Ag 16.0  
Check 0.046 0.28
- 51251 Qtz-carb altered zone; mnrc qtz vns, diss py, tan albitization, pos shaly chips, in sheared andesite. Lyle Lakes at 2240m  
Geochem Au 540 Ag 3.1
- 51252 Qtz-carb altered zone; 1-2% py, ps shaly chips, in sheared andesite. Lyle Lake to Eureka cirque area.  
Geochem Au 160 Ag 1.3
- 51253 Qtz-carb altered zone; sheared andesite, qtz veining, 1% diss py in wallrock and qtz vns, pos creamy alteration at vein margins. Same location as #51252.  
Geochem Au 40 Ag 0.4
- 51254 Qtz-carb altered zone; It br-gy, rusty, mnrc qtz vn with py. Lyle Lake ridge.  
Geochem Au 45 Ag 0.2
- 51255 Qtz-carb altered zone; qtz vns up to 3cm, blk altered wallrock, 1% py, creamy alteration marginal with 5-7% py. Small draw from Lyle Lake ridge on east side at 2305m.  
Geochem Au 10 Ag 0.3
- 51256 Sil-carb breccia; rusty, pale br sil wallrock frags, 3% py diss and around frags. Lyle Lake ridge east of lakes around corner in cirque at 2230m.  
Geochem Au 260 Ag 0.6
- 51257 Ore vein; galena and goethite. Float of upper Eureka mineralization in cirque NW of Eureka.  
Assay Au 0.021 Ag 34.02 Cu 0.03% Pb 31.19% Zn 25.72%
- 51258 Ore vein; laminated sulphides of galena, sph, py. Float of Eureka mineralization as above #51257.  
Assay Au 0.012 Ag 0.46 Cu <0.01% Pb 0.40% Zn 0.40%
- 51259 Ore vein; qtz, siderite, galena. Float of upper Eureka as above.  
Assay Au 0.002 Ag 1.09 Cu <0.01% Pb 1.59% Zn 2.45%

- 51260 Qtz vn; 20 cm, rusty, 1% cpy blebs, 1% py cubes <3mm, in  
qtz-carb altered zone. Upper Lyle Lake ridge west of  
cpy sample #51250.  
Geochem Au 300 Ag 7.6
- 51261 Sheared Andesite; blk-gn, qtz-carb vns with large py  
cubes, creamy alteration adjacent vn, Mn staining.  
Same location as above #51260.  
Geochem Au 620 Ag 6.8
- 51262 Sil-carb breccia; tan to rusty br, sil wallrock frags in  
carb mtx, diss py and rimming frags. Pos adit at Upper  
Lyle Lakes along ridge to east at 2250m.  
Geochem Au 340 Ag 0.6
- 51263 Sil-carb breccia; same as above mineralization and  
location.  
Geochem Au 340 Ag 0.8
- 51264 Qtz vn; high grade, 2-5% diss to blebby cpy. Gold Quartz  
(GQ) adit 133' Azimuth for 62m from L21+00N/6+25E, at  
45 foot mark.  
Assay Au 0.520 Ag 3.55
- 51265 High grade quartz vein from the Gold Quartz adit at the  
45 foot mark, 3 ft. west. 3% cpy.  
Assay Au 1.132 Ag 7.65
- 51266 40cm chip from the Gold Quartz adit. Main qtz vein  
Same local as above.  
Assay Au 0.630 Ag 4.33
- 51267 Gold Quartz adit. 40cm chip vertical. High grade main  
vein.  
Assay Au 0.350 Ag 2.40
- 51268 Gold Quartz adit. East side wall rock #1. Qtz-carb  
vein at back. White qtz vein with 1% py. Dark green  
fine grained and. with py along vein margins.  
Geochem Au 1050 Ag 3.3
- 51269 Qtz vein in carb zone at back west side #2. White blue  
fine grained fractured qtz vein with lim on fracs, no  
visible sulphide.  
Geochem Au 830 Ag 4.3
- 51270 Wall rock east side 3/4 to back. Dark green andesite  
with 1cm qtz carb veins. Trace Py.  
Geochem Au 3400 Ag 13.0
- 51271 West side 3/4 to back qtz carb zone 40cm quick chip.  
Rusty brown carb altered andesite, creamy dolomite and  
milky white qtz vein, no sulphides  
Geochem Au 4900 Ag 20

- 51272 Trench L21N / 7E. 2m quick chip along trench. Brown carb altered green volc, wallrock and large 1 + m white quartz vein, vuggy, limonitic, trace py.  
Geochem Au 150 Ag 1.1
- 51273 Pit 4 uphill to NW along shear and qtz carb zone. Dark green and. wall rock, brown, rusty, black carb alteration zone with py 1%, grey dolomite white calcite.  
Geochem Au 980 Ag 5.1
- 51274 Gold Quartz ridge N of L25N el. 2490. Pit on 2m qtz vein. 1m-quick chip. Rusty vuggy qtz vein dsm py 1% trace gn. Rusty brown carb altered andesite wallrock. Qtz stockwork, py marginal to qtz vein and dsm in wall rock 2%.  
Geochem Au 780 Ag 3.7
- 51275 20m downhill, el. 2480m, Early chl qtz breccia, dark green chl matrix, sil wallrock frags cut by later qtz vein, 1 - 2% dsm py in chl.  
Geochem Au 180 Ag 1.0
- 51276 Same loc'n as above. Rusty brown white qtz vein, 1% dsm gn, 30cm quick chip.  
Geochem Au 3600 Ag 35
- 51277 GM - 5 100m towards L25N el. 2460m, 15-20cm qtz vein within 4m qtz carb altered and. Rusty brown white qtz vein, blebby cpy, gn 1-2%.  
Assay Au 0.042 Ag 0.47
- 51278 50m west of L25N. 5-6m wide qtz carb zone el. 2420. Rusty brown white vuggy qtz vein, sulphide knots py, gn 1cm cubic py. 3-5 % py. 2-3% gn.  
Assay Au 0.086 Ag 1.26
- 51279 Same loc'n as above. 1m rusty white qtz vein dsm gn py, both 1-2%, trace cpy.  
Assay Au 0.049 Ag 0.49
- 51280 Ridge 25 m west of L25N. Same loc'n as WBG87-002. 2m chip. Rusty white qtz vein 5-7% sulphide, 5% gn, 2% cpy trace mal. Two types of py. Large to 1cm cubic py in wallrock marginal to vein and very fine py mixed with other sulphides.  
Assay Au 0.056 Ag 0.52
- 51281 WBG/21/2 el. 2350m, 40cm chip. Rusty white brown qtz vein, more massive, vuggy and blebby sulphides, 1-2% gn 1% cpy, 3-5% py. Two types py, very fine with other sulphides and cubes to 1 cm.  
Assay Au 0.176 Ag 1.14

- 51282 10m grid west of 51274. WEG21/3. Rusty brown white  
qtz vein, vuggy boxwork after py, blebby gn 5-7%.  
Assay Au 0.052 Ag 1.04
- 51283 WEG/21/4 el. 2390m, Rusty white qtz vein and brown carb  
altered wall rock and boxwork texture after py to 1 cm  
cubes. Blebby and seams of gn 10%.  
Assay Au 0.140 Ag 2.30
- 51284 WEG/21/5 el. 2400m, Pit sample massive sulphide exten.  
of 51283. 7-8% py cubes to 4mm, 10 % blebby gn.  
Assay Au 0.483 Ag 5.85
- 51285 Same loc'n as 51284. Cryptoxl. qtz with dsm py and  
blebs gn and cpy. Abundant sulphides marginal to  
vein. White blue qtz, some vuggy texture cut by  
rusty white xl. qtz with sulphides, vug fill calcite  
Py 3%, gn 5%, cpy 1/2 %.  
Assay Au 0.304 Ag 3.19
- 51286 WEG/21/6 6m qtz carb zone 25m west of L25N/13E.  
Massive py knots in highly carb altered wallrock.  
Knots composed large cubes to 1 cm py, finely dsm py  
in altered wallrock 15-20%.  
Assay Au 0.322 Ag 2.58
- 51287 WEG/21/7 Same loc'n as above. Rusty brown white qtz  
vein with py cubes to 1 cm and blebby gn, py knots  
3-10% py, 7% gn.  
Assay Au 0.264 Ag 2.60
- 51288 WEG/27/1. Upper shoulder of Mt Ereman approx L18N/13E  
Rusty brown white qtz vein, cubes py to 1 cm. 25% py,  
trace gn.  
Geochem Au 7800 Ag >50  
Assay 1.37
- 51289 Same local as above. Flat Ibex type vein siderite qtz  
vein, qtz xls. to 2 cm, trace cpy, gn, py  
Geochem Au 280 Ag 36
- 51290 Same loc'n as above. Flat, rusty brown white qtz vein  
with carb altered wallrock, stringer qtz with py in  
margin, dsm and blebby cpy, trace mal, main vein py  
dsm cubes to 2 mm, 1% cpy, 2% py.  
Assay Au 0.062 Ag 0.46
- 51291 Same loc'n as above. Qtz carb veining with cal. and  
dol., dsm py, cpy 1% .  
Geochem Au 580 Ag 4.3
- 51292 Same loc'n as above. Brown grey altered chert cut by  
qtz alb. alteration. Qtz vein with dsm py, trace mal.  
and 1/2% cpy.  
Geochem Au 170 Ag 1.8

- 51293 Same loc'n as above. Non porph. dyke. Rusty brown black weathering, white matrix with dsu lim. qtz veinlets 1mm to 1cm. Sulphide fracture fillings. 7% dsu py cubes to 2mm.  
Geochem Au 45 Ag 0.4
- 51294 Same loc'n as above. White qtz vein dsu py, gn. Trace cpy, vuggy, qtz xls. to 3 cm, py cubes to 5mm, late infill carb., 1-2% total sulphide.  
Assay Au 0.078 Ag 0.64
- 51295 Same loc'n as above. Rusty brown qtz carb zone, finely diss py in wall rock 20%, qtz veins to 4 cm containing cubes py to 2 mm, 4-5%, blebby diss cpy 1%.  
Assay Au 0.008 Ag 0.19
- 51296 Same loc'n as above. Light brown altered wallrock from qtz zone. Stockwork qtz veinlets to 2-3 cm, diss blebby cpy 1%. Late carb vug fill.  
Assay Au 0.006 Ag 0.03
- 51297 Same loc'n as above. Brown qtz carb altered volc., Qtz veinlets to 2 cm, finely diss py marginal to vein, 20% fine py in wallrock.  
Geochem Au 160 Ag 1.1
- 51298 Pit 25m grid north of L22N/2+75E. Rusty brown limonitic qtz carb alteration zone. Stockwork qtz veining, fine py dsu in wallrocks and marginal to qtz veins. Qtz veins contain blebby cpy and cubic py to 2 cm. cpy & py both 1-2%.  
Assay Au 0.096 Ag 0.89
- 51299 Same loc'n as above. Rusty brown and creamy altered wallrock with qtz stockworks and qtz carb veinlets. Diss and fracture fill py, cpy and finely diss py in wallrock 15%, cubic py to 2 mm in qtz veins, py 15%, cpy 1-2%.  
Assay Au 0.058 Ag 0.09
- 51300 Same loc'n as above. Rusty brown qtz veined carb altered wallrock. Massive py with intergrowth cpy, trace mal. & gn., 10% cpy, 20% py.  
Assay Au 0.569 Ag 5.74
- 51301 DM 87 RG 68 1 m chip sample from Gold Quartz portal at 2070 m at 133' for 62 m from L21N-6-25E. Qtz stockworks in iron carb altered and., minor py, 80% qtz veins rare mag.  
Geochem Au 1200 Ag 7.7
- 51302 DM 87 RG 69 1m chip same loc'n as above. Qtz stockworks as above except less than 50% veins.  
Geochem Au 2800 Ag 1.5



- 51303 DM 87 RG 70 15m grid north of 51305. Qtz vein 40 cm 1% py, xls less than 4mm in Fe carb alteration zone.  
Geochem Au 780 Ag 6.4
- 51304 DM 87 RG 71 35 m at 46' from L23N-11+00E. 1.2 m chip sample. Felsic dyke, porph, minor Qtz veins, 1-2% py  
Geochem Au 90 Ag 1.2 Cu
- 51305 DM 87 RG 72 same loc'n as above. 0.4m chip sample. Qtz vein strongly fractured rusty, 5% py, 1/2 % cpy.  
Assay Au 0.154 Ag 1.38 Cu 0.05%
- 51306 DM 87 RG 73 same loc'n as above. 1m chip sample. Fe altered volc., 15% Qtz veins, 5% py minor cpy.  
Assay Au 0.240 Ag 2.09 Cu 0.03%
- 51307 DM 87 RG 74 25m at 100' from L23N-10+45E. 1.2m chip sample. Fe carb altered and. dark brown 5% Qtz veins minor py.  
Geochem Au 640 Ag 6.7
- 51308 DM 87 RG 75 same loc'n as above. Qtz stockworks Fe carb altered and., 30% Qtz veins, 1% py.  
Geochem Au 460 Ag 4.0
- 51309 DM 87 RG 76, 10 m at 150' from L25N-10+75E. Qtz vein grey sugary texture, 1% py, 20 cm wide in and..  
Geochem Au 900 Ag 13.0
- 51310 DM 87 RG 83 Gold Quartz upper cirque, 2515m el. Fe carb alteration in and., Qtz veins, 4% py.  
Geochem Au 50 Ag 0.5
- 51311 DM 87 RG 84, 20m at 290' from arseno showing on baseline 0+00. Diorite, strongly altered with light green (sauss?) and dark green chl, minor py and cal, poss dsm arseno.  
Geochem Au 30 Ag 0.6 As 6
- 51312 Pluto adit, Qtz carb, siderite vein, blabby cpy, lim. sheared.  
Assay Au 0.030 Ag 1.41
- 51313 Pluto adit, lower shaft. Ibex type vein. Qtz carb siderite vein, massive gn pods.  
Assay Au 0.002 Ag 87.47
- 51314 Pluto adit, lower shaft. Altered and folded wallrock with 1 mm seams of gn. dsm py along Qtzose laminations.  
Assay Au 0.002 Ag 2.79

- 51316 Flat vein, Mt Brennan L8N-11+50E. Rusty white qtz vein in qtz carb altered zone. Trend 60 dip 25 NW. Some dsm py, cpy in vein breccia.  
Geochem Au 200 Ag 1.2
- 51317 Ridge between Whitewater and Lyle, L0+00-0+75 N. Rusty qtz vein cutting sheared volc., 2cm bands fine grained arsenopy, minor py, 10% arsenopy.  
Assay Au 1.565 Ag 0.24
- 51321 Lyle grid, L5+50S-13+50E. Tetra and aspy vein. White qtz vein 20 cm, blebs tetra. and arseno..  
Assay Au 0.002 Ag 0.49
- 51322 Mt. Brennan el. 2740 SE shoulder of peak. Rusty brown qtz vein, blebby gn, vuggy boxwork after py.  
Assay Au 0.160 Ag 0.62
- 51323 Lyle grid L 8+00S 8+50E. Rusty qtz carb altered and. Veinlets py, cpy, cubic py to 1 cm in qtz vein, fine dsm py marginal to vein and dsm in wallrock frags. 10% py, 3% cpy, creamy dol..  
Assay Au 0.002 Ag 0.31
- 51325 Pluto showing, felsic dyke. 30% chl'zd hornblend, needles to 1/2 cm. Hbd altered to fine felted black green chl, dsm cpy, trace py, feldspar lathes to 1cm somewhat porph. Finer grained margins.  
Geochem Au <5 Ag 0.1 Ni 16
- 51326 Andesite; str altered, pervasive limonite, 20% qtz micro-vns, 1% py, mnr calc, wk vuggy texture. Chip sample 75cm. "Old Eureka Showing" in small cirque above Lyle Creek at 2140m. Original sample #51178 with Au >10,000 ppb.  
Assay Au 0.009 Ag <0.2
- 51327 Felsic dyke; lt brown to gray, fldsp porphy, 1-2% qtz xls sil, 1% diss py, Fe staining, str fractured. Same location as #51326. Chip sample 1.7m.  
Assay Au <0.002 Ag <0.02
- 51328 Felsic dyke; same description and location as #51327. Chip sample 1.7m.  
Assay Au <0.002 Ag 0.07
- 51329 Andesite; str altered, lt grey to brown pervasive alteration with Fe-carb loc, 5% qtz microvns, 1-2% py with gray zones, str fol. Chip sample 0.90m. Same location as #51326.  
Assay Au 0.012 Ag 0.04

- 51330 Felsic dyke; very lt gray, wkly porphy, sil, 4%py, 2%  
qtz microvns, Fe staining. 100m to NW of #51326 and  
40m above collapsed adit below Solo Adit (old Eureka).  
Geochem Au 15 Ag 0.7
- 51331 Andesite; str altered, blch lt gray to lt green, mnr  
qtz microvns, 2% diss py. Same location as #51330.  
Geochem Au <5 Ag 0.3
- 51334 Fe-carb zone; mnr qtz microvns with lt brown Fe  
alteration, dk brown elsewhere, str calc. NW ridge  
above Ibex at 2380m in andesites. Chip sample 0.60m.  
Geochem Au 5 Ag 3.9
- 51335 Fe-carb zone; mult calc vns with mnr qtz, mod Fe and  
carb alteration of wallrock, in andesites. NW ridge  
above Ibex L6+00N/6+65E. Chip sample 1.5m.  
Geochem Au 15 Ag 0.4
- 51336 Fe-carb zone; lt brown, str limonite, 10% qtz microvns.  
Ibex adit 25m at 010' Azimuth from L4+00N/9+25E.  
Chip sample 45cm.  
Geochem Au 120 Ag 0.3
- 51337 Qtz vn; rusty, mnr py, tr gl, mnr vugs. Same location  
as #51336. Chip sample 40cm.  
Geochem Au 15 Ag 0.8
- 51338 Felsic dyke; very lt gray, aphanitic to wkly porphy,  
sil, 3% py, 5% qtz microvns, wkly sheared. Same  
location as #51336.  
Geochem Au 10 Ag 0.2
- 51339 Felsic dyke; porphy, rusty, qtz vns, 1% py. 50m NE  
extension of felsic dyke in #51327. Chip sample 1.0m.  
Assay Au <0.002 Ag <0.03
- 51340 Felsic dyke; same location and description as #51339.  
Assay Au <0.002 Ag <0.02
- 51341 Felsic dyke; porphy, rusty, 1% py, qtz vns. Same  
locatio as #51339 except 5-8m west in gully.  
Assay Au <0.002 Ag <0.02
- 51342 Felsic dyke; same description and location as #51339  
except below junction.  
Assay Au <0.002 Ag <0.2
- 51344 Qtz vn; rusty, py and gl and cpy, adjacent felsic dyke.  
Ibex adit at 010' Azimuth for 25m from L4+00N/9+25E.  
Assay Au 0.010 Ag 1.24

- 51345 Qtz vn; creamy brown carb with wht qtz, gl, py, sph, rusty pyritic chloritic carb altered wallrock. Eureka Cirque Lake.  
Assay Au <0.002 Ag 0.16
- 51346 Qtz-carb zone; with folded rusty qtz vn containing py gl and cpy. Similiar to Gold Quartz veins. Eureka Cirque Lake.  
Assay Au 0.011 Ag 0.62
- 51347 Qtz vn; rusty wht, with gl and py. Similiar to Gold Quartz veins. Eureka Cirque Lake.  
Assay Au <0.002 Ag 0.08
- 51348 Qtz-dol-caic vn; sheared, gl, cpy, py. Rusty qtz-carb altered andesite wallrock. Eureka Cirque Lake.  
Assay Au <0.002 Ag 0.14
- 51349 Qtz-carb zone; 4% diss py, qtz-creamy dol alteration, dk chl shear planes, dk chl andesite wallrock. Eureka Cirque Lake.  
Assay Au 0.002 Ag 0.08
- 51350 Siderite vns; with gl, sph, cpy, and py, occurring in shales of Milford Group. Rossiter Creek Adit.  
Assay Au 0.208 Ag 16.13
- 51351 Qtz-carb vn; in felsic dyke, 3% diss py, qtz creamy dol, dk chl andesite wallrock. Rossiter Creek traverse.  
Assay Au 0.002 Ag 0.2
- 51352 Andesite, black chlorite, 3% diss py. Same location as #51351.  
Assay Au <0.002 Ag 0.2
- 51353 Qtz vn; rusty, py, gl, sph, in porphy felsic dyke. BL 0+00/5+00N, in draw over Whitewater Fault.  
Assay Au 0.002 Ag 8.43
- 51354 Qtz vn; same location and description as #51353, except also with cpy.  
Assay Au <0.002 Ag 0.33

WHITewater, AU/AG RATIO BY VEIN TYPE

| Sample ID | Au<br>OZ/T | Ag<br>OZ/T | AU/AG  | TYPE |
|-----------|------------|------------|--------|------|
| 51001     | 0.141      | 0.76       | 0.186  | 2    |
| 51002     | 0.202      | 1.49       | 0.136  | 2    |
| 51003     | 0.308      | 1.88       | 0.164  | 2    |
| 51004     | 0.374      | 5.66       | 0.066  | 2    |
| 51008     | 0.219      | 1.65       | 0.133  | 2    |
| 51009     | 0.259      | 1.86       | 0.139  | 2    |
| 51010     | 0.011      | 2.34       | 0.005  | 3    |
| 51011     | 0.074      | 0.02       | 3.700  | 1    |
| 51013     | 0.257      | 2.50       | 0.103  | 2    |
| 51020     | 0.012      | 5.08       | 0.002  | 3    |
| 51021     | 0.384      | 2.65       | 0.145  | 2    |
| 51034     | 0.022      | 0.99       | 0.022  | 2    |
| 51044     | 0.202      | 1.66       | 0.122  | 9    |
| 51045     | 1.111      | 9.12       | 0.122  | 2    |
| 51046     | 0.216      | 2.36       | 0.092  | 2    |
| 51047     | 0.968      | 11.90      | 0.081  | 2    |
| 51048     | 0.189      | 2.20       | 0.086  | 2    |
| 51049     | 0.175      | 1.44       | 0.122  | 2    |
| 51050     | 0.012      | 0.38       | 0.032  | 4    |
| 51051     | 0.002      | 0.44       | 0.005  | 4    |
| 51052     | 0.002      | 9.67       | 0.000  | 3    |
| 51053     | 0.007      | 17.19      | 0.000  | 3    |
| 51065     | 1.862      | 1.06       | 1.757  | 1    |
| 51066     | 1.552      | 1.15       | 1.350  | 1    |
| 51067     | 1.259      | 0.56       | 2.248  | 1    |
| 51068     | 0.014      | 11.29      | 0.001  | 3    |
| 51071     | 0.007      | 0.38       | 0.018  | 4    |
| 51088     | 1.673      | 0.87       | 1.923  | 1    |
| 51089     | 0.600      | 0.29       | 2.069  | 1    |
| 51091     | 0.413      | 0.41       | 1.007  | 1    |
| 51093     | 1.076      | 0.55       | 1.956  | 1    |
| 51094     | 0.291      | 0.11       | 2.645  | 1    |
| 51096     | 0.970      | 0.29       | 3.345  | 1    |
| 51097     | 0.465      | 0.38       | 1.224  | 1    |
| 51098     | 1.230      | 0.89       | 1.382  | 1    |
| 51099     | 0.534      | 0.55       | 0.971  | 1    |
| 51100     | 0.349      | 0.32       | 1.091  | 1    |
| 51109     | 0.068      | 0.63       | 0.108  | 2    |
| 51110     | 0.242      | 2.48       | 0.098  | 2    |
| 51111     | 0.035      | 0.28       | 0.125  | 2    |
| 51112     | 0.206      | 1.73       | 0.119  | 2    |
| 51115     | 0.081      | 5.60       | 0.014  | 9    |
| 51116     | 0.068      | 6.60       | 0.010  | 9    |
| 51117     | 0.040      | 4.55       | 0.009  | 9    |
| 51118     | 0.177      | 3.63       | 0.049  | 9    |
| 51119     | 0.213      | 0.29       | 0.734  | 1    |
| 51120     | 0.832      | 0.24       | 3.467  | 1    |
| 51121     | 0.023      | 0.05       | 0.460  | 1    |
| 51122     | 0.037      | 0.05       | 0.740  | 1    |
| 51123     | 0.055      | 0.05       | 1.100  | 1    |
| 51124     | 0.002      | 0.04       | 0.050  | 1    |
| 51145     | 3.287      | 0.05       | 65.740 | 5    |
| 51149     | 0.046      | 34.52      | 0.001  | 9    |
| 51150     | 0.087      | 21.60      | 0.004  | 9    |

13-Nov-87

WHITewater, AU/AG RATIO BY VEIN TYPE

| Sample ID | Au<br>OZ/T | Ag<br>OZ/T | AU/AG  | TYPE |
|-----------|------------|------------|--------|------|
| 51152     | 0.086      | 6.97       | 0.012  | 9    |
| 51154     | 0.283      | 4.83       | 0.059  | 9    |
| 51157     | 0.050      | 12.52      | 0.004  | 9    |
| 51158     | 0.009      | 0.96       | 0.009  | 9    |
| 51159     | 0.046      | 7.90       | 0.006  | 9    |
| 51178     | 2.444      | 0.23       | 10.489 | 6    |
| 51179     | 0.016      | 7.31       | 0.002  | 3    |
| 51191     | 5.519      | 41.66      | 0.132  | 2    |
| 51195     | 0.647      | 5.90       | 0.110  | 2    |
| 51199     | 0.007      | 1.42       | 0.005  | 4    |
| 51200     | 0.068      | 4.88       | 0.014  | 2    |
| 51201     | 0.030      | 2.58       | 0.012  | 2    |
| 51213     | 0.124      | 14.90      | 0.008  | 2    |
| 51214     | 0.186      | 0.83       | 0.224  | 1    |
| 51215     | 0.013      | 16.24      | 0.001  | 3    |
| 51216     | 0.005      | 14.26      | 0.000  | 3    |
| 51217     | 0.002      | 1.55       | 0.001  | 2    |
| 51218     | 0.038      | 0.01       | 3.800  | 1    |
| 51219     | 0.526      | 0.22       | 2.391  | 1    |
| 51220     | 0.356      | 0.22       | 1.618  | 1    |
| 51221     | 0.066      | 0.08       | 0.825  | 1    |
| 51222     | 1.960      | 0.58       | 3.379  | 1    |
| 51223     | 0.022      | 0.05       | 0.440  | 1    |
| 51224     | 0.911      | 0.40       | 2.278  | 1    |
| 51225     | 0.004      | 0.02       | 0.200  | 6    |
| 51226     | 0.034      | 0.01       | 3.400  | 1    |
| 51230     | 0.485      | 0.37       | 1.311  | 1    |
| 51257     | 0.021      | 34.02      | 0.001  | 3    |
| 51258     | 0.012      | 0.46       | 0.026  | 3    |
| 51259     | 0.002      | 1.09       | 0.002  | 3    |
| 51264     | 0.520      | 3.55       | 0.146  | 2    |
| 51265     | 1.132      | 7.65       | 0.148  | 2    |
| 51266     | 0.630      | 4.33       | 0.145  | 2    |
| 51267     | 0.350      | 2.40       | 0.146  | 2    |
| 51277     | 0.042      | 0.47       | 0.089  | 2    |
| 51278     | 0.086      | 1.26       | 0.068  | 2    |
| 51279     | 0.049      | 0.49       | 0.100  | 2    |
| 51280     | 0.056      | 0.52       | 0.108  | 2    |
| 51281     | 0.176      | 1.14       | 0.154  | 2    |
| 51282     | 0.052      | 1.04       | 0.050  | 2    |
| 51283     | 0.140      | 2.30       | 0.061  | 2    |
| 51284     | 0.488      | 5.85       | 0.083  | 2    |
| 51285     | 0.304      | 3.19       | 0.095  | 2    |
| 51286     | 0.322      | 2.58       | 0.125  | 2    |
| 51287     | 0.264      | 2.60       | 0.102  | 2    |
| 51290     | 0.062      | 0.46       | 0.135  | 3    |
| 51294     | 0.078      | 0.64       | 0.122  | 3    |
| 51295     | 0.008      | 0.19       | 0.042  | 3    |
| 51296     | 0.006      | 0.03       | 0.200  | 3    |
| 51298     | 0.096      | 0.89       | 0.108  | 2    |
| 51299     | 0.058      | 0.09       | 0.644  | 2    |
| 51300     | 0.569      | 5.74       | 0.099  | 2    |
| 51305     | 0.154      | 1.38       | 0.112  | 2    |
| 51306     | 0.240      | 2.09       | 0.115  | 2    |

13-Nov-87

WHITewater, AU/AG RATIO BY VEIN TYPE

| Sample ID | Au<br>OZ/T | Ag<br>OZ/T | AU/AG | TYPE |
|-----------|------------|------------|-------|------|
| 51312     | 0.030      | 1.41       | 0.021 | 3    |
| 51313     | 0.002      | 87.47      | 0.000 | 3    |
| 51314     | 0.002      | 2.79       | 0.001 | 3    |
| 51315     | 0.028      | 6.00       | 0.005 | 3    |
| 51317     | 1.565      | 0.24       | 6.521 | 5    |
| 51318     | 0.002      | 0.34       | 0.006 | 4    |
| 51319     | 0.010      | 1.17       | 0.009 | 4    |
| 51320     | 0.002      | 0.04       | 0.050 | 4    |
| 51321     | 0.002      | 0.49       | 0.004 | 4    |
| 51322     | 0.160      | 0.62       | 0.258 | 2    |
| 51323     | 0.002      | 0.31       | 0.006 | 2    |
| 51326     | 0.009      | 0.01       | 0.900 | 6    |
| 51328     | 0.002      | 0.07       | 0.029 | 6    |
| 51329     | 0.012      | 0.04       | 0.300 | 1    |
| 51343     | 0.014      | 0.01       | 1.400 | 1    |
| 51344     | 0.010      | 1.24       | 0.008 | 2    |
| 51345     | 0.002      | 0.16       | 0.013 | 2    |
| 51346     | 0.011      | 0.62       | 0.018 | 2    |
| 51347     | 0.002      | 0.08       | 0.025 | 2    |
| 51348     | 0.002      | 0.14       | 0.014 | 2    |
| 51349     | 0.002      | 0.08       | 0.025 | 2    |
| 51350     | 0.208      | 16.13      | 0.013 | 2    |
| 51351     | 0.002      | 0.20       | 0.010 | 2    |
| 51352     | 0.002      | 0.20       | 0.010 | 1    |
| 51353     | 0.002      | 8.43       | 0.000 | 8    |
| 51354     | 0.002      | 0.33       | 0.006 | 2    |

13-Nov-87

APPENDIX II

APPENDIX II

GEOPHYSICS

- A) Whitewater - VLF Data  
- Mag Data
- B) Lyle - VLF Data  
- Mag Data  
- IP Data
- C) Report by Gerry Thornton





| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| -550.0  | 300.0    | 7960.8 | -112.5  | 400.0    | 7493.4 | -637.5  | 600.0    | 7961.3 |
| -537.5  | 300.0    | 7834.4 | -100.0  | 400.0    | 7299.5 | -625.0  | 600.0    | 8072.5 |
| -525.0  | 300.0    | 7795.5 | -87.5   | 400.0    | 7010.0 | -612.5  | 600.0    | 8156.2 |
| -512.5  | 300.0    | 8153.7 | -75.0   | 400.0    | 7076.7 | -600.0  | 600.0    | 8281.3 |
| -500.0  | 300.0    | 8139.6 | -62.5   | 400.0    | 7267.9 | -587.5  | 600.0    | 8361.8 |
| -487.5  | 300.0    | 7969.1 | -50.0   | 400.0    | 6937.6 | -575.0  | 600.0    | 8495.0 |
| -475.0  | 300.0    | 8165.9 | -37.5   | 400.0    | 6955.8 | -562.5  | 600.0    | 8800.3 |
| -462.5  | 300.0    | 8157.9 | -25.0   | 400.0    | 7008.1 | -550.0  | 600.0    | 9307.0 |
| -450.0  | 300.0    | 8563.6 | -12.5   | 400.0    | 7096.4 | -537.5  | 600.0    | 9480.7 |
| -437.5  | 300.0    | 8848.5 | 0.0     | 400.0    | 7140.1 | -525.0  | 600.0    | 8974.4 |
| -425.0  | 300.0    | 8784.6 | -500.0  | 500.0    | 7989.7 | -512.5  | 600.0    | 8149.1 |
| -412.5  | 300.0    | 8723.7 | -487.5  | 500.0    | 7815.4 | -500.0  | 600.0    | 7978.5 |
| -400.0  | 300.0    | 8874.6 | -475.0  | 500.0    | 7737.6 | -487.5  | 600.0    | 7936.4 |
| -387.5  | 300.0    | 8867.2 | -462.5  | 500.0    | 7710.5 | -475.0  | 600.0    | 7837.5 |
| -375.0  | 300.0    | 8837.0 | -450.0  | 500.0    | 7616.1 | -462.5  | 600.0    | 7456.5 |
| -362.5  | 300.0    | 8655.3 | -437.5  | 500.0    | 7682.8 | -450.0  | 600.0    | 6902.0 |
| -350.0  | 300.0    | 8805.7 | -425.0  | 500.0    | 7641.5 | -437.5  | 600.0    | 7164.8 |
| -337.5  | 300.0    | 8642.2 | -412.5  | 500.0    | 7759.3 | -425.0  | 600.0    | 7565.8 |
| -325.0  | 300.0    | 8793.2 | -400.0  | 500.0    | 7924.7 | -412.5  | 600.0    | 7401.5 |
| -312.5  | 300.0    | 8601.9 | -387.5  | 500.0    | 8313.6 | -400.0  | 600.0    | 7414.9 |
| -300.0  | 300.0    | 9154.0 | -375.0  | 500.0    | 8778.1 | -387.5  | 600.0    | 8085.6 |
| -287.5  | 300.0    | 8588.5 | -362.5  | 500.0    | 9085.6 | -375.0  | 600.0    | 9146.3 |
| -275.0  | 300.0    | 8417.7 | -350.0  | 500.0    | 9074.3 | -362.5  | 600.0    | 9164.1 |
| -262.5  | 300.0    | 8471.7 | -337.5  | 500.0    | 8978.6 | -350.0  | 600.0    | 9173.7 |
| -250.0  | 300.0    | 8236.2 | -325.0  | 500.0    | 8716.8 | -337.5  | 600.0    | 9000.1 |
| -237.5  | 300.0    | 8151.6 | -312.5  | 500.0    | 7990.5 | -325.0  | 600.0    | 8840.5 |
| -225.0  | 300.0    | 7894.2 | -300.0  | 500.0    | 8018.9 | -312.5  | 600.0    | 8761.5 |
| -212.5  | 300.0    | 7505.8 | -287.5  | 500.0    | 8016.0 | -300.0  | 600.0    | 9661.7 |
| -200.0  | 300.0    | 7058.1 | -275.0  | 500.0    | 8267.7 | -287.5  | 600.0    | 8613.2 |
| -187.5  | 300.0    | 8247.3 | -262.5  | 500.0    | 8373.0 | -275.0  | 600.0    | 8547.7 |
| -175.0  | 300.0    | 6954.3 | -250.0  | 500.0    | 8182.3 | -262.5  | 600.0    | 8372.9 |
| -162.5  | 300.0    | 6686.7 | -237.5  | 500.0    | 7850.0 | -250.0  | 600.0    | 7800.8 |
| -150.0  | 300.0    | 7369.5 | -225.0  | 500.0    | 7568.5 | -237.5  | 600.0    | 8114.3 |
| -137.5  | 300.0    | 7273.3 | -212.5  | 500.0    | 7365.5 | -225.0  | 600.0    | 7600.4 |
| -125.0  | 300.0    | 6209.1 | -200.0  | 500.0    | 7337.7 | -212.5  | 600.0    | 7112.5 |
| -112.5  | 300.0    | 6665.6 | -187.5  | 500.0    | 7356.3 | -200.0  | 600.0    | 7041.7 |
| -100.0  | 300.0    | 6431.9 | -175.0  | 500.0    | 7303.8 | -187.5  | 600.0    | 7101.2 |
| -87.5   | 300.0    | 6898.9 | -162.5  | 500.0    | 7196.5 | -175.0  | 600.0    | 7202.4 |
| -75.0   | 300.0    | 6639.7 | -150.0  | 500.0    | 7081.6 | -162.5  | 600.0    | 7224.0 |
| -62.5   | 300.0    | 6722.4 | -137.5  | 500.0    | 7037.5 | -150.0  | 600.0    | 7164.2 |
| -50.0   | 300.0    | 6844.6 | -125.0  | 500.0    | 7031.8 | -137.5  | 600.0    | 7147.9 |
| -37.5   | 300.0    | 6868.5 | -112.5  | 500.0    | 7079.6 | -125.0  | 600.0    | 7157.7 |
| -25.0   | 300.0    | 6924.9 | -100.0  | 500.0    | 7095.3 | -112.5  | 600.0    | 7184.3 |
| -12.5   | 300.0    | 7047.3 | -87.5   | 500.0    | 7199.6 | -100.0  | 600.0    | 7204.2 |
| 0.0     | 300.0    | 7114.7 | -75.0   | 500.0    | 7154.3 | -87.5   | 600.0    | 7218.9 |
| -500.0  | 400.0    | 6749.7 | -62.5   | 500.0    | 7183.4 | -75.0   | 600.0    | 7237.8 |
| -487.5  | 400.0    | 6772.7 | -50.0   | 500.0    | 7216.3 | -62.5   | 600.0    | 7265.9 |
| -475.0  | 400.0    | 6891.7 | -1000.0 | 600.0    | 7754.8 | -50.0   | 600.0    | 7284.7 |
| -462.5  | 400.0    | 7111.5 | -987.5  | 600.0    | 7749.6 | -37.5   | 600.0    | 7302.7 |
| -450.0  | 400.0    | 7090.2 | -975.0  | 600.0    | 7751.0 | -25.0   | 600.0    | 7325.9 |
| -437.5  | 400.0    | 6977.7 | -962.5  | 600.0    | 7775.9 | -12.5   | 600.0    | 7353.6 |
| -425.0  | 400.0    | 7067.6 | -950.0  | 600.0    | 7767.5 | 0.0     | 600.0    | 7363.6 |
| -412.5  | 400.0    | 7210.0 | -937.5  | 600.0    | 7757.3 | -1000.0 | 700.0    | 7779.2 |
| -400.0  | 400.0    | 7346.9 | -925.0  | 600.0    | 7730.9 | -987.5  | 700.0    | 7774.3 |
| -387.5  | 400.0    | 7437.3 | -912.5  | 600.0    | 7781.0 | -975.0  | 700.0    | 7777.4 |
| -375.0  | 400.0    | 7385.0 | -900.0  | 600.0    | 7870.9 | -962.5  | 700.0    | 7784.5 |
| -362.5  | 400.0    | 7471.4 | -887.5  | 600.0    | 8005.4 | -950.0  | 700.0    | 7786.8 |
| -350.0  | 400.0    | 7488.9 | -875.0  | 600.0    | 7942.6 | -945.0  | 700.0    | 7788.1 |
| -337.5  | 400.0    | 7733.9 | -862.5  | 600.0    | 7757.2 | -940.0  | 700.0    | 7789.1 |
| -325.0  | 400.0    | 7766.1 | -850.0  | 600.0    | 7777.3 | -937.5  | 700.0    | 7781.7 |
| -312.5  | 400.0    | 7916.4 | -837.5  | 600.0    | 7757.8 | -925.0  | 700.0    | 7721.6 |
| -300.0  | 400.0    | 7750.3 | -825.0  | 600.0    | 7800.7 | -912.5  | 700.0    | 7773.2 |
| -287.5  | 400.0    | 7870.0 | -812.5  | 600.0    | 7812.7 | -900.0  | 700.0    | 7784.1 |
| -275.0  | 400.0    | 8087.9 | -800.0  | 600.0    | 7910.2 | -887.5  | 700.0    | 7804.8 |
| -262.5  | 400.0    | 8533.2 | -787.5  | 600.0    | 8000.1 | -875.0  | 700.0    | 7964.6 |
| -250.0  | 400.0    | 8721.8 | -775.0  | 600.0    | 7906.1 | -862.5  | 700.0    | 7781.9 |
| -237.5  | 400.0    | 8661.8 | -762.5  | 600.0    | 7694.3 | -850.0  | 700.0    | 7776.7 |
| -225.0  | 400.0    | 8337.7 | -750.0  | 600.0    | 7758.5 | -837.5  | 700.0    | 7784.8 |
| -212.5  | 400.0    | 7795.0 | -737.5  | 600.0    | 7797.6 | -825.0  | 700.0    | 7790.7 |
| -200.0  | 400.0    | 7490.5 | -725.0  | 600.0    | 7788.3 | -812.5  | 700.0    | 7796.3 |
| -187.5  | 400.0    | 7847.8 | -712.5  | 600.0    | 7807.2 | -800.0  | 700.0    | 7809.0 |
| -175.0  | 400.0    | 7773.1 | -700.0  | 600.0    | 7841.7 | -787.5  | 700.0    | 7812.9 |
| -162.5  | 400.0    | 7640.2 | -687.5  | 600.0    | 7851.9 | -775.0  | 700.0    | 7813.3 |
| -150.0  | 400.0    | 7269.7 | -675.0  | 600.0    | 7861.4 | -762.5  | 700.0    | 7823.8 |
| -137.5  | 400.0    | 7385.6 | -662.5  | 600.0    | 7906.5 | -750.0  | 700.0    | 7841.9 |
| -125.0  | 400.0    | 7380.5 | -650.0  | 600.0    | 7925.4 | -737.5  | 700.0    | 7870.2 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|---------|---------|----------|--------|
| -725.0  | 700.0    | 7891.1 | -812.5  | 800.0    | 7921.4  | -950.0  | 900.0    | 7800.5 |
| -712.5  | 700.0    | 7875.8 | -800.0  | 800.0    | 7829.0  | -937.5  | 900.0    | 7800.8 |
| -700.0  | 700.0    | 7858.6 | -787.5  | 800.0    | 7830.2  | -925.0  | 900.0    | 7800.7 |
| -687.5  | 700.0    | 7853.3 | -775.0  | 800.0    | 7840.4  | -912.5  | 900.0    | 7797.3 |
| -675.0  | 700.0    | 7896.9 | -762.5  | 800.0    | 7844.6  | -900.0  | 900.0    | 7800.0 |
| -662.5  | 700.0    | 7941.1 | -750.0  | 800.0    | 7847.7  | -887.5  | 900.0    | 7803.8 |
| -650.0  | 700.0    | 7989.6 | -737.5  | 800.0    | 7874.5  | -875.0  | 900.0    | 7814.3 |
| -637.5  | 700.0    | 8135.5 | -725.0  | 800.0    | 7843.5  | -862.5  | 900.0    | 7815.8 |
| -625.0  | 700.0    | 8146.1 | -712.5  | 800.0    | 7868.5  | -850.0  | 900.0    | 7823.8 |
| -612.5  | 700.0    | 8169.8 | -700.0  | 800.0    | 7874.9  | -837.5  | 900.0    | 7819.5 |
| -600.0  | 700.0    | 8307.1 | -687.5  | 800.0    | 7901.5  | -825.0  | 900.0    | 7824.4 |
| -587.5  | 700.0    | 8380.5 | -675.0  | 800.0    | 7950.0  | -812.5  | 900.0    | 7826.1 |
| -575.0  | 700.0    | 8349.9 | -662.5  | 800.0    | 7968.9  | -800.0  | 900.0    | 7824.6 |
| -562.5  | 700.0    | 8461.4 | -650.0  | 800.0    | 7992.3  | -787.5  | 900.0    | 7840.6 |
| -550.0  | 700.0    | 8732.4 | -637.5  | 800.0    | 8046.4  | -775.0  | 900.0    | 7849.7 |
| -537.5  | 700.0    | 8710.8 | -625.0  | 800.0    | 8019.8  | -762.5  | 900.0    | 7851.7 |
| -525.0  | 700.0    | 8446.4 | -612.5  | 800.0    | 7953.1  | -750.0  | 900.0    | 7860.3 |
| -512.5  | 700.0    | 8686.4 | -600.0  | 800.0    | 7920.0  | -737.5  | 900.0    | 7856.3 |
| -500.0  | 700.0    | 8642.8 | -587.5  | 800.0    | 7980.7  | -725.0  | 900.0    | 7864.6 |
| -487.5  | 700.0    | 7942.7 | -575.0  | 800.0    | 8010.9  | -712.5  | 900.0    | 7870.2 |
| -475.0  | 700.0    | 7641.8 | -562.5  | 800.0    | 8033.4  | -700.0  | 900.0    | 7881.3 |
| -462.5  | 700.0    | 7330.1 | -550.0  | 800.0    | 8073.8  | -687.5  | 900.0    | 7886.2 |
| -450.0  | 700.0    | 7343.2 | -537.5  | 800.0    | 8102.2  | -675.0  | 900.0    | 7897.2 |
| -437.5  | 700.0    | 7496.5 | -525.0  | 800.0    | 8156.2  | -662.5  | 900.0    | 7903.9 |
| -425.0  | 700.0    | 7706.0 | -512.5  | 800.0    | 8172.8  | -650.0  | 900.0    | 7923.8 |
| -412.5  | 700.0    | 7840.9 | -500.0  | 800.0    | 8308.3  | -637.5  | 900.0    | 7920.3 |
| -400.0  | 700.0    | 7814.3 | -487.5  | 800.0    | 8570.6  | -625.0  | 900.0    | 7902.1 |
| -387.5  | 700.0    | 7860.2 | -475.0  | 800.0    | 9008.2  | -612.5  | 900.0    | 7938.0 |
| -375.0  | 700.0    | 7687.0 | -462.5  | 800.0    | 9327.0  | -600.0  | 900.0    | 7957.2 |
| -362.5  | 700.0    | 7941.3 | -450.0  | 800.0    | 8003.9  | -587.5  | 900.0    | 7976.4 |
| -350.0  | 700.0    | 7879.0 | -437.5  | 800.0    | 7706.8  | -575.0  | 900.0    | 8001.3 |
| -337.5  | 700.0    | 7959.1 | -425.0  | 800.0    | 7361.7  | -562.5  | 900.0    | 8016.7 |
| -325.0  | 700.0    | 8044.5 | -412.5  | 800.0    | 7529.3  | -550.0  | 900.0    | 8023.1 |
| -312.5  | 700.0    | 8202.5 | -400.0  | 800.0    | 7590.1  | -537.5  | 900.0    | 8044.8 |
| -300.0  | 700.0    | 7603.1 | -387.5  | 800.0    | 7886.3  | -525.0  | 900.0    | 8097.7 |
| -287.5  | 700.0    | 7666.2 | -375.0  | 800.0    | 7993.2  | -512.5  | 900.0    | 8224.0 |
| -275.0  | 700.0    | 7998.6 | -362.5  | 800.0    | 8025.5  | -500.0  | 900.0    | 8478.0 |
| -262.5  | 700.0    | 8511.7 | -350.0  | 800.0    | 8036.3  | -487.5  | 900.0    | 8766.5 |
| -250.0  | 700.0    | 7661.5 | -337.5  | 800.0    | 8191.3  | -475.0  | 900.0    | 9523.5 |
| -237.5  | 700.0    | 8007.7 | -325.0  | 800.0    | 8246.3  | -462.5  | 900.0    | 9695.1 |
| -225.0  | 700.0    | 8717.1 | -312.5  | 800.0    | 8469.9  | -450.0  | 900.0    | 8633.1 |
| -212.5  | 700.0    | 8436.5 | -300.0  | 800.0    | 8769.4  | -437.5  | 900.0    | 7031.6 |
| -200.0  | 700.0    | 7303.7 | -287.5  | 800.0    | 9350.1  | -425.0  | 900.0    | 7647.7 |
| -187.5  | 700.0    | 6756.5 | -275.0  | 800.0    | 10078.8 | -412.5  | 900.0    | 8614.4 |
| -175.0  | 700.0    | 6819.7 | -262.5  | 800.0    | 8095.8  | -400.0  | 900.0    | 7497.1 |
| -162.5  | 700.0    | 6901.4 | -250.0  | 800.0    | 6056.2  | -387.5  | 900.0    | 7776.3 |
| -150.0  | 700.0    | 6962.5 | -237.5  | 800.0    | 6848.2  | -375.0  | 900.0    | 7893.0 |
| -137.5  | 700.0    | 7052.0 | -225.0  | 800.0    | 7077.8  | -362.5  | 900.0    | 8031.7 |
| -125.0  | 700.0    | 7113.5 | -212.5  | 800.0    | 7008.1  | -350.0  | 900.0    | 8210.1 |
| -112.5  | 700.0    | 7156.8 | -200.0  | 800.0    | 7384.9  | -337.5  | 900.0    | 8215.7 |
| -100.0  | 700.0    | 7196.4 | -187.5  | 800.0    | 7696.3  | -325.0  | 900.0    | 8217.1 |
| -87.5   | 700.0    | 7224.2 | -175.0  | 800.0    | 7612.8  | -312.5  | 900.0    | 8484.5 |
| -75.0   | 700.0    | 7253.5 | -162.5  | 800.0    | 7193.0  | -250.0  | 900.0    | 8825.6 |
| -62.5   | 700.0    | 7276.9 | -150.0  | 800.0    | 6989.9  | -237.5  | 900.0    | 9203.6 |
| -50.0   | 700.0    | 7299.3 | -137.5  | 800.0    | 6925.8  | -225.0  | 900.0    | 8362.1 |
| -37.5   | 700.0    | 7325.0 | -125.0  | 800.0    | 6989.2  | -212.5  | 900.0    | 7262.8 |
| -25.0   | 700.0    | 7344.5 | -112.5  | 800.0    | 7065.3  | -200.0  | 900.0    | 6543.6 |
| -12.5   | 700.0    | 7359.0 | -100.0  | 800.0    | 7115.7  | -187.5  | 900.0    | 6705.8 |
| 0.0     | 700.0    | 7374.3 | -87.5   | 800.0    | 7168.3  | -175.0  | 900.0    | 6841.2 |
| -1009.0 | 800.0    | 7792.9 | -75.0   | 800.0    | 7201.6  | -162.5  | 900.0    | 7131.6 |
| -1000.0 | 800.0    | 7791.8 | -62.5   | 800.0    | 7239.0  | -150.0  | 900.0    | 7155.1 |
| -987.5  | 800.0    | 7800.4 | -50.0   | 800.0    | 7264.7  | -137.5  | 900.0    | 7171.5 |
| -975.0  | 800.0    | 7804.1 | -37.5   | 800.0    | 7292.1  | -125.0  | 900.0    | 7058.3 |
| -962.5  | 800.0    | 7806.6 | -25.0   | 800.0    | 7323.1  | -112.5  | 900.0    | 6842.3 |
| -958.0  | 800.0    | 7809.7 | -12.5   | 800.0    | 7337.3  | -100.0  | 900.0    | 6886.3 |
| -950.0  | 800.0    | 7815.9 | 0.0     | 800.0    | 7359.0  | -87.5   | 900.0    | 7011.1 |
| -937.5  | 800.0    | 7813.5 | 12.5    | 800.0    | 7371.5  | -75.0   | 900.0    | 7076.9 |
| -925.0  | 800.0    | 7815.5 | 25.0    | 800.0    | 7385.5  | -62.5   | 900.0    | 7114.0 |
| -912.5  | 800.0    | 7813.3 | 37.5    | 800.0    | 7399.5  | -50.0   | 900.0    | 7176.5 |
| -900.0  | 800.0    | 7810.9 | 50.0    | 800.0    | 7411.1  | -37.5   | 900.0    | 7225.6 |
| -887.5  | 800.0    | 7797.7 | 62.5    | 800.0    | 7421.5  | -25.0   | 900.0    | 7255.6 |
| -875.0  | 800.0    | 7805.2 | 75.0    | 800.0    | 7434.8  | -12.5   | 900.0    | 7290.8 |
| -862.5  | 800.0    | 7802.6 | 87.5    | 800.0    | 7449.1  | 0.0     | 900.0    | 7330.7 |
| -850.0  | 800.0    | 7810.5 | 100.0   | 800.0    | 7461.5  | 12.5    | 900.0    | 7352.0 |
| -837.5  | 800.0    | 7809.3 | 112.5   | 800.0    | 7461.0  | 25.0    | 900.0    | 7376.5 |
| -825.0  | 800.0    | 7789.3 | 125.0   | 800.0    | 7493.9  | 37.5    | 900.0    | 7398.0 |

| X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  |
|---------|----------|---------|---------|----------|--------|---------|----------|---------|
| 50.0    | 900.0    | 7402.1  | -212.5  | 1000.0   | 7842.2 | 737.5   | 1000.0   | 7795.8  |
| 62.5    | 900.0    | 7410.4  | -200.0  | 1000.0   | 7184.3 | 750.0   | 1000.0   | 7772.9  |
| 75.0    | 900.0    | 7418.1  | -187.5  | 1000.0   | 7055.5 | 762.5   | 1000.0   | 7855.0  |
| 87.5    | 900.0    | 7435.7  | -175.0  | 1000.0   | 7066.2 | 775.0   | 1000.0   | 7698.2  |
| 100.0   | 900.0    | 7443.9  | -162.5  | 1000.0   | 7271.0 | 787.5   | 1000.0   | 7710.6  |
| 112.5   | 900.0    | 7455.8  | -150.0  | 1000.0   | 7477.7 | 800.0   | 1000.0   | 7714.2  |
| 125.0   | 900.0    | 7466.2  | -137.5  | 1000.0   | 6962.4 | 812.5   | 1000.0   | 7715.4  |
| 137.5   | 900.0    | 7482.5  | -125.0  | 1000.0   | 6731.3 | 825.0   | 1000.0   | 7723.7  |
| -1062.5 | 1000.0   | 7804.6  | -112.5  | 1000.0   | 6654.5 | 837.5   | 1000.0   | 7722.0  |
| -1050.0 | 1000.0   | 7805.1  | -100.0  | 1000.0   | 6650.8 | 850.0   | 1000.0   | 7712.4  |
| -1037.5 | 1000.0   | 7820.2  | -87.5   | 1000.0   | 6742.8 | 862.5   | 1000.0   | 7722.8  |
| -1025.0 | 1000.0   | 7814.3  | -75.0   | 1000.0   | 6924.6 | 875.0   | 1000.0   | 7725.6  |
| -1012.5 | 1000.0   | 7862.0  | -62.5   | 1000.0   | 7001.8 | 887.5   | 1000.0   | 7725.7  |
| -1000.0 | 1000.0   | 7816.5  | -50.0   | 1000.0   | 7032.8 | 900.0   | 1000.0   | 7725.2  |
| -987.5  | 1000.0   | 7809.3  | -37.5   | 1000.0   | 7105.6 | 912.5   | 1000.0   | 7739.4  |
| -975.0  | 1000.0   | 7812.2  | -25.0   | 1000.0   | 7142.9 | 925.0   | 1000.0   | 7733.7  |
| -962.5  | 1000.0   | 7816.2  | -12.5   | 1000.0   | 7185.4 | 937.5   | 1000.0   | 7715.0  |
| -950.0  | 1000.0   | 7836.4  | 0.0     | 1000.0   | 7279.2 | 950.0   | 1000.0   | 7716.5  |
| -937.5  | 1000.0   | 7835.6  | 12.5    | 1000.0   | 7300.4 | 962.5   | 1000.0   | 7723.5  |
| -925.0  | 1000.0   | 7828.7  | 25.0    | 1000.0   | 7355.6 | -1025.0 | 1100.0   | 7815.6  |
| -912.5  | 1000.0   | 7844.9  | 37.5    | 1000.0   | 7361.5 | -1012.5 | 1100.0   | 7822.1  |
| -900.0  | 1000.0   | 7839.4  | 50.0    | 1000.0   | 7391.7 | -1000.0 | 1100.0   | 7808.9  |
| -887.5  | 1000.0   | 7845.1  | 62.5    | 1000.0   | 7414.6 | -987.5  | 1100.0   | 7822.9  |
| -875.0  | 1000.0   | 7844.6  | 75.0    | 1000.0   | 7437.4 | -975.0  | 1100.0   | 7824.3  |
| -862.5  | 1000.0   | 7847.2  | 87.5    | 1000.0   | 7468.2 | -962.5  | 1100.0   | 7795.7  |
| -850.0  | 1000.0   | 7856.2  | 100.0   | 1000.0   | 7495.6 | -950.0  | 1100.0   | 7787.1  |
| -837.5  | 1000.0   | 7869.5  | 112.5   | 1000.0   | 7505.8 | -937.5  | 1100.0   | 7817.0  |
| -825.0  | 1000.0   | 7872.1  | 125.0   | 1000.0   | 7507.3 | -925.0  | 1100.0   | 7829.7  |
| -812.5  | 1000.0   | 7874.7  | 137.5   | 1000.0   | 7510.8 | -912.5  | 1100.0   | 7850.2  |
| -800.0  | 1000.0   | 7878.9  | 150.0   | 1000.0   | 7523.6 | -900.0  | 1100.0   | 7855.7  |
| -787.5  | 1000.0   | 7892.7  | 162.5   | 1000.0   | 7529.6 | -887.5  | 1100.0   | 7838.8  |
| -775.0  | 1000.0   | 7897.9  | 175.0   | 1000.0   | 7546.1 | -875.0  | 1100.0   | 7868.4  |
| -762.5  | 1000.0   | 7898.0  | 187.5   | 1000.0   | 7592.3 | -862.5  | 1100.0   | 7876.8  |
| -750.0  | 1000.0   | 7907.0  | 200.0   | 1000.0   | 7582.4 | -850.0  | 1100.0   | 7880.2  |
| -737.5  | 1000.0   | 7901.4  | 212.5   | 1000.0   | 7571.0 | -837.5  | 1100.0   | 7873.0  |
| -725.0  | 1000.0   | 7910.8  | 225.0   | 1000.0   | 7591.5 | -825.0  | 1100.0   | 7876.7  |
| -712.5  | 1000.0   | 7915.2  | 237.5   | 1000.0   | 7592.2 | -812.5  | 1100.0   | 7871.2  |
| -700.0  | 1000.0   | 7916.5  | 250.0   | 1000.0   | 7603.0 | -800.0  | 1100.0   | 7881.7  |
| -687.5  | 1000.0   | 7917.5  | 262.5   | 1000.0   | 7604.0 | -787.5  | 1100.0   | 7884.7  |
| -675.0  | 1000.0   | 7918.3  | 275.0   | 1000.0   | 7625.9 | -775.0  | 1100.0   | 7892.3  |
| -662.5  | 1000.0   | 7917.6  | 287.5   | 1000.0   | 7607.2 | -762.5  | 1100.0   | 7899.6  |
| -650.0  | 1000.0   | 7931.0  | 300.0   | 1000.0   | 7630.5 | -750.0  | 1100.0   | 7904.0  |
| -637.5  | 1000.0   | 7945.3  | 312.5   | 1000.0   | 7630.2 | -737.5  | 1100.0   | 7914.3  |
| -625.0  | 1000.0   | 7957.1  | 325.0   | 1000.0   | 7634.0 | -725.0  | 1100.0   | 7922.2  |
| -612.5  | 1000.0   | 7969.9  | 337.5   | 1000.0   | 7617.3 | -712.5  | 1100.0   | 7926.0  |
| -600.0  | 1000.0   | 7993.5  | 350.0   | 1000.0   | 7633.1 | -700.0  | 1100.0   | 7939.5  |
| -587.5  | 1000.0   | 8011.6  | 362.5   | 1000.0   | 7655.0 | -687.5  | 1100.0   | 7942.0  |
| -575.0  | 1000.0   | 8036.4  | 375.0   | 1000.0   | 7639.4 | -675.0  | 1100.0   | 7949.9  |
| -562.5  | 1000.0   | 8074.9  | 387.5   | 1000.0   | 7645.8 | -662.5  | 1100.0   | 7940.8  |
| -550.0  | 1000.0   | 8112.8  | 400.0   | 1000.0   | 7666.1 | -650.0  | 1100.0   | 7978.1  |
| -537.5  | 1000.0   | 8187.3  | 412.5   | 1000.0   | 7673.1 | -637.5  | 1100.0   | 7966.7  |
| -525.0  | 1000.0   | 8272.0  | 425.0   | 1000.0   | 7689.5 | -625.0  | 1100.0   | 7964.1  |
| -512.5  | 1000.0   | 8447.2  | 437.5   | 1000.0   | 7702.2 | -612.5  | 1100.0   | 7975.2  |
| -500.0  | 1000.0   | 8663.4  | 450.0   | 1000.0   | 7691.9 | -600.0  | 1100.0   | 7985.6  |
| -487.5  | 1000.0   | 9102.2  | 462.5   | 1000.0   | 7666.3 | -587.5  | 1100.0   | 7989.9  |
| -475.0  | 1000.0   | 10206.3 | 475.0   | 1000.0   | 7718.7 | -575.0  | 1100.0   | 8013.7  |
| -462.5  | 1000.0   | 10001.5 | 487.5   | 1000.0   | 7787.2 | -562.5  | 1100.0   | 8038.8  |
| -450.0  | 1000.0   | 8794.7  | 500.0   | 1000.0   | 7700.0 | -550.0  | 1100.0   | 8053.2  |
| -437.5  | 1000.0   | 6794.4  | 512.5   | 1000.0   | 7645.8 | -537.5  | 1100.0   | 8088.4  |
| -425.0  | 1000.0   | 7201.9  | 525.0   | 1000.0   | 7842.2 | -525.0  | 1100.0   | 8120.1  |
| -412.5  | 1000.0   | 7606.2  | 537.5   | 1000.0   | 7463.0 | -512.5  | 1100.0   | 8136.4  |
| -400.0  | 1000.0   | 8346.9  | 550.0   | 1000.0   | 7676.3 | -500.0  | 1100.0   | 8238.5  |
| -387.5  | 1000.0   | 7936.7  | 562.5   | 1000.0   | 7729.2 | -487.5  | 1100.0   | 8301.0  |
| -375.0  | 1000.0   | 7738.2  | 575.0   | 1000.0   | 7686.7 | -475.0  | 1100.0   | 8686.0  |
| -362.5  | 1000.0   | 7938.3  | 587.5   | 1000.0   | 7641.6 | -462.5  | 1100.0   | 8629.3  |
| -350.0  | 1000.0   | 7908.5  | 600.0   | 1000.0   | 7658.8 | -450.0  | 1100.0   | 9236.2  |
| -337.5  | 1000.0   | 7993.6  | 612.5   | 1000.0   | 7731.7 | -437.5  | 1100.0   | 8621.2  |
| -325.0  | 1000.0   | 7891.7  | 625.0   | 1000.0   | 7726.4 | -425.0  | 1100.0   | 9169.7  |
| -312.5  | 1000.0   | 8095.9  | 637.5   | 1000.0   | 7707.7 | -412.5  | 1100.0   | 10369.6 |
| -300.0  | 1000.0   | 8106.9  | 650.0   | 1000.0   | 7698.7 | -400.0  | 1100.0   | 10141.7 |
| -287.5  | 1000.0   | 8199.7  | 662.5   | 1000.0   | 7683.3 | -387.5  | 1100.0   | 9353.4  |
| -275.0  | 1000.0   | 8344.5  | 675.0   | 1000.0   | 7682.1 | -375.0  | 1100.0   | 7344.1  |
| -262.5  | 1000.0   | 8381.1  | 687.5   | 1000.0   | 7672.1 | -362.5  | 1100.0   | 7749.5  |
| -250.0  | 1000.0   | 8543.4  | 700.0   | 1000.0   | 7713.3 | -350.0  | 1100.0   | 7934.1  |
| -237.5  | 1000.0   | 8856.8  | 712.5   | 1000.0   | 7756.9 | -337.5  | 1100.0   | 8125.8  |
| -225.0  | 1000.0   | 8834.9  | 725.0   | 1000.0   | 8132.4 | -325.0  | 1100.0   | 7911.8  |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| -250.0  | 1100.0   | 8346.1 | 700.0   | 1100.0   | 7658.5 | -475.0  | 1200.0   | 8180.1 |
| -237.5  | 1100.0   | 8380.6 | 712.5   | 1100.0   | 7709.0 | -462.5  | 1200.0   | 8218.9 |
| -225.0  | 1100.0   | 8639.8 | 725.0   | 1100.0   | 7688.3 | -450.0  | 1200.0   | 8277.8 |
| -212.5  | 1100.0   | 9060.1 | 737.5   | 1100.0   | 7675.3 | -437.5  | 1200.0   | 8425.0 |
| -200.0  | 1100.0   | 8421.4 | 750.0   | 1100.0   | 7649.9 | -425.0  | 1200.0   | 8580.2 |
| -187.5  | 1100.0   | 8152.5 | 762.5   | 1100.0   | 7646.3 | -412.5  | 1200.0   | 8735.9 |
| -175.0  | 1100.0   | 7533.6 | 775.0   | 1100.0   | 7643.8 | -400.0  | 1200.0   | 9957.6 |
| -162.5  | 1100.0   | 6914.0 | 787.5   | 1100.0   | 7623.7 | -387.5  | 1200.0   | 7199.5 |
| -150.0  | 1100.0   | 6880.2 | 800.0   | 1100.0   | 7657.2 | -375.0  | 1200.0   | 8315.1 |
| -137.5  | 1100.0   | 7307.5 | 812.5   | 1100.0   | 7655.1 | -362.5  | 1200.0   | 8970.1 |
| -125.0  | 1100.0   | 7466.7 | 825.0   | 1100.0   | 7667.9 | -350.0  | 1200.0   | 8064.9 |
| -112.5  | 1100.0   | 7480.5 | 837.5   | 1100.0   | 7669.3 | -337.5  | 1200.0   | 7918.5 |
| -100.0  | 1100.0   | 7014.1 | 850.0   | 1100.0   | 7677.2 | -325.0  | 1200.0   | 7953.7 |
| -87.5   | 1100.0   | 6808.8 | 862.5   | 1100.0   | 7667.0 | -312.5  | 1200.0   | 8013.0 |
| -75.0   | 1100.0   | 6677.6 | 875.0   | 1100.0   | 7666.1 | -300.0  | 1200.0   | 8090.0 |
| -62.5   | 1100.0   | 6915.0 | 887.5   | 1100.0   | 7658.1 | -287.5  | 1200.0   | 8127.6 |
| -50.0   | 1100.0   | 6906.2 | 900.0   | 1100.0   | 7656.1 | -275.0  | 1200.0   | 8140.7 |
| -37.5   | 1100.0   | 7139.1 | 912.5   | 1100.0   | 7655.1 | -262.5  | 1200.0   | 8213.4 |
| -25.0   | 1100.0   | 7067.8 | 925.0   | 1100.0   | 7651.9 | -250.0  | 1200.0   | 8232.1 |
| -12.5   | 1100.0   | 7005.8 | 937.5   | 1100.0   | 7654.6 | -237.5  | 1200.0   | 8356.4 |
| 0.0     | 1100.0   | 7052.6 | 950.0   | 1100.0   | 7659.6 | -225.0  | 1200.0   | 8528.6 |
| 12.5    | 1100.0   | 7100.7 | 962.5   | 1100.0   | 7663.4 | -212.5  | 1200.0   | 8732.3 |
| 25.0    | 1100.0   | 7150.1 | 975.0   | 1100.0   | 7676.8 | -200.0  | 1200.0   | 9195.2 |
| 37.5    | 1100.0   | 7205.3 | 987.5   | 1100.0   | 7683.1 | -187.5  | 1200.0   | 8891.4 |
| 50.0    | 1100.0   | 7232.4 | 1000.0  | 1100.0   | 7687.4 | -175.0  | 1200.0   | 8381.9 |
| 62.5    | 1100.0   | 7261.1 | 1012.5  | 1100.0   | 7694.0 | -162.5  | 1200.0   | 7480.7 |
| 75.0    | 1100.0   | 7295.5 | 1025.0  | 1100.0   | 7685.8 | -150.0  | 1200.0   | 7101.3 |
| 87.5    | 1100.0   | 7314.1 | 1037.5  | 1100.0   | 7676.9 | -137.5  | 1200.0   | 6402.3 |
| 100.0   | 1100.0   | 7329.3 | 1050.0  | 1100.0   | 7675.5 | -125.0  | 1200.0   | 6307.5 |
| 112.5   | 1100.0   | 7363.8 | 1062.5  | 1100.0   | 7662.0 | -112.5  | 1200.0   | 7293.4 |
| 125.0   | 1100.0   | 7375.0 | 1075.0  | 1100.0   | 7663.2 | -100.0  | 1200.0   | 7408.6 |
| 137.5   | 1100.0   | 7405.6 | 1087.5  | 1100.0   | 7673.9 | -87.5   | 1200.0   | 6890.9 |
| 150.0   | 1100.0   | 7405.4 | 1100.0  | 1100.0   | 7663.2 | -75.0   | 1200.0   | 6805.9 |
| 162.5   | 1100.0   | 7417.7 | 1112.5  | 1100.0   | 7578.6 | -62.5   | 1200.0   | 6868.6 |
| 175.0   | 1100.0   | 7441.2 | -1000.0 | 1200.0   | 7839.8 | -50.0   | 1200.0   | 6908.5 |
| 187.5   | 1100.0   | 7453.9 | -987.5  | 1200.0   | 7853.0 | -37.5   | 1200.0   | 7067.6 |
| 200.0   | 1100.0   | 7476.7 | -975.0  | 1200.0   | 7865.2 | -25.0   | 1200.0   | 7108.2 |
| 212.5   | 1100.0   | 7475.8 | -962.5  | 1200.0   | 7882.3 | -12.5   | 1200.0   | 7315.6 |
| 225.0   | 1100.0   | 7490.3 | -950.0  | 1200.0   | 7879.5 | 0.0     | 1200.0   | 7326.7 |
| 237.5   | 1100.0   | 7504.2 | -937.5  | 1200.0   | 7876.0 | 12.5    | 1200.0   | 7318.3 |
| 250.0   | 1100.0   | 7537.9 | -925.0  | 1200.0   | 7885.8 | 25.0    | 1200.0   | 7282.4 |
| 262.5   | 1100.0   | 7524.9 | -912.5  | 1200.0   | 7882.7 | 37.5    | 1200.0   | 7120.9 |
| 275.0   | 1100.0   | 7566.5 | -900.0  | 1200.0   | 7888.6 | 50.0    | 1200.0   | 6984.7 |
| 287.5   | 1100.0   | 7565.0 | -887.5  | 1200.0   | 7890.0 | 62.5    | 1200.0   | 7045.3 |
| 300.0   | 1100.0   | 7557.3 | -875.0  | 1200.0   | 7902.8 | 75.0    | 1200.0   | 7119.8 |
| 312.5   | 1100.0   | 7550.5 | -862.5  | 1200.0   | 7906.0 | 87.5    | 1200.0   | 7177.3 |
| 325.0   | 1100.0   | 7572.0 | -850.0  | 1200.0   | 7926.9 | 100.0   | 1200.0   | 7211.8 |
| 337.5   | 1100.0   | 7575.6 | -837.5  | 1200.0   | 7927.3 | 112.5   | 1200.0   | 7233.3 |
| 350.0   | 1100.0   | 7576.1 | -825.0  | 1200.0   | 7932.8 | 125.0   | 1200.0   | 7272.5 |
| 362.5   | 1100.0   | 7577.8 | -812.5  | 1200.0   | 7951.5 | 137.5   | 1200.0   | 7310.8 |
| 375.0   | 1100.0   | 7576.7 | -800.0  | 1200.0   | 7863.4 | 150.0   | 1200.0   | 7330.5 |
| 387.5   | 1100.0   | 7551.9 | -787.5  | 1200.0   | 7904.5 | 162.5   | 1200.0   | 7353.5 |
| 400.0   | 1100.0   | 7614.2 | -775.0  | 1200.0   | 7945.9 | 175.0   | 1200.0   | 7377.0 |
| 412.5   | 1100.0   | 7609.9 | -762.5  | 1200.0   | 7966.2 | 187.5   | 1200.0   | 7388.9 |
| 425.0   | 1100.0   | 7626.2 | -750.0  | 1200.0   | 7941.6 | 200.0   | 1200.0   | 7409.0 |
| 437.5   | 1100.0   | 7632.4 | -737.5  | 1200.0   | 7966.1 | 212.5   | 1200.0   | 7425.5 |
| 450.0   | 1100.0   | 7626.2 | -725.0  | 1200.0   | 7975.9 | 225.0   | 1200.0   | 7442.8 |
| 462.5   | 1100.0   | 7617.7 | -712.5  | 1200.0   | 7976.5 | 237.5   | 1200.0   | 7445.2 |
| 475.0   | 1100.0   | 7593.7 | -700.0  | 1200.0   | 7961.0 | 250.0   | 1200.0   | 7464.5 |
| 487.5   | 1100.0   | 7611.5 | -687.5  | 1200.0   | 8002.1 | 262.5   | 1200.0   | 7476.9 |
| 500.0   | 1100.0   | 7659.3 | -675.0  | 1200.0   | 7995.1 | 275.0   | 1200.0   | 7490.2 |
| 512.5   | 1100.0   | 7651.0 | -662.5  | 1200.0   | 7993.4 | 287.5   | 1200.0   | 7507.2 |
| 525.0   | 1100.0   | 7634.6 | -650.0  | 1200.0   | 8009.3 | 300.0   | 1200.0   | 7580.9 |
| 537.5   | 1100.0   | 7599.9 | -637.5  | 1200.0   | 8008.4 | 312.5   | 1200.0   | 7554.7 |
| 550.0   | 1100.0   | 7614.2 | -625.0  | 1200.0   | 8029.2 | 325.0   | 1200.0   | 7517.9 |
| 562.5   | 1100.0   | 7635.8 | -612.5  | 1200.0   | 8016.9 | 337.5   | 1200.0   | 7575.5 |
| 575.0   | 1100.0   | 7645.4 | -600.0  | 1200.0   | 8024.0 | 350.0   | 1200.0   | 7575.0 |
| 587.5   | 1100.0   | 7633.8 | -587.5  | 1200.0   | 8031.8 | 362.5   | 1200.0   | 7574.4 |
| 600.0   | 1100.0   | 7707.4 | -575.0  | 1200.0   | 8044.7 | 375.0   | 1200.0   | 7571.8 |
| 612.5   | 1100.0   | 7615.6 | -562.5  | 1200.0   | 8051.2 | 387.5   | 1200.0   | 7573.5 |
| 625.0   | 1100.0   | 7572.4 | -550.0  | 1200.0   | 8066.1 | 400.0   | 1200.0   | 7569.6 |
| 637.5   | 1100.0   | 7630.5 | -537.5  | 1200.0   | 8073.8 | 412.5   | 1200.0   | 7577.2 |
| 650.0   | 1100.0   | 7677.1 | -525.0  | 1200.0   | 8086.8 | 425.0   | 1200.0   | 7575.9 |
| 662.5   | 1100.0   | 7687.0 | -512.5  | 1200.0   | 8101.4 | 437.5   | 1200.0   | 7592.7 |
| 675.0   | 1100.0   | 7669.1 | -500.0  | 1200.0   | 8112.5 | 450.0   | 1200.0   | 7590.3 |
| 687.5   | 1100.0   | 7680.4 | -487.5  | 1200.0   | 8141.5 | 462.5   | 1200.0   | 7585.0 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|---------|---------|----------|--------|
| 475.0   | 1200.0   | 7593.7 | -662.5  | 1300.0   | 8031.3  | 312.5   | 1300.0   | 7431.6 |
| 487.5   | 1200.0   | 7605.4 | -650.0  | 1300.0   | 8041.3  | 325.0   | 1300.0   | 7459.7 |
| 500.0   | 1200.0   | 7610.3 | -637.5  | 1300.0   | 8053.0  | 337.5   | 1300.0   | 7485.2 |
| 512.5   | 1200.0   | 7592.2 | -625.0  | 1300.0   | 8058.8  | 350.0   | 1300.0   | 7488.1 |
| 525.0   | 1200.0   | 7605.4 | -612.5  | 1300.0   | 8064.5  | 362.5   | 1300.0   | 7499.3 |
| 537.5   | 1200.0   | 7612.0 | -600.0  | 1300.0   | 8075.1  | 375.0   | 1300.0   | 7497.6 |
| 550.0   | 1200.0   | 7620.0 | -587.5  | 1300.0   | 8084.3  | 387.5   | 1300.0   | 7522.2 |
| 562.5   | 1200.0   | 7628.8 | -575.0  | 1300.0   | 8114.9  | 400.0   | 1300.0   | 7503.5 |
| 575.0   | 1200.0   | 7621.7 | -562.5  | 1300.0   | 8111.3  | 412.5   | 1300.0   | 7526.7 |
| 587.5   | 1200.0   | 7653.1 | -550.0  | 1300.0   | 8111.7  | 425.0   | 1300.0   | 7525.2 |
| 600.0   | 1200.0   | 7646.6 | -537.5  | 1300.0   | 8122.0  | 437.5   | 1300.0   | 7534.1 |
| 612.5   | 1200.0   | 7634.3 | -525.0  | 1300.0   | 8131.2  | 450.0   | 1300.0   | 7538.7 |
| 625.0   | 1200.0   | 7633.4 | -512.5  | 1300.0   | 8149.2  | 462.5   | 1300.0   | 7548.8 |
| 637.5   | 1200.0   | 7635.9 | -500.0  | 1300.0   | 8185.1  | 475.0   | 1300.0   | 7556.5 |
| 650.0   | 1200.0   | 7636.5 | -487.5  | 1300.0   | 8199.4  | 487.5   | 1300.0   | 7575.6 |
| 662.5   | 1200.0   | 7644.1 | -475.0  | 1300.0   | 8251.4  | 500.0   | 1300.0   | 7634.1 |
| 675.0   | 1200.0   | 7639.4 | -462.5  | 1300.0   | 8291.4  | 512.5   | 1300.0   | 7577.6 |
| 687.5   | 1200.0   | 7656.4 | -450.0  | 1300.0   | 8574.7  | 525.0   | 1300.0   | 7576.6 |
| 700.0   | 1200.0   | 7671.9 | -437.5  | 1300.0   | 9730.8  | 537.5   | 1300.0   | 7576.1 |
| 712.5   | 1200.0   | 7648.5 | -425.0  | 1300.0   | 8618.7  | 550.0   | 1300.0   | 7581.6 |
| 725.0   | 1200.0   | 7667.3 | -412.5  | 1300.0   | 7789.5  | 562.5   | 1300.0   | 7580.3 |
| 737.5   | 1200.0   | 7670.0 | -400.0  | 1300.0   | 7826.1  | 575.0   | 1300.0   | 7572.4 |
| 750.0   | 1200.0   | 7659.7 | -387.5  | 1300.0   | 8066.8  | 587.5   | 1300.0   | 7604.8 |
| 762.5   | 1200.0   | 7667.7 | -375.0  | 1300.0   | 8161.4  | 600.0   | 1300.0   | 7607.1 |
| 775.0   | 1200.0   | 7672.8 | -362.5  | 1300.0   | 8218.5  | 612.5   | 1300.0   | 7620.1 |
| 787.5   | 1200.0   | 7668.6 | -350.0  | 1300.0   | 8328.1  | 625.0   | 1300.0   | 7625.2 |
| 800.0   | 1200.0   | 7692.5 | -337.5  | 1300.0   | 8377.3  | 637.5   | 1300.0   | 7616.4 |
| 812.5   | 1200.0   | 7683.2 | -325.0  | 1300.0   | 8214.1  | 650.0   | 1300.0   | 7615.6 |
| 825.0   | 1200.0   | 7662.5 | -312.5  | 1300.0   | 8179.8  | 662.5   | 1300.0   | 7603.7 |
| 837.5   | 1200.0   | 7666.6 | -275.0  | 1300.0   | 8185.6  | 675.0   | 1300.0   | 7617.2 |
| 850.0   | 1200.0   | 7674.9 | -262.5  | 1300.0   | 8184.2  | 687.5   | 1300.0   | 7616.0 |
| 862.5   | 1200.0   | 7665.3 | -250.0  | 1300.0   | 5967.9  | 700.0   | 1300.0   | 7630.1 |
| 875.0   | 1200.0   | 7687.2 | -237.5  | 1300.0   | 9436.4  | 712.5   | 1300.0   | 7644.3 |
| 887.5   | 1200.0   | 7673.8 | -225.0  | 1300.0   | 8630.8  | 725.0   | 1300.0   | 7669.4 |
| 900.0   | 1200.0   | 7679.9 | -212.5  | 1300.0   | 9108.7  | 737.5   | 1300.0   | 7620.8 |
| 912.5   | 1200.0   | 7666.7 | -200.0  | 1300.0   | 13860.5 | 750.0   | 1300.0   | 7630.1 |
| 925.0   | 1200.0   | 7673.3 | -187.5  | 1300.0   | 8737.8  | 762.5   | 1300.0   | 7636.0 |
| 937.5   | 1200.0   | 7659.4 | -175.0  | 1300.0   | 11277.2 | 775.0   | 1300.0   | 7636.5 |
| 950.0   | 1200.0   | 7672.9 | -162.5  | 1300.0   | 5453.9  | 787.5   | 1300.0   | 7795.7 |
| 962.5   | 1200.0   | 7674.1 | -150.0  | 1300.0   | 4366.8  | 800.0   | 1300.0   | 7714.3 |
| 975.0   | 1200.0   | 7671.7 | -137.5  | 1300.0   | 4985.7  | 812.5   | 1300.0   | 7692.3 |
| 987.5   | 1200.0   | 7682.7 | -125.0  | 1300.0   | 5393.6  | 825.0   | 1300.0   | 7670.8 |
| 1000.0  | 1200.0   | 7677.0 | -112.5  | 1300.0   | 6699.4  | 837.5   | 1300.0   | 7686.2 |
| 1012.5  | 1200.0   | 7666.9 | -100.0  | 1300.0   | 11153.2 | 850.0   | 1300.0   | 7681.0 |
| 1025.0  | 1200.0   | 7656.9 | -87.5   | 1300.0   | 5733.7  | 862.5   | 1300.0   | 7667.3 |
| -1000.0 | 1250.0   | 7844.0 | -75.0   | 1300.0   | 5967.5  | 875.0   | 1300.0   | 7665.5 |
| -987.5  | 1250.0   | 7853.2 | -62.5   | 1300.0   | 7477.1  | 887.5   | 1300.0   | 7678.6 |
| -975.0  | 1250.0   | 7849.2 | -50.0   | 1300.0   | 10020.8 | 900.0   | 1300.0   | 7686.3 |
| -962.5  | 1250.0   | 7868.9 | -37.5   | 1300.0   | 6934.1  | 912.5   | 1300.0   | 7671.6 |
| -950.0  | 1250.0   | 7866.2 | -25.0   | 1300.0   | 7032.8  | 925.0   | 1300.0   | 7669.3 |
| -937.5  | 1250.0   | 7868.0 | -12.5   | 1300.0   | 12301.2 | 937.5   | 1300.0   | 7674.5 |
| -925.0  | 1250.0   | 7875.0 | 0.0     | 1300.0   | 6883.9  | 950.0   | 1300.0   | 7669.1 |
| -912.5  | 1250.0   | 7889.2 | 12.5    | 1300.0   | 7004.8  | 962.5   | 1300.0   | 7719.7 |
| -900.0  | 1250.0   | 7886.2 | 25.0    | 1300.0   | 7221.2  | 975.0   | 1300.0   | 7682.8 |
| -887.5  | 1250.0   | 7894.4 | 37.5    | 1300.0   | 7212.2  | 987.5   | 1300.0   | 7684.2 |
| -875.0  | 1250.0   | 7900.2 | 50.0    | 1300.0   | 7296.0  | 1000.0  | 1300.0   | 7687.8 |
| -862.5  | 1250.0   | 7913.5 | 62.5    | 1300.0   | 7308.1  | -1009.0 | 1400.0   | 7838.5 |
| -850.0  | 1250.0   | 7915.4 | 75.0    | 1300.0   | 7299.1  | -1000.0 | 1400.0   | 7845.7 |
| -837.5  | 1250.0   | 7938.2 | 87.5    | 1300.0   | 7255.5  | -987.5  | 1400.0   | 7851.3 |
| -825.0  | 1250.0   | 7956.8 | 100.0   | 1300.0   | 7232.2  | -975.0  | 1400.0   | 7867.7 |
| -812.5  | 1250.0   | 7934.1 | 112.5   | 1300.0   | 7189.5  | -962.5  | 1400.0   | 7874.7 |
| -800.0  | 1250.0   | 7942.7 | 125.0   | 1300.0   | 7164.1  | -950.0  | 1400.0   | 7881.7 |
| -787.5  | 1250.0   | 7944.7 | 137.5   | 1300.0   | 7171.8  | -937.5  | 1400.0   | 7885.2 |
| -775.0  | 1250.0   | 7950.8 | 150.0   | 1300.0   | 7204.4  | -925.0  | 1400.0   | 7894.5 |
| -762.5  | 1250.0   | 7949.9 | 162.5   | 1300.0   | 7242.2  | -912.5  | 1400.0   | 7918.2 |
| -750.0  | 1250.0   | 7962.0 | 175.0   | 1300.0   | 7272.9  | -900.0  | 1400.0   | 7906.9 |
| -737.5  | 1250.0   | 7974.5 | 187.5   | 1300.0   | 7299.0  | -887.5  | 1400.0   | 7913.3 |
| -725.0  | 1250.0   | 7979.3 | 200.0   | 1300.0   | 7318.5  | -875.0  | 1400.0   | 7939.7 |
| -712.5  | 1250.0   | 7985.8 | 212.5   | 1300.0   | 7337.4  | -862.5  | 1400.0   | 7942.3 |
| -700.0  | 1250.0   | 7993.9 | 225.0   | 1300.0   | 7360.5  | -850.0  | 1400.0   | 7928.7 |
| -687.5  | 1250.0   | 7997.6 | 237.5   | 1300.0   | 7377.8  | -837.5  | 1400.0   | 7980.4 |
| -675.0  | 1250.0   | 7994.2 | 250.0   | 1300.0   | 7392.7  | -825.0  | 1400.0   | 8002.3 |
| -662.5  | 1250.0   | 8000.2 | 262.5   | 1300.0   | 7411.8  | -812.5  | 1400.0   | 7994.8 |
| -650.0  | 1250.0   | 8009.7 | 275.0   | 1300.0   | 7409.2  | -800.0  | 1400.0   | 7993.7 |
| -687.5  | 1300.0   | 8014.8 | 287.5   | 1300.0   | 7399.3  | -787.5  | 1400.0   | 8004.0 |
| -675.0  | 1300.0   | 8029.8 | 300.0   | 1300.0   | 7424.7  | -775.0  | 1400.0   | 8005.7 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| -762.5  | 1400.0   | 8014.1 | 187.5   | 1400.0   | 7247.3 | -587.5  | 1500.0   | 8227.2 |
| -750.0  | 1400.0   | 8020.2 | 200.0   | 1400.0   | 7280.7 | -575.0  | 1500.0   | 8243.4 |
| -737.5  | 1400.0   | 8013.7 | 212.5   | 1400.0   | 7310.6 | -562.5  | 1500.0   | 8270.2 |
| -725.0  | 1400.0   | 8013.9 | 225.0   | 1400.0   | 7333.8 | -550.0  | 1500.0   | 8293.8 |
| -712.5  | 1400.0   | 8011.0 | 237.5   | 1400.0   | 7361.5 | -537.5  | 1500.0   | 8336.6 |
| -700.0  | 1400.0   | 8031.3 | 250.0   | 1400.0   | 7379.3 | -525.0  | 1500.0   | 8353.4 |
| -687.5  | 1400.0   | 8042.9 | 262.5   | 1400.0   | 7399.8 | -512.5  | 1500.0   | 8371.3 |
| -675.0  | 1400.0   | 8049.6 | 275.0   | 1400.0   | 7413.7 | -500.0  | 1500.0   | 8412.0 |
| -662.5  | 1400.0   | 8064.4 | 287.5   | 1400.0   | 7427.7 | -487.5  | 1500.0   | 8440.4 |
| -650.0  | 1400.0   | 8076.3 | 300.0   | 1400.0   | 7436.5 | -475.0  | 1500.0   | 8461.9 |
| -637.5  | 1400.0   | 8112.1 | 312.5   | 1400.0   | 7441.7 | -462.5  | 1500.0   | 8445.4 |
| -625.0  | 1400.0   | 8111.8 | 325.0   | 1400.0   | 7461.4 | -450.0  | 1500.0   | 8468.4 |
| -612.5  | 1400.0   | 8123.8 | 337.5   | 1400.0   | 7484.0 | -437.5  | 1500.0   | 8462.0 |
| -600.0  | 1400.0   | 8141.6 | 350.0   | 1400.0   | 7501.5 | -425.0  | 1500.0   | 8478.2 |
| -587.5  | 1400.0   | 8159.9 | 362.5   | 1400.0   | 7502.6 | -412.5  | 1500.0   | 8485.6 |
| -575.0  | 1400.0   | 8179.5 | 375.0   | 1400.0   | 7502.6 | -400.0  | 1500.0   | 8460.9 |
| -562.5  | 1400.0   | 8190.6 | 387.5   | 1400.0   | 7544.4 | -387.5  | 1500.0   | 8522.0 |
| -550.0  | 1400.0   | 8208.9 | 400.0   | 1400.0   | 7538.7 | -375.0  | 1500.0   | 8531.7 |
| -537.5  | 1400.0   | 8219.6 | 412.5   | 1400.0   | 7563.8 | -362.5  | 1500.0   | 8463.5 |
| -525.0  | 1400.0   | 8231.9 | 425.0   | 1400.0   | 7572.8 | -350.0  | 1500.0   | 8440.4 |
| -512.5  | 1400.0   | 8261.8 | 437.5   | 1400.0   | 7580.7 | -337.5  | 1500.0   | 8507.3 |
| -500.0  | 1400.0   | 8256.4 | 450.0   | 1400.0   | 7556.1 | -325.0  | 1500.0   | 8665.0 |
| -487.5  | 1400.0   | 8287.3 | 462.5   | 1400.0   | 7542.9 | -312.5  | 1500.0   | 8630.3 |
| -475.0  | 1400.0   | 8308.0 | 475.0   | 1400.0   | 7616.1 | -300.0  | 1500.0   | 8518.4 |
| -462.5  | 1400.0   | 8331.1 | 487.5   | 1400.0   | 7589.5 | -287.5  | 1500.0   | 8548.7 |
| -450.0  | 1400.0   | 8287.0 | 500.0   | 1400.0   | 7566.0 | -275.0  | 1500.0   | 8457.8 |
| -437.5  | 1400.0   | 8290.5 | 512.5   | 1400.0   | 7588.8 | -262.5  | 1500.0   | 8453.3 |
| -425.0  | 1400.0   | 8320.6 | 525.0   | 1400.0   | 7610.8 | -250.0  | 1500.0   | 8468.7 |
| -412.5  | 1400.0   | 8327.8 | 537.5   | 1400.0   | 7615.4 | -237.5  | 1500.0   | 8376.1 |
| -400.0  | 1400.0   | 8324.6 | 550.0   | 1400.0   | 7605.5 | -225.0  | 1500.0   | 8378.5 |
| -387.5  | 1400.0   | 8328.3 | 562.5   | 1400.0   | 7639.1 | -212.5  | 1500.0   | 8411.5 |
| -375.0  | 1400.0   | 8331.3 | 575.0   | 1400.0   | 7660.6 | -200.0  | 1500.0   | 8463.1 |
| -362.5  | 1400.0   | 8322.9 | 587.5   | 1400.0   | 7622.5 | -187.5  | 1500.0   | 8454.6 |
| -350.0  | 1400.0   | 8292.5 | 600.0   | 1400.0   | 7636.0 | -175.0  | 1500.0   | 8929.7 |
| -337.5  | 1400.0   | 8268.8 | 612.5   | 1400.0   | 7635.6 | -162.5  | 1500.0   | 9115.4 |
| -325.0  | 1400.0   | 8376.9 | 625.0   | 1400.0   | 7620.0 | -150.0  | 1500.0   | 9121.0 |
| -312.5  | 1400.0   | 8365.3 | 637.5   | 1400.0   | 7589.6 | -137.5  | 1500.0   | 8706.5 |
| -300.0  | 1400.0   | 8310.6 | 650.0   | 1400.0   | 7662.4 | -125.0  | 1500.0   | 7322.0 |
| -287.5  | 1400.0   | 8266.3 | 662.5   | 1400.0   | 7646.4 | -112.5  | 1500.0   | 7457.2 |
| -275.0  | 1400.0   | 8295.1 | 675.0   | 1400.0   | 7664.3 | -100.0  | 1500.0   | 7470.9 |
| -262.5  | 1400.0   | 8253.7 | 687.5   | 1400.0   | 7658.9 | -87.5   | 1500.0   | 7548.4 |
| -250.0  | 1400.0   | 8239.0 | 700.0   | 1400.0   | 7658.6 | -75.0   | 1500.0   | 7746.8 |
| -237.5  | 1400.0   | 8255.5 | 712.5   | 1400.0   | 7652.6 | -62.5   | 1500.0   | 8430.5 |
| -225.0  | 1400.0   | 8244.9 | 725.0   | 1400.0   | 7719.6 | -50.0   | 1500.0   | 7645.1 |
| -212.5  | 1400.0   | 8220.0 | 737.5   | 1400.0   | 7663.5 | -37.5   | 1500.0   | 6388.2 |
| -200.0  | 1400.0   | 8304.1 | 750.0   | 1400.0   | 7675.0 | -25.0   | 1500.0   | 5740.3 |
| -187.5  | 1400.0   | 8421.5 | 762.5   | 1400.0   | 7796.3 | -12.5   | 1500.0   | 5269.5 |
| -175.0  | 1400.0   | 8684.1 | 775.0   | 1400.0   | 7771.3 | 0.0     | 1500.0   | 6200.9 |
| -162.5  | 1400.0   | 8768.1 | 787.5   | 1400.0   | 7701.9 | 12.5    | 1500.0   | 6639.4 |
| -150.0  | 1400.0   | 8643.2 | 800.0   | 1400.0   | 7547.0 | 25.0    | 1500.0   | 6993.7 |
| -137.5  | 1400.0   | 8785.3 | 812.5   | 1400.0   | 7632.9 | 37.5    | 1500.0   | 6779.5 |
| -125.0  | 1400.0   | 9164.7 | 825.0   | 1400.0   | 7677.8 | 50.0    | 1500.0   | 6221.5 |
| -112.5  | 1400.0   | 8010.0 | 837.5   | 1400.0   | 7667.7 | 62.5    | 1500.0   | 6616.7 |
| -100.0  | 1400.0   | 8013.6 | 850.0   | 1400.0   | 7678.6 | 75.0    | 1500.0   | 6636.8 |
| -87.5   | 1400.0   | 8466.2 | 862.5   | 1400.0   | 7701.0 | 87.5    | 1500.0   | 6917.2 |
| -75.0   | 1400.0   | 7675.2 | 875.0   | 1400.0   | 7721.4 | 100.0   | 1500.0   | 7326.4 |
| -62.5   | 1400.0   | 7224.4 | 887.5   | 1400.0   | 7729.0 | 112.5   | 1500.0   | 7319.4 |
| -50.0   | 1400.0   | 5670.9 | 900.0   | 1400.0   | 7756.0 | 125.0   | 1500.0   | 7047.0 |
| -37.5   | 1400.0   | 6311.3 | 912.5   | 1400.0   | 7736.6 | 137.5   | 1500.0   | 6965.6 |
| -25.0   | 1400.0   | 5860.4 | 925.0   | 1400.0   | 7728.4 | 150.0   | 1500.0   | 6980.6 |
| -12.5   | 1400.0   | 6500.3 | 937.5   | 1400.0   | 7694.4 | 162.5   | 1500.0   | 7052.5 |
| 0.0     | 1400.0   | 6673.6 | 950.0   | 1400.0   | 7700.8 | 175.0   | 1500.0   | 7141.9 |
| 12.5    | 1400.0   | 6422.4 | 962.5   | 1400.0   | 7710.0 | 187.5   | 1500.0   | 7175.6 |
| 25.0    | 1400.0   | 6794.3 | 975.0   | 1400.0   | 7706.2 | 200.0   | 1500.0   | 7221.5 |
| 37.5    | 1400.0   | 6539.2 | 987.5   | 1400.0   | 7699.8 | 212.5   | 1500.0   | 7267.6 |
| 50.0    | 1400.0   | 6918.8 | 1000.0  | 1400.0   | 7700.5 | 225.0   | 1500.0   | 7302.9 |
| 62.5    | 1400.0   | 7139.3 | 1012.5  | 1400.0   | 7701.2 | 237.5   | 1500.0   | 7323.6 |
| 75.0    | 1400.0   | 7253.7 | 1025.0  | 1400.0   | 7716.7 | 250.0   | 1500.0   | 7343.1 |
| 87.5    | 1400.0   | 7198.3 | 1037.5  | 1400.0   | 7716.0 | 262.5   | 1500.0   | 7363.3 |
| 100.0   | 1400.0   | 7213.4 | 1050.0  | 1400.0   | 7718.1 | 275.0   | 1500.0   | 7383.8 |
| 112.5   | 1400.0   | 7246.8 | 1062.5  | 1400.0   | 7709.0 | 287.5   | 1500.0   | 7401.9 |
| 125.0   | 1400.0   | 7201.4 | 1075.0  | 1400.0   | 7722.5 | 300.0   | 1500.0   | 7411.7 |
| 137.5   | 1400.0   | 7179.5 | 1087.5  | 1400.0   | 7709.4 | 312.5   | 1500.0   | 7431.5 |
| 150.0   | 1400.0   | 7147.5 | -625.0  | 1500.0   | 8162.8 | 325.0   | 1500.0   | 7457.9 |
| 162.5   | 1400.0   | 7164.0 | -612.5  | 1500.0   | 8177.4 | 337.5   | 1500.0   | 7474.9 |
| 175.0   | 1400.0   | 7214.9 | -600.0  | 1500.0   | 8201.0 | 350.0   | 1500.0   | 7484.9 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 362.5   | 1500.0   | 7504.4 | -787.5  | 1600.0   | 8064.8 | 175.0   | 1600.0   | 7064.7 |
| 375.0   | 1500.0   | 7521.5 | -775.0  | 1600.0   | 8023.6 | 187.5   | 1600.0   | 7100.4 |
| 387.5   | 1500.0   | 7539.3 | -762.5  | 1600.0   | 8080.3 | 200.0   | 1600.0   | 7135.2 |
| 400.0   | 1500.0   | 7548.6 | -750.0  | 1600.0   | 8055.8 | 212.5   | 1600.0   | 7178.8 |
| 412.5   | 1500.0   | 7574.5 | -737.5  | 1600.0   | 8079.8 | 225.0   | 1600.0   | 7210.3 |
| 425.0   | 1500.0   | 7579.2 | -725.0  | 1600.0   | 8092.1 | 237.5   | 1600.0   | 7258.8 |
| 437.5   | 1500.0   | 7572.2 | -712.5  | 1600.0   | 8101.8 | 250.0   | 1600.0   | 7286.5 |
| 450.0   | 1500.0   | 7587.9 | -700.0  | 1600.0   | 8116.9 | 262.5   | 1600.0   | 7307.7 |
| 462.5   | 1500.0   | 7594.1 | -687.5  | 1600.0   | 8135.9 | 275.0   | 1600.0   | 7343.5 |
| 475.0   | 1500.0   | 7586.1 | -675.0  | 1600.0   | 8152.5 | 287.5   | 1600.0   | 7340.1 |
| 487.5   | 1500.0   | 7593.7 | -662.5  | 1600.0   | 8167.5 | 300.0   | 1600.0   | 7384.9 |
| 500.0   | 1500.0   | 7593.3 | -650.0  | 1600.0   | 8190.4 | 312.5   | 1600.0   | 7408.5 |
| 512.5   | 1500.0   | 7610.2 | -637.5  | 1600.0   | 8209.9 | 325.0   | 1600.0   | 7413.3 |
| 525.0   | 1500.0   | 7588.8 | -625.0  | 1600.0   | 8247.5 | 337.5   | 1600.0   | 7433.0 |
| 537.5   | 1500.0   | 7609.0 | -612.5  | 1600.0   | 8267.2 | 350.0   | 1600.0   | 7448.0 |
| 550.0   | 1500.0   | 7621.5 | -600.0  | 1600.0   | 8280.8 | 362.5   | 1600.0   | 7462.0 |
| 562.5   | 1500.0   | 7646.4 | -587.5  | 1600.0   | 8304.7 | 375.0   | 1600.0   | 7477.9 |
| 575.0   | 1500.0   | 7653.6 | -575.0  | 1600.0   | 8338.4 | 387.5   | 1600.0   | 7497.3 |
| 587.5   | 1500.0   | 7609.4 | -562.5  | 1600.0   | 8375.5 | 400.0   | 1600.0   | 7627.0 |
| 600.0   | 1500.0   | 7688.8 | -550.0  | 1600.0   | 8422.5 | 412.5   | 1600.0   | 7580.4 |
| 612.5   | 1500.0   | 7636.4 | -537.5  | 1600.0   | 8439.1 | 425.0   | 1600.0   | 7523.6 |
| 625.0   | 1500.0   | 7699.7 | -525.0  | 1600.0   | 8481.6 | 437.5   | 1600.0   | 7528.9 |
| 637.5   | 1500.0   | 7819.2 | -512.5  | 1600.0   | 8497.6 | 450.0   | 1600.0   | 7529.9 |
| 650.0   | 1500.0   | 7669.5 | -500.0  | 1600.0   | 8523.9 | 462.5   | 1600.0   | 7557.3 |
| 662.5   | 1500.0   | 7672.9 | -487.5  | 1600.0   | 8536.0 | 475.0   | 1600.0   | 7556.7 |
| 675.0   | 1500.0   | 7660.6 | -475.0  | 1600.0   | 8543.7 | 487.5   | 1600.0   | 7548.6 |
| 687.5   | 1500.0   | 7659.6 | -462.5  | 1600.0   | 8586.9 | 500.0   | 1600.0   | 7556.2 |
| 700.0   | 1500.0   | 7670.3 | -450.0  | 1600.0   | 8579.5 | 512.5   | 1600.0   | 7554.0 |
| 712.5   | 1500.0   | 7645.9 | -437.5  | 1600.0   | 8577.6 | 525.0   | 1600.0   | 7576.7 |
| 725.0   | 1500.0   | 7695.1 | -425.0  | 1600.0   | 8600.3 | 537.5   | 1600.0   | 7586.1 |
| 737.5   | 1500.0   | 7692.4 | -412.5  | 1600.0   | 8610.6 | 550.0   | 1600.0   | 7592.8 |
| 750.0   | 1500.0   | 7697.6 | -400.0  | 1600.0   | 8612.3 | 562.5   | 1600.0   | 7605.9 |
| 762.5   | 1500.0   | 7727.6 | -387.5  | 1600.0   | 8623.7 | 575.0   | 1600.0   | 7560.2 |
| 775.0   | 1500.0   | 7708.4 | -375.0  | 1600.0   | 8666.1 | 587.5   | 1600.0   | 7577.7 |
| 787.5   | 1500.0   | 7686.1 | -362.5  | 1600.0   | 8728.6 | 600.0   | 1600.0   | 7652.1 |
| 800.0   | 1500.0   | 7682.0 | -350.0  | 1600.0   | 8681.0 | 612.5   | 1600.0   | 7655.3 |
| 812.5   | 1500.0   | 7658.5 | -337.5  | 1600.0   | 8656.9 | 625.0   | 1600.0   | 7536.6 |
| 825.0   | 1500.0   | 7589.6 | -325.0  | 1600.0   | 8670.8 | 637.5   | 1600.0   | 7563.2 |
| 837.5   | 1500.0   | 7805.8 | -312.5  | 1600.0   | 8688.6 | 650.0   | 1600.0   | 7637.8 |
| 850.0   | 1500.0   | 7792.5 | -300.0  | 1600.0   | 8680.8 | 662.5   | 1600.0   | 7635.2 |
| 862.5   | 1500.0   | 7667.6 | -287.5  | 1600.0   | 8703.1 | 675.0   | 1600.0   | 7638.7 |
| 875.0   | 1500.0   | 7763.6 | -275.0  | 1600.0   | 8722.8 | 687.5   | 1600.0   | 7642.9 |
| 887.5   | 1500.0   | 7674.7 | -262.5  | 1600.0   | 8730.5 | 700.0   | 1600.0   | 7657.7 |
| 900.0   | 1500.0   | 7844.2 | -237.5  | 1600.0   | 8642.7 | 712.5   | 1600.0   | 7648.9 |
| 912.5   | 1500.0   | 7763.0 | -225.0  | 1600.0   | 8695.9 | 725.0   | 1600.0   | 7656.7 |
| 925.0   | 1500.0   | 7770.7 | -212.5  | 1600.0   | 8780.3 | 737.5   | 1600.0   | 7644.9 |
| 937.5   | 1500.0   | 7725.2 | -200.0  | 1600.0   | 8883.1 | 750.0   | 1600.0   | 7653.7 |
| 950.0   | 1500.0   | 7732.8 | -187.5  | 1600.0   | 9099.0 | 762.5   | 1600.0   | 7698.5 |
| 962.5   | 1500.0   | 7731.6 | -175.0  | 1600.0   | 8986.0 | 775.0   | 1600.0   | 7699.3 |
| 975.0   | 1500.0   | 7739.1 | -162.5  | 1600.0   | 8681.3 | 787.5   | 1600.0   | 7703.6 |
| 987.5   | 1500.0   | 7741.6 | -150.0  | 1600.0   | 8682.0 | 800.0   | 1600.0   | 7730.0 |
| 1000.0  | 1500.0   | 7745.8 | -137.5  | 1600.0   | 8629.1 | 812.5   | 1600.0   | 7700.3 |
| 1012.5  | 1500.0   | 7750.6 | -125.0  | 1600.0   | 8465.8 | 825.0   | 1600.0   | 7676.3 |
| 1025.0  | 1500.0   | 7737.8 | -112.5  | 1600.0   | 7384.2 | 837.5   | 1600.0   | 7705.3 |
| 1037.5  | 1500.0   | 7732.1 | -100.0  | 1600.0   | 7216.3 | 850.0   | 1600.0   | 7637.3 |
| 1050.0  | 1500.0   | 7742.1 | -87.5   | 1600.0   | 7249.5 | 862.5   | 1600.0   | 7700.2 |
| 1062.5  | 1500.0   | 7740.7 | -75.0   | 1600.0   | 7196.6 | 875.0   | 1600.0   | 7681.7 |
| -1026.0 | 1600.0   | 7853.8 | -62.5   | 1600.0   | 7090.2 | 887.5   | 1600.0   | 7685.9 |
| -1012.5 | 1600.0   | 7863.7 | -50.0   | 1600.0   | 6896.7 | 900.0   | 1600.0   | 7700.0 |
| -1000.0 | 1600.0   | 7869.1 | -37.5   | 1600.0   | 6780.6 | 912.5   | 1600.0   | 7706.0 |
| -987.5  | 1600.0   | 7888.6 | -25.0   | 1600.0   | 6382.3 | 925.0   | 1600.0   | 7705.4 |
| -975.0  | 1600.0   | 7897.4 | -12.5   | 1600.0   | 5967.4 | 937.5   | 1600.0   | 7702.5 |
| -962.5  | 1600.0   | 7908.1 | 0.0     | 1600.0   | 5938.4 | 950.0   | 1600.0   | 7695.1 |
| -950.0  | 1600.0   | 7924.4 | 12.5    | 1600.0   | 6545.3 | 962.5   | 1600.0   | 7748.1 |
| -937.5  | 1600.0   | 7922.0 | 25.0    | 1600.0   | 6789.9 | 975.0   | 1600.0   | 7714.7 |
| -925.0  | 1600.0   | 7931.6 | 37.5    | 1600.0   | 7204.3 | 987.5   | 1600.0   | 7699.4 |
| -912.5  | 1600.0   | 7938.8 | 50.0    | 1600.0   | 6594.3 | 1000.0  | 1600.0   | 7706.8 |
| -900.0  | 1600.0   | 7951.2 | 62.5    | 1600.0   | 6364.2 | 1012.5  | 1600.0   | 7699.1 |
| -887.5  | 1600.0   | 7971.6 | 75.0    | 1600.0   | 6397.9 | 1025.0  | 1600.0   | 7697.6 |
| -875.0  | 1600.0   | 7985.8 | 87.5    | 1600.0   | 6311.8 | 1037.5  | 1600.0   | 7704.7 |
| -862.5  | 1600.0   | 8002.0 | 100.0   | 1600.0   | 6476.8 | 1050.0  | 1600.0   | 7708.6 |
| -850.0  | 1600.0   | 8013.7 | 112.5   | 1600.0   | 6849.7 | -1015.0 | 1700.0   | 7910.0 |
| -837.5  | 1600.0   | 8033.3 | 125.0   | 1600.0   | 6814.6 | -1000.0 | 1700.0   | 7919.5 |
| -825.0  | 1600.0   | 8044.1 | 137.5   | 1600.0   | 7035.2 | -987.5  | 1700.0   | 7921.2 |
| -812.5  | 1600.0   | 8021.7 | 150.0   | 1600.0   | 7541.9 | -975.0  | 1700.0   | 7943.0 |
| -800.0  | 1600.0   | 8078.4 | 162.5   | 1600.0   | 7247.7 | -962.5  | 1700.0   | 7960.7 |

| X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|---------|---------|----------|--------|---------|----------|--------|
| -950.0  | 1700.0   | 7972.8  | 12.5    | 1700.0   | 5781.5 | -870.4  | 1800.0   | 8136.5 |
| -937.5  | 1700.0   | 7979.2  | 25.0    | 1700.0   | 5875.9 | -856.7  | 1800.0   | 8145.3 |
| -925.0  | 1700.0   | 8014.1  | 37.5    | 1700.0   | 6207.1 | -843.0  | 1800.0   | 8127.2 |
| -912.5  | 1700.0   | 8024.2  | 50.0    | 1700.0   | 6072.8 | -829.3  | 1800.0   | 8159.7 |
| -900.0  | 1700.0   | 8010.5  | 62.5    | 1700.0   | 6471.9 | -815.7  | 1800.0   | 8152.9 |
| -887.5  | 1700.0   | 8037.6  | 75.0    | 1700.0   | 6757.5 | -802.0  | 1800.0   | 8179.5 |
| -875.0  | 1700.0   | 8046.1  | 87.5    | 1700.0   | 5754.8 | -788.3  | 1800.0   | 8196.7 |
| -862.5  | 1700.0   | 8064.1  | 100.0   | 1700.0   | 6148.2 | -774.6  | 1800.0   | 8207.8 |
| -850.0  | 1700.0   | 8077.7  | 112.5   | 1700.0   | 6426.4 | -760.9  | 1800.0   | 8240.3 |
| -837.5  | 1700.0   | 8086.8  | 125.0   | 1700.0   | 7153.0 | -747.2  | 1800.0   | 8251.2 |
| -825.0  | 1700.0   | 8109.4  | 137.5   | 1700.0   | 6878.7 | -733.5  | 1800.0   | 8287.6 |
| -812.5  | 1700.0   | 8097.1  | 150.0   | 1700.0   | 7017.2 | -719.8  | 1800.0   | 8318.9 |
| -800.0  | 1700.0   | 8113.9  | 162.5   | 1700.0   | 6781.0 | -706.1  | 1800.0   | 8342.2 |
| -787.5  | 1700.0   | 8114.2  | 175.0   | 1700.0   | 6922.7 | -692.4  | 1800.0   | 8352.5 |
| -775.0  | 1700.0   | 8131.7  | 187.5   | 1700.0   | 7408.8 | -678.7  | 1800.0   | 8385.1 |
| -762.5  | 1700.0   | 8148.9  | 200.0   | 1700.0   | 7119.2 | -665.0  | 1800.0   | 8419.3 |
| -750.0  | 1700.0   | 8159.9  | 212.5   | 1700.0   | 7090.6 | -651.3  | 1800.0   | 8448.9 |
| -737.5  | 1700.0   | 8181.3  | 225.0   | 1700.0   | 7018.2 | -637.6  | 1800.0   | 8470.0 |
| -725.0  | 1700.0   | 8194.8  | 237.5   | 1700.0   | 7099.4 | -623.9  | 1800.0   | 8511.3 |
| -712.5  | 1700.0   | 8202.2  | 250.0   | 1700.0   | 7146.9 | -610.2  | 1800.0   | 8545.8 |
| -700.0  | 1700.0   | 8218.3  | 262.5   | 1700.0   | 7175.2 | -596.5  | 1800.0   | 8569.4 |
| -687.5  | 1700.0   | 8229.4  | 275.0   | 1700.0   | 7215.5 | -582.8  | 1800.0   | 8615.0 |
| -675.0  | 1700.0   | 8255.3  | 287.5   | 1700.0   | 7248.0 | -569.1  | 1800.0   | 8635.6 |
| -662.5  | 1700.0   | 8282.5  | 300.0   | 1700.0   | 7262.8 | -555.4  | 1800.0   | 8684.8 |
| -650.0  | 1700.0   | 8292.0  | 312.5   | 1700.0   | 7284.8 | -541.7  | 1800.0   | 8659.3 |
| -637.5  | 1700.0   | 8322.9  | 325.0   | 1700.0   | 7326.0 | -528.0  | 1800.0   | 8734.2 |
| -625.0  | 1700.0   | 8348.5  | 337.5   | 1700.0   | 7344.4 | -514.3  | 1800.0   | 8657.7 |
| -612.5  | 1700.0   | 8370.8  | 350.0   | 1700.0   | 7362.4 | -500.7  | 1800.0   | 8665.9 |
| -600.0  | 1700.0   | 8399.8  | 362.5   | 1700.0   | 7376.4 | -487.0  | 1800.0   | 8679.6 |
| -587.5  | 1700.0   | 8423.5  | 375.0   | 1700.0   | 7390.8 | -473.3  | 1800.0   | 8700.9 |
| -575.0  | 1700.0   | 8453.0  | 387.5   | 1700.0   | 7412.5 | -459.6  | 1800.0   | 8729.6 |
| -562.5  | 1700.0   | 8485.5  | 400.0   | 1700.0   | 7429.8 | -445.9  | 1800.0   | 8743.4 |
| -550.0  | 1700.0   | 8510.2  | 412.5   | 1700.0   | 7446.2 | -432.2  | 1800.0   | 8878.4 |
| -537.5  | 1700.0   | 8566.9  | 425.0   | 1700.0   | 7453.4 | -418.5  | 1800.0   | 8768.3 |
| -525.0  | 1700.0   | 8143.9  | 437.5   | 1700.0   | 7474.9 | -404.8  | 1800.0   | 8896.6 |
| -512.5  | 1700.0   | 8615.8  | 450.0   | 1700.0   | 7492.8 | -391.1  | 1800.0   | 8839.9 |
| -500.0  | 1700.0   | 8623.9  | 462.5   | 1700.0   | 7502.1 | -377.4  | 1800.0   | 8818.0 |
| -487.5  | 1700.0   | 8634.9  | 475.0   | 1700.0   | 7505.6 | -363.7  | 1800.0   | 8810.7 |
| -475.0  | 1700.0   | 8665.4  | 487.5   | 1700.0   | 7493.5 | -350.0  | 1800.0   | 8851.4 |
| -462.5  | 1700.0   | 8678.6  | 500.0   | 1700.0   | 7546.1 | -175.0  | 1800.0   | 9151.4 |
| -450.0  | 1700.0   | 8684.2  | 512.5   | 1700.0   | 7534.2 | -162.5  | 1800.0   | 9262.6 |
| -437.5  | 1700.0   | 8626.7  | 525.0   | 1700.0   | 7529.7 | -150.0  | 1800.0   | 8605.7 |
| -425.0  | 1700.0   | 8893.9  | 537.5   | 1700.0   | 7513.9 | -137.5  | 1800.0   | 8421.7 |
| -412.5  | 1700.0   | 8747.7  | 550.0   | 1700.0   | 7686.9 | -125.0  | 1800.0   | 8462.9 |
| -400.0  | 1700.0   | 8547.7  | 562.5   | 1700.0   | 7566.1 | -112.5  | 1800.0   | 7524.9 |
| -387.5  | 1700.0   | 8662.6  | 575.0   | 1700.0   | 7578.5 | -100.0  | 1800.0   | 6975.9 |
| -375.0  | 1700.0   | 8768.6  | 587.5   | 1700.0   | 7607.1 | -87.5   | 1800.0   | 7141.5 |
| -362.5  | 1700.0   | 8803.1  | 600.0   | 1700.0   | 7604.7 | -75.0   | 1800.0   | 7074.7 |
| -350.0  | 1700.0   | 8843.2  | 612.5   | 1700.0   | 7617.8 | -62.5   | 1800.0   | 6870.8 |
| -337.5  | 1700.0   | 8814.6  | 625.0   | 1700.0   | 7625.1 | -50.0   | 1800.0   | 7304.4 |
| -325.0  | 1700.0   | 8831.0  | 637.5   | 1700.0   | 7624.2 | -37.5   | 1800.0   | 7158.1 |
| -312.5  | 1700.0   | 8809.7  | 650.0   | 1700.0   | 7624.2 | -25.0   | 1800.0   | 6377.6 |
| -287.5  | 1700.0   | 9098.9  | 662.5   | 1700.0   | 7617.4 | -12.5   | 1800.0   | 5811.9 |
| -275.0  | 1700.0   | 9100.0  | 675.0   | 1700.0   | 7660.9 | 0.0     | 1800.0   | 5240.4 |
| -262.5  | 1700.0   | 9237.3  | 687.5   | 1700.0   | 7660.5 | 12.5    | 1800.0   | 5614.3 |
| -250.0  | 1700.0   | 9364.8  | 700.0   | 1700.0   | 7654.9 | 25.0    | 1800.0   | 6311.4 |
| -237.5  | 1700.0   | 9701.1  | 712.5   | 1700.0   | 7691.3 | 37.5    | 1800.0   | 5809.7 |
| -225.0  | 1700.0   | 9959.3  | 725.0   | 1700.0   | 7642.5 | 50.0    | 1800.0   | 5866.1 |
| -212.5  | 1700.0   | 10057.3 | 737.5   | 1700.0   | 7609.0 | 62.5    | 1800.0   | 5512.0 |
| -200.0  | 1700.0   | 10102.9 | 750.0   | 1700.0   | 7820.6 | 75.0    | 1800.0   | 6107.3 |
| -187.5  | 1700.0   | 10646.1 | 762.5   | 1700.0   | 7679.3 | 87.5    | 1800.0   | 6420.3 |
| -175.0  | 1700.0   | 9862.7  | 775.0   | 1700.0   | 7652.3 | 100.0   | 1800.0   | 6275.9 |
| -162.5  | 1700.0   | 9675.2  | 787.5   | 1700.0   | 7642.8 | 112.5   | 1800.0   | 6308.0 |
| -150.0  | 1700.0   | 9334.2  | 800.0   | 1700.0   | 7652.6 | 125.0   | 1800.0   | 6830.6 |
| -137.5  | 1700.0   | 9288.1  | 812.5   | 1700.0   | 7674.4 | 137.5   | 1800.0   | 7074.7 |
| -125.0  | 1700.0   | 8751.7  | 825.0   | 1700.0   | 7685.0 | 150.0   | 1800.0   | 7165.4 |
| -112.5  | 1700.0   | 7708.3  | 837.5   | 1700.0   | 7674.2 | 162.5   | 1800.0   | 7072.7 |
| -100.0  | 1700.0   | 8317.4  | 850.0   | 1700.0   | 7687.7 | 175.0   | 1800.0   | 7128.4 |
| -87.5   | 1700.0   | 7241.8  | -980.0  | 1800.0   | 8002.0 | 187.5   | 1800.0   | 7013.7 |
| -75.0   | 1700.0   | 7507.9  | -966.3  | 1800.0   | 8016.6 | 200.0   | 1800.0   | 7046.4 |
| -62.5   | 1700.0   | 6696.1  | -952.6  | 1800.0   | 8045.1 | 212.5   | 1800.0   | 7060.8 |
| -50.0   | 1700.0   | 7453.5  | -938.9  | 1800.0   | 8055.5 | 225.0   | 1800.0   | 7106.2 |
| -37.5   | 1700.0   | 7315.6  | -925.2  | 1800.0   | 8076.7 | 237.5   | 1800.0   | 7101.7 |
| -25.0   | 1700.0   | 7166.7  | -911.5  | 1800.0   | 8053.9 | 250.0   | 1800.0   | 7141.7 |
| -12.5   | 1700.0   | 6976.0  | -897.8  | 1800.0   | 8132.3 | 262.5   | 1800.0   | 7163.1 |
| 0.0     | 1700.0   | 6182.3  | -884.1  | 1800.0   | 8123.7 | 275.0   | 1800.0   | 7193.7 |



| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|---------|---------|----------|--------|
| 287.5   | 1800.0   | 7212.4 | 137.5   | 1900.0   | 7258.8  | -25.0   | 2000.0   | 6989.2 |
| 300.0   | 1800.0   | 7242.3 | 150.0   | 1900.0   | 7128.7  | -12.5   | 2000.0   | 7190.1 |
| 312.5   | 1800.0   | 7270.1 | 162.5   | 1900.0   | 6638.9  | 0.0     | 2000.0   | 7230.6 |
| 325.0   | 1800.0   | 7296.9 | 175.0   | 1900.0   | 6709.1  | 12.5    | 2000.0   | 7406.9 |
| 337.5   | 1800.0   | 7329.3 | 187.5   | 1900.0   | 6845.6  | 25.0    | 2000.0   | 7786.9 |
| 350.0   | 1800.0   | 7340.6 | 200.0   | 1900.0   | 6945.2  | 37.5    | 2000.0   | 7487.1 |
| 362.5   | 1800.0   | 7360.8 | 212.5   | 1900.0   | 7063.4  | 50.0    | 2000.0   | 7260.9 |
| 375.0   | 1800.0   | 7373.1 | 225.0   | 1900.0   | 7402.7  | 62.5    | 2000.0   | 6676.5 |
| 387.5   | 1800.0   | 7393.7 | 237.5   | 1900.0   | 6948.7  | 75.0    | 2000.0   | 6210.4 |
| 400.0   | 1800.0   | 7423.9 | 250.0   | 1900.0   | 7004.6  | 87.5    | 2000.0   | 6601.4 |
| 412.5   | 1800.0   | 7430.3 | 262.5   | 1900.0   | 7058.1  | 100.0   | 2000.0   | 5861.6 |
| 425.0   | 1800.0   | 7447.3 | 275.0   | 1900.0   | 7119.8  | 112.5   | 2000.0   | 5572.1 |
| 437.5   | 1800.0   | 7461.7 | 287.5   | 1900.0   | 7156.2  | 125.0   | 2000.0   | 6009.3 |
| 450.0   | 1800.0   | 7477.2 | 300.0   | 1900.0   | 7191.2  | 137.5   | 2000.0   | 5969.6 |
| -970.0  | 1900.0   | 7959.2 | 312.5   | 1900.0   | 7212.3  | 150.0   | 2000.0   | 6117.4 |
| -955.0  | 1900.0   | 7965.1 | 325.0   | 1900.0   | 7256.0  | 162.5   | 2000.0   | 6632.6 |
| -940.0  | 1900.0   | 7999.0 | 337.5   | 1900.0   | 7286.9  | 175.0   | 2000.0   | 6614.1 |
| -925.0  | 1900.0   | 8021.0 | 350.0   | 1900.0   | 7300.5  | 187.5   | 2000.0   | 6641.0 |
| -910.0  | 1900.0   | 8028.9 | 362.5   | 1900.0   | 7325.2  | 200.0   | 2000.0   | 6716.1 |
| -895.0  | 1900.0   | 8064.1 | 375.0   | 1900.0   | 7334.0  | 212.5   | 2000.0   | 6748.6 |
| -880.0  | 1900.0   | 8094.7 | 387.5   | 1900.0   | 7364.9  | 225.0   | 2000.0   | 6686.6 |
| -865.0  | 1900.0   | 8098.5 | 400.0   | 1900.0   | 7375.6  | 237.5   | 2000.0   | 6940.4 |
| -850.0  | 1900.0   | 8125.2 | 412.5   | 1900.0   | 7401.8  | 250.0   | 2000.0   | 7293.6 |
| -835.0  | 1900.0   | 8153.8 | 425.0   | 1900.0   | 7417.4  | 262.5   | 2000.0   | 7111.7 |
| -820.0  | 1900.0   | 8172.8 | -960.0  | 2000.0   | 7812.2  | 275.0   | 2000.0   | 6996.0 |
| -805.0  | 1900.0   | 8186.3 | -943.7  | 2000.0   | 7827.6  | 287.5   | 2000.0   | 7062.7 |
| -790.0  | 1900.0   | 8212.2 | -927.4  | 2000.0   | 7834.3  | 300.0   | 2000.0   | 7086.2 |
| -775.0  | 1900.0   | 8219.4 | -911.1  | 2000.0   | 7862.0  | 312.5   | 2000.0   | 7105.4 |
| -760.0  | 1900.0   | 8264.0 | -894.9  | 2000.0   | 7898.9  | 325.0   | 2000.0   | 7135.7 |
| -745.0  | 1900.0   | 8313.7 | -878.6  | 2000.0   | 7907.8  | 337.5   | 2000.0   | 7149.5 |
| -730.0  | 1900.0   | 8358.6 | -862.3  | 2000.0   | 7934.8  | 350.0   | 2000.0   | 7189.3 |
| -715.0  | 1900.0   | 8406.2 | -846.0  | 2000.0   | 7952.3  | 362.5   | 2000.0   | 7219.4 |
| -700.0  | 1900.0   | 8465.7 | -829.7  | 2000.0   | 7971.1  | 375.0   | 2000.0   | 7255.8 |
| -685.0  | 1900.0   | 8524.2 | -813.4  | 2000.0   | 8009.7  | 387.5   | 2000.0   | 7281.6 |
| -670.0  | 1900.0   | 8545.8 | -797.1  | 2000.0   | 8041.8  | 400.0   | 2000.0   | 7301.8 |
| -655.0  | 1900.0   | 8594.0 | -780.9  | 2000.0   | 8089.0  | 412.5   | 2000.0   | 7326.8 |
| -640.0  | 1900.0   | 8623.6 | -764.6  | 2000.0   | 8102.0  | 425.0   | 2000.0   | 7344.2 |
| -625.0  | 1900.0   | 8652.3 | -748.3  | 2000.0   | 8138.3  | -225.0  | 2100.0   | 9948.8 |
| -610.0  | 1900.0   | 8682.3 | -732.0  | 2000.0   | 8184.2  | -212.5  | 2100.0   | 8886.8 |
| -595.0  | 1900.0   | 8676.9 | -715.7  | 2000.0   | 8166.3  | -200.0  | 2100.0   | 9029.3 |
| -580.0  | 1900.0   | 8685.0 | -699.4  | 2000.0   | 8312.5  | -187.5  | 2100.0   | 8749.8 |
| -565.0  | 1900.0   | 8700.8 | -683.1  | 2000.0   | 8251.3  | -175.0  | 2100.0   | 8251.4 |
| -550.0  | 1900.0   | 8720.9 | -666.9  | 2000.0   | 8333.9  | -162.5  | 2100.0   | 8450.7 |
| -535.0  | 1900.0   | 8724.3 | -650.6  | 2000.0   | 8382.2  | -150.0  | 2100.0   | 7929.8 |
| -520.0  | 1900.0   | 8733.0 | -634.3  | 2000.0   | 8514.8  | -137.5  | 2100.0   | 7654.0 |
| -505.0  | 1900.0   | 8703.0 | -618.0  | 2000.0   | 8629.2  | -125.0  | 2100.0   | 7534.6 |
| -490.0  | 1900.0   | 8737.3 | -601.7  | 2000.0   | 8641.3  | -112.5  | 2100.0   | 7837.7 |
| -475.0  | 1900.0   | 8785.4 | -585.4  | 2000.0   | 8632.8  | -100.0  | 2100.0   | 8685.4 |
| -460.0  | 1900.0   | 8809.3 | -569.1  | 2000.0   | 8676.2  | -87.5   | 2100.0   | 7729.5 |
| -445.0  | 1900.0   | 8816.2 | -552.9  | 2000.0   | 8716.0  | -75.0   | 2100.0   | 8310.7 |
| -430.0  | 1900.0   | 8807.4 | -536.6  | 2000.0   | 8806.9  | -62.5   | 2100.0   | 6629.2 |
| -415.0  | 1900.0   | 8759.8 | -520.3  | 2000.0   | 9059.2  | -50.0   | 2100.0   | 7136.0 |
| -400.0  | 1900.0   | 8753.0 | -504.0  | 2000.0   | 8813.7  | -37.5   | 2100.0   | 6937.9 |
| -385.0  | 1900.0   | 8726.4 | -487.7  | 2000.0   | 8797.3  | -25.0   | 2100.0   | 6796.7 |
| -370.0  | 1900.0   | 8753.5 | -471.4  | 2000.0   | 8839.8  | -12.5   | 2100.0   | 6335.0 |
| -125.0  | 1900.0   | 7395.0 | -455.1  | 2000.0   | 8828.4  | 0.0     | 2100.0   | 5838.4 |
| -112.5  | 1900.0   | 7910.0 | -438.9  | 2000.0   | 8807.0  | 12.5    | 2100.0   | 5985.9 |
| -100.0  | 1900.0   | 8206.2 | -422.6  | 2000.0   | 8843.9  | 25.0    | 2100.0   | 6926.8 |
| -87.5   | 1900.0   | 7966.2 | -406.3  | 2000.0   | 8802.0  | 37.5    | 2100.0   | 7331.9 |
| -75.0   | 1900.0   | 7026.0 | -390.0  | 2000.0   | 8746.4  | 50.0    | 2100.0   | 7745.4 |
| -62.5   | 1900.0   | 7077.6 | -225.0  | 2000.0   | 9962.7  | 62.5    | 2100.0   | 7372.4 |
| -50.0   | 1900.0   | 6939.5 | -212.5  | 2000.0   | 10264.5 | 75.0    | 2100.0   | 6474.9 |
| -37.5   | 1900.0   | 6284.2 | -200.0  | 2000.0   | 9926.3  | 87.5    | 2100.0   | 6077.8 |
| -25.0   | 1900.0   | 6052.7 | -187.5  | 2000.0   | 9490.1  | 100.0   | 2100.0   | 6181.2 |
| -12.5   | 1900.0   | 6009.6 | -175.0  | 2000.0   | 7650.6  | 112.5   | 2100.0   | 6810.0 |
| 0.0     | 1900.0   | 6399.2 | -162.5  | 2000.0   | 7101.6  | 125.0   | 2100.0   | 6650.3 |
| 12.5    | 1900.0   | 6590.0 | -150.0  | 2000.0   | 7352.3  | 137.5   | 2100.0   | 5452.0 |
| 25.0    | 1900.0   | 6062.7 | -137.5  | 2000.0   | 7620.3  | 150.0   | 2100.0   | 5674.9 |
| 37.5    | 1900.0   | 6079.3 | -125.0  | 2000.0   | 8034.2  | 162.5   | 2100.0   | 5758.3 |
| 50.0    | 1900.0   | 6682.0 | -112.5  | 2000.0   | 7515.6  | 175.0   | 2100.0   | 6293.9 |
| 62.5    | 1900.0   | 5309.5 | -100.0  | 2000.0   | 7121.1  | 187.5   | 2100.0   | 6622.3 |
| 75.0    | 1900.0   | 5941.2 | -87.5   | 2000.0   | 7276.2  | 200.0   | 2100.0   | 6841.6 |
| 87.5    | 1900.0   | 6108.6 | -75.0   | 2000.0   | 7964.1  | 212.5   | 2100.0   | 7278.7 |
| 100.0   | 1900.0   | 6317.7 | -62.5   | 2000.0   | 7959.1  | 225.0   | 2100.0   | 6434.2 |
| 112.5   | 1900.0   | 6500.3 | -50.0   | 2000.0   | 6996.9  | 237.5   | 2100.0   | 6589.7 |
| 125.0   | 1900.0   | 6505.9 | -37.5   | 2000.0   | 6758.1  | 250.0   | 2100.0   | 6760.1 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F.  |
|---------|----------|--------|---------|----------|---------|---------|----------|---------|
| 262.5   | 2100.0   | 7101.1 | 1212.5  | 2100.0   | 7669.7  | 837.5   | 2200.0   | 7619.7  |
| 275.0   | 2100.0   | 7215.3 | 1225.0  | 2100.0   | 7667.9  | 850.0   | 2200.0   | 7626.2  |
| 287.5   | 2100.0   | 6806.3 | -245.0  | 2200.0   | 9726.7  | 862.5   | 2200.0   | 7628.6  |
| 300.0   | 2100.0   | 6918.8 | -237.5  | 2200.0   | 9777.8  | 875.0   | 2200.0   | 7632.6  |
| 312.5   | 2100.0   | 7026.5 | -225.0  | 2200.0   | 9852.5  | 887.5   | 2200.0   | 7631.4  |
| 325.0   | 2100.0   | 7048.1 | -212.5  | 2200.0   | 9968.3  | 900.0   | 2200.0   | 7632.8  |
| 337.5   | 2100.0   | 7085.1 | -200.0  | 2200.0   | 10028.9 | 912.5   | 2200.0   | 7628.1  |
| 350.0   | 2100.0   | 7109.1 | -187.5  | 2200.0   | 10191.1 | 925.0   | 2200.0   | 7620.4  |
| 362.5   | 2100.0   | 7123.2 | -175.0  | 2200.0   | 10067.2 | 937.5   | 2200.0   | 7619.7  |
| 375.0   | 2100.0   | 7166.0 | -162.5  | 2200.0   | 9420.9  | 950.0   | 2200.0   | 7607.3  |
| 387.5   | 2100.0   | 7186.2 | -150.0  | 2200.0   | 9836.4  | 962.5   | 2200.0   | 7644.9  |
| 400.0   | 2100.0   | 7202.6 | -137.5  | 2200.0   | 9893.9  | 975.0   | 2200.0   | 7630.6  |
| 412.5   | 2100.0   | 7251.3 | -125.0  | 2200.0   | 10462.5 | 987.5   | 2200.0   | 7643.3  |
| 425.0   | 2100.0   | 7268.2 | -112.5  | 2200.0   | 10178.4 | 1000.0  | 2200.0   | 7631.7  |
| 437.5   | 2100.0   | 7154.8 | -100.0  | 2200.0   | 10437.8 | 1012.5  | 2200.0   | 7640.7  |
| 450.0   | 2100.0   | 7864.6 | -87.5   | 2200.0   | 8939.1  | 1025.0  | 2200.0   | 7656.1  |
| 462.5   | 2100.0   | 7393.5 | -75.0   | 2200.0   | 8533.7  | 1037.5  | 2200.0   | 7647.8  |
| 475.0   | 2100.0   | 7375.1 | -62.5   | 2200.0   | 7668.8  | 1050.0  | 2200.0   | 7633.5  |
| 487.5   | 2100.0   | 7375.1 | -50.0   | 2200.0   | 7848.5  | 1062.5  | 2200.0   | 7628.0  |
| 500.0   | 2100.0   | 7402.8 | -37.5   | 2200.0   | 7607.8  | 1075.0  | 2200.0   | 7622.5  |
| 512.5   | 2100.0   | 7437.2 | -25.0   | 2200.0   | 8651.6  | 1087.5  | 2200.0   | 7630.6  |
| 525.0   | 2100.0   | 7450.1 | -12.5   | 2200.0   | 9545.5  | 1100.0  | 2200.0   | 7638.9  |
| 537.5   | 2100.0   | 7460.9 | 0.0     | 2200.0   | 7670.3  | 1112.5  | 2200.0   | 7624.2  |
| 550.0   | 2100.0   | 7487.2 | 12.5    | 2200.0   | 6643.5  | -287.5  | 2300.0   | 10995.8 |
| 562.5   | 2100.0   | 7500.4 | 25.0    | 2200.0   | 6509.3  | -275.0  | 2300.0   | 11330.6 |
| 575.0   | 2100.0   | 7501.0 | 37.5    | 2200.0   | 6277.0  | -262.5  | 2300.0   | 11378.6 |
| 587.5   | 2100.0   | 7505.7 | 50.0    | 2200.0   | 5839.5  | -250.0  | 2300.0   | 11266.7 |
| 600.0   | 2100.0   | 7503.1 | 62.5    | 2200.0   | 5470.2  | -237.5  | 2300.0   | 10939.7 |
| 612.5   | 2100.0   | 7547.8 | 75.0    | 2200.0   | 5506.0  | -225.0  | 2300.0   | 10774.6 |
| 625.0   | 2100.0   | 7584.4 | 87.5    | 2200.0   | 5672.7  | -212.5  | 2300.0   | 10634.7 |
| 637.5   | 2100.0   | 7550.3 | 100.0   | 2200.0   | 5716.1  | -200.0  | 2300.0   | 10441.9 |
| 650.0   | 2100.0   | 7570.4 | 112.5   | 2200.0   | 5470.2  | -187.5  | 2300.0   | 10293.6 |
| 662.5   | 2100.0   | 7579.5 | 125.0   | 2200.0   | 6160.5  | -175.0  | 2300.0   | 10370.5 |
| 675.0   | 2100.0   | 7598.7 | 137.5   | 2200.0   | 6298.5  | -162.5  | 2300.0   | 10818.7 |
| 687.5   | 2100.0   | 7607.5 | 150.0   | 2200.0   | 6618.2  | -150.0  | 2300.0   | 11689.9 |
| 700.0   | 2100.0   | 7605.6 | 162.5   | 2200.0   | 6378.3  | -137.5  | 2300.0   | 11159.9 |
| 712.5   | 2100.0   | 7609.6 | 175.0   | 2200.0   | 5521.8  | -125.0  | 2300.0   | 9355.5  |
| 725.0   | 2100.0   | 7598.0 | 187.5   | 2200.0   | 5525.0  | -112.5  | 2300.0   | 9489.1  |
| 737.5   | 2100.0   | 7636.1 | 200.0   | 2200.0   | 5647.3  | -100.0  | 2300.0   | 9604.7  |
| 750.0   | 2100.0   | 7641.6 | 212.5   | 2200.0   | 6108.9  | -87.5   | 2300.0   | 10696.6 |
| 762.5   | 2100.0   | 7618.0 | 225.0   | 2200.0   | 6485.3  | -75.0   | 2300.0   | 11411.6 |
| 775.0   | 2100.0   | 7575.6 | 237.5   | 2200.0   | 6849.8  | -62.5   | 2300.0   | 10469.6 |
| 787.5   | 2100.0   | 7590.0 | 250.0   | 2200.0   | 6651.7  | -50.0   | 2300.0   | 8519.7  |
| 800.0   | 2100.0   | 7509.6 | 262.5   | 2200.0   | 6584.7  | -37.5   | 2300.0   | 7613.3  |
| 812.5   | 2100.0   | 7605.1 | 275.0   | 2200.0   | 6490.4  | -25.0   | 2300.0   | 8420.2  |
| 825.0   | 2100.0   | 7627.4 | 287.5   | 2200.0   | 6971.1  | -12.5   | 2300.0   | 9827.0  |
| 837.5   | 2100.0   | 7622.4 | 300.0   | 2200.0   | 6872.2  | 0.0     | 2300.0   | 10023.1 |
| 850.0   | 2100.0   | 7627.9 | 312.5   | 2200.0   | 6854.3  | 12.5    | 2300.0   | 10072.9 |
| 862.5   | 2100.0   | 7631.5 | 325.0   | 2200.0   | 6878.3  | 25.0    | 2300.0   | 10655.4 |
| 875.0   | 2100.0   | 7630.8 | 337.5   | 2200.0   | 7140.9  | 37.5    | 2300.0   | 10134.7 |
| 887.5   | 2100.0   | 7621.0 | 350.0   | 2200.0   | 7110.8  | 45.0    | 2300.0   | 9616.7  |
| 900.0   | 2100.0   | 7617.8 | 362.5   | 2200.0   | 7042.9  | 50.0    | 2300.0   | 8333.5  |
| 912.5   | 2100.0   | 7614.5 | 375.0   | 2200.0   | 7082.9  | 62.5    | 2300.0   | 9568.5  |
| 925.0   | 2100.0   | 7626.4 | 387.5   | 2200.0   | 7138.9  | 70.0    | 2300.0   | 7365.1  |
| 937.5   | 2100.0   | 7617.4 | 400.0   | 2200.0   | 7123.1  | 75.0    | 2300.0   | 8369.2  |
| 950.0   | 2100.0   | 7633.4 | 412.5   | 2200.0   | 7047.5  | 87.5    | 2300.0   | 6728.7  |
| 962.5   | 2100.0   | 7634.5 | 425.0   | 2200.0   | 7482.7  | 100.0   | 2300.0   | 6334.7  |
| 975.0   | 2100.0   | 7622.7 | 600.0   | 2200.0   | 7504.6  | 112.5   | 2300.0   | 5726.0  |
| 987.5   | 2100.0   | 7625.0 | 612.5   | 2200.0   | 7520.4  | 125.0   | 2300.0   | 4803.3  |
| 1000.0  | 2100.0   | 7640.4 | 625.0   | 2200.0   | 7562.0  | 137.5   | 2300.0   | 5715.8  |
| 1012.5  | 2100.0   | 7646.4 | 637.5   | 2200.0   | 7558.5  | 150.0   | 2300.0   | 5947.4  |
| 1025.0  | 2100.0   | 7647.7 | 650.0   | 2200.0   | 7598.9  | 162.5   | 2300.0   | 5960.1  |
| 1037.5  | 2100.0   | 7631.4 | 662.5   | 2200.0   | 7593.0  | 175.0   | 2300.0   | 6213.9  |
| 1050.0  | 2100.0   | 7614.6 | 675.0   | 2200.0   | 7567.1  | 187.5   | 2300.0   | 5572.5  |
| 1062.5  | 2100.0   | 7647.4 | 687.5   | 2200.0   | 7595.9  | 200.0   | 2300.0   | 5612.2  |
| 1075.0  | 2100.0   | 7658.7 | 700.0   | 2200.0   | 7820.3  | 212.5   | 2300.0   | 5757.9  |
| 1087.5  | 2100.0   | 7657.8 | 712.5   | 2200.0   | 7601.5  | 225.0   | 2300.0   | 6004.6  |
| 1100.0  | 2100.0   | 7658.6 | 725.0   | 2200.0   | 7605.3  | 237.5   | 2300.0   | 6044.8  |
| 1112.5  | 2100.0   | 7625.6 | 737.5   | 2200.0   | 7599.0  | 250.0   | 2300.0   | 6196.4  |
| 1125.0  | 2100.0   | 7643.7 | 750.0   | 2200.0   | 7604.2  | 262.5   | 2300.0   | 6254.6  |
| 1137.5  | 2100.0   | 7649.5 | 762.5   | 2200.0   | 7597.1  | 275.0   | 2300.0   | 6461.1  |
| 1150.0  | 2100.0   | 7729.0 | 775.0   | 2200.0   | 7611.1  | 287.5   | 2300.0   | 6623.8  |
| 1162.5  | 2100.0   | 7766.3 | 787.5   | 2200.0   | 7363.0  | 300.0   | 2300.0   | 6768.0  |
| 1175.0  | 2100.0   | 7771.6 | 800.0   | 2200.0   | 7485.2  | 312.5   | 2300.0   | 6894.7  |
| 1187.5  | 2100.0   | 7718.0 | 812.5   | 2200.0   | 7438.7  | 325.0   | 2300.0   | 7245.9  |
| 1200.0  | 2100.0   | 7683.2 | 825.0   | 2200.0   | 7687.5  | 337.5   | 2300.0   | 7157.6  |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 537.5   | 2500.0   | 7309.3 | 737.5   | 2500.0   | 7524.1 | 937.5   | 2500.0   | 7598.5 |
| 550.0   | 2500.0   | 7320.5 | 750.0   | 2500.0   | 7523.4 | 950.0   | 2500.0   | 7603.4 |
| 562.5   | 2500.0   | 7357.5 | 762.5   | 2500.0   | 7530.4 | 962.5   | 2500.0   | 7626.6 |
| 575.0   | 2500.0   | 7398.4 | 775.0   | 2500.0   | 7534.4 | 975.0   | 2500.0   | 7591.2 |
| 587.5   | 2500.0   | 7408.0 | 787.5   | 2500.0   | 7539.2 | 987.5   | 2500.0   | 7597.7 |
| 600.0   | 2500.0   | 7376.0 | 800.0   | 2500.0   | 7551.0 | 1000.0  | 2500.0   | 7522.3 |
| 612.5   | 2500.0   | 7459.7 | 812.5   | 2500.0   | 7550.3 | 1012.5  | 2500.0   | 7615.2 |
| 625.0   | 2500.0   | 7558.5 | 825.0   | 2500.0   | 7543.6 | 1025.0  | 2500.0   | 7607.7 |
| 637.5   | 2500.0   | 7477.6 | 837.5   | 2500.0   | 7562.1 | 1037.5  | 2500.0   | 7664.5 |
| 650.0   | 2500.0   | 7497.4 | 850.0   | 2500.0   | 7585.9 | 1050.0  | 2500.0   | 7681.8 |
| 662.5   | 2500.0   | 7502.7 | 862.5   | 2500.0   | 7588.7 | 1062.5  | 2500.0   | 7523.8 |
| 675.0   | 2500.0   | 7501.6 | 875.0   | 2500.0   | 7606.8 | 1075.0  | 2500.0   | 7662.0 |
| 687.5   | 2500.0   | 7499.8 | 887.5   | 2500.0   | 7605.6 | 1087.5  | 2500.0   | 7639.5 |
| 700.0   | 2500.0   | 7513.4 | 900.0   | 2500.0   | 7626.6 | 1100.0  | 2500.0   | 7258.2 |
| 712.5   | 2500.0   | 7531.8 | 912.5   | 2500.0   | 7631.7 |         |          |        |
| 725.0   | 2500.0   | 7525.5 | 925.0   | 2500.0   | 7649.2 |         |          |        |

| X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  |
|---------|----------|---------|---------|----------|--------|---------|----------|---------|
| 350.0   | 2300.0   | 6959.3  | -37.5   | 2400.0   | 9268.1 | 912.5   | 2400.0   | 7658.0  |
| 362.5   | 2300.0   | 6857.7  | -25.0   | 2400.0   | 9817.2 | 925.0   | 2400.0   | 7632.1  |
| 375.0   | 2300.0   | 6866.6  | -12.5   | 2400.0   | 9249.2 | 937.5   | 2400.0   | 7624.6  |
| 387.5   | 2300.0   | 6919.7  | 0.0     | 2400.0   | 9105.7 | 950.0   | 2400.0   | 7625.8  |
| 400.0   | 2300.0   | 6998.1  | 12.5    | 2400.0   | 7928.3 | 962.5   | 2400.0   | 7634.4  |
| 412.5   | 2300.0   | 7053.6  | 25.0    | 2400.0   | 9976.6 | 975.0   | 2400.0   | 7641.9  |
| 425.0   | 2300.0   | 7126.1  | 37.5    | 2400.0   | 9070.9 | 987.5   | 2400.0   | 7597.7  |
| 437.5   | 2300.0   | 7216.6  | 50.0    | 2400.0   | 9501.8 | 1000.0  | 2400.0   | 7591.4  |
| 450.0   | 2300.0   | 7241.4  | 62.5    | 2400.0   | 8713.3 | 1012.5  | 2400.0   | 7610.2  |
| 462.5   | 2300.0   | 7266.9  | 75.0    | 2400.0   | 7545.6 | 1025.0  | 2400.0   | 7601.3  |
| 475.0   | 2300.0   | 7295.3  | 87.5    | 2400.0   | 7306.4 | -287.5  | 2500.0   | 12433.4 |
| 487.5   | 2300.0   | 7309.4  | 100.0   | 2400.0   | 7250.6 | -275.0  | 2500.0   | 12592.3 |
| 500.0   | 2300.0   | 7331.0  | 112.5   | 2400.0   | 6732.3 | -262.5  | 2500.0   | 12845.2 |
| 512.5   | 2300.0   | 7349.3  | 125.0   | 2400.0   | 7160.7 | -250.0  | 2500.0   | 10008.8 |
| 525.0   | 2300.0   | 7361.5  | 137.5   | 2400.0   | 7006.3 | -237.5  | 2500.0   | 9738.9  |
| 537.5   | 2300.0   | 7602.6  | 150.0   | 2400.0   | 3535.5 | -225.0  | 2500.0   | 10202.2 |
| 550.0   | 2300.0   | 7440.1  | 162.5   | 2400.0   | 2674.9 | -212.5  | 2500.0   | 10566.4 |
| 562.5   | 2300.0   | 7469.3  | 175.0   | 2400.0   | 4151.4 | -200.0  | 2500.0   | 10162.4 |
| 575.0   | 2300.0   | 7461.2  | 187.5   | 2400.0   | 5403.6 | -187.5  | 2500.0   | 9757.5  |
| 587.5   | 2300.0   | 7492.9  | 200.0   | 2400.0   | 6185.5 | -175.0  | 2500.0   | 9733.2  |
| 600.0   | 2300.0   | 7479.4  | 212.5   | 2400.0   | 6398.7 | -162.5  | 2500.0   | 9398.0  |
| 612.5   | 2300.0   | 7493.6  | 225.0   | 2400.0   | 6182.1 | -150.0  | 2500.0   | 9998.1  |
| 625.0   | 2300.0   | 7491.6  | 237.5   | 2400.0   | 6070.1 | -137.5  | 2500.0   | 12244.4 |
| 637.5   | 2300.0   | 7532.2  | 250.0   | 2400.0   | 6041.8 | -125.0  | 2500.0   | 11758.7 |
| 650.0   | 2300.0   | 7556.9  | 262.5   | 2400.0   | 6296.5 | -112.5  | 2500.0   | 9610.1  |
| 662.5   | 2300.0   | 7556.2  | 275.0   | 2400.0   | 6360.4 | -100.0  | 2500.0   | 9793.5  |
| 675.0   | 2300.0   | 7553.5  | 287.5   | 2400.0   | 6405.3 | -87.5   | 2500.0   | 9903.1  |
| 687.5   | 2300.0   | 7560.9  | 300.0   | 2400.0   | 6388.5 | -75.0   | 2500.0   | 9626.9  |
| 700.0   | 2300.0   | 7575.9  | 312.5   | 2400.0   | 6547.5 | -62.5   | 2500.0   | 9784.2  |
| 712.5   | 2300.0   | 7593.1  | 325.0   | 2400.0   | 6765.9 | -50.0   | 2500.0   | 8366.7  |
| 725.0   | 2300.0   | 7596.4  | 337.5   | 2400.0   | 6894.3 | -37.5   | 2500.0   | 7163.4  |
| 737.5   | 2300.0   | 7588.9  | 350.0   | 2400.0   | 7009.0 | -25.0   | 2500.0   | 7913.3  |
| 750.0   | 2300.0   | 7635.7  | 362.5   | 2400.0   | 7111.1 | -12.5   | 2500.0   | 8407.9  |
| 762.5   | 2300.0   | 7601.7  | 375.0   | 2400.0   | 7076.2 | 0.0     | 2500.0   | 8311.5  |
| 775.0   | 2300.0   | 7611.0  | 387.5   | 2400.0   | 7185.0 | 12.5    | 2500.0   | 8937.3  |
| 787.5   | 2300.0   | 7586.2  | 400.0   | 2400.0   | 7011.7 | 25.0    | 2500.0   | 9581.7  |
| 800.0   | 2300.0   | 7592.0  | 412.5   | 2400.0   | 7045.3 | 37.5    | 2500.0   | 8231.7  |
| 812.5   | 2300.0   | 7605.3  | 425.0   | 2400.0   | 7084.3 | 50.0    | 2500.0   | 7633.3  |
| 825.0   | 2300.0   | 7601.8  | 437.5   | 2400.0   | 7195.2 | 62.5    | 2500.0   | 8053.9  |
| 837.5   | 2300.0   | 7596.2  | 450.0   | 2400.0   | 7222.2 | 75.0    | 2500.0   | 7825.5  |
| 850.0   | 2300.0   | 7582.8  | 462.5   | 2400.0   | 7246.1 | 87.5    | 2500.0   | 7484.3  |
| 862.5   | 2300.0   | 7580.7  | 475.0   | 2400.0   | 7262.5 | 100.0   | 2500.0   | 6663.7  |
| 875.0   | 2300.0   | 7618.5  | 487.5   | 2400.0   | 7241.1 | 112.5   | 2500.0   | 6185.7  |
| 887.5   | 2300.0   | 7603.3  | 500.0   | 2400.0   | 7275.1 | 125.0   | 2500.0   | 6997.7  |
| 900.0   | 2300.0   | 7591.5  | 512.5   | 2400.0   | 7313.8 | 137.5   | 2500.0   | 6786.7  |
| 912.5   | 2300.0   | 7642.0  | 525.0   | 2400.0   | 7336.2 | 150.0   | 2500.0   | 5936.7  |
| 925.0   | 2300.0   | 7627.2  | 537.5   | 2400.0   | 7353.7 | 162.5   | 2500.0   | 5325.8  |
| 937.5   | 2300.0   | 7661.6  | 550.0   | 2400.0   | 7384.0 | 175.0   | 2500.0   | 6015.9  |
| 950.0   | 2300.0   | 7633.1  | 562.5   | 2400.0   | 7407.9 | 187.5   | 2500.0   | 5717.1  |
| 962.5   | 2300.0   | 7625.4  | 575.0   | 2400.0   | 7440.5 | 200.0   | 2500.0   | 5941.1  |
| 975.0   | 2300.0   | 7659.7  | 587.5   | 2400.0   | 7456.2 | 212.5   | 2500.0   | 6011.8  |
| 987.5   | 2300.0   | 7677.0  | 600.0   | 2400.0   | 7458.9 | 225.0   | 2500.0   | 6251.2  |
| 1000.0  | 2300.0   | 7677.4  | 612.5   | 2400.0   | 7470.3 | 237.5   | 2500.0   | 6530.9  |
| 1012.5  | 2300.0   | 7675.6  | 625.0   | 2400.0   | 7471.7 | 250.0   | 2500.0   | 7502.4  |
| 1025.0  | 2300.0   | 7656.1  | 637.5   | 2400.0   | 7485.8 | 262.5   | 2500.0   | 7131.2  |
| 1037.5  | 2300.0   | 7589.2  | 650.0   | 2400.0   | 7492.6 | 275.0   | 2500.0   | 7608.7  |
| 1050.0  | 2300.0   | 7539.3  | 662.5   | 2400.0   | 7505.1 | 287.5   | 2500.0   | 7177.2  |
| -275.0  | 2400.0   | 11252.1 | 675.0   | 2400.0   | 7518.0 | 300.0   | 2500.0   | 7585.3  |
| -262.5  | 2400.0   | 11440.3 | 687.5   | 2400.0   | 7510.1 | 312.5   | 2500.0   | 7155.6  |
| -250.0  | 2400.0   | 11340.3 | 700.0   | 2400.0   | 7544.7 | 325.0   | 2500.0   | 6594.6  |
| -237.5  | 2400.0   | 11120.3 | 712.5   | 2400.0   | 7544.3 | 337.5   | 2500.0   | 6715.3  |
| -225.0  | 2400.0   | 10837.9 | 725.0   | 2400.0   | 7543.1 | 350.0   | 2500.0   | 6844.4  |
| -212.5  | 2400.0   | 10722.3 | 737.5   | 2400.0   | 7561.6 | 362.5   | 2500.0   | 6744.3  |
| -200.0  | 2400.0   | 10578.4 | 750.0   | 2400.0   | 7562.9 | 375.0   | 2500.0   | 6879.7  |
| -187.5  | 2400.0   | 10506.9 | 762.5   | 2400.0   | 7573.4 | 387.5   | 2500.0   | 7039.2  |
| -175.0  | 2400.0   | 10175.1 | 775.0   | 2400.0   | 7583.2 | 400.0   | 2500.0   | 7168.0  |
| -162.5  | 2400.0   | 10349.2 | 787.5   | 2400.0   | 7573.4 | 412.5   | 2500.0   | 6988.3  |
| -150.0  | 2400.0   | 10747.9 | 800.0   | 2400.0   | 7584.8 | 425.0   | 2500.0   | 7027.6  |
| -137.5  | 2400.0   | 11109.7 | 812.5   | 2400.0   | 7598.9 | 437.5   | 2500.0   | 7031.1  |
| -125.0  | 2400.0   | 10704.8 | 825.0   | 2400.0   | 7615.0 | 450.0   | 2500.0   | 7023.2  |
| -112.5  | 2400.0   | 8813.1  | 837.5   | 2400.0   | 7586.9 | 462.5   | 2500.0   | 7211.7  |
| -100.0  | 2400.0   | 8225.2  | 850.0   | 2400.0   | 7592.9 | 475.0   | 2500.0   | 7347.8  |
| -87.5   | 2400.0   | 10054.9 | 862.5   | 2400.0   | 7631.1 | 487.5   | 2500.0   | 7492.4  |
| -75.0   | 2400.0   | 10215.6 | 875.0   | 2400.0   | 7632.5 | 500.0   | 2500.0   | 7452.6  |
| -62.5   | 2400.0   | 8286.1  | 887.5   | 2400.0   | 7608.2 | 512.5   | 2500.0   | 7298.7  |
| -50.0   | 2400.0   | 8367.1  | 900.0   | 2400.0   | 7596.2 | 525.0   | 2500.0   | 7305.2  |

| X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad |
|---------|----------|-----|----|------|---------|----------|-----|----|------|---------|----------|-----|----|------|
| -550.0  | 300.0    | 35  |    | 4    | -112.5  | 400.0    | 21  |    | 11   | -637.5  | 600.0    | 22  |    | 9    |
| -537.5  | 300.0    | 30  |    | 8    | -100.0  | 400.0    | 19  |    | 10   | -625.0  | 600.0    | 27  |    | 9    |
| -525.0  | 300.0    | 27  |    | 9    | -87.5   | 400.0    | 12  |    | 11   | -612.5  | 600.0    | 26  |    | 8    |
| -512.5  | 300.0    | 26  |    | 8    | -75.0   | 400.0    | 10  |    | 11   | -600.0  | 600.0    | 24  |    | 8    |
| -500.0  | 300.0    | 26  |    | 8    | -62.5   | 400.0    | 2   |    | 9    | -587.5  | 600.0    | 25  |    | 7    |
| -487.5  | 300.0    | 24  |    | 10   | -50.0   | 400.0    | -3  |    | 7    | -575.0  | 600.0    | 23  |    | 5    |
| -475.0  | 300.0    | 25  |    | 8    | -37.5   | 400.0    | -5  |    | 9    | -562.5  | 600.0    | 23  |    | 5    |
| -462.5  | 300.0    | 25  |    | 9    | -25.0   | 400.0    | -8  |    | 11   | -550.0  | 600.0    | 23  |    | 3    |
| -450.0  | 300.0    | 19  |    | 7    | -12.5   | 400.0    | -8  |    | 16   | -537.5  | 600.0    | 21  |    | 2    |
| -437.5  | 300.0    | 20  |    | 6    | 0.0     | 400.0    | -5  |    | 21   | -525.0  | 600.0    | 17  |    | 1    |
| -425.0  | 300.0    | 21  |    | 6    | -500.0  | 500.0    | 34  |    | 3    | -512.5  | 600.0    | 16  |    | 1    |
| -412.5  | 300.0    | 23  |    | 7    | -487.5  | 500.0    | 34  |    | 1    | -500.0  | 600.0    | 19  |    | 1    |
| -400.0  | 300.0    | 19  |    | 7    | -475.0  | 500.0    | 29  |    | 4    | -487.5  | 600.0    | 16  |    | 1    |
| -387.5  | 300.0    | 19  |    | 8    | -462.5  | 500.0    | 27  |    | 2    | -475.0  | 600.0    | 14  |    | 1    |
| -375.0  | 300.0    | 23  |    | 7    | -450.0  | 500.0    | 23  |    | 2    | -462.5  | 600.0    | 11  |    | 1    |
| -362.5  | 300.0    | 25  |    | 6    | -437.5  | 500.0    | 31  |    | 2    | -450.0  | 600.0    | 11  |    | 1    |
| -350.0  | 300.0    | 25  |    | 7    | -425.0  | 500.0    | 29  |    | 3    | -437.5  | 600.0    | 9   |    | 1    |
| -337.5  | 300.0    | 24  |    | 6    | -412.5  | 500.0    | 29  |    | 4    | -425.0  | 600.0    | 12  |    | 2    |
| -325.0  | 300.0    | 23  |    | 5    | -400.0  | 500.0    | 25  |    | 5    | -412.5  | 600.0    | 12  |    | 3    |
| -312.5  | 300.0    | 22  |    | 3    | -387.5  | 500.0    | 28  |    | 7    | -400.0  | 600.0    | 12  |    | 3    |
| -300.0  | 300.0    | 18  |    | 4    | -375.0  | 500.0    | 33  |    | 5    | -387.5  | 600.0    | 11  |    | 2    |
| -287.5  | 300.0    | 18  |    | 2    | -362.5  | 500.0    | 39  |    | 3    | -375.0  | 600.0    | 6   |    | 3    |
| -275.0  | 300.0    | 20  |    | 1    | -350.0  | 500.0    | 34  |    | 3    | -362.5  | 600.0    | 8   |    | 3    |
| -262.5  | 300.0    | 18  |    | 1    | -337.5  | 500.0    | 29  |    | 1    | -350.0  | 600.0    | 8   |    | 3    |
| -250.0  | 300.0    | 17  |    | 1    | -325.0  | 500.0    | 28  |    | 1    | -337.5  | 600.0    | 9   |    | 2    |
| -237.5  | 300.0    | 16  |    | 1    | -312.5  | 500.0    | 27  |    | 1    | -325.0  | 600.0    | 9   |    | 1    |
| -225.0  | 300.0    | 17  |    | 3    | -300.0  | 500.0    | 28  |    | 3    | -312.5  | 600.0    | 6   |    | 0    |
| -212.5  | 300.0    | 22  |    | 2    | -287.5  | 500.0    | 22  |    | 2    | -300.0  | 600.0    | 1   |    | -1   |
| -200.0  | 300.0    | 23  |    | 7    | -275.0  | 500.0    | 16  |    | 0    | -287.5  | 600.0    | 2   |    | -1   |
| -187.5  | 300.0    | 22  |    | 6    | -262.5  | 500.0    | 13  |    | 1    | -275.0  | 600.0    | 5   |    | -2   |
| -175.0  | 300.0    | 22  |    | 7    | -250.0  | 500.0    | 14  |    | 0    | -262.5  | 600.0    | 3   |    | -3   |
| -162.5  | 300.0    | 22  |    | 11   | -237.5  | 500.0    | 14  |    | 2    | -250.0  | 600.0    | 2   |    | -2   |
| -150.0  | 300.0    | 23  |    | 10   | -225.0  | 500.0    | 17  |    | 3    | -237.5  | 600.0    | 5   |    | 0    |
| -137.5  | 300.0    | 20  |    | 11   | -212.5  | 500.0    | 14  |    | 4    | -225.0  | 600.0    | 8   |    | 1    |
| -125.0  | 300.0    | 19  |    | 8    | -200.0  | 500.0    | 14  |    | 5    | -212.5  | 600.0    | 9   |    | 3    |
| -112.5  | 300.0    | 18  |    | 7    | -187.5  | 500.0    | 18  |    | 6    | -200.0  | 600.0    | 11  |    | 6    |
| -100.0  | 300.0    | 11  |    | 7    | -175.0  | 500.0    | 12  |    | 6    | -187.5  | 600.0    | 13  |    | 6    |
| -87.5   | 300.0    | 1   |    | 6    | -162.5  | 500.0    | 12  |    | 6    | -175.0  | 600.0    | 10  |    | 8    |
| -75.0   | 300.0    | -3  |    | 7    | -150.0  | 500.0    | 11  |    | 7    | -162.5  | 600.0    | 9   |    | 8    |
| -62.5   | 300.0    | -6  |    | 9    | -137.5  | 500.0    | 8   |    | 7    | -150.0  | 600.0    | 9   |    | 10   |
| -50.0   | 300.0    | -9  |    | 12   | -125.0  | 500.0    | 0   |    | 8    | -137.5  | 600.0    | 9   |    | 10   |
| -37.5   | 300.0    | -13 |    | 7    | -112.5  | 500.0    | 7   |    | 7    | -125.0  | 600.0    | 5   |    | 11   |
| -25.0   | 300.0    | -12 |    | 11   | -100.0  | 500.0    | 6   |    | 8    | -112.5  | 600.0    | 4   |    | 12   |
| -12.5   | 300.0    | -7  |    | 15   | -87.5   | 500.0    | 6   |    | 7    | -100.0  | 600.0    | 4   |    | 13   |
| 0.0     | 300.0    | -5  |    | 19   | -75.0   | 500.0    | -2  |    | 11   | -87.5   | 600.0    | 5   |    | 14   |
| -500.0  | 400.0    | 18  |    | 1    | -62.5   | 500.0    | 1   |    | 14   | -75.0   | 600.0    | 5   |    | 16   |
| -487.5  | 400.0    | 19  |    | 1    | -50.0   | 500.0    | 3   |    | 16   | -62.5   | 600.0    | 6   |    | 17   |
| -475.0  | 400.0    | 21  |    | 4    | -1000.0 | 600.0    | 5   |    | 2    | -50.0   | 600.0    | 12  |    | 20   |
| -462.5  | 400.0    | 20  |    | 5    | -987.5  | 600.0    | 0   |    | 4    | -37.5   | 600.0    | 11  |    | 20   |
| -450.0  | 400.0    | 20  |    | 6    | -975.0  | 600.0    | 1   |    | 5    | -25.0   | 600.0    | 11  |    | 20   |
| -437.5  | 400.0    | 22  |    | 4    | -962.5  | 600.0    | 8   |    | 4    | -12.5   | 600.0    | 16  |    | 23   |
| -425.0  | 400.0    | 23  |    | 6    | -950.0  | 600.0    | 10  |    | 6    | 0.0     | 600.0    | 15  |    | 22   |
| -412.5  | 400.0    | 22  |    | 8    | -937.5  | 600.0    | -14 |    | 10   | -1000.0 | 700.0    | 9   |    | 0    |
| -400.0  | 400.0    | 22  |    | 8    | -925.0  | 600.0    | -33 |    | 25   | -987.5  | 700.0    | 12  |    | 3    |
| -387.5  | 400.0    | 23  |    | 9    | -912.5  | 600.0    | -24 |    | 28   | -975.0  | 700.0    | 12  |    | 1    |
| -375.0  | 400.0    | 24  |    | 8    | -900.0  | 600.0    | -17 |    | 27   | -962.5  | 700.0    | 14  |    | 0    |
| -362.5  | 400.0    | 23  |    | 10   | -887.5  | 600.0    | -7  |    | 26   | -950.0  | 700.0    | 5   |    | 8    |
| -350.0  | 400.0    | 24  |    | 9    | -875.0  | 600.0    | 1   |    | 26   | -945.0  | 700.0    | -5  |    | 12   |
| -337.5  | 400.0    | 26  |    | 11   | -862.5  | 600.0    | 0   |    | 25   | -940.0  | 700.0    | -21 |    | 14   |
| -325.0  | 400.0    | 25  |    | 9    | -850.0  | 600.0    | 7   |    | 25   | -937.5  | 700.0    | -36 |    | 15   |
| -312.5  | 400.0    | 23  |    | 6    | -837.5  | 600.0    | 7   |    | 20   | -925.0  | 700.0    | -29 |    | 24   |
| -300.0  | 400.0    | 23  |    | 5    | -825.0  | 600.0    | 8   |    | 18   | -912.5  | 700.0    | -12 |    | 26   |
| -287.5  | 400.0    | 22  |    | 4    | -812.5  | 600.0    | 7   |    | 17   | -900.0  | 700.0    | -6  |    | 24   |
| -275.0  | 400.0    | 22  |    | 4    | -800.0  | 600.0    | 7   |    | 15   | -887.5  | 700.0    | -1  |    | 23   |
| -262.5  | 400.0    | 23  |    | 6    | -787.5  | 600.0    | 9   |    | 15   | -875.0  | 700.0    | 1   |    | 20   |
| -250.0  | 400.0    | 26  |    | 6    | -775.0  | 600.0    | 11  |    | 13   | -862.5  | 700.0    | 4   |    | 16   |
| -237.5  | 400.0    | 25  |    | 6    | -762.5  | 600.0    | 12  |    | 12   | -850.0  | 700.0    | 4   |    | 15   |
| -225.0  | 400.0    | 23  |    | 7    | -750.0  | 600.0    | 18  |    | 13   | -837.5  | 700.0    | 7   |    | 16   |
| -212.5  | 400.0    | 25  |    | 8    | -737.5  | 600.0    | 17  |    | 12   | -825.0  | 700.0    | 8   |    | 14   |
| -200.0  | 400.0    | 28  |    | 12   | -725.0  | 600.0    | 22  |    | 12   | -812.5  | 700.0    | 13  |    | 14   |
| -187.5  | 400.0    | 34  |    | 11   | -712.5  | 600.0    | 21  |    | 12   | -800.0  | 700.0    | 14  |    | 13   |
| -175.0  | 400.0    | 32  |    | 12   | -700.0  | 600.0    | 20  |    | 11   | -787.5  | 700.0    | 13  |    | 13   |
| -162.5  | 400.0    | 27  |    | 11   | -687.5  | 600.0    | 19  |    | 11   | -775.0  | 700.0    | 17  |    | 12   |
| -150.0  | 400.0    | 26  |    | 11   | -675.0  | 600.0    | 20  |    | 9    | -762.5  | 700.0    | 19  |    | 13   |
| -137.5  | 400.0    | 23  |    | 11   | -662.5  | 600.0    | 23  |    | 9    | -750.0  | 700.0    | 19  |    | 13   |
| -125.0  | 400.0    | 25  |    | 12   | -650.0  | 600.0    | 23  |    | 8    | -737.5  | 700.0    | 20  |    | 13   |

| X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|-----|----|------|---------|----------|----|----|------|---------|----------|----|----|------|
| -725.0  | 700.0    | 21  |    | 12   | 312.5   | 800.0    | 13 |    | 15   | -950.0  | 900.0    | 29 |    | 4    |
| -712.5  | 700.0    | 21  |    | 10   | -800.0  | 800.0    | 15 |    | 14   | -937.5  | 900.0    | 26 |    | 4    |
| -700.0  | 700.0    | 23  |    | 9    | -787.5  | 800.0    | 16 |    | 13   | -925.0  | 900.0    | 18 |    | 5    |
| -687.5  | 700.0    | 22  |    | 11   | -775.0  | 800.0    | 18 |    | 12   | -912.5  | 900.0    | 7  |    | 6    |
| -675.0  | 700.0    | 24  |    | 8    | -762.5  | 800.0    | 17 |    | 10   | -900.0  | 900.0    | -1 |    | 7    |
| -662.5  | 700.0    | 24  |    | 10   | -750.0  | 800.0    | 18 |    | 10   | -887.5  | 900.0    | -4 |    | 8    |
| -650.0  | 700.0    | 27  |    | 10   | -737.5  | 800.0    | 20 |    | 9    | -875.0  | 900.0    | -5 |    | 11   |
| -637.5  | 700.0    | 26  |    | 10   | -725.0  | 800.0    | 22 |    | 10   | -862.5  | 900.0    | -3 |    | 12   |
| -625.0  | 700.0    | 26  |    | 10   | -712.5  | 800.0    | 21 |    | 10   | -850.0  | 900.0    | 1  |    | 16   |
| -612.5  | 700.0    | 26  |    | 10   | -700.0  | 800.0    | 21 |    | 9    | -837.5  | 900.0    | 6  |    | 16   |
| -600.0  | 700.0    | 27  |    | 9    | -687.5  | 800.0    | 23 |    | 9    | -825.0  | 900.0    | 6  |    | 17   |
| -587.5  | 700.0    | 25  |    | 8    | -675.0  | 800.0    | 22 |    | 9    | -812.5  | 900.0    | 11 |    | 14   |
| -575.0  | 700.0    | 23  |    | 7    | -662.5  | 800.0    | 21 |    | 9    | -800.0  | 900.0    | 11 |    | 15   |
| -562.5  | 700.0    | 23  |    | 7    | -650.0  | 800.0    | 25 |    | 9    | -787.5  | 900.0    | 13 |    | 14   |
| -550.0  | 700.0    | 23  |    | 3    | -637.5  | 800.0    | 24 |    | 8    | -775.0  | 900.0    | 15 |    | 12   |
| -537.5  | 700.0    | 21  |    | 0    | -625.0  | 800.0    | 29 |    | 8    | -762.5  | 900.0    | 17 |    | 12   |
| -525.0  | 700.0    | 23  |    | 2    | -612.5  | 800.0    | 26 |    | 7    | -750.0  | 900.0    | 19 |    | 11   |
| -512.5  | 700.0    | 22  |    | 3    | -600.0  | 800.0    | 24 |    | 7    | -737.5  | 900.0    | 21 |    | 10   |
| -500.0  | 700.0    | 20  |    | 3    | -587.5  | 800.0    | 25 |    | 8    | -725.0  | 900.0    | 23 |    | 8    |
| -487.5  | 700.0    | 19  |    | 3    | -575.0  | 800.0    | 27 |    | 6    | -712.5  | 900.0    | 19 |    | 8    |
| -475.0  | 700.0    | 16  |    | 2    | -562.5  | 800.0    | 26 |    | 7    | -700.0  | 900.0    | 22 |    | 7    |
| -462.5  | 700.0    | 17  |    | 2    | -550.0  | 800.0    | 27 |    | 1    | -687.5  | 900.0    | 21 |    | 6    |
| -450.0  | 700.0    | 13  |    | 3    | -537.5  | 900.0    | 24 |    | 3    | -675.0  | 900.0    | 21 |    | 5    |
| -437.5  | 700.0    | 14  |    | 4    | -525.0  | 800.0    | 24 |    | 4    | -662.5  | 900.0    | 23 |    | 5    |
| -425.0  | 700.0    | 15  |    | 4    | -512.5  | 900.0    | 24 |    | 5    | -650.0  | 900.0    | 22 |    | 5    |
| -412.5  | 700.0    | 11  |    | 3    | -500.0  | 800.0    | 27 |    | 6    | -637.5  | 900.0    | 22 |    | 5    |
| -400.0  | 700.0    | 10  |    | 3    | -487.5  | 900.0    | 25 |    | 6    | -625.0  | 900.0    | 20 |    | 4    |
| -387.5  | 700.0    | 10  |    | 3    | -475.0  | 800.0    | 29 |    | 7    | -612.5  | 900.0    | 20 |    | 3    |
| -375.0  | 700.0    | 12  |    | 5    | -462.5  | 800.0    | 26 |    | 6    | -600.0  | 900.0    | 21 |    | 2    |
| -362.5  | 700.0    | 13  |    | 4    | -450.0  | 800.0    | 27 |    | 5    | -587.5  | 900.0    | 22 |    | 1    |
| -350.0  | 700.0    | 15  |    | 3    | -437.5  | 900.0    | 28 |    | 6    | -575.0  | 900.0    | 25 |    | 1    |
| -337.5  | 700.0    | 12  |    | 1    | -425.0  | 900.0    | 25 |    | 6    | -562.5  | 900.0    | 22 |    | 1    |
| -325.0  | 700.0    | 9   |    | 0    | -412.5  | 800.0    | 25 |    | 6    | -550.0  | 900.0    | 25 |    | 2    |
| -312.5  | 700.0    | 9   |    | 0    | -400.0  | 800.0    | 26 |    | 7    | -537.5  | 900.0    | 23 |    | 2    |
| -300.0  | 700.0    | 12  |    | 0    | -387.5  | 900.0    | 12 |    | 2    | -525.0  | 900.0    | 25 |    | 2    |
| -287.5  | 700.0    | 10  |    | 0    | -375.0  | 800.0    | 15 |    | 2    | -512.5  | 900.0    | 25 |    | 5    |
| -275.0  | 700.0    | 8   |    | 0    | -362.5  | 900.0    | 10 |    | 1    | -500.0  | 900.0    | 28 |    | 4    |
| -262.5  | 700.0    | 10  |    | 1    | -350.0  | 800.0    | 11 |    | 1    | -487.5  | 900.0    | 30 |    | 6    |
| -250.0  | 700.0    | 13  |    | 0    | -337.5  | 900.0    | 12 |    | 1    | -475.0  | 900.0    | 27 |    | 7    |
| -237.5  | 700.0    | 12  |    | 4    | -325.0  | 800.0    | 15 |    | 0    | -462.5  | 900.0    | 31 |    | 6    |
| -225.0  | 700.0    | 11  |    | 4    | -312.5  | 800.0    | 6  |    | 0    | -450.0  | 900.0    | 26 |    | 4    |
| -212.5  | 700.0    | 9   |    | 4    | -300.0  | 800.0    | 10 |    | 0    | -437.5  | 900.0    | 27 |    | 4    |
| -200.0  | 700.0    | 11  |    | 4    | -287.5  | 800.0    | 11 |    | 0    | -425.0  | 900.0    | 23 |    | 6    |
| -187.5  | 700.0    | 10  |    | 4    | -275.0  | 800.0    | 6  |    | -2   | -412.5  | 900.0    | 21 |    | 8    |
| -175.0  | 700.0    | 10  |    | 6    | -262.5  | 800.0    | 5  |    | -2   | -400.0  | 900.0    | 22 |    | 7    |
| -162.5  | 700.0    | 11  |    | 3    | -250.0  | 800.0    | 11 |    | -1   | -387.5  | 900.0    | 18 |    | 5    |
| -150.0  | 700.0    | 6   |    | 9    | -237.5  | 800.0    | 9  |    | 0    | -375.0  | 900.0    | 14 |    | 3    |
| -137.5  | 700.0    | 7   |    | 11   | -225.0  | 800.0    | 11 |    | 0    | -362.5  | 900.0    | 13 |    | 2    |
| -125.0  | 700.0    | 3   |    | 11   | -212.5  | 800.0    | 10 |    | 0    | -350.0  | 900.0    | 11 |    | 1    |
| -112.5  | 700.0    | 4   |    | 12   | -200.0  | 800.0    | 11 |    | 1    | -337.5  | 900.0    | 13 |    | 0    |
| -100.0  | 700.0    | 3   |    | 12   | -187.5  | 800.0    | 10 |    | 5    | -325.0  | 900.0    | 12 |    | 0    |
| -87.5   | 700.0    | 1   |    | 13   | -175.0  | 800.0    | 9  |    | 4    | -312.5  | 900.0    | 9  |    | -1   |
| -75.0   | 700.0    | 5   |    | 16   | -162.5  | 800.0    | 9  |    | 6    | -250.0  | 900.0    | 0  |    | -6   |
| -62.5   | 700.0    | 7   |    | 17   | -150.0  | 800.0    | 8  |    | 8    | -237.5  | 900.0    | -1 |    | -6   |
| -50.0   | 700.0    | 7   |    | 18   | -137.5  | 800.0    | 9  |    | 9    | -225.0  | 900.0    | 0  |    | -6   |
| -37.5   | 700.0    | 9   |    | 19   | -125.0  | 800.0    | 8  |    | 10   | -212.5  | 900.0    | 4  |    | -6   |
| -25.0   | 700.0    | 11  |    | 19   | -112.5  | 800.0    | 6  |    | 10   | -200.0  | 900.0    | 5  |    | -4   |
| -12.5   | 700.0    | 14  |    | 21   | -100.0  | 800.0    | 7  |    | 11   | -187.5  | 900.0    | 5  |    | -3   |
| 0.0     | 700.0    | 16  |    | 21   | -87.5   | 800.0    | 3  |    | 10   | -175.0  | 900.0    | 8  |    | 0    |
| -1009.0 | 800.0    | 24  |    | 0    | -75.0   | 800.0    | 4  |    | 12   | -162.5  | 900.0    | 9  |    | 0    |
| -1000.0 | 800.0    | 21  |    | 1    | -62.5   | 800.0    | 7  |    | 13   | -150.0  | 900.0    | 9  |    | 3    |
| -987.5  | 800.0    | 22  |    | 0    | -50.0   | 800.0    | 12 |    | 15   | -137.5  | 900.0    | 14 |    | 5    |
| -975.0  | 800.0    | 23  |    | 0    | -37.5   | 800.0    | 11 |    | 17   | -125.0  | 900.0    | 14 |    | 8    |
| -962.5  | 800.0    | 21  |    | 3    | -25.0   | 800.0    | 11 |    | 17   | -112.5  | 900.0    | 10 |    | 9    |
| -959.0  | 800.0    | 13  |    | 5    | -12.5   | 800.0    | 18 |    | 18   | -100.0  | 900.0    | 7  |    | 9    |
| -950.0  | 800.0    | -1  |    | 7    | 0.0     | 800.0    | 18 |    | 18   | -87.5   | 900.0    | 5  |    | 9    |
| -937.5  | 800.0    | -16 |    | 14   | 12.5    | 800.0    | 19 |    | 20   | -75.0   | 900.0    | 5  |    | 8    |
| -925.0  | 800.0    | -20 |    | 17   | 25.0    | 800.0    | 24 |    | 21   | -62.5   | 900.0    | 5  |    | 9    |
| -912.5  | 800.0    | -14 |    | 17   | 37.5    | 800.0    | 24 |    | 21   | -50.0   | 900.0    | 6  |    | 11   |
| -900.0  | 800.0    | -12 |    | 15   | 50.0    | 800.0    | 25 |    | 22   | -37.5   | 900.0    | 10 |    | 13   |
| -887.5  | 800.0    | -4  |    | 15   | 62.5    | 800.0    | 28 |    | 22   | -25.0   | 900.0    | 10 |    | 14   |
| -875.0  | 800.0    | 1   |    | 16   | 75.0    | 800.0    | 28 |    | 23   | -12.5   | 900.0    | 10 |    | 14   |
| -862.5  | 800.0    | 3   |    | 16   | 87.5    | 800.0    | 29 |    | 23   | 0.0     | 900.0    | 13 |    | 15   |
| -850.0  | 800.0    | 4   |    | 15   | 100.0   | 800.0    | 30 |    | 21   | 12.5    | 900.0    | 17 |    | 16   |
| -837.5  | 800.0    | 11  |    | 15   | 112.5   | 800.0    | 28 |    | 22   | 25.0    | 900.0    | 17 |    | 17   |
| -825.0  | 800.0    | 12  |    | 15   | 125.0   | 800.0    | 29 |    | 22   | 37.5    | 900.0    | 16 |    | 17   |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|----|----|------|---------|----------|----|----|------|---------|----------|----|----|------|
| 50.0    | 900.0    | 17 | 17 |      | 762.5   | 1000.0   | 36 | -1 |      | -337.5  | 1000.0   | 15 | 2  |      |
| 62.5    | 900.0    | 19 | 16 |      | 775.0   | 1000.0   | 32 | 0  |      | -325.0  | 1000.0   | 18 | 1  |      |
| 75.0    | 900.0    | 22 | 17 |      | 787.5   | 1000.0   | 25 | 3  |      | -312.5  | 1000.0   | 11 | 0  |      |
| 87.5    | 900.0    | 21 | 18 |      | 800.0   | 1000.0   | 27 | 0  |      | -300.0  | 1000.0   | 11 | -1 |      |
| 100.0   | 900.0    | 25 | 17 |      | 812.5   | 1000.0   | 25 | 2  |      | -287.5  | 1000.0   | 3  | -2 |      |
| 112.5   | 900.0    | 21 | 17 |      | 825.0   | 1000.0   | 23 | 1  |      | -275.0  | 1000.0   | 2  | -4 |      |
| 125.0   | 900.0    | 22 | 16 |      | 837.5   | 1000.0   | 28 | 0  |      | -262.5  | 1000.0   | 2  | -4 |      |
| 137.5   | 900.0    | 28 | 16 |      | 850.0   | 1000.0   | 22 | 0  |      | -250.0  | 1000.0   | 4  | -2 |      |
| -87.5   | 1000.0   | 3  | 6  |      | 862.5   | 1000.0   | 19 | 1  |      | -237.5  | 1000.0   | 0  | -2 |      |
| -75.0   | 1000.0   | 2  | 8  |      | 875.0   | 1000.0   | 19 | 2  |      | -225.0  | 1000.0   | 0  | -2 |      |
| -62.5   | 1000.0   | 4  | 8  |      | 887.5   | 1000.0   | 17 | 4  |      | -212.5  | 1000.0   | 3  | -1 |      |
| -50.0   | 1000.0   | 7  | 9  |      | 900.0   | 1000.0   | 14 | 3  |      | -200.0  | 1000.0   | 6  | -1 |      |
| -37.5   | 1000.0   | 9  | 10 |      | 912.5   | 1000.0   | 14 | 4  |      | -187.5  | 1000.0   | 6  | 0  |      |
| -25.0   | 1000.0   | 11 | 11 |      | 925.0   | 1000.0   | 14 | 3  |      | -175.0  | 1000.0   | 6  | 0  |      |
| -12.5   | 1000.0   | 12 | 10 |      | 937.5   | 1000.0   | 9  | 2  |      | -162.5  | 1000.0   | 8  | 0  |      |
| 0.0     | 1000.0   | 12 | 10 |      | 950.0   | 1000.0   | 13 | 3  |      | -150.0  | 1000.0   | 10 | 1  |      |
| 12.5    | 1000.0   | 11 | 10 |      | 962.5   | 1000.0   | 13 | 4  |      | -137.5  | 1000.0   | 14 | 3  |      |
| 25.0    | 1000.0   | 10 | 10 |      | 975.0   | 1000.0   | 18 | 2  |      | -125.0  | 1000.0   | 13 | 5  |      |
| 37.5    | 1000.0   | 4  | 9  |      | -1062.5 | 1000.0   | 12 | 12 |      | -112.5  | 1000.0   | 13 | 6  |      |
| 50.0    | 1000.0   | 8  | 9  |      | -1050.0 | 1000.0   | 19 | 11 |      | -100.0  | 1000.0   | 10 | 7  |      |
| 62.5    | 1000.0   | 9  | 10 |      | -1037.5 | 1000.0   | 18 | 13 |      | -37.5   | 1100.0   | 10 | 7  |      |
| 75.0    | 1000.0   | 7  | 11 |      | -1025.0 | 1000.0   | 16 | 12 |      | -25.0   | 1100.0   | 9  | 7  |      |
| 87.5    | 1000.0   | 7  | 11 |      | -1012.5 | 1000.0   | 20 | 12 |      | -12.5   | 1100.0   | 12 | 7  |      |
| 100.0   | 1000.0   | 12 | 12 |      | -1000.0 | 1000.0   | 16 | 12 |      | 0.0     | 1100.0   | 14 | 7  |      |
| 112.5   | 1000.0   | 15 | 12 |      | -987.5  | 1000.0   | 15 | 12 |      | 12.5    | 1100.0   | 14 | 7  |      |
| 125.0   | 1000.0   | 15 | 12 |      | -975.0  | 1000.0   | 19 | 12 |      | 25.0    | 1100.0   | 18 | 8  |      |
| 137.5   | 1000.0   | 17 | 12 |      | -962.5  | 1000.0   | 24 | 10 |      | 37.5    | 1100.0   | 20 | 8  |      |
| 150.0   | 1000.0   | 21 | 13 |      | -950.0  | 1000.0   | 20 | 10 |      | 50.0    | 1100.0   | 17 | 8  |      |
| 162.5   | 1000.0   | 22 | 14 |      | -937.5  | 1000.0   | 22 | 12 |      | 62.5    | 1100.0   | 19 | 9  |      |
| 175.0   | 1000.0   | 23 | 14 |      | -925.0  | 1000.0   | 20 | 11 |      | 75.0    | 1100.0   | 20 | 9  |      |
| 187.5   | 1000.0   | 23 | 14 |      | -912.5  | 1000.0   | 19 | 10 |      | 87.5    | 1100.0   | 20 | 10 |      |
| 200.0   | 1000.0   | 22 | 15 |      | -900.0  | 1000.0   | 24 | 9  |      | 100.0   | 1100.0   | 20 | 9  |      |
| 212.5   | 1000.0   | 23 | 15 |      | -887.5  | 1000.0   | 23 | 9  |      | 112.5   | 1100.0   | 26 | 10 |      |
| 225.0   | 1000.0   | 24 | 12 |      | -875.0  | 1000.0   | 27 | 8  |      | 125.0   | 1100.0   | 25 | 10 |      |
| 237.5   | 1000.0   | 23 | 13 |      | -862.5  | 1000.0   | 21 | 8  |      | 137.5   | 1100.0   | 24 | 10 |      |
| 250.0   | 1000.0   | 23 | 13 |      | -850.0  | 1000.0   | 26 | 8  |      | 150.0   | 1100.0   | 24 | 10 |      |
| 262.5   | 1000.0   | 28 | 14 |      | -837.5  | 1000.0   | 22 | 7  |      | 162.5   | 1100.0   | 24 | 10 |      |
| 275.0   | 1000.0   | 31 | 14 |      | -825.0  | 1000.0   | 23 | 5  |      | 175.0   | 1100.0   | 25 | 11 |      |
| 287.5   | 1000.0   | 32 | 14 |      | -812.5  | 1000.0   | 22 | 4  |      | 187.5   | 1100.0   | 30 | 12 |      |
| 300.0   | 1000.0   | 29 | 16 |      | -800.0  | 1000.0   | 24 | 2  |      | 200.0   | 1100.0   | 28 | 11 |      |
| 312.5   | 1000.0   | 27 | 16 |      | -787.5  | 1000.0   | 24 | 1  |      | 212.5   | 1100.0   | 27 | 10 |      |
| 325.0   | 1000.0   | 28 | 14 |      | -775.0  | 1000.0   | 25 | 1  |      | 225.0   | 1100.0   | 31 | 9  |      |
| 337.5   | 1000.0   | 26 | 12 |      | -762.5  | 1000.0   | 22 | 1  |      | 237.5   | 1100.0   | 29 | 10 |      |
| 350.0   | 1000.0   | 28 | 16 |      | -750.0  | 1000.0   | 23 | 1  |      | 250.0   | 1100.0   | 31 | 10 |      |
| 362.5   | 1000.0   | 31 | 16 |      | -737.5  | 1000.0   | 19 | 0  |      | 262.5   | 1100.0   | 34 | 10 |      |
| 375.0   | 1000.0   | 34 | 16 |      | -725.0  | 1000.0   | 17 | 1  |      | 275.0   | 1100.0   | 34 | 14 |      |
| 387.5   | 1000.0   | 32 | 17 |      | -712.5  | 1000.0   | 21 | 0  |      | 287.5   | 1100.0   | 34 | 11 |      |
| 400.0   | 1000.0   | 39 | 17 |      | -700.0  | 1000.0   | 28 | 0  |      | 300.0   | 1100.0   | 34 | 12 |      |
| 412.5   | 1000.0   | 40 | 18 |      | -687.5  | 1000.0   | 23 | 0  |      | 312.5   | 1100.0   | 35 | 13 |      |
| 425.0   | 1000.0   | 40 | 21 |      | -675.0  | 1000.0   | 21 | -1 |      | 325.0   | 1100.0   | 36 | 13 |      |
| 437.5   | 1000.0   | 38 | 20 |      | -662.5  | 1000.0   | 21 | -1 |      | 337.5   | 1100.0   | 36 | 16 |      |
| 450.0   | 1000.0   | 42 | 21 |      | -650.0  | 1000.0   | 15 | -3 |      | 350.0   | 1100.0   | 38 | 15 |      |
| 462.5   | 1000.0   | 41 | 20 |      | -637.5  | 1000.0   | 16 | -2 |      | 362.5   | 1100.0   | 40 | 15 |      |
| 475.0   | 1000.0   | 31 | 6  |      | -625.0  | 1000.0   | 17 | -1 |      | 375.0   | 1100.0   | 39 | 15 |      |
| 487.5   | 1000.0   | 27 | 8  |      | -612.5  | 1000.0   | 17 | 0  |      | 387.5   | 1100.0   | 41 | 14 |      |
| 500.0   | 1000.0   | 27 | 8  |      | -600.0  | 1000.0   | 20 | 0  |      | 400.0   | 1100.0   | 41 | 17 |      |
| 512.5   | 1000.0   | 21 | 8  |      | -587.5  | 1000.0   | 23 | 1  |      | 412.5   | 1100.0   | 42 | 17 |      |
| 525.0   | 1000.0   | 24 | 7  |      | -575.0  | 1000.0   | 20 | 2  |      | 425.0   | 1100.0   | 40 | 18 |      |
| 537.5   | 1000.0   | 24 | 7  |      | -562.5  | 1000.0   | 23 | 3  |      | 437.5   | 1100.0   | 41 | 14 |      |
| 550.0   | 1000.0   | 32 | 8  |      | -550.0  | 1000.0   | 28 | 3  |      | 450.0   | 1100.0   | 40 | 14 |      |
| 562.5   | 1000.0   | 31 | 9  |      | -537.5  | 1000.0   | 24 | 4  |      | 462.5   | 1100.0   | 37 | 11 |      |
| 575.0   | 1000.0   | 25 | 10 |      | -525.0  | 1000.0   | 29 | 4  |      | 475.0   | 1100.0   | 34 | 6  |      |
| 587.5   | 1000.0   | 28 | 9  |      | -512.5  | 1000.0   | 31 | 4  |      | 487.5   | 1100.0   | 31 | 6  |      |
| 600.0   | 1000.0   | 33 | 9  |      | -500.0  | 1000.0   | 27 | 5  |      | 500.0   | 1100.0   | 29 | 6  |      |
| 612.5   | 1000.0   | 29 | 10 |      | -487.5  | 1000.0   | 31 | 5  |      | 512.5   | 1100.0   | 28 | 6  |      |
| 625.0   | 1000.0   | 26 | 8  |      | -475.0  | 1000.0   | 28 | 6  |      | 525.0   | 1100.0   | 30 | 4  |      |
| 637.5   | 1000.0   | 24 | 7  |      | -462.5  | 1000.0   | 29 | 6  |      | 537.5   | 1100.0   | 31 | 4  |      |
| 650.0   | 1000.0   | 29 | 4  |      | -450.0  | 1000.0   | 24 | 5  |      | 550.0   | 1100.0   | 33 | 4  |      |
| 662.5   | 1000.0   | 30 | 3  |      | -437.5  | 1000.0   | 25 | 5  |      | 562.5   | 1100.0   | 32 | 7  |      |
| 675.0   | 1000.0   | 35 | 2  |      | -425.0  | 1000.0   | 23 | 4  |      | 575.0   | 1100.0   | 34 | 9  |      |
| 687.5   | 1000.0   | 25 | 3  |      | -412.5  | 1000.0   | 24 | 4  |      | 587.5   | 1100.0   | 36 | 11 |      |
| 700.0   | 1000.0   | 24 | 3  |      | -400.0  | 1000.0   | 25 | 5  |      | 600.0   | 1100.0   | 34 | 8  |      |
| 712.5   | 1000.0   | 25 | 1  |      | -387.5  | 1000.0   | 22 | 4  |      | 612.5   | 1100.0   | 34 | 7  |      |
| 725.0   | 1000.0   | 27 | 0  |      | -375.0  | 1000.0   | 18 | 5  |      | 625.0   | 1100.0   | 31 | 6  |      |
| 737.5   | 1000.0   | 28 | 1  |      | -362.5  | 1000.0   | 18 | 3  |      | 637.5   | 1100.0   | 33 | 7  |      |
| 750.0   | 1000.0   | 31 | 0  |      | -350.0  | 1000.0   | 16 | 3  |      | 650.0   | 1100.0   | 32 | 8  |      |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|----|----|------|---------|----------|----|----|------|---------|----------|----|----|------|
| 662.5   | 1100.0   | 33 |    | 8    | -537.5  | 1100.0   | 21 |    | 2    | -500.0  | 1200.0   | 15 |    | -1   |
| 675.0   | 1100.0   | 39 |    | 5    | -525.0  | 1100.0   | 23 |    | 3    | -487.5  | 1200.0   | 14 |    | 0    |
| 687.5   | 1100.0   | 32 |    | 9    | -512.5  | 1100.0   | 22 |    | 2    | -475.0  | 1200.0   | 16 |    | 1    |
| 700.0   | 1100.0   | 32 |    | 9    | -500.0  | 1100.0   | 23 |    | 2    | -462.5  | 1200.0   | 20 |    | 1    |
| 712.5   | 1100.0   | 34 |    | 6    | -487.5  | 1100.0   | 23 |    | 3    | -450.0  | 1200.0   | 24 |    | 1    |
| 725.0   | 1100.0   | 35 |    | 4    | -475.0  | 1100.0   | 24 |    | 3    | -437.5  | 1200.0   | 21 |    | 1    |
| 737.5   | 1100.0   | 36 |    | 4    | -462.5  | 1100.0   | 24 |    | 3    | -425.0  | 1200.0   | 16 |    | 0    |
| 750.0   | 1100.0   | 34 |    | 2    | -450.0  | 1100.0   | 22 |    | 2    | -412.5  | 1200.0   | 14 |    | -1   |
| 762.5   | 1100.0   | 31 |    | 3    | -437.5  | 1100.0   | 21 |    | 2    | -400.0  | 1200.0   | 11 |    | 0    |
| 775.0   | 1100.0   | 30 |    | 2    | -425.0  | 1100.0   | 16 |    | 2    | -387.5  | 1200.0   | 16 |    | -2   |
| 787.5   | 1100.0   | 34 |    | 0    | -412.5  | 1100.0   | 17 |    | 3    | -375.0  | 1200.0   | 14 |    | 0    |
| 800.0   | 1100.0   | 34 |    | 1    | -400.0  | 1100.0   | 18 |    | 1    | -362.5  | 1200.0   | 13 |    | 0    |
| 812.5   | 1100.0   | 31 |    | 1    | -387.5  | 1100.0   | 12 |    | 1    | -350.0  | 1200.0   | 10 |    | 0    |
| 825.0   | 1100.0   | 32 |    | 1    | -375.0  | 1100.0   | 14 |    | 0    | -337.5  | 1200.0   | 11 |    | 0    |
| 837.5   | 1100.0   | 32 |    | 2    | -362.5  | 1100.0   | 12 |    | 1    | -325.0  | 1200.0   | 10 |    | 0    |
| 850.0   | 1100.0   | 31 |    | 2    | -350.0  | 1100.0   | 9  |    | 0    | -312.5  | 1200.0   | 7  |    | 0    |
| 862.5   | 1100.0   | 30 |    | 1    | -337.5  | 1100.0   | 7  |    | 0    | -300.0  | 1200.0   | 3  |    | -2   |
| 875.0   | 1100.0   | 26 |    | 2    | -325.0  | 1100.0   | 7  |    | -2   | -287.5  | 1200.0   | 5  |    | -3   |
| 887.5   | 1100.0   | 27 |    | 2    | -250.0  | 1100.0   | 0  |    | -5   | -275.0  | 1200.0   | 6  |    | -4   |
| 900.0   | 1100.0   | 35 |    | 1    | -237.5  | 1100.0   | 0  |    | -4   | -262.5  | 1200.0   | -1 |    | -8   |
| 912.5   | 1100.0   | 27 |    | 5    | -225.0  | 1100.0   | 2  |    | -5   | -250.0  | 1200.0   | -1 |    | -8   |
| 925.0   | 1100.0   | 30 |    | 5    | -212.5  | 1100.0   | 2  |    | -3   | -237.5  | 1200.0   | -5 |    | -8   |
| 937.5   | 1100.0   | 31 |    | 5    | -200.0  | 1100.0   | 3  |    | -3   | -225.0  | 1200.0   | -3 |    | -6   |
| 950.0   | 1100.0   | 30 |    | 6    | -187.5  | 1100.0   | 4  |    | -3   | -212.5  | 1200.0   | 1  |    | -5   |
| 962.5   | 1100.0   | 29 |    | 5    | -175.0  | 1100.0   | 5  |    | -3   | -200.0  | 1200.0   | 0  |    | -6   |
| 975.0   | 1100.0   | 35 |    | 6    | -162.5  | 1100.0   | 6  |    | -2   | -187.5  | 1200.0   | 0  |    | -6   |
| 987.5   | 1100.0   | 35 |    | 7    | -150.0  | 1100.0   | 7  |    | 0    | -175.0  | 1200.0   | 4  |    | -5   |
| 1000.0  | 1100.0   | 31 |    | 8    | -137.5  | 1100.0   | 8  |    | 0    | -162.5  | 1200.0   | 4  |    | -5   |
| 1012.5  | 1100.0   | 28 |    | 10   | -125.0  | 1100.0   | 10 |    | 0    | -150.0  | 1200.0   | 0  |    | -4   |
| 1025.0  | 1100.0   | 30 |    | 10   | -112.5  | 1100.0   | 16 |    | 1    | -137.5  | 1200.0   | 4  |    | -3   |
| 1037.5  | 1100.0   | 36 |    | 10   | -100.0  | 1100.0   | 17 |    | 2    | -125.0  | 1200.0   | 7  |    | -2   |
| 1050.0  | 1100.0   | 37 |    | 10   | -87.5   | 1100.0   | 15 |    | 3    | -112.5  | 1200.0   | 6  |    | -1   |
| 1062.5  | 1100.0   | 37 |    | 14   | -75.0   | 1100.0   | 14 |    | 3    | -100.0  | 1200.0   | 10 |    | -1   |
| 1075.0  | 1100.0   | 35 |    | 10   | -62.5   | 1100.0   | 13 |    | 5    | -87.5   | 1200.0   | 13 |    | -2   |
| 1087.5  | 1100.0   | 34 |    | 11   | -50.0   | 1100.0   | 19 |    | 6    | -75.0   | 1200.0   | 10 |    | -1   |
| 1100.0  | 1100.0   | 37 |    | 10   | -37.5   | 1100.0   | 16 |    | 6    | -62.5   | 1200.0   | 12 |    | 0    |
| 1112.5  | 1100.0   | 39 |    | 14   | -1000.0 | 1200.0   | 30 |    | 22   | -50.0   | 1200.0   | 10 |    | 0    |
| -1025.0 | 1100.0   | 18 |    | 17   | -987.5  | 1200.0   | 33 |    | 19   | -37.5   | 1200.0   | 14 |    | 0    |
| -1012.5 | 1100.0   | 22 |    | 17   | -975.0  | 1200.0   | 32 |    | 21   | -25.0   | 1200.0   | 16 |    | 1    |
| -1000.0 | 1100.0   | 27 |    | 14   | -962.5  | 1200.0   | 31 |    | 15   | -12.5   | 1200.0   | 21 |    | 2    |
| -987.5  | 1100.0   | 23 |    | 13   | -950.0  | 1200.0   | 36 |    | 17   | 0.0     | 1200.0   | 17 |    | 2    |
| -975.0  | 1100.0   | 29 |    | 12   | -937.5  | 1200.0   | 33 |    | 16   | 12.5    | 1200.0   | 21 |    | 5    |
| -962.5  | 1100.0   | 27 |    | 13   | -925.0  | 1200.0   | 32 |    | 16   | 12.5    | 1200.0   | 13 |    | 6    |
| -950.0  | 1100.0   | 26 |    | 12   | -912.5  | 1200.0   | 33 |    | 14   | 25.0    | 1200.0   | 13 |    | 6    |
| -937.5  | 1100.0   | 29 |    | 10   | -900.0  | 1200.0   | 29 |    | 15   | 37.5    | 1200.0   | 12 |    | 6    |
| -925.0  | 1100.0   | 27 |    | 10   | -887.5  | 1200.0   | 24 |    | 14   | 50.0    | 1200.0   | 15 |    | 7    |
| -912.5  | 1100.0   | 27 |    | 10   | -875.0  | 1200.0   | 33 |    | 8    | 62.5    | 1200.0   | 16 |    | 7    |
| -900.0  | 1100.0   | 34 |    | 8    | -862.5  | 1200.0   | 29 |    | 7    | 75.0    | 1200.0   | 17 |    | 7    |
| -887.5  | 1100.0   | 28 |    | 9    | -850.0  | 1200.0   | 26 |    | 9    | 87.5    | 1200.0   | 18 |    | 7    |
| -875.0  | 1100.0   | 29 |    | 8    | -837.5  | 1200.0   | 23 |    | 7    | 100.0   | 1200.0   | 21 |    | 7    |
| -862.5  | 1100.0   | 28 |    | 8    | -825.0  | 1200.0   | 20 |    | 6    | 112.5   | 1200.0   | 20 |    | 7    |
| -850.0  | 1100.0   | 25 |    | 7    | -812.5  | 1200.0   | 24 |    | 5    | 125.0   | 1200.0   | 23 |    | 8    |
| -837.5  | 1100.0   | 26 |    | 6    | -800.0  | 1200.0   | 26 |    | 6    | 137.5   | 1200.0   | 23 |    | 8    |
| -825.0  | 1100.0   | 25 |    | 5    | -787.5  | 1200.0   | 23 |    | 4    | 150.0   | 1200.0   | 26 |    | 8    |
| -812.5  | 1100.0   | 25 |    | 4    | -775.0  | 1200.0   | 20 |    | 3    | 162.5   | 1200.0   | 24 |    | 8    |
| -800.0  | 1100.0   | 26 |    | 3    | -762.5  | 1200.0   | 18 |    | 2    | 175.0   | 1200.0   | 25 |    | 7    |
| -787.5  | 1100.0   | 24 |    | 2    | -750.0  | 1200.0   | 20 |    | 0    | 187.5   | 1200.0   | 24 |    | 7    |
| -775.0  | 1100.0   | 24 |    | 2    | -737.5  | 1200.0   | 18 |    | 1    | 200.0   | 1200.0   | 30 |    | 8    |
| -762.5  | 1100.0   | 26 |    | 2    | -725.0  | 1200.0   | 17 |    | 0    | 212.5   | 1200.0   | 28 |    | 8    |
| -750.0  | 1100.0   | 27 |    | 1    | -712.5  | 1200.0   | 17 |    | 0    | 225.0   | 1200.0   | 29 |    | 8    |
| -737.5  | 1100.0   | 22 |    | 1    | -700.0  | 1200.0   | 15 |    | 0    | 237.5   | 1200.0   | 29 |    | 7    |
| -725.0  | 1100.0   | 21 |    | 1    | -687.5  | 1200.0   | 12 |    | -1   | 250.0   | 1200.0   | 30 |    | 8    |
| -712.5  | 1100.0   | 25 |    | 0    | -675.0  | 1200.0   | 12 |    | -2   | 262.5   | 1200.0   | 31 |    | 9    |
| -700.0  | 1100.0   | 18 |    | 0    | -662.5  | 1200.0   | 9  |    | -3   | 275.0   | 1200.0   | 37 |    | 10   |
| -687.5  | 1100.0   | 15 |    | 0    | -650.0  | 1200.0   | 6  |    | -5   | 287.5   | 1200.0   | 37 |    | 12   |
| -675.0  | 1100.0   | 16 |    | 0    | -637.5  | 1200.0   | 4  |    | -5   | 300.0   | 1200.0   | 35 |    | 10   |
| -662.5  | 1100.0   | 15 |    | -1   | -625.0  | 1200.0   | 8  |    | -7   | 312.5   | 1200.0   | 39 |    | 11   |
| -650.0  | 1100.0   | 14 |    | -1   | -612.5  | 1200.0   | 3  |    | -9   | 325.0   | 1200.0   | 39 |    | 13   |
| -637.5  | 1100.0   | 12 |    | -3   | -600.0  | 1200.0   | 3  |    | -10  | 337.5   | 1200.0   | 41 |    | 11   |
| -625.0  | 1100.0   | 17 |    | -2   | -587.5  | 1200.0   | 10 |    | -10  | 350.0   | 1200.0   | 41 |    | 13   |
| -612.5  | 1100.0   | 12 |    | -2   | -575.0  | 1200.0   | 7  |    | -8   | 362.5   | 1200.0   | 43 |    | 13   |
| -600.0  | 1100.0   | 13 |    | -2   | -562.5  | 1200.0   | 12 |    | -8   | 375.0   | 1200.0   | 42 |    | 13   |
| -587.5  | 1100.0   | 15 |    | -1   | -550.0  | 1200.0   | 11 |    | -6   | 387.5   | 1200.0   | 42 |    | 12   |
| -575.0  | 1100.0   | 19 |    | 0    | -537.5  | 1200.0   | 11 |    | -5   | 400.0   | 1200.0   | 41 |    | 12   |
| -562.5  | 1100.0   | 23 |    | 0    | -525.0  | 1200.0   | 11 |    | -3   | 412.5   | 1200.0   | 42 |    | 13   |
| -550.0  | 1100.0   | 25 |    | 2    | -512.5  | 1200.0   | 16 |    | -2   | 425.0   | 1200.0   | 47 |    | 12   |



| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| 437.5   | 1200.0   | 34    | 10   | -650.0  | 1250.0   | 7     | -10  | 225.0   | 1300.0   | 26    | 7    |
| 450.0   | 1200.0   | 36    | 5    | -687.5  | 1300.0   | 4     | -12  | 237.5   | 1300.0   | 28    | 9    |
| 462.5   | 1200.0   | 32    | 4    | -675.0  | 1300.0   | 2     | -15  | 250.0   | 1300.0   | 32    | 8    |
| 475.0   | 1200.0   | 34    | 5    | -662.5  | 1300.0   | 1     | -16  | 262.5   | 1300.0   | 30    | 9    |
| 487.5   | 1200.0   | 35    | 4    | -650.0  | 1300.0   | 2     | -17  | 275.0   | 1300.0   | 36    | 10   |
| 500.0   | 1200.0   | 30    | 1    | -637.5  | 1300.0   | 4     | -17  | 287.5   | 1300.0   | 34    | 9    |
| 512.5   | 1200.0   | 31    | 1    | -625.0  | 1300.0   | 4     | -15  | 300.0   | 1300.0   | 39    | 11   |
| 525.0   | 1200.0   | 31    | 3    | -612.5  | 1300.0   | 7     | -14  | 312.5   | 1300.0   | 31    | 11   |
| 537.5   | 1200.0   | 32    | 3    | -600.0  | 1300.0   | 8     | -12  | 325.0   | 1300.0   | 40    | 13   |
| 550.0   | 1200.0   | 34    | 7    | -587.5  | 1300.0   | 8     | -11  | 337.5   | 1300.0   | 33    | 13   |
| 562.5   | 1200.0   | 39    | 6    | -575.0  | 1300.0   | 12    | -10  | 350.0   | 1300.0   | 33    | 12   |
| 575.0   | 1200.0   | 36    | 8    | -562.5  | 1300.0   | 12    | -8   | 362.5   | 1300.0   | 38    | 12   |
| 587.5   | 1200.0   | 36    | 5    | -550.0  | 1300.0   | 14    | -7   | 375.0   | 1300.0   | 36    | 13   |
| 600.0   | 1200.0   | 38    | 5    | -537.5  | 1300.0   | 13    | -5   | 387.5   | 1300.0   | 39    | 13   |
| 612.5   | 1200.0   | 37    | 6    | -525.0  | 1300.0   | 17    | -2   | 400.0   | 1300.0   | 39    | 13   |
| 625.0   | 1200.0   | 37    | 8    | -512.5  | 1300.0   | 18    | 0    | 412.5   | 1300.0   | 44    | 11   |
| 637.5   | 1200.0   | 45    | 10   | -500.0  | 1300.0   | 14    | -1   | 425.0   | 1300.0   | 43    | 9    |
| 650.0   | 1200.0   | 47    | 12   | -487.5  | 1300.0   | 18    | -1   | 437.5   | 1300.0   | 40    | 10   |
| 662.5   | 1200.0   | 45    | 12   | -475.0  | 1300.0   | 16    | 0    | 450.0   | 1300.0   | 39    | 11   |
| 675.0   | 1200.0   | 41    | 13   | -462.5  | 1300.0   | 16    | 0    | 462.5   | 1300.0   | 45    | 11   |
| 687.5   | 1200.0   | 47    | 11   | -450.0  | 1300.0   | 13    | -1   | 475.0   | 1300.0   | 43    | 13   |
| 700.0   | 1200.0   | 38    | 6    | -437.5  | 1300.0   | 9     | -3   | 487.5   | 1300.0   | 42    | 15   |
| 712.5   | 1200.0   | 40    | 6    | -425.0  | 1300.0   | 9     | -5   | 500.0   | 1300.0   | 40    | 13   |
| 725.0   | 1200.0   | 36    | 7    | -412.5  | 1300.0   | 9     | -5   | 512.5   | 1300.0   | 37    | 12   |
| 737.5   | 1200.0   | 35    | 5    | -400.0  | 1300.0   | 9     | -7   | 525.0   | 1300.0   | 37    | 8    |
| 750.0   | 1200.0   | 38    | 5    | -387.5  | 1300.0   | 10    | -4   | 537.5   | 1300.0   | 38    | 11   |
| 762.5   | 1200.0   | 35    | 4    | -375.0  | 1300.0   | 7     | -4   | 550.0   | 1300.0   | 33    | 10   |
| 775.0   | 1200.0   | 35    | 2    | -362.5  | 1300.0   | 7     | -5   | 562.5   | 1300.0   | 33    | 7    |
| 787.5   | 1200.0   | 39    | 1    | -350.0  | 1300.0   | 5     | -6   | 575.0   | 1300.0   | 33    | 8    |
| 800.0   | 1200.0   | 33    | 5    | -337.5  | 1300.0   | 1     | -8   | 587.5   | 1300.0   | 34    | 9    |
| 812.5   | 1200.0   | 37    | 2    | -325.0  | 1300.0   | 0     | -9   | 600.0   | 1300.0   | 43    | 10   |
| 825.0   | 1200.0   | 37    | 4    | -312.5  | 1300.0   | 0     | -8   | 612.5   | 1300.0   | 36    | 11   |
| 837.5   | 1200.0   | 36    | 3    | -300.0  | 1300.0   | -3    | -9   | 625.0   | 1300.0   | 36    | 14   |
| 850.0   | 1200.0   | 36    | 3    | -287.5  | 1300.0   | -4    | -12  | 637.5   | 1300.0   | 44    | 14   |
| 862.5   | 1200.0   | 36    | 4    | -275.0  | 1300.0   | -5    | -12  | 650.0   | 1300.0   | 38    | 12   |
| 875.0   | 1200.0   | 37    | 4    | -268.0  | 1300.0   | -6    | -12  | 662.5   | 1300.0   | 37    | 13   |
| 887.5   | 1200.0   | 34    | 6    | -262.5  | 1300.0   | -6    | -14  | 675.0   | 1300.0   | 43    | 12   |
| 900.0   | 1200.0   | 34    | 5    | -250.0  | 1300.0   | -12   | -13  | 687.5   | 1300.0   | 43    | 14   |
| 912.5   | 1200.0   | 34    | 6    | -237.5  | 1300.0   | -8    | -14  | 700.0   | 1300.0   | 45    | 19   |
| 925.0   | 1200.0   | 34    | 6    | -225.0  | 1300.0   | -10   | -16  | 712.5   | 1300.0   | 44    | 21   |
| 937.5   | 1200.0   | 33    | 7    | -212.5  | 1300.0   | -8    | -18  | 725.0   | 1300.0   | 43    | 20   |
| 950.0   | 1200.0   | 31    | 7    | -200.0  | 1300.0   | -4    | -14  | 737.5   | 1300.0   | 44    | 18   |
| 962.5   | 1200.0   | 34    | 8    | -187.5  | 1300.0   | -5    | -13  | 750.0   | 1300.0   | 42    | 15   |
| 975.0   | 1200.0   | 35    | 8    | -175.0  | 1300.0   | -4    | -13  | 762.5   | 1300.0   | 41    | 12   |
| 987.5   | 1200.0   | 37    | 11   | -162.5  | 1300.0   | -2    | -13  | 775.0   | 1300.0   | 43    | 14   |
| 1000.0  | 1200.0   | 41    | 12   | -150.0  | 1300.0   | -2    | -12  | 787.5   | 1300.0   | 46    | 11   |
| 1012.5  | 1200.0   | 47    | 12   | -137.5  | 1300.0   | -1    | -11  | 800.0   | 1300.0   | 39    | 13   |
| 1025.0  | 1200.0   | 47    | 14   | -125.0  | 1300.0   | -9    | -14  | 812.5   | 1300.0   | 41    | 9    |
| -1000.0 | 1250.0   | 33    | 31   | -118.0  | 1300.0   | 1     | -10  | 825.0   | 1300.0   | 41    | 7    |
| -987.5  | 1250.0   | 31    | 27   | -112.5  | 1300.0   | 2     | -9   | 837.5   | 1300.0   | 42    | 8    |
| -975.0  | 1250.0   | 32    | 25   | -100.0  | 1300.0   | 5     | -9   | 850.0   | 1300.0   | 43    | 8    |
| -962.5  | 1250.0   | 33    | 27   | -87.5   | 1300.0   | 4     | -8   | 862.5   | 1300.0   | 41    | 7    |
| -950.0  | 1250.0   | 33    | 23   | -75.0   | 1300.0   | 8     | -7   | 875.0   | 1300.0   | 39    | 7    |
| -937.5  | 1250.0   | 35    | 21   | -62.5   | 1300.0   | 10    | -5   | 887.5   | 1300.0   | 42    | 11   |
| -925.0  | 1250.0   | 32    | 22   | -50.0   | 1300.0   | 11    | -4   | 900.0   | 1300.0   | 38    | 9    |
| -912.5  | 1250.0   | 34    | 23   | -37.5   | 1300.0   | 11    | -3   | 912.5   | 1300.0   | 37    | 9    |
| -900.0  | 1250.0   | 34    | 22   | -25.0   | 1300.0   | 10    | -2   | 925.0   | 1300.0   | 41    | 10   |
| -887.5  | 1250.0   | 32    | 19   | -12.5   | 1300.0   | 11    | -2   | 937.5   | 1300.0   | 38    | 10   |
| -875.0  | 1250.0   | 30    | 19   | 0.0     | 1300.0   | 11    | -2   | 950.0   | 1300.0   | 39    | 9    |
| -862.5  | 1250.0   | 31    | 18   | 12.5    | 1300.0   | 11    | 0    | 962.5   | 1300.0   | 40    | 11   |
| -850.0  | 1250.0   | 28    | 14   | 25.0    | 1300.0   | 8     | 0    | 975.0   | 1300.0   | 42    | 13   |
| -837.5  | 1250.0   | 26    | 13   | 37.5    | 1300.0   | 6     | 2    | 987.5   | 1300.0   | 43    | 13   |
| -825.0  | 1250.0   | 27    | 13   | 50.0    | 1300.0   | 5     | 2    | 1000.0  | 1300.0   | 40    | 16   |
| -812.5  | 1250.0   | 24    | 10   | 62.5    | 1300.0   | 11    | 3    | -1009.0 | 1400.0   | 39    | 26   |
| -800.0  | 1250.0   | 23    | 8    | 75.0    | 1300.0   | 12    | 4    | -1000.0 | 1400.0   | 41    | 28   |
| -787.5  | 1250.0   | 24    | 7    | 87.5    | 1300.0   | 15    | 5    | -987.5  | 1400.0   | 40    | 28   |
| -775.0  | 1250.0   | 21    | 5    | 100.0   | 1300.0   | 16    | 6    | -975.0  | 1400.0   | 42    | 30   |
| -762.5  | 1250.0   | 24    | 5    | 112.5   | 1300.0   | 20    | 6    | -962.5  | 1400.0   | 41    | 28   |
| -750.0  | 1250.0   | 18    | 3    | 125.0   | 1300.0   | 21    | 7    | -950.0  | 1400.0   | 39    | 27   |
| -737.5  | 1250.0   | 21    | 3    | 137.5   | 1300.0   | 22    | 7    | -937.5  | 1400.0   | 41    | 29   |
| -725.0  | 1250.0   | 18    | 2    | 150.0   | 1300.0   | 17    | 7    | -925.0  | 1400.0   | 40    | 27   |
| -712.5  | 1250.0   | 15    | 1    | 162.5   | 1300.0   | 21    | 7    | -912.5  | 1400.0   | 39    | 25   |
| -700.0  | 1250.0   | 15    | 0    | 175.0   | 1300.0   | 22    | 7    | -900.0  | 1400.0   | 37    | 20   |
| -687.5  | 1250.0   | 13    | -2   | 187.5   | 1300.0   | 19    | 6    | -887.5  | 1400.0   | 36    | 21   |
| -675.0  | 1250.0   | 14    | -3   | 200.0   | 1300.0   | 22    | 7    | -875.0  | 1400.0   | 34    | 19   |
| -662.5  | 1250.0   | 9     | -8   | 212.5   | 1300.0   | 27    | 7    | -862.5  | 1400.0   | 31    | 14   |

| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| -850.0  | 1400.0   | 27    | 13   | 100.0   | 1400.0   | 11    | 3    | 1050.0  | 1400.0   | 46    | 16   |
| -837.5  | 1400.0   | 25    | 11   | 112.5   | 1400.0   | 18    | 4    | 1062.5  | 1400.0   | 44    | 16   |
| -825.0  | 1400.0   | 27    | 13   | 125.0   | 1400.0   | 12    | 4    | 1075.0  | 1400.0   | 44    | 18   |
| -812.5  | 1400.0   | 21    | 7    | 137.5   | 1400.0   | 13    | 4    | 1087.5  | 1400.0   | 39    | 17   |
| -800.0  | 1400.0   | 20    | 4    | 150.0   | 1400.0   | 19    | 5    | -625.0  | 1500.0   | 4     | -15  |
| -787.5  | 1400.0   | 19    | 4    | 162.5   | 1400.0   | 18    | 5    | -612.5  | 1500.0   | 7     | -13  |
| -775.0  | 1400.0   | 14    | 0    | 175.0   | 1400.0   | 23    | 6    | -600.0  | 1500.0   | 8     | -11  |
| -762.5  | 1400.0   | 11    | -1   | 187.5   | 1400.0   | 24    | 6    | -587.5  | 1500.0   | 10    | -9   |
| -750.0  | 1400.0   | 11    | -4   | 200.0   | 1400.0   | 26    | 6    | -575.0  | 1500.0   | 11    | -9   |
| -737.5  | 1400.0   | 6     | -10  | 212.5   | 1400.0   | 29    | 8    | -562.5  | 1500.0   | 3     | -8   |
| -725.0  | 1400.0   | 6     | -15  | 225.0   | 1400.0   | 28    | 9    | -550.0  | 1500.0   | 5     | -6   |
| -712.5  | 1400.0   | 5     | -16  | 237.5   | 1400.0   | 33    | 8    | -537.5  | 1500.0   | 4     | -3   |
| -700.0  | 1400.0   | 3     | -18  | 250.0   | 1400.0   | 32    | 9    | -525.0  | 1500.0   | 6     | -2   |
| -687.5  | 1400.0   | 3     | -19  | 262.5   | 1400.0   | 33    | 9    | -512.5  | 1500.0   | 7     | -1   |
| -675.0  | 1400.0   | 2     | -19  | 275.0   | 1400.0   | 32    | 9    | -500.0  | 1500.0   | 5     | 0    |
| -662.5  | 1400.0   | 2     | -18  | 287.5   | 1400.0   | 34    | 10   | -487.5  | 1500.0   | 6     | -1   |
| -650.0  | 1400.0   | 2     | -17  | 300.0   | 1400.0   | 39    | 11   | -475.0  | 1500.0   | 2     | -5   |
| -637.5  | 1400.0   | 4     | -15  | 312.5   | 1400.0   | 44    | 11   | -462.5  | 1500.0   | -2    | -7   |
| -625.0  | 1400.0   | 6     | -14  | 325.0   | 1400.0   | 46    | 15   | -450.0  | 1500.0   | 1     | -3   |
| -612.5  | 1400.0   | 8     | -11  | 337.5   | 1400.0   | 53    | 15   | -437.5  | 1500.0   | 2     | -4   |
| -600.0  | 1400.0   | 6     | -11  | 350.0   | 1400.0   | 54    | 14   | -425.0  | 1500.0   | 0     | -4   |
| -587.5  | 1400.0   | 4     | -9   | 362.5   | 1400.0   | 50    | 13   | -412.5  | 1500.0   | 0     | -5   |
| -575.0  | 1400.0   | 9     | -7   | 375.0   | 1400.0   | 46    | 10   | -400.0  | 1500.0   | 0     | -4   |
| -562.5  | 1400.0   | -2    | -7   | 387.5   | 1400.0   | 44    | 8    | -387.5  | 1500.0   | 0     | -5   |
| -550.0  | 1400.0   | 8     | -6   | 400.0   | 1400.0   | 46    | 5    | -375.0  | 1500.0   | 2     | -5   |
| -537.5  | 1400.0   | 10    | -4   | 412.5   | 1400.0   | 41    | 6    | -362.5  | 1500.0   | -3    | -4   |
| -525.0  | 1400.0   | 9     | -3   | 425.0   | 1400.0   | 38    | 8    | -350.0  | 1500.0   | 1     | -2   |
| -512.5  | 1400.0   | 12    | -1   | 437.5   | 1400.0   | 37    | 10   | -337.5  | 1500.0   | -2    | -3   |
| -500.0  | 1400.0   | 12    | 0    | 450.0   | 1400.0   | 40    | 10   | -325.0  | 1500.0   | -5    | -2   |
| -487.5  | 1400.0   | 11    | -1   | 462.5   | 1400.0   | 46    | 12   | -312.5  | 1500.0   | -10   | -5   |
| -475.0  | 1400.0   | 7     | -1   | 475.0   | 1400.0   | 49    | 13   | -300.0  | 1500.0   | -9    | -6   |
| -462.5  | 1400.0   | 5     | -3   | 487.5   | 1400.0   | 48    | 13   | -287.5  | 1500.0   | -8    | -8   |
| -450.0  | 1400.0   | 1     | -7   | 500.0   | 1400.0   | 47    | 9    | -275.0  | 1500.0   | -6    | -10  |
| -437.5  | 1400.0   | 0     | -7   | 512.5   | 1400.0   | 34    | 10   | -262.5  | 1500.0   | -8    | -10  |
| -425.0  | 1400.0   | 0     | -6   | 525.0   | 1400.0   | 37    | 11   | -250.0  | 1500.0   | -7    | -11  |
| -412.5  | 1400.0   | -2    | -6   | 537.5   | 1400.0   | 37    | 11   | -237.5  | 1500.0   | -8    | -12  |
| -400.0  | 1400.0   | 0     | -5   | 550.0   | 1400.0   | 35    | 15   | -225.0  | 1500.0   | -12   | -12  |
| -387.5  | 1400.0   | -1    | -6   | 562.5   | 1400.0   | 33    | 13   | -212.5  | 1500.0   | -12   | -13  |
| -375.0  | 1400.0   | 5     | -4   | 575.0   | 1400.0   | 37    | 15   | -200.0  | 1500.0   | -10   | -13  |
| -362.5  | 1400.0   | 3     | -3   | 587.5   | 1400.0   | 38    | 11   | -187.5  | 1500.0   | -13   | -13  |
| -350.0  | 1400.0   | -1    | -4   | 600.0   | 1400.0   | 33    | 12   | -175.0  | 1500.0   | -13   | -13  |
| -337.5  | 1400.0   | 1     | -4   | 612.5   | 1400.0   | 32    | 12   | -162.5  | 1500.0   | -11   | -13  |
| -325.0  | 1400.0   | 0     | -4   | 625.0   | 1400.0   | 35    | 11   | -150.0  | 1500.0   | -10   | -13  |
| -312.5  | 1400.0   | -9    | -6   | 637.5   | 1400.0   | 37    | 13   | -137.5  | 1500.0   | -10   | -12  |
| -300.0  | 1400.0   | -8    | -7   | 650.0   | 1400.0   | 35    | 15   | -125.0  | 1500.0   | -8    | -12  |
| -287.5  | 1400.0   | -4    | -8   | 662.5   | 1400.0   | 44    | 11   | -112.5  | 1500.0   | -10   | -13  |
| -275.0  | 1400.0   | -6    | -8   | 675.0   | 1400.0   | 45    | 13   | -100.0  | 1500.0   | -8    | -13  |
| -262.5  | 1400.0   | -5    | -8   | 687.5   | 1400.0   | 43    | 14   | -87.5   | 1500.0   | -5    | -13  |
| -250.0  | 1400.0   | -10   | -10  | 700.0   | 1400.0   | 47    | 13   | -75.0   | 1500.0   | -9    | -16  |
| -237.5  | 1400.0   | -11   | -11  | 712.5   | 1400.0   | 41    | 16   | -62.5   | 1500.0   | -7    | -14  |
| -225.0  | 1400.0   | -3    | -12  | 725.0   | 1400.0   | 41    | 17   | -50.0   | 1500.0   | -5    | -15  |
| -212.5  | 1400.0   | -9    | -12  | 737.5   | 1400.0   | 46    | 12   | -37.5   | 1500.0   | -14   | -11  |
| -200.0  | 1400.0   | -9    | -12  | 750.0   | 1400.0   | 44    | 12   | 0.0     | 1500.0   | -2    | -10  |
| -187.5  | 1400.0   | -8    | -12  | 762.5   | 1400.0   | 44    | 10   | 12.5    | 1500.0   | -1    | -6   |
| -175.0  | 1400.0   | -6    | -11  | 775.0   | 1400.0   | 42    | 10   | 25.0    | 1500.0   | 3     | -5   |
| -162.5  | 1400.0   | -8    | -11  | 787.5   | 1400.0   | 38    | 10   | 37.5    | 1500.0   | 4     | -1   |
| -150.0  | 1400.0   | -8    | -11  | 800.0   | 1400.0   | 46    | 7    | 50.0    | 1500.0   | 1     | 0    |
| -137.5  | 1400.0   | -7    | -11  | 812.5   | 1400.0   | 35    | 9    | 62.5    | 1500.0   | 8     | 0    |
| -125.0  | 1400.0   | -3    | -11  | 825.0   | 1400.0   | 42    | 7    | 75.0    | 1500.0   | 5     | 2    |
| -112.5  | 1400.0   | -6    | -12  | 837.5   | 1400.0   | 35    | 9    | 87.5    | 1500.0   | 8     | 2    |
| -100.0  | 1400.0   | -3    | -11  | 850.0   | 1400.0   | 39    | 6    | 100.0   | 1500.0   | 10    | 3    |
| -87.5   | 1400.0   | -5    | -11  | 862.5   | 1400.0   | 38    | 5    | 112.5   | 1500.0   | 12    | 3    |
| -75.0   | 1400.0   | 2     | -9   | 875.0   | 1400.0   | 38    | 7    | 125.0   | 1500.0   | 10    | 3    |
| -62.5   | 1400.0   | 0     | -9   | 887.5   | 1400.0   | 39    | 8    | 137.5   | 1500.0   | 11    | 4    |
| -50.0   | 1400.0   | 7     | -7   | 900.0   | 1400.0   | 40    | 8    | 150.0   | 1500.0   | 10    | 5    |
| -37.5   | 1400.0   | 12    | -6   | 912.5   | 1400.0   | 38    | 8    | 162.5   | 1500.0   | 20    | 5    |
| -25.0   | 1400.0   | 9     | -7   | 925.0   | 1400.0   | 36    | 10   | 175.0   | 1500.0   | 19    | 7    |
| -12.5   | 1400.0   | 16    | -8   | 937.5   | 1400.0   | 39    | 10   | 187.5   | 1500.0   | 21    | 7    |
| 0.0     | 1400.0   | 16    | -7   | 950.0   | 1400.0   | 39    | 10   | 200.0   | 1500.0   | 18    | 8    |
| 12.5    | 1400.0   | 23    | -5   | 962.5   | 1400.0   | 40    | 11   | 212.5   | 1500.0   | 24    | 8    |
| 25.0    | 1400.0   | 19    | -4   | 975.0   | 1400.0   | 40    | 11   | 225.0   | 1500.0   | 30    | 9    |
| 37.5    | 1400.0   | 14    | -2   | 987.5   | 1400.0   | 38    | 14   | 237.5   | 1500.0   | 36    | 9    |
| 50.0    | 1400.0   | 5     | 0    | 1000.0  | 1400.0   | 47    | 12   | 250.0   | 1500.0   | 32    | 9    |
| 62.5    | 1400.0   | 7     | 1    | 1012.5  | 1400.0   | 42    | 14   | 262.5   | 1500.0   | 30    | 8    |
| 75.0    | 1400.0   | 9     | 2    | 1025.0  | 1400.0   | 41    | 16   | 275.0   | 1500.0   | 28    | 9    |
| 87.5    | 1400.0   | 10    | 3    | 1037.5  | 1400.0   | 41    | 17   | 287.5   | 1500.0   | 30    | 9    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|----|----|------|---------|----------|-----|----|------|---------|----------|----|----|------|
| 300.0   | 1500.0   | 36 |    | 9    | -850.0  | 1600.0   | 16  |    | 4    | 112.5   | 1600.0   | 10 |    | 3    |
| 312.5   | 1500.0   | 33 |    | 9    | -837.5  | 1600.0   | 16  |    | 4    | 125.0   | 1600.0   | 12 |    | 3    |
| 325.0   | 1500.0   | 29 |    | 9    | -825.0  | 1600.0   | 14  |    | 0    | 137.5   | 1600.0   | 13 |    | 5    |
| 337.5   | 1500.0   | 31 |    | 8    | -812.5  | 1600.0   | 11  |    | 0    | 150.0   | 1600.0   | 16 |    | 6    |
| 350.0   | 1500.0   | 34 |    | 6    | -800.0  | 1600.0   | 9   |    | -3   | 162.5   | 1600.0   | 16 |    | 6    |
| 362.5   | 1500.0   | 30 |    | 6    | -787.5  | 1600.0   | 1   |    | -12  | 175.0   | 1600.0   | 14 |    | 7    |
| 375.0   | 1500.0   | 26 |    | 6    | -775.0  | 1600.0   | 2   |    | -13  | 187.5   | 1600.0   | 25 |    | 8    |
| 387.5   | 1500.0   | 24 |    | 9    | -762.5  | 1600.0   | 0   |    | -17  | 200.0   | 1600.0   | 24 |    | 9    |
| 400.0   | 1500.0   | 35 |    | 13   | -750.0  | 1600.0   | 1   |    | -18  | 212.5   | 1600.0   | 29 |    | 9    |
| 412.5   | 1500.0   | 33 |    | 16   | -737.5  | 1600.0   | 2   |    | -18  | 225.0   | 1600.0   | 30 |    | 9    |
| 425.0   | 1500.0   | 29 |    | 15   | -725.0  | 1600.0   | 1   |    | -18  | 237.5   | 1600.0   | 29 |    | 9    |
| 437.5   | 1500.0   | 51 |    | 16   | -712.5  | 1600.0   | 3   |    | -18  | 250.0   | 1600.0   | 25 |    | 9    |
| 450.0   | 1500.0   | 43 |    | 17   | -700.0  | 1600.0   | 2   |    | -18  | 262.5   | 1600.0   | 28 |    | 8    |
| 462.5   | 1500.0   | 44 |    | 16   | -687.5  | 1600.0   | 4   |    | -18  | 275.0   | 1600.0   | 24 |    | 8    |
| 475.0   | 1500.0   | 41 |    | 18   | -675.0  | 1600.0   | 5   |    | -16  | 287.5   | 1600.0   | 27 |    | 8    |
| 487.5   | 1500.0   | 38 |    | 16   | -662.5  | 1600.0   | 6   |    | -15  | 300.0   | 1600.0   | 23 |    | 8    |
| 500.0   | 1500.0   | 50 |    | 13   | -650.0  | 1600.0   | 7   |    | -13  | 312.5   | 1600.0   | 23 |    | 8    |
| 512.5   | 1500.0   | 50 |    | 17   | -637.5  | 1600.0   | 6   |    | -11  | 325.0   | 1600.0   | 29 |    | 9    |
| 525.0   | 1500.0   | 54 |    | 18   | -625.0  | 1600.0   | 7   |    | -12  | 337.5   | 1600.0   | 28 |    | 9    |
| 537.5   | 1500.0   | 44 |    | 19   | -612.5  | 1600.0   | 0   |    | -10  | 350.0   | 1600.0   | 26 |    | 11   |
| 550.0   | 1500.0   | 41 |    | 22   | -600.0  | 1600.0   | 1   |    | -9   | 362.5   | 1600.0   | 24 |    | 11   |
| 562.5   | 1500.0   | 38 |    | 24   | -587.5  | 1600.0   | 0   |    | -8   | 375.0   | 1600.0   | 27 |    | 13   |
| 575.0   | 1500.0   | 43 |    | 21   | -575.0  | 1600.0   | 0   |    | -6   | 387.5   | 1600.0   | 34 |    | 14   |
| 587.5   | 1500.0   | 28 |    | 13   | -562.5  | 1600.0   | 1   |    | -4   | 400.0   | 1600.0   | 33 |    | 17   |
| 600.0   | 1500.0   | 21 |    | 11   | -550.0  | 1600.0   | 2   |    | -2   | 412.5   | 1600.0   | 35 |    | 17   |
| 612.5   | 1500.0   | 25 |    | 13   | -537.5  | 1600.0   | 6   |    | -1   | 425.0   | 1600.0   | 35 |    | 19   |
| 625.0   | 1500.0   | 34 |    | 15   | -525.0  | 1600.0   | 4   |    | -1   | 437.5   | 1600.0   | 53 |    | 16   |
| 637.5   | 1500.0   | 36 |    | 25   | -512.5  | 1600.0   | 3   |    | -2   | 450.0   | 1600.0   | 48 |    | 20   |
| 650.0   | 1500.0   | 27 |    | 17   | -500.0  | 1600.0   | -4  |    | -7   | 462.5   | 1600.0   | 50 |    | 18   |
| 662.5   | 1500.0   | 33 |    | 18   | -487.5  | 1600.0   | -1  |    | -3   | 475.0   | 1600.0   | 50 |    | 17   |
| 675.0   | 1500.0   | 35 |    | 17   | -475.0  | 1600.0   | 0   |    | -3   | 487.5   | 1600.0   | 52 |    | 16   |
| 687.5   | 1500.0   | 32 |    | 19   | -462.5  | 1600.0   | 0   |    | -2   | 500.0   | 1600.0   | 49 |    | 16   |
| 700.0   | 1500.0   | 34 |    | 18   | -450.0  | 1600.0   | 1   |    | -2   | 512.5   | 1600.0   | 50 |    | 17   |
| 712.5   | 1500.0   | 36 |    | 15   | -437.5  | 1600.0   | 2   |    | -3   | 525.0   | 1600.0   | 51 |    | 17   |
| 725.0   | 1500.0   | 40 |    | 12   | -425.0  | 1600.0   | 1   |    | -3   | 537.5   | 1600.0   | 51 |    | 19   |
| 737.5   | 1500.0   | 32 |    | 11   | -412.5  | 1600.0   | 4   |    | -3   | 550.0   | 1600.0   | 49 |    | 18   |
| 750.0   | 1500.0   | 34 |    | 10   | -400.0  | 1600.0   | 3   |    | -2   | 562.5   | 1600.0   | 52 |    | 18   |
| 762.5   | 1500.0   | 28 |    | 12   | -387.5  | 1600.0   | 0   |    | -2   | 575.0   | 1600.0   | 49 |    | 18   |
| 775.0   | 1500.0   | 28 |    | 10   | -375.0  | 1600.0   | -1  |    | -4   | 587.5   | 1600.0   | 48 |    | 20   |
| 787.5   | 1500.0   | 30 |    | 12   | -362.5  | 1600.0   | -5  |    | -5   | 600.0   | 1600.0   | 53 |    | 20   |
| 800.0   | 1500.0   | 29 |    | 14   | -350.0  | 1600.0   | -7  |    | -7   | 612.5   | 1600.0   | 51 |    | 19   |
| 812.5   | 1500.0   | 35 |    | 11   | -337.5  | 1600.0   | -11 |    | -8   | 625.0   | 1600.0   | 49 |    | 18   |
| 825.0   | 1500.0   | 32 |    | 12   | -325.0  | 1600.0   | -15 |    | -9   | 637.5   | 1600.0   | 49 |    | 16   |
| 837.5   | 1500.0   | 32 |    | 19   | -312.5  | 1600.0   | -16 |    | -9   | 650.0   | 1600.0   | 49 |    | 22   |
| 850.0   | 1500.0   | 34 |    | 14   | -300.0  | 1600.0   | -13 |    | -9   | 662.5   | 1600.0   | 50 |    | 21   |
| 862.5   | 1500.0   | 37 |    | 13   | -287.5  | 1600.0   | -11 |    | -10  | 675.0   | 1600.0   | 52 |    | 18   |
| 875.0   | 1500.0   | 38 |    | 16   | -275.0  | 1600.0   | -12 |    | -12  | 687.5   | 1600.0   | 53 |    | 19   |
| 887.5   | 1500.0   | 42 |    | 12   | -262.5  | 1600.0   | -12 |    | -12  | 700.0   | 1600.0   | 53 |    | 18   |
| 900.0   | 1500.0   | 41 |    | 14   | -250.0  | 1600.0   | -13 |    | -13  | 712.5   | 1600.0   | 50 |    | 19   |
| 912.5   | 1500.0   | 40 |    | 15   | -237.5  | 1600.0   | -12 |    | -13  | 725.0   | 1600.0   | 53 |    | 17   |
| 925.0   | 1500.0   | 41 |    | 16   | -225.0  | 1600.0   | -15 |    | -14  | 737.5   | 1600.0   | 53 |    | 19   |
| 937.5   | 1500.0   | 46 |    | 15   | -212.5  | 1600.0   | -15 |    | -14  | 750.0   | 1600.0   | 52 |    | 17   |
| 950.0   | 1500.0   | 43 |    | 16   | -200.0  | 1600.0   | -18 |    | -15  | 762.5   | 1600.0   | 52 |    | 15   |
| 962.5   | 1500.0   | 44 |    | 17   | -187.5  | 1600.0   | -17 |    | -14  | 775.0   | 1600.0   | 52 |    | 15   |
| 975.0   | 1500.0   | 49 |    | 17   | -175.0  | 1600.0   | -16 |    | -14  | 787.5   | 1600.0   | 53 |    | 17   |
| 987.5   | 1500.0   | 44 |    | 18   | -162.5  | 1600.0   | -17 |    | -14  | 800.0   | 1600.0   | 52 |    | 18   |
| 1000.0  | 1500.0   | 47 |    | 17   | -150.0  | 1600.0   | -17 |    | -14  | 812.5   | 1600.0   | 51 |    | 16   |
| 1012.5  | 1500.0   | 47 |    | 17   | -137.5  | 1600.0   | -14 |    | -14  | 825.0   | 1600.0   | 55 |    | 19   |
| 1025.0  | 1500.0   | 45 |    | 18   | -125.0  | 1600.0   | -11 |    | -13  | 837.5   | 1600.0   | 57 |    | 18   |
| 1037.5  | 1500.0   | 49 |    | 18   | -112.5  | 1600.0   | -16 |    | -14  | 850.0   | 1600.0   | 54 |    | 21   |
| 1050.0  | 1500.0   | 45 |    | 20   | -100.0  | 1600.0   | -12 |    | -13  | 862.5   | 1600.0   | 58 |    | 21   |
| 1062.5  | 1500.0   | 52 |    | 17   | -87.5   | 1600.0   | -13 |    | -13  | 875.0   | 1600.0   | 56 |    | 25   |
| -1026.0 | 1600.0   | 47 |    | 27   | -75.0   | 1600.0   | -4  |    | -13  | 887.5   | 1600.0   | 55 |    | 23   |
| -1012.5 | 1600.0   | 41 |    | 21   | -62.5   | 1600.0   | -6  |    | -12  | 900.0   | 1600.0   | 54 |    | 23   |
| -1000.0 | 1600.0   | 43 |    | 18   | -50.0   | 1600.0   | -5  |    | -12  | 912.5   | 1600.0   | 58 |    | 18   |
| -987.5  | 1600.0   | 36 |    | 18   | -37.5   | 1600.0   | -3  |    | -12  | 925.0   | 1600.0   | 58 |    | 19   |
| -975.0  | 1600.0   | 44 |    | 25   | -25.0   | 1600.0   | -1  |    | -11  | 937.5   | 1600.0   | 59 |    | 18   |
| -962.5  | 1600.0   | 36 |    | 17   | -12.5   | 1600.0   | 1   |    | -9   | 950.0   | 1600.0   | 58 |    | 23   |
| -950.0  | 1600.0   | 32 |    | 13   | 0.0     | 1600.0   | 5   |    | -4   | 962.5   | 1600.0   | 55 |    | 24   |
| -937.5  | 1600.0   | 35 |    | 17   | 12.5    | 1600.0   | 6   |    | -4   | 975.0   | 1600.0   | 60 |    | 21   |
| -925.0  | 1600.0   | 29 |    | 13   | 25.0    | 1600.0   | 6   |    | -2   | 987.5   | 1600.0   | 60 |    | 21   |
| -912.5  | 1600.0   | 30 |    | 13   | 37.5    | 1600.0   | 4   |    | 0    | 1000.0  | 1600.0   | 64 |    | 22   |
| -900.0  | 1600.0   | 24 |    | 11   | 50.0    | 1600.0   | 10  |    | 0    | 1012.5  | 1600.0   | 57 |    | 21   |
| -887.5  | 1600.0   | 26 |    | 8    | 62.5    | 1600.0   | 7   |    | 1    | 1025.0  | 1600.0   | 56 |    | 19   |
| -875.0  | 1600.0   | 23 |    | 11   | 75.0    | 1600.0   | 11  |    | 3    | 1037.5  | 1600.0   | 60 |    | 19   |
| -862.5  | 1600.0   | 19 |    | 6    | 87.5    | 1600.0   | 10  |    | 4    | 1050.0  | 1600.0   | 62 |    | 19   |

| X(East) | Y(North) | In  | Ph  | Quad | X(East) | Y(North) | In | Ph  | Quad | X(East) | Y(North) | In  | Ph  | Quad |
|---------|----------|-----|-----|------|---------|----------|----|-----|------|---------|----------|-----|-----|------|
| -1015.0 | 1700.0   | 41  | 20  |      | -50.0   | 1700.0   | 2  | -12 |      | -938.9  | 1800.0   | 25  | 7   |      |
| -1000.0 | 1700.0   | 39  | 19  |      | -37.5   | 1700.0   | 4  | -11 |      | -925.2  | 1800.0   | 25  | 4   |      |
| -987.5  | 1700.0   | 38  | 19  |      | -25.0   | 1700.0   | 9  | -10 |      | -911.5  | 1800.0   | 24  | 4   |      |
| -975.0  | 1700.0   | 38  | 16  |      | -12.5   | 1700.0   | 12 | -8  |      | -897.8  | 1800.0   | 23  | 0   |      |
| -962.5  | 1700.0   | 36  | 15  |      | 0.0     | 1700.0   | 16 | -6  |      | -884.1  | 1800.0   | 20  | -1  |      |
| -950.0  | 1700.0   | 33  | 14  |      | 12.5    | 1700.0   | 17 | -5  |      | -870.4  | 1800.0   | 18  | -3  |      |
| -937.5  | 1700.0   | 30  | 15  |      | 25.0    | 1700.0   | 16 | -4  |      | -856.7  | 1800.0   | 15  | -6  |      |
| -925.0  | 1700.0   | 28  | 10  |      | 37.5    | 1700.0   | 16 | -4  |      | -843.0  | 1800.0   | 11  | -11 |      |
| -912.5  | 1700.0   | 26  | 9   |      | 50.0    | 1700.0   | 16 | -3  |      | -829.3  | 1800.0   | 10  | -15 |      |
| -900.0  | 1700.0   | 29  | 5   |      | 62.5    | 1700.0   | 16 | -3  |      | -815.7  | 1800.0   | 8   | -15 |      |
| -887.5  | 1700.0   | 25  | 5   |      | 75.0    | 1700.0   | 19 | -2  |      | -802.0  | 1800.0   | 8   | -16 |      |
| -875.0  | 1700.0   | 24  | 2   |      | 87.5    | 1700.0   | 19 | -1  |      | -788.3  | 1800.0   | 9   | -13 |      |
| -862.5  | 1700.0   | 19  | 1   |      | 100.0   | 1700.0   | 15 | -1  |      | -774.6  | 1800.0   | 11  | -13 |      |
| -850.0  | 1700.0   | 18  | 0   |      | 112.5   | 1700.0   | 13 | 2   |      | -760.9  | 1800.0   | 8   | -13 |      |
| -837.5  | 1700.0   | 16  | -2  |      | 125.0   | 1700.0   | 12 | 4   |      | -747.2  | 1800.0   | 7   | -14 |      |
| -825.0  | 1700.0   | 16  | -5  |      | 137.5   | 1700.0   | 16 | 4   |      | -733.5  | 1800.0   | 10  | -13 |      |
| -812.5  | 1700.0   | 12  | -8  |      | 150.0   | 1700.0   | 23 | 4   |      | -719.8  | 1800.0   | 13  | -12 |      |
| -800.0  | 1700.0   | 9   | -13 |      | 162.5   | 1700.0   | 19 | 4   |      | -706.1  | 1800.0   | 14  | -11 |      |
| -787.5  | 1700.0   | 7   | -13 |      | 175.0   | 1700.0   | 21 | 5   |      | -692.4  | 1800.0   | 14  | -9  |      |
| -775.0  | 1700.0   | 5   | -17 |      | 187.5   | 1700.0   | 18 | 6   |      | -678.7  | 1800.0   | 14  | -8  |      |
| -762.5  | 1700.0   | 4   | -17 |      | 200.0   | 1700.0   | 22 | 7   |      | -665.0  | 1800.0   | 14  | -6  |      |
| -750.0  | 1700.0   | 4   | -18 |      | 212.5   | 1700.0   | 23 | 8   |      | -651.3  | 1800.0   | 14  | -6  |      |
| -737.5  | 1700.0   | 3   | -18 |      | 225.0   | 1700.0   | 21 | 9   |      | -637.6  | 1800.0   | 17  | -7  |      |
| -725.0  | 1700.0   | 4   | -16 |      | 237.5   | 1700.0   | 19 | 9   |      | -623.9  | 1800.0   | 14  | -6  |      |
| -712.5  | 1700.0   | 4   | -18 |      | 250.0   | 1700.0   | 20 | 10  |      | -610.2  | 1800.0   | 11  | -7  |      |
| -700.0  | 1700.0   | 4   | -17 |      | 262.5   | 1700.0   | 23 | 12  |      | -596.5  | 1800.0   | 11  | -5  |      |
| -687.5  | 1700.0   | 5   | -16 |      | 275.0   | 1700.0   | 21 | 11  |      | -582.8  | 1800.0   | 13  | -3  |      |
| -675.0  | 1700.0   | 7   | -14 |      | 287.5   | 1700.0   | 22 | 10  |      | -569.1  | 1800.0   | 16  | -1  |      |
| -662.5  | 1700.0   | 8   | -13 |      | 300.0   | 1700.0   | 21 | 9   |      | -555.4  | 1800.0   | 16  | 0   |      |
| -650.0  | 1700.0   | 9   | -11 |      | 312.5   | 1700.0   | 22 | 10  |      | -541.7  | 1800.0   | 15  | -1  |      |
| -637.5  | 1700.0   | 12  | -9  |      | 325.0   | 1700.0   | 23 | 9   |      | -528.0  | 1800.0   | 15  | 0   |      |
| -625.0  | 1700.0   | 13  | -8  |      | 337.5   | 1700.0   | 24 | 9   |      | -514.3  | 1800.0   | 15  | -2  |      |
| -612.5  | 1700.0   | 16  | -6  |      | 350.0   | 1700.0   | 36 | 10  |      | -500.7  | 1800.0   | 12  | -2  |      |
| -600.0  | 1700.0   | 14  | -5  |      | 362.5   | 1700.0   | 38 | 10  |      | -487.0  | 1800.0   | 14  | -5  |      |
| -587.5  | 1700.0   | 15  | -4  |      | 375.0   | 1700.0   | 38 | 10  |      | -473.3  | 1800.0   | 10  | -4  |      |
| -575.0  | 1700.0   | 17  | -3  |      | 387.5   | 1700.0   | 36 | 12  |      | -459.6  | 1800.0   | 8   | -5  |      |
| -562.5  | 1700.0   | 16  | -3  |      | 400.0   | 1700.0   | 34 | 13  |      | -445.9  | 1800.0   | 9   | -5  |      |
| -550.0  | 1700.0   | 14  | -2  |      | 412.5   | 1700.0   | 32 | 14  |      | -432.2  | 1800.0   | 4   | -6  |      |
| -537.5  | 1700.0   | 12  | -3  |      | 425.0   | 1700.0   | 30 | 15  |      | -418.5  | 1800.0   | 3   | -7  |      |
| -525.0  | 1700.0   | 13  | -3  |      | 437.5   | 1700.0   | 32 | 17  |      | -404.8  | 1800.0   | -3  | -8  |      |
| -512.5  | 1700.0   | 13  | -4  |      | 450.0   | 1700.0   | 35 | 17  |      | -391.1  | 1800.0   | -5  | -9  |      |
| -500.0  | 1700.0   | 14  | -3  |      | 462.5   | 1700.0   | 36 | 17  |      | -377.4  | 1800.0   | -5  | -10 |      |
| -487.5  | 1700.0   | 12  | -2  |      | 475.0   | 1700.0   | 48 | 20  |      | -363.7  | 1800.0   | -7  | -11 |      |
| -475.0  | 1700.0   | 15  | -1  |      | 487.5   | 1700.0   | 49 | 20  |      | -350.0  | 1800.0   | -9  | -14 |      |
| -462.5  | 1700.0   | 16  | 0   |      | 500.0   | 1700.0   | 54 | 20  |      | -175.0  | 1800.0   | -15 | -14 |      |
| -450.0  | 1700.0   | 12  | 0   |      | 512.5   | 1700.0   | 50 | 22  |      | -162.5  | 1800.0   | -11 | -12 |      |
| -437.5  | 1700.0   | 12  | 0   |      | 525.0   | 1700.0   | 54 | 23  |      | -150.0  | 1800.0   | -7  | -14 |      |
| -425.0  | 1700.0   | 9   | -2  |      | 537.5   | 1700.0   | 54 | 26  |      | -137.5  | 1800.0   | -6  | -14 |      |
| -412.5  | 1700.0   | 4   | -4  |      | 550.0   | 1700.0   | 51 | 22  |      | -125.0  | 1800.0   | -7  | -15 |      |
| -400.0  | 1700.0   | 4   | -5  |      | 562.5   | 1700.0   | 51 | 21  |      | -112.5  | 1800.0   | -4  | -23 |      |
| -387.5  | 1700.0   | 2   | -5  |      | 575.0   | 1700.0   | 55 | 23  |      | -100.0  | 1800.0   | 0   | -16 |      |
| -375.0  | 1700.0   | -2  | -8  |      | 587.5   | 1700.0   | 52 | 21  |      | -87.5   | 1800.0   | 0   | -14 |      |
| -362.5  | 1700.0   | -5  | -8  |      | 600.0   | 1700.0   | 52 | 22  |      | -75.0   | 1800.0   | 2   | -13 |      |
| -350.0  | 1700.0   | -2  | -9  |      | 612.5   | 1700.0   | 54 | 22  |      | -62.5   | 1800.0   | 5   | -10 |      |
| -337.5  | 1700.0   | -4  | -11 |      | 625.0   | 1700.0   | 51 | 22  |      | -50.0   | 1800.0   | 10  | -8  |      |
| -325.0  | 1700.0   | -5  | -11 |      | 637.5   | 1700.0   | 49 | 20  |      | -37.5   | 1800.0   | 15  | -5  |      |
| -312.5  | 1700.0   | -4  | -11 |      | 650.0   | 1700.0   | 49 | 24  |      | -25.0   | 1800.0   | 17  | -4  |      |
| -287.5  | 1700.0   | -12 | -17 |      | 662.5   | 1700.0   | 52 | 23  |      | -12.5   | 1800.0   | 26  | -4  |      |
| -275.0  | 1700.0   | -6  | -16 |      | 675.0   | 1700.0   | 51 | 22  |      | 0.0     | 1800.0   | 24  | -5  |      |
| -262.5  | 1700.0   | -12 | -16 |      | 687.5   | 1700.0   | 50 | 21  |      | 12.5    | 1800.0   | 20  | -3  |      |
| -250.0  | 1700.0   | -13 | -18 |      | 700.0   | 1700.0   | 51 | 21  |      | 25.0    | 1800.0   | 17  | -3  |      |
| -237.5  | 1700.0   | -11 | -18 |      | 712.5   | 1700.0   | 50 | 23  |      | 37.5    | 1800.0   | 19  | -4  |      |
| -225.0  | 1700.0   | -14 | -19 |      | 725.0   | 1700.0   | 52 | 22  |      | 50.0    | 1800.0   | 19  | -3  |      |
| -212.5  | 1700.0   | -14 | -19 |      | 737.5   | 1700.0   | 49 | 20  |      | 62.5    | 1800.0   | 17  | -4  |      |
| -200.0  | 1700.0   | -15 | -19 |      | 750.0   | 1700.0   | 48 | 21  |      | 75.0    | 1800.0   | 16  | -3  |      |
| -187.5  | 1700.0   | -13 | -18 |      | 762.5   | 1700.0   | 49 | 22  |      | 87.5    | 1800.0   | 22  | 0   |      |
| -175.0  | 1700.0   | -12 | -17 |      | 775.0   | 1700.0   | 48 | 22  |      | 100.0   | 1800.0   | 18  | 0   |      |
| -162.5  | 1700.0   | -11 | -17 |      | 787.5   | 1700.0   | 50 | 23  |      | 112.5   | 1800.0   | 19  | 3   |      |
| -150.0  | 1700.0   | -9  | -17 |      | 800.0   | 1700.0   | 53 | 24  |      | 125.0   | 1800.0   | 17  | 3   |      |
| -137.5  | 1700.0   | -7  | -17 |      | 812.5   | 1700.0   | 51 | 23  |      | 137.5   | 1800.0   | 20  | 3   |      |
| -125.0  | 1700.0   | -6  | -16 |      | 825.0   | 1700.0   | 50 | 25  |      | 150.0   | 1800.0   | 19  | 4   |      |
| -112.5  | 1700.0   | -2  | -15 |      | 837.5   | 1700.0   | 50 | 23  |      | 162.5   | 1800.0   | 20  | 5   |      |
| -100.0  | 1700.0   | -5  | -14 |      | 850.0   | 1700.0   | 55 | 21  |      | 175.0   | 1800.0   | 24  | 5   |      |
| -87.5   | 1700.0   | 0   | -14 |      | -980.0  | 1800.0   | 28 | 12  |      | 187.5   | 1800.0   | 22  | 6   |      |
| -75.0   | 1700.0   | 0   | -13 |      | -966.3  | 1800.0   | 31 | 12  |      | 200.0   | 1800.0   | 25  | 6   |      |
| -62.5   | 1700.0   | 3   | -12 |      | -952.6  | 1800.0   | 29 | 6   |      | 212.5   | 1800.0   | 26  | 6   |      |

| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| 225.0   | 1800.0   | 26    | 9    | 75.0    | 1900.0   | 17    | 1    | -87.5   | 2000.0   | 0     | -10  |
| 237.5   | 1800.0   | 28    | 10   | 87.5    | 1900.0   | 16    | 0    | -75.0   | 2000.0   | 0     | -8   |
| 250.0   | 1800.0   | 30    | 10   | 100.0   | 1900.0   | 18    | 2    | -62.5   | 2000.0   | 5     | -8   |
| 262.5   | 1800.0   | 35    | 11   | 112.5   | 1900.0   | 17    | 3    | -50.0   | 2000.0   | 6     | -6   |
| 275.0   | 1800.0   | 31    | 10   | 125.0   | 1900.0   | 20    | 4    | -37.5   | 2000.0   | 10    | -5   |
| 287.5   | 1800.0   | 32    | 11   | 137.5   | 1900.0   | 22    | 6    | -25.0   | 2000.0   | 14    | -5   |
| 300.0   | 1800.0   | 34    | 12   | 150.0   | 1900.0   | 27    | 7    | -12.5   | 2000.0   | 17    | -2   |
| 312.5   | 1800.0   | 32    | 11   | 162.5   | 1900.0   | 28    | 7    | 0.0     | 2000.0   | 16    | 0    |
| 325.0   | 1800.0   | 34    | 10   | 175.0   | 1900.0   | 29    | 7    | 12.5    | 2000.0   | 20    | 1    |
| 337.5   | 1800.0   | 33    | 11   | 187.5   | 1900.0   | 31    | 8    | 25.0    | 2000.0   | 21    | 1    |
| 350.0   | 1800.0   | 35    | 12   | 200.0   | 1900.0   | 33    | 9    | 37.5    | 2000.0   | 17    | 1    |
| 362.5   | 1800.0   | 36    | 13   | 212.5   | 1900.0   | 37    | 9    | 50.0    | 2000.0   | 19    | 1    |
| 375.0   | 1800.0   | 37    | 13   | 225.0   | 1900.0   | 36    | 9    | 62.5    | 2000.0   | 24    | 0    |
| 387.5   | 1800.0   | 41    | 16   | 237.5   | 1900.0   | 35    | 10   | 75.0    | 2000.0   | 25    | 0    |
| 400.0   | 1800.0   | 43    | 16   | 250.0   | 1900.0   | 41    | 12   | 87.5    | 2000.0   | 24    | 0    |
| 412.5   | 1800.0   | 50    | 17   | 262.5   | 1900.0   | 37    | 11   | 100.0   | 2000.0   | 21    | 2    |
| 425.0   | 1800.0   | 46    | 20   | 275.0   | 1900.0   | 37    | 11   | 112.5   | 2000.0   | 24    | 3    |
| 437.5   | 1800.0   | 50    | 20   | 287.5   | 1900.0   | 39    | 12   | 125.0   | 2000.0   | 20    | 3    |
| 450.0   | 1800.0   | 50    | 21   | 300.0   | 1900.0   | 38    | 12   | 137.5   | 2000.0   | 19    | 4    |
| -970.0  | 1900.0   | 35    | 20   | 312.5   | 1900.0   | 39    | 13   | 150.0   | 2000.0   | 19    | 2    |
| -955.0  | 1900.0   | 35    | 15   | 325.0   | 1900.0   | 37    | 13   | 162.5   | 2000.0   | 19    | 3    |
| -940.0  | 1900.0   | 30    | 18   | 337.5   | 1900.0   | 46    | 14   | 175.0   | 2000.0   | 26    | 4    |
| -925.0  | 1900.0   | 31    | 10   | 350.0   | 1900.0   | 40    | 15   | 187.5   | 2000.0   | 26    | 4    |
| -910.0  | 1900.0   | 30    | 10   | 362.5   | 1900.0   | 45    | 16   | 200.0   | 2000.0   | 27    | 5    |
| -895.0  | 1900.0   | 27    | 8    | 375.0   | 1900.0   | 49    | 18   | 212.5   | 2000.0   | 30    | 5    |
| -880.0  | 1900.0   | 26    | 6    | 387.5   | 1900.0   | 48    | 20   | 225.0   | 2000.0   | 31    | 6    |
| -865.0  | 1900.0   | 26    | 5    | 400.0   | 1900.0   | 54    | 19   | 237.5   | 2000.0   | 33    | 7    |
| -850.0  | 1900.0   | 23    | 3    | 412.5   | 1900.0   | 52    | 20   | 250.0   | 2000.0   | 34    | 7    |
| -835.0  | 1900.0   | 23    | -1   | 425.0   | 1900.0   | 49    | 19   | 262.5   | 2000.0   | 36    | 8    |
| -820.0  | 1900.0   | 18    | -4   | -960.0  | 2000.0   | 26    | 24   | 275.0   | 2000.0   | 32    | 10   |
| -805.0  | 1900.0   | 15    | -10  | -943.7  | 2000.0   | 28    | 22   | 287.5   | 2000.0   | 34    | 12   |
| -790.0  | 1900.0   | 11    | -12  | -927.4  | 2000.0   | 29    | 20   | 300.0   | 2000.0   | 32    | 11   |
| -775.0  | 1900.0   | 11    | -11  | -911.1  | 2000.0   | 31    | 19   | 312.5   | 2000.0   | 32    | 12   |
| -760.0  | 1900.0   | 12    | -10  | -894.9  | 2000.0   | 31    | 20   | 325.0   | 2000.0   | 37    | 11   |
| -745.0  | 1900.0   | 12    | -8   | -878.6  | 2000.0   | 33    | 19   | 337.5   | 2000.0   | 35    | 12   |
| -730.0  | 1900.0   | 13    | -7   | -862.3  | 2000.0   | 33    | 19   | 350.0   | 2000.0   | 36    | 13   |
| -715.0  | 1900.0   | 11    | -9   | -846.0  | 2000.0   | 35    | 17   | 362.5   | 2000.0   | 40    | 14   |
| -700.0  | 1900.0   | 10    | -8   | -829.7  | 2000.0   | 35    | 16   | 375.0   | 2000.0   | 43    | 16   |
| -685.0  | 1900.0   | 13    | -6   | -813.4  | 2000.0   | 35    | 18   | 387.5   | 2000.0   | 45    | 18   |
| -670.0  | 1900.0   | 14    | -6   | -797.1  | 2000.0   | 33    | 20   | 400.0   | 2000.0   | 52    | 20   |
| -655.0  | 1900.0   | 15    | -4   | -780.9  | 2000.0   | 33    | 17   | 412.5   | 2000.0   | 50    | 20   |
| -640.0  | 1900.0   | 14    | -3   | -764.6  | 2000.0   | 34    | 13   | 425.0   | 2000.0   | 52    | 21   |
| -625.0  | 1900.0   | 17    | -1   | -748.3  | 2000.0   | 30    | 10   | -225.0  | 2100.0   | -14   | -23  |
| -610.0  | 1900.0   | 17    | -1   | -732.0  | 2000.0   | 26    | 8    | -212.5  | 2100.0   | -14   | -23  |
| -595.0  | 1900.0   | 18    | 0    | -715.7  | 2000.0   | 20    | 2    | -200.0  | 2100.0   | -6    | -24  |
| -580.0  | 1900.0   | 18    | 0    | -699.4  | 2000.0   | 20    | -3   | -187.5  | 2100.0   | -7    | -18  |
| -565.0  | 1900.0   | 16    | 0    | -683.1  | 2000.0   | 16    | -8   | -175.0  | 2100.0   | -4    | -16  |
| -550.0  | 1900.0   | 15    | 0    | -666.9  | 2000.0   | 11    | -11  | -162.5  | 2100.0   | 0     | -15  |
| -535.0  | 1900.0   | 15    | -1   | -650.6  | 2000.0   | 9     | -11  | -150.0  | 2100.0   | -6    | -18  |
| -520.0  | 1900.0   | 16    | -3   | -634.3  | 2000.0   | 12    | -5   | -137.5  | 2100.0   | 0     | -12  |
| -505.0  | 1900.0   | 9     | -5   | -618.0  | 2000.0   | 19    | 0    | -125.0  | 2100.0   | 1     | -11  |
| -490.0  | 1900.0   | 10    | -6   | -601.7  | 2000.0   | 20    | 0    | -112.5  | 2100.0   | 6     | -8   |
| -475.0  | 1900.0   | 9     | -5   | -585.4  | 2000.0   | 21    | -1   | -100.0  | 2100.0   | 3     | -7   |
| -460.0  | 1900.0   | 7     | -5   | -569.1  | 2000.0   | 22    | 0    | -87.5   | 2100.0   | 7     | -8   |
| -445.0  | 1900.0   | 5     | -5   | -552.9  | 2000.0   | 20    | 0    | -75.0   | 2100.0   | 8     | -6   |
| -430.0  | 1900.0   | 3     | -6   | -536.6  | 2000.0   | 20    | -1   | -62.5   | 2100.0   | 10    | -4   |
| -415.0  | 1900.0   | 0     | -8   | -520.3  | 2000.0   | 18    | -2   | -50.0   | 2100.0   | 9     | -2   |
| -400.0  | 1900.0   | -2    | -7   | -504.0  | 2000.0   | 16    | -6   | -37.5   | 2100.0   | 8     | -3   |
| -385.0  | 1900.0   | 0     | -7   | -487.7  | 2000.0   | 14    | -6   | -25.0   | 2100.0   | 9     | -2   |
| -370.0  | 1900.0   | -4    | -11  | -471.4  | 2000.0   | 12    | -4   | -12.5   | 2100.0   | 15    | 0    |
| -125.0  | 1900.0   | -8    | -16  | -455.1  | 2000.0   | 13    | -4   | 0.0     | 2100.0   | 13    | 0    |
| -112.5  | 1900.0   | -8    | -16  | -438.9  | 2000.0   | 15    | -3   | 12.5    | 2100.0   | 16    | 0    |
| -100.0  | 1900.0   | -5    | -13  | -422.6  | 2000.0   | 11    | -4   | 25.0    | 2100.0   | 19    | 1    |
| -87.5   | 1900.0   | 1     | -13  | -406.3  | 2000.0   | 3     | -5   | 37.5    | 2100.0   | 18    | 0    |
| -75.0   | 1900.0   | 0     | -14  | -390.0  | 2000.0   | -2    | -6   | 50.0    | 2100.0   | 20    | 0    |
| -62.5   | 1900.0   | 3     | -12  | -225.0  | 2000.0   | -17   | -21  | 62.5    | 2100.0   | 21    | 0    |
| -50.0   | 1900.0   | 8     | -10  | -212.5  | 2000.0   | -14   | -19  | 75.0    | 2100.0   | 22    | 0    |
| -37.5   | 1900.0   | 7     | -8   | -200.0  | 2000.0   | -13   | -19  | 87.5    | 2100.0   | 21    | 0    |
| -25.0   | 1900.0   | 10    | -7   | -187.5  | 2000.0   | -9    | -20  | 100.0   | 2100.0   | 16    | 0    |
| -12.5   | 1900.0   | 16    | -4   | -175.0  | 2000.0   | -9    | -18  | 112.5   | 2100.0   | 18    | 0    |
| 0.0     | 1900.0   | 14    | -3   | -162.5  | 2000.0   | -5    | -18  | 125.0   | 2100.0   | 20    | 0    |
| 12.5    | 1900.0   | 15    | -2   | -150.0  | 2000.0   | -6    | -17  | 137.5   | 2100.0   | 22    | 0    |
| 25.0    | 1900.0   | 18    | -1   | -137.5  | 2000.0   | -9    | -17  | 150.0   | 2100.0   | 22    | 1    |
| 37.5    | 1900.0   | 20    | 0    | -125.0  | 2000.0   | -5    | -15  | 162.5   | 2100.0   | 27    | 4    |
| 50.0    | 1900.0   | 19    | 0    | -112.5  | 2000.0   | -1    | -14  | 175.0   | 2100.0   | 29    | 6    |
| 62.5    | 1900.0   | 19    | 0    | -100.0  | 2000.0   | 0     | -11  | 187.5   | 2100.0   | 32    | 6    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad |
|---------|----------|----|----|------|---------|----------|-----|----|------|---------|----------|-----|----|------|
| 200.0   | 2100.0   | 32 |    | 6    | 1150.0  | 2100.0   | 38  |    | 29   | 775.0   | 2200.0   | 51  |    | 11   |
| 212.5   | 2100.0   | 32 |    | 7    | 1162.5  | 2100.0   | 35  |    | 25   | 787.5   | 2200.0   | 47  |    | 10   |
| 225.0   | 2100.0   | 33 |    | 7    | 1175.0  | 2100.0   | 33  |    | 26   | 800.0   | 2200.0   | 46  |    | 10   |
| 237.5   | 2100.0   | 34 |    | 8    | 1187.5  | 2100.0   | 36  |    | 26   | 812.5   | 2200.0   | 45  |    | 10   |
| 250.0   | 2100.0   | 34 |    | 8    | 1200.0  | 2100.0   | 35  |    | 27   | 825.0   | 2200.0   | 46  |    | 12   |
| 262.5   | 2100.0   | 40 |    | 10   | 1212.5  | 2100.0   | 36  |    | 28   | 837.5   | 2200.0   | 45  |    | 12   |
| 275.0   | 2100.0   | 34 |    | 8    | 1225.0  | 2100.0   | 36  |    | 31   | 850.0   | 2200.0   | 44  |    | 13   |
| 287.5   | 2100.0   | 36 |    | 10   | -245.0  | 2200.0   | -13 |    | -24  | 862.5   | 2200.0   | 43  |    | 12   |
| 300.0   | 2100.0   | 33 |    | 10   | -237.5  | 2200.0   | -9  |    | -24  | 875.0   | 2200.0   | 43  |    | 15   |
| 312.5   | 2100.0   | 32 |    | 11   | -225.0  | 2200.0   | -7  |    | -22  | 887.5   | 2200.0   | 41  |    | 16   |
| 325.0   | 2100.0   | 32 |    | 11   | -212.5  | 2200.0   | -7  |    | -20  | 900.0   | 2200.0   | 41  |    | 16   |
| 337.5   | 2100.0   | 35 |    | 12   | -200.0  | 2200.0   | -2  |    | 18   | 912.5   | 2200.0   | 41  |    | 18   |
| 350.0   | 2100.0   | 36 |    | 13   | -187.5  | 2200.0   | -1  |    | -17  | 925.0   | 2200.0   | 42  |    | 18   |
| 362.5   | 2100.0   | 37 |    | 15   | -175.0  | 2200.0   | 4   |    | -14  | 937.5   | 2200.0   | 38  |    | 19   |
| 375.0   | 2100.0   | 39 |    | 16   | -162.5  | 2200.0   | 2   |    | -11  | 950.0   | 2200.0   | 39  |    | 19   |
| 387.5   | 2100.0   | 42 |    | 19   | -150.0  | 2200.0   | 4   |    | -8   | 962.5   | 2200.0   | 36  |    | 19   |
| 400.0   | 2100.0   | 47 |    | 19   | -137.5  | 2200.0   | 4   |    | -6   | 975.0   | 2200.0   | 35  |    | 20   |
| 412.5   | 2100.0   | 46 |    | 21   | -125.0  | 2200.0   | 4   |    | -6   | 987.5   | 2200.0   | 37  |    | 20   |
| 425.0   | 2100.0   | 48 |    | 23   | -112.5  | 2200.0   | 4   |    | -5   | 1000.0  | 2200.0   | 33  |    | 21   |
| 437.5   | 2100.0   | 51 |    | 23   | -100.0  | 2200.0   | 9   |    | -4   | 1012.5  | 2200.0   | 35  |    | 23   |
| 450.0   | 2100.0   | 52 |    | 26   | -87.5   | 2200.0   | 10  |    | -3   | 1025.0  | 2200.0   | 31  |    | 23   |
| 462.5   | 2100.0   | 54 |    | 26   | -75.0   | 2200.0   | 12  |    | -1   | 1037.5  | 2200.0   | 34  |    | 25   |
| 475.0   | 2100.0   | 54 |    | 27   | -62.5   | 2200.0   | 12  |    | 0    | 1050.0  | 2200.0   | 33  |    | 27   |
| 487.5   | 2100.0   | 54 |    | 31   | -50.0   | 2200.0   | 13  |    | 1    | 1062.5  | 2200.0   | 33  |    | 28   |
| 500.0   | 2100.0   | 56 |    | 30   | -37.5   | 2200.0   | 13  |    | 2    | 1075.0  | 2200.0   | 31  |    | 29   |
| 512.5   | 2100.0   | 55 |    | 27   | -25.0   | 2200.0   | 11  |    | 2    | 1087.5  | 2200.0   | 33  |    | 30   |
| 525.0   | 2100.0   | 58 |    | 25   | -12.5   | 2200.0   | 14  |    | 2    | 1100.0  | 2200.0   | 34  |    | 31   |
| 537.5   | 2100.0   | 53 |    | 22   | 0.0     | 2200.0   | 11  |    | 0    | 1112.5  | 2200.0   | 34  |    | 31   |
| 550.0   | 2100.0   | 54 |    | 18   | 12.5    | 2200.0   | 12  |    | -1   | -287.5  | 2300.0   | -21 |    | -44  |
| 562.5   | 2100.0   | 48 |    | 15   | 25.0    | 2200.0   | 12  |    | 0    | -275.0  | 2300.0   | -18 |    | -40  |
| 575.0   | 2100.0   | 46 |    | 14   | 37.5    | 2200.0   | 16  |    | 0    | -262.5  | 2300.0   | -13 |    | -33  |
| 587.5   | 2100.0   | 45 |    | 12   | 50.0    | 2200.0   | 13  |    | -1   | -250.0  | 2300.0   | -12 |    | -32  |
| 600.0   | 2100.0   | 45 |    | 10   | 62.5    | 2200.0   | 13  |    | -1   | -237.5  | 2300.0   | -9  |    | -27  |
| 612.5   | 2100.0   | 43 |    | 11   | 75.0    | 2200.0   | 14  |    | -1   | -225.0  | 2300.0   | -7  |    | -24  |
| 625.0   | 2100.0   | 49 |    | 12   | 87.5    | 2200.0   | 15  |    | -2   | -212.5  | 2300.0   | -2  |    | -21  |
| 637.5   | 2100.0   | 48 |    | 11   | 100.0   | 2200.0   | 18  |    | -3   | -200.0  | 2300.0   | -1  |    | -16  |
| 650.0   | 2100.0   | 49 |    | 12   | 112.5   | 2200.0   | 21  |    | -3   | -187.5  | 2300.0   | -2  |    | -13  |
| 662.5   | 2100.0   | 55 |    | 14   | 125.0   | 2200.0   | 20  |    | -4   | -175.0  | 2300.0   | 0   |    | -10  |
| 675.0   | 2100.0   | 48 |    | 13   | 137.5   | 2200.0   | 16  |    | -4   | -162.5  | 2300.0   | 1   |    | -6   |
| 687.5   | 2100.0   | 50 |    | 13   | 150.0   | 2200.0   | 20  |    | -3   | -150.0  | 2300.0   | 2   |    | -5   |
| 700.0   | 2100.0   | 49 |    | 12   | 162.5   | 2200.0   | 20  |    | -3   | -137.5  | 2300.0   | 6   |    | -3   |
| 712.5   | 2100.0   | 55 |    | 15   | 175.0   | 2200.0   | 21  |    | -3   | -125.0  | 2300.0   | 3   |    | -3   |
| 725.0   | 2100.0   | 47 |    | 11   | 187.5   | 2200.0   | 19  |    | -3   | -112.5  | 2300.0   | 2   |    | -2   |
| 737.5   | 2100.0   | 47 |    | 13   | 200.0   | 2200.0   | 24  |    | 0    | -100.0  | 2300.0   | 0   |    | -2   |
| 750.0   | 2100.0   | 53 |    | 11   | 212.5   | 2200.0   | 26  |    | 1    | -87.5   | 2300.0   | 0   |    | -4   |
| 762.5   | 2100.0   | 50 |    | 12   | 225.0   | 2200.0   | 30  |    | 2    | -75.0   | 2300.0   | 5   |    | -5   |
| 775.0   | 2100.0   | 47 |    | 9    | 237.5   | 2200.0   | 31  |    | 7    | -62.5   | 2300.0   | 4   |    | -5   |
| 787.5   | 2100.0   | 47 |    | 11   | 250.0   | 2200.0   | 34  |    | 8    | -50.0   | 2300.0   | 5   |    | -5   |
| 800.0   | 2100.0   | 45 |    | 11   | 262.5   | 2200.0   | 37  |    | 10   | -37.5   | 2300.0   | 5   |    | -3   |
| 812.5   | 2100.0   | 50 |    | 16   | 275.0   | 2200.0   | 37  |    | 11   | -25.0   | 2300.0   | 8   |    | 0    |
| 825.0   | 2100.0   | 44 |    | 12   | 287.5   | 2200.0   | 35  |    | 11   | -12.5   | 2300.0   | 4   |    | 0    |
| 837.5   | 2100.0   | 46 |    | 13   | 300.0   | 2200.0   | 35  |    | 11   | 0.0     | 2300.0   | 2   |    | -1   |
| 850.0   | 2100.0   | 46 |    | 12   | 312.5   | 2200.0   | 36  |    | 12   | 12.5    | 2300.0   | 4   |    | -2   |
| 862.5   | 2100.0   | 46 |    | 14   | 325.0   | 2200.0   | 36  |    | 13   | 25.0    | 2300.0   | -1  |    | -4   |
| 875.0   | 2100.0   | 47 |    | 15   | 337.5   | 2200.0   | 37  |    | 12   | 37.5    | 2300.0   | 1   |    | -6   |
| 887.5   | 2100.0   | 45 |    | 16   | 350.0   | 2200.0   | 35  |    | 12   | 45.0    | 2300.0   | 2   |    | -6   |
| 900.0   | 2100.0   | 48 |    | 17   | 362.5   | 2200.0   | 41  |    | 14   | 50.0    | 2300.0   | 3   |    | -6   |
| 912.5   | 2100.0   | 43 |    | 18   | 375.0   | 2200.0   | 38  |    | 14   | 62.5    | 2300.0   | 6   |    | -4   |
| 925.0   | 2100.0   | 46 |    | 18   | 387.5   | 2200.0   | 44  |    | 17   | 70.0    | 2300.0   | 11  |    | -3   |
| 937.5   | 2100.0   | 45 |    | 19   | 400.0   | 2200.0   | 46  |    | 21   | 75.0    | 2300.0   | 10  |    | -4   |
| 950.0   | 2100.0   | 44 |    | 20   | 412.5   | 2200.0   | 48  |    | 21   | 87.5    | 2300.0   | 14  |    | -3   |
| 962.5   | 2100.0   | 42 |    | 20   | 425.0   | 2200.0   | 52  |    | 24   | 100.0   | 2300.0   | 13  |    | -4   |
| 975.0   | 2100.0   | 41 |    | 19   | 600.0   | 2200.0   | 47  |    | 12   | 112.5   | 2300.0   | 12  |    | -5   |
| 987.5   | 2100.0   | 41 |    | 19   | 612.5   | 2200.0   | 49  |    | 11   | 125.0   | 2300.0   | 16  |    | -4   |
| 1000.0  | 2100.0   | 40 |    | 19   | 625.0   | 2200.0   | 47  |    | 8    | 137.5   | 2300.0   | 18  |    | -5   |
| 1012.5  | 2100.0   | 39 |    | 19   | 637.5   | 2200.0   | 48  |    | 5    | 150.0   | 2300.0   | 20  |    | -4   |
| 1025.0  | 2100.0   | 37 |    | 18   | 650.0   | 2200.0   | 46  |    | 6    | 162.5   | 2300.0   | 23  |    | -4   |
| 1037.5  | 2100.0   | 39 |    | 18   | 662.5   | 2200.0   | 51  |    | 7    | 175.0   | 2300.0   | 23  |    | -3   |
| 1050.0  | 2100.0   | 36 |    | 20   | 675.0   | 2200.0   | 49  |    | 10   | 187.5   | 2300.0   | 27  |    | -3   |
| 1062.5  | 2100.0   | 37 |    | 19   | 687.5   | 2200.0   | 50  |    | 10   | 200.0   | 2300.0   | 29  |    | -1   |
| 1075.0  | 2100.0   | 39 |    | 20   | 700.0   | 2200.0   | 51  |    | 9    | 212.5   | 2300.0   | 30  |    | 0    |
| 1087.5  | 2100.0   | 35 |    | 20   | 712.5   | 2200.0   | 49  |    | 11   | 225.0   | 2300.0   | 29  |    | 1    |
| 1100.0  | 2100.0   | 33 |    | 24   | 725.0   | 2200.0   | 48  |    | 11   | 237.5   | 2300.0   | 30  |    | 3    |
| 1112.5  | 2100.0   | 35 |    | 22   | 737.5   | 2200.0   | 50  |    | 10   | 250.0   | 2300.0   | 33  |    | 4    |
| 1125.0  | 2100.0   | 35 |    | 24   | 750.0   | 2200.0   | 50  |    | 12   | 262.5   | 2300.0   | 34  |    | 6    |
| 1137.5  | 2100.0   | 38 |    | 22   | 762.5   | 2200.0   | 49  |    | 12   | 275.0   | 2300.0   | 37  |    | 9    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad |
|---------|----------|----|----|------|---------|----------|-----|----|------|---------|----------|-----|----|------|
| 287.5   | 2300.0   | 37 |    | 9    | -100.0  | 2400.0   | -11 |    | -5   | 850.0   | 2400.0   | 44  |    | 20   |
| 300.0   | 2300.0   | 38 |    | 10   | -87.5   | 2400.0   | -7  |    | -3   | 862.5   | 2400.0   | 40  |    | 19   |
| 312.5   | 2300.0   | 36 |    | 10   | -75.0   | 2400.0   | -4  |    | -3   | 875.0   | 2400.0   | 41  |    | 22   |
| 325.0   | 2300.0   | 40 |    | 13   | -62.5   | 2400.0   | -4  |    | -4   | 887.5   | 2400.0   | 36  |    | 19   |
| 337.5   | 2300.0   | 39 |    | 13   | -50.0   | 2400.0   | -8  |    | -2   | 900.0   | 2400.0   | 37  |    | 21   |
| 350.0   | 2300.0   | 38 |    | 14   | -37.5   | 2400.0   | -6  |    | -1   | 912.5   | 2400.0   | 36  |    | 23   |
| 362.5   | 2300.0   | 39 |    | 12   | -25.0   | 2400.0   | -6  |    | -2   | 925.0   | 2400.0   | 33  |    | 24   |
| 375.0   | 2300.0   | 35 |    | 11   | -12.5   | 2400.0   | -8  |    | -3   | 937.5   | 2400.0   | 35  |    | 24   |
| 387.5   | 2300.0   | 37 |    | 12   | 0.0     | 2400.0   | -9  |    | -3   | 950.0   | 2400.0   | 35  |    | 27   |
| 400.0   | 2300.0   | 40 |    | 14   | 12.5    | 2400.0   | -8  |    | -4   | 962.5   | 2400.0   | 34  |    | 27   |
| 412.5   | 2300.0   | 40 |    | 15   | 25.0    | 2400.0   | -10 |    | -5   | 975.0   | 2400.0   | 33  |    | 28   |
| 425.0   | 2300.0   | 43 |    | 16   | 37.5    | 2400.0   | -5  |    | -5   | 987.5   | 2400.0   | 37  |    | 30   |
| 437.5   | 2300.0   | 43 |    | 17   | 50.0    | 2400.0   | 2   |    | -6   | 1000.0  | 2400.0   | 32  |    | 32   |
| 450.0   | 2300.0   | 45 |    | 18   | 62.5    | 2400.0   | 5   |    | -7   | 1012.5  | 2400.0   | 35  |    | 31   |
| 462.5   | 2300.0   | 49 |    | 19   | 75.0    | 2400.0   | 9   |    | -7   | 1025.0  | 2400.0   | 32  |    | 30   |
| 475.0   | 2300.0   | 52 |    | 19   | 87.5    | 2400.0   | 8   |    | -8   | -287.5  | 2500.0   | 1   |    | -32  |
| 487.5   | 2300.0   | 49 |    | 19   | 100.0   | 2400.0   | 9   |    | -11  | -275.0  | 2500.0   | 4   |    | -27  |
| 500.0   | 2300.0   | 46 |    | 19   | 112.5   | 2400.0   | 9   |    | -11  | -262.5  | 2500.0   | 0   |    | -23  |
| 512.5   | 2300.0   | 48 |    | 20   | 125.0   | 2400.0   | 12  |    | -8   | -250.0  | 2500.0   | -6  |    | -22  |
| 525.0   | 2300.0   | 50 |    | 20   | 137.5   | 2400.0   | 18  |    | -5   | -237.5  | 2500.0   | -11 |    | -19  |
| 537.5   | 2300.0   | 53 |    | 21   | 150.0   | 2400.0   | 21  |    | -2   | -225.0  | 2500.0   | -10 |    | -14  |
| 550.0   | 2300.0   | 49 |    | 19   | 162.5   | 2400.0   | 26  |    | 0    | -212.5  | 2500.0   | -8  |    | -10  |
| 562.5   | 2300.0   | 48 |    | 17   | 175.0   | 2400.0   | 29  |    | 1    | -200.0  | 2500.0   | -8  |    | -7   |
| 575.0   | 2300.0   | 50 |    | 15   | 187.5   | 2400.0   | 29  |    | 3    | -187.5  | 2500.0   | -4  |    | -6   |
| 587.5   | 2300.0   | 44 |    | 12   | 200.0   | 2400.0   | 34  |    | 7    | -175.0  | 2500.0   | 0   |    | -3   |
| 600.0   | 2300.0   | 44 |    | 9    | 212.5   | 2400.0   | 37  |    | 8    | -162.5  | 2500.0   | 2   |    | -1   |
| 612.5   | 2300.0   | 42 |    | 5    | 225.0   | 2400.0   | 38  |    | 8    | -150.0  | 2500.0   | 2   |    | 1    |
| 625.0   | 2300.0   | 41 |    | 1    | 237.5   | 2400.0   | 35  |    | 9    | -137.5  | 2500.0   | -1  |    | 0    |
| 637.5   | 2300.0   | 44 |    | 3    | 250.0   | 2400.0   | 36  |    | 10   | -125.0  | 2500.0   | 4   |    | -1   |
| 650.0   | 2300.0   | 44 |    | 7    | 262.5   | 2400.0   | 37  |    | 11   | -112.5  | 2500.0   | 3   |    | -1   |
| 662.5   | 2300.0   | 47 |    | 7    | 275.0   | 2400.0   | 38  |    | 10   | -100.0  | 2500.0   | 4   |    | -1   |
| 675.0   | 2300.0   | 51 |    | 7    | 287.5   | 2400.0   | 41  |    | 12   | -87.5   | 2500.0   | -2  |    | 0    |
| 687.5   | 2300.0   | 48 |    | 10   | 300.0   | 2400.0   | 41  |    | 13   | -75.0   | 2500.0   | -4  |    | 0    |
| 700.0   | 2300.0   | 51 |    | 9    | 312.5   | 2400.0   | 41  |    | 13   | -62.5   | 2500.0   | -5  |    | 0    |
| 712.5   | 2300.0   | 51 |    | 12   | 325.0   | 2400.0   | 39  |    | 15   | -50.0   | 2500.0   | -5  |    | 0    |
| 725.0   | 2300.0   | 53 |    | 10   | 337.5   | 2400.0   | 43  |    | 15   | -37.5   | 2500.0   | -2  |    | 0    |
| 737.5   | 2300.0   | 46 |    | 13   | 350.0   | 2400.0   | 41  |    | 16   | -25.0   | 2500.0   | -1  |    | 3    |
| 750.0   | 2300.0   | 49 |    | 9    | 362.5   | 2400.0   | 44  |    | 15   | -12.5   | 2500.0   | -4  |    | 5    |
| 762.5   | 2300.0   | 50 |    | 13   | 375.0   | 2400.0   | 43  |    | 15   | 0.0     | 2500.0   | 2   |    | 12   |
| 775.0   | 2300.0   | 50 |    | 14   | 387.5   | 2400.0   | 46  |    | 18   | 12.5    | 2500.0   | 3   |    | 14   |
| 787.5   | 2300.0   | 55 |    | 12   | 400.0   | 2400.0   | 43  |    | 15   | 25.0    | 2500.0   | 7   |    | 14   |
| 800.0   | 2300.0   | 46 |    | 10   | 412.5   | 2400.0   | 42  |    | 15   | 37.5    | 2500.0   | 6   |    | 12   |
| 812.5   | 2300.0   | 44 |    | 8    | 425.0   | 2400.0   | 44  |    | 14   | 50.0    | 2500.0   | 6   |    | 10   |
| 825.0   | 2300.0   | 46 |    | 13   | 437.5   | 2400.0   | 48  |    | 15   | 62.5    | 2500.0   | 7   |    | 9    |
| 837.5   | 2300.0   | 48 |    | 16   | 450.0   | 2400.0   | 46  |    | 15   | 75.0    | 2500.0   | 7   |    | 8    |
| 850.0   | 2300.0   | 46 |    | 13   | 462.5   | 2400.0   | 48  |    | 17   | 87.5    | 2500.0   | 11  |    | 6    |
| 862.5   | 2300.0   | 43 |    | 17   | 475.0   | 2400.0   | 47  |    | 17   | 100.0   | 2500.0   | 9   |    | 6    |
| 875.0   | 2300.0   | 44 |    | 18   | 487.5   | 2400.0   | 48  |    | 19   | 112.5   | 2500.0   | 15  |    | 6    |
| 887.5   | 2300.0   | 41 |    | 19   | 500.0   | 2400.0   | 50  |    | 19   | 125.0   | 2500.0   | 20  |    | 7    |
| 900.0   | 2300.0   | 36 |    | 17   | 512.5   | 2400.0   | 50  |    | 21   | 137.5   | 2500.0   | 24  |    | 7    |
| 912.5   | 2300.0   | 39 |    | 19   | 525.0   | 2400.0   | 54  |    | 21   | 150.0   | 2500.0   | 28  |    | 7    |
| 925.0   | 2300.0   | 41 |    | 20   | 537.5   | 2400.0   | 51  |    | 19   | 162.5   | 2500.0   | 32  |    | 9    |
| 937.5   | 2300.0   | 35 |    | 21   | 550.0   | 2400.0   | 49  |    | 13   | 175.0   | 2500.0   | 35  |    | 9    |
| 950.0   | 2300.0   | 34 |    | 22   | 562.5   | 2400.0   | 46  |    | 16   | 187.5   | 2500.0   | 36  |    | 10   |
| 962.5   | 2300.0   | 33 |    | 21   | 575.0   | 2400.0   | 47  |    | 15   | 200.0   | 2500.0   | 37  |    | 8    |
| 975.0   | 2300.0   | 33 |    | 24   | 587.5   | 2400.0   | 44  |    | 11   | 212.5   | 2500.0   | 38  |    | 11   |
| 987.5   | 2300.0   | 31 |    | 24   | 600.0   | 2400.0   | 45  |    | 11   | 225.0   | 2500.0   | 41  |    | 12   |
| 1000.0  | 2300.0   | 34 |    | 25   | 612.5   | 2400.0   | 44  |    | 9    | 237.5   | 2500.0   | 39  |    | 12   |
| 1012.5  | 2300.0   | 33 |    | 28   | 625.0   | 2400.0   | 44  |    | 8    | 250.0   | 2500.0   | 38  |    | 13   |
| 1025.0  | 2300.0   | 31 |    | 28   | 637.5   | 2400.0   | 45  |    | 11   | 262.5   | 2500.0   | 40  |    | 14   |
| 1037.5  | 2300.0   | 32 |    | 30   | 650.0   | 2400.0   | 49  |    | 11   | 275.0   | 2500.0   | 47  |    | 18   |
| 1050.0  | 2300.0   | 33 |    | 31   | 662.5   | 2400.0   | 46  |    | 12   | 287.5   | 2500.0   | 44  |    | 10   |
| -275.0  | 2400.0   | -7 |    | -37  | 675.0   | 2400.0   | 48  |    | 13   | 300.0   | 2500.0   | 46  |    | 14   |
| -262.5  | 2400.0   | -8 |    | -32  | 687.5   | 2400.0   | 46  |    | 13   | 312.5   | 2500.0   | 47  |    | 14   |
| -250.0  | 2400.0   | -6 |    | -29  | 700.0   | 2400.0   | 47  |    | 16   | 325.0   | 2500.0   | 48  |    | 14   |
| -237.5  | 2400.0   | -5 |    | -25  | 712.5   | 2400.0   | 48  |    | 14   | 337.5   | 2500.0   | 46  |    | 15   |
| -225.0  | 2400.0   | -7 |    | -18  | 725.0   | 2400.0   | 49  |    | 14   | 350.0   | 2500.0   | 45  |    | 11   |
| -212.5  | 2400.0   | -6 |    | -16  | 737.5   | 2400.0   | 48  |    | 14   | 362.5   | 2500.0   | 44  |    | 11   |
| -200.0  | 2400.0   | -5 |    | -13  | 750.0   | 2400.0   | 49  |    | 16   | 375.0   | 2500.0   | 45  |    | 12   |
| -187.5  | 2400.0   | -6 |    | -9   | 762.5   | 2400.0   | 48  |    | 16   | 387.5   | 2500.0   | 42  |    | 9    |
| -175.0  | 2400.0   | -3 |    | -5   | 775.0   | 2400.0   | 49  |    | 16   | 400.0   | 2500.0   | 37  |    | 7    |
| -162.5  | 2400.0   | -1 |    | -3   | 787.5   | 2400.0   | 48  |    | 17   | 412.5   | 2500.0   | 40  |    | 7    |
| -150.0  | 2400.0   | 0  |    | 0    | 800.0   | 2400.0   | 46  |    | 20   | 425.0   | 2500.0   | 42  |    | 9    |
| -137.5  | 2400.0   | 1  |    | -1   | 812.5   | 2400.0   | 46  |    | 19   | 437.5   | 2500.0   | 41  |    | 9    |
| -125.0  | 2400.0   | -4 |    | -4   | 825.0   | 2400.0   | 48  |    | 19   | 450.0   | 2500.0   | 40  |    | 7    |
| -112.5  | 2400.0   | -6 |    | -5   | 837.5   | 2400.0   | 44  |    | 22   | 462.5   | 2500.0   | 38  |    | 7    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|----|----|------|---------|----------|----|----|------|---------|----------|----|----|------|
| 475.0   | 2500.0   | 39 |    | 10   | 675.0   | 2500.0   | 44 |    | 8    | 875.0   | 2500.0   | 37 |    | 21   |
| 487.5   | 2500.0   | 40 |    | 7    | 687.5   | 2500.0   | 44 |    | 9    | 887.5   | 2500.0   | 37 |    | 21   |
| 500.0   | 2500.0   | 41 |    | 8    | 700.0   | 2500.0   | 46 |    | 11   | 900.0   | 2500.0   | 36 |    | 24   |
| 512.5   | 2500.0   | 44 |    | 9    | 712.5   | 2500.0   | 46 |    | 10   | 912.5   | 2500.0   | 36 |    | 23   |
| 525.0   | 2500.0   | 42 |    | 7    | 725.0   | 2500.0   | 46 |    | 12   | 925.0   | 2500.0   | 34 |    | 24   |
| 537.5   | 2500.0   | 46 |    | 10   | 737.5   | 2500.0   | 45 |    | 11   | 937.5   | 2500.0   | 34 |    | 25   |
| 550.0   | 2500.0   | 47 |    | 10   | 750.0   | 2500.0   | 44 |    | 12   | 950.0   | 2500.0   | 34 |    | 26   |
| 562.5   | 2500.0   | 47 |    | 10   | 762.5   | 2500.0   | 44 |    | 14   | 962.5   | 2500.0   | 32 |    | 26   |
| 575.0   | 2500.0   | 45 |    | 9    | 775.0   | 2500.0   | 46 |    | 15   | 975.0   | 2500.0   | 34 |    | 25   |
| 587.5   | 2500.0   | 48 |    | 10   | 787.5   | 2500.0   | 47 |    | 18   | 987.5   | 2500.0   | 31 |    | 25   |
| 600.0   | 2500.0   | 43 |    | 8    | 800.0   | 2500.0   | 44 |    | 17   | 1000.0  | 2500.0   | 31 |    | 27   |
| 612.5   | 2500.0   | 46 |    | 9    | 812.5   | 2500.0   | 43 |    | 18   | 1012.5  | 2500.0   | 30 |    | 28   |
| 625.0   | 2500.0   | 46 |    | 8    | 825.0   | 2500.0   | 47 |    | 22   | 1025.0  | 2500.0   | 31 |    | 29   |
| 637.5   | 2500.0   | 46 |    | 9    | 837.5   | 2500.0   | 41 |    | 18   | 1037.5  | 2500.0   | 31 |    | 32   |
| 650.0   | 2500.0   | 43 |    | 8    | 850.0   | 2500.0   | 44 |    | 18   |         |          |    |    |      |
| 662.5   | 2500.0   | 42 |    | 8    | 862.5   | 2500.0   | 41 |    | 22   |         |          |    |    |      |



X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

|        |       |     |        |       |     |        |       |     |
|--------|-------|-----|--------|-------|-----|--------|-------|-----|
| -527.5 | 300.0 | 12  | -312.5 | 500.0 | 5   | -92.5  | 600.0 | -2  |
| -512.5 | 300.0 | 5   | -297.5 | 500.0 | 16  | -77.5  | 600.0 | -6  |
| -497.5 | 300.0 | 3   | -282.5 | 500.0 | 22  | -62.5  | 600.0 | -11 |
| -482.5 | 300.0 | 2   | -267.5 | 500.0 | 13  | -47.5  | 600.0 | -8  |
| -467.5 | 300.0 | 7   | -252.5 | 500.0 | -1  | -32.5  | 600.0 | -6  |
| -452.5 | 300.0 | 10  | -237.5 | 500.0 | -4  | -977.5 | 700.0 | -3  |
| -437.5 | 300.0 | -1  | -222.5 | 500.0 | 1   | -962.5 | 700.0 | 35  |
| -422.5 | 300.0 | -3  | -207.5 | 500.0 | 0   | -947.5 | 700.0 | 74  |
| -407.5 | 300.0 | 5   | -192.5 | 500.0 | 0   | -932.5 | 700.0 | 30  |
| -392.5 | 300.0 | -2  | -177.5 | 500.0 | 8   | -917.5 | 700.0 | -36 |
| -377.5 | 300.0 | -11 | -162.5 | 500.0 | 8   | -902.5 | 700.0 | -36 |
| -362.5 | 300.0 | -6  | -147.5 | 500.0 | 14  | -887.5 | 700.0 | -18 |
| -347.5 | 300.0 | 2   | -132.5 | 500.0 | 13  | -872.5 | 700.0 | -11 |
| -332.5 | 300.0 | 5   | -117.5 | 500.0 | -5  | -857.5 | 700.0 | -7  |
| -317.5 | 300.0 | 9   | -102.5 | 500.0 | 0   | -842.5 | 700.0 | -9  |
| -302.5 | 300.0 | 7   | -87.5  | 500.0 | 13  | -827.5 | 700.0 | -13 |
| -287.5 | 300.0 | 1   | -72.5  | 500.0 | 4   | -812.5 | 700.0 | -10 |
| -272.5 | 300.0 | 1   | -977.5 | 600.0 | -10 | -797.5 | 700.0 | -6  |
| -257.5 | 300.0 | 5   | -962.5 | 600.0 | -1  | -782.5 | 700.0 | -9  |
| -242.5 | 300.0 | 1   | -947.5 | 600.0 | 56  | -767.5 | 700.0 | -8  |
| -227.5 | 300.0 | -9  | -932.5 | 600.0 | 59  | -752.5 | 700.0 | -4  |
| -212.5 | 300.0 | -10 | -917.5 | 600.0 | -6  | -737.5 | 700.0 | -3  |
| -197.5 | 300.0 | -2  | -902.5 | 600.0 | -41 | -722.5 | 700.0 | -4  |
| -182.5 | 300.0 | 1   | -887.5 | 600.0 | -34 | -707.5 | 700.0 | -4  |
| -167.5 | 300.0 | 0   | -872.5 | 600.0 | -21 | -692.5 | 700.0 | -2  |
| -152.5 | 300.0 | 3   | -857.5 | 600.0 | -15 | -677.5 | 700.0 | -5  |
| -137.5 | 300.0 | 7   | -842.5 | 600.0 | -8  | -662.5 | 700.0 | -6  |
| -122.5 | 300.0 | 12  | -827.5 | 600.0 | -1  | -647.5 | 700.0 | -2  |
| -107.5 | 300.0 | 27  | -812.5 | 600.0 | 0   | -632.5 | 700.0 | 0   |
| -92.5  | 300.0 | 34  | -797.5 | 600.0 | -5  | -617.5 | 700.0 | 0   |
| -77.5  | 300.0 | 23  | -782.5 | 600.0 | -9  | -602.5 | 700.0 | 2   |
| -62.5  | 300.0 | 16  | -767.5 | 600.0 | -11 | -587.5 | 700.0 | 6   |
| -47.5  | 300.0 | 13  | -752.5 | 600.0 | -14 | -572.5 | 700.0 | 4   |
| -32.5  | 300.0 | -2  | -737.5 | 600.0 | -10 | -557.5 | 700.0 | 2   |
| -477.5 | 400.0 | -3  | -722.5 | 600.0 | -4  | -542.5 | 700.0 | 2   |
| -462.5 | 400.0 | -1  | -707.5 | 600.0 | 2   | -527.5 | 700.0 | 0   |
| -447.5 | 400.0 | -4  | -692.5 | 600.0 | 1   | -512.5 | 700.0 | 4   |
| -432.5 | 400.0 | -4  | -677.5 | 600.0 | -6  | -497.5 | 700.0 | 8   |
| -417.5 | 400.0 | 0   | -662.5 | 600.0 | -5  | -482.5 | 700.0 | 9   |
| -402.5 | 400.0 | -1  | -647.5 | 600.0 | -4  | -467.5 | 700.0 | 6   |
| -387.5 | 400.0 | -3  | -632.5 | 600.0 | -7  | -452.5 | 700.0 | 5   |
| -372.5 | 400.0 | -1  | -617.5 | 600.0 | -1  | -437.5 | 700.0 | 2   |
| -357.5 | 400.0 | -3  | -602.5 | 600.0 | 4   | -422.5 | 700.0 | 6   |
| -342.5 | 400.0 | -3  | -587.5 | 600.0 | 3   | -407.5 | 700.0 | 7   |
| -327.5 | 400.0 | 3   | -572.5 | 600.0 | 2   | -392.5 | 700.0 | -1  |
| -312.5 | 400.0 | 5   | -557.5 | 600.0 | 4   | -377.5 | 700.0 | -7  |
| -297.5 | 400.0 | 3   | -542.5 | 600.0 | 10  | -362.5 | 700.0 | -5  |
| -282.5 | 400.0 | 0   | -527.5 | 600.0 | 9   | -347.5 | 700.0 | 5   |
| -267.5 | 400.0 | -6  | -512.5 | 600.0 | 1   | -332.5 | 700.0 | 9   |
| -252.5 | 400.0 | -4  | -497.5 | 600.0 | 3   | -317.5 | 700.0 | 0   |
| -237.5 | 400.0 | 2   | -482.5 | 600.0 | 10  | -302.5 | 700.0 | -2  |
| -222.5 | 400.0 | -3  | -467.5 | 600.0 | 10  | -287.5 | 700.0 | 4   |
| -207.5 | 400.0 | -14 | -452.5 | 600.0 | 4   | -272.5 | 700.0 | -2  |
| -192.5 | 400.0 | -12 | -437.5 | 600.0 | -2  | -257.5 | 700.0 | -7  |
| -177.5 | 400.0 | 6   | -422.5 | 600.0 | -3  | -242.5 | 700.0 | 1   |
| -162.5 | 400.0 | 14  | -407.5 | 600.0 | 1   | -227.5 | 700.0 | 5   |
| -147.5 | 400.0 | 8   | -392.5 | 600.0 | 8   | -212.5 | 700.0 | 1   |
| -132.5 | 400.0 | 4   | -377.5 | 600.0 | 8   | -197.5 | 700.0 | 0   |
| -117.5 | 400.0 | 11  | -362.5 | 600.0 | -1  | -182.5 | 700.0 | 0   |
| -102.5 | 400.0 | 18  | -347.5 | 600.0 | -3  | -167.5 | 700.0 | 4   |
| -87.5  | 400.0 | 22  | -332.5 | 600.0 | 3   | -152.5 | 700.0 | 9   |
| -72.5  | 400.0 | 26  | -317.5 | 600.0 | 12  | -137.5 | 700.0 | 8   |
| -57.5  | 400.0 | 23  | -302.5 | 600.0 | 9   | -122.5 | 700.0 | 4   |
| -42.5  | 400.0 | 15  | -287.5 | 600.0 | -2  | -107.5 | 700.0 | 4   |
| -27.5  | 400.0 | 6   | -272.5 | 600.0 | -1  | -92.5  | 700.0 | -1  |
| -477.5 | 500.0 | 15  | -257.5 | 600.0 | 0   | -77.5  | 700.0 | -9  |
| -462.5 | 500.0 | 8   | -242.5 | 600.0 | -9  | -62.5  | 700.0 | -8  |
| -447.5 | 500.0 | -7  | -227.5 | 600.0 | -11 | -47.5  | 700.0 | -6  |
| -432.5 | 500.0 | -4  | -212.5 | 600.0 | -9  | -32.5  | 700.0 | -10 |
| -417.5 | 500.0 | 5   | -197.5 | 600.0 | -5  | -986.5 | 800.0 | 0   |
| -402.5 | 500.0 | 1   | -182.5 | 600.0 | 4   | -971.5 | 800.0 | 23  |
| -387.5 | 500.0 | -15 | -167.5 | 600.0 | 5   | -956.5 | 800.0 | 66  |
| -372.5 | 500.0 | -16 | -152.5 | 600.0 | 3   | -941.5 | 800.0 | 56  |
| -357.5 | 500.0 | 7   | -137.5 | 600.0 | 8   | -926.5 | 800.0 | 9   |
| -342.5 | 500.0 | 16  | -122.5 | 600.0 | 8   | -911.5 | 800.0 | -18 |
| -327.5 | 500.0 | 7   | -107.5 | 600.0 | 2   | -896.5 | 800.0 | -26 |

X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

-881.5 800.0 -22  
 -866.5 800.0 -14  
 -851.5 800.0 -15  
 -836.5 800.0 -15  
 -821.5 800.0 -8  
 -806.5 800.0 -7  
 -791.5 800.0 -6  
 -776.5 800.0 -3  
 -761.5 800.0 -3  
 -746.5 800.0 -7  
 -731.5 800.0 -6  
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 -701.5 800.0 -2  
 -686.5 800.0 -1  
 -671.5 800.0 -1  
 -656.5 800.0 -7  
 -641.5 800.0 -8  
 -626.5 800.0 -2  
 -611.5 800.0 5  
 -596.5 800.0 1  
 -581.5 800.0 -4  
 -566.5 800.0 0  
 -551.5 800.0 4  
 -536.5 800.0 4  
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 -506.5 800.0 -5  
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 -852.5 900.0 -17  
 -837.5 900.0 -15  
 -822.5 900.0 -12  
 -807.5 900.0 -9  
 -792.5 900.0 -8

-777.5 900.0 -10  
 -762.5 900.0 -9  
 -747.5 900.0 -9  
 -732.5 900.0 -3  
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 -702.5 900.0 -1  
 -687.5 900.0 -2  
 -672.5 900.0 -2  
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 -627.5 900.0 3  
 -612.5 900.0 -1  
 -597.5 900.0 -6  
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 -537.5 900.0 -2  
 -522.5 900.0 -4  
 -507.5 900.0 -8  
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 -402.5 900.0 8  
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 -342.5 900.0 0  
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 -312.5 900.0 12  
 -297.5 900.0 11  
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 -267.5 900.0 7  
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 -222.5 900.0 -10  
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 2.5 900.0 -12  
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 62.5 900.0 -8  
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 -980.0 1000.0 -11  
 -965.0 1000.0 -8  
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 -935.0 1000.0 4  
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 -905.0 1000.0 -9  
 -890.0 1000.0 -5  
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 -860.0 1000.0 1  
 -845.0 1000.0 3  
 -830.0 1000.0 2  
 -815.0 1000.0 -2

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 -770.0 1000.0 5  
 -755.0 1000.0 7  
 -740.0 1000.0 8  
 -725.0 1000.0 -6  
 -710.0 1000.0 -14  
 -695.0 1000.0 2  
 -680.0 1000.0 11  
 -665.0 1000.0 11  
 -650.0 1000.0 9  
 -635.0 1000.0 0  
 -620.0 1000.0 -6  
 -605.0 1000.0 -9  
 -590.0 1000.0 -5  
 -575.0 1000.0 -6  
 -560.0 1000.0 -9  
 -545.0 1000.0 -5  
 -530.0 1000.0 -7  
 -515.0 1000.0 -4  
 -500.0 1000.0 1  
 -485.0 1000.0 1  
 -470.0 1000.0 5  
 -455.0 1000.0 9  
 -440.0 1000.0 5  
 -425.0 1000.0 0  
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 -395.0 1000.0 11  
 -380.0 1000.0 9  
 -365.0 1000.0 5  
 -350.0 1000.0 3  
 -335.0 1000.0 3  
 -320.0 1000.0 12  
 -305.0 1000.0 17  
 -290.0 1000.0 17  
 -275.0 1000.0 6  
 -260.0 1000.0 0  
 -245.0 1000.0 5  
 -230.0 1000.0 -1  
 -215.0 1000.0 -10  
 -200.0 1000.0 -7  
 -185.0 1000.0 -3  
 -170.0 1000.0 -7  
 -155.0 1000.0 -11  
 -140.0 1000.0 -8  
 -125.0 1000.0 1  
 -55.0 1000.0 -8  
 -50.0 1000.0 -11  
 -35.0 1000.0 -9  
 -20.0 1000.0 -5  
 -5.0 1000.0 0  
 10.0 1000.0 7  
 25.0 1000.0 10  
 40.0 1000.0 1  
 55.0 1000.0 -3  
 70.0 1000.0 1  
 85.0 1000.0 -7  
 100.0 1000.0 -14  
 115.0 1000.0 -9  
 130.0 1000.0 -9  
 145.0 1000.0 -12  
 160.0 1000.0 -7  
 175.0 1000.0 -2  
 190.0 1000.0 0  
 205.0 1000.0 -2  
 220.0 1000.0 -1  
 235.0 1000.0 -1  
 250.0 1000.0 -10  
 265.0 1000.0 -14  
 280.0 1000.0 -4  
 295.0 1000.0 7  
 310.0 1000.0 6  
 325.0 1000.0 2  
 340.0 1000.0 -4  
 355.0 1000.0 -10  
 370.0 1000.0 -10

## X(East) Y(North) Fraser

|         |        |     |
|---------|--------|-----|
| 385.0   | 1000.0 | -10 |
| 400.0   | 1000.0 | -12 |
| 415.0   | 1000.0 | -4  |
| 430.0   | 1000.0 | 0   |
| 445.0   | 1000.0 | -2  |
| 460.0   | 1000.0 | 16  |
| 475.0   | 1000.0 | 25  |
| 490.0   | 1000.0 | 16  |
| 505.0   | 1000.0 | 10  |
| 520.0   | 1000.0 | -2  |
| 535.0   | 1000.0 | -15 |
| 550.0   | 1000.0 | -8  |
| 565.0   | 1000.0 | 6   |
| 580.0   | 1000.0 | -2  |
| 595.0   | 1000.0 | -7  |
| 610.0   | 1000.0 | 9   |
| 625.0   | 1000.0 | 8   |
| 640.0   | 1000.0 | -7  |
| 655.0   | 1000.0 | -12 |
| 670.0   | 1000.0 | 1   |
| 685.0   | 1000.0 | 16  |
| 700.0   | 1000.0 | 6   |
| 715.0   | 1000.0 | -7  |
| 730.0   | 1000.0 | -9  |
| 745.0   | 1000.0 | -13 |
| 760.0   | 1000.0 | -2  |
| 775.0   | 1000.0 | 14  |
| 790.0   | 1000.0 | 11  |
| 805.0   | 1000.0 | 5   |
| 820.0   | 1000.0 | 1   |
| 835.0   | 1000.0 | 3   |
| 850.0   | 1000.0 | 12  |
| 865.0   | 1000.0 | 10  |
| 880.0   | 1000.0 | 8   |
| 895.0   | 1000.0 | 8   |
| 910.0   | 1000.0 | 6   |
| 925.0   | 1000.0 | 6   |
| 940.0   | 1000.0 | 0   |
| -1002.5 | 1100.0 | -10 |
| -987.5  | 1100.0 | -6  |
| -972.5  | 1100.0 | -2  |
| -957.5  | 1100.0 | -1  |
| -942.5  | 1100.0 | -1  |
| -927.5  | 1100.0 | -3  |
| -912.5  | 1100.0 | -6  |
| -897.5  | 1100.0 | 0   |
| -882.5  | 1100.0 | 5   |
| -867.5  | 1100.0 | 6   |
| -852.5  | 1100.0 | 6   |
| -837.5  | 1100.0 | 2   |
| -822.5  | 1100.0 | 0   |
| -807.5  | 1100.0 | 1   |
| -792.5  | 1100.0 | 2   |
| -777.5  | 1100.0 | -2  |
| -762.5  | 1100.0 | -2  |
| -747.5  | 1100.0 | 8   |
| -732.5  | 1100.0 | 5   |
| -717.5  | 1100.0 | 4   |
| -702.5  | 1100.0 | 14  |
| -687.5  | 1100.0 | 9   |
| -672.5  | 1100.0 | 2   |
| -657.5  | 1100.0 | 4   |
| -642.5  | 1100.0 | 1   |
| -627.5  | 1100.0 | -1  |
| -612.5  | 1100.0 | 2   |
| -597.5  | 1100.0 | -6  |
| -582.5  | 1100.0 | -16 |
| -567.5  | 1100.0 | -14 |
| -552.5  | 1100.0 | -3  |
| -537.5  | 1100.0 | 3   |
| -522.5  | 1100.0 | 0   |
| -507.5  | 1100.0 | -2  |
| -492.5  | 1100.0 | -2  |
| -477.5  | 1100.0 | -1  |
| -462.5  | 1100.0 | 3   |
| -447.5  | 1100.0 | 9   |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| -432.5 | 1100.0 | 11  |
| -417.5 | 1100.0 | 4   |
| -402.5 | 1100.0 | 5   |
| -387.5 | 1100.0 | 8   |
| -372.5 | 1100.0 | 7   |
| -357.5 | 1100.0 | 10  |
| -342.5 | 1100.0 | 8   |
| -327.5 | 1100.0 | 3   |
| -312.5 | 1100.0 | 3   |
| -297.5 | 1100.0 | 6   |
| -282.5 | 1100.0 | 7   |
| -267.5 | 1100.0 | 7   |
| -252.5 | 1100.0 | 3   |
| -237.5 | 1100.0 | -3  |
| -222.5 | 1100.0 | -4  |
| -207.5 | 1100.0 | -4  |
| -192.5 | 1100.0 | -5  |
| -177.5 | 1100.0 | -5  |
| -162.5 | 1100.0 | -5  |
| -147.5 | 1100.0 | -6  |
| -132.5 | 1100.0 | -12 |
| -117.5 | 1100.0 | -15 |
| -102.5 | 1100.0 | -4  |
| -87.5  | 1100.0 | 6   |
| -72.5  | 1100.0 | -1  |
| -15.0  | 1100.0 | -8  |
| 0.0    | 1100.0 | -8  |
| 15.0   | 1100.0 | -10 |
| 30.0   | 1100.0 | -6  |
| 45.0   | 1100.0 | 0   |
| 60.0   | 1100.0 | -3  |
| 75.0   | 1100.0 | -3  |
| 90.0   | 1100.0 | -6  |
| 105.0  | 1100.0 | -11 |
| 120.0  | 1100.0 | -3  |
| 135.0  | 1100.0 | 3   |
| 150.0  | 1100.0 | 0   |
| 165.0  | 1100.0 | -6  |
| 180.0  | 1100.0 | -9  |
| 195.0  | 1100.0 | -2  |
| 210.0  | 1100.0 | -1  |
| 225.0  | 1100.0 | -3  |
| 240.0  | 1100.0 | -6  |
| 255.0  | 1100.0 | -9  |
| 270.0  | 1100.0 | -4  |
| 285.0  | 1100.0 | 0   |
| 300.0  | 1100.0 | -2  |
| 315.0  | 1100.0 | -3  |
| 330.0  | 1100.0 | -4  |
| 345.0  | 1100.0 | -6  |
| 360.0  | 1100.0 | -5  |
| 375.0  | 1100.0 | -3  |
| 390.0  | 1100.0 | -3  |
| 405.0  | 1100.0 | -1  |
| 420.0  | 1100.0 | 2   |
| 435.0  | 1100.0 | 3   |
| 450.0  | 1100.0 | 8   |
| 465.0  | 1100.0 | 14  |
| 480.0  | 1100.0 | 13  |
| 495.0  | 1100.0 | 8   |
| 510.0  | 1100.0 | 0   |
| 525.0  | 1100.0 | -6  |
| 540.0  | 1100.0 | -6  |
| 555.0  | 1100.0 | -3  |
| 570.0  | 1100.0 | -5  |
| 585.0  | 1100.0 | -3  |
| 600.0  | 1100.0 | 4   |
| 615.0  | 1100.0 | 5   |
| 630.0  | 1100.0 | 1   |
| 645.0  | 1100.0 | -3  |
| 660.0  | 1100.0 | -7  |
| 675.0  | 1100.0 | 1   |
| 690.0  | 1100.0 | 6   |
| 705.0  | 1100.0 | -3  |
| 720.0  | 1100.0 | -5  |
| 735.0  | 1100.0 | 2   |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 750.0  | 1100.0 | 9   |
| 765.0  | 1100.0 | 4   |
| 780.0  | 1100.0 | -5  |
| 795.0  | 1100.0 | -1  |
| 810.0  | 1100.0 | 4   |
| 825.0  | 1100.0 | 1   |
| 840.0  | 1100.0 | 2   |
| 855.0  | 1100.0 | 8   |
| 870.0  | 1100.0 | 5   |
| 885.0  | 1100.0 | -6  |
| 900.0  | 1100.0 | -3  |
| 915.0  | 1100.0 | 1   |
| 930.0  | 1100.0 | -1  |
| 945.0  | 1100.0 | -1  |
| 960.0  | 1100.0 | -6  |
| 975.0  | 1100.0 | -7  |
| 990.0  | 1100.0 | 7   |
| 1005.0 | 1100.0 | 9   |
| 1020.0 | 1100.0 | -8  |
| 1035.0 | 1100.0 | -15 |
| 1050.0 | 1100.0 | -5  |
| 1065.0 | 1100.0 | 5   |
| 1080.0 | 1100.0 | 1   |
| -977.5 | 1200.0 | -2  |
| -962.5 | 1200.0 | -4  |
| -947.5 | 1200.0 | -1  |
| -932.5 | 1200.0 | 3   |
| -917.5 | 1200.0 | 7   |
| -902.5 | 1200.0 | 9   |
| -887.5 | 1200.0 | -1  |
| -872.5 | 1200.0 | -1  |
| -857.5 | 1200.0 | 12  |
| -842.5 | 1200.0 | 13  |
| -827.5 | 1200.0 | 1   |
| -812.5 | 1200.0 | -6  |
| -797.5 | 1200.0 | 3   |
| -782.5 | 1200.0 | 11  |
| -767.5 | 1200.0 | 6   |
| -752.5 | 1200.0 | 2   |
| -737.5 | 1200.0 | 4   |
| -722.5 | 1200.0 | 5   |
| -707.5 | 1200.0 | 7   |
| -692.5 | 1200.0 | 9   |
| -677.5 | 1200.0 | 9   |
| -662.5 | 1200.0 | 12  |
| -647.5 | 1200.0 | 7   |
| -632.5 | 1200.0 | 1   |
| -617.5 | 1200.0 | 3   |
| -602.5 | 1200.0 | -4  |
| -587.5 | 1200.0 | -11 |
| -572.5 | 1200.0 | -8  |
| -557.5 | 1200.0 | -3  |
| -542.5 | 1200.0 | -2  |
| -527.5 | 1200.0 | -7  |
| -512.5 | 1200.0 | -6  |
| -497.5 | 1200.0 | -1  |
| -482.5 | 1200.0 | -7  |
| -467.5 | 1200.0 | -15 |
| -452.5 | 1200.0 | -4  |
| -437.5 | 1200.0 | 12  |
| -422.5 | 1200.0 | 16  |
| -407.5 | 1200.0 | 5   |
| -392.5 | 1200.0 | -4  |
| -377.5 | 1200.0 | 3   |
| -362.5 | 1200.0 | 8   |
| -347.5 | 1200.0 | 4   |
| -332.5 | 1200.0 | 6   |
| -317.5 | 1200.0 | 12  |
| -302.5 | 1200.0 | 6   |
| -287.5 | 1200.0 | 3   |
| -272.5 | 1200.0 | 11  |
| -257.5 | 1200.0 | 13  |
| -242.5 | 1200.0 | 5   |
| -227.5 | 1200.0 | -6  |
| -212.5 | 1200.0 | -7  |
| -197.5 | 1200.0 | -4  |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| -182.5 | 1200.0 | -7  |
| -167.5 | 1200.0 | 0   |
| -152.5 | 1200.0 | 0   |
| -137.5 | 1200.0 | -8  |
| -122.5 | 1200.0 | -9  |
| -107.5 | 1200.0 | -10 |
| -92.5  | 1200.0 | -7  |
| -77.5  | 1200.0 | 1   |
| -62.5  | 1200.0 | -1  |
| -47.5  | 1200.0 | -8  |
| -32.5  | 1200.0 | -13 |
| -17.5  | 1200.0 | -9  |
| 35.0   | 1200.0 | -3  |
| 50.0   | 1200.0 | -7  |
| 65.0   | 1200.0 | -6  |
| 80.0   | 1200.0 | -6  |
| 95.0   | 1200.0 | -7  |
| 110.0  | 1200.0 | -5  |
| 125.0  | 1200.0 | -7  |
| 140.0  | 1200.0 | -6  |
| 155.0  | 1200.0 | 0   |
| 170.0  | 1200.0 | -1  |
| 185.0  | 1200.0 | -7  |
| 200.0  | 1200.0 | -7  |
| 215.0  | 1200.0 | -2  |
| 230.0  | 1200.0 | -1  |
| 245.0  | 1200.0 | -6  |
| 260.0  | 1200.0 | -12 |
| 275.0  | 1200.0 | -9  |
| 290.0  | 1200.0 | -3  |
| 305.0  | 1200.0 | -6  |
| 320.0  | 1200.0 | -6  |
| 335.0  | 1200.0 | -5  |
| 350.0  | 1200.0 | -4  |
| 365.0  | 1200.0 | -1  |
| 380.0  | 1200.0 | 2   |
| 395.0  | 1200.0 | -2  |
| 410.0  | 1200.0 | -2  |
| 425.0  | 1200.0 | 11  |
| 440.0  | 1200.0 | 17  |
| 455.0  | 1200.0 | 8   |
| 470.0  | 1200.0 | 0   |
| 485.0  | 1200.0 | 3   |
| 500.0  | 1200.0 | 6   |
| 515.0  | 1200.0 | 0   |
| 530.0  | 1200.0 | -6  |
| 545.0  | 1200.0 | -10 |
| 560.0  | 1200.0 | -7  |
| 575.0  | 1200.0 | 0   |
| 590.0  | 1200.0 | -1  |
| 605.0  | 1200.0 | -2  |
| 620.0  | 1200.0 | -10 |
| 635.0  | 1200.0 | -18 |
| 650.0  | 1200.0 | -2  |
| 665.0  | 1200.0 | 5   |
| 680.0  | 1200.0 | 3   |
| 695.0  | 1200.0 | 11  |
| 710.0  | 1200.0 | 11  |
| 725.0  | 1200.0 | 4   |
| 740.0  | 1200.0 | 1   |
| 755.0  | 1200.0 | 1   |
| 770.0  | 1200.0 | 0   |
| 785.0  | 1200.0 | -1  |
| 800.0  | 1200.0 | 1   |
| 815.0  | 1200.0 | -2  |
| 830.0  | 1200.0 | 0   |
| 845.0  | 1200.0 | 1   |
| 860.0  | 1200.0 | 0   |
| 875.0  | 1200.0 | 3   |
| 890.0  | 1200.0 | 4   |
| 905.0  | 1200.0 | 1   |
| 920.0  | 1200.0 | 2   |
| 935.0  | 1200.0 | 3   |
| 950.0  | 1200.0 | -2  |
| 965.0  | 1200.0 | -7  |
| 980.0  | 1200.0 | -12 |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 995.0  | 1200.0 | -18 |
| -977.5 | 1250.0 | -1  |
| -962.5 | 1250.0 | -4  |
| -947.5 | 1250.0 | -2  |
| -932.5 | 1250.0 | 1   |
| -917.5 | 1250.0 | -1  |
| -902.5 | 1250.0 | 3   |
| -887.5 | 1250.0 | 6   |
| -872.5 | 1250.0 | 5   |
| -857.5 | 1250.0 | 7   |
| -842.5 | 1250.0 | 7   |
| -827.5 | 1250.0 | 5   |
| -812.5 | 1250.0 | 5   |
| -797.5 | 1250.0 | 4   |
| -782.5 | 1250.0 | 3   |
| -767.5 | 1250.0 | 3   |
| -752.5 | 1250.0 | 6   |
| -737.5 | 1250.0 | 7   |
| -722.5 | 1250.0 | 8   |
| -707.5 | 1250.0 | 7   |
| -692.5 | 1250.0 | 5   |
| -677.5 | 1250.0 | 8   |
| -665.0 | 1300.0 | 1   |
| -650.0 | 1300.0 | -4  |
| -635.0 | 1300.0 | -6  |
| -620.0 | 1300.0 | -8  |
| -605.0 | 1300.0 | -7  |
| -590.0 | 1300.0 | -7  |
| -575.0 | 1300.0 | -8  |
| -560.0 | 1300.0 | -5  |
| -545.0 | 1300.0 | -5  |
| -530.0 | 1300.0 | -7  |
| -515.0 | 1300.0 | -2  |
| -500.0 | 1300.0 | 1   |
| -485.0 | 1300.0 | 0   |
| -470.0 | 1300.0 | 5   |
| -455.0 | 1300.0 | 12  |
| -440.0 | 1300.0 | 10  |
| -425.0 | 1300.0 | 3   |
| -410.0 | 1300.0 | -1  |
| -395.0 | 1300.0 | 1   |
| -380.0 | 1300.0 | 5   |
| -365.0 | 1300.0 | 8   |
| -350.0 | 1300.0 | 11  |
| -335.0 | 1300.0 | 9   |
| -320.0 | 1300.0 | 6   |
| -305.0 | 1300.0 | 8   |
| -290.0 | 1300.0 | 7   |
| -275.0 | 1300.0 | 10  |
| -260.0 | 1300.0 | 9   |
| -245.0 | 1300.0 | 1   |
| -230.0 | 1300.0 | -3  |
| -215.0 | 1300.0 | -8  |
| -200.0 | 1300.0 | -7  |
| -185.0 | 1300.0 | -4  |
| -170.0 | 1300.0 | -6  |
| -155.0 | 1300.0 | 1   |
| -140.0 | 1300.0 | 1   |
| -125.0 | 1300.0 | -13 |
| -110.0 | 1300.0 | -13 |
| -95.0  | 1300.0 | -7  |
| -80.0  | 1300.0 | -11 |
| -65.0  | 1300.0 | -9  |
| -50.0  | 1300.0 | -2  |
| -35.0  | 1300.0 | 1   |
| -20.0  | 1300.0 | -1  |
| -5.0   | 1300.0 | 0   |
| 10.0   | 1300.0 | 5   |
| 25.0   | 1300.0 | 10  |
| 40.0   | 1300.0 | 1   |
| 55.0   | 1300.0 | -12 |
| 70.0   | 1300.0 | -12 |
| 85.0   | 1300.0 | -10 |
| 100.0  | 1300.0 | -11 |
| 115.0  | 1300.0 | -9  |
| 130.0  | 1300.0 | 0   |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 145.0  | 1300.0 | 3   |
| 160.0  | 1300.0 | -3  |
| 175.0  | 1300.0 | -1  |
| 190.0  | 1300.0 | -6  |
| 205.0  | 1300.0 | -12 |
| 220.0  | 1300.0 | -8  |
| 235.0  | 1300.0 | -7  |
| 250.0  | 1300.0 | -9  |
| 265.0  | 1300.0 | -9  |
| 280.0  | 1300.0 | -6  |
| 295.0  | 1300.0 | -2  |
| 310.0  | 1300.0 | 1   |
| 325.0  | 1300.0 | 3   |
| 340.0  | 1300.0 | 1   |
| 355.0  | 1300.0 | -5  |
| 370.0  | 1300.0 | -5  |
| 385.0  | 1300.0 | -7  |
| 400.0  | 1300.0 | -10 |
| 415.0  | 1300.0 | -3  |
| 430.0  | 1300.0 | 6   |
| 445.0  | 1300.0 | -1  |
| 460.0  | 1300.0 | -7  |
| 475.0  | 1300.0 | 2   |
| 490.0  | 1300.0 | 10  |
| 505.0  | 1300.0 | 8   |
| 520.0  | 1300.0 | 4   |
| 535.0  | 1300.0 | 6   |
| 550.0  | 1300.0 | 8   |
| 565.0  | 1300.0 | 1   |
| 580.0  | 1300.0 | -11 |
| 595.0  | 1300.0 | -10 |
| 610.0  | 1300.0 | 1   |
| 625.0  | 1300.0 | -4  |
| 640.0  | 1300.0 | -1  |
| 655.0  | 1300.0 | 1   |
| 670.0  | 1300.0 | -11 |
| 685.0  | 1300.0 | -8  |
| 700.0  | 1300.0 | -1  |
| 715.0  | 1300.0 | 1   |
| 730.0  | 1300.0 | 2   |
| 745.0  | 1300.0 | 4   |
| 760.0  | 1300.0 | -2  |
| 775.0  | 1300.0 | -3  |
| 790.0  | 1300.0 | 6   |
| 805.0  | 1300.0 | 4   |
| 820.0  | 1300.0 | -3  |
| 835.0  | 1300.0 | -3  |
| 850.0  | 1300.0 | 3   |
| 865.0  | 1300.0 | 4   |
| 880.0  | 1300.0 | 2   |
| 895.0  | 1300.0 | 5   |
| 910.0  | 1300.0 | 1   |
| 925.0  | 1300.0 | -2  |
| 940.0  | 1300.0 | 0   |
| 955.0  | 1300.0 | -4  |
| 970.0  | 1300.0 | -6  |
| -986.5 | 1400.0 | -3  |
| -971.5 | 1400.0 | 2   |
| -956.5 | 1400.0 | 3   |
| -941.5 | 1400.0 | 0   |
| -926.5 | 1400.0 | 3   |
| -911.5 | 1400.0 | 7   |
| -896.5 | 1400.0 | 7   |
| -881.5 | 1400.0 | 10  |
| -866.5 | 1400.0 | 15  |
| -851.5 | 1400.0 | 11  |
| -836.5 | 1400.0 | 7   |
| -821.5 | 1400.0 | 11  |
| -806.5 | 1400.0 | 11  |
| -791.5 | 1400.0 | 12  |
| -776.5 | 1400.0 | 15  |
| -761.5 | 1400.0 | 12  |
| -746.5 | 1400.0 | 11  |
| -731.5 | 1400.0 | 7   |
| -716.5 | 1400.0 | 5   |
| -701.5 | 1400.0 | 5   |

## X(East) Y(North) Fraser

-686.5 1400.0 3  
 -671.5 1400.0 1  
 -656.5 1400.0 -2  
 -641.5 1400.0 -8  
 -626.5 1400.0 -8  
 -611.5 1400.0 1  
 -596.5 1400.0 2  
 -581.5 1400.0 3  
 -566.5 1400.0 3  
 -551.5 1400.0 -12  
 -536.5 1400.0 -11  
 -521.5 1400.0 -4  
 -506.5 1400.0 -1  
 -491.5 1400.0 8  
 -476.5 1400.0 14  
 -461.5 1400.0 14  
 -446.5 1400.0 8  
 -431.5 1400.0 4  
 -416.5 1400.0 2  
 -401.5 1400.0 -4  
 -386.5 1400.0 -9  
 -371.5 1400.0 0  
 -356.5 1400.0 6  
 -341.5 1400.0 5  
 -326.5 1400.0 14  
 -311.5 1400.0 11  
 -296.5 1400.0 -4  
 -281.5 1400.0 -2  
 -266.5 1400.0 8  
 -251.5 1400.0 5  
 -236.5 1400.0 -5  
 -221.5 1400.0 1  
 -206.5 1400.0 3  
 -191.5 1400.0 -3  
 -176.5 1400.0 -1  
 -161.5 1400.0 1  
 -146.5 1400.0 -4  
 -131.5 1400.0 -7  
 -116.5 1400.0 -1  
 -101.5 1400.0 -4  
 -86.5 1400.0 -10  
 -71.5 1400.0 -12  
 -56.5 1400.0 -19  
 -41.5 1400.0 -15  
 -26.5 1400.0 -9  
 -11.5 1400.0 -15  
 3.5 1400.0 -13  
 18.5 1400.0 8  
 33.5 1400.0 25  
 48.5 1400.0 16  
 63.5 1400.0 -2  
 78.5 1400.0 -8  
 93.5 1400.0 -10  
 108.5 1400.0 -7  
 123.5 1400.0 0  
 138.5 1400.0 -7  
 153.5 1400.0 -12  
 168.5 1400.0 -12  
 183.5 1400.0 -11  
 198.5 1400.0 -8  
 213.5 1400.0 -8  
 228.5 1400.0 -9  
 243.5 1400.0 -4  
 258.5 1400.0 -1  
 273.5 1400.0 -5  
 288.5 1400.0 -16  
 303.5 1400.0 -20  
 318.5 1400.0 -20  
 333.5 1400.0 -16  
 348.5 1400.0 1  
 363.5 1400.0 15  
 378.5 1400.0 10  
 393.5 1400.0 5  
 408.5 1400.0 13  
 423.5 1400.0 10  
 438.5 1400.0 -7

## X(East) Y(North) Fraser

453.5 1400.0 -19  
 468.5 1400.0 -14  
 483.5 1400.0 5  
 498.5 1400.0 22  
 513.5 1400.0 16  
 528.5 1400.0 4  
 543.5 1400.0 4  
 558.5 1400.0 0  
 573.5 1400.0 -5  
 588.5 1400.0 6  
 603.5 1400.0 6  
 618.5 1400.0 -5  
 633.5 1400.0 -8  
 648.5 1400.0 -13  
 663.5 1400.0 -14  
 678.5 1400.0 -5  
 693.5 1400.0 2  
 708.5 1400.0 6  
 723.5 1400.0 -2  
 738.5 1400.0 -5  
 753.5 1400.0 3  
 768.5 1400.0 7  
 783.5 1400.0 4  
 798.5 1400.0 1  
 813.5 1400.0 6  
 828.5 1400.0 6  
 843.5 1400.0 -1  
 858.5 1400.0 -1  
 873.5 1400.0 -1  
 888.5 1400.0 -2  
 903.5 1400.0 4  
 918.5 1400.0 3  
 933.5 1400.0 -4  
 948.5 1400.0 -4  
 963.5 1400.0 0  
 978.5 1400.0 -5  
 993.5 1400.0 -10  
 1008.5 1400.0 3  
 1023.5 1400.0 3  
 1038.5 1400.0 -7  
 1053.5 1400.0 -3  
 -602.5 1500.0 -9  
 -587.5 1500.0 0  
 -572.5 1500.0 11  
 -557.5 1500.0 7  
 -542.5 1500.0 -2  
 -527.5 1500.0 -3  
 -512.5 1500.0 -1  
 -497.5 1500.0 4  
 -482.5 1500.0 11  
 -467.5 1500.0 8  
 -452.5 1500.0 -3  
 -437.5 1500.0 -1  
 -422.5 1500.0 3  
 -407.5 1500.0 0  
 -392.5 1500.0 -1  
 -377.5 1500.0 1  
 -362.5 1500.0 2  
 -347.5 1500.0 5  
 -332.5 1500.0 13  
 -317.5 1500.0 13  
 -302.5 1500.0 0  
 -287.5 1500.0 -5  
 -272.5 1500.0 0  
 -257.5 1500.0 2  
 -242.5 1500.0 7  
 -227.5 1500.0 7  
 -212.5 1500.0 1  
 -197.5 1500.0 2  
 -182.5 1500.0 1  
 -167.5 1500.0 -5  
 -152.5 1500.0 -5  
 -137.5 1500.0 -3  
 -122.5 1500.0 -1  
 -107.5 1500.0 -5  
 -92.5 1500.0 -4

## X(East) Y(North) Fraser

-77.5 1500.0 0  
 -62.5 1500.0 3  
 -47.5 1500.0 14  
 -32.5 1500.0 4  
 -17.5 1500.0 -19  
 -2.5 1500.0 -21  
 12.5 1500.0 -14  
 27.5 1500.0 -6  
 42.5 1500.0 -3  
 57.5 1500.0 -8  
 72.5 1500.0 -6  
 87.5 1500.0 -8  
 102.5 1500.0 -7  
 117.5 1500.0 1  
 132.5 1500.0 -2  
 147.5 1500.0 -13  
 162.5 1500.0 -16  
 177.5 1500.0 -5  
 192.5 1500.0 -2  
 207.5 1500.0 -19  
 222.5 1500.0 -24  
 237.5 1500.0 -6  
 252.5 1500.0 9  
 267.5 1500.0 5  
 282.5 1500.0 -9  
 297.5 1500.0 -7  
 312.5 1500.0 7  
 327.5 1500.0 2  
 342.5 1500.0 -3  
 357.5 1500.0 11  
 372.5 1500.0 9  
 387.5 1500.0 -12  
 402.5 1500.0 -9  
 417.5 1500.0 -15  
 432.5 1500.0 -30  
 447.5 1500.0 -5  
 462.5 1500.0 13  
 477.5 1500.0 -2  
 492.5 1500.0 -20  
 507.5 1500.0 -14  
 522.5 1500.0 8  
 537.5 1500.0 22  
 552.5 1500.0 12  
 567.5 1500.0 11  
 582.5 1500.0 34  
 597.5 1500.0 16  
 612.5 1500.0 -20  
 627.5 1500.0 -12  
 642.5 1500.0 6  
 657.5 1500.0 -4  
 672.5 1500.0 -5  
 687.5 1500.0 0  
 702.5 1500.0 -9  
 717.5 1500.0 -4  
 732.5 1500.0 11  
 747.5 1500.0 12  
 762.5 1500.0 7  
 777.5 1500.0 0  
 792.5 1500.0 -7  
 807.5 1500.0 -7  
 822.5 1500.0 0  
 837.5 1500.0 -3  
 852.5 1500.0 -10  
 867.5 1500.0 -11  
 882.5 1500.0 -8  
 897.5 1500.0 0  
 912.5 1500.0 -3  
 927.5 1500.0 -8  
 942.5 1500.0 -3  
 957.5 1500.0 -4  
 972.5 1500.0 -4  
 987.5 1500.0 0  
 1002.5 1500.0 0  
 1017.5 1500.0 -1  
 1032.5 1500.0 -2  
 -1003.5 1600.0 8

X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

-988.5 1600.0 3  
-973.5 1600.0 10  
-958.5 1600.0 13  
-943.5 1600.0 7  
-928.5 1600.0 11  
-913.5 1600.0 11  
-898.5 1600.0 7  
-883.5 1600.0 10  
-868.5 1600.0 14  
-853.5 1600.0 11  
-838.5 1600.0 7  
-823.5 1600.0 11  
-808.5 1600.0 18  
-793.5 1600.0 18  
-778.5 1600.0 7  
-763.5 1600.0 0  
-748.5 1600.0 -1  
-733.5 1600.0 -2  
-718.5 1600.0 -2  
-703.5 1600.0 -3  
-688.5 1600.0 -5  
-673.5 1600.0 -6  
-658.5 1600.0 -3  
-643.5 1600.0 1  
-628.5 1600.0 8  
-613.5 1600.0 11  
-598.5 1600.0 5  
-583.5 1600.0 -1  
-568.5 1600.0 -4  
-553.5 1600.0 -8  
-538.5 1600.0 -5  
-523.5 1600.0 8  
-508.5 1600.0 13  
-493.5 1600.0 1  
-478.5 1600.0 -5  
-463.5 1600.0 -3  
-448.5 1600.0 -3  
-433.5 1600.0 -3  
-418.5 1600.0 -3  
-403.5 1600.0 4  
-388.5 1600.0 10  
-373.5 1600.0 12  
-358.5 1600.0 14  
-343.5 1600.0 17  
-328.5 1600.0 12  
-313.5 1600.0 -1  
-298.5 1600.0 -7  
-283.5 1600.0 -2  
-268.5 1600.0 2  
-253.5 1600.0 1  
-238.5 1600.0 1  
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-193.5 1600.0 5  
-178.5 1600.0 0  
-163.5 1600.0 -1  
-148.5 1600.0 -1  
-133.5 1600.0 -8  
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-88.5 1600.0 -7  
-73.5 1600.0 -16  
-58.5 1600.0 -9  
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1.5 1600.0 -13  
16.5 1600.0 -8  
31.5 1600.0 -1  
46.5 1600.0 -3  
61.5 1600.0 -7  
76.5 1600.0 -6  
91.5 1600.0 -2  
106.5 1600.0 -3  
121.5 1600.0 -6  
136.5 1600.0 -9

151.5 1600.0 -4  
166.5 1600.0 -8  
181.5 1600.0 -20  
196.5 1600.0 -16  
211.5 1600.0 -9  
226.5 1600.0 0  
241.5 1600.0 7  
256.5 1600.0 2  
271.5 1600.0 3  
286.5 1600.0 5  
301.5 1600.0 -1  
316.5 1600.0 -9  
331.5 1600.0 -2  
346.5 1600.0 6  
361.5 1600.0 -5  
376.5 1600.0 -16  
391.5 1600.0 -9  
406.5 1600.0 -9  
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436.5 1600.0 -26  
451.5 1600.0 -6  
466.5 1600.0 -1  
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511.5 1600.0 -1  
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661.5 1600.0 -6  
676.5 1600.0 -6  
691.5 1600.0 1  
706.5 1600.0 2  
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736.5 1600.0 -1  
751.5 1600.0 2  
766.5 1600.0 -1  
781.5 1600.0 0  
796.5 1600.0 1  
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826.5 1600.0 -7  
841.5 1600.0 -2  
856.5 1600.0 -2  
871.5 1600.0 3  
886.5 1600.0 3  
901.5 1600.0 -5  
916.5 1600.0 -6  
931.5 1600.0 -1  
946.5 1600.0 3  
961.5 1600.0 -2  
976.5 1600.0 -10  
991.5 1600.0 -3  
1006.5 1600.0 10  
1021.5 1600.0 2  
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-932.5 1700.0 10  
-917.5 1700.0 4  
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-887.5 1700.0 10  
-872.5 1700.0 14  
-857.5 1700.0 10  
-842.5 1700.0 7  
-827.5 1700.0 9  
-812.5 1700.0 13  
-797.5 1700.0 12  
-782.5 1700.0 8  
-767.5 1700.0 5  
-752.5 1700.0 2

-737.5 1700.0 0  
-722.5 1700.0 -1  
-707.5 1700.0 -2  
-692.5 1700.0 -5  
-677.5 1700.0 -7  
-662.5 1700.0 -7  
-647.5 1700.0 -9  
-632.5 1700.0 -9  
-617.5 1700.0 -5  
-602.5 1700.0 -1  
-587.5 1700.0 -3  
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-542.5 1700.0 5  
-527.5 1700.0 -1  
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-467.5 1700.0 0  
-452.5 1700.0 8  
-437.5 1700.0 12  
-422.5 1700.0 14  
-407.5 1700.0 10  
-392.5 1700.0 11  
-377.5 1700.0 12  
-362.5 1700.0 4  
-347.5 1700.0 1  
-332.5 1700.0 3  
-317.5 1700.0 8  
-302.5 1700.0 10  
-287.5 1700.0 2  
-272.5 1700.0 4  
-257.5 1700.0 6  
-242.5 1700.0 2  
-227.5 1700.0 5  
-212.5 1700.0 3  
-197.5 1700.0 -4  
-182.5 1700.0 -6  
-167.5 1700.0 -7  
-152.5 1700.0 -8  
-137.5 1700.0 -10  
-122.5 1700.0 -8  
-107.5 1700.0 -4  
-92.5 1700.0 -9  
-77.5 1700.0 -8  
-62.5 1700.0 -4  
-47.5 1700.0 -9  
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-2.5 1700.0 -11  
12.5 1700.0 -3  
27.5 1700.0 1  
42.5 1700.0 0  
57.5 1700.0 -4  
72.5 1700.0 -4  
87.5 1700.0 6  
102.5 1700.0 11  
117.5 1700.0 0  
132.5 1700.0 -14  
147.5 1700.0 -12  
162.5 1700.0 1  
177.5 1700.0 2  
192.5 1700.0 -6  
207.5 1700.0 -2  
222.5 1700.0 6  
237.5 1700.0 1  
252.5 1700.0 -5  
267.5 1700.0 -1  
282.5 1700.0 1  
297.5 1700.0 -1  
312.5 1700.0 -3  
327.5 1700.0 -15  
342.5 1700.0 -28  
357.5 1700.0 -17  
372.5 1700.0 2  
387.5 1700.0 8

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 402.5  | 1700.0 | 10  |
| 417.5  | 1700.0 | 4   |
| 432.5  | 1700.0 | -5  |
| 447.5  | 1700.0 | -15 |
| 462.5  | 1700.0 | -25 |
| 477.5  | 1700.0 | -25 |
| 492.5  | 1700.0 | -12 |
| 507.5  | 1700.0 | -2  |
| 522.5  | 1700.0 | -3  |
| 537.5  | 1700.0 | 2   |
| 552.5  | 1700.0 | 1   |
| 567.5  | 1700.0 | -4  |
| 582.5  | 1700.0 | 1   |
| 597.5  | 1700.0 | 1   |
| 612.5  | 1700.0 | 3   |
| 627.5  | 1700.0 | 7   |
| 642.5  | 1700.0 | 1   |
| 657.5  | 1700.0 | -4  |
| 672.5  | 1700.0 | 0   |
| 687.5  | 1700.0 | 2   |
| 702.5  | 1700.0 | -1  |
| 717.5  | 1700.0 | 0   |
| 732.5  | 1700.0 | 5   |
| 747.5  | 1700.0 | 4   |
| 762.5  | 1700.0 | -1  |
| 777.5  | 1700.0 | -5  |
| 792.5  | 1700.0 | -6  |
| 807.5  | 1700.0 | 2   |
| 822.5  | 1700.0 | 1   |
| -957.5 | 1800.0 | 6   |
| -942.5 | 1800.0 | 10  |
| -927.5 | 1800.0 | 4   |
| -912.5 | 1800.0 | 4   |
| -897.5 | 1800.0 | 8   |
| -882.5 | 1800.0 | 10  |
| -867.5 | 1800.0 | 13  |
| -852.5 | 1800.0 | 13  |
| -837.5 | 1800.0 | 9   |
| -822.5 | 1800.0 | 5   |
| -807.5 | 1800.0 | 0   |
| -792.5 | 1800.0 | -4  |
| -777.5 | 1800.0 | 0   |
| -762.5 | 1800.0 | 5   |
| -747.5 | 1800.0 | -3  |
| -732.5 | 1800.0 | -11 |
| -717.5 | 1800.0 | -8  |
| -702.5 | 1800.0 | -2  |
| -687.5 | 1800.0 | 0   |
| -672.5 | 1800.0 | 0   |
| -657.5 | 1800.0 | -3  |
| -642.5 | 1800.0 | -2  |
| -627.5 | 1800.0 | 8   |
| -612.5 | 1800.0 | 7   |
| -597.5 | 1800.0 | -3  |
| -582.5 | 1800.0 | -9  |
| -567.5 | 1800.0 | -5  |
| -552.5 | 1800.0 | 1   |
| -537.5 | 1800.0 | 1   |
| -522.5 | 1800.0 | 2   |
| -507.5 | 1800.0 | 5   |
| -492.5 | 1800.0 | 5   |
| -477.5 | 1800.0 | 8   |
| -462.5 | 1800.0 | 7   |
| -447.5 | 1800.0 | 7   |
| -432.5 | 1800.0 | 13  |
| -417.5 | 1800.0 | 16  |
| -402.5 | 1800.0 | 13  |
| -387.5 | 1800.0 | 6   |
| -372.5 | 1800.0 | 6   |
| -152.5 | 1800.0 | -12 |
| -137.5 | 1800.0 | -5  |
| -122.5 | 1800.0 | -8  |
| -107.5 | 1800.0 | -12 |
| -92.5  | 1800.0 | -8  |
| -77.5  | 1800.0 | -11 |
| -62.5  | 1800.0 | -19 |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| -47.5  | 1800.0 | -21 |
| -32.5  | 1800.0 | -21 |
| -17.5  | 1800.0 | -17 |
| -2.5   | 1800.0 | 4   |
| 12.5   | 1800.0 | 13  |
| 27.5   | 1800.0 | 2   |
| 42.5   | 1800.0 | 1   |
| 57.5   | 1800.0 | 3   |
| 72.5   | 1800.0 | -3  |
| 87.5   | 1800.0 | -4  |
| 102.5  | 1800.0 | 3   |
| 117.5  | 1800.0 | 2   |
| 132.5  | 1800.0 | -3  |
| 147.5  | 1800.0 | -4  |
| 162.5  | 1800.0 | -6  |
| 177.5  | 1800.0 | -6  |
| 192.5  | 1800.0 | -6  |
| 207.5  | 1800.0 | -5  |
| 222.5  | 1800.0 | -5  |
| 237.5  | 1800.0 | -11 |
| 252.5  | 1800.0 | -10 |
| 267.5  | 1800.0 | 0   |
| 282.5  | 1800.0 | 0   |
| 297.5  | 1800.0 | -3  |
| 312.5  | 1800.0 | 0   |
| 327.5  | 1800.0 | -2  |
| 342.5  | 1800.0 | -5  |
| 357.5  | 1800.0 | -7  |
| 372.5  | 1800.0 | -9  |
| 387.5  | 1800.0 | -16 |
| 402.5  | 1800.0 | -15 |
| 417.5  | 1800.0 | -6  |
| -947.5 | 1900.0 | 9   |
| -932.5 | 1900.0 | 4   |
| -917.5 | 1900.0 | 4   |
| -902.5 | 1900.0 | 8   |
| -887.5 | 1900.0 | 5   |
| -872.5 | 1900.0 | 4   |
| -857.5 | 1900.0 | 6   |
| -842.5 | 1900.0 | 8   |
| -827.5 | 1900.0 | 13  |
| -812.5 | 1900.0 | 15  |
| -797.5 | 1900.0 | 11  |
| -782.5 | 1900.0 | 3   |
| -767.5 | 1900.0 | -2  |
| -752.5 | 1900.0 | -2  |
| -737.5 | 1900.0 | 0   |
| -722.5 | 1900.0 | 4   |
| -707.5 | 1900.0 | 1   |
| -692.5 | 1900.0 | -6  |
| -677.5 | 1900.0 | -6  |
| -662.5 | 1900.0 | -2  |
| -647.5 | 1900.0 | -2  |
| -632.5 | 1900.0 | -5  |
| -617.5 | 1900.0 | -4  |
| -602.5 | 1900.0 | -2  |
| -587.5 | 1900.0 | 1   |
| -572.5 | 1900.0 | 5   |
| -557.5 | 1900.0 | 4   |
| -542.5 | 1900.0 | 0   |
| -527.5 | 1900.0 | 5   |
| -512.5 | 1900.0 | 12  |
| -497.5 | 1900.0 | 6   |
| -482.5 | 1900.0 | 3   |
| -467.5 | 1900.0 | 7   |
| -452.5 | 1900.0 | 8   |
| -437.5 | 1900.0 | 9   |
| -422.5 | 1900.0 | 10  |
| -407.5 | 1900.0 | 5   |
| -392.5 | 1900.0 | 2   |
| -102.5 | 1900.0 | -14 |
| -87.5  | 1900.0 | -13 |
| -72.5  | 1900.0 | -12 |
| -57.5  | 1900.0 | -12 |
| -42.5  | 1900.0 | -10 |
| -27.5  | 1900.0 | -13 |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| -12.5  | 1900.0 | -10 |
| 2.5    | 1900.0 | -4  |
| 17.5   | 1900.0 | -8  |
| 32.5   | 1900.0 | -6  |
| 47.5   | 1900.0 | 1   |
| 62.5   | 1900.0 | 5   |
| 77.5   | 1900.0 | 3   |
| 92.5   | 1900.0 | -1  |
| 107.5  | 1900.0 | -4  |
| 122.5  | 1900.0 | -10 |
| 137.5  | 1900.0 | -15 |
| 152.5  | 1900.0 | -11 |
| 167.5  | 1900.0 | -7  |
| 182.5  | 1900.0 | -9  |
| 197.5  | 1900.0 | -11 |
| 212.5  | 1900.0 | -5  |
| 227.5  | 1900.0 | -4  |
| 242.5  | 1900.0 | -6  |
| 257.5  | 1900.0 | 1   |
| 272.5  | 1900.0 | 1   |
| 287.5  | 1900.0 | -3  |
| 302.5  | 1900.0 | 0   |
| 317.5  | 1900.0 | -5  |
| 332.5  | 1900.0 | -10 |
| 347.5  | 1900.0 | -6  |
| 362.5  | 1900.0 | -10 |
| 377.5  | 1900.0 | -13 |
| 392.5  | 1900.0 | -9  |
| -937.5 | 2000.0 | -6  |
| -922.5 | 2000.0 | -5  |
| -907.5 | 2000.0 | -4  |
| -892.5 | 2000.0 | -4  |
| -877.5 | 2000.0 | -4  |
| -862.5 | 2000.0 | -4  |
| -847.5 | 2000.0 | -3  |
| -832.5 | 2000.0 | -1  |
| -817.5 | 2000.0 | 3   |
| -802.5 | 2000.0 | 4   |
| -787.5 | 2000.0 | 0   |
| -772.5 | 2000.0 | 1   |
| -757.5 | 2000.0 | 10  |
| -742.5 | 2000.0 | 16  |
| -727.5 | 2000.0 | 16  |
| -712.5 | 2000.0 | 10  |
| -697.5 | 2000.0 | 10  |
| -682.5 | 2000.0 | 15  |
| -667.5 | 2000.0 | 13  |
| -652.5 | 2000.0 | 0   |
| -637.5 | 2000.0 | -15 |
| -622.5 | 2000.0 | -16 |
| -607.5 | 2000.0 | -8  |
| -592.5 | 2000.0 | -3  |
| -577.5 | 2000.0 | -1  |
| -562.5 | 2000.0 | 3   |
| -547.5 | 2000.0 | 3   |
| -532.5 | 2000.0 | 5   |
| -517.5 | 2000.0 | 7   |
| -502.5 | 2000.0 | 8   |
| -487.5 | 2000.0 | 7   |
| -472.5 | 2000.0 | 2   |
| -457.5 | 2000.0 | -4  |
| -442.5 | 2000.0 | 1   |
| -427.5 | 2000.0 | 16  |
| -412.5 | 2000.0 | 24  |
| -202.5 | 2000.0 | -10 |
| -187.5 | 2000.0 | -10 |
| -172.5 | 2000.0 | -9  |
| -157.5 | 2000.0 | 0   |
| -142.5 | 2000.0 | 0   |
| -127.5 | 2000.0 | -11 |
| -112.5 | 2000.0 | -12 |
| -97.5  | 2000.0 | -3  |
| -82.5  | 2000.0 | -6  |
| -67.5  | 2000.0 | -13 |
| -52.5  | 2000.0 | -14 |
| -37.5  | 2000.0 | -17 |

X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

-22.5 2000.0 -13  
 -7.5 2000.0 -7  
 7.5 2000.0 -7  
 22.5 2000.0 0  
 37.5 2000.0 0  
 52.5 2000.0 -11  
 67.5 2000.0 -8  
 82.5 2000.0 3  
 97.5 2000.0 4  
 112.5 2000.0 5  
 127.5 2000.0 6  
 142.5 2000.0 2  
 157.5 2000.0 -9  
 172.5 2000.0 -14  
 187.5 2000.0 -9  
 202.5 2000.0 -8  
 217.5 2000.0 -9  
 232.5 2000.0 -8  
 247.5 2000.0 -4  
 262.5 2000.0 1  
 277.5 2000.0 3  
 292.5 2000.0 2  
 307.5 2000.0 -4  
 322.5 2000.0 -8  
 337.5 2000.0 -6  
 352.5 2000.0 -10  
 367.5 2000.0 -13  
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 -187.5 2100.0 -12  
 -172.5 2100.0 -6  
 -157.5 2100.0 0  
 -142.5 2100.0 -10  
 -127.5 2100.0 -13  
 -112.5 2100.0 -7  
 -97.5 2100.0 -7  
 -82.5 2100.0 -8  
 -67.5 2100.0 -4  
 -52.5 2100.0 2  
 -37.5 2100.0 -4  
 -22.5 2100.0 -11  
 -7.5 2100.0 -8  
 7.5 2100.0 -8  
 22.5 2100.0 -8  
 37.5 2100.0 -4  
 52.5 2100.0 -5  
 67.5 2100.0 -2  
 82.5 2100.0 7  
 97.5 2100.0 7  
 112.5 2100.0 -5  
 127.5 2100.0 -8  
 142.5 2100.0 -9  
 157.5 2100.0 -14  
 172.5 2100.0 -13  
 187.5 2100.0 -6  
 202.5 2100.0 -2  
 217.5 2100.0 -3  
 232.5 2100.0 -6  
 247.5 2100.0 -7  
 262.5 2100.0 -2  
 277.5 2100.0 5  
 292.5 2100.0 7  
 307.5 2100.0 4  
 322.5 2100.0 -4  
 337.5 2100.0 -8  
 352.5 2100.0 -7  
 367.5 2100.0 -10  
 382.5 2100.0 -14  
 397.5 2100.0 -12  
 412.5 2100.0 -7  
 427.5 2100.0 -9  
 442.5 2100.0 -9  
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502.5 2100.0 -4  
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 547.5 2100.0 12  
 562.5 2100.0 14  
 577.5 2100.0 8  
 592.5 2100.0 3  
 607.5 2100.0 -3  
 622.5 2100.0 -8  
 637.5 2100.0 -9  
 652.5 2100.0 -6  
 667.5 2100.0 4  
 682.5 2100.0 1  
 697.5 2100.0 -5  
 712.5 2100.0 5  
 727.5 2100.0 3  
 742.5 2100.0 -5  
 757.5 2100.0 3  
 772.5 2100.0 10  
 787.5 2100.0 1  
 802.5 2100.0 -1  
 817.5 2100.0 4  
 832.5 2100.0 2  
 847.5 2100.0 -2  
 862.5 2100.0 0  
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 892.5 2100.0 1  
 907.5 2100.0 4  
 922.5 2100.0 0  
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 952.5 2100.0 7  
 967.5 2100.0 5  
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 467.5 2200.0 2  
 482.5 2200.0 6  
 497.5 2200.0 9  
 512.5 2200.0 10  
 527.5 2200.0 10  
 542.5 2200.0 8  
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 587.5 2200.0 -7  
 602.5 2200.0 -6  
 617.5 2200.0 0  
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 737.5 2200.0 -2  
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 812.5 2200.0 1  
 827.5 2200.0 2  
 842.5 2200.0 4  
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 872.5 2200.0 4  
 887.5 2200.0 4  
 902.5 2200.0 0  
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 947.5 2200.0 7  
 962.5 2200.0 4  
 977.5 2200.0 3  
 992.5 2200.0 4  
 1007.5 2200.0 4  
 1022.5 2200.0 2  
 1037.5 2200.0 -1  
 1052.5 2200.0 1  
 1067.5 2200.0 2  
 1082.5 2200.0 -3  
 -265.0 2300.0 -15  
 -250.0 2300.0 -12  
 -235.0 2300.0 -13  
 -220.0 2300.0 -15  
 -205.0 2300.0 -7  
 -190.0 2300.0 -3  
 -175.0 2300.0 -5  
 -160.0 2300.0 -8  
 -145.0 2300.0 -6  
 -130.0 2300.0 4  
 -115.0 2300.0 8  
 -100.0 2300.0 0  
 -85.0 2300.0 -8  
 -70.0 2300.0 -5  
 -55.0 2300.0 -3  
 -40.0 2300.0 -4  
 -25.0 2300.0 3



X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

-10.0 2300.0 7  
 5.0 2300.0 5  
 20.0 2300.0 5  
 35.0 2300.0 -3  
 50.0 2300.0 -14  
 65.0 2300.0 -19  
 80.0 2300.0 -12  
 95.0 2300.0 -1  
 110.0 2300.0 -4  
 125.0 2300.0 -11  
 140.0 2300.0 -12  
 155.0 2300.0 -10  
 170.0 2300.0 -9  
 185.0 2300.0 -11  
 200.0 2300.0 -7  
 215.0 2300.0 -1  
 230.0 2300.0 -4  
 245.0 2300.0 -9  
 260.0 2300.0 -9  
 275.0 2300.0 -7  
 290.0 2300.0 -2  
 305.0 2300.0 -1  
 320.0 2300.0 -4  
 335.0 2300.0 -1  
 350.0 2300.0 4  
 365.0 2300.0 5  
 380.0 2300.0 -2  
 395.0 2300.0 -9  
 410.0 2300.0 -7  
 425.0 2300.0 -6  
 440.0 2300.0 -9  
 455.0 2300.0 -13  
 470.0 2300.0 -6  
 485.0 2300.0 7  
 500.0 2300.0 3  
 515.0 2300.0 -8  
 530.0 2300.0 -5  
 545.0 2300.0 5  
 560.0 2300.0 6  
 575.0 2300.0 7  
 590.0 2300.0 10  
 605.0 2300.0 7  
 620.0 2300.0 0  
 635.0 2300.0 -6  
 650.0 2300.0 -10  
 665.0 2300.0 -9  
 680.0 2300.0 -3  
 695.0 2300.0 -5  
 710.0 2300.0 -2  
 725.0 2300.0 7  
 740.0 2300.0 3  
 755.0 2300.0 -5  
 770.0 2300.0 -5  
 785.0 2300.0 5  
 800.0 2300.0 14  
 815.0 2300.0 3  
 830.0 2300.0 -4  
 845.0 2300.0 5  
 860.0 2300.0 7  
 875.0 2300.0 9  
 890.0 2300.0 11  
 905.0 2300.0 0  
 920.0 2300.0 1  
 935.0 2300.0 12  
 950.0 2300.0 8  
 965.0 2300.0 3  
 980.0 2300.0 1  
 995.0 2300.0 -2  
 1010.0 2300.0 2  
 1025.0 2300.0 2  
 -252.5 2400.0 -3  
 -237.5 2400.0 0  
 -222.5 2400.0 0  
 -207.5 2400.0 -2  
 -192.5 2400.0 -4  
 -177.5 2400.0 -8

-162.5 2400.0 -8  
 -147.5 2400.0 0  
 -132.5 2400.0 12  
 -117.5 2400.0 15  
 -102.5 2400.0 4  
 -87.5 2400.0 -9  
 -72.5 2400.0 -4  
 -57.5 2400.0 5  
 -42.5 2400.0 1  
 -27.5 2400.0 2  
 -12.5 2400.0 5  
 2.5 2400.0 2  
 17.5 2400.0 -3  
 32.5 2400.0 -18  
 47.5 2400.0 -25  
 62.5 2400.0 -16  
 77.5 2400.0 -6  
 92.5 2400.0 -2  
 107.5 2400.0 -6  
 122.5 2400.0 -16  
 137.5 2400.0 -21  
 152.5 2400.0 -20  
 167.5 2400.0 -14  
 182.5 2400.0 -11  
 197.5 2400.0 -15  
 212.5 2400.0 -8  
 227.5 2400.0 2  
 242.5 2400.0 0  
 257.5 2400.0 -5  
 272.5 2400.0 -7  
 287.5 2400.0 -6  
 302.5 2400.0 0  
 317.5 2400.0 0  
 332.5 2400.0 -5  
 347.5 2400.0 -3  
 362.5 2400.0 -4  
 377.5 2400.0 -3  
 392.5 2400.0 4  
 407.5 2400.0 1  
 422.5 2400.0 -8  
 437.5 2400.0 -6  
 452.5 2400.0 -2  
 467.5 2400.0 -1  
 482.5 2400.0 -4  
 497.5 2400.0 -7  
 512.5 2400.0 -6  
 527.5 2400.0 2  
 542.5 2400.0 9  
 557.5 2400.0 9  
 572.5 2400.0 5  
 587.5 2400.0 3  
 602.5 2400.0 2  
 617.5 2400.0 -1  
 632.5 2400.0 -6  
 647.5 2400.0 -5  
 662.5 2400.0 0  
 677.5 2400.0 2  
 692.5 2400.0 -2  
 707.5 2400.0 -3  
 722.5 2400.0 -2  
 737.5 2400.0 0  
 752.5 2400.0 0  
 767.5 2400.0 0  
 782.5 2400.0 4  
 797.5 2400.0 3  
 812.5 2400.0 1  
 827.5 2400.0 5  
 842.5 2400.0 8  
 857.5 2400.0 9  
 872.5 2400.0 9  
 887.5 2400.0 7  
 902.5 2400.0 6  
 917.5 2400.0 4  
 932.5 2400.0 0  
 947.5 2400.0 1  
 962.5 2400.0 0

977.5 2400.0 -1  
 992.5 2400.0 2  
 -265.0 2500.0 17  
 -250.0 2500.0 21  
 -235.0 2500.0 7  
 -220.0 2500.0 -5  
 -205.0 2500.0 -9  
 -190.0 2500.0 -15  
 -175.0 2500.0 -13  
 -160.0 2500.0 -2  
 -145.0 2500.0 1  
 -130.0 2500.0 -6  
 -115.0 2500.0 -1  
 -100.0 2500.0 11  
 -85.0 2500.0 13  
 -70.0 2500.0 6  
 -55.0 2500.0 -3  
 -40.0 2500.0 -5  
 -25.0 2500.0 -3  
 -10.0 2500.0 -8  
 5.0 2500.0 -13  
 20.0 2500.0 -9  
 35.0 2500.0 -2  
 50.0 2500.0 -1  
 65.0 2500.0 -5  
 80.0 2500.0 -7  
 95.0 2500.0 -9  
 110.0 2500.0 -19  
 125.0 2500.0 -23  
 140.0 2500.0 -19  
 155.0 2500.0 -18  
 170.0 2500.0 -13  
 185.0 2500.0 -6  
 200.0 2500.0 -6  
 215.0 2500.0 -6  
 230.0 2500.0 1  
 245.0 2500.0 -1  
 260.0 2500.0 -12  
 275.0 2500.0 -10  
 290.0 2500.0 -4  
 305.0 2500.0 -4  
 320.0 2500.0 -1  
 335.0 2500.0 5  
 350.0 2500.0 4  
 365.0 2500.0 3  
 380.0 2500.0 10  
 395.0 2500.0 9  
 410.0 2500.0 -4  
 425.0 2500.0 -3  
 440.0 2500.0 4  
 455.0 2500.0 5  
 470.0 2500.0 -1  
 485.0 2500.0 -6  
 500.0 2500.0 -6  
 515.0 2500.0 -5  
 530.0 2500.0 -8  
 545.0 2500.0 -5  
 560.0 2500.0 0  
 575.0 2500.0 2  
 590.0 2500.0 3  
 605.0 2500.0 -1  
 620.0 2500.0 -1  
 635.0 2500.0 5  
 650.0 2500.0 5  
 665.0 2500.0 -1  
 680.0 2500.0 -5  
 695.0 2500.0 -4  
 710.0 2500.0 -1  
 725.0 2500.0 3  
 740.0 2500.0 3  
 755.0 2500.0 -1  
 770.0 2500.0 -4  
 785.0 2500.0 2  
 800.0 2500.0 3  
 815.0 2500.0 1  
 830.0 2500.0 4

X(East) Y(North) Fraser

845.0 2500.0 5  
860.0 2500.0 9  
875.0 2500.0 10  
890.0 2500.0 4

X(East) Y(North) Fraser

905.0 2500.0 3  
920.0 2500.0 4  
935.0 2500.0 3  
950.0 2500.0 2

X(East) Y(North) Fraser

965.0 2500.0 2  
980.0 2500.0 4  
995.0 2500.0 4  
1010.0 2500.0 0

GEOPHYSICAL SURVEY PRODUCTION REPORT

IGS SURVEY: mag \_\_\_\_\_ VLF Annapolis, Md. - 21.4 kHz  
 @ 12.5 meter interval @ 12.5 meter interval

Project No.: 8708 Client: Abermin Corp. Area: Lyle Grid

| Date    | Dump # | method  | lines surveyed                                   | frs | prof | plan | op. & com.  |  |
|---------|--------|---------|--------------------------------------------------|-----|------|------|-------------|--|
| Sept. 1 |        | mag-tst | L600S - 250 meters                               |     |      |      |             |  |
|         |        | vlf-tst |                                                  |     |      |      |             |  |
| Sept. 2 | mag01  | m       | L1475S 550W - 50E                                | x   | x    |      | training by |  |
|         | vlf01  | v       | L1400S 393W - 150E                               | x   | x    |      | 110:00AM    |  |
|         |        |         | L1300S 250W - 100E                               | x   | x    |      |             |  |
|         |        |         | L1200S 687W - 150E                               | x   | x    |      |             |  |
|         |        |         | L1100S 425W - 300E                               | x   | x    |      |             |  |
|         |        |         | L1000S 287W - 187W                               |     |      |      | 3155m       |  |
| Sept. 3 | mag02  | m       | L1000S 175W - 300E                               | x   | x    |      | clearing    |  |
|         | vlf02  | v       | L900 S 500W - 300E                               | x   | x    |      |             |  |
|         |        |         | L800 S 500W - 612E                               | x   | x    |      |             |  |
|         |        |         | L700 S 225W - 175E                               | x   | x    |      |             |  |
|         |        |         | L650 S 300W - 675E                               | x   | x    |      | 3662m       |  |
| Sept. 4 | mag03  | m       | L200 S 500E - 787E                               | x   | x    |      | get Brad    |  |
|         | vlf03  | v       | L300 S 262E - 825E                               | x   | x    |      | Bert surv.  |  |
|         |        |         | L400 S 187E - 797E                               | x   | x    |      | in AM/Brad  |  |
|         |        |         | L550 S 325W - 375E                               | x   | x    |      | & Jerry in  |  |
|         |        |         | L750 S 300W - 200E                               | x   | x    |      | 1PM         |  |
|         |        |         | L850 S 125W - 175E                               | x   | x    |      |             |  |
|         |        |         | L500 S 525W - 787E                               | x   | x    |      |             |  |
|         |        |         | L600 S 500W - 762E                               |     |      |      | 5034m       |  |
| Sept. 5 |        |         | No IGS - Induced Polarization Survey in progress |     |      |      |             |  |
| Sept. 6 |        |         | as above                                         |     |      |      |             |  |
| Sept. 7 | mag04  | m       | L700N 700E - 1250E                               | x   | x    |      | libex grid  |  |
|         | vlf04  | v       | L600N 537E - 1500E                               | x   | x    |      |             |  |
|         |        |         | L500N 625E - 1500E                               | x   | x    |      | 1.8 hr to   |  |
|         |        |         | L400N 725E - 1500E                               | x   | x    |      | top         |  |
|         |        |         | L300N 675E - 1500E                               | x   | x    |      |             |  |
|         |        |         | L200N 700E - 1375E                               | x   | x    |      |             |  |
|         |        |         | L100N 675E - 1000E                               | x   | x    |      |             |  |
|         |        |         | ON 912E - 1025E                                  | x   | x    |      |             |  |
|         |        |         | L100S 700E - 1050E                               | x   | x    |      |             |  |
|         |        |         | L200S 850E - 1000E                               | x   | x    |      | 5625 m      |  |
| Total:  |        |         |                                                  |     |      |      | 17475 m     |  |

Signed: J. M. Shenton

Date: Sept 10 '87

GEOPHYSICAL SURVEY PRODUCTION REPORT

IGS SURVEY: mag \_\_\_\_\_ VLF Annapolis, Md. - 21.4 kHz  
 @ 12.5 meter interval @ 12.5 meter interval

Project No.: 8708 Client: Abermin Corp. Area: Lyle Grid

| Date    | Dump # | method | lines surveyed      | frs | prof | plan | top. & com. |
|---------|--------|--------|---------------------|-----|------|------|-------------|
| Sept. 9 | mag05  | m=mag  | L800S 625E - 1500E  | x   |      | x    | sunny -NSS  |
|         | vlf05  | v=vlf  | L700S 750E - 1150E  |     |      |      | off air     |
|         |        |        | L600S 750E - 1150E  | x   |      |      | -wait to    |
|         |        |        | L500S 850E - 1450E  | x   |      |      | 12:00PM     |
|         |        |        | L400S 838E - 1500E  | x   |      |      | - use NSS   |
|         |        |        | L300S 850E - 1500E  | x   |      |      |             |
|         |        |        | L125S 1000E - 1450E | x   |      |      |             |
|         |        |        |                     |     |      |      | 4037m       |

Note: Annapolis off air. Waited until 2:00PM for either Annapolis or Cutler to come on air. Just after 2:00PM a station on Cutler's frequency came on air, but the direction to the station was approximately grid south or nearly 140 degrees azimuth. This is about 45 degrees southeast of NSS orientation. Orientation direction was quite sensitive. Signal strength was adequate.

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
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|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

Total: 21512 m

Signed: J. M. Shenton

Date: Sept 10 '87

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| -550.0  | -1475.0  | 7681.0 | -62.5   | -1400.0  | 8162.2 | -337.5  | -1200.0  | 7972.5 |
| -537.5  | -1475.0  | 7679.0 | -50.0   | -1400.0  | 7896.8 | -325.0  | -1200.0  | 7999.2 |
| -525.0  | -1475.0  | 7714.7 | -37.5   | -1400.0  | 7618.1 | -312.5  | -1200.0  | 8019.8 |
| -512.5  | -1475.0  | 7709.7 | -25.0   | -1400.0  | 7620.9 | -300.0  | -1200.0  | 8055.6 |
| -500.0  | -1475.0  | 7720.6 | -12.5   | -1400.0  | 7693.7 | -287.5  | -1200.0  | 8089.6 |
| -487.5  | -1475.0  | 7736.9 | 0.0     | -1400.0  | 7609.6 | -275.0  | -1200.0  | 8155.4 |
| -475.0  | -1475.0  | 7694.0 | 12.5    | -1400.0  | 7528.1 | -262.5  | -1200.0  | 8234.5 |
| -462.5  | -1475.0  | 7714.2 | 25.0    | -1400.0  | 7512.6 | -250.0  | -1200.0  | 8299.0 |
| -450.0  | -1475.0  | 7754.4 | 37.5    | -1400.0  | 7495.7 | -237.5  | -1200.0  | 8350.4 |
| -437.5  | -1475.0  | 7755.8 | 50.0    | -1400.0  | 7482.0 | -225.0  | -1200.0  | 8483.0 |
| -425.0  | -1475.0  | 7740.0 | 62.5    | -1400.0  | 7500.6 | -212.5  | -1200.0  | 9049.7 |
| -412.5  | -1475.0  | 7740.1 | 75.0    | -1400.0  | 7515.7 | -200.0  | -1200.0  | 8879.3 |
| -400.0  | -1475.0  | 7748.2 | 87.5    | -1400.0  | 7526.0 | -187.5  | -1200.0  | 8959.3 |
| -387.5  | -1475.0  | 7761.3 | 100.0   | -1400.0  | 7541.0 | -175.0  | -1200.0  | 8109.9 |
| -375.0  | -1475.0  | 7763.4 | 112.5   | -1400.0  | 7555.1 | -162.5  | -1200.0  | 8061.3 |
| -362.5  | -1475.0  | 7772.2 | 125.0   | -1400.0  | 7559.2 | -150.0  | -1200.0  | 7976.1 |
| -350.0  | -1475.0  | 7792.4 | 137.5   | -1400.0  | 7571.5 | -137.5  | -1200.0  | 7895.6 |
| -337.5  | -1475.0  | 7847.4 | 150.0   | -1400.0  | 7573.1 | -125.0  | -1200.0  | 7835.6 |
| -325.0  | -1475.0  | 7848.9 | -250.0  | -1300.0  | 8098.1 | -112.5  | -1200.0  | 7689.9 |
| -312.5  | -1475.0  | 7867.3 | -237.5  | -1300.0  | 8327.2 | -100.0  | -1200.0  | 7498.3 |
| -300.0  | -1475.0  | 7879.6 | -225.0  | -1300.0  | 8638.6 | -87.5   | -1200.0  | 7342.0 |
| -287.5  | -1475.0  | 7898.8 | -212.5  | -1300.0  | 8820.2 | -75.0   | -1200.0  | 7332.4 |
| -275.0  | -1475.0  | 7861.7 | -200.0  | -1300.0  | 9263.8 | -62.5   | -1200.0  | 7286.0 |
| -262.5  | -1475.0  | 8380.2 | -187.5  | -1300.0  | 9356.2 | -50.0   | -1200.0  | 7236.7 |
| -250.0  | -1475.0  | 8009.8 | -175.0  | -1300.0  | 9255.7 | -37.5   | -1200.0  | 7280.3 |
| -237.5  | -1475.0  | 8061.3 | -162.5  | -1300.0  | 9052.6 | -25.0   | -1200.0  | 7288.5 |
| -225.0  | -1475.0  | 8120.1 | -150.0  | -1300.0  | 8850.3 | -12.5   | -1200.0  | 7213.2 |
| -212.5  | -1475.0  | 8164.5 | -137.5  | -1300.0  | 8715.9 | 0.0     | -1200.0  | 7247.6 |
| -200.0  | -1475.0  | 8248.7 | -125.0  | -1300.0  | 8616.7 | 12.5    | -1200.0  | 7225.4 |
| -187.5  | -1475.0  | 8387.4 | -112.5  | -1300.0  | 8122.6 | 25.0    | -1200.0  | 7218.9 |
| -175.0  | -1475.0  | 8512.1 | -100.0  | -1300.0  | 8095.2 | 37.5    | -1200.0  | 7243.4 |
| -162.5  | -1475.0  | 8662.6 | -87.5   | -1300.0  | 8009.8 | 50.0    | -1200.0  | 7265.5 |
| -150.0  | -1475.0  | 8872.2 | -75.0   | -1300.0  | 7925.4 | 62.5    | -1200.0  | 7294.6 |
| -137.5  | -1475.0  | 8972.5 | -62.5   | -1300.0  | 7664.1 | 75.0    | -1200.0  | 7335.5 |
| -125.0  | -1475.0  | 8980.6 | -50.0   | -1300.0  | 7505.4 | 87.5    | -1200.0  | 7344.5 |
| -112.5  | -1475.0  | 8909.3 | -37.5   | -1300.0  | 7382.2 | 100.0   | -1200.0  | 7383.5 |
| -100.0  | -1475.0  | 8850.1 | -25.0   | -1300.0  | 7309.0 | 112.5   | -1200.0  | 7403.2 |
| -87.5   | -1475.0  | 8704.1 | -12.5   | -1300.0  | 7316.8 | 125.0   | -1200.0  | 7417.1 |
| -75.0   | -1475.0  | 8842.1 | 0.0     | -1300.0  | 7320.5 | 137.5   | -1200.0  | 7439.7 |
| -62.5   | -1475.0  | 9295.7 | 12.5    | -1300.0  | 7327.1 | 150.0   | -1200.0  | 7441.6 |
| -50.0   | -1475.0  | 9041.6 | 25.0    | -1300.0  | 7362.7 | -425.0  | -1100.0  | 8009.2 |
| -37.5   | -1475.0  | 8097.2 | 37.5    | -1300.0  | 7383.0 | -412.5  | -1100.0  | 7982.7 |
| -25.0   | -1475.0  | 7734.5 | 50.0    | -1300.0  | 7410.8 | -400.0  | -1100.0  | 8009.6 |
| -12.5   | -1475.0  | 7633.8 | 62.5    | -1300.0  | 7429.1 | -387.5  | -1100.0  | 8062.0 |
| 0.0     | -1475.0  | 7874.7 | 75.0    | -1300.0  | 7448.9 | -375.0  | -1100.0  | 8095.9 |
| 12.5    | -1475.0  | 7871.2 | 87.5    | -1300.0  | 7456.9 | -362.5  | -1100.0  | 8164.5 |
| 25.0    | -1475.0  | 7662.0 | 100.0   | -1300.0  | 7464.2 | -350.0  | -1100.0  | 8160.5 |
| 37.5    | -1475.0  | 7540.8 | 112.5   | -1300.0  | 7470.7 | -337.5  | -1100.0  | 8222.3 |
| 50.0    | -1475.0  | 7491.4 | -687.5  | -1200.0  | 7751.3 | -325.0  | -1100.0  | 8256.4 |
| -393.0  | -1400.0  | 7646.5 | -675.0  | -1200.0  | 7752.4 | -312.5  | -1100.0  | 8331.8 |
| -387.5  | -1400.0  | 7631.7 | -662.5  | -1200.0  | 7756.4 | -300.0  | -1100.0  | 8422.7 |
| -375.0  | -1400.0  | 7744.4 | -650.0  | -1200.0  | 7753.6 | -287.5  | -1100.0  | 8570.2 |
| -362.5  | -1400.0  | 7705.3 | -637.5  | -1200.0  | 7762.1 | -275.0  | -1100.0  | 8702.5 |
| -350.0  | -1400.0  | 7682.7 | -625.0  | -1200.0  | 7762.1 | -262.5  | -1100.0  | 8718.0 |
| -337.5  | -1400.0  | 7713.8 | -612.5  | -1200.0  | 7759.9 | -250.0  | -1100.0  | 8713.7 |
| -325.0  | -1400.0  | 7721.2 | -600.0  | -1200.0  | 7749.7 | -237.5  | -1100.0  | 8626.3 |
| -312.5  | -1400.0  | 7757.8 | -587.5  | -1200.0  | 7764.3 | -225.0  | -1100.0  | 8624.5 |
| -300.0  | -1400.0  | 7762.3 | -575.0  | -1200.0  | 7758.0 | -212.5  | -1100.0  | 8275.2 |
| -287.5  | -1400.0  | 7816.0 | -562.5  | -1200.0  | 7759.7 | -200.0  | -1100.0  | 7928.0 |
| -275.0  | -1400.0  | 7861.6 | -550.0  | -1200.0  | 7746.8 | -187.5  | -1100.0  | 8169.4 |
| -262.5  | -1400.0  | 7916.3 | -537.5  | -1200.0  | 7754.9 | -175.0  | -1100.0  | 8052.4 |
| -250.0  | -1400.0  | 7949.8 | -525.0  | -1200.0  | 7785.0 | -162.5  | -1100.0  | 8181.8 |
| -237.5  | -1400.0  | 8016.6 | -512.5  | -1200.0  | 7784.5 | -150.0  | -1100.0  | 7847.5 |
| -225.0  | -1400.0  | 8082.3 | -500.0  | -1200.0  | 7827.3 | -137.5  | -1100.0  | 7493.1 |
| -212.5  | -1400.0  | 8166.4 | -487.5  | -1200.0  | 7844.3 | -125.0  | -1100.0  | 7515.1 |
| -200.0  | -1400.0  | 8252.3 | -475.0  | -1200.0  | 7808.2 | -112.5  | -1100.0  | 7649.9 |
| -187.5  | -1400.0  | 8453.5 | -462.5  | -1200.0  | 7762.6 | -100.0  | -1100.0  | 7608.2 |
| -175.0  | -1400.0  | 8866.6 | -450.0  | -1200.0  | 7773.2 | -87.5   | -1100.0  | 7358.1 |
| -162.5  | -1400.0  | 9288.3 | -437.5  | -1200.0  | 7788.2 | -75.0   | -1100.0  | 6783.4 |
| -150.0  | -1400.0  | 9256.1 | -425.0  | -1200.0  | 7835.6 | -62.5   | -1100.0  | 7256.1 |
| -137.5  | -1400.0  | 9057.1 | -412.5  | -1200.0  | 7912.8 | -50.0   | -1100.0  | 7226.2 |
| -125.0  | -1400.0  | 8801.7 | -400.0  | -1200.0  | 7817.7 | -37.5   | -1100.0  | 7260.9 |
| -112.5  | -1400.0  | 8766.3 | -387.5  | -1200.0  | 7850.7 | -25.0   | -1100.0  | 7292.5 |
| -100.0  | -1400.0  | 8434.1 | -375.0  | -1200.0  | 7897.5 | -12.5   | -1100.0  | 7228.9 |
| -87.5   | -1400.0  | 8215.3 | -362.5  | -1200.0  | 7939.2 | 0.0     | -1100.0  | 7192.8 |
| -75.0   | -1400.0  | 8201.6 | -350.0  | -1200.0  | 7952.5 | 12.5    | -1100.0  | 7167.3 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  |
|---------|----------|--------|---------|----------|--------|---------|----------|---------|
| 25.0    | -1100.0  | 7178.5 | -437.5  | -900.0   | 8257.6 | 75.0    | -850.0   | 7079.2  |
| 37.5    | -1100.0  | 7168.8 | -425.0  | -900.0   | 7874.0 | 87.5    | -850.0   | 7147.1  |
| 50.0    | -1100.0  | 7187.5 | -412.5  | -900.0   | 8194.0 | 100.0   | -850.0   | 7170.8  |
| 62.5    | -1100.0  | 7205.9 | -400.0  | -900.0   | 7960.3 | 112.5   | -850.0   | 7232.6  |
| 75.0    | -1100.0  | 7234.2 | -387.5  | -900.0   | 8312.0 | 125.0   | -850.0   | 7249.5  |
| 87.5    | -1100.0  | 7270.0 | -375.0  | -900.0   | 8282.2 | 137.5   | -850.0   | 7268.6  |
| 100.0   | -1100.0  | 7306.0 | -362.5  | -900.0   | 8254.3 | 150.0   | -850.0   | 7298.3  |
| 112.5   | -1100.0  | 7335.4 | -350.0  | -900.0   | 8363.0 | 162.5   | -850.0   | 7325.9  |
| 125.0   | -1100.0  | 7368.6 | -337.5  | -900.0   | 8430.0 | 175.0   | -850.0   | 7354.0  |
| 137.5   | -1100.0  | 7392.8 | -325.0  | -900.0   | 8488.2 | -500.0  | -800.0   | 8111.6  |
| 150.0   | -1100.0  | 7413.9 | -312.5  | -900.0   | 8528.0 | -487.5  | -800.0   | 8130.3  |
| 162.5   | -1100.0  | 7440.0 | -300.0  | -900.0   | 8608.3 | -475.0  | -800.0   | 8154.9  |
| 175.0   | -1100.0  | 7458.1 | -287.5  | -900.0   | 8628.5 | -462.5  | -800.0   | 8174.0  |
| 187.5   | -1100.0  | 7477.6 | -275.0  | -900.0   | 8737.0 | -450.0  | -800.0   | 8194.1  |
| 200.0   | -1100.0  | 7486.3 | -262.5  | -900.0   | 8972.6 | -437.5  | -800.0   | 8278.3  |
| 212.5   | -1100.0  | 7503.5 | -250.0  | -900.0   | 9008.4 | -425.0  | -800.0   | 8161.1  |
| 225.0   | -1100.0  | 7508.6 | -237.5  | -900.0   | 8631.2 | -412.5  | -800.0   | 8178.7  |
| 237.5   | -1100.0  | 7522.7 | -225.0  | -900.0   | 8238.4 | -400.0  | -800.0   | 8252.8  |
| 250.0   | -1100.0  | 7541.1 | -212.5  | -900.0   | 8771.6 | -387.5  | -800.0   | 8239.5  |
| 262.5   | -1100.0  | 7550.7 | -200.0  | -900.0   | 8991.9 | -375.0  | -800.0   | 8348.1  |
| 275.0   | -1100.0  | 7559.7 | -187.5  | -900.0   | 8950.1 | -362.5  | -800.0   | 8363.3  |
| 287.5   | -1100.0  | 7578.4 | -175.0  | -900.0   | 8062.7 | -350.0  | -800.0   | 8416.2  |
| 300.0   | -1100.0  | 7590.7 | -162.5  | -900.0   | 9270.7 | -337.5  | -800.0   | 8475.8  |
| -287.5  | -1000.0  | 8930.8 | -150.0  | -900.0   | 9449.6 | -325.0  | -800.0   | 8543.3  |
| -275.0  | -1000.0  | 9085.0 | -137.5  | -900.0   | 8087.3 | -312.5  | -800.0   | 8590.3  |
| -262.5  | -1000.0  | 9229.3 | -125.0  | -900.0   | 7520.5 | -300.0  | -800.0   | 8681.6  |
| -250.0  | -1000.0  | 9182.5 | -112.5  | -900.0   | 7134.5 | -287.5  | -800.0   | 8825.0  |
| -237.5  | -1000.0  | 8852.0 | -100.0  | -900.0   | 8611.1 | -275.0  | -800.0   | 9398.8  |
| -225.0  | -1000.0  | 8948.8 | -87.5   | -900.0   | 6319.0 | -262.5  | -800.0   | 8245.0  |
| -212.5  | -1000.0  | 9757.6 | -75.0   | -900.0   | 6936.2 | -250.0  | -800.0   | 8097.6  |
| -200.0  | -1000.0  | 9032.6 | -62.5   | -900.0   | 7060.8 | -237.5  | -800.0   | 8260.3  |
| -187.5  | -1000.0  | 9141.4 | -50.0   | -900.0   | 6807.3 | -225.0  | -800.0   | 8622.8  |
| -175.0  | -1000.0  | 8730.9 | -37.5   | -900.0   | 6724.1 | -212.5  | -800.0   | 10162.6 |
| -162.5  | -1000.0  | 8358.6 | -25.0   | -900.0   | 7017.5 | -200.0  | -800.0   | 10241.0 |
| -150.0  | -1000.0  | 8250.7 | -12.5   | -900.0   | 7102.7 | -187.5  | -800.0   | 9191.2  |
| -137.5  | -1000.0  | 7139.1 | 0.0     | -900.0   | 7003.8 | -175.0  | -800.0   | 8778.8  |
| -125.0  | -1000.0  | 7242.7 | 12.5    | -900.0   | 7051.1 | -162.5  | -800.0   | 8210.8  |
| -112.5  | -1000.0  | 7147.6 | 25.0    | -900.0   | 6883.8 | -150.0  | -800.0   | 8221.5  |
| -100.0  | -1000.0  | 6931.2 | 37.5    | -900.0   | 7219.4 | -137.5  | -800.0   | 7946.1  |
| -87.5   | -1000.0  | 7037.2 | 50.0    | -900.0   | 6954.0 | -125.0  | -800.0   | 8464.9  |
| -75.0   | -1000.0  | 7067.2 | 62.5    | -900.0   | 7111.2 | -112.5  | -800.0   | 8272.0  |
| -62.5   | -1000.0  | 7095.3 | 75.0    | -900.0   | 7049.2 | -100.0  | -800.0   | 6614.9  |
| -50.0   | -1000.0  | 7113.5 | 87.5    | -900.0   | 7089.3 | -87.5   | -800.0   | 6237.8  |
| -37.5   | -1000.0  | 7133.4 | 100.0   | -900.0   | 7071.5 | -75.0   | -800.0   | 6276.0  |
| -25.0   | -1000.0  | 6939.0 | 112.5   | -900.0   | 7142.3 | -62.5   | -800.0   | 6189.1  |
| -12.5   | -1000.0  | 7124.4 | 125.0   | -900.0   | 7199.9 | -50.0   | -800.0   | 6302.1  |
| 0.0     | -1000.0  | 7355.4 | 137.5   | -900.0   | 7240.9 | -37.5   | -800.0   | 6404.7  |
| 12.5    | -1000.0  | 7331.2 | 150.0   | -900.0   | 7278.3 | -25.0   | -800.0   | 6314.2  |
| 25.0    | -1000.0  | 7290.3 | 162.5   | -900.0   | 7303.0 | -12.5   | -800.0   | 6721.0  |
| 37.5    | -1000.0  | 7366.2 | 175.0   | -900.0   | 7326.5 | 0.0     | -800.0   | 6593.6  |
| 50.0    | -1000.0  | 7211.7 | 187.5   | -900.0   | 7347.0 | 12.5    | -800.0   | 6780.4  |
| 62.5    | -1000.0  | 7186.7 | 200.0   | -900.0   | 7365.6 | 25.0    | -800.0   | 6869.9  |
| 75.0    | -1000.0  | 7205.0 | 212.5   | -900.0   | 7386.8 | 37.5    | -800.0   | 7022.4  |
| 87.5    | -1000.0  | 7192.1 | 225.0   | -900.0   | 7409.4 | 50.0    | -800.0   | 7064.8  |
| 100.0   | -1000.0  | 7165.6 | 237.5   | -900.0   | 7425.8 | 62.5    | -800.0   | 7256.4  |
| 112.5   | -1000.0  | 7203.1 | 250.0   | -900.0   | 7439.5 | 75.0    | -800.0   | 7515.7  |
| 125.0   | -1000.0  | 7252.0 | 262.5   | -900.0   | 7446.5 | 87.5    | -800.0   | 7181.8  |
| 137.5   | -1000.0  | 7276.4 | 275.0   | -900.0   | 7464.6 | 100.0   | -800.0   | 7126.6  |
| 150.0   | -1000.0  | 7303.6 | 287.5   | -900.0   | 7477.0 | 112.5   | -800.0   | 7186.5  |
| 162.5   | -1000.0  | 7339.8 | 300.0   | -900.0   | 7485.4 | 125.0   | -800.0   | 7220.7  |
| 175.0   | -1000.0  | 7361.8 | -125.0  | -850.0   | 9177.5 | 137.5   | -800.0   | 7260.1  |
| 187.5   | -1000.0  | 7391.7 | -112.5  | -850.0   | 9445.2 | 150.0   | -800.0   | 7286.2  |
| 200.0   | -1000.0  | 7405.0 | -100.0  | -850.0   | 7513.7 | 162.5   | -800.0   | 7329.5  |
| 212.5   | -1000.0  | 7427.7 | -87.5   | -850.0   | 5923.2 | 175.0   | -800.0   | 7347.0  |
| 225.0   | -1000.0  | 7442.3 | -75.0   | -850.0   | 5582.0 | 187.5   | -800.0   | 7375.0  |
| 237.5   | -1000.0  | 7459.3 | -62.5   | -850.0   | 6178.0 | 200.0   | -800.0   | 7387.4  |
| 250.0   | -1000.0  | 7476.1 | -50.0   | -850.0   | 6691.1 | 212.5   | -800.0   | 7395.2  |
| 262.5   | -1000.0  | 7486.9 | -37.5   | -850.0   | 6964.8 | 225.0   | -800.0   | 7410.6  |
| 275.0   | -1000.0  | 7496.8 | -25.0   | -850.0   | 6843.5 | 237.5   | -800.0   | 7429.3  |
| 287.5   | -1000.0  | 7502.4 | -12.5   | -850.0   | 6946.7 | 250.0   | -800.0   | 7441.1  |
| 300.0   | -1000.0  | 7507.4 | 0.0     | -850.0   | 6486.9 | 262.5   | -800.0   | 7453.2  |
| -500.0  | -900.0   | 8062.0 | 12.5    | -850.0   | 6644.9 | 275.0   | -800.0   | 7463.6  |
| -487.5  | -900.0   | 8068.2 | 25.0    | -850.0   | 6887.5 | 287.5   | -800.0   | 7478.8  |
| -475.0  | -900.0   | 8084.3 | 37.5    | -850.0   | 6941.8 | 300.0   | -800.0   | 7493.2  |
| -462.5  | -900.0   | 8116.8 | 50.0    | -850.0   | 7131.7 | 312.5   | -800.0   | 7500.4  |
| -450.0  | -900.0   | 7950.4 | 62.5    | -850.0   | 7039.4 | 325.0   | -800.0   | 7514.7  |

| X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F.  |
|---------|----------|---------|---------|----------|---------|---------|----------|---------|
| 337.5   | -800.0   | 7528.1  | -75.0   | -750.0   | 6368.7  | 1000.0  | -700.0   | 7647.0  |
| 350.0   | -800.0   | 7540.4  | -62.5   | -750.0   | 6765.8  | 1012.5  | -700.0   | 7641.2  |
| 362.5   | -800.0   | 7547.2  | -50.0   | -750.0   | 6680.2  | 1025.0  | -700.0   | 7622.4  |
| 375.0   | -800.0   | 7548.1  | -37.5   | -750.0   | 6445.8  | 1037.5  | -700.0   | 7546.4  |
| 387.5   | -800.0   | 7566.4  | -25.0   | -750.0   | 6295.2  | 1050.0  | -700.0   | 7583.6  |
| 400.0   | -800.0   | 7590.1  | -12.5   | -750.0   | 6614.5  | 1062.5  | -700.0   | 7562.4  |
| 412.5   | -800.0   | 7587.8  | 0.0     | -750.0   | 6817.9  | 1075.0  | -700.0   | 7591.3  |
| 425.0   | -800.0   | 7592.1  | 12.5    | -750.0   | 6925.8  | 1087.5  | -700.0   | 7585.3  |
| 437.5   | -800.0   | 7588.4  | 25.0    | -750.0   | 7017.1  | 1100.0  | -700.0   | 7669.1  |
| 450.0   | -800.0   | 7599.1  | 37.5    | -750.0   | 7089.3  | 1112.5  | -700.0   | 7739.2  |
| 462.5   | -800.0   | 7604.8  | 50.0    | -750.0   | 7135.2  | 1125.0  | -700.0   | 7783.4  |
| 475.0   | -800.0   | 7603.7  | 62.5    | -750.0   | 7141.8  | -300.0  | -650.0   | 8852.4  |
| 487.5   | -800.0   | 7611.8  | 75.0    | -750.0   | 7338.4  | -287.5  | -650.0   | 8857.1  |
| 500.0   | -800.0   | 7614.0  | 87.5    | -750.0   | 7740.0  | -275.0  | -650.0   | 8320.7  |
| 512.5   | -800.0   | 7617.7  | 100.0   | -750.0   | 7502.2  | -262.5  | -650.0   | 8401.9  |
| 525.0   | -800.0   | 7619.3  | 112.5   | -750.0   | 7252.4  | -250.0  | -650.0   | 8060.7  |
| 537.5   | -800.0   | 7624.4  | 125.0   | -750.0   | 7263.0  | -237.5  | -650.0   | 8063.2  |
| 550.0   | -800.0   | 7630.8  | 137.5   | -750.0   | 7289.1  | -225.0  | -650.0   | 8657.5  |
| 562.5   | -800.0   | 7634.3  | 150.0   | -750.0   | 7310.8  | -212.5  | -650.0   | 8922.4  |
| 575.0   | -800.0   | 7637.6  | 162.5   | -750.0   | 7343.8  | -200.0  | -650.0   | 9215.2  |
| 587.5   | -800.0   | 7639.0  | 175.0   | -750.0   | 7356.0  | -187.5  | -650.0   | 10550.2 |
| 600.0   | -800.0   | 7644.1  | 187.5   | -750.0   | 7382.9  | -175.0  | -650.0   | 9546.9  |
| 612.5   | -800.0   | 7646.5  | 200.0   | -750.0   | 7394.0  | -162.5  | -650.0   | 9333.1  |
| 625.0   | -800.0   | 7640.6  | -225.0  | -700.0   | 10888.0 | -150.0  | -650.0   | 8785.8  |
| 637.5   | -800.0   | 7644.4  | -212.5  | -700.0   | 9866.6  | -137.5  | -650.0   | 9896.2  |
| 650.0   | -800.0   | 7635.1  | -200.0  | -700.0   | 9171.0  | -125.0  | -650.0   | 7665.3  |
| 662.5   | -800.0   | 7599.5  | -187.5  | -700.0   | 8931.6  | -112.5  | -650.0   | 6977.6  |
| 675.0   | -800.0   | 7569.1  | -175.0  | -700.0   | 7485.4  | -100.0  | -650.0   | 6737.4  |
| 687.5   | -800.0   | 7587.1  | -162.5  | -700.0   | 7668.8  | -87.5   | -650.0   | 6364.1  |
| 700.0   | -800.0   | 7610.7  | -150.0  | -700.0   | 8503.8  | -75.0   | -650.0   | 6177.7  |
| 712.5   | -800.0   | 7831.2  | -137.5  | -700.0   | 7091.9  | -62.5   | -650.0   | 7015.1  |
| 725.0   | -800.0   | 7669.1  | -125.0  | -700.0   | 7397.0  | -50.0   | -650.0   | 6475.8  |
| 737.5   | -800.0   | 7694.8  | -112.5  | -700.0   | 6234.2  | -37.5   | -650.0   | 6546.2  |
| 750.0   | -800.0   | 7675.2  | -100.0  | -700.0   | 6202.3  | -25.0   | -650.0   | 6473.4  |
| 762.5   | -800.0   | 7680.9  | -87.5   | -700.0   | 6426.3  | -12.5   | -650.0   | 6529.9  |
| 775.0   | -800.0   | 7699.6  | -75.0   | -700.0   | 6433.2  | 0.0     | -650.0   | 6826.2  |
| 787.5   | -800.0   | 7696.3  | -62.5   | -700.0   | 6052.6  | 12.5    | -650.0   | 6861.1  |
| 800.0   | -800.0   | 7674.4  | -50.0   | -700.0   | 6254.2  | 25.0    | -650.0   | 7001.7  |
| 812.5   | -800.0   | 7706.2  | -37.5   | -700.0   | 6377.8  | 37.5    | -650.0   | 7015.9  |
| 825.0   | -800.0   | 7712.5  | -25.0   | -700.0   | 6476.0  | 50.0    | -650.0   | 7159.8  |
| 837.5   | -800.0   | 7701.8  | -12.5   | -700.0   | 6699.1  | 62.5    | -650.0   | 7184.1  |
| 850.0   | -800.0   | 7693.3  | 0.0     | -700.0   | 6828.9  | 75.0    | -650.0   | 7240.0  |
| 862.5   | -800.0   | 7698.8  | 12.5    | -700.0   | 6970.7  | 87.5    | -650.0   | 7261.2  |
| 875.0   | -800.0   | 7706.1  | 25.0    | -700.0   | 7032.4  | 100.0   | -650.0   | 7375.1  |
| 887.5   | -800.0   | 7709.0  | 37.5    | -700.0   | 7098.1  | 112.5   | -650.0   | 7428.4  |
| 900.0   | -800.0   | 7690.1  | 50.0    | -700.0   | 7144.5  | 125.0   | -650.0   | 7646.5  |
| 912.5   | -800.0   | 7705.7  | 62.5    | -700.0   | 7182.3  | 137.5   | -650.0   | 7501.9  |
| 925.0   | -800.0   | 7703.6  | 75.0    | -700.0   | 7225.2  | 150.0   | -650.0   | 7499.8  |
| 937.5   | -800.0   | 7703.5  | 87.5    | -700.0   | 7268.8  | 162.5   | -650.0   | 7429.8  |
| 950.0   | -800.0   | 7681.2  | 100.0   | -700.0   | 7303.5  | 175.0   | -650.0   | 7440.7  |
| 962.5   | -800.0   | 7666.9  | 112.5   | -700.0   | 7553.3  | 187.5   | -650.0   | 7453.4  |
| 975.0   | -800.0   | 7651.4  | 125.0   | -700.0   | 7408.0  | 200.0   | -650.0   | 7445.3  |
| 987.5   | -800.0   | 7650.2  | 137.5   | -700.0   | 7316.4  | 212.5   | -650.0   | 7449.4  |
| 1000.0  | -800.0   | 7682.1  | 150.0   | -700.0   | 7360.3  | 225.0   | -650.0   | 7457.3  |
| 1012.5  | -800.0   | 7676.8  | 162.5   | -700.0   | 7395.7  | 237.5   | -650.0   | 7482.9  |
| 1025.0  | -800.0   | 7716.7  | 175.0   | -700.0   | 7403.1  | 250.0   | -650.0   | 7505.0  |
| 1037.5  | -800.0   | 7760.9  | 750.0   | -700.0   | 7710.4  | 262.5   | -650.0   | 7503.9  |
| 1050.0  | -800.0   | 7827.9  | 762.5   | -700.0   | 7612.3  | 275.0   | -650.0   | 7513.5  |
| -300.0  | -750.0   | 10232.7 | 775.0   | -700.0   | 7663.9  | 287.5   | -650.0   | 7528.0  |
| -287.5  | -750.0   | 10173.4 | 787.5   | -700.0   | 7706.2  | 300.0   | -650.0   | 7556.1  |
| -275.0  | -750.0   | 9396.5  | 800.0   | -700.0   | 7746.9  | 312.5   | -650.0   | 7560.7  |
| -262.5  | -750.0   | 8973.7  | 812.5   | -700.0   | 7666.7  | 325.0   | -650.0   | 7565.9  |
| -250.0  | -750.0   | 9295.2  | 825.0   | -700.0   | 7719.5  | 337.5   | -650.0   | 7582.4  |
| -237.5  | -750.0   | 8710.0  | 837.5   | -700.0   | 7709.6  | 350.0   | -650.0   | 7569.6  |
| -225.0  | -750.0   | 8437.1  | 850.0   | -700.0   | 7724.9  | 362.5   | -650.0   | 7589.5  |
| -212.5  | -750.0   | 8899.2  | 862.5   | -700.0   | 7698.9  | 375.0   | -650.0   | 7607.5  |
| -200.0  | -750.0   | 10580.0 | 875.0   | -700.0   | 7721.4  | 387.5   | -650.0   | 7622.0  |
| -187.5  | -750.0   | 9376.3  | 887.5   | -700.0   | 7666.1  | 400.0   | -650.0   | 7618.7  |
| -175.0  | -750.0   | 8214.3  | 900.0   | -700.0   | 7696.8  | 412.5   | -650.0   | 7609.7  |
| -162.5  | -750.0   | 8260.1  | 912.5   | -700.0   | 7748.8  | 425.0   | -650.0   | 7619.6  |
| -150.0  | -750.0   | 8377.2  | 925.0   | -700.0   | 7682.6  | 437.5   | -650.0   | 7625.5  |
| -137.5  | -750.0   | 7655.3  | 937.5   | -700.0   | 7667.3  | 450.0   | -650.0   | 7622.2  |
| -125.0  | -750.0   | 7719.6  | 950.0   | -700.0   | 7596.6  | 462.5   | -650.0   | 7613.9  |
| -112.5  | -750.0   | 7324.6  | 962.5   | -700.0   | 7914.0  | 475.0   | -650.0   | 7605.6  |
| -100.0  | -750.0   | 6812.7  | 975.0   | -700.0   | 7749.0  | 487.5   | -650.0   | 7617.4  |
| -87.5   | -750.0   | 6194.2  | 987.5   | -700.0   | 7662.4  | 500.0   | -650.0   | 7624.7  |

| X(East) | Y(North) | Tot F.  | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F.  |
|---------|----------|---------|---------|----------|--------|---------|----------|---------|
| 512.5   | -650.0   | 7629.9  | -87.5   | -600.0   | 6682.5 | -237.5  | -550.0   | 9752.4  |
| 525.0   | -650.0   | 7635.7  | -75.0   | -600.0   | 7022.4 | -225.0  | -550.0   | 7967.6  |
| 537.5   | -650.0   | 7653.4  | -62.5   | -600.0   | 6987.3 | -212.5  | -550.0   | 7899.8  |
| 550.0   | -650.0   | 7682.0  | -50.0   | -600.0   | 6977.1 | -200.0  | -550.0   | 8034.5  |
| 562.5   | -650.0   | 7634.1  | -37.5   | -600.0   | 6652.9 | -187.5  | -550.0   | 8169.3  |
| 575.0   | -650.0   | 7650.1  | -25.0   | -600.0   | 6303.0 | -175.0  | -550.0   | 8535.5  |
| 587.5   | -650.0   | 7673.6  | -12.5   | -600.0   | 6553.7 | -162.5  | -550.0   | 8960.3  |
| 600.0   | -650.0   | 7652.9  | 0.0     | -600.0   | 6664.5 | -150.0  | -550.0   | 8684.6  |
| 612.5   | -650.0   | 7658.8  | 12.5    | -600.0   | 6919.9 | -137.5  | -550.0   | 7605.7  |
| 625.0   | -650.0   | 7659.7  | 25.0    | -600.0   | 7025.5 | -125.0  | -550.0   | 6479.4  |
| 637.5   | -650.0   | 7675.8  | 37.5    | -600.0   | 7079.5 | -112.5  | -550.0   | 6017.8  |
| 650.0   | -650.0   | 7665.4  | 50.0    | -600.0   | 7150.9 | -100.0  | -550.0   | 6898.9  |
| 662.5   | -650.0   | 7667.8  | 62.5    | -600.0   | 7193.7 | -87.5   | -550.0   | 6716.1  |
| 675.0   | -650.0   | 7655.9  | 75.0    | -600.0   | 7252.1 | -75.0   | -550.0   | 6873.6  |
| 800.0   | -600.0   | 7689.6  | 87.5    | -600.0   | 7305.4 | -62.5   | -550.0   | 7008.9  |
| 812.5   | -600.0   | 7682.7  | 100.0   | -600.0   | 7377.9 | -50.0   | -550.0   | 6847.6  |
| 825.0   | -600.0   | 7691.1  | 112.5   | -600.0   | 7413.4 | -37.5   | -550.0   | 6687.5  |
| 837.5   | -600.0   | 7656.5  | 125.0   | -600.0   | 7681.5 | -25.0   | -550.0   | 6902.6  |
| 850.0   | -600.0   | 7636.0  | 137.5   | -600.0   | 7620.1 | -12.5   | -550.0   | 6886.2  |
| 862.5   | -600.0   | 7724.0  | 150.0   | -600.0   | 7462.4 | 0.0     | -550.0   | 6813.8  |
| 875.0   | -600.0   | 7706.2  | 162.5   | -600.0   | 7447.0 | 12.5    | -550.0   | 6891.9  |
| 887.5   | -600.0   | 7750.8  | 175.0   | -600.0   | 7446.7 | 25.0    | -550.0   | 6986.8  |
| 900.0   | -600.0   | 7691.7  | 187.5   | -600.0   | 7461.7 | 37.5    | -550.0   | 6991.5  |
| 912.5   | -600.0   | 7703.8  | 200.0   | -600.0   | 7462.5 | 50.0    | -550.0   | 7113.6  |
| 925.0   | -600.0   | 7691.7  | 212.5   | -600.0   | 7486.4 | 62.5    | -550.0   | 7161.6  |
| 937.5   | -600.0   | 7676.7  | 225.0   | -600.0   | 7503.5 | 75.0    | -550.0   | 7205.0  |
| 950.0   | -600.0   | 7675.5  | 237.5   | -600.0   | 7511.9 | 87.5    | -550.0   | 7256.8  |
| 962.5   | -600.0   | 7676.4  | 250.0   | -600.0   | 7506.6 | 100.0   | -550.0   | 7325.1  |
| 975.0   | -600.0   | 7665.3  | 262.5   | -600.0   | 7524.0 | 112.5   | -550.0   | 7374.6  |
| 987.5   | -600.0   | 7633.8  | 275.0   | -600.0   | 7538.7 | 125.0   | -550.0   | 7426.2  |
| 1000.0  | -600.0   | 7622.2  | 287.5   | -600.0   | 7530.3 | 137.5   | -550.0   | 7504.7  |
| 1012.5  | -600.0   | 7525.2  | 300.0   | -600.0   | 7532.7 | 150.0   | -550.0   | 7847.2  |
| 1025.0  | -600.0   | 7545.1  | 312.5   | -600.0   | 7546.6 | 162.5   | -550.0   | 7459.8  |
| 1037.5  | -600.0   | 7611.0  | 325.0   | -600.0   | 7555.5 | 175.0   | -550.0   | 7458.6  |
| 1050.0  | -600.0   | 7612.4  | 337.5   | -600.0   | 7551.5 | 187.5   | -550.0   | 7471.2  |
| 1062.5  | -600.0   | 7491.5  | 350.0   | -600.0   | 7563.0 | 200.0   | -550.0   | 7466.7  |
| 1075.0  | -600.0   | 7494.1  | 362.5   | -600.0   | 7553.8 | 212.5   | -550.0   | 7482.1  |
| 1087.5  | -600.0   | 7461.0  | 375.0   | -600.0   | 7563.6 | 225.0   | -550.0   | 7527.2  |
| 1100.0  | -600.0   | 7374.2  | 387.5   | -600.0   | 7570.1 | 237.5   | -550.0   | 7515.4  |
| 1112.5  | -600.0   | 7491.6  | 400.0   | -600.0   | 7520.6 | 250.0   | -550.0   | 7495.9  |
| 1125.0  | -600.0   | 7546.6  | 412.5   | -600.0   | 7541.2 | 262.5   | -550.0   | 7501.4  |
| 1137.5  | -600.0   | 7842.5  | 425.0   | -600.0   | 7598.5 | 275.0   | -550.0   | 7514.9  |
| 1150.0  | -600.0   | 8077.5  | 437.5   | -600.0   | 7585.3 | 287.5   | -550.0   | 7530.2  |
| -500.0  | -600.0   | 8493.2  | 450.0   | -600.0   | 7603.6 | 300.0   | -550.0   | 7514.5  |
| -497.5  | -600.0   | 8514.0  | 462.5   | -600.0   | 7611.7 | 312.5   | -550.0   | 7536.8  |
| -475.0  | -600.0   | 8501.3  | 475.0   | -600.0   | 7612.3 | 325.0   | -550.0   | 7550.7  |
| -462.5  | -600.0   | 8518.2  | 487.5   | -600.0   | 7614.3 | 337.5   | -550.0   | 7564.8  |
| -450.0  | -600.0   | 8489.0  | 500.0   | -600.0   | 7608.8 | 350.0   | -550.0   | 7570.5  |
| -437.5  | -600.0   | 8470.7  | 512.5   | -600.0   | 7624.8 | 362.5   | -550.0   | 7529.7  |
| -425.0  | -600.0   | 8430.0  | 525.0   | -600.0   | 7622.1 | 375.0   | -550.0   | 7577.2  |
| -412.5  | -600.0   | 8427.3  | 537.5   | -600.0   | 7631.1 | -525.0  | -500.0   | 9038.2  |
| -400.0  | -600.0   | 8367.8  | 550.0   | -600.0   | 7631.7 | -512.5  | -500.0   | 8963.5  |
| -387.5  | -600.0   | 8231.9  | 562.5   | -600.0   | 7625.6 | -500.0  | -500.0   | 9104.2  |
| -375.0  | -600.0   | 8243.0  | 575.0   | -600.0   | 7646.3 | -487.5  | -500.0   | 9327.0  |
| -362.5  | -600.0   | 8222.6  | 587.5   | -600.0   | 7648.9 | -475.0  | -500.0   | 9592.7  |
| -350.0  | -600.0   | 8305.1  | 600.0   | -600.0   | 7655.5 | -462.5  | -500.0   | 10359.8 |
| -337.5  | -600.0   | 8277.9  | 612.5   | -600.0   | 7665.7 | -450.0  | -500.0   | 11091.5 |
| -325.0  | -600.0   | 8200.0  | 625.0   | -600.0   | 7655.8 | -437.5  | -500.0   | 12094.6 |
| -312.5  | -600.0   | 8231.9  | 637.5   | -600.0   | 7670.2 | -425.0  | -500.0   | 10306.4 |
| -300.0  | -600.0   | 8317.6  | 650.0   | -600.0   | 7674.0 | -412.5  | -500.0   | 12812.7 |
| -287.5  | -600.0   | 8429.3  | 662.5   | -600.0   | 7698.9 | -400.0  | -500.0   | 9741.1  |
| -275.0  | -600.0   | 8545.1  | 675.0   | -600.0   | 7710.5 | -387.5  | -500.0   | 9497.3  |
| -262.5  | -600.0   | 8208.7  | 687.5   | -600.0   | 7709.1 | -375.0  | -500.0   | 9281.4  |
| -250.0  | -600.0   | 7969.9  | 700.0   | -600.0   | 7701.8 | -362.5  | -500.0   | 8548.7  |
| -237.5  | -600.0   | 8516.3  | 712.5   | -600.0   | 7654.0 | -350.0  | -500.0   | 8260.9  |
| -225.0  | -600.0   | 8587.2  | 725.0   | -600.0   | 7752.2 | -337.5  | -500.0   | 7920.9  |
| -212.5  | -600.0   | 8408.1  | 737.5   | -600.0   | 7606.7 | -325.0  | -500.0   | 7863.0  |
| -200.0  | -600.0   | 8691.3  | 750.0   | -600.0   | 7979.9 | -312.5  | -500.0   | 7492.8  |
| -187.5  | -600.0   | 10396.1 | 762.5   | -600.0   | 7575.7 | -300.0  | -500.0   | 7096.0  |
| -175.0  | -600.0   | 8776.1  | -325.0  | -550.0   | 8011.0 | -287.5  | -500.0   | 7813.1  |
| -162.5  | -600.0   | 8886.0  | -312.5  | -550.0   | 7554.7 | -275.0  | -500.0   | 8595.1  |
| -150.0  | -600.0   | 8261.2  | -300.0  | -550.0   | 8076.0 | -262.5  | -500.0   | 11302.4 |
| -137.5  | -600.0   | 8376.9  | -287.5  | -550.0   | 7976.2 | -250.0  | -500.0   | 9778.1  |
| -125.0  | -600.0   | 7638.6  | -275.0  | -550.0   | 7884.8 | -237.5  | -500.0   | 8504.0  |
| -112.5  | -600.0   | 7120.3  | -262.5  | -550.0   | 8309.8 | -225.0  | -500.0   | 7834.7  |
| -100.0  | -600.0   | 5971.5  | -250.0  | -550.0   | 8915.2 | -212.5  | -500.0   | 8359.0  |



| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| -200.0  | -500.0   | 8441.8 | 750.0   | -500.0   | 7857.9 | 1125.0  | -400.0   | 7651.5 |
| -187.5  | -500.0   | 8746.1 | 762.5   | -500.0   | 7695.7 | 1137.5  | -400.0   | 7614.4 |
| -175.0  | -500.0   | 8413.9 | 775.0   | -500.0   | 7655.8 | 1150.0  | -400.0   | 7623.8 |
| -162.5  | -500.0   | 6812.1 | 787.5   | -500.0   | 7672.5 | 1162.5  | -400.0   | 7612.4 |
| -150.0  | -500.0   | 7759.9 | 187.5   | -400.0   | 7343.0 | 1175.0  | -400.0   | 7580.4 |
| -137.5  | -500.0   | 7564.0 | 200.0   | -400.0   | 7358.5 | 1187.5  | -400.0   | 7662.8 |
| -125.0  | -500.0   | 7810.8 | 212.5   | -400.0   | 7406.4 | 1200.0  | -400.0   | 7477.6 |
| -112.5  | -500.0   | 5713.0 | 225.0   | -400.0   | 7453.4 | 1212.5  | -400.0   | 7555.2 |
| -100.0  | -500.0   | 6137.9 | 237.5   | -400.0   | 7461.2 | 1225.0  | -400.0   | 7561.8 |
| -87.5   | -500.0   | 6910.3 | 250.0   | -400.0   | 7432.5 | 1237.5  | -400.0   | 7476.0 |
| -75.0   | -500.0   | 6192.8 | 262.5   | -400.0   | 7468.3 | 1250.0  | -400.0   | 7571.9 |
| -62.5   | -500.0   | 6456.2 | 275.0   | -400.0   | 7475.9 | 1262.5  | -400.0   | 7866.6 |
| -50.0   | -500.0   | 6519.3 | 287.5   | -400.0   | 7497.8 | 1275.0  | -400.0   | 8048.4 |
| -37.5   | -500.0   | 6573.0 | 300.0   | -400.0   | 7496.8 | 1287.5  | -400.0   | 7972.6 |
| -25.0   | -500.0   | 6888.8 | 312.5   | -400.0   | 7506.2 | 1300.0  | -400.0   | 7667.5 |
| -12.5   | -500.0   | 6873.4 | 325.0   | -400.0   | 7531.9 | 1312.5  | -400.0   | 7781.6 |
| 0.0     | -500.0   | 6918.2 | 337.5   | -400.0   | 7531.6 | 1325.0  | -400.0   | 8011.9 |
| 12.5    | -500.0   | 6924.3 | 350.0   | -400.0   | 7543.0 | 1337.5  | -400.0   | 7851.0 |
| 25.0    | -500.0   | 6983.9 | 362.5   | -400.0   | 7572.6 | 1350.0  | -400.0   | 7629.5 |
| 37.5    | -500.0   | 7026.0 | 375.0   | -400.0   | 7570.6 | 1362.5  | -400.0   | 7570.6 |
| 50.0    | -500.0   | 7063.3 | 387.5   | -400.0   | 7578.9 | 1375.0  | -400.0   | 7467.4 |
| 62.5    | -500.0   | 7105.6 | 400.0   | -400.0   | 7594.0 | 1387.5  | -400.0   | 7340.0 |
| 75.0    | -500.0   | 7132.7 | 412.5   | -400.0   | 7589.9 | 1400.0  | -400.0   | 7356.9 |
| 87.5    | -500.0   | 7181.1 | 425.0   | -400.0   | 7602.9 | 1412.5  | -400.0   | 7399.0 |
| 100.0   | -500.0   | 7201.9 | 437.5   | -400.0   | 7598.8 | 1425.0  | -400.0   | 7491.8 |
| 112.5   | -500.0   | 7299.7 | 450.0   | -400.0   | 7613.1 | 1437.5  | -400.0   | 7529.5 |
| 125.0   | -500.0   | 7398.2 | 462.5   | -400.0   | 7607.6 | 1450.0  | -400.0   | 7557.6 |
| 137.5   | -500.0   | 7372.5 | 475.0   | -400.0   | 7633.9 | 1462.5  | -400.0   | 7590.3 |
| 150.0   | -500.0   | 7376.1 | 487.5   | -400.0   | 7625.0 | 1475.0  | -400.0   | 7610.9 |
| 162.5   | -500.0   | 7375.4 | 500.0   | -400.0   | 7634.8 | 1487.5  | -400.0   | 7624.6 |
| 175.0   | -500.0   | 7382.5 | 512.5   | -400.0   | 7647.2 | 1500.0  | -400.0   | 7639.1 |
| 187.5   | -500.0   | 7386.4 | 525.0   | -400.0   | 7654.9 | 262.5   | -300.0   | 7509.9 |
| 200.0   | -500.0   | 7399.7 | 537.5   | -400.0   | 7640.7 | 275.0   | -300.0   | 7517.6 |
| 212.5   | -500.0   | 7428.8 | 550.0   | -400.0   | 7652.7 | 287.5   | -300.0   | 7527.3 |
| 225.0   | -500.0   | 7445.4 | 562.5   | -400.0   | 7657.0 | 300.0   | -300.0   | 7530.7 |
| 237.5   | -500.0   | 7459.4 | 575.0   | -400.0   | 7655.9 | 312.5   | -300.0   | 7526.9 |
| 250.0   | -500.0   | 7534.9 | 587.5   | -400.0   | 7663.6 | 325.0   | -300.0   | 7543.5 |
| 262.5   | -500.0   | 7510.1 | 600.0   | -400.0   | 7679.7 | 337.5   | -300.0   | 7557.6 |
| 275.0   | -500.0   | 7503.8 | 612.5   | -400.0   | 7675.6 | 350.0   | -300.0   | 7574.6 |
| 287.5   | -500.0   | 7516.1 | 625.0   | -400.0   | 7676.4 | 362.5   | -300.0   | 7585.0 |
| 300.0   | -500.0   | 7526.0 | 637.5   | -400.0   | 7672.6 | 375.0   | -300.0   | 7586.6 |
| 312.5   | -500.0   | 7532.0 | 650.0   | -400.0   | 7655.5 | 387.5   | -300.0   | 7595.5 |
| 325.0   | -500.0   | 7510.6 | 662.5   | -400.0   | 7651.0 | 400.0   | -300.0   | 7590.0 |
| 337.5   | -500.0   | 7497.6 | 675.0   | -400.0   | 7672.6 | 412.5   | -300.0   | 7599.7 |
| 350.0   | -500.0   | 7546.1 | 687.5   | -400.0   | 7689.4 | 425.0   | -300.0   | 7605.0 |
| 362.5   | -500.0   | 7572.8 | 700.0   | -400.0   | 7697.3 | 437.5   | -300.0   | 7622.6 |
| 375.0   | -500.0   | 7591.8 | 712.5   | -400.0   | 7701.7 | 450.0   | -300.0   | 7615.3 |
| 387.5   | -500.0   | 7599.5 | 725.0   | -400.0   | 7709.4 | 462.5   | -300.0   | 7631.4 |
| 400.0   | -500.0   | 7592.9 | 737.5   | -400.0   | 7717.7 | 475.0   | -300.0   | 7639.2 |
| 412.5   | -500.0   | 7609.6 | 750.0   | -400.0   | 7748.2 | 487.5   | -300.0   | 7632.9 |
| 425.0   | -500.0   | 7630.1 | 762.5   | -400.0   | 7718.0 | 500.0   | -300.0   | 7635.4 |
| 437.5   | -500.0   | 7539.3 | 775.0   | -400.0   | 7726.0 | 512.5   | -300.0   | 7645.1 |
| 450.0   | -500.0   | 7639.4 | 787.5   | -400.0   | 7693.8 | 525.0   | -300.0   | 7651.4 |
| 462.5   | -500.0   | 7647.5 | 797.0   | -400.0   | 7800.8 | 537.5   | -300.0   | 7656.1 |
| 475.0   | -500.0   | 7631.1 | 850.0   | -400.0   | 7726.0 | 550.0   | -300.0   | 7653.2 |
| 487.5   | -500.0   | 7620.6 | 862.5   | -400.0   | 7700.4 | 562.5   | -300.0   | 7669.8 |
| 500.0   | -500.0   | 7646.0 | 875.0   | -400.0   | 7747.6 | 575.0   | -300.0   | 7671.1 |
| 512.5   | -500.0   | 7647.7 | 887.5   | -400.0   | 7712.4 | 587.5   | -300.0   | 7669.7 |
| 525.0   | -500.0   | 7647.5 | 900.0   | -400.0   | 7673.4 | 600.0   | -300.0   | 7661.2 |
| 537.5   | -500.0   | 7648.9 | 912.5   | -400.0   | 7764.2 | 612.5   | -300.0   | 7670.6 |
| 550.0   | -500.0   | 7626.9 | 925.0   | -400.0   | 7784.4 | 625.0   | -300.0   | 7696.9 |
| 562.5   | -500.0   | 7672.7 | 937.5   | -400.0   | 7804.7 | 637.5   | -300.0   | 7667.6 |
| 575.0   | -500.0   | 7639.8 | 950.0   | -400.0   | 7722.0 | 650.0   | -300.0   | 7688.9 |
| 587.5   | -500.0   | 7639.6 | 962.5   | -400.0   | 7782.4 | 662.5   | -300.0   | 7701.6 |
| 600.0   | -500.0   | 7650.9 | 975.0   | -400.0   | 7718.5 | 675.0   | -300.0   | 7706.4 |
| 612.5   | -500.0   | 7632.8 | 987.5   | -400.0   | 7698.5 | 687.5   | -300.0   | 7705.8 |
| 625.0   | -500.0   | 7685.3 | 1000.0  | -400.0   | 7668.7 | 700.0   | -300.0   | 7687.5 |
| 637.5   | -500.0   | 7678.3 | 1012.5  | -400.0   | 7701.3 | 712.5   | -300.0   | 7699.1 |
| 650.0   | -500.0   | 7644.2 | 1025.0  | -400.0   | 7699.4 | 725.0   | -300.0   | 7676.4 |
| 662.5   | -500.0   | 7677.4 | 1037.5  | -400.0   | 7638.1 | 737.5   | -300.0   | 7703.8 |
| 675.0   | -500.0   | 7682.5 | 1050.0  | -400.0   | 7606.3 | 750.0   | -300.0   | 7718.5 |
| 687.5   | -500.0   | 7704.0 | 1062.5  | -400.0   | 7641.9 | 762.5   | -300.0   | 7730.5 |
| 700.0   | -500.0   | 7693.7 | 1075.0  | -400.0   | 7560.5 | 775.0   | -300.0   | 7707.0 |
| 712.5   | -500.0   | 7715.4 | 1087.5  | -400.0   | 7611.4 | 787.5   | -300.0   | 7726.6 |
| 725.0   | -500.0   | 7677.2 | 1100.0  | -400.0   | 7627.1 | 800.0   | -300.0   | 7716.8 |
| 737.5   | -500.0   | 7644.2 | 1112.5  | -400.0   | 7638.6 | 812.5   | -300.0   | 7692.0 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 825.0   | -300.0   | 7688.0 | 737.5   | -200.0   | 7689.8 | 975.0   | 100.0    | 7654.6 |
| 837.5   | -300.0   | 7669.4 | 750.0   | -200.0   | 7683.7 | 987.5   | 100.0    | 7680.7 |
| 850.0   | -300.0   | 7675.0 | 762.5   | -200.0   | 7691.2 | 1000.0  | 100.0    | 7683.2 |
| 862.5   | -300.0   | 7684.1 | 775.0   | -200.0   | 7690.1 | 1012.5  | 100.0    | 7695.5 |
| 875.0   | -300.0   | 7669.9 | 787.5   | -200.0   | 7670.3 | 1025.0  | 100.0    | 7710.9 |
| 887.5   | -300.0   | 7679.7 | 850.0   | -200.0   | 7671.4 | 1037.5  | 100.0    | 7806.5 |
| 900.0   | -300.0   | 7661.4 | 862.5   | -200.0   | 7653.0 | 1050.0  | 100.0    | 7711.6 |
| 912.5   | -300.0   | 7705.7 | 875.0   | -200.0   | 7667.9 | 700.0   | 200.0    | 7741.4 |
| 925.0   | -300.0   | 7726.6 | 887.5   | -200.0   | 7658.8 | 712.5   | 200.0    | 7728.9 |
| 937.5   | -300.0   | 7792.4 | 900.0   | -200.0   | 7667.2 | 725.0   | 200.0    | 7790.2 |
| 950.0   | -300.0   | 7786.8 | 912.5   | -200.0   | 7653.8 | 737.5   | 200.0    | 7715.3 |
| 962.5   | -300.0   | 7711.1 | 925.0   | -200.0   | 7668.0 | 750.0   | 200.0    | 7704.5 |
| 975.0   | -300.0   | 7735.9 | 937.5   | -200.0   | 7678.8 | 762.5   | 200.0    | 7722.3 |
| 987.5   | -300.0   | 7690.2 | 950.0   | -200.0   | 7694.9 | 775.0   | 200.0    | 7709.5 |
| 1000.0  | -300.0   | 7644.8 | 962.5   | -200.0   | 7675.1 | 787.5   | 200.0    | 7704.8 |
| 1012.5  | -300.0   | 7656.9 | 975.0   | -200.0   | 7654.2 | 800.0   | 200.0    | 7747.0 |
| 1025.0  | -300.0   | 7619.1 | 987.5   | -200.0   | 7639.8 | 812.5   | 200.0    | 7731.0 |
| 1037.5  | -300.0   | 7662.1 | 1000.0  | -200.0   | 7858.2 | 825.0   | 200.0    | 7731.3 |
| 1050.0  | -300.0   | 7654.2 | 675.0   | -125.0   | 7688.6 | 837.5   | 200.0    | 7730.2 |
| 1062.5  | -300.0   | 7650.2 | 687.5   | -125.0   | 7698.1 | 850.0   | 200.0    | 7716.0 |
| 1075.0  | -300.0   | 7642.8 | 700.0   | -125.0   | 7690.1 | 862.5   | 200.0    | 7757.6 |
| 1087.5  | -300.0   | 7634.6 | 712.5   | -125.0   | 7681.0 | 875.0   | 200.0    | 7724.1 |
| 1100.0  | -300.0   | 7629.0 | 725.0   | -125.0   | 7694.5 | 887.5   | 200.0    | 7780.9 |
| 1112.5  | -300.0   | 7609.5 | 737.5   | -125.0   | 7680.6 | 900.0   | 200.0    | 7864.3 |
| 1125.0  | -300.0   | 7614.7 | 750.0   | -125.0   | 7672.6 | 912.5   | 200.0    | 7643.7 |
| 1137.5  | -300.0   | 7709.4 | 762.5   | -125.0   | 7645.5 | 925.0   | 200.0    | 7694.4 |
| 1150.0  | -300.0   | 7692.7 | 775.0   | -125.0   | 7734.6 | 937.5   | 200.0    | 7690.9 |
| 1162.5  | -300.0   | 7618.7 | 787.5   | -125.0   | 7684.4 | 950.0   | 200.0    | 7709.0 |
| 1175.0  | -300.0   | 7634.4 | 800.0   | -125.0   | 7835.2 | 962.5   | 200.0    | 7681.6 |
| 1187.5  | -300.0   | 7661.6 | 812.5   | -125.0   | 7680.3 | 975.0   | 200.0    | 7676.4 |
| 1200.0  | -300.0   | 7641.3 | 825.0   | -125.0   | 7674.7 | 987.5   | 200.0    | 7675.4 |
| 1212.5  | -300.0   | 7567.6 | 837.5   | -125.0   | 7673.4 | 1000.0  | 200.0    | 7668.0 |
| 1225.0  | -300.0   | 7559.6 | 850.0   | -125.0   | 7668.1 | 1012.5  | 200.0    | 7683.7 |
| 1237.5  | -300.0   | 7538.5 | 862.5   | -125.0   | 7699.0 | 1025.0  | 200.0    | 7715.9 |
| 1250.0  | -300.0   | 7552.4 | 875.0   | -125.0   | 7718.5 | 1037.5  | 200.0    | 7711.1 |
| 1262.5  | -300.0   | 7660.5 | 887.5   | -125.0   | 7706.3 | 1050.0  | 200.0    | 7701.8 |
| 1275.0  | -300.0   | 7454.5 | 900.0   | -125.0   | 7675.9 | 1062.5  | 200.0    | 7681.3 |
| 1287.5  | -300.0   | 7462.0 | 912.5   | -125.0   | 7678.0 | 1075.0  | 200.0    | 7689.8 |
| 1300.0  | -300.0   | 7416.1 | 925.0   | -125.0   | 7684.9 | 1087.5  | 200.0    | 7671.1 |
| 1312.5  | -300.0   | 7457.6 | 937.5   | -125.0   | 7653.7 | 1100.0  | 200.0    | 7718.9 |
| 1325.0  | -300.0   | 7445.4 | 950.0   | -125.0   | 7686.6 | 1112.5  | 200.0    | 7727.7 |
| 1337.5  | -300.0   | 7535.1 | 962.5   | -125.0   | 7677.9 | 1125.0  | 200.0    | 7749.0 |
| 1350.0  | -300.0   | 7559.6 | 975.0   | -125.0   | 7666.2 | 1137.5  | 200.0    | 7735.6 |
| 1362.5  | -300.0   | 7576.2 | 987.5   | -125.0   | 7663.8 | 1150.0  | 200.0    | 7748.5 |
| 1375.0  | -300.0   | 7585.7 | 1000.0  | -125.0   | 7670.2 | 1162.5  | 200.0    | 7755.1 |
| 1387.5  | -300.0   | 7590.1 | 925.0   | 0.0      | 7699.5 | 1175.0  | 200.0    | 7798.2 |
| 1400.0  | -300.0   | 7594.3 | 937.5   | 0.0      | 7681.0 | 1187.5  | 200.0    | 7604.6 |
| 1412.5  | -300.0   | 7606.2 | 950.0   | 0.0      | 7693.7 | 1200.0  | 200.0    | 7752.4 |
| 1425.0  | -300.0   | 7611.8 | 962.5   | 0.0      | 7707.4 | 1212.5  | 200.0    | 8077.2 |
| 1437.5  | -300.0   | 7618.5 | 975.0   | 0.0      | 7730.4 | 1225.0  | 200.0    | 7443.6 |
| 1450.0  | -300.0   | 7641.5 | 987.5   | 0.0      | 7692.1 | 1237.5  | 200.0    | 7701.2 |
| 1462.5  | -300.0   | 7647.4 | 1000.0  | 0.0      | 7698.4 | 1250.0  | 200.0    | 7727.1 |
| 1475.0  | -300.0   | 7647.3 | 1012.5  | 0.0      | 7690.4 | 1262.5  | 200.0    | 7710.5 |
| 1487.5  | -300.0   | 7655.5 | 1025.0  | 0.0      | 7668.8 | 1275.0  | 200.0    | 7687.1 |
| 1500.0  | -300.0   | 7665.4 | 700.0   | 100.0    | 7765.1 | 1287.5  | 200.0    | 7683.2 |
| 1512.5  | -300.0   | 7680.9 | 712.5   | 100.0    | 7823.8 | 1300.0  | 200.0    | 7683.7 |
| 1525.0  | -300.0   | 7679.0 | 725.0   | 100.0    | 7961.9 | 1312.5  | 200.0    | 7881.8 |
| 500.0   | -200.0   | 7659.9 | 737.5   | 100.0    | 7812.7 | 1325.0  | 200.0    | 7847.4 |
| 512.5   | -200.0   | 7647.1 | 750.0   | 100.0    | 7662.1 | 1337.5  | 200.0    | 7680.8 |
| 525.0   | -200.0   | 7654.8 | 762.5   | 100.0    | 7753.0 | 1350.0  | 200.0    | 7703.3 |
| 537.5   | -200.0   | 7646.5 | 775.0   | 100.0    | 7688.1 | 1362.5  | 200.0    | 7618.5 |
| 550.0   | -200.0   | 7644.9 | 787.5   | 100.0    | 7768.7 | 1375.0  | 200.0    | 7684.5 |
| 562.5   | -200.0   | 7653.6 | 800.0   | 100.0    | 7793.1 | 675.0   | 300.0    | 7701.2 |
| 575.0   | -200.0   | 7668.6 | 812.5   | 100.0    | 7741.2 | 687.5   | 300.0    | 7697.3 |
| 587.5   | -200.0   | 7674.1 | 825.0   | 100.0    | 7715.8 | 700.0   | 300.0    | 7683.3 |
| 600.0   | -200.0   | 7661.9 | 837.5   | 100.0    | 7722.5 | 712.5   | 300.0    | 7681.6 |
| 612.5   | -200.0   | 7669.7 | 850.0   | 100.0    | 7681.0 | 725.0   | 300.0    | 7678.1 |
| 625.0   | -200.0   | 7676.7 | 862.5   | 100.0    | 7881.7 | 737.5   | 300.0    | 7673.1 |
| 637.5   | -200.0   | 7673.1 | 875.0   | 100.0    | 7706.8 | 750.0   | 300.0    | 7700.9 |
| 650.0   | -200.0   | 7627.7 | 887.5   | 100.0    | 7722.3 | 762.5   | 300.0    | 7710.2 |
| 662.5   | -200.0   | 7797.5 | 900.0   | 100.0    | 7710.5 | 775.0   | 300.0    | 7709.5 |
| 675.0   | -200.0   | 7691.6 | 912.5   | 100.0    | 7703.5 | 787.5   | 300.0    | 7716.5 |
| 687.5   | -200.0   | 7681.7 | 925.0   | 100.0    | 7720.1 | 800.0   | 300.0    | 7701.0 |
| 700.0   | -200.0   | 7747.4 | 937.5   | 100.0    | 7686.5 | 812.5   | 300.0    | 7748.8 |
| 712.5   | -200.0   | 7689.1 | 950.0   | 100.0    | 7721.5 | 825.0   | 300.0    | 7730.3 |
| 725.0   | -200.0   | 7688.1 | 962.5   | 100.0    | 7737.4 | 837.5   | 300.0    | 7768.0 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 850.0   | 300.0    | 7714.3 | 1012.5  | 400.0    | 7658.2 | 1050.0  | 500.0    | 7678.9 |
| 862.5   | 300.0    | 7704.6 | 1025.0  | 400.0    | 7666.1 | 1062.5  | 500.0    | 7693.4 |
| 875.0   | 300.0    | 7680.1 | 1037.5  | 400.0    | 7668.9 | 1075.0  | 500.0    | 7722.7 |
| 887.5   | 300.0    | 7661.8 | 1050.0  | 400.0    | 7659.0 | 1087.5  | 500.0    | 7685.8 |
| 900.0   | 300.0    | 7704.0 | 1062.5  | 400.0    | 7667.0 | 1100.0  | 500.0    | 7690.6 |
| 912.5   | 300.0    | 7724.7 | 1075.0  | 400.0    | 7666.1 | 1112.5  | 500.0    | 7687.1 |
| 925.0   | 300.0    | 7592.6 | 1087.5  | 400.0    | 7679.6 | 1125.0  | 500.0    | 7719.4 |
| 937.5   | 300.0    | 7604.4 | 1100.0  | 400.0    | 7696.5 | 1137.5  | 500.0    | 7736.5 |
| 950.0   | 300.0    | 7641.9 | 1112.5  | 400.0    | 7736.1 | 1150.0  | 500.0    | 7699.0 |
| 962.5   | 300.0    | 7640.1 | 1125.0  | 400.0    | 7875.9 | 1162.5  | 500.0    | 7703.4 |
| 975.0   | 300.0    | 7658.6 | 1137.5  | 400.0    | 7762.1 | 1175.0  | 500.0    | 7790.2 |
| 987.5   | 300.0    | 7661.3 | 1150.0  | 400.0    | 7747.1 | 1187.5  | 500.0    | 7774.8 |
| 1000.0  | 300.0    | 7680.9 | 1162.5  | 400.0    | 7789.9 | 1200.0  | 500.0    | 7732.2 |
| 1012.5  | 300.0    | 7671.5 | 1175.0  | 400.0    | 7743.6 | 1212.5  | 500.0    | 7715.5 |
| 1025.0  | 300.0    | 7674.5 | 1187.5  | 400.0    | 7814.2 | 1225.0  | 500.0    | 7718.4 |
| 1037.5  | 300.0    | 7680.8 | 1200.0  | 400.0    | 7791.0 | 1237.5  | 500.0    | 7711.2 |
| 1050.0  | 300.0    | 7697.7 | 1212.5  | 400.0    | 7675.8 | 1250.0  | 500.0    | 7820.5 |
| 1062.5  | 300.0    | 7682.2 | 1225.0  | 400.0    | 7668.2 | 1262.5  | 500.0    | 7768.1 |
| 1075.0  | 300.0    | 7697.9 | 1237.5  | 400.0    | 7697.5 | 1275.0  | 500.0    | 7679.6 |
| 1087.5  | 300.0    | 7691.0 | 1250.0  | 400.0    | 7741.2 | 1287.5  | 500.0    | 7604.8 |
| 1100.0  | 300.0    | 7641.5 | 1262.5  | 400.0    | 7702.8 | 1300.0  | 500.0    | 7641.1 |
| 1112.5  | 300.0    | 7677.6 | 1275.0  | 400.0    | 7696.9 | 1312.5  | 500.0    | 7690.2 |
| 1125.0  | 300.0    | 7688.8 | 1287.5  | 400.0    | 7719.8 | 1325.0  | 500.0    | 7686.9 |
| 1137.5  | 300.0    | 7688.4 | 1300.0  | 400.0    | 7680.6 | 1337.5  | 500.0    | 7690.7 |
| 1150.0  | 300.0    | 7754.5 | 1312.5  | 400.0    | 7762.6 | 1350.0  | 500.0    | 7680.3 |
| 1162.5  | 300.0    | 7710.7 | 1325.0  | 400.0    | 8028.2 | 1362.5  | 500.0    | 7751.7 |
| 1175.0  | 300.0    | 7742.0 | 1337.5  | 400.0    | 7916.8 | 1375.0  | 500.0    | 7701.0 |
| 1187.5  | 300.0    | 7685.3 | 1350.0  | 400.0    | 7674.6 | 1387.5  | 500.0    | 7701.0 |
| 1200.0  | 300.0    | 7792.2 | 1362.5  | 400.0    | 7743.4 | 1400.0  | 500.0    | 7689.1 |
| 1212.5  | 300.0    | 7715.9 | 1375.0  | 400.0    | 8343.4 | 1412.5  | 500.0    | 7669.8 |
| 1225.0  | 300.0    | 7770.0 | 1387.5  | 400.0    | 7882.2 | 1425.0  | 500.0    | 7849.1 |
| 1237.5  | 300.0    | 7710.9 | 1400.0  | 400.0    | 7738.3 | 1437.5  | 500.0    | 7648.6 |
| 1250.0  | 300.0    | 7685.2 | 1412.5  | 400.0    | 7838.1 | 1450.0  | 500.0    | 7835.1 |
| 1262.5  | 300.0    | 7684.5 | 1425.0  | 400.0    | 7815.9 | 1462.5  | 500.0    | 7844.3 |
| 1275.0  | 300.0    | 7736.6 | 1437.5  | 400.0    | 7756.5 | 1475.0  | 500.0    | 7975.6 |
| 1287.5  | 300.0    | 7558.6 | 1450.0  | 400.0    | 7739.6 | 1487.5  | 500.0    | 8109.2 |
| 1300.0  | 300.0    | 7793.9 | 1462.5  | 400.0    | 7723.7 | 1500.0  | 500.0    | 7722.7 |
| 1312.5  | 300.0    | 7827.9 | 1475.0  | 400.0    | 7710.7 | 637.5   | 600.0    | 7756.3 |
| 1325.0  | 300.0    | 7723.0 | 1487.5  | 400.0    | 7734.6 | 650.0   | 600.0    | 7736.4 |
| 1337.5  | 300.0    | 7688.9 | 1500.0  | 400.0    | 7782.5 | 662.5   | 600.0    | 7722.3 |
| 1350.0  | 300.0    | 7800.5 | 1512.5  | 400.0    | 7758.0 | 675.0   | 600.0    | 7734.7 |
| 1362.5  | 300.0    | 7696.1 | 1525.0  | 400.0    | 7860.3 | 687.5   | 600.0    | 7764.9 |
| 1375.0  | 300.0    | 7715.8 | 625.0   | 500.0    | 7733.6 | 700.0   | 600.0    | 7697.0 |
| 1387.5  | 300.0    | 7703.1 | 637.5   | 500.0    | 7743.2 | 712.5   | 600.0    | 7691.5 |
| 1400.0  | 300.0    | 7716.6 | 650.0   | 500.0    | 7721.7 | 725.0   | 600.0    | 7699.4 |
| 1412.5  | 300.0    | 7720.8 | 662.5   | 500.0    | 7724.3 | 737.5   | 600.0    | 7679.0 |
| 1425.0  | 300.0    | 7714.1 | 675.0   | 500.0    | 7721.9 | 750.0   | 600.0    | 7675.5 |
| 1437.5  | 300.0    | 7653.6 | 687.5   | 500.0    | 7705.6 | 762.5   | 600.0    | 7697.4 |
| 1450.0  | 300.0    | 7756.4 | 700.0   | 500.0    | 7704.0 | 775.0   | 600.0    | 7692.6 |
| 1462.5  | 300.0    | 7729.3 | 712.5   | 500.0    | 7699.9 | 787.5   | 600.0    | 7708.3 |
| 1475.0  | 300.0    | 7673.0 | 725.0   | 500.0    | 7679.9 | 800.0   | 600.0    | 7712.5 |
| 1487.5  | 300.0    | 7659.0 | 737.5   | 500.0    | 7688.6 | 812.5   | 600.0    | 7718.7 |
| 1500.0  | 300.0    | 6973.7 | 750.0   | 500.0    | 7717.9 | 825.0   | 600.0    | 7724.8 |
| 725.0   | 400.0    | 7717.7 | 762.5   | 500.0    | 7723.4 | 837.5   | 600.0    | 7728.0 |
| 737.5   | 400.0    | 7688.3 | 775.0   | 500.0    | 7593.8 | 850.0   | 600.0    | 7717.2 |
| 750.0   | 400.0    | 7691.3 | 787.5   | 500.0    | 7696.9 | 862.5   | 600.0    | 7673.1 |
| 762.5   | 400.0    | 7686.9 | 800.0   | 500.0    | 7708.2 | 875.0   | 600.0    | 7731.1 |
| 775.0   | 400.0    | 7683.5 | 812.5   | 500.0    | 7689.6 | 887.5   | 600.0    | 7749.7 |
| 787.5   | 400.0    | 7689.5 | 825.0   | 500.0    | 7719.9 | 900.0   | 600.0    | 7866.0 |
| 800.0   | 400.0    | 7668.9 | 837.5   | 500.0    | 7726.3 | 912.5   | 600.0    | 7862.1 |
| 812.5   | 400.0    | 7716.2 | 850.0   | 500.0    | 7709.2 | 925.0   | 600.0    | 7634.0 |
| 825.0   | 400.0    | 7694.2 | 862.5   | 500.0    | 7713.1 | 937.5   | 600.0    | 7757.0 |
| 837.5   | 400.0    | 7520.2 | 875.0   | 500.0    | 7712.2 | 950.0   | 600.0    | 7708.7 |
| 850.0   | 400.0    | 7667.0 | 887.5   | 500.0    | 7722.7 | 962.5   | 600.0    | 7702.2 |
| 862.5   | 400.0    | 7700.3 | 900.0   | 500.0    | 7815.4 | 975.0   | 600.0    | 7768.2 |
| 875.0   | 400.0    | 7708.5 | 912.5   | 500.0    | 7698.1 | 987.5   | 600.0    | 7702.1 |
| 887.5   | 400.0    | 7695.5 | 925.0   | 500.0    | 7721.4 | 1000.0  | 600.0    | 7706.7 |
| 900.0   | 400.0    | 7708.4 | 937.5   | 500.0    | 7770.9 | 1012.5  | 600.0    | 7744.8 |
| 912.5   | 400.0    | 7799.3 | 950.0   | 500.0    | 7678.7 | 1025.0  | 600.0    | 7713.0 |
| 925.0   | 400.0    | 7724.8 | 962.5   | 500.0    | 7685.5 | 1037.5  | 600.0    | 7665.7 |
| 937.5   | 400.0    | 7905.8 | 975.0   | 500.0    | 7698.7 | 1050.0  | 600.0    | 7790.4 |
| 950.0   | 400.0    | 7593.4 | 987.5   | 500.0    | 7654.9 | 1062.5  | 600.0    | 7905.2 |
| 962.5   | 400.0    | 7628.9 | 1000.0  | 500.0    | 7689.8 | 1075.0  | 600.0    | 7759.7 |
| 975.0   | 400.0    | 7652.8 | 1012.5  | 500.0    | 7674.4 | 1087.5  | 600.0    | 7703.3 |
| 987.5   | 400.0    | 7678.8 | 1025.0  | 500.0    | 7659.6 | 1100.0  | 600.0    | 7754.3 |
| 1000.0  | 400.0    | 7678.6 | 1037.5  | 500.0    | 7662.7 | 1112.5  | 600.0    | 7775.9 |

| X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. | X(East) | Y(North) | Tot F. |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 1125.0  | 600.0    | 7719.6 | 812.5   | 700.0    | 7670.4 | 1050.0  | -125.0   | 7681.7 |
| 1137.5  | 600.0    | 7655.2 | 825.0   | 700.0    | 7706.1 | 1062.5  | -125.0   | 7669.1 |
| 1150.0  | 600.0    | 7675.0 | 837.5   | 700.0    | 7705.5 | 1075.0  | -125.0   | 7670.8 |
| 1162.5  | 600.0    | 7689.7 | 850.0   | 700.0    | 7706.5 | 1087.5  | -125.0   | 7662.9 |
| 1175.0  | 600.0    | 7709.1 | 862.5   | 700.0    | 7700.2 | 1100.0  | -125.0   | 7664.8 |
| 1187.5  | 600.0    | 7682.5 | 875.0   | 700.0    | 7719.2 | 1112.5  | -125.0   | 7682.0 |
| 1200.0  | 600.0    | 7683.0 | 887.5   | 700.0    | 7725.3 | 1125.0  | -125.0   | 7665.6 |
| 1212.5  | 600.0    | 7691.6 | 900.0   | 700.0    | 7699.2 | 1137.5  | -125.0   | 7670.3 |
| 1225.0  | 600.0    | 7638.4 | 912.5   | 700.0    | 7743.3 | 1150.0  | -125.0   | 7668.3 |
| 1237.5  | 600.0    | 7722.1 | 925.0   | 700.0    | 7687.4 | 1162.5  | -125.0   | 7667.5 |
| 1250.0  | 600.0    | 7624.3 | 937.5   | 700.0    | 7693.1 | 1175.0  | -125.0   | 7673.4 |
| 1262.5  | 600.0    | 7619.7 | 950.0   | 700.0    | 7804.3 | 1187.5  | -125.0   | 7663.1 |
| 1275.0  | 600.0    | 7632.8 | 962.5   | 700.0    | 7976.5 | 1200.0  | -125.0   | 7671.6 |
| 1287.5  | 600.0    | 7595.6 | 975.0   | 700.0    | 7631.5 | 1212.5  | -125.0   | 7671.7 |
| 1300.0  | 600.0    | 7564.0 | 987.5   | 700.0    | 7768.4 | 1225.0  | -125.0   | 7685.7 |
| 1312.5  | 600.0    | 7586.7 | 1000.0  | 700.0    | 7684.3 | 1237.5  | -125.0   | 7688.4 |
| 1325.0  | 600.0    | 7588.7 | 1012.5  | 700.0    | 7716.4 | 1250.0  | -125.0   | 7681.0 |
| 1337.5  | 600.0    | 7594.2 | 1025.0  | 700.0    | 7667.1 | 1262.5  | -125.0   | 7688.6 |
| 1350.0  | 600.0    | 7601.0 | 1037.5  | 700.0    | 7633.5 | 1275.0  | -125.0   | 7622.9 |
| 1362.5  | 600.0    | 7612.6 | 1050.0  | 700.0    | 8570.1 | 1287.5  | -125.0   | 7622.1 |
| 1375.0  | 600.0    | 7613.2 | 1062.5  | 700.0    | 7733.8 | 1300.0  | -125.0   | 7622.9 |
| 1387.5  | 600.0    | 7679.6 | 1075.0  | 700.0    | 7724.5 | 1312.5  | -125.0   | 7661.5 |
| 1400.0  | 600.0    | 7712.1 | 1087.5  | 700.0    | 7778.6 | 1325.0  | -125.0   | 7662.9 |
| 1412.5  | 600.0    | 7664.7 | 1100.0  | 700.0    | 7877.1 | 1337.5  | -125.0   | 7682.3 |
| 1425.0  | 600.0    | 7694.7 | 1112.5  | 700.0    | 7778.8 | 1350.0  | -125.0   | 7678.6 |
| 1437.5  | 600.0    | 7724.2 | 1125.0  | 700.0    | 8570.0 | 1362.5  | -125.0   | 7683.0 |
| 1450.0  | 600.0    | 7747.7 | 1137.5  | 700.0    | 7575.7 | 1375.0  | -125.0   | 7691.5 |
| 1462.5  | 600.0    | 7778.8 | 1150.0  | 700.0    | 7771.4 | 1387.5  | -125.0   | 7702.8 |
| 1475.0  | 600.0    | 7803.2 | 1162.5  | 700.0    | 7750.1 | 1400.0  | -125.0   | 7688.2 |
| 1487.5  | 600.0    | 7708.5 | 1175.0  | 700.0    | 8081.9 | 1412.5  | -125.0   | 7685.2 |
| 1500.0  | 600.0    | 7670.2 | 1187.5  | 700.0    | 7784.2 | 1425.0  | -125.0   | 7672.7 |
| 700.0   | 700.0    | 7688.4 | 1200.0  | 700.0    | 8134.4 | 1437.5  | -125.0   | 7653.7 |
| 712.5   | 700.0    | 7622.9 | 1212.5  | 700.0    | 7893.5 | 1450.0  | -125.0   | 7662.2 |
| 725.0   | 700.0    | 7728.7 | 1225.0  | 700.0    | 7815.8 | 1462.5  | -125.0   | 7666.5 |
| 737.5   | 700.0    | 7718.7 | 1237.5  | 700.0    | 7555.7 | 1475.0  | -125.0   | 7663.5 |
| 750.0   | 700.0    | 7617.7 | 1250.0  | 700.0    | 7457.7 | 1487.5  | -125.0   | 7686.1 |
| 762.5   | 700.0    | 7677.5 | 1000.0  | -125.0   | 7667.7 | 1500.0  | -125.0   | 7662.5 |
| 775.0   | 700.0    | 7719.8 | 1012.5  | -125.0   | 7676.6 | 1512.5  | -125.0   | 7657.6 |
| 787.5   | 700.0    | 7704.1 | 1025.0  | -125.0   | 7680.1 |         |          |        |
| 800.0   | 700.0    | 7695.0 | 1037.5  | -125.0   | 7687.9 |         |          |        |

| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| -550.0  | -1475.0  | -45   | 31   | -62.5   | -1400.0  | 18    | 3    | -337.5  | -1200.0  | 24    | 0    |
| -537.5  | -1475.0  | -39   | 30   | -50.0   | -1400.0  | 15    | 1    | -325.0  | -1200.0  | 24    | 0    |
| -525.0  | -1475.0  | -36   | 29   | -37.5   | -1400.0  | 11    | 2    | -312.5  | -1200.0  | 25    | -2   |
| -512.5  | -1475.0  | -34   | 30   | -25.0   | -1400.0  | 5     | 2    | -300.0  | -1200.0  | 21    | -2   |
| -500.0  | -1475.0  | -23   | 30   | -12.5   | -1400.0  | 3     | 2    | -287.5  | -1200.0  | 27    | -2   |
| -487.5  | -1475.0  | -17   | 28   | 0.0     | -1400.0  | -1    | 3    | -275.0  | -1200.0  | 27    | -3   |
| -475.0  | -1475.0  | -17   | 29   | 12.5    | -1400.0  | -6    | 2    | -262.5  | -1200.0  | 27    | -3   |
| -462.5  | -1475.0  | -17   | 28   | 25.0    | -1400.0  | -8    | 3    | -250.0  | -1200.0  | 27    | -3   |
| -450.0  | -1475.0  | -8    | 25   | 37.5    | -1400.0  | -7    | 3    | -237.5  | -1200.0  | 23    | -4   |
| -437.5  | -1475.0  | -4    | 23   | 50.0    | -1400.0  | -8    | 4    | -225.0  | -1200.0  | 22    | -3   |
| -425.0  | -1475.0  | -2    | 22   | 62.5    | -1400.0  | -9    | 7    | -212.5  | -1200.0  | 20    | -4   |
| -412.5  | -1475.0  | -1    | 19   | 75.0    | -1400.0  | -6    | 8    | -200.0  | -1200.0  | 22    | -6   |
| -400.0  | -1475.0  | 0     | 16   | 87.5    | -1400.0  | -5    | 6    | -187.5  | -1200.0  | 18    | -6   |
| -387.5  | -1475.0  | 1     | 16   | 100.0   | -1400.0  | -2    | 8    | -175.0  | -1200.0  | 17    | -6   |
| -375.0  | -1475.0  | 3     | 16   | 112.5   | -1400.0  | -1    | 10   | -162.5  | -1200.0  | 16    | -4   |
| -362.5  | -1475.0  | 4     | 16   | 125.0   | -1400.0  | -3    | 9    | -150.0  | -1200.0  | 17    | -5   |
| -350.0  | -1475.0  | 10    | 14   | 137.5   | -1400.0  | 0     | 12   | -137.5  | -1200.0  | 16    | -4   |
| -337.5  | -1475.0  | 10    | 16   | 150.0   | -1400.0  | 1     | 9    | -125.0  | -1200.0  | 15    | -4   |
| -325.0  | -1475.0  | 9     | 13   | -250.0  | -1300.0  | 32    | 2    | -112.5  | -1200.0  | 12    | -5   |
| -312.5  | -1475.0  | 12    | 12   | -237.5  | -1300.0  | 32    | 3    | -100.0  | -1200.0  | 10    | -5   |
| -300.0  | -1475.0  | 15    | 14   | -225.0  | -1300.0  | 37    | 2    | -87.5   | -1200.0  | 6     | -4   |
| -287.5  | -1475.0  | 14    | 11   | -212.5  | -1300.0  | 41    | 6    | -75.0   | -1200.0  | 3     | -3   |
| -275.0  | -1475.0  | 17    | 11   | -200.0  | -1300.0  | 41    | 2    | -62.5   | -1200.0  | 3     | -4   |
| -262.5  | -1475.0  | 18    | 12   | -187.5  | -1300.0  | 40    | 0    | -50.0   | -1200.0  | -8    | -3   |
| -250.0  | -1475.0  | 16    | 9    | -175.0  | -1300.0  | 33    | 0    | -37.5   | -1200.0  | -4    | -2   |
| -237.5  | -1475.0  | 20    | 7    | -162.5  | -1300.0  | 33    | -2   | -25.0   | -1200.0  | -8    | -2   |
| -225.0  | -1475.0  | 17    | 7    | -150.0  | -1300.0  | 32    | 0    | -12.5   | -1200.0  | -12   | -3   |
| -212.5  | -1475.0  | 19    | 7    | -137.5  | -1300.0  | 31    | -1   | 0.0     | -1200.0  | -15   | -3   |
| -200.0  | -1475.0  | 19    | 6    | -125.0  | -1300.0  | 27    | 0    | 12.5    | -1200.0  | -15   | -2   |
| -187.5  | -1475.0  | 19    | 7    | -112.5  | -1300.0  | 24    | 0    | 25.0    | -1200.0  | -11   | -1   |
| -175.0  | -1475.0  | 19    | 6    | -100.0  | -1300.0  | 21    | 0    | 37.5    | -1200.0  | -16   | 0    |
| -162.5  | -1475.0  | 21    | 3    | -87.5   | -1300.0  | 14    | 0    | 50.0    | -1200.0  | -6    | 0    |
| -150.0  | -1475.0  | 21    | 3    | -75.0   | -1300.0  | 10    | -2   | 62.5    | -1200.0  | -5    | 1    |
| -137.5  | -1475.0  | 25    | 2    | -62.5   | -1300.0  | 2     | -3   | 75.0    | -1200.0  | -2    | 0    |
| -125.0  | -1475.0  | 21    | 5    | -50.0   | -1300.0  | 0     | -3   | 87.5    | -1200.0  | -1    | 1    |
| -112.5  | -1475.0  | 22    | 2    | -37.5   | -1300.0  | -5    | -3   | 100.0   | -1200.0  | 1     | 1    |
| -100.0  | -1475.0  | 24    | 7    | -25.0   | -1300.0  | -8    | -3   | 112.5   | -1200.0  | 0     | 3    |
| -87.5   | -1475.0  | 20    | 4    | -12.5   | -1300.0  | -12   | -3   | 125.0   | -1200.0  | 6     | 2    |
| -75.0   | -1475.0  | 21    | 6    | 0.0     | -1300.0  | -13   | -3   | 137.5   | -1200.0  | 6     | 3    |
| -62.5   | -1475.0  | 25    | 15   | 12.5    | -1300.0  | -11   | 0    | 150.0   | -1200.0  | 9     | 2    |
| -50.0   | -1475.0  | 16    | 3    | 25.0    | -1300.0  | -14   | 2    | -425.0  | -1100.0  | 20    | 0    |
| -37.5   | -1475.0  | 13    | 6    | 37.5    | -1300.0  | -12   | 3    | -412.5  | -1100.0  | 18    | 2    |
| -25.0   | -1475.0  | 7     | 0    | 50.0    | -1300.0  | -8    | 4    | -400.0  | -1100.0  | 21    | 2    |
| -12.5   | -1475.0  | 3     | 0    | 62.5    | -1300.0  | -8    | 4    | -387.5  | -1100.0  | 21    | 0    |
| 0.0     | -1475.0  | 0     | 1    | 75.0    | -1300.0  | -9    | 4    | -375.0  | -1100.0  | 18    | -1   |
| 12.5    | -1475.0  | -7    | 2    | 87.5    | -1300.0  | -6    | 4    | -362.5  | -1100.0  | 21    | -3   |
| 25.0    | -1475.0  | -10   | 2    | 100.0   | -1300.0  | -3    | 6    | -350.0  | -1100.0  | 22    | -2   |
| 37.5    | -1475.0  | -14   | 2    | 112.5   | -1300.0  | -1    | 5    | -337.5  | -1100.0  | 20    | -3   |
| 50.0    | -1475.0  | -17   | 3    | -687.5  | -1200.0  | 6     | -10  | -325.0  | -1100.0  | 18    | -4   |
| -393.0  | -1400.0  | 8     | 12   | -675.0  | -1200.0  | 18    | -4   | -312.5  | -1100.0  | 18    | -5   |
| -387.5  | -1400.0  | 15    | 13   | -662.5  | -1200.0  | 12    | -3   | -300.0  | -1100.0  | 15    | -6   |
| -375.0  | -1400.0  | 14    | 12   | -650.0  | -1200.0  | 3     | -11  | -287.5  | -1100.0  | 16    | -7   |
| -362.5  | -1400.0  | 15    | 11   | -637.5  | -1200.0  | 0     | -14  | -275.0  | -1100.0  | 16    | -6   |
| -350.0  | -1400.0  | 21    | 14   | -625.0  | -1200.0  | 4     | -9   | -262.5  | -1100.0  | 16    | -6   |
| -337.5  | -1400.0  | 20    | 10   | -612.5  | -1200.0  | 8     | -9   | -250.0  | -1100.0  | 15    | -7   |
| -325.0  | -1400.0  | 23    | 9    | -600.0  | -1200.0  | 14    | -7   | -237.5  | -1100.0  | 13    | -8   |
| -312.5  | -1400.0  | 26    | 8    | -587.5  | -1200.0  | 21    | -4   | -225.0  | -1100.0  | 12    | -7   |
| -300.0  | -1400.0  | 23    | 10   | -575.0  | -1200.0  | 30    | 0    | -212.5  | -1100.0  | 15    | -7   |
| -287.5  | -1400.0  | 22    | 7    | -562.5  | -1200.0  | 32    | 7    | -200.0  | -1100.0  | 14    | -7   |
| -275.0  | -1400.0  | 24    | 10   | -550.0  | -1200.0  | 17    | 16   | -187.5  | -1100.0  | 15    | -6   |
| -262.5  | -1400.0  | 24    | 5    | -537.5  | -1200.0  | -12   | 15   | -175.0  | -1100.0  | 13    | -5   |
| -250.0  | -1400.0  | 26    | 3    | -525.0  | -1200.0  | -7    | 11   | -162.5  | -1100.0  | 13    | -6   |
| -237.5  | -1400.0  | 27    | 3    | -512.5  | -1200.0  | -9    | 8    | -150.0  | -1100.0  | 18    | -6   |
| -225.0  | -1400.0  | 26    | 4    | -500.0  | -1200.0  | -4    | 6    | -137.5  | -1100.0  | 19    | -4   |
| -212.5  | -1400.0  | 27    | 5    | -487.5  | -1200.0  | 0     | 6    | -125.0  | -1100.0  | 22    | -2   |
| -200.0  | -1400.0  | 29    | 7    | -475.0  | -1200.0  | 1     | 4    | -112.5  | -1100.0  | 19    | -3   |
| -187.5  | -1400.0  | 31    | 7    | -462.5  | -1200.0  | 10    | 3    | -100.0  | -1100.0  | 15    | -1   |
| -175.0  | -1400.0  | 31    | 7    | -450.0  | -1200.0  | 12    | 7    | -87.5   | -1100.0  | 14    | 0    |
| -162.5  | -1400.0  | 31    | 3    | -437.5  | -1200.0  | 12    | 5    | -75.0   | -1100.0  | 11    | 8    |
| -150.0  | -1400.0  | 29    | 6    | -425.0  | -1200.0  | 18    | 6    | -62.5   | -1100.0  | 1     | -9   |
| -137.5  | -1400.0  | 30    | 3    | -412.5  | -1200.0  | 16    | 4    | -50.0   | -1100.0  | -1    | -5   |
| -125.0  | -1400.0  | 27    | 4    | -400.0  | -1200.0  | 22    | 4    | -37.5   | -1100.0  | -2    | -1   |
| -112.5  | -1400.0  | 25    | 3    | -387.5  | -1200.0  | 22    | 4    | -25.0   | -1100.0  | -4    | 0    |
| -100.0  | -1400.0  | 24    | 3    | -375.0  | -1200.0  | 20    | 5    | -12.5   | -1100.0  | -6    | 0    |
| -87.5   | -1400.0  | 23    | 3    | -362.5  | -1200.0  | 26    | 3    | 0.0     | -1100.0  | -3    | 0    |
| -75.0   | -1400.0  | 21    | 3    | -350.0  | -1200.0  | 26    | 0    | 12.5    | -1100.0  | -2    | 1    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad |
|---------|----------|----|----|------|---------|----------|-----|----|------|---------|----------|-----|----|------|
| 25.0    | -1100.0  | -5 |    | 0    | -437.5  | -900.0   | 21  |    | -4   | 75.0    | -850.0   | 0   |    | 0    |
| 37.5    | -1100.0  | -2 |    | 0    | -425.0  | -900.0   | 22  |    | -6   | 87.5    | -850.0   | 4   |    | 2    |
| 50.0    | -1100.0  | -3 |    | -1   | -412.5  | -900.0   | 22  |    | -5   | 100.0   | -850.0   | 5   |    | 3    |
| 62.5    | -1100.0  | -4 |    | 0    | -400.0  | -900.0   | 21  |    | -8   | 112.5   | -850.0   | 11  |    | 5    |
| 75.0    | -1100.0  | -6 |    | 0    | -387.5  | -900.0   | 19  |    | -5   | 125.0   | -850.0   | 13  |    | 5    |
| 87.5    | -1100.0  | 2  |    | 2    | -375.0  | -900.0   | 18  |    | -9   | 137.5   | -850.0   | 16  |    | 6    |
| 100.0   | -1100.0  | 1  |    | 2    | -362.5  | -900.0   | 17  |    | -9   | 150.0   | -850.0   | 19  |    | 9    |
| 112.5   | -1100.0  | 8  |    | 0    | -350.0  | -900.0   | 19  |    | -10  | 162.5   | -850.0   | 23  |    | 7    |
| 125.0   | -1100.0  | 13 |    | 5    | -337.5  | -900.0   | 17  |    | -7   | 175.0   | -850.0   | 24  |    | 7    |
| 137.5   | -1100.0  | 10 |    | 5    | -325.0  | -900.0   | 17  |    | -8   | -500.0  | -800.0   | 28  |    | 7    |
| 150.0   | -1100.0  | 16 |    | 5    | -312.5  | -900.0   | 14  |    | -8   | -487.5  | -800.0   | 30  |    | 3    |
| 162.5   | -1100.0  | 16 |    | 5    | -300.0  | -900.0   | 16  |    | -9   | -475.0  | -800.0   | 31  |    | 5    |
| 175.0   | -1100.0  | 15 |    | 5    | -287.5  | -900.0   | 16  |    | -9   | -462.5  | -800.0   | 30  |    | 0    |
| 187.5   | -1100.0  | 18 |    | 6    | -275.0  | -900.0   | 14  |    | -10  | -450.0  | -800.0   | 25  |    | 0    |
| 200.0   | -1100.0  | 22 |    | 4    | -262.5  | -900.0   | 11  |    | -10  | -437.5  | -800.0   | 24  |    | -3   |
| 212.5   | -1100.0  | 23 |    | 4    | -250.0  | -900.0   | 10  |    | -10  | -425.0  | -800.0   | 23  |    | -8   |
| 225.0   | -1100.0  | 26 |    | 3    | -237.5  | -900.0   | 11  |    | -10  | -412.5  | -800.0   | 21  |    | -8   |
| 237.5   | -1100.0  | 22 |    | 1    | -225.0  | -900.0   | 11  |    | -8   | -400.0  | -800.0   | 21  |    | -6   |
| 250.0   | -1100.0  | 29 |    | 0    | -212.5  | -900.0   | 14  |    | -7   | -387.5  | -800.0   | 19  |    | -10  |
| 262.5   | -1100.0  | 31 |    | -1   | -200.0  | -900.0   | 11  |    | -10  | -375.0  | -800.0   | 18  |    | -9   |
| 275.0   | -1100.0  | 31 |    | -1   | -187.5  | -900.0   | 14  |    | -9   | -362.5  | -800.0   | 15  |    | -10  |
| 287.5   | -1100.0  | 32 |    | -1   | -175.0  | -900.0   | 13  |    | -7   | -350.0  | -800.0   | 18  |    | -10  |
| 300.0   | -1100.0  | 33 |    | 1    | -162.5  | -900.0   | 15  |    | -6   | -337.5  | -800.0   | 20  |    | -9   |
| -287.5  | -1000.0  | 14 |    | -12  | -150.0  | -900.0   | 15  |    | -5   | -325.0  | -800.0   | 16  |    | -12  |
| -275.0  | -1000.0  | 14 |    | -11  | -137.5  | -900.0   | 19  |    | -2   | -312.5  | -800.0   | 13  |    | -12  |
| -262.5  | -1000.0  | 12 |    | -11  | -125.0  | -900.0   | 21  |    | 0    | -300.0  | -800.0   | 15  |    | -11  |
| -250.0  | -1000.0  | 15 |    | -12  | -112.5  | -900.0   | 20  |    | 0    | -287.5  | -800.0   | 16  |    | -10  |
| -237.5  | -1000.0  | 10 |    | -11  | -100.0  | -900.0   | 20  |    | 2    | -275.0  | -800.0   | 13  |    | -10  |
| -225.0  | -1000.0  | 9  |    | -8   | -87.5   | -900.0   | 23  |    | 5    | -262.5  | -800.0   | 13  |    | -12  |
| -212.5  | -1000.0  | 11 |    | -9   | -75.0   | -900.0   | 18  |    | 6    | -250.0  | -800.0   | 11  |    | -12  |
| -200.0  | -1000.0  | 12 |    | -10  | -62.5   | -900.0   | 15  |    | 8    | -237.5  | -800.0   | 13  |    | -11  |
| -187.5  | -1000.0  | 11 |    | -9   | -50.0   | -900.0   | 15  |    | 10   | -225.0  | -800.0   | 13  |    | -11  |
| -175.0  | -1000.0  | 11 |    | -6   | -37.5   | -900.0   | 14  |    | 12   | -212.5  | -800.0   | 12  |    | -11  |
| -162.5  | -1000.0  | 14 |    | -5   | -25.0   | -900.0   | 5   |    | 0    | -200.0  | -800.0   | 11  |    | -12  |
| -150.0  | -1000.0  | 12 |    | -5   | -12.5   | -900.0   | 3   |    | 0    | -187.5  | -800.0   | 11  |    | -13  |
| -137.5  | -1000.0  | 14 |    | -4   | 0.0     | -900.0   | 0   |    | 0    | -175.0  | -800.0   | 12  |    | -10  |
| -125.0  | -1000.0  | 18 |    | -2   | 12.5    | -900.0   | 0   |    | 1    | -162.5  | -800.0   | 14  |    | -9   |
| -112.5  | -1000.0  | 19 |    | -1   | 25.0    | -900.0   | -4  |    | 1    | -150.0  | -800.0   | 16  |    | -8   |
| -100.0  | -1000.0  | 21 |    | 2    | 37.5    | -900.0   | -10 |    | 0    | -137.5  | -800.0   | 16  |    | -5   |
| -87.5   | -1000.0  | 21 |    | 4    | 50.0    | -900.0   | -10 |    | 0    | -125.0  | -800.0   | 15  |    | -5   |
| -75.0   | -1000.0  | 19 |    | 6    | 62.5    | -900.0   | -8  |    | 0    | -112.5  | -800.0   | 15  |    | -6   |
| -62.5   | -1000.0  | 11 |    | 7    | 75.0    | -900.0   | -11 |    | -2   | -100.0  | -800.0   | 15  |    | -3   |
| -50.0   | -1000.0  | 9  |    | 7    | 87.5    | -900.0   | -8  |    | -2   | -87.5   | -800.0   | 15  |    | -2   |
| -37.5   | -1000.0  | 5  |    | 2    | 100.0   | -900.0   | -6  |    | -1   | -75.0   | -800.0   | 14  |    | 1    |
| -25.0   | -1000.0  | 5  |    | 3    | 112.5   | -900.0   | -3  |    | 1    | -62.5   | -800.0   | 8   |    | 1    |
| -12.5   | -1000.0  | 9  |    | 6    | 125.0   | -900.0   | 2   |    | 0    | -50.0   | -800.0   | -3  |    | 2    |
| 0.0     | -1000.0  | 10 |    | 6    | 137.5   | -900.0   | 8   |    | 2    | -37.5   | -800.0   | -4  |    | 0    |
| 12.5    | -1000.0  | 7  |    | 7    | 150.0   | -900.0   | 10  |    | 2    | -25.0   | -800.0   | -6  |    | -1   |
| 25.0    | -1000.0  | 12 |    | 6    | 162.5   | -900.0   | 9   |    | 3    | -12.5   | -800.0   | -10 |    | -3   |
| 37.5    | -1000.0  | 10 |    | 7    | 175.0   | -900.0   | 14  |    | 5    | 0.0     | -800.0   | -2  |    | -4   |
| 50.0    | -1000.0  | 7  |    | 7    | 187.5   | -900.0   | 17  |    | 6    | 12.5    | -800.0   | -2  |    | -1   |
| 62.5    | -1000.0  | 6  |    | 5    | 200.0   | -900.0   | 26  |    | 3    | 25.0    | -800.0   | 4   |    | 0    |
| 75.0    | -1000.0  | 8  |    | 4    | 212.5   | -900.0   | 20  |    | 5    | 37.5    | -800.0   | 9   |    | 2    |
| 87.5    | -1000.0  | 5  |    | 2    | 225.0   | -900.0   | 25  |    | 3    | 50.0    | -800.0   | 10  |    | 0    |
| 100.0   | -1000.0  | 9  |    | 3    | 237.5   | -900.0   | 29  |    | 4    | 62.5    | -900.0   | 13  |    | 2    |
| 112.5   | -1000.0  | 11 |    | 4    | 250.0   | -900.0   | 30  |    | 6    | 75.0    | -800.0   | 19  |    | 2    |
| 125.0   | -1000.0  | 16 |    | 5    | 262.5   | -900.0   | 34  |    | 6    | 87.5    | -800.0   | 22  |    | 2    |
| 137.5   | -1000.0  | 20 |    | 5    | 275.0   | -900.0   | 40  |    | 7    | 100.0   | -800.0   | 24  |    | 2    |
| 150.0   | -1000.0  | 19 |    | 5    | 287.5   | -900.0   | 40  |    | 8    | 112.5   | -800.0   | 25  |    | 4    |
| 162.5   | -1000.0  | 19 |    | 4    | 300.0   | -900.0   | 44  |    | 7    | 125.0   | -800.0   | 34  |    | 4    |
| 175.0   | -1000.0  | 21 |    | 3    | -125.0  | -850.0   | 18  |    | -2   | 137.5   | -800.0   | 33  |    | 5    |
| 187.5   | -1000.0  | 17 |    | 3    | -112.5  | -850.0   | 18  |    | -2   | 150.0   | -800.0   | 32  |    | 7    |
| 200.0   | -1000.0  | 18 |    | 2    | -100.0  | -850.0   | 19  |    | -2   | 162.5   | -800.0   | 37  |    | 6    |
| 212.5   | -1000.0  | 20 |    | 4    | -87.5   | -850.0   | 17  |    | 0    | 175.0   | -800.0   | 34  |    | 6    |
| 225.0   | -1000.0  | 21 |    | 1    | -75.0   | -850.0   | 23  |    | 3    | 187.5   | -800.0   | 39  |    | 3    |
| 237.5   | -1000.0  | 21 |    | 1    | -62.5   | -850.0   | 15  |    | 4    | 200.0   | -800.0   | 40  |    | 5    |
| 250.0   | -1000.0  | 25 |    | 0    | -50.0   | -850.0   | 9   |    | 5    | 212.5   | -800.0   | 42  |    | 6    |
| 262.5   | -1000.0  | 26 |    | 0    | -37.5   | -850.0   | 5   |    | 4    | 225.0   | -800.0   | 41  |    | 6    |
| 275.0   | -1000.0  | 27 |    | 2    | -25.0   | -850.0   | 0   |    | 4    | 237.5   | -800.0   | 44  |    | 6    |
| 287.5   | -1000.0  | 30 |    | 0    | -12.5   | -850.0   | -9  |    | -3   | 250.0   | -800.0   | 46  |    | 8    |
| 300.0   | -1000.0  | 33 |    | 2    | 0.0     | -850.0   | -15 |    | -5   | 262.5   | -800.0   | 48  |    | 5    |
| -500.0  | -900.0   | 23 |    | 5    | 12.5    | -850.0   | -15 |    | -5   | 275.0   | -800.0   | 51  |    | 8    |
| -487.5  | -900.0   | 24 |    | 3    | 25.0    | -850.0   | -14 |    | -4   | 287.5   | -800.0   | 48  |    | 7    |
| -475.0  | -900.0   | 26 |    | 6    | 37.5    | -850.0   | -12 |    | -3   | 300.0   | -800.0   | 49  |    | 8    |
| -462.5  | -900.0   | 22 |    | 2    | 50.0    | -850.0   | -7  |    | -1   | 312.5   | -800.0   | 50  |    | 8    |
| -450.0  | -900.0   | 23 |    | 0    | 62.5    | -850.0   | -2  |    | 0    | 325.0   | -800.0   | 54  |    | 9    |

| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| 337.5   | -800.0   | 57    | 9    | -75.0   | -750.0   | 7     | 0    | 1000.0  | -700.0   | 73    | -19  |
| 350.0   | -800.0   | 54    | 9    | -62.5   | -750.0   | 3     | 0    | 1012.5  | -700.0   | 63    | -17  |
| 362.5   | -800.0   | 59    | 10   | -50.0   | -750.0   | 0     | 0    | 1025.0  | -700.0   | 68    | -22  |
| 375.0   | -800.0   | 61    | 10   | -37.5   | -750.0   | -4    | -1   | 1037.5  | -700.0   | 68    | -8   |
| 387.5   | -800.0   | 58    | 8    | -25.0   | -750.0   | -7    | -2   | 1050.0  | -700.0   | 58    | -3   |
| 400.0   | -800.0   | 56    | 9    | -12.5   | -750.0   | -1    | 2    | 1062.5  | -700.0   | 55    | -5   |
| 412.5   | -800.0   | 63    | 5    | 0.0     | -750.0   | 2     | 0    | 1075.0  | -700.0   | 49    | -7   |
| 425.0   | -800.0   | 60    | 5    | 12.5    | -750.0   | 6     | 0    | 1087.5  | -700.0   | 35    | 1    |
| 437.5   | -800.0   | 58    | 6    | 25.0    | -750.0   | 9     | 3    | 1100.0  | -700.0   | 27    | 5    |
| 450.0   | -800.0   | 56    | 0    | 37.5    | -750.0   | 12    | 3    | 1112.5  | -700.0   | 31    | 11   |
| 462.5   | -800.0   | 56    | 2    | 50.0    | -750.0   | 11    | 4    | 1125.0  | -700.0   | 41    | 8    |
| 475.0   | -800.0   | 54    | 2    | 62.5    | -750.0   | 14    | 6    | -300.0  | -650.0   | 10    | -20  |
| 487.5   | -800.0   | 58    | 4    | 75.0    | -750.0   | 19    | 7    | -287.5  | -650.0   | 7     | -22  |
| 500.0   | -800.0   | 61    | 5    | 87.5    | -750.0   | 20    | 7    | -275.0  | -650.0   | -1    | -25  |
| 512.5   | -800.0   | 61    | 9    | 100.0   | -750.0   | 22    | 8    | -262.5  | -650.0   | 5     | -22  |
| 525.0   | -800.0   | 60    | 10   | 112.5   | -750.0   | 26    | 7    | -250.0  | -650.0   | 10    | -20  |
| 537.5   | -800.0   | 63    | 13   | 125.0   | -750.0   | 26    | 7    | -237.5  | -650.0   | 6     | -21  |
| 550.0   | -800.0   | 63    | 13   | 137.5   | -750.0   | 28    | 9    | -225.0  | -650.0   | 5     | -22  |
| 562.5   | -800.0   | 59    | 14   | 150.0   | -750.0   | 30    | 10   | -212.5  | -650.0   | 6     | -20  |
| 575.0   | -800.0   | 64    | 13   | 162.5   | -750.0   | 33    | 10   | -200.0  | -650.0   | 8     | -18  |
| 587.5   | -800.0   | 62    | 12   | 175.0   | -750.0   | 35    | 11   | -187.5  | -650.0   | 11    | -18  |
| 600.0   | -800.0   | 53    | 9    | 187.5   | -750.0   | 37    | 9    | -175.0  | -650.0   | 10    | -18  |
| 612.5   | -800.0   | 42    | 6    | 200.0   | -750.0   | 36    | 8    | -162.5  | -650.0   | 12    | -12  |
| 625.0   | -800.0   | 46    | -27  | -225.0  | -700.0   | 12    | -13  | -150.0  | -650.0   | 15    | -15  |
| 637.5   | -800.0   | 54    | -28  | -212.5  | -700.0   | 15    | -13  | -137.5  | -650.0   | 9     | -16  |
| 650.0   | -800.0   | 49    | -32  | -200.0  | -700.0   | 16    | -11  | -125.0  | -650.0   | 15    | -12  |
| 662.5   | -800.0   | 51    | -31  | -187.5  | -700.0   | 17    | -12  | -112.5  | -650.0   | 15    | -7   |
| 675.0   | -800.0   | 115   | -27  | -175.0  | -700.0   | 19    | -10  | -100.0  | -650.0   | 19    | -3   |
| 687.5   | -800.0   | 74    | -34  | -162.5  | -700.0   | 23    | -9   | -87.5   | -650.0   | 23    | 0    |
| 700.0   | -800.0   | 66    | -27  | -150.0  | -700.0   | 21    | -8   | -75.0   | -650.0   | 15    | 0    |
| 712.5   | -800.0   | 108   | -25  | -137.5  | -700.0   | 16    | -7   | -62.5   | -650.0   | 1     | -4   |
| 725.0   | -800.0   | 89    | -19  | -125.0  | -700.0   | 14    | -4   | -50.0   | -650.0   | 3     | -2   |
| 737.5   | -800.0   | 89    | -22  | -112.5  | -700.0   | 15    | -1   | -37.5   | -650.0   | 5     | 0    |
| 750.0   | -800.0   | 98    | -24  | -100.0  | -700.0   | 16    | 0    | -25.0   | -650.0   | 5     | 0    |
| 762.5   | -800.0   | 79    | -22  | -87.5   | -700.0   | 11    | 0    | -12.5   | -650.0   | 12    | 1    |
| 775.0   | -800.0   | 72    | -22  | -75.0   | -700.0   | 15    | -1   | 0.0     | -650.0   | 13    | 6    |
| 787.5   | -800.0   | 72    | -20  | -62.5   | -700.0   | 7     | -2   | 12.5    | -650.0   | 18    | 11   |
| 800.0   | -800.0   | 69    | -15  | -50.0   | -700.0   | 7     | 0    | 25.0    | -650.0   | 11    | -3   |
| 812.5   | -800.0   | 71    | -13  | -37.5   | -700.0   | 6     | -2   | 37.5    | -650.0   | 15    | 0    |
| 825.0   | -800.0   | 82    | -19  | -25.0   | -700.0   | 10    | 0    | 50.0    | -650.0   | 18    | 2    |
| 837.5   | -800.0   | 76    | -19  | -12.5   | -700.0   | 12    | 5    | 62.5    | -650.0   | 25    | 6    |
| 850.0   | -800.0   | 84    | -5   | 0.0     | -700.0   | 15    | 10   | 75.0    | -650.0   | 27    | 6    |
| 862.5   | -800.0   | 89    | -10  | 12.5    | -700.0   | 13    | -4   | 87.5    | -650.0   | 24    | 7    |
| 875.0   | -800.0   | 88    | -2   | 25.0    | -700.0   | 17    | 0    | 100.0   | -650.0   | 28    | 5    |
| 887.5   | -800.0   | 79    | 0    | 37.5    | -700.0   | 18    | 2    | 112.5   | -650.0   | 29    | 7    |
| 900.0   | -800.0   | 83    | -7   | 50.0    | -700.0   | 20    | 3    | 125.0   | -650.0   | 29    | 7    |
| 912.5   | -800.0   | 80    | -1   | 62.5    | -700.0   | 35    | 4    | 137.5   | -650.0   | 32    | 7    |
| 925.0   | -800.0   | 69    | 2    | 75.0    | -700.0   | 29    | 5    | 150.0   | -650.0   | 35    | 7    |
| 937.5   | -800.0   | 69    | -3   | 87.5    | -700.0   | 32    | 4    | 162.5   | -650.0   | 35    | 6    |
| 950.0   | -800.0   | 65    | 0    | 100.0   | -700.0   | 32    | 5    | 175.0   | -650.0   | 34    | 7    |
| 962.5   | -800.0   | 62    | 13   | 112.5   | -700.0   | 41    | 3    | 187.5   | -650.0   | 43    | 4    |
| 975.0   | -800.0   | 55    | 7    | 125.0   | -700.0   | 32    | 4    | 200.0   | -650.0   | 42    | 7    |
| 987.5   | -800.0   | 59    | 6    | 137.5   | -700.0   | 41    | 8    | 212.5   | -650.0   | 50    | 5    |
| 1000.0  | -800.0   | 55    | 0    | 150.0   | -700.0   | 40    | 5    | 225.0   | -650.0   | 49    | 7    |
| 1012.5  | -800.0   | 32    | 7    | 162.5   | -700.0   | 44    | 5    | 237.5   | -650.0   | 50    | 5    |
| 1025.0  | -800.0   | 37    | 3    | 175.0   | -700.0   | 40    | 2    | 250.0   | -650.0   | 48    | 9    |
| 1037.5  | -800.0   | 36    | 10   | 750.0   | -700.0   | 120   | -32  | 262.5   | -650.0   | 55    | 7    |
| 1050.0  | -800.0   | 36    | 20   | 762.5   | -700.0   | 80    | -37  | 275.0   | -650.0   | 53    | 9    |
| -300.0  | -750.0   | 9     | -14  | 775.0   | -700.0   | 68    | -36  | 287.5   | -650.0   | 51    | 7    |
| -287.5  | -750.0   | 8     | -15  | 787.5   | -700.0   | 64    | -35  | 300.0   | -650.0   | 55    | 7    |
| -275.0  | -750.0   | 10    | -14  | 800.0   | -700.0   | 73    | -39  | 312.5   | -650.0   | 56    | 6    |
| -262.5  | -750.0   | 10    | -15  | 812.5   | -700.0   | 69    | -34  | 325.0   | -650.0   | 57    | 6    |
| -250.0  | -750.0   | 11    | -14  | 825.0   | -700.0   | 79    | -34  | 337.5   | -650.0   | 58    | 6    |
| -237.5  | -750.0   | 10    | -14  | 837.5   | -700.0   | 98    | -42  | 350.0   | -650.0   | 57    | 5    |
| -225.0  | -750.0   | 12    | -13  | 850.0   | -700.0   | 82    | -35  | 362.5   | -650.0   | 59    | 3    |
| -212.5  | -750.0   | 8     | -13  | 862.5   | -700.0   | 99    | -39  | 375.0   | -650.0   | 55    | 4    |
| -200.0  | -750.0   | 9     | -13  | 875.0   | -700.0   | 120   | -39  | 387.5   | -650.0   | 62    | 2    |
| -187.5  | -750.0   | 10    | -14  | 887.5   | -700.0   | 91    | -36  | 400.0   | -650.0   | 56    | 2    |
| -175.0  | -750.0   | 13    | -11  | 900.0   | -700.0   | 101   | -38  | 412.5   | -650.0   | 56    | 2    |
| -162.5  | -750.0   | 10    | -10  | 912.5   | -700.0   | 88    | -29  | 425.0   | -650.0   | 60    | 2    |
| -150.0  | -750.0   | 12    | -11  | 925.0   | -700.0   | 96    | -33  | 437.5   | -650.0   | 56    | 1    |
| -137.5  | -750.0   | 12    | -8   | 937.5   | -700.0   | 82    | -18  | 450.0   | -650.0   | 50    | 1    |
| -125.0  | -750.0   | 14    | -7   | 950.0   | -700.0   | 73    | -26  | 462.5   | -650.0   | 54    | 2    |
| -112.5  | -750.0   | 16    | -5   | 962.5   | -700.0   | 83    | -20  | 475.0   | -650.0   | 59    | 2    |
| -100.0  | -750.0   | 16    | -3   | 975.0   | -700.0   | 75    | -18  | 487.5   | -650.0   | 60    | 4    |
| -87.5   | -750.0   | 15    | -1   | 987.5   | -700.0   | 72    | -26  | 500.0   | -650.0   | 61    | 4    |

| X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In | Ph | Quad |
|---------|----------|----|----|------|---------|----------|-----|----|------|---------|----------|----|----|------|
| 512.5   | -650.0   | 63 |    | 6    | 275.0   | -600.0   | 50  |    | 1    | -237.5  | -550.0   | 14 |    | -20  |
| 525.0   | -650.0   | 60 |    | 6    | 287.5   | -600.0   | 56  |    | 0    | -225.0  | -550.0   | 15 |    | -18  |
| 537.5   | -650.0   | 61 |    | 5    | 300.0   | -600.0   | 56  |    | 0    | -212.5  | -550.0   | 15 |    | -19  |
| 550.0   | -650.0   | 58 |    | 0    | 312.5   | -600.0   | 50  |    | 0    | -200.0  | -550.0   | 15 |    | -18  |
| 562.5   | -650.0   | 55 |    | 2    | 325.0   | -600.0   | 59  |    | -5   | -187.5  | -550.0   | 14 |    | -18  |
| 575.0   | -650.0   | 57 |    | 3    | 337.5   | -600.0   | 57  |    | -2   | -175.0  | -550.0   | 15 |    | -15  |
| 587.5   | -650.0   | 55 |    | 2    | 350.0   | -600.0   | 54  |    | -1   | -162.5  | -550.0   | 15 |    | -16  |
| 600.0   | -650.0   | 57 |    | 4    | 362.5   | -600.0   | 52  |    | 0    | -150.0  | -550.0   | 17 |    | -15  |
| 612.5   | -650.0   | 56 |    | 5    | 375.0   | -600.0   | 61  |    | -2   | -137.5  | -550.0   | 18 |    | -14  |
| 625.0   | -650.0   | 56 |    | 6    | 387.5   | -600.0   | 58  |    | 0    | -125.0  | -550.0   | 21 |    | -11  |
| 637.5   | -650.0   | 52 |    | 5    | 400.0   | -600.0   | 59  |    | -1   | -112.5  | -550.0   | 19 |    | -9   |
| 650.0   | -650.0   | 54 |    | 5    | 412.5   | -600.0   | 59  |    | -3   | -100.0  | -550.0   | 18 |    | -9   |
| 662.5   | -650.0   | 48 |    | 4    | 425.0   | -600.0   | 60  |    | -2   | -87.5   | -550.0   | 16 |    | -7   |
| 675.0   | -650.0   | 47 |    | 7    | 437.5   | -600.0   | 61  |    | -1   | -75.0   | -550.0   | 13 |    | -7   |
| -500.0  | -600.0   | 30 |    | 2    | 450.0   | -600.0   | 62  |    | -1   | -62.5   | -550.0   | 13 |    | -5   |
| -487.5  | -600.0   | 33 |    | -1   | 462.5   | -600.0   | 62  |    | -1   | -50.0   | -550.0   | 13 |    | -5   |
| -475.0  | -600.0   | 34 |    | -3   | 475.0   | -600.0   | 56  |    | -1   | -37.5   | -550.0   | 13 |    | -3   |
| -462.5  | -600.0   | 36 |    | -9   | 487.5   | -600.0   | 61  |    | -4   | -25.0   | -550.0   | 14 |    | -3   |
| -450.0  | -600.0   | 26 |    | -8   | 500.0   | -600.0   | 61  |    | -4   | -12.5   | -550.0   | 11 |    | -2   |
| -437.5  | -600.0   | 26 |    | -11  | 512.5   | -600.0   | 58  |    | -4   | 0.0     | -550.0   | 14 |    | -1   |
| -425.0  | -600.0   | 26 |    | -18  | 525.0   | -600.0   | 67  |    | -9   | 12.5    | -550.0   | 15 |    | 0    |
| -412.5  | -600.0   | 17 |    | -20  | 537.5   | -600.0   | 64  |    | -5   | 25.0    | -550.0   | 19 |    | 2    |
| -400.0  | -600.0   | 17 |    | -22  | 550.0   | -600.0   | 62  |    | -3   | 37.5    | -550.0   | 22 |    | 3    |
| -387.5  | -600.0   | 20 |    | -24  | 562.5   | -600.0   | 68  |    | -2   | 50.0    | -550.0   | 25 |    | 6    |
| -375.0  | -600.0   | 12 |    | -27  | 575.0   | -600.0   | 62  |    | -1   | 62.5    | -550.0   | 26 |    | 5    |
| -362.5  | -600.0   | 13 |    | -26  | 587.5   | -600.0   | 62  |    | -1   | 75.0    | -550.0   | 26 |    | 5    |
| -350.0  | -600.0   | 15 |    | -24  | 600.0   | -600.0   | 65  |    | 0    | 87.5    | -550.0   | 28 |    | 5    |
| -337.5  | -600.0   | 16 |    | -22  | 612.5   | -600.0   | 61  |    | 0    | 100.0   | -550.0   | 31 |    | 6    |
| -325.0  | -600.0   | 16 |    | -23  | 625.0   | -600.0   | 61  |    | 1    | 112.5   | -550.0   | 35 |    | 2    |
| -312.5  | -600.0   | 11 |    | -24  | 637.5   | -600.0   | 63  |    | 5    | 125.0   | -550.0   | 38 |    | 3    |
| -300.0  | -600.0   | 10 |    | -24  | 650.0   | -600.0   | 70  |    | 5    | 137.5   | -550.0   | 36 |    | 3    |
| -287.5  | -600.0   | 10 |    | -24  | 662.5   | -600.0   | 59  |    | 5    | 150.0   | -550.0   | 37 |    | 4    |
| -275.0  | -600.0   | 4  |    | -26  | 675.0   | -600.0   | 56  |    | 5    | 162.5   | -550.0   | 38 |    | 3    |
| -262.5  | -600.0   | 10 |    | -24  | 687.5   | -600.0   | 54  |    | 4    | 175.0   | -550.0   | 40 |    | 3    |
| -250.0  | -600.0   | 12 |    | -23  | 700.0   | -600.0   | 53  |    | 3    | 187.5   | -550.0   | 41 |    | 2    |
| -237.5  | -600.0   | 16 |    | -20  | 712.5   | -600.0   | 51  |    | 4    | 200.0   | -550.0   | 42 |    | 3    |
| -225.0  | -600.0   | 15 |    | -20  | 725.0   | -600.0   | 51  |    | 3    | 212.5   | -550.0   | 43 |    | 1    |
| -212.5  | -600.0   | 12 |    | -21  | 737.5   | -600.0   | 52  |    | 4    | 225.0   | -550.0   | 43 |    | 2    |
| -200.0  | -600.0   | 17 |    | -21  | 750.0   | -600.0   | 48  |    | 0    | 237.5   | -550.0   | 43 |    | 3    |
| -187.5  | -600.0   | 13 |    | -20  | 762.5   | -600.0   | 51  |    | -1   | 250.0   | -550.0   | 45 |    | 2    |
| -175.0  | -600.0   | 16 |    | -20  | 800.0   | -600.0   | 120 |    | -33  | 262.5   | -550.0   | 47 |    | 3    |
| -162.5  | -600.0   | 11 |    | -19  | 812.5   | -600.0   | 85  |    | -30  | 275.0   | -550.0   | 48 |    | 1    |
| -150.0  | -600.0   | 11 |    | -18  | 825.0   | -600.0   | 115 |    | -44  | 287.5   | -550.0   | 48 |    | 1    |
| -137.5  | -600.0   | 12 |    | -17  | 837.5   | -600.0   | 87  |    | -43  | 300.0   | -550.0   | 51 |    | 0    |
| -125.0  | -600.0   | 19 |    | -12  | 850.0   | -600.0   | 105 |    | -46  | 312.5   | -550.0   | 52 |    | 3    |
| -112.5  | -600.0   | 26 |    | -10  | 862.5   | -600.0   | 69  |    | -40  | 325.0   | -550.0   | 55 |    | 2    |
| -100.0  | -600.0   | 24 |    | -7   | 875.0   | -600.0   | 120 |    | -51  | 337.5   | -550.0   | 55 |    | 1    |
| -87.5   | -600.0   | 22 |    | -6   | 887.5   | -600.0   | 90  |    | -38  | 350.0   | -550.0   | 56 |    | 3    |
| -75.0   | -600.0   | 15 |    | -7   | 900.0   | -600.0   | 95  |    | -42  | 362.5   | -550.0   | 56 |    | 2    |
| -62.5   | -600.0   | 13 |    | -6   | 912.5   | -600.0   | 120 |    | -42  | 375.0   | -550.0   | 56 |    | 2    |
| -50.0   | -600.0   | 10 |    | -7   | 925.0   | -600.0   | 79  |    | -36  | -525.0  | -500.0   | 33 |    | 0    |
| -37.5   | -600.0   | 12 |    | -6   | 937.5   | -600.0   | 64  |    | -30  | -512.5  | -500.0   | 29 |    | 0    |
| -25.0   | -600.0   | 13 |    | -4   | 950.0   | -600.0   | 94  |    | -40  | -500.0  | -500.0   | 26 |    | -2   |
| -12.5   | -600.0   | 36 |    | 0    | 962.5   | -600.0   | 71  |    | -31  | -487.5  | -500.0   | 25 |    | -6   |
| 0.0     | -600.0   | 18 |    | 0    | 975.0   | -600.0   | 65  |    | -28  | -475.0  | -500.0   | 27 |    | -6   |
| 12.5    | -600.0   | 21 |    | 0    | 987.5   | -600.0   | 103 |    | -34  | -462.5  | -500.0   | 18 |    | -6   |
| 25.0    | -600.0   | 23 |    | 1    | 1000.0  | -600.0   | 105 |    | -31  | -450.0  | -500.0   | 28 |    | -11  |
| 37.5    | -600.0   | 31 |    | -1   | 1012.5  | -600.0   | 75  |    | -21  | -437.5  | -500.0   | 24 |    | -17  |
| 50.0    | -600.0   | 26 |    | 1    | 1025.0  | -600.0   | 89  |    | -27  | -425.0  | -500.0   | 20 |    | -22  |
| 62.5    | -600.0   | 26 |    | 2    | 1037.5  | -600.0   | 103 |    | -20  | -412.5  | -500.0   | 20 |    | -26  |
| 75.0    | -600.0   | 33 |    | 1    | 1050.0  | -600.0   | 74  |    | -11  | -400.0  | -500.0   | 19 |    | -27  |
| 87.5    | -600.0   | 31 |    | 1    | 1062.5  | -600.0   | 59  |    | -16  | -387.5  | -500.0   | 18 |    | -27  |
| 100.0   | -600.0   | 37 |    | 0    | 1075.0  | -600.0   | 46  |    | -18  | -375.0  | -500.0   | 16 |    | -29  |
| 112.5   | -600.0   | 33 |    | 0    | 1087.5  | -600.0   | 45  |    | -9   | -362.5  | -500.0   | 18 |    | -28  |
| 125.0   | -600.0   | 32 |    | 1    | 1100.0  | -600.0   | 51  |    | -6   | -350.0  | -500.0   | 15 |    | -29  |
| 137.5   | -600.0   | 40 |    | 0    | 1112.5  | -600.0   | 34  |    | -3   | -337.5  | -500.0   | 18 |    | -30  |
| 150.0   | -600.0   | 41 |    | 1    | 1125.0  | -600.0   | 61  |    | 5    | -325.0  | -500.0   | 13 |    | -29  |
| 162.5   | -600.0   | 45 |    | 0    | 1137.5  | -600.0   | 45  |    | 5    | -312.5  | -500.0   | 15 |    | -29  |
| 175.0   | -600.0   | 42 |    | 1    | 1150.0  | -600.0   | 53  |    | 6    | -300.0  | -500.0   | 11 |    | -30  |
| 187.5   | -600.0   | 46 |    | 0    | -325.0  | -550.0   | 13  |    | -21  | -287.5  | -500.0   | 16 |    | -27  |
| 200.0   | -600.0   | 53 |    | 0    | -312.5  | -550.0   | 11  |    | -23  | -275.0  | -500.0   | 17 |    | -26  |
| 212.5   | -600.0   | 48 |    | 0    | -300.0  | -550.0   | 10  |    | -23  | -262.5  | -500.0   | 19 |    | -22  |
| 225.0   | -600.0   | 49 |    | 1    | -287.5  | -550.0   | 10  |    | -22  | -250.0  | -500.0   | 15 |    | -26  |
| 237.5   | -600.0   | 45 |    | 1    | -275.0  | -550.0   | 10  |    | -24  | -237.5  | -500.0   | 13 |    | -25  |
| 250.0   | -600.0   | 48 |    | 0    | -262.5  | -550.0   | 13  |    | -20  | -225.0  | -500.0   | 19 |    | -24  |
| 262.5   | -600.0   | 52 |    | 0    | -250.0  | -550.0   | 14  |    | -20  | -212.5  | -500.0   | 18 |    | -24  |



| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| -200.0  | -500.0   | 16    | -22  | 750.0   | -500.0   | 55    | 3    | 475.0   | -400.0   | 60    | -8   |
| -187.5  | -500.0   | 22    | -21  | 762.5   | -500.0   | 46    | 2    | 487.5   | -400.0   | 59    | -8   |
| -175.0  | -500.0   | 19    | -21  | 775.0   | -500.0   | 42    | -1   | 500.0   | -400.0   | 62    | -6   |
| -162.5  | -500.0   | 21    | -19  | 787.5   | -500.0   | 41    | -2   | 512.5   | -400.0   | 61    | -5   |
| -150.0  | -500.0   | 17    | -18  | 850.0   | -500.0   | 59    | -39  | 525.0   | -400.0   | 62    | -5   |
| -137.5  | -500.0   | 23    | -17  | 862.5   | -500.0   | 59    | -37  | 537.5   | -400.0   | 59    | -4   |
| -125.0  | -500.0   | 21    | -15  | 875.0   | -500.0   | 58    | -40  | 550.0   | -400.0   | 61    | -2   |
| -112.5  | -500.0   | 21    | -11  | 887.5   | -500.0   | 63    | -38  | 562.5   | -400.0   | 61    | -2   |
| -100.0  | -500.0   | 23    | -12  | 900.0   | -500.0   | 66    | -43  | 575.0   | -400.0   | 65    | -3   |
| -87.5   | -500.0   | 17    | -11  | 912.5   | -500.0   | 76    | -37  | 587.5   | -400.0   | 63    | -3   |
| -75.0   | -500.0   | 15    | -10  | 925.0   | -500.0   | 87    | -46  | 600.0   | -400.0   | 59    | -2   |
| -62.5   | -500.0   | 15    | -10  | 937.5   | -500.0   | 73    | -40  | 612.5   | -400.0   | 61    | 0    |
| -50.0   | -500.0   | 15    | -9   | 950.0   | -500.0   | 89    | -45  | 625.0   | -400.0   | 58    | 0    |
| -37.5   | -500.0   | 14    | -8   | 962.5   | -500.0   | 74    | -38  | 637.5   | -400.0   | 59    | 0    |
| -25.0   | -500.0   | 14    | -8   | 975.0   | -500.0   | 109   | -41  | 650.0   | -400.0   | 67    | 0    |
| -12.5   | -500.0   | 23    | -8   | 987.5   | -500.0   | 84    | -32  | 662.5   | -400.0   | 60    | 2    |
| 0.0     | -500.0   | 20    | -4   | 1000.0  | -500.0   | 93    | -32  | 675.0   | -400.0   | 56    | 2    |
| 12.5    | -500.0   | 21    | -61  | 1012.5  | -500.0   | 84    | -33  | 687.5   | -400.0   | 55    | 2    |
| 25.0    | -500.0   | 25    | -1   | 1025.0  | -500.0   | 83    | -25  | 700.0   | -400.0   | 54    | 3    |
| 37.5    | -500.0   | 29    | 0    | 1037.5  | -500.0   | 56    | -21  | 712.5   | -400.0   | 52    | 4    |
| 50.0    | -500.0   | 32    | 0    | 1050.0  | -500.0   | 68    | -21  | 725.0   | -400.0   | 47    | 3    |
| 62.5    | -500.0   | 45    | -1   | 1062.5  | -500.0   | 37    | -23  | 737.5   | -400.0   | 50    | 1    |
| 75.0    | -500.0   | 38    | 0    | 1075.0  | -500.0   | 53    | -19  | 750.0   | -400.0   | 47    | 0    |
| 87.5    | -500.0   | 40    | -2   | 1087.5  | -500.0   | 60    | -20  | 762.5   | -400.0   | 46    | -1   |
| 100.0   | -500.0   | 42    | -1   | 1100.0  | -500.0   | 54    | -19  | 775.0   | -400.0   | 37    | -3   |
| 112.5   | -500.0   | 40    | 1    | 1112.5  | -500.0   | 46    | -11  | 787.5   | -400.0   | 40    | -5   |
| 125.0   | -500.0   | 45    | -3   | 1125.0  | -500.0   | 35    | -14  | 797.0   | -400.0   | 37    | -6   |
| 137.5   | -500.0   | 44    | -3   | 1137.5  | -500.0   | 41    | -16  | 850.0   | -400.0   | 45    | -27  |
| 150.0   | -500.0   | 48    | -3   | 1150.0  | -500.0   | 32    | -15  | 862.5   | -400.0   | 38    | -25  |
| 162.5   | -500.0   | 48    | -5   | 1162.5  | -500.0   | 31    | -21  | 875.0   | -400.0   | 35    | -20  |
| 175.0   | -500.0   | 40    | -3   | 1175.0  | -500.0   | 19    | -14  | 887.5   | -400.0   | 30    | -15  |
| 187.5   | -500.0   | 50    | -5   | 1187.5  | -500.0   | 20    | -19  | 900.0   | -400.0   | 34    | -22  |
| 200.0   | -500.0   | 41    | -4   | 1200.0  | -500.0   | 19    | -19  | 912.5   | -400.0   | 21    | -16  |
| 212.5   | -500.0   | 40    | -5   | 1212.5  | -500.0   | 20    | -13  | 925.0   | -400.0   | 19    | -15  |
| 225.0   | -500.0   | 50    | -5   | 1225.0  | -500.0   | 25    | -22  | 937.5   | -400.0   | 19    | -19  |
| 237.5   | -500.0   | 47    | -4   | 1237.5  | -500.0   | 20    | -20  | 950.0   | -400.0   | 19    | -17  |
| 250.0   | -500.0   | 47    | -5   | 1250.0  | -500.0   | 18    | -18  | 962.5   | -400.0   | 9     | -9   |
| 262.5   | -500.0   | 47    | -3   | 1262.5  | -500.0   | 19    | -20  | 975.0   | -400.0   | 13    | -12  |
| 275.0   | -500.0   | 51    | -4   | 1275.0  | -500.0   | 21    | -14  | 987.5   | -400.0   | 32    | -21  |
| 287.5   | -500.0   | 58    | -7   | 1287.5  | -500.0   | 19    | -21  | 1000.0  | -400.0   | 13    | -11  |
| 300.0   | -500.0   | 52    | -5   | 1300.0  | -500.0   | 30    | -24  | 1012.5  | -400.0   | 10    | -5   |
| 312.5   | -500.0   | 56    | -5   | 1312.5  | -500.0   | 19    | -20  | 1025.0  | -400.0   | 19    | -11  |
| 325.0   | -500.0   | 57    | -5   | 1325.0  | -500.0   | 21    | -23  | 1037.5  | -400.0   | 15    | -10  |
| 337.5   | -500.0   | 54    | -6   | 1337.5  | -500.0   | 15    | -21  | 1050.0  | -400.0   | 9     | -8   |
| 350.0   | -500.0   | 59    | -8   | 1350.0  | -500.0   | 19    | -22  | 1062.5  | -400.0   | 12    | -11  |
| 362.5   | -500.0   | 54    | -6   | 1362.5  | -500.0   | 21    | -22  | 1075.0  | -400.0   | 0     | -15  |
| 375.0   | -500.0   | 53    | -4   | 1375.0  | -500.0   | 20    | -24  | 1087.5  | -400.0   | -5    | -8   |
| 387.5   | -500.0   | 55    | -6   | 1387.5  | -500.0   | 21    | -24  | 1100.0  | -400.0   | -3    | -8   |
| 400.0   | -500.0   | 56    | -11  | 1400.0  | -500.0   | 31    | -27  | 1112.5  | -400.0   | -5    | -7   |
| 412.5   | -500.0   | 56    | -10  | 1412.5  | -500.0   | 27    | -26  | 1125.0  | -400.0   | -5    | -3   |
| 425.0   | -500.0   | 51    | -8   | 1425.0  | -500.0   | 18    | -17  | 1137.5  | -400.0   | -4    | -1   |
| 437.5   | -500.0   | 53    | -6   | 1437.5  | -500.0   | 31    | -21  | 1150.0  | -400.0   | 7     | -15  |
| 450.0   | -500.0   | 56    | -5   | 1450.0  | -500.0   | 31    | -23  | 1162.5  | -400.0   | 0     | -8   |
| 462.5   | -500.0   | 59    | -8   | 187.5   | -400.0   | 59    | -6   | 1175.0  | -400.0   | -3    | -12  |
| 475.0   | -500.0   | 58    | -5   | 200.0   | -400.0   | 51    | -3   | 1187.5  | -400.0   | 7     | -18  |
| 487.5   | -500.0   | 66    | -7   | 212.5   | -400.0   | 53    | -6   | 1200.0  | -400.0   | 2     | -14  |
| 500.0   | -500.0   | 61    | -2   | 225.0   | -400.0   | 43    | 5    | 1212.5  | -400.0   | 13    | -21  |
| 512.5   | -500.0   | 64    | -4   | 237.5   | -400.0   | 73    | -17  | 1225.0  | -400.0   | 1     | -12  |
| 525.0   | -500.0   | 62    | -4   | 250.0   | -400.0   | 60    | -14  | 1237.5  | -400.0   | 2     | -13  |
| 537.5   | -500.0   | 62    | 0    | 262.5   | -400.0   | 52    | -4   | 1250.0  | -400.0   | -1    | -13  |
| 550.0   | -500.0   | 57    | -1   | 275.0   | -400.0   | 63    | -14  | 1262.5  | -400.0   | 0     | -9   |
| 562.5   | -500.0   | 59    | -1   | 287.5   | -400.0   | 59    | -13  | 1275.0  | -400.0   | 4     | -14  |
| 575.0   | -500.0   | 64    | 0    | 300.0   | -400.0   | 60    | -12  | 1287.5  | -400.0   | 5     | -12  |
| 587.5   | -500.0   | 65    | 0    | 312.5   | -400.0   | 59    | -16  | 1300.0  | -400.0   | 5     | -11  |
| 600.0   | -500.0   | 59    | 2    | 325.0   | -400.0   | 61    | -14  | 1312.5  | -400.0   | 13    | -19  |
| 612.5   | -500.0   | 58    | 2    | 337.5   | -400.0   | 61    | -13  | 1325.0  | -400.0   | 4     | -10  |
| 625.0   | -500.0   | 64    | 5    | 350.0   | -400.0   | 60    | -13  | 1337.5  | -400.0   | 10    | -15  |
| 637.5   | -500.0   | 55    | 6    | 362.5   | -400.0   | 64    | -11  | 1350.0  | -400.0   | 12    | -14  |
| 650.0   | -500.0   | 56    | 2    | 375.0   | -400.0   | 65    | -12  | 1362.5  | -400.0   | 8     | -10  |
| 662.5   | -500.0   | 51    | 1    | 387.5   | -400.0   | 62    | -11  | 1375.0  | -400.0   | 9     | -13  |
| 675.0   | -500.0   | 54    | 4    | 400.0   | -400.0   | 61    | -13  | 1387.5  | -400.0   | 9     | -14  |
| 687.5   | -500.0   | 54    | 3    | 412.5   | -400.0   | 56    | -13  | 1400.0  | -400.0   | 14    | -12  |
| 700.0   | -500.0   | 54    | 6    | 425.0   | -400.0   | 68    | -16  | 1412.5  | -400.0   | 3     | 20   |
| 712.5   | -500.0   | 57    | 6    | 437.5   | -400.0   | 75    | -17  | 1425.0  | -400.0   | 21    | -12  |
| 725.0   | -500.0   | 55    | 9    | 450.0   | -400.0   | 60    | -11  | 1437.5  | -400.0   | 19    | -9   |
| 737.5   | -500.0   | 55    | 8    | 462.5   | -400.0   | 60    | -10  | 1450.0  | -400.0   | 18    | -3   |

| X(East) | Y(North) | In  | Ph | Quad | X(East) | Y(North) | In | Ph | Quad | X(East) | Y(North) | In  | Ph | Quad |
|---------|----------|-----|----|------|---------|----------|----|----|------|---------|----------|-----|----|------|
| 1462.5  | -400.0   | 2   |    | 8    | 1162.5  | -300.0   | -2 |    | -1   | 787.5   | -125.0   | 38  |    | -6   |
| 1475.0  | -400.0   | 19  |    | -3   | 1175.0  | -300.0   | 4  |    | -8   | 800.0   | -125.0   | 35  |    | -5   |
| 1487.5  | -400.0   | 15  |    | 1    | 1187.5  | -300.0   | -2 |    | -1   | 812.5   | -125.0   | 37  |    | -4   |
| 1500.0  | -400.0   | 11  |    | 4    | 1200.0  | -300.0   | 1  |    | 0    | 825.0   | -125.0   | 32  |    | -4   |
| 262.5   | -300.0   | 54  |    | -13  | 1212.5  | -300.0   | 5  |    | -2   | 837.5   | -125.0   | 31  |    | -7   |
| 275.0   | -300.0   | 57  |    | -12  | 1225.0  | -300.0   | 1  |    | 2    | 850.0   | -125.0   | 25  |    | -9   |
| 287.5   | -300.0   | 57  |    | -13  | 1237.5  | -300.0   | 28 |    | -20  | 862.5   | -125.0   | 13  |    | -14  |
| 300.0   | -300.0   | 59  |    | -16  | 1250.0  | -300.0   | 40 |    | -25  | 875.0   | -125.0   | 12  |    | -15  |
| 312.5   | -300.0   | 56  |    | -12  | 1262.5  | -300.0   | 39 |    | -11  | 887.5   | -125.0   | 13  |    | -12  |
| 325.0   | -300.0   | 59  |    | -13  | 1275.0  | -300.0   | 25 |    | -18  | 900.0   | -125.0   | 14  |    | -11  |
| 337.5   | -300.0   | 59  |    | -11  | 1287.5  | -300.0   | 19 |    | -27  | 912.5   | -125.0   | 14  |    | -11  |
| 350.0   | -300.0   | 60  |    | -9   | 1300.0  | -300.0   | 50 |    | -28  | 925.0   | -125.0   | 15  |    | -9   |
| 362.5   | -300.0   | 57  |    | -9   | 1312.5  | -300.0   | 19 |    | -20  | 937.5   | -125.0   | 14  |    | -9   |
| 375.0   | -300.0   | 61  |    | -11  | 1325.0  | -300.0   | 38 |    | -31  | 950.0   | -125.0   | 16  |    | -6   |
| 387.5   | -300.0   | 63  |    | -11  | 1337.5  | -300.0   | 38 |    | -32  | 962.5   | -125.0   | 13  |    | -4   |
| 400.0   | -300.0   | 66  |    | -14  | 1350.0  | -300.0   | 46 |    | -40  | 975.0   | -125.0   | 9   |    | -2   |
| 412.5   | -300.0   | 65  |    | -14  | 1362.5  | -300.0   | 44 |    | -40  | 987.5   | -125.0   | 4   |    | 0    |
| 425.0   | -300.0   | 71  |    | -15  | 1375.0  | -300.0   | 18 |    | -34  | 1000.0  | -125.0   | -6  |    | -1   |
| 437.5   | -300.0   | 56  |    | -8   | 1387.5  | -300.0   | 46 |    | -38  | 1000.0  | -125.0   | -6  |    | -12  |
| 450.0   | -300.0   | 60  |    | -11  | 1400.0  | -300.0   | 19 |    | -33  | 1012.5  | -125.0   | -19 |    | -14  |
| 462.5   | -300.0   | 61  |    | -10  | 1412.5  | -300.0   | 28 |    | -33  | 1025.0  | -125.0   | -39 |    | -5   |
| 475.0   | -300.0   | 61  |    | -8   | 1425.0  | -300.0   | 24 |    | -34  | 1037.5  | -125.0   | -26 |    | -5   |
| 487.5   | -300.0   | 60  |    | -9   | 1437.5  | -300.0   | 28 |    | -7   | 1050.0  | -125.0   | -27 |    | 8    |
| 500.0   | -300.0   | 60  |    | -7   | 1450.0  | -300.0   | 13 |    | -15  | 1062.5  | -125.0   | -19 |    | 16   |
| 512.5   | -300.0   | 58  |    | -6   | 1462.5  | -300.0   | 7  |    | -12  | 1075.0  | -125.0   | -6  |    | 35   |
| 525.0   | -300.0   | 59  |    | -5   | 1475.0  | -300.0   | 9  |    | -12  | 1087.5  | -125.0   | 0   |    | 60   |
| 537.5   | -300.0   | 55  |    | -5   | 1487.5  | -300.0   | 15 |    | -7   | 1100.0  | -125.0   | 21  |    | 29   |
| 550.0   | -300.0   | 57  |    | -8   | 1500.0  | -300.0   | 14 |    | -9   | 1112.5  | -125.0   | 26  |    | 41   |
| 562.5   | -300.0   | 51  |    | -6   | 1512.5  | -300.0   | 15 |    | -2   | 1125.0  | -125.0   | 43  |    | 13   |
| 575.0   | -300.0   | 48  |    | -5   | 1525.0  | -300.0   | 17 |    | -2   | 1137.5  | -125.0   | 45  |    | 0    |
| 587.5   | -300.0   | 53  |    | -6   | 500.0   | -200.0   | 50 |    | -7   | 1150.0  | -125.0   | 59  |    | 37   |
| 600.0   | -300.0   | 53  |    | -4   | 512.5   | -200.0   | 57 |    | -9   | 1162.5  | -125.0   | 33  |    | 0    |
| 612.5   | -300.0   | 50  |    | -2   | 525.0   | -200.0   | 51 |    | -8   | 1175.0  | -125.0   | 38  |    | 1    |
| 625.0   | -300.0   | 49  |    | -1   | 537.5   | -200.0   | 51 |    | -8   | 1187.5  | -125.0   | 31  |    | 9    |
| 637.5   | -300.0   | 51  |    | 1    | 550.0   | -200.0   | 52 |    | -7   | 1200.0  | -125.0   | 30  |    | 11   |
| 650.0   | -300.0   | 48  |    | 0    | 562.5   | -200.0   | 49 |    | -7   | 1212.5  | -125.0   | 29  |    | 13   |
| 662.5   | -300.0   | 47  |    | 0    | 575.0   | -200.0   | 49 |    | -6   | 1225.0  | -125.0   | 33  |    | 11   |
| 675.0   | -300.0   | 51  |    | -1   | 587.5   | -200.0   | 49 |    | -4   | 1237.5  | -125.0   | 30  |    | 19   |
| 687.5   | -300.0   | 46  |    | -2   | 600.0   | -200.0   | 50 |    | -3   | 1250.0  | -125.0   | 29  |    | 3    |
| 700.0   | -300.0   | 46  |    | -2   | 612.5   | -200.0   | 53 |    | -3   | 1262.5  | -125.0   | 30  |    | 2    |
| 712.5   | -300.0   | 47  |    | -2   | 625.0   | -200.0   | 49 |    | -2   | 1275.0  | -125.0   | 15  |    | 21   |
| 725.0   | -300.0   | 46  |    | -1   | 637.5   | -200.0   | 47 |    | -2   | 1287.5  | -125.0   | 11  |    | 17   |
| 737.5   | -300.0   | 44  |    | -1   | 650.0   | -200.0   | 48 |    | -4   | 1300.0  | -125.0   | 12  |    | 21   |
| 750.0   | -300.0   | 49  |    | -3   | 662.5   | -200.0   | 41 |    | -5   | 1312.5  | -125.0   | 9   |    | 16   |
| 762.5   | -300.0   | 45  |    | -4   | 675.0   | -200.0   | 38 |    | -7   | 1325.0  | -125.0   | 2   |    | 20   |
| 775.0   | -300.0   | 45  |    | -5   | 687.5   | -200.0   | 38 |    | -7   | 1337.5  | -125.0   | -1  |    | 23   |
| 787.5   | -300.0   | 37  |    | -6   | 700.0   | -200.0   | 41 |    | -7   | 1350.0  | -125.0   | -1  |    | 25   |
| 800.0   | -300.0   | 34  |    | -8   | 712.5   | -200.0   | 45 |    | -7   | 1362.5  | -125.0   | -4  |    | 20   |
| 812.5   | -300.0   | 27  |    | -10  | 725.0   | -200.0   | 38 |    | -7   | 1375.0  | -125.0   | -9  |    | 25   |
| 825.0   | -300.0   | 27  |    | -12  | 737.5   | -200.0   | 42 |    | -7   | 1387.5  | -125.0   | -1  |    | 18   |
| 837.5   | -300.0   | 39  |    | -32  | 750.0   | -200.0   | 49 |    | -6   | 1400.0  | -125.0   | -2  |    | 16   |
| 850.0   | -300.0   | 34  |    | -31  | 762.5   | -200.0   | 42 |    | -6   | 1412.5  | -125.0   | 1   |    | 8    |
| 862.5   | -300.0   | 32  |    | -32  | 775.0   | -200.0   | 42 |    | -6   | 1425.0  | -125.0   | 3   |    | 1    |
| 875.0   | -300.0   | 33  |    | -33  | 787.5   | -200.0   | 35 |    | -7   | 1437.5  | -125.0   | 0   |    | 10   |
| 887.5   | -300.0   | 33  |    | -34  | 850.0   | -200.0   | 18 |    | -11  | 1450.0  | -125.0   | 7   |    | 0    |
| 900.0   | -300.0   | 14  |    | -24  | 862.5   | -200.0   | 11 |    | -12  | 1462.5  | -125.0   | 11  |    | 1    |
| 912.5   | -300.0   | 19  |    | -32  | 875.0   | -200.0   | 12 |    | -11  | 1475.0  | -125.0   | 9   |    | 15   |
| 925.0   | -300.0   | 22  |    | -35  | 887.5   | -200.0   | 5  |    | -16  | 1487.5  | -125.0   | 27  |    | 13   |
| 937.5   | -300.0   | 20  |    | -30  | 900.0   | -200.0   | 7  |    | -15  | 1500.0  | -125.0   | 43  |    | 19   |
| 950.0   | -300.0   | 20  |    | -27  | 912.5   | -200.0   | 10 |    | -13  | 1512.5  | -125.0   | 47  |    | 10   |
| 962.5   | -300.0   | 17  |    | -24  | 925.0   | -200.0   | 10 |    | -13  | 925.0   | 0.0      | 21  |    | 0    |
| 975.0   | -300.0   | 18  |    | -24  | 937.5   | -200.0   | 12 |    | -10  | 937.5   | 0.0      | 13  |    | 0    |
| 987.5   | -300.0   | 35  |    | -33  | 950.0   | -200.0   | 10 |    | -10  | 950.0   | 0.0      | 12  |    | 1    |
| 1000.0  | -300.0   | 14  |    | -16  | 962.5   | -200.0   | 12 |    | -7   | 962.5   | 0.0      | 6   |    | 1    |
| 1012.5  | -300.0   | 19  |    | -17  | 975.0   | -200.0   | 11 |    | -3   | 975.0   | 0.0      | 0   |    | 0    |
| 1025.0  | -300.0   | 6   |    | -15  | 987.5   | -200.0   | 6  |    | -4   | 987.5   | 0.0      | 0   |    | 1    |
| 1037.5  | -300.0   | 2   |    | -18  | 1000.0  | -200.0   | 9  |    | 0    | 1000.0  | 0.0      | -11 |    | 1    |
| 1050.0  | -300.0   | -9  |    | -19  | 675.0   | -125.0   | 37 |    | -5   | 1012.5  | 0.0      | -9  |    | 4    |
| 1062.5  | -300.0   | -21 |    | -16  | 687.5   | -125.0   | 36 |    | -6   | 1025.0  | 0.0      | -4  |    | 7    |
| 1075.0  | -300.0   | -17 |    | -23  | 700.0   | -125.0   | 38 |    | -6   | 700.0   | 100.0    | 14  |    | -14  |
| 1087.5  | -300.0   | -19 |    | -15  | 712.5   | -125.0   | 34 |    | -7   | 712.5   | 100.0    | 15  |    | -13  |
| 1100.0  | -300.0   | -17 |    | -12  | 725.0   | -125.0   | 35 |    | -8   | 725.0   | 100.0    | 14  |    | -15  |
| 1112.5  | -300.0   | -20 |    | -2   | 737.5   | -125.0   | 35 |    | -8   | 737.5   | 100.0    | 13  |    | -14  |
| 1125.0  | -300.0   | -12 |    | -2   | 750.0   | -125.0   | 36 |    | -7   | 750.0   | 100.0    | 14  |    | -13  |
| 1137.5  | -300.0   | -11 |    | -1   | 762.5   | -125.0   | 36 |    | -6   | 762.5   | 100.0    | 16  |    | -13  |
| 1150.0  | -300.0   | -9  |    | 0    | 775.0   | -125.0   | 37 |    | -6   | 775.0   | 100.0    | 12  |    | -12  |

| X(East) | Y(North) | In  | Ph  | Quad | X(East) | Y(North) | In | Ph  | Quad | X(East) | Y(North) | In | Ph  | Quad |
|---------|----------|-----|-----|------|---------|----------|----|-----|------|---------|----------|----|-----|------|
| 787.5   | 100.0    | 17  | -11 |      | 1375.0  | 200.0    | 25 | 13  |      | 825.0   | 400.0    | 6  | -15 |      |
| 800.0   | 100.0    | 15  | -12 |      | 675.0   | 300.0    | 12 | -22 |      | 837.5   | 400.0    | 8  | -13 |      |
| 812.5   | 100.0    | 18  | -12 |      | 687.5   | 300.0    | 7  | -19 |      | 850.0   | 400.0    | 8  | -11 |      |
| 825.0   | 100.0    | 17  | -11 |      | 700.0   | 300.0    | 7  | -19 |      | 862.5   | 400.0    | 8  | -10 |      |
| 837.5   | 100.0    | 17  | -9  |      | 712.5   | 300.0    | 7  | -18 |      | 875.0   | 400.0    | 10 | -9  |      |
| 850.0   | 100.0    | 18  | -9  |      | 725.0   | 300.0    | 8  | -17 |      | 887.5   | 400.0    | 8  | -7  |      |
| 862.5   | 100.0    | 20  | -7  |      | 737.5   | 300.0    | 11 | -17 |      | 900.0   | 400.0    | 11 | -6  |      |
| 875.0   | 100.0    | 20  | -6  |      | 750.0   | 300.0    | 9  | -15 |      | 912.5   | 400.0    | 11 | -4  |      |
| 887.5   | 100.0    | 21  | -5  |      | 762.5   | 300.0    | 8  | -15 |      | 925.0   | 400.0    | 10 | -2  |      |
| 900.0   | 100.0    | 21  | -5  |      | 775.0   | 300.0    | 9  | -14 |      | 937.5   | 400.0    | 13 | 0   |      |
| 912.5   | 100.0    | 20  | -3  |      | 787.5   | 300.0    | 9  | -14 |      | 950.0   | 400.0    | 11 | 0   |      |
| 925.0   | 100.0    | 21  | -2  |      | 800.0   | 300.0    | 5  | -15 |      | 962.5   | 400.0    | 12 | 3   |      |
| 937.5   | 100.0    | 22  | 0   |      | 812.5   | 300.0    | 5  | -16 |      | 975.0   | 400.0    | 12 | 6   |      |
| 950.0   | 100.0    | 24  | 3   |      | 825.0   | 300.0    | 9  | -15 |      | 987.5   | 400.0    | 15 | 9   |      |
| 962.5   | 100.0    | 21  | 4   |      | 837.5   | 300.0    | 8  | -13 |      | 1000.0  | 400.0    | 12 | 11  |      |
| 975.0   | 100.0    | 4   | 0   |      | 850.0   | 300.0    | 11 | -12 |      | 1012.5  | 400.0    | 9  | 12  |      |
| 987.5   | 100.0    | -10 | -1  |      | 862.5   | 300.0    | 10 | -11 |      | 1025.0  | 400.0    | 9  | 12  |      |
| 1000.0  | 100.0    | -19 | 0   |      | 875.0   | 300.0    | 11 | -11 |      | 1037.5  | 400.0    | 13 | 14  |      |
| 1012.5  | 100.0    | -18 | 6   |      | 887.5   | 300.0    | 13 | -8  |      | 1050.0  | 400.0    | 11 | 14  |      |
| 1025.0  | 100.0    | -10 | 11  |      | 900.0   | 300.0    | 12 | -7  |      | 1062.5  | 400.0    | 16 | 15  |      |
| 1037.5  | 100.0    | -8  | 10  |      | 912.5   | 300.0    | 9  | -6  |      | 1075.0  | 400.0    | 20 | 13  |      |
| 1050.0  | 100.0    | -6  | 12  |      | 925.0   | 300.0    | 7  | -6  |      | 1087.5  | 400.0    | 20 | 13  |      |
| 700.0   | 200.0    | 10  | -17 |      | 937.5   | 300.0    | 6  | -3  |      | 1100.0  | 400.0    | 22 | 13  |      |
| 712.5   | 200.0    | 11  | -17 |      | 950.0   | 300.0    | 5  | -1  |      | 1112.5  | 400.0    | 22 | 13  |      |
| 725.0   | 200.0    | 9   | -17 |      | 962.5   | 300.0    | 5  | 1   |      | 1125.0  | 400.0    | 26 | 12  |      |
| 737.5   | 200.0    | 11  | -17 |      | 975.0   | 300.0    | 5  | 4   |      | 1137.5  | 400.0    | 25 | 11  |      |
| 750.0   | 200.0    | 9   | -15 |      | 987.5   | 300.0    | 1  | 8   |      | 1150.0  | 400.0    | 22 | 11  |      |
| 762.5   | 200.0    | 9   | -15 |      | 1000.0  | 300.0    | 0  | 9   |      | 1162.5  | 400.0    | 23 | 10  |      |
| 775.0   | 200.0    | 14  | -14 |      | 1012.5  | 300.0    | 0  | 11  |      | 1175.0  | 400.0    | 25 | 11  |      |
| 787.5   | 200.0    | 13  | -13 |      | 1025.0  | 300.0    | 0  | 12  |      | 1187.5  | 400.0    | 27 | 9   |      |
| 800.0   | 200.0    | 13  | -13 |      | 1037.5  | 300.0    | 2  | 13  |      | 1200.0  | 400.0    | 27 | 8   |      |
| 812.5   | 200.0    | 13  | -11 |      | 1050.0  | 300.0    | 5  | 16  |      | 1212.5  | 400.0    | 25 | 8   |      |
| 825.0   | 200.0    | 13  | -12 |      | 1062.5  | 300.0    | 6  | 17  |      | 1225.0  | 400.0    | 23 | 7   |      |
| 837.5   | 200.0    | 14  | -10 |      | 1075.0  | 300.0    | 10 | 17  |      | 1237.5  | 400.0    | 25 | 7   |      |
| 850.0   | 200.0    | 14  | -10 |      | 1087.5  | 300.0    | 13 | 17  |      | 1250.0  | 400.0    | 23 | 8   |      |
| 862.5   | 200.0    | 14  | -9  |      | 1100.0  | 300.0    | 14 | 18  |      | 1262.5  | 400.0    | 33 | 8   |      |
| 875.0   | 200.0    | 15  | -8  |      | 1112.5  | 300.0    | 15 | 17  |      | 1275.0  | 400.0    | 27 | 9   |      |
| 887.5   | 200.0    | 16  | -6  |      | 1125.0  | 300.0    | 17 | 18  |      | 1287.5  | 400.0    | 27 | 8   |      |
| 900.0   | 200.0    | 16  | -5  |      | 1137.5  | 300.0    | 17 | 18  |      | 1300.0  | 400.0    | 26 | 7   |      |
| 912.5   | 200.0    | 16  | -4  |      | 1150.0  | 300.0    | 19 | 17  |      | 1312.5  | 400.0    | 26 | 6   |      |
| 925.0   | 200.0    | 15  | -3  |      | 1162.5  | 300.0    | 19 | 16  |      | 1325.0  | 400.0    | 26 | 7   |      |
| 937.5   | 200.0    | 9   | -2  |      | 1175.0  | 300.0    | 20 | 16  |      | 1337.5  | 400.0    | 25 | 6   |      |
| 950.0   | 200.0    | 7   | 0   |      | 1187.5  | 300.0    | 21 | 17  |      | 1350.0  | 400.0    | 24 | 6   |      |
| 962.5   | 200.0    | 2   | 0   |      | 1200.0  | 300.0    | 21 | 16  |      | 1362.5  | 400.0    | 23 | 5   |      |
| 975.0   | 200.0    | 0   | 0   |      | 1212.5  | 300.0    | 23 | 17  |      | 1375.0  | 400.0    | 28 | 5   |      |
| 987.5   | 200.0    | -6  | 2   |      | 1225.0  | 300.0    | 22 | 15  |      | 1387.5  | 400.0    | 31 | 5   |      |
| 1000.0  | 200.0    | -13 | 5   |      | 1237.5  | 300.0    | 25 | 13  |      | 1400.0  | 400.0    | 28 | 3   |      |
| 1012.5  | 200.0    | -9  | 9   |      | 1250.0  | 300.0    | 22 | 13  |      | 1412.5  | 400.0    | 28 | 2   |      |
| 1025.0  | 200.0    | -6  | 12  |      | 1262.5  | 300.0    | 22 | 12  |      | 1425.0  | 400.0    | 31 | 2   |      |
| 1037.5  | 200.0    | -2  | 13  |      | 1275.0  | 300.0    | 22 | 12  |      | 1437.5  | 400.0    | 29 | 1   |      |
| 1050.0  | 200.0    | -1  | 14  |      | 1287.5  | 300.0    | 23 | 12  |      | 1450.0  | 400.0    | 29 | 0   |      |
| 1062.5  | 200.0    | 0   | 15  |      | 1300.0  | 300.0    | 21 | 11  |      | 1462.5  | 400.0    | 30 | 0   |      |
| 1075.0  | 200.0    | 4   | 16  |      | 1312.5  | 300.0    | 23 | 12  |      | 1475.0  | 400.0    | 28 | 1   |      |
| 1087.5  | 200.0    | 5   | 15  |      | 1325.0  | 300.0    | 23 | 13  |      | 1487.5  | 400.0    | 25 | -1  |      |
| 1100.0  | 200.0    | 7   | 16  |      | 1337.5  | 300.0    | 24 | 12  |      | 1500.0  | 400.0    | 26 | 0   |      |
| 1112.5  | 200.0    | 10  | 16  |      | 1350.0  | 300.0    | 25 | 12  |      | 1512.5  | 400.0    | 28 | -2  |      |
| 1125.0  | 200.0    | 11  | 16  |      | 1362.5  | 300.0    | 26 | 12  |      | 1525.0  | 400.0    | 22 | -3  |      |
| 1137.5  | 200.0    | 11  | 15  |      | 1375.0  | 300.0    | 24 | 11  |      | 625.0   | 500.0    | 22 | -18 |      |
| 1150.0  | 200.0    | 11  | 16  |      | 1387.5  | 300.0    | 24 | 11  |      | 637.5   | 500.0    | 21 | -19 |      |
| 1162.5  | 200.0    | 14  | 15  |      | 1400.0  | 300.0    | 23 | 9   |      | 650.0   | 500.0    | 17 | -19 |      |
| 1175.0  | 200.0    | 16  | 16  |      | 1412.5  | 300.0    | 24 | 8   |      | 662.5   | 500.0    | 17 | -18 |      |
| 1187.5  | 200.0    | 17  | 16  |      | 1425.0  | 300.0    | 26 | 9   |      | 675.0   | 500.0    | 19 | -18 |      |
| 1200.0  | 200.0    | 17  | 17  |      | 1437.5  | 300.0    | 25 | 7   |      | 687.5   | 500.0    | 18 | -17 |      |
| 1212.5  | 200.0    | 20  | 17  |      | 1450.0  | 300.0    | 25 | 7   |      | 700.0   | 500.0    | 17 | -15 |      |
| 1225.0  | 200.0    | 19  | 16  |      | 1462.5  | 300.0    | 24 | 7   |      | 712.5   | 500.0    | 15 | -15 |      |
| 1237.5  | 200.0    | 20  | 14  |      | 1475.0  | 300.0    | 25 | 7   |      | 725.0   | 500.0    | 18 | -14 |      |
| 1250.0  | 200.0    | 19  | 14  |      | 1487.5  | 300.0    | 25 | 6   |      | 737.5   | 500.0    | 19 | -15 |      |
| 1262.5  | 200.0    | 19  | 12  |      | 1500.0  | 300.0    | 26 | 7   |      | 750.0   | 500.0    | 19 | -14 |      |
| 1275.0  | 200.0    | 20  | 13  |      | 725.0   | 400.0    | 10 | -15 |      | 762.5   | 500.0    | 19 | -12 |      |
| 1287.5  | 200.0    | 21  | 14  |      | 737.5   | 400.0    | 10 | -14 |      | 775.0   | 500.0    | 15 | -11 |      |
| 1300.0  | 200.0    | 24  | 14  |      | 750.0   | 400.0    | 11 | -14 |      | 787.5   | 500.0    | 13 | -13 |      |
| 1312.5  | 200.0    | 23  | 14  |      | 762.5   | 400.0    | 10 | -15 |      | 800.0   | 500.0    | 14 | -13 |      |
| 1325.0  | 200.0    | 24  | 14  |      | 775.0   | 400.0    | 10 | -14 |      | 812.5   | 500.0    | 12 | -12 |      |
| 1337.5  | 200.0    | 26  | 13  |      | 787.5   | 400.0    | 6  | -16 |      | 825.0   | 500.0    | 16 | -10 |      |
| 1350.0  | 200.0    | 23  | 13  |      | 800.0   | 400.0    | 5  | -15 |      | 837.5   | 500.0    | 16 | -9  |      |
| 1362.5  | 200.0    | 24  | 13  |      | 812.5   | 400.0    | 1  | -16 |      | 850.0   | 500.0    | 14 | -6  |      |

| X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad | X(East) | Y(North) | In Ph | Quad |
|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-------|------|
| 862.5   | 500.0    | 17    | -4   | 687.5   | 600.0    | 21    | -19  | 1387.5  | 600.0    | 30    | 2    |
| 875.0   | 500.0    | 15    | -5   | 700.0   | 600.0    | 17    | -18  | 1400.0  | 600.0    | 27    | 2    |
| 887.5   | 500.0    | 18    | -2   | 712.5   | 600.0    | 20    | -16  | 1412.5  | 600.0    | 28    | 1    |
| 900.0   | 500.0    | 18    | -3   | 725.0   | 600.0    | 16    | -15  | 1425.0  | 600.0    | 29    | 2    |
| 912.5   | 500.0    | 19    | -1   | 737.5   | 600.0    | 18    | -13  | 1437.5  | 600.0    | 34    | 1    |
| 925.0   | 500.0    | 15    | 0    | 750.0   | 600.0    | 17    | -13  | 1450.0  | 600.0    | 33    | 0    |
| 937.5   | 500.0    | 17    | 0    | 762.5   | 600.0    | 15    | -12  | 1462.5  | 600.0    | 29    | 0    |
| 950.0   | 500.0    | 19    | 1    | 775.0   | 600.0    | 19    | -11  | 1475.0  | 600.0    | 31    | 0    |
| 962.5   | 500.0    | 16    | 3    | 787.5   | 600.0    | 23    | -10  | 1487.5  | 600.0    | 31    | -2   |
| 975.0   | 500.0    | 19    | 5    | 800.0   | 600.0    | 22    | -10  | 1500.0  | 600.0    | 25    | -2   |
| 987.5   | 500.0    | 20    | 7    | 812.5   | 600.0    | 14    | -9   | 700.0   | 700.0    | 26    | -15  |
| 1000.0  | 500.0    | 21    | 10   | 825.0   | 600.0    | 12    | -8   | 712.5   | 700.0    | 28    | -17  |
| 1012.5  | 500.0    | 23    | 9    | 837.5   | 600.0    | 17    | -9   | 725.0   | 700.0    | 26    | -16  |
| 1025.0  | 500.0    | 15    | 7    | 850.0   | 600.0    | 18    | -7   | 737.5   | 700.0    | 20    | -13  |
| 1037.5  | 500.0    | 14    | 8    | 862.5   | 600.0    | 18    | -6   | 750.0   | 700.0    | 20    | -11  |
| 1050.0  | 500.0    | 12    | 8    | 875.0   | 600.0    | 19    | -4   | 762.5   | 700.0    | 23    | -10  |
| 1062.5  | 500.0    | 17    | 8    | 887.5   | 600.0    | 28    | -3   | 775.0   | 700.0    | 28    | -11  |
| 1075.0  | 500.0    | 17    | 9    | 900.0   | 600.0    | 26    | -1   | 787.5   | 700.0    | 19    | -10  |
| 1087.5  | 500.0    | 17    | 10   | 912.5   | 600.0    | 22    | -1   | 800.0   | 700.0    | 19    | -11  |
| 1100.0  | 500.0    | 21    | 12   | 925.0   | 600.0    | 24    | -1   | 812.5   | 700.0    | 22    | -9   |
| 1112.5  | 500.0    | 22    | 12   | 937.5   | 600.0    | 26    | 0    | 825.0   | 700.0    | 22    | -7   |
| 1125.0  | 500.0    | 16    | 10   | 950.0   | 600.0    | 26    | 1    | 837.5   | 700.0    | 24    | -7   |
| 1137.5  | 500.0    | 18    | 11   | 962.5   | 600.0    | 30    | 3    | 850.0   | 700.0    | 27    | -5   |
| 1150.0  | 500.0    | 20    | 10   | 975.0   | 600.0    | 30    | 2    | 862.5   | 700.0    | 30    | -3   |
| 1162.5  | 500.0    | 22    | 10   | 987.5   | 600.0    | 29    | 4    | 875.0   | 700.0    | 32    | -1   |
| 1175.0  | 500.0    | 21    | 8    | 1000.0  | 600.0    | 25    | 4    | 887.5   | 700.0    | 31    | -1   |
| 1187.5  | 500.0    | 23    | 8    | 1012.5  | 600.0    | 31    | 4    | 900.0   | 700.0    | 33    | 0    |
| 1200.0  | 500.0    | 26    | 6    | 1025.0  | 600.0    | 26    | 6    | 912.5   | 700.0    | 32    | 1    |
| 1212.5  | 500.0    | 27    | 5    | 1037.5  | 600.0    | 17    | 4    | 925.0   | 700.0    | 36    | 0    |
| 1225.0  | 500.0    | 29    | 5    | 1050.0  | 600.0    | 19    | 3    | 937.5   | 700.0    | 33    | 0    |
| 1237.5  | 500.0    | 32    | 6    | 1062.5  | 600.0    | 22    | 5    | 950.0   | 700.0    | 34    | 0    |
| 1250.0  | 500.0    | 27    | 7    | 1075.0  | 600.0    | 22    | 5    | 962.5   | 700.0    | 35    | 1    |
| 1262.5  | 500.0    | 29    | 8    | 1087.5  | 600.0    | 25    | 6    | 975.0   | 700.0    | 36    | 1    |
| 1275.0  | 500.0    | 25    | 7    | 1100.0  | 600.0    | 24    | 6    | 987.5   | 700.0    | 37    | 2    |
| 1287.5  | 500.0    | 31    | 7    | 1112.5  | 600.0    | 23    | 5    | 1000.0  | 700.0    | 34    | 1    |
| 1300.0  | 500.0    | 32    | 8    | 1125.0  | 600.0    | 26    | 5    | 1012.5  | 700.0    | 32    | 0    |
| 1312.5  | 500.0    | 29    | 7    | 1137.5  | 600.0    | 27    | 5    | 1025.0  | 700.0    | 33    | 2    |
| 1325.0  | 500.0    | 32    | 7    | 1150.0  | 600.0    | 27    | 5    | 1037.5  | 700.0    | 30    | 0    |
| 1337.5  | 500.0    | 27    | 5    | 1162.5  | 600.0    | 25    | 4    | 1050.0  | 700.0    | 20    | 0    |
| 1350.0  | 500.0    | 24    | 4    | 1175.0  | 600.0    | 26    | 5    | 1062.5  | 700.0    | 17    | 1    |
| 1362.5  | 500.0    | 23    | 4    | 1187.5  | 600.0    | 30    | 5    | 1075.0  | 700.0    | 28    | 1    |
| 1375.0  | 500.0    | 24    | 3    | 1200.0  | 600.0    | 29    | 5    | 1087.5  | 700.0    | 30    | 1    |
| 1387.5  | 500.0    | 27    | 3    | 1212.5  | 600.0    | 34    | 6    | 1100.0  | 700.0    | 24    | 0    |
| 1400.0  | 500.0    | 25    | 1    | 1225.0  | 600.0    | 31    | 3    | 1112.5  | 700.0    | 27    | 2    |
| 1412.5  | 500.0    | 27    | 2    | 1237.5  | 600.0    | 33    | 7    | 1125.0  | 700.0    | 28    | 0    |
| 1425.0  | 500.0    | 28    | 2    | 1250.0  | 600.0    | 37    | 8    | 1137.5  | 700.0    | 23    | 1    |
| 1437.5  | 500.0    | 31    | 1    | 1262.5  | 600.0    | 31    | 6    | 1150.0  | 700.0    | 24    | 1    |
| 1450.0  | 500.0    | 28    | 0    | 1275.0  | 600.0    | 28    | 6    | 1162.5  | 700.0    | 25    | 2    |
| 1462.5  | 500.0    | 23    | 0    | 1287.5  | 600.0    | 28    | 6    | 1175.0  | 700.0    | 27    | 1    |
| 1475.0  | 500.0    | 21    | -2   | 1300.0  | 600.0    | 36    | 5    | 1187.5  | 700.0    | 25    | 2    |
| 1487.5  | 500.0    | 23    | -3   | 1312.5  | 600.0    | 33    | 4    | 1200.0  | 700.0    | 27    | 2    |
| 1500.0  | 500.0    | 21    | -4   | 1325.0  | 600.0    | 35    | 5    | 1212.5  | 700.0    | 29    | 3    |
| 637.5   | 600.0    | 30    | -13  | 1337.5  | 600.0    | 38    | 4    | 1225.0  | 700.0    | 30    | 4    |
| 650.0   | 600.0    | 21    | -17  | 1350.0  | 600.0    | 31    | 4    | 1237.5  | 700.0    | 31    | 4    |
| 662.5   | 600.0    | 16    | -20  | 1362.5  | 600.0    | 36    | 5    | 1250.0  | 700.0    | 31    | 5    |
| 675.0   | 600.0    | 18    | -20  | 1375.0  | 600.0    | 35    | 3    |         |          |       |      |

X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

-527.5 -1475.0 -20  
-512.5 -1475.0 -29  
-497.5 -1475.0 -29  
-482.5 -1475.0 -13  
-467.5 -1475.0 -13  
-452.5 -1475.0 -24  
-437.5 -1475.0 -17  
-422.5 -1475.0 -7  
-407.5 -1475.0 -5  
-392.5 -1475.0 -6  
-377.5 -1475.0 -9  
-362.5 -1475.0 -14  
-347.5 -1475.0 -9  
-332.5 -1475.0 -4  
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-302.5 -1475.0 -8  
-287.5 -1475.0 -6  
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-257.5 -1475.0 -2  
-242.5 -1475.0 -3  
-227.5 -1475.0 -1  
-212.5 -1475.0 -1  
-197.5 -1475.0 -1  
-182.5 -1475.0 -2  
-167.5 -1475.0 -6  
-152.5 -1475.0 -6  
-137.5 -1475.0 0  
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-92.5 -1475.0 2  
-77.5 -1475.0 -1  
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-47.5 -1475.0 24  
-32.5 -1475.0 24  
-17.5 -1475.0 21  
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27.5 -1475.0 18  
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-355.5 -1400.0 -12  
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-130.5 -1400.0 8  
-115.5 -1400.0 8  
-100.5 -1400.0 6  
-85.5 -1400.0 8  
-70.5 -1400.0 12  
-55.5 -1400.0 16  
-40.5 -1400.0 20  
-25.5 -1400.0 19  
-10.5 -1400.0 18  
4.5 -1400.0 18  
19.5 -1400.0 9  
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230.0 -1000.0 -6  
245.0 -1000.0 -10

| X(East) | Y(North) | Fraser | X(East) | Y(North) | Fraser | X(East) | Y(North) | Fraser |
|---------|----------|--------|---------|----------|--------|---------|----------|--------|
| 260.0   | -1000.0  | -8     | -402.5  | -800.0   | 5      | 737.5   | -800.0   | 13     |
| 275.0   | -1000.0  | -9     | -387.5  | -800.0   | 7      | 752.5   | -800.0   | 27     |
| -477.5  | -900.0   | 1      | -372.5  | -800.0   | 6      | 767.5   | -800.0   | 37     |
| -462.5  | -900.0   | 5      | -357.5  | -800.0   | -4     | 782.5   | -800.0   | 15     |
| -447.5  | -900.0   | 4      | -342.5  | -800.0   | -1     | 797.5   | -800.0   | -4     |
| -432.5  | -900.0   | 0      | -327.5  | -800.0   | 9      | 812.5   | -800.0   | -16    |
| -417.5  | -900.0   | 1      | -312.5  | -800.0   | 4      | 827.5   | -800.0   | -14    |
| -402.5  | -900.0   | 5      | -297.5  | -800.0   | -1     | 842.5   | -800.0   | -18    |
| -387.5  | -900.0   | 7      | -282.5  | -800.0   | 4      | 857.5   | -800.0   | -13    |
| -372.5  | -900.0   | 3      | -267.5  | -800.0   | 5      | 872.5   | -800.0   | 9      |
| -357.5  | -900.0   | -1     | -252.5  | -800.0   | 1      | 887.5   | -800.0   | 11     |
| -342.5  | -900.0   | 3      | -237.5  | -800.0   | -1     | 902.5   | -800.0   | 14     |
| -327.5  | -900.0   | 5      | -222.5  | -800.0   | 2      | 917.5   | -800.0   | 25     |
| -312.5  | -900.0   | 2      | -207.5  | -800.0   | 3      | 932.5   | -800.0   | 18     |
| -297.5  | -900.0   | 0      | -192.5  | -800.0   | -1     | 947.5   | -800.0   | 16     |
| -282.5  | -900.0   | 7      | -177.5  | -800.0   | -6     | 962.5   | -800.0   | 18     |
| -267.5  | -900.0   | 9      | -162.5  | -800.0   | -8     | 977.5   | -800.0   | 8      |
| -252.5  | -900.0   | 3      | -147.5  | -800.0   | -3     | 992.5   | -800.0   | 29     |
| -237.5  | -900.0   | -3     | -132.5  | -800.0   | 1      | 1007.5  | -800.0   | 44     |
| -222.5  | -900.0   | -4     | -117.5  | -800.0   | 1      | 1022.5  | -800.0   | 13     |
| -207.5  | -900.0   | -1     | -102.5  | -800.0   | 0      | -277.5  | -750.0   | -4     |
| -192.5  | -900.0   | -3     | -87.5   | -800.0   | 5      | -262.5  | -750.0   | -2     |
| -177.5  | -900.0   | -3     | -72.5   | -800.0   | 23     | -247.5  | -750.0   | -1     |
| -162.5  | -900.0   | -5     | -57.5   | -800.0   | 32     | -232.5  | -750.0   | 1      |
| -147.5  | -900.0   | -11    | -42.5   | -800.0   | 19     | -217.5  | -750.0   | 5      |
| -132.5  | -900.0   | -8     | -27.5   | -800.0   | 7      | -202.5  | -750.0   | -2     |
| -117.5  | -900.0   | -2     | -12.5   | -800.0   | -5     | -187.5  | -750.0   | -6     |
| -102.5  | -900.0   | -1     | 2.5     | -800.0   | -16    | -172.5  | -750.0   | -1     |
| -87.5   | -900.0   | 6      | 17.5    | -800.0   | -21    | -157.5  | -750.0   | -1     |
| -72.5   | -900.0   | 12     | 32.5    | -800.0   | -18    | -142.5  | -750.0   | -5     |
| -57.5   | -900.0   | 8      | 47.5    | -800.0   | -14    | -127.5  | -750.0   | -7     |
| -42.5   | -900.0   | 14     | 62.5    | -800.0   | -18    | -112.5  | -750.0   | -5     |
| -27.5   | -900.0   | 23     | 77.5    | -800.0   | -18    | -97.5   | -750.0   | 8      |
| -12.5   | -900.0   | 15     | 92.5    | -800.0   | -12    | -82.5   | -750.0   | 22     |
| 2.5     | -900.0   | 9      | 107.5   | -800.0   | -16    | -67.5   | -750.0   | 22     |
| 17.5    | -900.0   | 16     | 122.5   | -800.0   | -16    | -52.5   | -750.0   | 18     |
| 32.5    | -900.0   | 15     | 137.5   | -800.0   | -7     | -37.5   | -750.0   | 10     |
| 47.5    | -900.0   | 4      | 152.5   | -800.0   | -4     | -22.5   | -750.0   | -8     |
| 62.5    | -900.0   | -1     | 167.5   | -800.0   | -6     | -7.5    | -750.0   | -18    |
| 77.5    | -900.0   | -4     | 182.5   | -800.0   | -10    | 7.5     | -750.0   | -17    |
| 92.5    | -900.0   | -11    | 197.5   | -800.0   | -9     | 22.5    | -750.0   | -13    |
| 107.5   | -900.0   | -17    | 212.5   | -800.0   | -4     | 37.5    | -750.0   | -7     |
| 122.5   | -900.0   | -23    | 227.5   | -800.0   | -7     | 52.5    | -750.0   | -10    |
| 137.5   | -900.0   | -16    | 242.5   | -800.0   | -10    | 67.5    | -750.0   | -15    |
| 152.5   | -900.0   | -8     | 257.5   | -800.0   | -10    | 82.5    | -750.0   | -12    |
| 167.5   | -900.0   | -14    | 272.5   | -800.0   | -4     | 97.5    | -750.0   | -11    |
| 182.5   | -900.0   | -20    | 287.5   | -800.0   | 1      | 112.5   | -750.0   | -10    |
| 197.5   | -900.0   | -13    | 302.5   | -800.0   | -5     | 127.5   | -750.0   | -8     |
| 212.5   | -900.0   | -7     | 317.5   | -800.0   | -13    | 142.5   | -750.0   | -10    |
| 227.5   | -900.0   | -12    | 332.5   | -800.0   | -8     | 157.5   | -750.0   | -12    |
| 242.5   | -900.0   | -15    | 347.5   | -800.0   | -6     | 172.5   | -750.0   | -9     |
| 257.5   | -900.0   | -17    | 362.5   | -800.0   | -8     | -202.5  | -700.0   | -7     |
| 272.5   | -900.0   | -17    | 377.5   | -800.0   | 1      | -187.5  | -700.0   | -9     |
| -102.5  | -850.0   | -3     | 392.5   | -800.0   | 1      | -172.5  | -700.0   | -9     |
| -87.5   | -850.0   | -2     | 407.5   | -800.0   | -7     | -157.5  | -700.0   | 4      |
| -72.5   | -850.0   | 13     | 422.5   | -800.0   | 4      | -142.5  | -700.0   | 14     |
| -57.5   | -850.0   | 25     | 437.5   | -800.0   | 9      | -127.5  | -700.0   | 6      |
| -42.5   | -850.0   | 25     | 452.5   | -800.0   | 5      | -112.5  | -700.0   | 2      |
| -27.5   | -850.0   | 30     | 467.5   | -800.0   | 0      | -97.5   | -700.0   | 4      |
| -12.5   | -850.0   | 29     | 482.5   | -800.0   | -10    | -82.5   | -700.0   | 6      |
| 2.5     | -850.0   | 12     | 497.5   | -800.0   | -9     | -67.5   | -700.0   | 13     |
| 17.5    | -850.0   | -3     | 512.5   | -800.0   | -2     | -52.5   | -700.0   | 6      |
| 32.5    | -850.0   | -13    | 527.5   | -800.0   | -4     | -37.5   | -700.0   | -7     |
| 47.5    | -850.0   | -20    | 542.5   | -800.0   | 0      | -22.5   | -700.0   | -12    |
| 62.5    | -850.0   | -18    | 557.5   | -800.0   | 1      | -7.5    | -700.0   | -9     |
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| 92.5    | -850.0   | -14    | 587.5   | -800.0   | 23     | 22.5    | -700.0   | -7     |
| 107.5   | -850.0   | -17    | 602.5   | -800.0   | 32     | 37.5    | -700.0   | -19    |
| 122.5   | -850.0   | -15    | 617.5   | -800.0   | 0      | 52.5    | -700.0   | -27    |
| 137.5   | -850.0   | -14    | 632.5   | -800.0   | -8     | 67.5    | -700.0   | -10    |
| 152.5   | -850.0   | -15    | 647.5   | -800.0   | -37    | 82.5    | -700.0   | -6     |
| -477.5  | -800.0   | 0      | 662.5   | -800.0   | -83    | 97.5    | -700.0   | -10    |
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| -432.5  | -800.0   | 7      | 707.5   | -800.0   | -42    | 142.5   | -700.0   | -10    |
| -417.5  | -800.0   | 6      | 722.5   | -800.0   | -7     | 772.5   | -700.0   | 61     |

X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

787.5 -700.0 1  
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-137.5 -550.0 -7  
-122.5 -550.0 0  
-107.5 -550.0 6  
-92.5 -550.0 9  
-77.5 -550.0 8  
-62.5 -550.0 2  
-47.5 -550.0 -1  
-32.5 -550.0 1  
-17.5 -550.0 1  
-2.5 -550.0 -7  
12.5 -550.0 -13  
27.5 -550.0 -15  
42.5 -550.0 -12  
57.5 -550.0 -6  
72.5 -550.0 -5  
87.5 -550.0 -11  
102.5 -550.0 -16  
117.5 -550.0 -10  
132.5 -550.0 -1  
147.5 -550.0 -3  
162.5 -550.0 -7  
177.5 -550.0 -6  
192.5 -550.0 -5  
207.5 -550.0 -3  
222.5 -550.0 -2  
237.5 -550.0 -5  
252.5 -550.0 -8  
267.5 -550.0 -6  
282.5 -550.0 -5

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 297.5  | -550.0 | -9  |
| 312.5  | -550.0 | -9  |
| 327.5  | -550.0 | -6  |
| 342.5  | -550.0 | -3  |
| -502.5 | -500.0 | 9   |
| -487.5 | -500.0 | 7   |
| -472.5 | -500.0 | 6   |
| -457.5 | -500.0 | -5  |
| -442.5 | -500.0 | 4   |
| -427.5 | -500.0 | 11  |
| -412.5 | -500.0 | 5   |
| -397.5 | -500.0 | 5   |
| -382.5 | -500.0 | 4   |
| -367.5 | -500.0 | 1   |
| -352.5 | -500.0 | 2   |
| -337.5 | -500.0 | 4   |
| -322.5 | -500.0 | 5   |
| -307.5 | -500.0 | 2   |
| -292.5 | -500.0 | -9  |
| -277.5 | -500.0 | -7  |
| -262.5 | -500.0 | 5   |
| -247.5 | -500.0 | 3   |
| -232.5 | -500.0 | -6  |
| -217.5 | -500.0 | -4  |
| -202.5 | -500.0 | -3  |
| -187.5 | -500.0 | -6  |
| -172.5 | -500.0 | 1   |
| -157.5 | -500.0 | 1   |
| -142.5 | -500.0 | -6  |
| -127.5 | -500.0 | -3  |
| -112.5 | -500.0 | 2   |
| -97.5  | -500.0 | 10  |
| -82.5  | -500.0 | 11  |
| -67.5  | -500.0 | 3   |
| -52.5  | -500.0 | 2   |
| -37.5  | -500.0 | -5  |
| -22.5  | -500.0 | -14 |
| -7.5   | -500.0 | -7  |
| 7.5    | -500.0 | -7  |
| 22.5   | -500.0 | -15 |
| 37.5   | -500.0 | -24 |
| 52.5   | -500.0 | -25 |
| 67.5   | -500.0 | -6  |
| 82.5   | -500.0 | 0   |
| 97.5   | -500.0 | -5  |
| 112.5  | -500.0 | -5  |
| 127.5  | -500.0 | -8  |
| 142.5  | -500.0 | -7  |
| 157.5  | -500.0 | 2   |
| 172.5  | -500.0 | 4   |
| 187.5  | -500.0 | 5   |
| 202.5  | -500.0 | 1   |
| 217.5  | -500.0 | -12 |
| 232.5  | -500.0 | -5  |
| 247.5  | -500.0 | 1   |
| 262.5  | -500.0 | -13 |
| 277.5  | -500.0 | -14 |
| 292.5  | -500.0 | -3  |
| 307.5  | -500.0 | -3  |
| 322.5  | -500.0 | -4  |
| 337.5  | -500.0 | 0   |
| 352.5  | -500.0 | 4   |
| 367.5  | -500.0 | 4   |
| 382.5  | -500.0 | -4  |
| 397.5  | -500.0 | -1  |
| 412.5  | -500.0 | 7   |
| 427.5  | -500.0 | 1   |
| 442.5  | -500.0 | -10 |
| 457.5  | -500.0 | -12 |
| 472.5  | -500.0 | -10 |
| 487.5  | -500.0 | -7  |
| 502.5  | -500.0 | -1  |
| 517.5  | -500.0 | 3   |
| 532.5  | -500.0 | 7   |
| 547.5  | -500.0 | 4   |
| 562.5  | -500.0 | -10 |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 577.5  | -500.0 | -5  |
| 592.5  | -500.0 | 9   |
| 607.5  | -500.0 | 4   |
| 622.5  | -500.0 | 2   |
| 637.5  | -500.0 | 13  |
| 652.5  | -500.0 | 11  |
| 667.5  | -500.0 | -1  |
| 682.5  | -500.0 | -3  |
| 697.5  | -500.0 | -4  |
| 712.5  | -500.0 | -2  |
| 727.5  | -500.0 | 2   |
| 742.5  | -500.0 | 11  |
| 757.5  | -500.0 | 24  |
| 872.5  | -500.0 | -7  |
| 887.5  | -500.0 | -19 |
| 902.5  | -500.0 | -36 |
| 917.5  | -500.0 | -25 |
| 932.5  | -500.0 | 3   |
| 947.5  | -500.0 | -16 |
| 962.5  | -500.0 | -29 |
| 977.5  | -500.0 | -3  |
| 992.5  | -500.0 | 9   |
| 1007.5 | -500.0 | 27  |
| 1022.5 | -500.0 | 41  |
| 1037.5 | -500.0 | 49  |
| 1052.5 | -500.0 | 41  |
| 1067.5 | -500.0 | -6  |
| 1082.5 | -500.0 | -16 |
| 1097.5 | -500.0 | 23  |
| 1112.5 | -500.0 | 32  |
| 1127.5 | -500.0 | 17  |
| 1142.5 | -500.0 | 17  |
| 1157.5 | -500.0 | 25  |
| 1172.5 | -500.0 | 23  |
| 1187.5 | -500.0 | 8   |
| 1202.5 | -500.0 | -6  |
| 1217.5 | -500.0 | -5  |
| 1232.5 | -500.0 | 7   |
| 1247.5 | -500.0 | 5   |
| 1262.5 | -500.0 | -2  |
| 1277.5 | -500.0 | -9  |
| 1292.5 | -500.0 | -9  |
| 1307.5 | -500.0 | 11  |
| 1322.5 | -500.0 | 13  |
| 1337.5 | -500.0 | 0   |
| 1352.5 | -500.0 | -5  |
| 1367.5 | -500.0 | -5  |
| 1382.5 | -500.0 | -13 |
| 1397.5 | -500.0 | -8  |
| 1412.5 | -500.0 | 6   |
| 1427.5 | -500.0 | -8  |
| 210.0  | -400.0 | 2   |
| 225.0  | -400.0 | -28 |
| 240.0  | -400.0 | -8  |
| 255.0  | -400.0 | 11  |
| 270.0  | -400.0 | -6  |
| 285.0  | -400.0 | -3  |
| 300.0  | -400.0 | 2   |
| 315.0  | -400.0 | -3  |
| 330.0  | -400.0 | -2  |
| 345.0  | -400.0 | -4  |
| 360.0  | -400.0 | -7  |
| 375.0  | -400.0 | 1   |
| 390.0  | -400.0 | 10  |
| 405.0  | -400.0 | -2  |
| 420.0  | -400.0 | -23 |
| 435.0  | -400.0 | -1  |
| 450.0  | -400.0 | 22  |
| 465.0  | -400.0 | 9   |
| 480.0  | -400.0 | -2  |
| 495.0  | -400.0 | -4  |
| 510.0  | -400.0 | 0   |
| 525.0  | -400.0 | 3   |
| 540.0  | -400.0 | 0   |
| 555.0  | -400.0 | -6  |
| 570.0  | -400.0 | -5  |

## X(East) Y(North) Fraser

|        |        |     |
|--------|--------|-----|
| 585.0  | -400.0 | 5   |
| 600.0  | -400.0 | 7   |
| 615.0  | -400.0 | 3   |
| 630.0  | -400.0 | -7  |
| 645.0  | -400.0 | -6  |
| 660.0  | -400.0 | 13  |
| 675.0  | -400.0 | 15  |
| 690.0  | -400.0 | 7   |
| 705.0  | -400.0 | 10  |
| 720.0  | -400.0 | 10  |
| 735.0  | -400.0 | 3   |
| 750.0  | -400.0 | 11  |
| 765.0  | -400.0 | 18  |
| 872.5  | -400.0 | 17  |
| 887.5  | -400.0 | 13  |
| 902.5  | -400.0 | 23  |
| 917.5  | -400.0 | 19  |
| 932.5  | -400.0 | 8   |
| 947.5  | -400.0 | 15  |
| 962.5  | -400.0 | -4  |
| 977.5  | -400.0 | -20 |
| 992.5  | -400.0 | 14  |
| 1007.5 | -400.0 | 13  |
| 1022.5 | -400.0 | -4  |
| 1037.5 | -400.0 | 8   |
| 1052.5 | -400.0 | 17  |
| 1067.5 | -400.0 | 27  |
| 1082.5 | -400.0 | 20  |
| 1097.5 | -400.0 | 4   |
| 1112.5 | -400.0 | 2   |
| 1127.5 | -400.0 | -10 |
| 1142.5 | -400.0 | -15 |
| 1157.5 | -400.0 | 2   |
| 1172.5 | -400.0 | 0   |
| 1187.5 | -400.0 | -16 |
| 1202.5 | -400.0 | -8  |
| 1217.5 | -400.0 | 12  |
| 1232.5 | -400.0 | 12  |
| 1247.5 | -400.0 | 2   |
| 1262.5 | -400.0 | -7  |
| 1277.5 | -400.0 | -9  |
| 1292.5 | -400.0 | -9  |
| 1307.5 | -400.0 | -7  |
| 1322.5 | -400.0 | 0   |
| 1337.5 | -400.0 | -4  |
| 1352.5 | -400.0 | 0   |
| 1367.5 | -400.0 | 2   |
| 1382.5 | -400.0 | -2  |
| 1397.5 | -400.0 | -3  |
| 1412.5 | -400.0 | -14 |
| 1427.5 | -400.0 | -16 |
| 1442.5 | -400.0 | 12  |
| 1457.5 | -400.0 | 14  |
| 1472.5 | -400.0 | -10 |
| 285.0  | -300.0 | -4  |
| 300.0  | -300.0 | 0   |
| 315.0  | -300.0 | -2  |
| 330.0  | -300.0 | -3  |
| 345.0  | -300.0 | 0   |
| 360.0  | -300.0 | -2  |
| 375.0  | -300.0 | -11 |
| 390.0  | -300.0 | -11 |
| 405.0  | -300.0 | -6  |
| 420.0  | -300.0 | 6   |
| 435.0  | -300.0 | 17  |
| 450.0  | -300.0 | 2   |
| 465.0  | -300.0 | -4  |
| 480.0  | -300.0 | 3   |
| 495.0  | -300.0 | 3   |
| 510.0  | -300.0 | 5   |
| 525.0  | -300.0 | 5   |
| 540.0  | -300.0 | 7   |
| 555.0  | -300.0 | 14  |
| 570.0  | -300.0 | 5   |
| 585.0  | -300.0 | -5  |
| 600.0  | -300.0 | 2   |



X(East) Y(North) Fraser

X(East) Y(North) Fraser

X(East) Y(North) Fraser

615.0 -300.0 5  
 630.0 -300.0 2  
 645.0 -300.0 4  
 660.0 -300.0 1  
 675.0 -300.0 2  
 690.0 -300.0 5  
 705.0 -300.0 2  
 720.0 -300.0 1  
 735.0 -300.0 -1  
 750.0 -300.0 -1  
 765.0 -300.0 10  
 780.0 -300.0 22  
 795.0 -300.0 24  
 860.0 -300.0 5  
 875.0 -300.0 13  
 890.0 -300.0 31  
 905.0 -300.0 11  
 920.0 -300.0 -6  
 935.0 -300.0 2  
 950.0 -300.0 7  
 965.0 -300.0 -12  
 980.0 -300.0 -14  
 995.0 -300.0 22  
 1010.0 -300.0 30  
 1025.0 -300.0 32  
 1040.0 -300.0 45  
 1055.0 -300.0 35  
 1070.0 -300.0 8  
 1085.0 -300.0 0  
 1100.0 -300.0 -2  
 1115.0 -300.0 -13  
 1130.0 -300.0 -14  
 1145.0 -300.0 -18  
 1160.0 -300.0 -21  
 1175.0 -300.0 -7  
 1190.0 -300.0 -3  
 1205.0 -300.0 -9  
 1220.0 -300.0 -35  
 1235.0 -300.0 -67  
 1250.0 -300.0 -29  
 1265.0 -300.0 29  
 1280.0 -300.0 4  
 1295.0 -300.0 -21  
 1310.0 -300.0 4  
 1325.0 -300.0 -15  
 1340.0 -300.0 -26  
 1355.0 -300.0 18  
 1370.0 -300.0 27  
 1385.0 -300.0 5  
 1400.0 -300.0 13  
 1415.0 -300.0 8  
 1430.0 -300.0 8  
 1445.0 -300.0 35  
 1460.0 -300.0 18  
 1475.0 -300.0 -10  
 1490.0 -300.0 -9  
 522.5 -200.0 4  
 537.5 -200.0 5  
 552.5 -200.0 4  
 567.5 -200.0 4  
 582.5 -200.0 -2  
 597.5 -200.0 -5  
 612.5 -200.0 3  
 627.5 -200.0 8  
 642.5 -200.0 10  
 657.5 -200.0 17  
 672.5 -200.0 11  
 687.5 -200.0 -7  
 702.5 -200.0 -6  
 717.5 -200.0 3  
 732.5 -200.0 -7  
 747.5 -200.0 -6  
 762.5 -200.0 11  
 772.5 -200.0 14  
 787.5 -200.0 6  
 802.5 -200.0 -5

917.5 -200.0 -7  
 932.5 -200.0 -2  
 947.5 -200.0 -1  
 962.5 -200.0 3  
 977.5 -200.0 7  
 697.5 -125.0 3  
 712.5 -125.0 4  
 727.5 -125.0 0  
 742.5 -125.0 -3  
 757.5 -125.0 -3  
 772.5 -125.0 -2  
 787.5 -125.0 1  
 802.5 -125.0 5  
 817.5 -125.0 10  
 832.5 -125.0 19  
 847.5 -125.0 31  
 862.5 -125.0 26  
 877.5 -125.0 4  
 892.5 -125.0 -4  
 907.5 -125.0 -2  
 922.5 -125.0 -2  
 937.5 -125.0 0  
 952.5 -125.0 7  
 967.5 -125.0 18  
 1022.5 -125.0 31  
 1037.5 -125.0 -12  
 1052.5 -125.0 -34  
 1067.5 -125.0 -45  
 1082.5 -125.0 -55  
 1097.5 -125.0 -63  
 1112.5 -125.0 -53  
 1127.5 -125.0 -42  
 1142.5 -125.0 -10  
 1157.5 -125.0 34  
 1172.5 -125.0 24  
 1187.5 -125.0 10  
 1202.5 -125.0 5  
 1217.5 -125.0 -4  
 1232.5 -125.0 2  
 1247.5 -125.0 10  
 1262.5 -125.0 28  
 1277.5 -125.0 29  
 1292.5 -125.0 12  
 1307.5 -125.0 15  
 1322.5 -125.0 21  
 1337.5 -125.0 12  
 1352.5 -125.0 11  
 1367.5 -125.0 6  
 1382.5 -125.0 -10  
 1397.5 -125.0 -11  
 1412.5 -125.0 -5  
 1427.5 -125.0 -6  
 1442.5 -125.0 -14  
 1457.5 -125.0 -18  
 1472.5 -125.0 -35  
 1487.5 -125.0 -60  
 947.5 0.0 22  
 962.5 0.0 21  
 977.5 0.0 22  
 992.5 0.0 21  
 722.5 100.0 2  
 737.5 100.0 -1  
 752.5 100.0 -2  
 767.5 100.0 0  
 782.5 100.0 -5  
 797.5 100.0 -5  
 812.5 100.0 -2  
 827.5 100.0 -1  
 842.5 100.0 -4  
 857.5 100.0 -6  
 872.5 100.0 -3  
 887.5 100.0 -1  
 902.5 100.0 0  
 917.5 100.0 -2  
 932.5 100.0 -6  
 947.5 100.0 8

962.5 100.0 43  
 977.5 100.0 62  
 992.5 100.0 39  
 1007.5 100.0 -2  
 1022.5 100.0 -20  
 722.5 200.0 1  
 737.5 200.0 2  
 752.5 200.0 -3  
 767.5 200.0 -8  
 782.5 200.0 -3  
 797.5 200.0 1  
 812.5 200.0 -1  
 827.5 200.0 -2  
 842.5 200.0 -1  
 857.5 200.0 -2  
 872.5 200.0 -3  
 887.5 200.0 -2  
 902.5 200.0 1  
 917.5 200.0 9  
 932.5 200.0 17  
 947.5 200.0 17  
 962.5 200.0 17  
 977.5 200.0 23  
 992.5 200.0 18  
 1007.5 200.0 -5  
 1022.5 200.0 -16  
 1037.5 200.0 -11  
 1052.5 200.0 -9  
 1067.5 200.0 -11  
 1082.5 200.0 -10  
 1097.5 200.0 -10  
 1112.5 200.0 -8  
 1127.5 200.0 -3  
 1142.5 200.0 -4  
 1157.5 200.0 -9  
 1172.5 200.0 -8  
 1187.5 200.0 -5  
 1202.5 200.0 -5  
 1217.5 200.0 -3  
 1232.5 200.0 0  
 1247.5 200.0 1  
 1262.5 200.0 -1  
 1277.5 200.0 -6  
 1292.5 200.0 -7  
 1307.5 200.0 -4  
 1322.5 200.0 -3  
 1337.5 200.0 0  
 1352.5 200.0 1  
 697.5 300.0 4  
 712.5 300.0 -4  
 727.5 300.0 -5  
 742.5 300.0 1  
 757.5 300.0 2  
 772.5 300.0 1  
 787.5 300.0 6  
 802.5 300.0 3  
 817.5 300.0 -6  
 832.5 300.0 -6  
 847.5 300.0 -4  
 862.5 300.0 -4  
 877.5 300.0 -4  
 892.5 300.0 3  
 907.5 300.0 10  
 922.5 300.0 9  
 937.5 300.0 5  
 952.5 300.0 2  
 967.5 300.0 5  
 982.5 300.0 9  
 997.5 300.0 6  
 1012.5 300.0 -1  
 1027.5 300.0 -7  
 1042.5 300.0 -10  
 1057.5 300.0 -12  
 1072.5 300.0 -14  
 1087.5 300.0 -10  
 1102.5 300.0 -6

X(East) Y(North) Fraser

|        |       |     |
|--------|-------|-----|
| 1117.5 | 300.0 | -6  |
| 1132.5 | 300.0 | -5  |
| 1147.5 | 300.0 | -4  |
| 1162.5 | 300.0 | -4  |
| 1177.5 | 300.0 | -3  |
| 1192.5 | 300.0 | -3  |
| 1207.5 | 300.0 | -4  |
| 1222.5 | 300.0 | -3  |
| 1237.5 | 300.0 | 1   |
| 1252.5 | 300.0 | 3   |
| 1267.5 | 300.0 | 1   |
| 1282.5 | 300.0 | 0   |
| 1297.5 | 300.0 | 0   |
| 1312.5 | 300.0 | -3  |
| 1327.5 | 300.0 | -4  |
| 1342.5 | 300.0 | -4  |
| 1357.5 | 300.0 | -1  |
| 1372.5 | 300.0 | 3   |
| 1387.5 | 300.0 | 3   |
| 1402.5 | 300.0 | -2  |
| 1417.5 | 300.0 | -4  |
| 1432.5 | 300.0 | 0   |
| 1447.5 | 300.0 | 2   |
| 1462.5 | 300.0 | 0   |
| 1477.5 | 300.0 | -2  |
| 747.5  | 400.0 | -1  |
| 762.5  | 400.0 | 4   |
| 777.5  | 400.0 | 9   |
| 792.5  | 400.0 | 11  |
| 807.5  | 400.0 | 3   |
| 822.5  | 400.0 | -9  |
| 837.5  | 400.0 | -7  |
| 852.5  | 400.0 | -2  |
| 867.5  | 400.0 | -2  |
| 882.5  | 400.0 | -2  |
| 897.5  | 400.0 | -3  |
| 912.5  | 400.0 | -3  |
| 927.5  | 400.0 | -2  |
| 942.5  | 400.0 | 0   |
| 957.5  | 400.0 | -2  |
| 972.5  | 400.0 | -4  |
| 987.5  | 400.0 | 2   |
| 1002.5 | 400.0 | 9   |
| 1017.5 | 400.0 | 1   |
| 1032.5 | 400.0 | -7  |
| 1047.5 | 400.0 | -9  |
| 1062.5 | 400.0 | -14 |
| 1077.5 | 400.0 | -11 |
| 1092.5 | 400.0 | -6  |
| 1107.5 | 400.0 | -7  |
| 1122.5 | 400.0 | -5  |
| 1137.5 | 400.0 | 3   |
| 1152.5 | 400.0 | 2   |
| 1167.5 | 400.0 | -7  |
| 1182.5 | 400.0 | -6  |
| 1197.5 | 400.0 | 3   |
| 1212.5 | 400.0 | 5   |
| 1227.5 | 400.0 | 2   |
| 1242.5 | 400.0 | -8  |
| 1257.5 | 400.0 | -11 |
| 1272.5 | 400.0 | 3   |
| 1287.5 | 400.0 | 7   |
| 1302.5 | 400.0 | 1   |
| 1317.5 | 400.0 | 2   |
| 1332.5 | 400.0 | 4   |
| 1347.5 | 400.0 | 2   |
| 1362.5 | 400.0 | -9  |
| 1377.5 | 400.0 | -10 |
| 1392.5 | 400.0 | 0   |
| 1407.5 | 400.0 | 0   |
| 1422.5 | 400.0 | -3  |
| 1437.5 | 400.0 | 1   |
| 1452.5 | 400.0 | 1   |
| 1467.5 | 400.0 | 6   |

X(East) Y(North) Fraser

|        |       |     |
|--------|-------|-----|
| 1482.5 | 400.0 | 6   |
| 1497.5 | 400.0 | 0   |
| 647.5  | 500.0 | 7   |
| 662.5  | 500.0 | 0   |
| 677.5  | 500.0 | 0   |
| 692.5  | 500.0 | 4   |
| 707.5  | 500.0 | 1   |
| 722.5  | 500.0 | -5  |
| 737.5  | 500.0 | -4  |
| 752.5  | 500.0 | 3   |
| 767.5  | 500.0 | 10  |
| 782.5  | 500.0 | 8   |
| 797.5  | 500.0 | 1   |
| 812.5  | 500.0 | -4  |
| 827.5  | 500.0 | -3  |
| 842.5  | 500.0 | 0   |
| 857.5  | 500.0 | -2  |
| 872.5  | 500.0 | -3  |
| 887.5  | 500.0 | -5  |
| 902.5  | 500.0 | 0   |
| 917.5  | 500.0 | 4   |
| 932.5  | 500.0 | -1  |
| 947.5  | 500.0 | -2  |
| 962.5  | 500.0 | -2  |
| 977.5  | 500.0 | -6  |
| 992.5  | 500.0 | -5  |
| 1007.5 | 500.0 | 5   |
| 1022.5 | 500.0 | 17  |
| 1037.5 | 500.0 | 7   |
| 1052.5 | 500.0 | -7  |
| 1067.5 | 500.0 | -6  |
| 1082.5 | 500.0 | -7  |
| 1097.5 | 500.0 | -6  |
| 1112.5 | 500.0 | 5   |
| 1127.5 | 500.0 | 3   |
| 1142.5 | 500.0 | -7  |
| 1157.5 | 500.0 | -6  |
| 1172.5 | 500.0 | -4  |
| 1187.5 | 500.0 | -9  |
| 1202.5 | 500.0 | -10 |
| 1217.5 | 500.0 | -8  |
| 1232.5 | 500.0 | -3  |
| 1247.5 | 500.0 | 6   |
| 1262.5 | 500.0 | 3   |
| 1277.5 | 500.0 | -8  |
| 1292.5 | 500.0 | -6  |
| 1307.5 | 500.0 | 1   |
| 1322.5 | 500.0 | 6   |
| 1337.5 | 500.0 | 12  |
| 1352.5 | 500.0 | 8   |
| 1367.5 | 500.0 | -3  |
| 1382.5 | 500.0 | -5  |
| 1397.5 | 500.0 | -2  |
| 1412.5 | 500.0 | -6  |
| 1427.5 | 500.0 | -6  |
| 1442.5 | 500.0 | 8   |
| 1457.5 | 500.0 | 15  |
| 1472.5 | 500.0 | 6   |
| 660.0  | 600.0 | 13  |
| 675.0  | 600.0 | -2  |
| 690.0  | 600.0 | -1  |
| 705.0  | 600.0 | 2   |
| 720.0  | 600.0 | 3   |
| 735.0  | 600.0 | 2   |
| 750.0  | 600.0 | 1   |
| 765.0  | 600.0 | -7  |
| 780.0  | 600.0 | -10 |
| 795.0  | 600.0 | 8   |
| 810.0  | 600.0 | 17  |
| 825.0  | 600.0 | 0   |
| 840.0  | 600.0 | -9  |
| 855.0  | 600.0 | -6  |
| 870.0  | 600.0 | -13 |
| 885.0  | 600.0 | -13 |

X(East) Y(North) Fraser

|        |       |     |
|--------|-------|-----|
| 900.0  | 600.0 | 3   |
| 915.0  | 600.0 | 2   |
| 930.0  | 600.0 | -6  |
| 945.0  | 600.0 | -8  |
| 960.0  | 600.0 | -8  |
| 975.0  | 600.0 | 2   |
| 990.0  | 600.0 | 4   |
| 1005.0 | 600.0 | 0   |
| 1020.0 | 600.0 | 15  |
| 1035.0 | 600.0 | 17  |
| 1050.0 | 600.0 | -2  |
| 1065.0 | 600.0 | -9  |
| 1080.0 | 600.0 | -5  |
| 1095.0 | 600.0 | -1  |
| 1110.0 | 600.0 | -2  |
| 1125.0 | 600.0 | -6  |
| 1140.0 | 600.0 | -1  |
| 1155.0 | 600.0 | 2   |
| 1170.0 | 600.0 | -4  |
| 1185.0 | 600.0 | -10 |
| 1200.0 | 600.0 | -8  |
| 1215.0 | 600.0 | -3  |
| 1230.0 | 600.0 | -5  |
| 1245.0 | 600.0 | -1  |
| 1260.0 | 600.0 | 13  |
| 1275.0 | 600.0 | 4   |
| 1290.0 | 600.0 | -12 |
| 1305.0 | 600.0 | -7  |
| 1320.0 | 600.0 | -3  |
| 1335.0 | 600.0 | 1   |
| 1350.0 | 600.0 | 2   |
| 1365.0 | 600.0 | 3   |
| 1380.0 | 600.0 | 12  |
| 1395.0 | 600.0 | 11  |
| 1410.0 | 600.0 | -3  |
| 1425.0 | 600.0 | -11 |
| 1440.0 | 600.0 | -3  |
| 1455.0 | 600.0 | 5   |
| 1470.0 | 600.0 | 2   |
| 722.5  | 700.0 | 11  |
| 737.5  | 700.0 | 10  |
| 752.5  | 700.0 | -7  |
| 767.5  | 700.0 | -5  |
| 782.5  | 700.0 | 11  |
| 797.5  | 700.0 | 3   |
| 812.5  | 700.0 | -7  |
| 827.5  | 700.0 | -8  |
| 842.5  | 700.0 | -12 |
| 857.5  | 700.0 | -12 |
| 872.5  | 700.0 | -6  |
| 887.5  | 700.0 | -2  |
| 902.5  | 700.0 | -4  |
| 917.5  | 700.0 | -5  |
| 932.5  | 700.0 | 1   |
| 947.5  | 700.0 | -1  |
| 962.5  | 700.0 | -5  |
| 977.5  | 700.0 | -1  |
| 992.5  | 700.0 | 6   |
| 1007.5 | 700.0 | 6   |
| 1022.5 | 700.0 | 9   |
| 1037.5 | 700.0 | 24  |
| 1052.5 | 700.0 | 13  |
| 1067.5 | 700.0 | -16 |
| 1082.5 | 700.0 | -9  |
| 1097.5 | 700.0 | 4   |
| 1112.5 | 700.0 | 1   |
| 1127.5 | 700.0 | 5   |
| 1142.5 | 700.0 | 3   |
| 1157.5 | 700.0 | -4  |
| 1172.5 | 700.0 | -3  |
| 1187.5 | 700.0 | -3  |
| 1202.5 | 700.0 | -7  |
| 1217.5 | 700.0 | -7  |

GEOPHYSICAL SURVEY PRODUCTION REPORT

IPR 11 SURVEY: pole dipole array, a=25 meters, n=1 to 5

Project No.: B708 Client: ABERMIN CORP Area: Lyle Grid, Kaslo

| Date                    | Lines surveyed and comments   | Production   |
|-------------------------|-------------------------------|--------------|
| Fri                     | Bert set up in PM.            |              |
| Sept. 4                 | establish infinite and access |              |
| Sat                     | L950S 150W - 100E             | 44 stations  |
| Sept. 5                 | L900S talus                   | 1100 meters  |
|                         | L850S 50W - 125E              |              |
|                         | L800S 100W - 250E             |              |
|                         | L750S 75E - 150E              |              |
| Sun                     | L700S 150W - 100E             | 58 stations  |
| Sept. 6                 | L650S 175W - 50E              | 1450 meters  |
|                         | L600S 125W - 300E             |              |
|                         | L550S 100W - 350E             |              |
|                         | L500S talus                   |              |
| Tue                     | Wind up access and infinite   |              |
| Sept. 8                 |                               |              |
| Totals for this period: |                               | 102 stations |

To date: 102 stations  
 2550 meters

Remarks:  
 Fri- Ken set up infinite and access wires while Brad & Jerry doing IGS  
 Mon- Ken & Jerry doing IGS  
 Tue- wind up wires while VLF stn is off - data processing

Personnel: FISISIMITIWIT  
 Ken Moir |r|r| |m| |  
 Jerry Thornton |t|t| |m| |  
 Brad Scott |c|c| | | |  
 | | | | | | |  
 Jeff Tyer |p|p| | | |  
 Hugh Ellard |p|p| | | |  
 | | | | | | |

r = receiver t = transmitter  
 p = pots c = current  
 s = standby m = mob/demob  
 d = data proc.

Signed: J. D. Thornton

Date: Sept. 10 '87

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. : 9503

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 531.3  | 926.0            | 4.2  | 67.30                | .10    | .30  | -2000.00 | -2000.000 | 1.92   | -2000.00 |
|         | 2      | 325.5  | 1703.0           | 4.7  | 76.24                | .10    | .30  | -2000.00 | -2000.000 | 2.19   | -2000.00 |
|         | 3      | 126.4  | 1320.0           | 4.3  | 101.83               | .03    | .20  | -2000.00 | -2000.000 | 1.67   | -2000.00 |
|         | 4      | 137.6  | 2400.0           | 7.0  | 110.93               | .10    | .30  | -2000.00 | -2000.000 | 1.94   | -2000.00 |
|         | 5      | 157.3  | 4110.0           | 8.7  | 220.73               | .01    | .20  | -2000.00 | -2000.000 | 1.35   | -2000.00 |
| 252     | 1      | 326.1  | 731.0            | 4.4  | 82.63                | .03    | .30  | -2000.00 | -2000.000 | 3.29   | -2000.00 |
|         | 2      | 182.9  | 1230.0           | 4.6  | 42.48                | .30    | .50  | -2000.00 | -2000.000 | 4.00   | -2000.00 |
|         | 3      | 166.9  | 2240.0           | 5.2  | 132.56               | .01    | .20  | -2000.00 | -2000.000 | 2.40   | -2000.00 |
|         | 4      | 70.3   | 1576.0           | 4.2  | 38.45                | .30    | .50  | -2000.00 | -2000.000 | 4.59   | -2000.00 |
|         | 5      | 82.7   | 2780.0           | 7.2  | 64.73                | .30    | .50  | -2000.00 | -2000.000 | 4.32   | -2000.00 |
| 254     | 1      | 551.7  | 824.0            | 4.2  | 67.44                | .10    | .30  | -2000.00 | -2000.000 | 2.48   | -2000.00 |
|         | 2      | 180.5  | 809.0            | 4.1  | 106.20               | .01    | .20  | -2000.00 | -2000.000 | 1.56   | -2000.00 |
|         | 3      | 232.6  | 2080.0           | 6.6  | 126.85               | .03    | .30  | -2000.00 | -2000.000 | 1.56   | -2000.00 |
|         | 4      | 172.2  | 2570.0           | 8.9  | 186.27               | .10    | .20  | -2000.00 | -2000.000 | 2.65   | -2000.00 |
|         | 5      | 174.9  | 3920.0           | 9.5  | 149.14               | .10    | .30  | -2000.00 | -2000.000 | 1.75   | -2000.00 |
| 502     | 1      | 738.2  | 1219.0           | 4.3  | 68.39                | .10    | .30  | -2000.00 | -2000.000 | 2.79   | -2000.00 |
|         | 2      | 336.2  | 1666.0           | 4.8  | 91.95                | .03    | .30  | -2000.00 | -2000.000 | 2.59   | -2000.00 |
|         | 3      | 208.8  | 2060.0           | 5.1  | 129.88               | .01    | .20  | -2000.00 | -2000.000 | 2.46   | -2000.00 |
|         | 4      | 200.3  | 3310.0           | 5.2  | 99.28                | .03    | .30  | -2000.00 | -2000.000 | 2.72   | -2000.00 |
|         | 5      | 85.6   | 2122.0           | 4.6  | 72.21                | .10    | .30  | -2000.00 | -2000.000 | 2.50   | -2000.00 |
| 504     | 1      | 340.6  | 594.0            | 3.5  | 90.70                | .01    | .20  | -2000.00 | -2000.000 | 1.88   | -2000.00 |
|         | 2      | 260.8  | 1364.0           | 6.0  | 97.72                | .10    | .30  | -2000.00 | -2000.000 | 2.91   | -2000.00 |
|         | 3      | 205.8  | 2140.0           | 8.0  | 202.17               | .01    | .20  | -2000.00 | -2000.000 | 2.09   | -2000.00 |
|         | 4      | 164.4  | 2860.0           | 9.0  | 142.54               | .10    | .30  | -2000.00 | -2000.000 | 1.37   | -2000.00 |
|         | 5      | 60.6   | 1585.0           | 10.6 | 265.44               | .01    | .20  | -2000.00 | -2000.000 | 1.17   | -2000.00 |
| 752     | 1      | 676.4  | 1061.0           | 3.5  | 38.18                | .30    | .40  | -2000.00 | -2000.000 | 3.15   | -2000.00 |
|         | 2      | 483.6  | 2277.0           | 4.9  | 78.65                | .10    | .30  | -2000.00 | -2000.000 | 2.18   | -2000.00 |
|         | 3      | 258.3  | 2420.0           | 5.6  | 142.28               | .01    | .20  | -2000.00 | -2000.000 | 1.51   | -2000.00 |
|         | 4      | 170.4  | 2670.0           | 5.5  | 60.27                | .30    | .40  | -2000.00 | -2000.000 | 3.02   | -2000.00 |
|         | 5      | 168.4  | 3960.0           | 5.7  | 90.49                | .10    | .30  | -2000.00 | -2000.000 | 1.65   | -2000.00 |
| 754     | 1      | 1080.0 | 1090.0           | 4.8  | 92.52                | .03    | .30  | -2000.00 | -2000.000 | 1.79   | -2000.00 |
|         | 2      | 529.2  | 1608.0           | 6.9  | 110.61               | .10    | .30  | -2000.00 | -2000.000 | 2.55   | -2000.00 |
|         | 3      | 397.7  | 2410.0           | 8.0  | 152.41               | .03    | .30  | -2000.00 | -2000.000 | 2.06   | -2000.00 |
|         | 4      | 134.4  | 1360.0           | 9.9  | 154.52               | .10    | .30  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
| 1002    | 1      | 461.0  | 1447.0           | 4.8  | 110.94               | .03    | .20  | -2000.00 | -2000.000 | 1.25   | -2000.00 |
|         | 2      | 191.1  | 1800.0           | 4.6  | 98.29                | .10    | .20  | -2000.00 | -2000.000 | 1.59   | -2000.00 |
|         | 3      | 172.0  | 3230.0           | 5.9  | 127.99               | .10    | .20  | -2000.00 | -2000.000 | 2.06   | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
|         | 4      | 98.7   | 3100.0           | 6.5  | 162.20               | .01    | .20  | -2000.00 | -2000.000 | 1.42   | -2000.00 |
|         | 5      | 67.2   | 3166.0           | 6.2  | 159.66               | .01    | .20  | -2000.00 | -2000.000 | 1.29   | -2000.00 |
| 1004    | 1      | 756.5  | 1250.0           | 6.1  | 116.00               | .03    | .30  | -2000.00 | -2000.000 | 2.12   | -2000.00 |
|         | 2      | 352.4  | 1747.0           | 7.3  | 138.49               | .03    | .30  | -2000.00 | -2000.000 | 1.57   | -2000.00 |
|         | 3      | 107.5  | 1060.0           | 9.3  | 144.99               | .10    | .30  | -2000.00 | -2000.000 | 1.97   | -2000.00 |
| 1254    | 1      | 1112.0 | 2680.0           | 8.3  | 194.36               | .01    | .30  | -2000.00 | -2000.000 | 2.16   | -2000.00 |
|         | 2      | 177.8  | 1288.0           | 10.4 | 195.05               | .03    | .30  | -2000.00 | -2000.000 | 1.95   | -2000.00 |
| 1504    | 1      | 543.1  | 1263.0           | 10.1 | 190.82               | .03    | .30  | -2000.00 | -2000.000 | 2.01   | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. = 8503

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 588.7  | 1232.0           | 3.7  | 33.84                | .30    | .50  | -2000.00 | -2000.000 | 4.28   | -2000.00 |
|         | 2      | 292.9  | 1839.0           | 4.1  | 80.29                | .03    | .30  | -2000.00 | -2000.000 | 2.88   | -2000.00 |
|         | 3      | 217.3  | 2720.0           | 4.0  | 54.46                | .10    | .40  | -2000.00 | -2000.000 | 4.08   | -2000.00 |
| 252     | 1      | 1352.0 | 2490.0           | 4.4  | 68.64                | .10    | .30  | -2000.00 | -2000.000 | 3.04   | -2000.00 |
|         | 2      | 188.2  | 1042.0           | 5.2  | 131.28               | .01    | .20  | -2000.00 | -2000.000 | 2.61   | -2000.00 |
|         | 3      | 191.5  | 2110.0           | 4.9  | 93.51                | .03    | .30  | -2000.00 | -2000.000 | 2.15   | -2000.00 |
|         | 4      | 156.8  | 2890.0           | 4.8  | 91.68                | .03    | .30  | -2000.00 | -2000.000 | 2.92   | -2000.00 |
| 254     | 1      | 408.6  | 986.0            | 2.6  | 41.26                | .10    | .40  | -2000.00 | -2000.000 | 6.24   | -2000.00 |
|         | 2      | 280.5  | 2032.0           | 3.4  | 46.38                | .10    | .40  | -2000.00 | -2000.000 | 4.31   | -2000.00 |
| 502     | 1      | 2160.0 | 5210.0           | 5.9  | 153.67               | .01    | .20  | -2000.00 | -2000.000 | 1.70   | -2000.00 |
|         | 2      | 530.6  | 3844.0           | 5.4  | 218.39               | .01    | .10  | -2000.00 | -2000.000 | 1.65   | -2000.00 |
|         | 3      | 103.3  | 1490.0           | 5.9  | 152.37               | .01    | .20  | -2000.00 | -2000.000 | 1.20   | -2000.00 |
|         | 4      | 90.6   | 2188.0           | 5.7  | 148.72               | .01    | .20  | -2000.00 | -2000.000 | 1.13   | -2000.00 |
|         | 5      | 89.3   | 3233.0           | 5.6  | 145.10               | .01    | .20  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
| 504     | 1      | 323.0  | 1120.0           | 3.2  | 26.12                | .30    | .60  | -2000.00 | -2000.000 | 8.82   | -2000.00 |
| 752     | 1      | 3344.0 | 7500.0           | 6.6  | 102.83               | .10    | .30  | -2000.00 | -2000.000 | 2.74   | -2000.00 |
|         | 2      | 978.3  | 6582.0           | 7.6  | 192.03               | .01    | .20  | -2000.00 | -2000.000 | 1.62   | -2000.00 |
|         | 3      | 278.6  | 3740.0           | 6.7  | 90.63                | .30    | .30  | -2000.00 | -2000.000 | 2.63   | -2000.00 |
|         | 4      | 102.1  | 2280.0           | 7.1  | 175.77               | .01    | .20  | -2000.00 | -2000.000 | 2.59   | -2000.00 |
|         | 5      | 64.4   | 2166.0           | 6.7  | 104.05               | .10    | .30  | -2000.00 | -2000.000 | 1.82   | -2000.00 |
| 1002    | 1      | 3424.0 | 7160.0           | 7.4  | 153.97               | .10    | .20  | -2000.00 | -2000.000 | .98    | -2000.00 |
|         | 2      | 968.3  | 6080.0           | 7.2  | 167.12               | .03    | .20  | -2000.00 | -2000.000 | .94    | -2000.00 |
|         | 3      | 459.5  | 5750.0           | 7.9  | 166.13               | .10    | .20  | -2000.00 | -2000.000 | 1.29   | -2000.00 |
|         | 4      | 157.9  | 3300.0           | 6.7  | 142.15               | .10    | .20  | -2000.00 | -2000.000 | .89    | -2000.00 |
|         | 5      | 65.1   | 2045.0           | 7.1  | 163.83               | .03    | .20  | -2000.00 | -2000.000 | .83    | -2000.00 |
| 1252    | 1      | 2216.0 | 4630.0           | 10.4 | 348.31               | 100.00 | .10  | -2000.00 | -2000.000 | .81    | -2000.00 |
|         | 2      | 801.4  | 5032.0           | 8.8  | 325.37               | .03    | .10  | -2000.00 | -2000.000 | .65    | -2000.00 |
|         | 3      | 351.1  | 4400.0           | 8.1  | 169.88               | .10    | .20  | -2000.00 | -2000.000 | 1.25   | -2000.00 |
|         | 4      | 224.5  | 4690.0           | 8.6  | 176.14               | .10    | .20  | -2000.00 | -2000.000 | 1.14   | -2000.00 |
|         | 5      | 91.2   | 2863.0           | 7.6  | 296.14               | .01    | .10  | -2000.00 | -2000.000 | .94    | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. : 8003

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 2463.0 | 7030.0           | 7.3  | 187.71               | .01    | .20  | -2000.00 | -2000.000 | .61    | -2000.00 |
|         | 2      | 603.2  | 5165.0           | 6.9  | 158.80               | .03    | .20  | -2000.00 | -2000.000 | .81    | -2000.00 |
|         | 3      | 123.3  | 2100.0           | 5.8  | 134.74               | .03    | .20  | -2000.00 | -2000.000 | 1.15   | -2000.00 |
|         | 4      | 77.4   | 2209.0           | 5.4  | 140.64               | .01    | .20  | -2000.00 | -2000.000 | 1.45   | -2000.00 |
|         | 5      | 66.3   | 2839.0           | 7.0  | 112.54               | .10    | .30  | -2000.00 | -2000.000 | 1.61   | -2000.00 |
| 252     | 1      | 3681.0 | 7700.0           | 7.5  | 117.92               | .10    | .30  | -2000.00 | -2000.000 | 1.70   | -2000.00 |
|         | 2      | 1321.0 | 8290.0           | 9.0  | 138.81               | .10    | .30  | -2000.00 | -2000.000 | 1.39   | -2000.00 |
|         | 3      | 395.0  | 4950.0           | 8.2  | 202.64               | .01    | .20  | -2000.00 | -2000.000 | 2.19   | -2000.00 |
|         | 4      | 90.3   | 1890.0           | 6.5  | 168.10               | .01    | .20  | -2000.00 | -2000.000 | 1.23   | -2000.00 |
|         | 5      | 65.9   | 2068.0           | 6.3  | 67.23                | .30    | .40  | -2000.00 | -2000.000 | 2.80   | -2000.00 |
| 254     | 1      | 1488.0 | 3690.0           | 6.0  | 64.80                | .30    | .40  | -2000.00 | -2000.000 | 3.09   | -2000.00 |
|         | 2      | 250.9  | 1969.0           | 5.1  | 55.09                | .30    | .40  | -2000.00 | -2000.000 | 3.41   | -2000.00 |
|         | 3      | 135.3  | 2110.0           | 4.7  | 43.18                | .30    | .50  | -2000.00 | -2000.000 | 4.45   | -2000.00 |
|         | 4      | 99.8   | 2611.0           | 6.1  | 114.17               | .03    | .30  | -2000.00 | -2000.000 | 3.05   | -2000.00 |
| 502     | 1      | 2017.0 | 5500.0           | 6.5  | 105.43               | .10    | .30  | -2000.00 | -2000.000 | 2.53   | -2000.00 |
|         | 2      | 942.7  | 7721.0           | 8.4  | 211.57               | .01    | .20  | -2000.00 | -2000.000 | .91    | -2000.00 |
|         | 3      | 493.0  | 8050.0           | 9.7  | 218.25               | .03    | .20  | -2000.00 | -2000.000 | 1.09   | -2000.00 |
|         | 4      | 168.5  | 4600.0           | 8.5  | 177.44               | .10    | .20  | -2000.00 | -2000.000 | 1.12   | -2000.00 |
|         | 5      | 42.9   | 1755.0           | 7.3  | 178.11               | .01    | .20  | -2000.00 | -2000.000 | 3.14   | -2000.00 |
| 504     | 1      | 795.7  | 1998.0           | 4.2  | 38.04                | .30    | .50  | -2000.00 | -2000.000 | 5.04   | -2000.00 |
|         | 2      | 265.6  | 2001.0           | 3.8  | 52.60                | .10    | .40  | -2000.00 | -2000.000 | 4.38   | -2000.00 |
|         | 3      | 160.1  | 2400.0           | 4.9  | 66.52                | .10    | .40  | -2000.00 | -2000.000 | 3.21   | -2000.00 |
| 752     | 1      | 4934.0 | 10320.0          | 7.1  | 133.33               | .03    | .30  | -2000.00 | -2000.000 | 2.21   | -2000.00 |
|         | 2      | 1247.0 | 7830.0           | 7.0  | 110.08               | .10    | .30  | -2000.00 | -2000.000 | 1.99   | -2000.00 |
|         | 3      | 735.5  | 9210.0           | 8.9  | 199.33               | .03    | .20  | -2000.00 | -2000.000 | 1.46   | -2000.00 |
|         | 4      | 432.1  | 9040.0           | 10.1 | 137.02               | .30    | .30  | -2000.00 | -2000.000 | 1.65   | -2000.00 |
|         | 5      | 156.8  | 4920.0           | 8.8  | 120.54               | .30    | .30  | -2000.00 | -2000.000 | 1.11   | -2000.00 |
| 754     | 1      | 920.1  | 1111.0           | 3.2  | 77.25                | .01    | .30  | -2000.00 | -2000.000 | 2.91   | -2000.00 |
|         | 2      | 443.0  | 1605.0           | 4.1  | 99.89                | .01    | .30  | -2000.00 | -2000.000 | 1.85   | -2000.00 |
| 1002    | 1      | 2860.0 | 6900.0           | 6.4  | 147.77               | .03    | .20  | -2000.00 | -2000.000 | .60    | -2000.00 |
|         | 2      | 1307.0 | 9470.0           | 9.0  | 227.16               | .01    | .20  | -2000.00 | -2000.000 | .60    | -2000.00 |
|         | 3      | 598.5  | 8650.0           | 7.9  | 164.17               | .10    | .20  | -2000.00 | -2000.000 | 1.20   | -2000.00 |
|         | 4      | 396.1  | 9560.0           | 9.7  | 198.25               | .10    | .20  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 5      | 263.2  | 9530.0           | 10.6 | 216.23               | .10    | .20  | -2000.00 | -2000.000 | 1.06   | -2000.00 |
| 1004    | 1      | 268.3  | 930.0            | 2.9  | 23.96                | .30    | .60  | -2000.00 | -2000.000 | 9.82   | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 1252    | 1      | 2197.0 | 6890.0           | 7.8  | 105.28               | .30    | .30  | -2000.00 | -2000.000 | 2.99   | -2000.00 |
|         | 2      | 724.8  | 6827.0           | 9.1  | 122.33               | .30    | .30  | -2000.00 | -2000.000 | 1.98   | -2000.00 |
|         | 3      | 504.3  | 9480.0           | 10.9 | 145.67               | .30    | .30  | -2000.00 | -2000.000 | 2.18   | -2000.00 |
|         | 4      | 271.9  | 8530.0           | 9.1  | 123.21               | .30    | .30  | -2000.00 | -2000.000 | 2.59   | -2000.00 |
|         | 5      | 200.4  | 9430.0           | 10.6 | 215.72               | .10    | .20  | -2000.00 | -2000.000 | 1.01   | -2000.00 |
| 1502    | 1      | 2472.0 | 5540.0           | 10.1 | 125.42               | 1.00   | .30  | -2000.00 | -2000.000 | 1.42   | -2000.00 |
|         | 2      | 823.9  | 5543.0           | 10.1 | 362.93               | .03    | .10  | -2000.00 | -2000.000 | 1.58   | -2000.00 |
|         | 3      | 457.6  | 6140.0           | 9.6  | 183.22               | .30    | .20  | -2000.00 | -2000.000 | 1.88   | -2000.00 |
|         | 4      | 392.3  | 8790.0           | 10.4 | 140.35               | .30    | .30  | -2000.00 | -2000.000 | 1.50   | -2000.00 |
|         | 5      | 235.1  | 7900.0           | 8.5  | 114.57               | .30    | .30  | -2000.00 | -2000.000 | 1.75   | -2000.00 |
| 1752    | 1      | 2731.0 | 8160.0           | 13.6 | 428.43               | 10.00  | .10  | -2000.00 | -2000.000 | 1.02   | -2000.00 |
|         | 2      | 835.6  | 7496.0           | 10.0 | 333.80               | 30.00  | .10  | -2000.00 | -2000.000 | .72    | -2000.00 |
|         | 3      | 374.5  | 6700.0           | 9.7  | 350.22               | .03    | .10  | -2000.00 | -2000.000 | .82    | -2000.00 |
|         | 4      | 243.3  | 7270.0           | 9.3  | 353.80               | .01    | .10  | -2000.00 | -2000.000 | .42    | -2000.00 |
|         | 5      | 224.5  | 10070.0          | 9.8  | 221.05               | .03    | .20  | -2000.00 | -2000.000 | .75    | -2000.00 |
| 2002    | 1      | 2082.0 | 6530.0           | 8.2  | 316.26               | .01    | .10  | -2000.00 | -2000.000 | 1.84   | -2000.00 |
|         | 2      | 772.6  | 7277.0           | 14.4 | 445.91               | 100.00 | .10  | -2000.00 | -2000.000 | .76    | -2000.00 |
|         | 3      | 355.1  | 6670.0           | 9.6  | 322.77               | 10.00  | .10  | -2000.00 | -2000.000 | .80    | -2000.00 |
|         | 4      | 186.6  | 5920.0           | 9.4  | 182.04               | .30    | .20  | -2000.00 | -2000.000 | 1.16   | -2000.00 |
|         | 5      | 157.0  | 7390.0           | 8.5  | 176.02               | .10    | .20  | -2000.00 | -2000.000 | .62    | -2000.00 |
| 2252    | 1      | 4101.0 | 9530.0           | 9.4  | 356.92               | .01    | .10  | -2000.00 | -2000.000 | .80    | -2000.00 |
|         | 2      | 901.7  | 6291.0           | 11.1 | 368.97               | 1.00   | .10  | -2000.00 | -2000.000 | .86    | -2000.00 |
|         | 3      | 572.5  | 7970.0           | 14.6 | 450.97               | 100.00 | .10  | -2000.00 | -2000.000 | .61    | -2000.00 |
|         | 4      | 326.1  | 7580.0           | 9.4  | 318.38               | 100.00 | .10  | -2000.00 | -2000.000 | 1.67   | -2000.00 |
|         | 5      | 219.7  | 7660.0           | 8.7  | 334.05               | .01    | .10  | -2000.00 | -2000.000 | .94    | -2000.00 |
| 2502    | 1      | 3986.0 | 10430.0          | 7.1  | 162.13               | .03    | .20  | -2000.00 | -2000.000 | 1.17   | -2000.00 |
|         | 2      | 1474.0 | 11570.0          | 10.4 | 376.06               | .03    | .10  | -2000.00 | -2000.000 | .70    | -2000.00 |
|         | 3      | 501.0  | 7640.0           | 11.0 | 361.46               | 10.00  | .10  | -2000.00 | -2000.000 | .74    | -2000.00 |
|         | 4      | 371.2  | 9710.0           | 14.2 | 440.85               | 100.00 | .10  | -2000.00 | -2000.000 | .57    | -2000.00 |
|         | 5      | 226.0  | 8870.0           | 9.0  | 308.26               | 3.00   | .10  | -2000.00 | -2000.000 | .33    | -2000.00 |



IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. : 7503

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |          |          |          |           | Fit/IP   | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|----------|----------|----------|-----------|----------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP   | C-IP     | M-EM     | TAU-EM    |          |          |
| 2       | 1      | 3451.0 | 7220.0           | 8.5  | 193.81               | .03      | .20      | -2000.00 | -2000.000 | .51      | -2000.00 |
|         | 2      | 894.5  | 5617.0           | 9.2  | 188.91               | .10      | .20      | -2000.00 | -2000.000 | .35      | -2000.00 |
|         | 3      | 117.3  | 1470.0           | 6.2  | 158.08               | .01      | .20      | -2000.00 | -2000.000 | .66      | -2000.00 |
|         | 4      | 55.3   | 1158.0           | 6.0  | 154.94               | .01      | .20      | -2000.00 | -2000.000 | 1.85     | -2000.00 |
|         | 5      | 67.7   | 2127.0           | 6.7  | 116.03               | .10      | .30      | -2000.00 | -2000.000 | 5.96     | -2000.00 |
| 252     | 1      | 1915.0 | 5720.0           | 7.3  | 185.75               | .01      | .20      | -2000.00 | -2000.000 | .81      | -2000.00 |
|         | 2      | 946.1  | 8487.0           | 9.7  | 218.43               | .03      | .20      | -2000.00 | -2000.000 | .70      | -2000.00 |
|         | 3      | 318.3  | 5690.0           | 9.6  | 198.23               | .10      | .20      | -2000.00 | -2000.000 | .92      | -2000.00 |
|         | 4      | 50.5   | 1509.0           | 6.5  | 165.97               | .01      | .20      | -2000.00 | -2000.000 | 1.62     | -2000.00 |
|         | 5      | 26.8   | 1200.0           | 6.6  | 169.22               | .01      | .20      | -2000.00 | -2000.000 | 1.36     | -2000.00 |
| 254     | 1      | 3760.0 | 10730.0          | 8.5  | 209.47               | .01      | .20      | -2000.00 | -2000.000 | 2.22     | -2000.00 |
|         | 2      | 158.8  | 1359.0           | 5.3  | 57.26                | .30      | .40      | -2000.00 | -2000.000 | 3.10     | -2000.00 |
|         | 3      | 78.8   | 1346.0           | 5.1  | 97.79                | .03      | .30      | -2000.00 | -2000.000 | 3.15     | -2000.00 |
|         | 4      | 71.8   | 2048.0           | 6.3  | 55.93                | .30      | .50      | -2000.00 | -2000.000 | 5.12     | -2000.00 |
|         | 5      | 57.9   | 2480.0           | 10.8 | 146.42               | .30      | .30      | -2000.00 | -2000.000 | 9.34     | -2000.00 |
| 502     | 1      | 3064.0 | 8010.0           | 6.0  | 55.70                | .30      | .50      | -2000.00 | -2000.000 | 3.40     | -2000.00 |
|         | 2      | 1093.0 | 8580.0           | 8.7  | 217.19               | .01      | .20      | -2000.00 | -2000.000 | 1.71     | -2000.00 |
|         | 3      | 645.9  | 10110.0          | 10.7 | 235.83               | .03      | .20      | -2000.00 | -2000.000 | 1.61     | -2000.00 |
|         | 4      | 234.8  | 6140.0           | 10.3 | 138.65               | .30      | .30      | -2000.00 | -2000.000 | 1.43     | -2000.00 |
|         | 5      | 40.6   | 1593.0           | 7.0  | 75.96                | .30      | .40      | -2000.00 | -2000.000 | 3.01     | -2000.00 |
| 504     | 1      | 444.3  | 996.0            | 4.3  | 83.02                | .03      | .30      | -2000.00 | -2000.000 | 1.32     | -2000.00 |
|         | 2      | 163.1  | 1097.0           | 4.5  | 89.02                | .03      | .30      | -2000.00 | -2000.000 | 1.17     | -2000.00 |
|         | 3      | 113.4  | 1520.0           | 5.4  | 87.81                | .10      | .30      | -2000.00 | -2000.000 | 2.30     | -2000.00 |
|         | 4      | 75.6   | 1695.0           | 8.8  | 167.48               | .03      | .30      | -2000.00 | -2000.000 | 1.89     | -2000.00 |
|         | 5      | 54.4   | 1831.0           | 12.2 | 189.43               | .10      | .30      | -2000.00 | -2000.000 | 1.22     | -2000.00 |
| 752     | 1      | 4108.0 | 5370.0           | 6.6  | 125.74               | .03      | .30      | -2000.00 | -2000.000 | 1.83     | -2000.00 |
|         | 2      | 1289.0 | 5050.0           | 7.2  | 113.68               | .10      | .30      | -2000.00 | -2000.000 | 1.33     | -2000.00 |
|         | 3      | 1033.0 | 8000.0           | 9.5  | 194.89               | .10      | .20      | -2000.00 | -2000.000 | .63      | -2000.00 |
|         | 4      | 699.5  | 9150.0           | 11.0 | 148.25               | .30      | .30      | -2000.00 | -2000.000 | 1.08     | -2000.00 |
|         | 5      | 269.5  | 5280.0           | 10.3 | 198.90               | .30      | .20      | -2000.00 | -2000.000 | .57      | -2000.00 |
| 754     | 1      | 485.5  | 1016.0           | 4.6  | 63.14                | .10      | .40      | -2000.00 | -2000.000 | 2.86     | -2000.00 |
|         | 2      | 172.7  | 1084.0           | 4.0  | 54.03                | .10      | .40      | -2000.00 | -2000.000 | 3.59     | -2000.00 |
|         | 3      | 160.8  | 2010.0           | 7.2  | 137.43               | .03      | .30      | -2000.00 | -2000.000 | 2.03     | -2000.00 |
|         | 4      | 85.0   | 1780.0           | 11.2 | 172.85               | .10      | .30      | -2000.00 | -2000.000 | 1.86     | -2000.00 |
| 1004    | 1      | 610.1  | 1596.0           | 4.7  | 64.89                | .10      | .40      | -2000.00 | -2000.000 | 3.89     | -2000.00 |
|         | 2      | 196.8  | 1544.0           | 6.2  | 145.76               | .01      | .30      | -2000.00 | -2000.000 | 3.06     | -2000.00 |
|         | 3      | 126.4  | 1980.0           | 10.1 | -2000.00             | -2000.00 | -2000.00 | -2000.00 | -2000.000 | -2000.00 | -2000.00 |

| Station | Dipole | Vp    | Apparent Resist. | M7  | Cole-Cole Parameters |        |      |          | Fit/IP    | Fit/EM |          |
|---------|--------|-------|------------------|-----|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |       |                  |     | M-IP                 | TAU-IP | C-IP | M-EM     |           |        | TAU-EM   |
| 1254    | 1      | 850.5 | 1907.0           | 7.4 | 143.05               | .03    | .30  | -2000.00 | -2000.000 | 1.44   | -2000.00 |
|         | 2      | 300.6 | 2022.0           | 9.9 | 186.57               | .03    | .30  | -2000.00 | -2000.000 | 1.96   | -2000.00 |
| 1504    | 1      | 795.1 | 2377.0           | 9.6 | 181.02               | .03    | .30  | -2000.00 | -2000.000 | 2.64   | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. = 7003

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 3565.0 | 6990.0           | 8.7  | 196.26               | .03    | .20  | -2000.00 | -2000.000 | .82    | -2000.00 |
|         | 2      | 646.8  | 3808.0           | 8.0  | 168.32               | .10    | .20  | -2000.00 | -2000.000 | .84    | -2000.00 |
|         | 3      | 124.4  | 1460.0           | 5.2  | 120.84               | .03    | .20  | -2000.00 | -2000.000 | .93    | -2000.00 |
|         | 4      | 72.7   | 1427.0           | 4.9  | 80.52                | .10    | .30  | -2000.00 | -2000.000 | 2.80   | -2000.00 |
|         | 5      | 62.0   | 2413.0           | 5.7  | 91.84                | .10    | .30  | -2000.00 | -2000.000 | 2.36   | -2000.00 |
| 252     | 1      | 3218.0 | 8080.0           | 7.7  | 176.08               | .03    | .20  | -2000.00 | -2000.000 | .62    | -2000.00 |
|         | 2      | 1469.0 | 11070.0          | 9.8  | 200.70               | .10    | .20  | -2000.00 | -2000.000 | .84    | -2000.00 |
|         | 3      | 320.0  | 4810.0           | 8.8  | 339.12               | .01    | .10  | -2000.00 | -2000.000 | 1.03   | -2000.00 |
|         | 4      | 66.9   | 1680.0           | 5.9  | 124.08               | .10    | .20  | -2000.00 | -2000.000 | .92    | -2000.00 |
|         | 5      | 43.8   | 1651.0           | 5.6  | 105.19               | .03    | .30  | -2000.00 | -2000.000 | 2.93   | -2000.00 |
| 254     | 1      | 1968.0 | 3250.0           | 7.3  | 153.17               | .10    | .20  | -2000.00 | -2000.000 | .85    | -2000.00 |
|         | 2      | 284.8  | 1412.0           | 4.7  | 109.60               | .03    | .20  | -2000.00 | -2000.000 | .63    | -2000.00 |
|         | 3      | 133.7  | 1320.0           | 4.5  | 119.55               | .01    | .20  | -2000.00 | -2000.000 | 2.96   | -2000.00 |
|         | 4      | 134.3  | 2210.0           | 5.0  | 94.88                | .03    | .30  | -2000.00 | -2000.000 | 2.01   | -2000.00 |
|         | 5      | 86.7   | 2148.0           | 12.4 | 276.40               | .03    | .20  | -2000.00 | -2000.000 | 1.32   | -2000.00 |
| 502     | 1      | 2071.0 | 5000.0           | 7.1  | 75.98                | .30    | .40  | -2000.00 | -2000.000 | 2.55   | -2000.00 |
|         | 2      | 1105.0 | 8000.0           | 9.1  | 122.48               | .30    | .30  | -2000.00 | -2000.000 | 2.34   | -2000.00 |
|         | 3      | 774.5  | 11200.0          | 10.9 | 216.03               | .10    | .20  | -2000.00 | -2000.000 | 2.26   | -2000.00 |
|         | 4      | 189.5  | 4570.0           | 9.1  | 125.34               | .30    | .30  | -2000.00 | -2000.000 | .91    | -2000.00 |
|         | 5      | 42.3   | 1532.0           | 6.5  | 86.98                | .30    | .30  | -2000.00 | -2000.000 | 2.26   | -2000.00 |
| 504     | 1      | 1010.0 | 1710.0           | 4.3  | 68.28                | .10    | .30  | -2000.00 | -2000.000 | 2.61   | -2000.00 |
|         | 2      | 297.6  | 1515.0           | 4.2  | 57.29                | .10    | .40  | -2000.00 | -2000.000 | 2.81   | -2000.00 |
|         | 3      | 236.2  | 2400.0           | 4.1  | 96.59                | .01    | .30  | -2000.00 | -2000.000 | 2.56   | -2000.00 |
|         | 4      | 142.2  | 2410.0           | 11.3 | 279.13               | .01    | .20  | -2000.00 | -2000.000 | 1.01   | -2000.00 |
|         | 5      | 64.8   | 1650.0           | 18.7 | 441.48               | .01    | .20  | -2000.00 | -2000.000 | .57    | -2000.00 |
| 752     | 1      | 3213.0 | 10080.0          | 8.6  | 178.65               | .10    | .20  | -2000.00 | -2000.000 | 1.18   | -2000.00 |
|         | 2      | 949.1  | 8940.0           | 7.9  | 180.15               | .03    | .20  | -2000.00 | -2000.000 | .71    | -2000.00 |
|         | 3      | 530.1  | 9960.0           | 9.5  | 182.42               | .30    | .20  | -2000.00 | -2000.000 | .83    | -2000.00 |
|         | 4      | 423.0  | 13280.0          | 10.5 | 143.17               | .30    | .30  | -2000.00 | -2000.000 | .74    | -2000.00 |
|         | 5      | 110.0  | 5180.0           | 9.4  | 356.65               | .01    | .10  | -2000.00 | -2000.000 | .52    | -2000.00 |
| 754     | 1      | 561.8  | 840.0            | 3.7  | 90.00                | .01    | .30  | -2000.00 | -2000.000 | 2.53   | -2000.00 |
|         | 2      | 361.8  | 1622.0           | 3.5  | 47.37                | .10    | .40  | -2000.00 | -2000.000 | 4.81   | -2000.00 |
|         | 3      | 207.3  | 1850.0           | 10.6 | 265.19               | .01    | .20  | -2000.00 | -2000.000 | 1.39   | -2000.00 |
|         | 4      | 90.2   | 1348.0           | 18.0 | 427.45               | .01    | .20  | -2000.00 | -2000.000 | .86    | -2000.00 |
| 1002    | 1      | 1351.0 | 3260.0           | 7.3  | 187.52               | .01    | .20  | -2000.00 | -2000.000 | 1.37   | -2000.00 |
|         | 2      | 1088.0 | 7880.0           | 9.0  | 204.64               | .03    | .20  | -2000.00 | -2000.000 | .82    | -2000.00 |
|         | 3      | 523.2  | 7560.0           | 8.3  | 187.28               | .03    | .20  | -2000.00 | -2000.000 | .94    | -2000.00 |

| Station | Dipole | Vp    | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|-------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |       |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
|         | 4      | 372.3 | 8990.0           | 9.4  | 195.99               | .10    | .20  | -2000.00 | -2000.000 | .94    | -2000.00 |
|         | 5      | 331.2 | 11990.0          | 11.2 | 226.73               | .10    | .20  | -2000.00 | -2000.000 | .58    | -2000.00 |
| 1004    | 1      | 798.3 | 1193.0           | 3.3  | 79.91                | .01    | .30  | -2000.00 | -2000.000 | 3.89   | -2000.00 |
|         | 2      | 351.7 | 1577.0           | 9.9  | 153.03               | .10    | .30  | -2000.00 | -2000.000 | 1.39   | -2000.00 |
|         | 3      | 130.6 | 1160.0           | 17.4 | 411.96               | .01    | .20  | -2000.00 | -2000.000 | 1.00   | -2000.00 |
| 1254    | 1      | 883.4 | 1981.0           | 11.0 | 170.37               | .10    | .30  | -2000.00 | -2000.000 | 2.15   | -2000.00 |
|         | 2      | 225.4 | 1516.0           | 18.5 | 438.85               | .01    | .20  | -2000.00 | -2000.000 | .93    | -2000.00 |
| 1504    | 1      | 651.2 | 2150.0           | 19.6 | 458.24               | .01    | .20  | -2000.00 | -2000.000 | 1.29   | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. : 6503

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 5327.0 | 11151.2          | 9.0  | 345.11               | .01    | .10  | -2000.00 | -2000.000 | .76    | -2000.00 |
|         | 2      | 345.8  | 2171.6           | 7.3  | 167.54               | .03    | .20  | -2000.00 | -2000.000 | .61    | -2000.00 |
|         | 3      | 112.8  | 1413.8           | 5.3  | 112.56               | .10    | .20  | -2000.00 | -2000.000 | .96    | -2000.00 |
|         | 4      | 67.7   | 1416.1           | 3.5  | 55.55                | .10    | .30  | -2000.00 | -2000.000 | 1.83   | -2000.00 |
|         | 5      | 103.2  | 3240.5           | 6.9  | 174.69               | .01    | .20  | -2000.00 | -2000.000 | 1.07   | -2000.00 |
| 252     | 1      | 3286.0 | 7937.0           | 9.3  | 192.53               | .10    | .20  | -2000.00 | -2000.000 | 1.13   | -2000.00 |
|         | 2      | 1507.0 | 10920.0          | 9.8  | 199.61               | .10    | .20  | -2000.00 | -2000.000 | .95    | -2000.00 |
|         | 3      | 165.6  | 2394.8           | 8.2  | 169.15               | .10    | .20  | -2000.00 | -2000.000 | 1.24   | -2000.00 |
|         | 4      | 59.8   | 1443.4           | 6.0  | 125.36               | .10    | .20  | -2000.00 | -2000.000 | 1.35   | -2000.00 |
|         | 5      | 39.4   | 1426.6           | 4.0  | 97.76                | .03    | .20  | -2000.00 | -2000.000 | 2.31   | -2000.00 |
| 254     | 1      | 851.4  | 1782.3           | 7.1  | 176.39               | .01    | .20  | -2000.00 | -2000.000 | 2.11   | -2000.00 |
|         | 2      | 177.3  | 1113.4           | 5.5  | 138.06               | .01    | .20  | -2000.00 | -2000.000 | 2.27   | -2000.00 |
|         | 3      | 96.6   | 1211.1           | 3.7  | 32.93                | .30    | .50  | -2000.00 | -2000.000 | 4.87   | -2000.00 |
|         | 4      | 134.0  | 2805.1           | 6.8  | 172.59               | .01    | .20  | -2000.00 | -2000.000 | 1.60   | -2000.00 |
|         | 5      | 74.3   | 2334.0           | 12.4 | 189.41               | .10    | .30  | -2000.00 | -2000.000 | 1.34   | -2000.00 |
| 502     | 1      | 2217.0 | 5801.1           | 8.5  | 175.79               | .10    | .20  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 2      | 464.8  | 3648.7           | 10.9 | 208.93               | .30    | .20  | -2000.00 | -2000.000 | .48    | -2000.00 |
|         | 3      | 622.6  | 9754.1           | 10.3 | 385.43               | .01    | .10  | -2000.00 | -2000.000 | .54    | -2000.00 |
|         | 4      | 84.2   | 2202.7           | 7.9  | 182.93               | .03    | .20  | -2000.00 | -2000.000 | .70    | -2000.00 |
|         | 5      | 33.1   | 1300.4           | 5.8  | 123.85               | .10    | .20  | -2000.00 | -2000.000 | 1.02   | -2000.00 |
| 504     | 1      | 881.2  | 1064.2           | 3.8  | 61.75                | .10    | .30  | -2000.00 | -2000.000 | 2.88   | -2000.00 |
|         | 2      | 360.6  | 1306.5           | 2.5  | 34.89                | .10    | .40  | -2000.00 | -2000.000 | 3.91   | -2000.00 |
|         | 3      | 390.8  | 2825.8           | 5.4  | 85.23                | .10    | .30  | -2000.00 | -2000.000 | 2.11   | -2000.00 |
|         | 4      | 201.0  | 2427.5           | 10.4 | 198.00               | .03    | .30  | -2000.00 | -2000.000 | 1.46   | -2000.00 |
|         | 5      | 81.1   | 1469.7           | 10.2 | 193.59               | .03    | .30  | -2000.00 | -2000.000 | 1.42   | -2000.00 |
| 754     | 1      | 757.8  | 1133.1           | 3.0  | 72.51                | .01    | .30  | -2000.00 | -2000.000 | 2.97   | -2000.00 |
|         | 2      | 479.3  | 2150.0           | 5.2  | 99.46                | .03    | .30  | -2000.00 | -2000.000 | 2.08   | -2000.00 |
|         | 3      | 218.2  | 1953.4           | 10.3 | 161.03               | .10    | .30  | -2000.00 | -2000.000 | 1.54   | -2000.00 |
|         | 4      | 81.4   | 1217.9           | 9.9  | 188.13               | .03    | .30  | -2000.00 | -2000.000 | 1.14   | -2000.00 |
|         | 5      | 66.8   | 1498.0           | 15.7 | 298.13               | .03    | .30  | -2000.00 | -2000.000 | 1.96   | -2000.00 |
| 1004    | 1      | 1065.0 | 1238.6           | 5.5  | 87.48                | .10    | .30  | -2000.00 | -2000.000 | 1.84   | -2000.00 |
|         | 2      | 434.2  | 1514.9           | 9.9  | 155.55               | .10    | .30  | -2000.00 | -2000.000 | 1.54   | -2000.00 |
|         | 3      | 141.9  | 988.0            | 9.7  | 182.40               | .03    | .30  | -2000.00 | -2000.000 | 1.93   | -2000.00 |
|         | 4      | 107.8  | 1253.7           | 15.7 | 290.59               | .03    | .30  | -2000.00 | -2000.000 | 2.53   | -2000.00 |
| 1254    | 1      | 1489.0 | 2460.8           | 13.2 | 202.16               | .10    | .30  | -2000.00 | -2000.000 | 1.18   | -2000.00 |
|         | 2      | 305.3  | 1513.6           | 12.4 | 191.99               | .10    | .30  | -2000.00 | -2000.000 | 1.58   | -2000.00 |
|         | 3      | 159.7  | 1580.2           | 16.8 | 255.60               | .10    | .30  | -2000.00 | -2000.000 | 1.45   | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 1504    | 1      | 1002.0 | 2420.2           | 14.1 | 216.35               | .10    | .30  | -2000.00 | -2000.000 | 1.81   | -2000.00 |
|         | 2      | 323.0  | 2340.5           | 18.9 | 282.46               | .10    | .30  | -2000.00 | -2000.000 | 1.35   | -2000.00 |
| 1754    | 1      | 1009.0 | 1980.0           | 19.2 | 288.03               | .10    | .30  | -2000.00 | -2000.000 | 1.21   | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. : 6003

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 2951.0 | 9700.0           | 9.9  | 372.80               | .01    | .10  | -2000.00 | -2000.000 | .66    | -2000.00 |
|         | 2      | 501.6  | 4970.0           | 9.1  | 177.08               | .30    | .20  | -2000.00 | -2000.000 | .31    | -2000.00 |
|         | 3      | 150.7  | 2900.0           | 9.1  | 187.29               | .10    | .20  | -2000.00 | -2000.000 | .49    | -2000.00 |
|         | 4      | 46.3   | 1520.0           | 6.2  | 157.95               | .01    | .20  | -2000.00 | -2000.000 | .64    | -2000.00 |
|         | 5      | 35.6   | 1760.0           | 5.3  | 135.64               | .01    | .20  | -2000.00 | -2000.000 | 1.20   | -2000.00 |
| 252     | 1      | 3601.0 | 8070.0           | 10.2 | 209.40               | .10    | .20  | -2000.00 | -2000.000 | .72    | -2000.00 |
|         | 2      | 1464.0 | 9850.0           | 10.9 | 392.75               | .03    | .10  | -2000.00 | -2000.000 | .52    | -2000.00 |
|         | 3      | 350.9  | 4710.0           | 9.9  | 350.54               | .10    | .10  | -2000.00 | -2000.000 | .60    | -2000.00 |
|         | 4      | 119.0  | 2660.0           | 9.7  | 194.64               | .10    | .20  | -2000.00 | -2000.000 | 1.13   | -2000.00 |
|         | 5      | 41.7   | 1401.0           | 6.5  | 89.79                | .30    | .30  | -2000.00 | -2000.000 | 1.06   | -2000.00 |
| 254     | 1      | 1840.0 | 4270.0           | 8.1  | 158.28               | .30    | .20  | -2000.00 | -2000.000 | .63    | -2000.00 |
|         | 2      | 440.4  | 3073.0           | 8.4  | 177.36               | .10    | .20  | -2000.00 | -2000.000 | 1.29   | -2000.00 |
|         | 3      | 112.7  | 1560.0           | 5.7  | 147.02               | .01    | .20  | -2000.00 | -2000.000 | 1.11   | -2000.00 |
|         | 4      | 78.5   | 1825.0           | 5.2  | 109.68               | .10    | .20  | -2000.00 | -2000.000 | 1.14   | -2000.00 |
|         | 5      | 51.5   | 1796.0           | 5.5  | 213.24               | .10    | .10  | -2000.00 | -2000.000 | 2.81   | -2000.00 |
| 502     | 1      | 2583.0 | 10800.0          | 10.7 | 216.76               | .10    | .20  | -2000.00 | -2000.000 | .65    | -2000.00 |
|         | 2      | 784.9  | 9850.0           | 11.2 | 414.30               | .01    | .10  | -2000.00 | -2000.000 | .74    | -2000.00 |
|         | 3      | 460.3  | 11500.0          | 11.4 | 375.11               | 3.00   | .10  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 4      | 126.6  | 5300.0           | 10.6 | 96.00                | 1.00   | .40  | -2000.00 | -2000.000 | 2.49   | -2000.00 |
|         | 5      | 45.5   | 2850.0           | 8.7  | 348.16               | .10    | .10  | -2000.00 | -2000.000 | 8.36   | -2000.00 |
| 504     | 1      | 2092.0 | 2980.0           | 6.4  | 162.22               | .01    | .20  | -2000.00 | -2000.000 | 1.55   | -2000.00 |
|         | 2      | 415.3  | 1778.0           | 4.8  | 76.16                | .10    | .30  | -2000.00 | -2000.000 | 1.70   | -2000.00 |
|         | 3      | 248.8  | 2120.0           | 4.9  | 179.58               | 3.00   | .10  | -2000.00 | -2000.000 | 2.46   | -2000.00 |
|         | 4      | 136.6  | 1940.0           | 4.8  | 191.81               | .01    | .10  | -2000.00 | -2000.000 | 2.91   | -2000.00 |
| 752     | 1      | 4257.0 | 10690.0          | 8.2  | 187.46               | .03    | .20  | -2000.00 | -2000.000 | 1.05   | -2000.00 |
|         | 2      | 1288.0 | 9700.0           | 12.2 | 246.13               | .10    | .20  | -2000.00 | -2000.000 | .51    | -2000.00 |
|         | 3      | 760.4  | 11430.0          | 10.4 | 391.43               | .01    | .10  | -2000.00 | -2000.000 | .88    | -2000.00 |
|         | 4      | 496.6  | 12470.0          | 10.6 | 203.28               | .30    | .20  | -2000.00 | -2000.000 | .83    | -2000.00 |
|         | 5      | 151.6  | 5710.0           | 9.1  | 127.84               | .30    | .30  | -2000.00 | -2000.000 | 3.17   | -2000.00 |
| 754     | 1      | 526.5  | 972.0            | 4.0  | 75.60                | .03    | .30  | -2000.00 | -2000.000 | 3.18   | -2000.00 |
|         | 2      | 267.0  | 1479.0           | 3.6  | 67.11                | .03    | .30  | -2000.00 | -2000.000 | 3.69   | -2000.00 |
|         | 3      | 132.6  | 1460.0           | 3.4  | 64.62                | .03    | .30  | -2000.00 | -2000.000 | 3.58   | -2000.00 |
| 1002    | 1      | 2687.0 | 7030.0           | 6.2  | 99.63                | .10    | .30  | -2000.00 | -2000.000 | 1.94   | -2000.00 |
|         | 2      | 1451.0 | 11390.0          | 9.1  | 206.29               | .03    | .20  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 3      | 714.6  | 11190.0          | 11.6 | 234.60               | .10    | .20  | -2000.00 | -2000.000 | .84    | -2000.00 |
|         | 4      | 491.8  | 12860.0          | 9.9  | 200.43               | .10    | .20  | -2000.00 | -2000.000 | 1.03   | -2000.00 |
|         | 5      | 354.2  | 13900.0          | 10.4 | 389.93               | .01    | .10  | -2000.00 | -2000.000 | .61    | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 1004    | 1      | 713.1  | 1178.0           | 3.9  | 73.92                | .03    | .30  | -2000.00 | -2000.000 | 2.57   | -2000.00 |
|         | 2      | 239.9  | 1189.0           | 3.4  | 66.54                | .03    | .30  | -2000.00 | -2000.000 | 3.17   | -2000.00 |
| 1252    | 1      | 2528.0 | 6100.0           | 5.8  | 92.77                | .10    | .30  | -2000.00 | -2000.000 | 1.41   | -2000.00 |
|         | 2      | 1062.0 | 7690.0           | 8.0  | 202.34               | .01    | .20  | -2000.00 | -2000.000 | .98    | -2000.00 |
|         | 3      | 828.1  | 11970.0          | 9.7  | 198.06               | .10    | .20  | -2000.00 | -2000.000 | .95    | -2000.00 |
|         | 4      | 502.7  | 12140.0          | 11.7 | 429.86               | .01    | .10  | -2000.00 | -2000.000 | .52    | -2000.00 |
|         | 5      | 380.8  | 13790.0          | 10.0 | 364.57               | .03    | .10  | -2000.00 | -2000.000 | .46    | -2000.00 |
| 1254    | 1      | 388.9  | 872.0            | 3.8  | 51.66                | .10    | .40  | -2000.00 | -2000.000 | 4.32   | -2000.00 |
| 1502    | 1      | 2523.0 | 10500.0          | 7.2  | 183.57               | .01    | .20  | -2000.00 | -2000.000 | .90    | -2000.00 |
|         | 2      | 655.2  | 8220.0           | 7.4  | 166.24               | .03    | .20  | -2000.00 | -2000.000 | 1.43   | -2000.00 |
|         | 3      | 353.3  | 8800.0           | 9.0  | 188.70               | .10    | .20  | -2000.00 | -2000.000 | 1.00   | -2000.00 |
|         | 4      | 313.0  | 13100.0          | 10.5 | 380.50               | .03    | .10  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 5      | 211.6  | 13200.0          | 12.3 | 411.11               | .30    | .10  | -2000.00 | -2000.000 | .61    | -2000.00 |
| 1752    | 1      | 1566.0 | 6500.0           | 12.5 | 399.06               | 100.00 | .10  | -2000.00 | -2000.000 | 1.02   | -2000.00 |
|         | 2      | 660.3  | 8290.0           | 9.6  | 351.26               | .03    | .10  | -2000.00 | -2000.000 | .65    | -2000.00 |
|         | 3      | 296.6  | 7400.0           | 8.3  | 322.67               | .01    | .10  | -2000.00 | -2000.000 | 1.27   | -2000.00 |
|         | 4      | 190.0  | 7900.0           | 10.7 | 380.67               | .03    | .10  | -2000.00 | -2000.000 | 1.64   | -2000.00 |
|         | 5      | 187.8  | 11700.0          | 11.4 | 140.02               | 1.00   | .30  | -2000.00 | -2000.000 | 1.07   | -2000.00 |
| 2002    | 1      | 2326.0 | 9100.0           | 16.4 | 280.84               | 10.00  | .20  | -2000.00 | -2000.000 | 1.06   | -2000.00 |
|         | 2      | 1037.0 | 12200.0          | 9.5  | 338.63               | .10    | .10  | -2000.00 | -2000.000 | .70    | -2000.00 |
|         | 3      | 477.8  | 11200.0          | 8.2  | 111.99               | .30    | .30  | -2000.00 | -2000.000 | 1.01   | -2000.00 |
|         | 4      | 237.9  | 9300.0           | 6.6  | 168.58               | 100.00 | .20  | -2000.00 | -2000.000 | 14.03  | -2000.00 |
|         | 5      | 159.0  | 9300.0           | 11.0 | 66.09                | .30    | .70  | -2000.00 | -2000.000 | 21.26  | -2000.00 |
| 2252    | 1      | 2765.0 | 5980.0           | 18.8 | 314.83               | 10.00  | .20  | -2000.00 | -2000.000 | 1.41   | -2000.00 |
|         | 2      | 1229.0 | 7980.0           | 17.7 | 299.74               | 10.00  | .20  | -2000.00 | -2000.000 | .82    | -2000.00 |
|         | 3      | 963.9  | 12490.0          | 11.0 | 362.86               | 10.00  | .10  | -2000.00 | -2000.000 | .50    | -2000.00 |
|         | 4      | 538.4  | 11650.0          | 9.8  | 367.14               | .01    | .10  | -2000.00 | -2000.000 | .69    | -2000.00 |
|         | 5      | 298.5  | 9690.0           | 9.0  | 173.15               | .30    | .20  | -2000.00 | -2000.000 | 2.27   | -2000.00 |
| 2502    | 1      | 1946.0 | 6400.0           | 20.5 | 361.48               | 100.00 | .20  | -2000.00 | -2000.000 | 1.35   | -2000.00 |
|         | 2      | 652.2  | 6460.0           | 18.7 | 320.66               | 30.00  | .20  | -2000.00 | -2000.000 | 1.01   | -2000.00 |
|         | 3      | 441.6  | 8700.0           | 14.6 | 254.25               | 10.00  | .20  | -2000.00 | -2000.000 | .63    | -2000.00 |
|         | 4      | 412.0  | 13600.0          | 9.3  | 329.47               | .10    | .10  | -2000.00 | -2000.000 | .57    | -2000.00 |
|         | 5      | 253.8  | 12500.0          | 8.1  | 111.11               | .30    | .30  | -2000.00 | -2000.000 | 1.60   | -2000.00 |
| 2752    | 1      | 847.7  | 5910.0           | 21.8 | 360.87               | 30.00  | .20  | -2000.00 | -2000.000 | 1.34   | -2000.00 |
|         | 2      | 406.7  | 8510.0           | 10.2 | 340.65               | 30.00  | .10  | -2000.00 | -2000.000 | .91    | -2000.00 |
|         | 3      | 189.7  | 7900.0           | 12.5 | 400.54               | 10.00  | .10  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
|         | 4      | 144.0  | 10000.0          | 10.3 | 184.60               | 3.00   | .20  | -2000.00 | -2000.000 | 1.76   | -2000.00 |
|         | 5      | 145.0  | 15100.0          | 5.9  | 92.82                | .10    | .30  | -2000.00 | -2000.000 | 2.55   | -2000.00 |
| 3002    | 1      | 2257.0 | 10100.0          | 17.3 | 301.14               | 30.00  | .20  | -2000.00 | -2000.000 | .85    | -2000.00 |
|         | 2      | 629.6  | 8470.0           | 15.6 | 468.76               | 100.00 | .10  | -2000.00 | -2000.000 | 1.04   | -2000.00 |
|         | 3      | 456.3  | 12200.0          | 7.6  | 272.20               | .30    | .10  | -2000.00 | -2000.000 | .82    | -2000.00 |



| Station | Dipole | Vp    | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|-------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |       |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 4       |        | 211.6 | 9400.0           | 10.6 | 370.38               | .10    | .10  | -2000.00 | -2000.000 | 1.36   | -2000.00 |
| 5       |        | 169.0 | 11300.0          | 9.1  | 112.86               | 3.00   | .30  | -2000.00 | -2000.000 | 1.99   | -2000.00 |

IPR-11 SPECTRAL ANALYSIS SUMMARYLINE NO. = 5503

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 2       | 1      | 2643.0 | 13865.6          | 10.3 | 353.82               | .30    | .10  | -2000.00 | -2000.000 | .70    | -2000.00 |
|         | 2      | 817.7  | 11850.4          | 10.9 | 371.81               | .30    | .10  | -2000.00 | -2000.000 | .50    | -2000.00 |
|         | 3      | 78.3   | 2265.5           | 10.3 | 373.35               | .03    | .10  | -2000.00 | -2000.000 | .75    | -2000.00 |
|         | 4      | 51.6   | 2490.7           | 8.5  | 176.40               | .10    | .20  | -2000.00 | -2000.000 | .87    | -2000.00 |
|         | 5      | 22.1   | 1599.2           | 8.1  | 201.28               | .01    | .20  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
| 252     | 1      | 2187.0 | 5720.0           | 9.8  | 334.23               | 1.00   | .10  | -2000.00 | -2000.000 | .61    | -2000.00 |
|         | 2      | 1488.0 | 11680.0          | 9.6  | 185.23               | .30    | .20  | -2000.00 | -2000.000 | .72    | -2000.00 |
|         | 3      | 751.7  | 11770.0          | 9.7  | 366.53               | .01    | .10  | -2000.00 | -2000.000 | .47    | -2000.00 |
|         | 4      | 84.9   | 2221.0           | 8.8  | 200.51               | .03    | .20  | -2000.00 | -2000.000 | .96    | -2000.00 |
|         | 5      | 61.5   | 2413.0           | 7.3  | 282.33               | .01    | .10  | -2000.00 | -2000.000 | 2.55   | -2000.00 |
| 254     | 1      | 5133.0 | 11510.0          | 7.6  | 296.04               | .01    | .10  | -2000.00 | -2000.000 | .86    | -2000.00 |
|         | 2      | 279.2  | 1878.0           | 8.8  | 337.15               | .01    | .10  | -2000.00 | -2000.000 | .76    | -2000.00 |
|         | 3      | 160.3  | 2150.0           | 7.7  | 158.73               | .10    | .20  | -2000.00 | -2000.000 | .90    | -2000.00 |
|         | 4      | 64.7   | 1450.0           | 7.1  | 184.80               | .01    | .20  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
| 502     | 1      | 1221.0 | 8500.0           | 13.6 | 424.73               | 100.00 | .10  | -2000.00 | -2000.000 | .77    | -2000.00 |
|         | 2      | 285.3  | 5970.0           | 8.5  | 116.21               | .30    | .30  | -2000.00 | -2000.000 | .61    | -2000.00 |
|         | 3      | 275.7  | 11500.0          | 8.3  | 113.05               | .30    | .30  | -2000.00 | -2000.000 | .97    | -2000.00 |
|         | 4      | 163.2  | 11300.0          | 8.6  | 117.96               | .30    | .30  | -2000.00 | -2000.000 | .96    | -2000.00 |
|         | 5      | 19.9   | 2080.0           | 7.5  | 90.66                | .30    | .40  | -2000.00 | -2000.000 | 9.88   | -2000.00 |
| 504     | 1      | 521.5  | 2720.0           | 5.9  | 238.15               | .01    | .10  | -2000.00 | -2000.000 | 1.27   | -2000.00 |
|         | 2      | 137.5  | 2150.0           | 6.0  | 136.85               | .03    | .20  | -2000.00 | -2000.000 | 1.65   | -2000.00 |
|         | 3      | 47.5   | 1480.0           | 5.9  | 94.19                | .10    | .30  | -2000.00 | -2000.000 | 1.36   | -2000.00 |
| 752     | 1      | 4084.0 | 14200.0          | 11.4 | 231.21               | .10    | .20  | -2000.00 | -2000.000 | 1.09   | -2000.00 |
|         | 2      | 1139.0 | 11900.0          | 12.0 | 387.63               | 10.00  | .10  | -2000.00 | -2000.000 | .40    | -2000.00 |
|         | 3      | 379.9  | 7900.0           | 7.9  | 164.99               | .10    | .20  | -2000.00 | -2000.000 | .27    | -2000.00 |
|         | 4      | 417.9  | 14500.0          | 8.1  | 181.37               | .03    | .20  | -2000.00 | -2000.000 | 1.65   | -2000.00 |
|         | 5      | 263.3  | 13700.0          | 8.5  | 176.69               | .10    | .20  | -2000.00 | -2000.000 | .54    | -2000.00 |
| 754     | 1      | 683.3  | 2145.0           | 4.7  | 42.37                | .30    | .50  | -2000.00 | -2000.000 | 5.44   | -2000.00 |
|         | 2      | 163.6  | 1541.0           | 4.6  | 62.55                | .10    | .40  | -2000.00 | -2000.000 | 4.20   | -2000.00 |
| 1002    | 1      | 5196.0 | 8580.0           | 6.5  | 104.04               | .10    | .30  | -2000.00 | -2000.000 | 1.30   | -2000.00 |
|         | 2      | 2225.0 | 11030.0          | 10.1 | 206.06               | .10    | .20  | -2000.00 | -2000.000 | .78    | -2000.00 |
|         | 3      | 1335.0 | 13200.0          | 11.7 | 391.11               | 1.00   | .10  | -2000.00 | -2000.000 | .68    | -2000.00 |
|         | 4      | 543.1  | 8970.0           | 8.3  | 172.17               | .10    | .20  | -2000.00 | -2000.000 | .44    | -2000.00 |
|         | 5      | 655.8  | 16250.0          | 8.5  | 192.91               | .03    | .20  | -2000.00 | -2000.000 | .89    | -2000.00 |
| 1004    | 1      | 74.3   | 933.0            | 5.3  | 83.28                | .10    | .30  | -2000.00 | -2000.000 | 3.17   | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
| 1252    | 1      | 1897.0 | 5410.0           | 5.7  | 91.08                | .10    | .30  | -2000.00 | -2000.000 | 1.55   | -2000.00 |
|         | 2      | 945.7  | 8098.0           | 8.0  | 202.84               | .01    | .20  | -2000.00 | -2000.000 | .75    | -2000.00 |
|         | 3      | 591.0  | 10100.0          | 11.0 | 380.88               | .10    | .10  | -2000.00 | -2000.000 | .76    | -2000.00 |
|         | 4      | 444.2  | 12670.0          | 12.6 | 404.10               | 30.00  | .10  | -2000.00 | -2000.000 | .86    | -2000.00 |
|         | 5      | 206.4  | 8830.0           | 9.4  | 190.98               | .10    | .20  | -2000.00 | -2000.000 | 1.49   | -2000.00 |
| 1502    | 1      | 3162.0 | 7630.0           | 12.0 | 395.68               | 1.00   | .10  | -2000.00 | -2000.000 | .89    | -2000.00 |
|         | 2      | 749.3  | 5429.0           | 9.8  | 348.51               | .10    | .10  | -2000.00 | -2000.000 | .83    | -2000.00 |
|         | 3      | 508.5  | 7350.0           | 11.4 | 382.72               | .30    | .10  | -2000.00 | -2000.000 | .80    | -2000.00 |
|         | 4      | 380.4  | 9180.0           | 13.6 | 426.83               | 100.00 | .10  | -2000.00 | -2000.000 | .56    | -2000.00 |
|         | 5      | 327.4  | 11860.0          | 15.0 | 454.30               | 100.00 | .10  | -2000.00 | -2000.000 | 1.02   | -2000.00 |
| 1752    | 1      | 1344.0 | 7600.0           | 12.9 | 230.70               | 10.00  | .20  | -2000.00 | -2000.000 | 1.06   | -2000.00 |
|         | 2      | 607.8  | 10400.0          | 9.6  | 361.24               | .01    | .10  | -2000.00 | -2000.000 | .60    | -2000.00 |
|         | 3      | 217.5  | 7400.0           | 7.5  | 156.49               | .10    | .20  | -2000.00 | -2000.000 | .96    | -2000.00 |
|         | 4      | 164.9  | 9400.0           | 9.5  | 193.13               | .10    | .20  | -2000.00 | -2000.000 | 1.52   | -2000.00 |
|         | 5      | 131.7  | 11200.0          | 11.8 | 390.88               | 1.00   | .10  | -2000.00 | -2000.000 | .53    | -2000.00 |
| 2002    | 1      | 1547.0 | 5300.0           | 23.5 | 397.17               | 100.00 | .20  | -2000.00 | -2000.000 | 1.07   | -2000.00 |
|         | 2      | 1061.0 | 11100.0          | 8.5  | 165.12               | .30    | .20  | -2000.00 | -2000.000 | .57    | -2000.00 |
|         | 3      | 618.7  | 12900.0          | 7.2  | 163.51               | .03    | .20  | -2000.00 | -2000.000 | .87    | -2000.00 |
|         | 4      | 242.2  | 8400.0           | 6.1  | 155.54               | .01    | .20  | -2000.00 | -2000.000 | 1.08   | -2000.00 |
|         | 5      | 200.9  | 10500.0          | 8.6  | 178.28               | .10    | .20  | -2000.00 | -2000.000 | .77    | -2000.00 |
| 2252    | 1      | 2664.0 | 7960.0           | 13.7 | 428.85               | 100.00 | .10  | -2000.00 | -2000.000 | .81    | -2000.00 |
|         | 2      | 589.5  | 5288.0           | 24.7 | 412.33               | 100.00 | .20  | -2000.00 | -2000.000 | .93    | -2000.00 |
|         | 3      | 696.9  | 12470.0          | 9.2  | 177.54               | .30    | .20  | -2000.00 | -2000.000 | 1.05   | -2000.00 |
|         | 4      | 464.9  | 13900.0          | 6.4  | 325.65               | .01    | .10  | -2000.00 | -2000.000 | 1.01   | -2000.00 |
|         | 5      | 195.9  | 8780.0           | 3.4  | 29.75                | .30    | .80  | -2000.00 | -2000.000 | 45.68  | -2000.00 |
| 2502    | 1      | 1101.0 | 4600.0           | 17.9 | 310.24               | 30.00  | .20  | -2000.00 | -2000.000 | 1.12   | -2000.00 |
|         | 2      | 496.1  | 6230.0           | 17.9 | 309.72               | 30.00  | .20  | -2000.00 | -2000.000 | 1.11   | -2000.00 |
|         | 3      | 198.9  | 4900.0           | 24.5 | 408.64               | 100.00 | .20  | -2000.00 | -2000.000 | 1.06   | -2000.00 |
|         | 4      | 308.5  | 12900.0          | 7.7  | 150.73               | .30    | .20  | -2000.00 | -2000.000 | .39    | -2000.00 |
|         | 5      | 228.1  | 14300.0          | 7.0  | 161.04               | .03    | .20  | -2000.00 | -2000.000 | 1.68   | -2000.00 |
| 2752    | 1      | 2100.0 | 7300.0           | 18.8 | 323.76               | 30.00  | .20  | -2000.00 | -2000.000 | 1.52   | -2000.00 |
|         | 2      | 607.2  | 6350.0           | 11.4 | 371.73               | 10.00  | .10  | -2000.00 | -2000.000 | .54    | -2000.00 |
|         | 3      | 361.4  | 7500.0           | 13.7 | 247.37               | 30.00  | .20  | -2000.00 | -2000.000 | 1.86   | -2000.00 |
|         | 4      | 165.5  | 5700.0           | 20.4 | 237.47               | 3.00   | .30  | -2000.00 | -2000.000 | 1.73   | -2000.00 |
|         | 5      | 264.1  | 13800.0          | 5.5  | 59.49                | .30    | .40  | -2000.00 | -2000.000 | 1.57   | -2000.00 |
| 3002    | 1      | 3678.0 | 9620.0           | 12.4 | 222.63               | 10.00  | .20  | -2000.00 | -2000.000 | 1.38   | -2000.00 |
|         | 2      | 1112.0 | 8720.0           | 15.7 | 270.76               | 10.00  | .20  | -2000.00 | -2000.000 | .70    | -2000.00 |
|         | 3      | 448.5  | 7020.0           | 10.3 | 342.33               | 3.00   | .10  | -2000.00 | -2000.000 | .64    | -2000.00 |
|         | 4      | 294.1  | 7690.0           | 13.4 | 235.13               | 3.00   | .20  | -2000.00 | -2000.000 | .90    | -2000.00 |
|         | 5      | 145.9  | 5720.0           | 20.1 | 337.61               | 30.00  | .20  | -2000.00 | -2000.000 | .56    | -2000.00 |
| 3252    | 1      | 3557.0 | 12400.0          | 11.8 | 381.91               | 100.00 | .10  | -2000.00 | -2000.000 | .88    | -2000.00 |
|         | 2      | 594.9  | 6220.0           | 17.7 | 306.53               | 30.00  | .20  | -2000.00 | -2000.000 | .95    | -2000.00 |

| Station | Dipole | Vp     | Apparent Resist. | M7   | Cole-Cole Parameters |        |      |          |           | Fit/IP | Fit/EM   |
|---------|--------|--------|------------------|------|----------------------|--------|------|----------|-----------|--------|----------|
|         |        |        |                  |      | M-IP                 | TAU-IP | C-IP | M-EM     | TAU-EM    |        |          |
|         | 3      | 429.9  | 8900.0           | 17.0 | 296.59               | 30.00  | .20  | -2000.00 | -2000.000 | .97    | -2000.00 |
|         | 4      | 197.6  | 6800.0           | 10.9 | 135.08               | 1.00   | .30  | -2000.00 | -2000.000 | .89    | -2000.00 |
|         | 5      | 144.7  | 7500.0           | 14.5 | 255.22               | 10.00  | .20  | -2000.00 | -2000.000 | 1.67   | -2000.00 |
| 3502    | 1      | 4356.0 | 10940.0          | 11.5 | 374.23               | 100.00 | .10  | -2000.00 | -2000.000 | .71    | -2000.00 |
|         | 2      | 1428.0 | 10760.0          | 11.1 | 376.37               | .30    | .10  | -2000.00 | -2000.000 | .52    | -2000.00 |
|         | 3      | 700.6  | 10530.0          | 14.4 | 253.54               | 10.00  | .20  | -2000.00 | -2000.000 | .95    | -2000.00 |
|         | 4      | 430.5  | 10810.0          | 16.1 | 277.69               | 10.00  | .20  | -2000.00 | -2000.000 | .62    | -2000.00 |
|         | 5      | 229.7  | 8650.0           | 10.0 | 188.08               | 1.00   | .20  | -2000.00 | -2000.000 | .92    | -2000.00 |

IPR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : 1950s.IND

DATA FILE : 1950s.DAT

LINE NO. : 9503

| Station | Receive Mode | Dipole : | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7  | M8  | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|----------|------|------|------|------|------|------------|------|-----|-----|-----|----------|----------|------------------|
| 1002    | 2            | 1        | 19.5 | 16.2 | 14.4 | 12.9 | 10.2 | 7.6        | 6.0  | 4.8 | 3.7 | 2.9 | 461.0    | -19.     | 1447.            |
|         |              | 2        | 18.5 | 15.4 | 13.8 | 12.3 | 9.7  | 7.2        | 5.8  | 4.6 | 3.6 | 2.8 | 191.1    | -12.     | 1800.            |
|         |              | 3        | 24.6 | 20.4 | 18.1 | 16.3 | 12.8 | 9.5        | 7.5  | 5.9 | 4.7 | 3.8 | 172.0    | 0.       | 3230.            |
|         |              | 4        | 26.6 | 22.0 | 19.5 | 17.5 | 13.7 | 10.2       | 8.3  | 6.5 | 4.8 | 3.8 | 98.7     | 6.       | 3100.            |
|         |              | 5        | 26.1 | 21.8 | 19.3 | 17.4 | 13.5 | 10.0       | 7.9  | 6.2 | 4.7 | 3.9 | 67.2     | -4.      | 3166.            |
| 752     | 2            | 1        | 14.7 | 12.2 | 10.7 | 9.6  | 7.6  | 5.6        | 4.5  | 3.5 | 2.7 | 1.9 | 676.4    | -14.     | 1061.            |
|         |              | 2        | 21.6 | 17.9 | 15.7 | 14.1 | 11.1 | 8.1        | 6.3  | 4.9 | 3.8 | 2.8 | 483.6    | -4.      | 2277.            |
|         |              | 3        | 23.4 | 19.4 | 17.0 | 15.2 | 11.9 | 8.9        | 7.1  | 5.6 | 4.3 | 3.3 | 258.3    | 27.      | 2420.            |
|         |              | 4        | 23.7 | 19.6 | 17.3 | 15.6 | 12.2 | 8.9        | 7.1  | 5.5 | 4.2 | 3.0 | 170.4    | -22.     | 2670.            |
|         |              | 5        | 24.7 | 20.4 | 17.9 | 16.1 | 12.6 | 9.3        | 7.4  | 5.7 | 4.4 | 3.3 | 168.4    | 24.      | 3960.            |
| 502     | 2            | 1        | 19.1 | 15.3 | 13.5 | 12.3 | 9.5  | 6.9        | 5.6  | 4.3 | 3.3 | 2.4 | 738.2    | -7.      | 1219.            |
|         |              | 2        | 22.0 | 17.5 | 15.6 | 14.3 | 10.8 | 7.7        | 6.2  | 4.8 | 3.7 | 2.7 | 336.2    | 32.      | 1666.            |
|         |              | 3        | 21.9 | 17.5 | 15.4 | 14.0 | 10.9 | 8.1        | 6.6  | 5.1 | 3.9 | 2.9 | 208.8    | -9.      | 2060.            |
|         |              | 4        | 23.5 | 18.9 | 16.7 | 15.3 | 11.7 | 8.5        | 6.8  | 5.2 | 4.0 | 2.9 | 200.3    | 1.       | 3310.            |
|         |              | 5        | 19.6 | 15.6 | 14.0 | 13.0 | 9.9  | 7.4        | 6.0  | 4.6 | 3.5 | 2.6 | 85.6     | -26.     | 2122.            |
| 252     | 2            | 1        | 19.7 | 16.2 | 14.0 | 12.7 | 9.7  | 7.1        | 5.6  | 4.4 | 3.3 | 2.3 | 326.1    | 30.      | 731.             |
|         |              | 2        | 20.5 | 16.9 | 14.7 | 13.3 | 10.2 | 7.5        | 6.0  | 4.6 | 3.5 | 2.4 | 182.9    | -17.     | 1230.            |
|         |              | 3        | 21.8 | 18.1 | 15.7 | 14.3 | 11.0 | 8.2        | 6.6  | 5.2 | 4.1 | 3.0 | 166.9    | 22.      | 2240.            |
|         |              | 4        | 18.4 | 15.3 | 13.3 | 12.0 | 9.3  | 6.8        | 5.5  | 4.2 | 3.2 | 2.1 | 70.3     | -43.     | 1576.            |
|         |              | 5        | 32.0 | 26.2 | 22.8 | 20.8 | 15.7 | 11.7       | 8.8  | 7.2 | 5.3 | 3.6 | 82.7     | 13.      | 2780.            |
| 2       | 2            | 1        | 18.6 | 15.2 | 13.2 | 12.1 | 9.2  | 6.7        | 5.4  | 4.2 | 3.2 | 2.5 | 531.3    | -16.     | 926.             |
|         |              | 2        | 21.4 | 17.4 | 15.2 | 13.8 | 10.6 | 7.7        | 6.1  | 4.7 | 3.6 | 2.8 | 325.5    | 26.      | 1703.            |
|         |              | 3        | 18.2 | 14.9 | 13.0 | 11.9 | 9.2  | 6.9        | 5.5  | 4.3 | 3.4 | 2.7 | 126.4    | -30.     | 1320.            |
|         |              | 4        | 31.2 | 25.4 | 22.2 | 20.0 | 15.3 | 11.3       | 9.0  | 7.0 | 5.3 | 4.2 | 137.6    | -13.     | 2400.            |
|         |              | 5        | 37.6 | 30.7 | 27.0 | 25.1 | 19.3 | 13.9       | 11.2 | 8.7 | 6.6 | 5.3 | 157.3    | 35.      | 4110.            |
| 254     | 2            | 1        | 18.9 | 15.7 | 13.3 | 12.0 | 9.3  | 6.8        | 5.4  | 4.2 | 3.1 | 2.5 | 551.7    | 21.      | 824.             |

Index: 1950s.IND

Data : 1950s.DAT

|      |   |   |      |      |      |      |      |      |      |      |     |     |        |      |       |
|------|---|---|------|------|------|------|------|------|------|------|-----|-----|--------|------|-------|
|      |   | 2 | 17.4 | 14.6 | 12.6 | 11.1 | 8.8  | 6.5  | 5.3  | 4.1  | 3.1 | 2.5 | 180.5  | -18. | 809.  |
|      |   | 3 | 30.6 | 25.2 | 21.8 | 19.3 | 15.0 | 10.8 | 8.5  | 6.6  | 5.0 | 3.9 | 232.6  | -2.  | 2080. |
|      |   | 4 | 36.9 | 30.8 | 26.8 | 24.0 | 18.8 | 14.0 | 11.2 | 8.9  | 6.8 | 5.8 | 172.2  | 8.   | 2570. |
|      |   | 5 | 42.1 | 35.1 | 30.3 | 26.9 | 21.1 | 15.5 | 12.3 | 9.5  | 7.1 | 5.7 | 174.9  | -24. | 3920. |
| 504  | 2 | 1 | 15.1 | 12.5 | 10.7 | 9.5  | 7.6  | 5.5  | 4.5  | 3.5  | 2.6 | 2.1 | 340.6  | -27. | 594.  |
|      |   | 2 | 27.9 | 22.9 | 19.7 | 17.6 | 13.6 | 9.8  | 7.8  | 6.0  | 4.6 | 3.7 | 260.8  | -11. | 1364. |
|      |   | 3 | 34.5 | 28.4 | 24.6 | 22.1 | 17.2 | 12.5 | 10.1 | 8.0  | 6.0 | 5.0 | 205.8  | 12.  | 2140. |
|      |   | 4 | 39.9 | 33.0 | 28.7 | 25.8 | 20.2 | 14.8 | 11.8 | 9.0  | 6.9 | 5.4 | 164.4  | -23. | 2860. |
|      |   | 5 | 45.7 | 38.0 | 33.0 | 29.7 | 23.4 | 17.1 | 13.9 | 10.6 | 8.0 | 6.4 | 60.6   | 9.   | 1585. |
| 754  | 2 | 1 | 22.5 | 18.2 | 15.8 | 13.9 | 10.8 | 7.8  | 6.2  | 4.8  | 3.6 | 2.8 | 1080.0 | -28. | 1090. |
|      |   | 2 | 31.5 | 25.6 | 22.3 | 19.9 | 15.4 | 11.2 | 8.8  | 6.9  | 5.3 | 4.2 | 529.2  | 30.  | 1608. |
|      |   | 3 | 36.4 | 29.8 | 26.1 | 23.2 | 18.0 | 13.2 | 10.5 | 8.0  | 6.1 | 4.7 | 397.7  | -25. | 2410. |
|      |   | 4 | 43.6 | 35.8 | 31.4 | 28.2 | 22.0 | 16.1 | 12.8 | 9.9  | 7.5 | 5.8 | 134.4  | -17. | 1360. |
| 1004 | 2 | 1 | 28.3 | 22.8 | 19.9 | 17.7 | 13.7 | 9.9  | 7.9  | 6.1  | 4.6 | 3.4 | 756.5  | 0.   | 1250. |
|      |   | 2 | 33.9 | 27.5 | 23.9 | 21.4 | 16.5 | 12.0 | 9.5  | 7.3  | 5.4 | 4.1 | 352.4  | -15. | 1747. |
|      |   | 3 | 40.9 | 33.7 | 29.6 | 26.5 | 20.6 | 15.1 | 12.1 | 9.3  | 7.0 | 5.3 | 107.5  | -5.  | 1060. |
| 1254 | 2 | 1 | 40.2 | 32.3 | 28.0 | 25.1 | 19.2 | 13.7 | 10.8 | 8.3  | 6.2 | 4.5 | 1112.0 | -7.  | 2680. |
|      |   | 2 | 47.5 | 38.6 | 33.7 | 30.5 | 23.5 | 17.0 | 13.6 | 10.4 | 7.9 | 5.9 | 177.8  | -11. | 1288. |
| 1504 | 2 | 1 | 47.6 | 38.9 | 33.7 | 30.2 | 23.1 | 16.7 | 13.1 | 10.1 | 7.6 | 5.6 | 543.1  | -16. | 1263. |

IPR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L850S.IND

DATA FILE : L850S.DAT

LINE NO. : 8503

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8  | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|-----|-----|----------|----------|------------------|
| 1252    | 2            | 1      | 37.3 | 31.5 | 28.3 | 25.8 | 20.9 | 15.9       | 13.1 | 10.4 | 8.2 | 6.7 | 2216.0   | 8.       | 4630.            |
|         |              | 2      | 33.2 | 27.9 | 25.0 | 22.6 | 18.2 | 13.7       | 11.2 | 8.8  | 6.8 | 5.5 | 801.4    | -8.      | 5032.            |
|         |              | 3      | 32.8 | 27.3 | 24.2 | 21.9 | 17.3 | 12.8       | 10.3 | 8.1  | 6.3 | 5.1 | 351.1    | 36.      | 4400.            |
|         |              | 4      | 34.0 | 28.2 | 25.1 | 22.6 | 18.0 | 13.4       | 10.9 | 8.6  | 6.5 | 5.2 | 224.5    | -19.     | 4690.            |
|         |              | 5      | 29.4 | 24.6 | 21.9 | 19.8 | 15.9 | 11.9       | 9.6  | 7.6  | 5.8 | 4.8 | 91.2     | -43.     | 2863.            |
| 1002    | 2            | 1      | 29.1 | 24.2 | 21.6 | 19.6 | 15.5 | 11.6       | 9.4  | 7.4  | 5.7 | 4.6 | 3424.0   | -33.     | 7160.            |
|         |              | 2      | 30.1 | 24.9 | 22.1 | 20.0 | 15.7 | 11.6       | 9.3  | 7.2  | 5.6 | 4.5 | 968.3    | 35.      | 6080.            |
|         |              | 3      | 32.1 | 26.7 | 23.6 | 21.4 | 16.9 | 12.5       | 10.1 | 7.9  | 6.1 | 5.0 | 459.5    | -20.     | 5750.            |
|         |              | 4      | 27.0 | 22.4 | 20.0 | 18.2 | 14.4 | 10.7       | 8.6  | 6.7  | 5.2 | 4.2 | 157.9    | -22.     | 3300.            |
|         |              | 5      | 29.2 | 24.2 | 21.5 | 19.7 | 15.4 | 11.4       | 9.1  | 7.1  | 5.5 | 4.4 | 65.1     | -15.     | 2045.            |
| 752     | 2            | 1      | 28.5 | 23.5 | 20.6 | 18.6 | 14.5 | 10.6       | 8.5  | 6.6  | 5.0 | 3.6 | 3344.0   | 24.      | 7500.            |
|         |              | 2      | 31.7 | 26.5 | 23.4 | 21.2 | 16.6 | 12.2       | 9.8  | 7.6  | 5.9 | 4.4 | 978.3    | -31.     | 6582.            |
|         |              | 3      | 26.2 | 21.9 | 19.2 | 17.5 | 13.9 | 10.3       | 8.4  | 6.7  | 5.2 | 3.8 | 278.6    | -18.     | 3740.            |
|         |              | 4      | 28.4 | 23.7 | 20.9 | 19.0 | 15.0 | 11.3       | 9.1  | 7.1  | 5.4 | 4.0 | 102.1    | 8.       | 2280.            |
|         |              | 5      | 28.2 | 23.5 | 20.5 | 18.6 | 14.6 | 10.7       | 8.5  | 6.7  | 5.1 | 3.8 | 64.4     | -33.     | 2166.            |
| 502     | 2            | 1      | 26.1 | 21.5 | 18.7 | 16.8 | 13.1 | 9.6        | 7.6  | 5.9  | 4.5 | 3.6 | 2160.0   | -36.     | 5210.            |
|         |              | 2      | 21.4 | 17.9 | 15.7 | 14.1 | 11.2 | 8.4        | 6.8  | 5.4  | 4.2 | 3.4 | 530.6    | -27.     | 3844.            |
|         |              | 3      | 24.8 | 20.9 | 18.3 | 16.5 | 13.0 | 9.5        | 7.5  | 5.9  | 4.5 | 3.7 | 103.3    | 16.      | 1490.            |
|         |              | 4      | 24.8 | 20.6 | 18.0 | 16.2 | 12.7 | 9.2        | 7.4  | 5.7  | 4.4 | 3.5 | 90.6     | -12.     | 2188.            |
|         |              | 5      | 24.1 | 19.9 | 17.5 | 15.6 | 12.2 | 9.0        | 7.1  | 5.6  | 4.3 | 3.5 | 89.3     | -7.      | 3233.            |
| 252     | 2            | 1      | 18.6 | 15.2 | 13.6 | 12.1 | 9.4  | 7.0        | 5.6  | 4.4  | 3.4 | 2.4 | 1352.0   | -41.     | 2490.            |
|         |              | 2      | 21.9 | 17.8 | 15.9 | 14.2 | 11.0 | 8.2        | 6.5  | 5.2  | 4.0 | 2.9 | 188.2    | -21.     | 1042.            |
|         |              | 3      | 22.1 | 18.1 | 16.0 | 14.4 | 11.1 | 8.1        | 6.3  | 4.9  | 3.7 | 2.7 | 191.5    | 21.      | 2110.            |
|         |              | 4      | 21.9 | 17.8 | 15.7 | 14.0 | 10.8 | 7.9        | 6.2  | 4.8  | 3.7 | 2.6 | 156.8    | 13.      | 2890.            |
| 2       | 2            | 1      | 16.0 | 13.3 | 11.6 | 10.4 | 8.2  | 6.0        | 4.8  | 3.7  | 2.8 | 1.9 | 588.7    | -21.     | 1232.            |
|         |              | 2      | 20.0 | 15.8 | 13.7 | 12.3 | 9.5  | 6.8        | 5.3  | 4.1  | 3.2 | 2.3 | 292.9    | 12.      | 1839.            |

|     |   |   |      |      |      |      |     |     |     |     |     |     |       |      |       |
|-----|---|---|------|------|------|------|-----|-----|-----|-----|-----|-----|-------|------|-------|
|     |   | 3 | 18.9 | 15.3 | 13.3 | 11.9 | 9.2 | 6.7 | 5.3 | 4.0 | 3.0 | 2.0 | 217.3 | 16.  | 2720. |
| 254 | 2 | 1 | 14.5 | 11.9 | 10.4 | 9.3  | 7.0 | 5.1 | 4.0 | 2.6 | 2.4 | 1.5 | 408.6 | -13. | 986.  |
|     |   | 2 | 16.2 | 13.1 | 11.4 | 10.1 | 7.8 | 5.6 | 4.4 | 3.4 | 2.6 | 1.7 | 280.5 | 17.  | 2032. |
| 504 | 2 | 1 | 15.1 | 12.2 | 10.5 | 9.5  | 7.2 | 5.2 | 4.2 | 3.2 | 2.5 | 1.4 | 323.0 | 19.  | 1120. |



IPR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L800S.IND

DATA FILE : L800S.DAT

LINE NO. : 8003

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8   | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|------|-----|----------|----------|------------------|
| 2502    | 2            | 1      | 29.1 | 24.1 | 21.2 | 19.2 | 15.1 | 11.2       | 9.0  | 7.1  | 5.4  | 4.4 | 3986.0   | -63.     | 10430.           |
|         |              | 2      | 39.6 | 33.3 | 29.6 | 26.9 | 21.5 | 16.2       | 13.2 | 10.4 | 8.0  | 6.5 | 1474.0   | -5.      | 11570.           |
|         |              | 3      | 39.9 | 33.9 | 30.2 | 27.6 | 22.2 | 16.8       | 13.8 | 11.0 | 8.6  | 7.0 | 501.0    | 10.      | 7840.            |
|         |              | 4      | 50.4 | 43.0 | 38.5 | 35.2 | 28.5 | 21.8       | 17.9 | 14.2 | 11.1 | 9.1 | 371.2    | 6.       | 9710.            |
|         |              | 5      | 32.4 | 27.9 | 25.0 | 22.8 | 18.3 | 13.9       | 11.4 | 9.0  | 7.0  | 5.7 | 226.0    | 17.      | 6870.            |
| 2252    | 2            | 1      | 36.3 | 30.3 | 27.0 | 24.5 | 19.5 | 14.7       | 11.9 | 9.4  | 7.3  | 5.9 | 4101.0   | -58.     | 9530.            |
|         |              | 2      | 40.9 | 34.4 | 30.8 | 28.0 | 22.4 | 17.0       | 13.9 | 11.1 | 8.6  | 7.0 | 901.7    | -5.      | 6291.            |
|         |              | 3      | 52.1 | 44.3 | 39.8 | 36.4 | 29.4 | 22.5       | 18.5 | 14.6 | 11.4 | 9.4 | 572.5    | 30.      | 7970.            |
|         |              | 4      | 33.2 | 28.3 | 25.4 | 23.0 | 18.6 | 14.1       | 11.3 | 9.4  | 7.5  | 6.0 | 326.1    | -12.     | 7580.            |
|         |              | 5      | 33.0 | 28.0 | 25.0 | 22.7 | 18.2 | 13.6       | 11.1 | 8.7  | 6.9  | 5.4 | 219.7    | 33.      | 7660.            |
| 2002    | 2            | 1      | 32.3 | 26.5 | 23.3 | 21.1 | 16.8 | 12.6       | 10.3 | 8.2  | 6.4  | 5.2 | 2082.0   | -4.      | 6530.            |
|         |              | 2      | 51.7 | 43.8 | 39.2 | 35.8 | 28.9 | 22.1       | 18.1 | 14.4 | 11.3 | 9.2 | 772.6    | 19.      | 7277.            |
|         |              | 3      | 34.8 | 29.6 | 26.3 | 24.0 | 19.3 | 14.7       | 12.0 | 9.6  | 7.4  | 6.1 | 355.1    | 0.       | 6670.            |
|         |              | 4      | 35.1 | 29.8 | 26.8 | 24.6 | 19.8 | 14.9       | 12.1 | 9.4  | 7.4  | 5.8 | 188.6    | 10.      | 5920.            |
|         |              | 5      | 33.5 | 28.1 | 25.1 | 22.7 | 18.0 | 13.4       | 10.8 | 8.5  | 6.5  | 5.3 | 157.0    | 3.       | 7390.            |
| 1752    | 2            | 1      | 50.0 | 42.1 | 37.6 | 34.2 | 27.4 | 20.9       | 17.1 | 13.6 | 10.7 | 8.7 | 2731.0   | 0.       | 8160.            |
|         |              | 2      | 35.7 | 30.3 | 27.2 | 24.9 | 20.1 | 15.4       | 12.6 | 10.0 | 7.8  | 6.3 | 835.6    | -16.     | 7496.            |
|         |              | 3      | 35.7 | 30.5 | 27.3 | 24.8 | 19.8 | 15.0       | 12.2 | 9.7  | 7.4  | 5.9 | 374.5    | 28.      | 6700.            |
|         |              | 4      | 35.4 | 30.0 | 26.9 | 24.4 | 19.4 | 14.7       | 11.8 | 9.3  | 7.2  | 5.8 | 243.3    | -17.     | 7270.            |
|         |              | 5      | 39.8 | 33.4 | 29.6 | 26.8 | 21.2 | 15.7       | 12.6 | 9.8  | 7.6  | 6.0 | 224.5    | 19.      | 10070.           |
| 1502    | 2            | 1      | 36.4 | 31.1 | 27.7 | 25.5 | 20.5 | 15.6       | 12.8 | 10.1 | 7.9  | 6.1 | 2472.0   | -21.     | 5540.            |
|         |              | 2      | 37.2 | 31.7 | 27.9 | 25.8 | 20.6 | 15.6       | 12.8 | 10.1 | 7.9  | 6.1 | 823.9    | 20.      | 5543.            |
|         |              | 3      | 35.9 | 30.7 | 27.2 | 25.1 | 20.0 | 15.0       | 12.2 | 9.6  | 7.4  | 5.6 | 457.6    | -3.      | 6140.            |
|         |              | 4      | 41.1 | 34.7 | 30.5 | 27.9 | 22.1 | 16.4       | 13.3 | 10.4 | 8.0  | 6.1 | 392.3    | -11.     | 8790.            |
|         |              | 5      | 32.9 | 27.9 | 24.6 | 22.6 | 17.7 | 13.3       | 10.8 | 8.5  | 6.5  | 4.9 | 235.1    | 14.      | 7900.            |
| 1252    | 2            | 1      | 30.8 | 25.7 | 22.7 | 20.8 | 16.4 | 12.2       | 9.9  | 7.8  | 6.0  | 4.3 | 2197.0   | 5.       | 6890.            |

|      |   |   |      |      |      |      |      |      |      |      |     |     |        |      |        |
|------|---|---|------|------|------|------|------|------|------|------|-----|-----|--------|------|--------|
|      |   | 2 | 35.0 | 29.6 | 26.4 | 24.1 | 19.1 | 14.4 | 11.6 | 9.1  | 7.0 | 5.2 | 724.8  | -15. | 6827.  |
|      |   | 3 | 42.9 | 36.0 | 31.9 | 29.2 | 23.0 | 17.1 | 13.8 | 10.9 | 8.4 | 6.2 | 504.3  | 12.  | 9480.  |
|      |   | 4 | 35.0 | 29.8 | 26.5 | 24.1 | 19.2 | 14.5 | 11.8 | 9.1  | 7.2 | 5.2 | 271.9  | -14. | 8530.  |
|      |   | 5 | 41.3 | 34.7 | 30.7 | 28.3 | 22.4 | 16.8 | 13.7 | 10.6 | 8.2 | 6.5 | 200.4  | 34.  | 9430.  |
| 1002 | 2 | 1 | 26.2 | 22.1 | 19.4 | 17.6 | 13.9 | 10.2 | 8.2  | 6.4  | 4.9 | 3.9 | 2860.0 | -22. | 6900.  |
|      |   | 2 | 37.9 | 31.7 | 27.8 | 25.2 | 19.8 | 14.6 | 11.7 | 9.0  | 6.8 | 5.5 | 1307.0 | 5.   | 9470.  |
|      |   | 3 | 31.5 | 26.5 | 23.3 | 21.1 | 16.6 | 12.5 | 10.0 | 7.9  | 6.1 | 4.8 | 598.5  | 1.   | 8650.  |
|      |   | 4 | 37.8 | 32.0 | 28.2 | 25.7 | 20.5 | 15.2 | 12.4 | 9.7  | 7.4 | 6.0 | 396.1  | 1.   | 9560.  |
|      |   | 5 | 41.5 | 35.3 | 30.9 | 28.1 | 22.3 | 16.7 | 13.6 | 10.6 | 8.1 | 6.7 | 263.2  | -4.  | 9530.  |
| 752  | 2 | 1 | 32.0 | 26.1 | 22.8 | 20.6 | 15.9 | 11.5 | 9.2  | 7.1  | 5.3 | 3.9 | 4934.0 | 13.  | 10320. |
|      |   | 2 | 30.5 | 25.0 | 22.0 | 19.9 | 15.4 | 11.3 | 9.0  | 7.0  | 5.4 | 4.0 | 1247.0 | -4.  | 7830.  |
|      |   | 3 | 35.9 | 30.0 | 26.5 | 24.2 | 19.0 | 14.1 | 11.4 | 8.9  | 6.8 | 5.2 | 735.5  | 11.  | 9210.  |
|      |   | 4 | 40.4 | 33.8 | 29.9 | 27.5 | 21.5 | 16.2 | 13.0 | 10.1 | 7.7 | 5.9 | 432.1  | -28. | 9040.  |
|      |   | 5 | 34.9 | 29.2 | 25.9 | 23.7 | 18.8 | 14.1 | 11.3 | 8.8  | 6.8 | 5.3 | 156.8  | 15.  | 4920.  |
| 502  | 2 | 1 | 30.0 | 24.3 | 21.4 | 19.1 | 14.7 | 10.7 | 8.4  | 6.5  | 5.0 | 4.0 | 2017.0 | -9.  | 5500.  |
|      |   | 2 | 35.6 | 29.5 | 26.1 | 23.4 | 18.2 | 13.4 | 10.8 | 8.4  | 6.4 | 5.0 | 942.7  | 13.  | 7721.  |
|      |   | 3 | 39.4 | 32.7 | 29.2 | 26.2 | 20.8 | 15.4 | 12.4 | 9.7  | 7.5 | 6.0 | 493.0  | -15. | 8050.  |
|      |   | 4 | 34.4 | 28.6 | 25.5 | 23.0 | 18.2 | 13.5 | 10.9 | 8.5  | 6.5 | 5.3 | 168.5  | -15. | 4600.  |
|      |   | 5 | 29.7 | 23.9 | 21.5 | 19.3 | 14.9 | 10.9 | 9.0  | 7.3  | 5.6 | 4.1 | 42.9   | 22.  | 1755.  |
| 252  | 2 | 1 | 32.6 | 27.3 | 23.7 | 21.3 | 16.6 | 12.2 | 9.7  | 7.5  | 5.7 | 4.3 | 3681.0 | -19. | 7700.  |
|      |   | 2 | 37.3 | 31.8 | 27.6 | 25.0 | 19.6 | 14.5 | 11.6 | 9.0  | 6.8 | 5.2 | 1321.0 | -27. | 8290.  |
|      |   | 3 | 32.8 | 27.9 | 24.3 | 22.0 | 17.4 | 13.1 | 10.6 | 8.2  | 6.2 | 4.7 | 395.0  | 5.   | 4950.  |
|      |   | 4 | 27.6 | 23.5 | 20.3 | 18.4 | 14.5 | 10.6 | 8.4  | 6.5  | 5.1 | 3.9 | 90.3   | -11. | 1890.  |
|      |   | 5 | 26.3 | 21.9 | 18.9 | 17.2 | 13.5 | 10.0 | 8.1  | 6.3  | 4.6 | 3.4 | 65.9   | 17.  | 2068.  |
| 2    | 2 | 1 | 31.1 | 25.8 | 22.8 | 20.7 | 16.2 | 11.9 | 9.5  | 7.3  | 5.6 | 4.5 | 2463.0 | -20. | 7030.  |
|      |   | 2 | 28.1 | 23.5 | 20.8 | 18.9 | 14.9 | 11.0 | 8.8  | 6.9  | 5.3 | 4.3 | 603.2  | 3.   | 5165.  |
|      |   | 3 | 24.0 | 19.9 | 17.6 | 16.0 | 12.7 | 9.3  | 7.4  | 5.8  | 4.5 | 3.5 | 123.3  | 4.   | 2100.  |
|      |   | 4 | 23.7 | 19.4 | 17.0 | 15.4 | 11.9 | 8.7  | 7.0  | 5.4  | 4.1 | 3.3 | 77.4   | -12. | 2209.  |
|      |   | 5 | 31.3 | 25.8 | 22.7 | 20.6 | 15.8 | 11.5 | 9.1  | 7.0  | 5.3 | 4.3 | 66.3   | -10. | 2839.  |
| 254  | 2 | 1 | 25.2 | 20.9 | 18.4 | 17.3 | 13.1 | 9.6  | 7.7  | 6.0  | 4.5 | 3.2 | 1488.0 | -8.  | 3890.  |
|      |   | 2 | 21.3 | 17.7 | 15.5 | 14.2 | 11.1 | 8.1  | 6.6  | 5.1  | 3.9 | 2.7 | 250.9  | 0.   | 1969.  |
|      |   | 3 | 20.9 | 17.1 | 14.9 | 13.5 | 10.5 | 7.6  | 6.1  | 4.7  | 3.6 | 2.4 | 135.3  | 5.   | 2110.  |
|      |   | 4 | 27.7 | 22.6 | 19.5 | 17.7 | 13.7 | 9.8  | 7.9  | 6.1  | 4.5 | 3.2 | 99.8   | -39. | 2611.  |
| 504  | 2 | 1 | 18.6 | 15.1 | 13.2 | 11.8 | 9.4  | 6.9  | 5.5  | 4.2  | 3.1 | 2.0 | 795.7  | -10. | 1998.  |
|      |   | 2 | 19.0 | 15.1 | 13.1 | 11.8 | 8.9  | 6.3  | 5.0  | 3.8  | 2.9 | 1.9 | 265.6  | 1.   | 2001.  |
|      |   | 3 | 23.4 | 18.9 | 16.3 | 14.7 | 11.3 | 8.1  | 6.4  | 4.9  | 3.6 | 2.5 | 160.1  | -31. | 2400.  |
| 754  | 2 | 1 | 16.3 | 12.7 | 11.3 | 9.8  | 7.5  | 5.3  | 4.2  | 3.2  | 2.4 | 1.7 | 920.1  | -16. | 1111.  |
|      |   | 2 | 21.0 | 16.4 | 14.4 | 12.7 | 9.7  | 6.9  | 5.4  | 4.1  | 3.1 | 2.3 | 443.0  | -41. | 1605.  |
| 1004 | 2 | 1 | 14.9 | 11.8 | 10.3 | 9.2  | 6.9  | 4.9  | 3.9  | 2.9  | 2.2 | 1.1 | 268.3  | -38. | 930.   |

IFR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L750S.IND

DATA FILE : L750S.DAT

LINE NO. : 7503

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8  | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|-----|-----|----------|----------|------------------|
| 752     | 2            | 1      | 29.6 | 24.5 | 21.4 | 19.3 | 14.9 | 10.8       | 8.6  | 6.6  | 5.0 | 3.8 | 4108.0   | -55.     | 5370.            |
| 754     |              | 2      | 31.3 | 26.0 | 22.8 | 20.5 | 16.0 | 11.7       | 9.3  | 7.2  | 5.5 | 4.2 | 1289.0   | 13.      | 5050.            |
|         |              | 3      | 37.3 | 31.6 | 27.9 | 25.4 | 20.1 | 15.0       | 12.1 | 9.5  | 7.3 | 5.8 | 1033.0   | 2.       | 8000.            |
|         |              | 4      | 43.5 | 36.7 | 32.5 | 29.5 | 23.3 | 17.3       | 14.0 | 11.0 | 8.4 | 6.6 | 699.5    | 14.      | 9150.            |
|         |              | 5      | 39.4 | 33.6 | 29.8 | 27.2 | 21.7 | 16.3       | 13.2 | 10.3 | 8.0 | 6.4 | 269.5    | -18.     | 5280.            |
| 502     | 2            | 1      | 27.4 | 22.5 | 19.9 | 17.8 | 13.7 | 9.9        | 7.8  | 6.0  | 4.5 | 3.1 | 3064.0   | 0.       | 8010.            |
|         |              | 2      | 35.9 | 30.1 | 26.6 | 24.1 | 18.9 | 14.0       | 11.2 | 8.7  | 6.7 | 5.0 | 1093.0   | 6.       | 8580.            |
|         |              | 3      | 42.8 | 36.0 | 31.9 | 28.9 | 22.8 | 16.9       | 13.5 | 10.7 | 8.2 | 6.2 | 645.9    | 18.      | 10110.           |
|         |              | 4      | 40.1 | 34.0 | 30.2 | 27.5 | 21.9 | 16.3       | 13.2 | 10.3 | 7.9 | 6.0 | 234.8    | -7.      | 6140.            |
|         |              | 5      | 29.2 | 24.2 | 21.5 | 19.3 | 15.2 | 11.5       | 8.9  | 7.0  | 5.5 | 3.9 | 40.6     | -6.      | 1593.            |
| 252     | 2            | 1      | 30.9 | 25.6 | 22.5 | 20.4 | 15.9 | 11.7       | 9.4  | 7.3  | 5.6 | 4.4 | 1915.0   | 11.      | 5720.            |
|         |              | 2      | 39.7 | 33.1 | 29.4 | 26.7 | 21.0 | 15.6       | 12.3 | 9.7  | 7.4 | 5.9 | 946.1    | 4.       | 8487.            |
|         |              | 3      | 37.5 | 31.7 | 28.3 | 25.8 | 20.4 | 15.2       | 12.4 | 9.6  | 7.4 | 6.1 | 318.3    | 0.       | 5690.            |
|         |              | 4      | 27.5 | 22.5 | 19.9 | 17.9 | 14.1 | 10.4       | 8.3  | 6.5  | 5.1 | 3.9 | 50.5     | 8.       | 1509.            |
|         |              | 5      | 28.7 | 23.4 | 20.7 | 18.4 | 14.5 | 10.6       | 8.4  | 6.6  | 5.0 | 4.0 | 26.8     | -31.     | 1200.            |
| 2       | 2            | 1      | 34.9 | 29.3 | 26.0 | 23.5 | 18.5 | 13.6       | 10.9 | 8.5  | 6.5 | 5.2 | 3451.0   | -5.      | 7220.            |
|         |              | 2      | 35.6 | 30.3 | 27.0 | 24.6 | 19.5 | 14.5       | 11.7 | 9.2  | 7.0 | 5.7 | 894.5    | -12.     | 5617.            |
|         |              | 3      | 25.9 | 21.5 | 18.9 | 17.2 | 13.5 | 10.0       | 8.0  | 6.2  | 4.7 | 3.7 | 117.3    | 17.      | 1470.            |
|         |              | 4      | 26.3 | 21.6 | 18.9 | 17.0 | 13.1 | 9.6        | 7.6  | 6.0  | 4.5 | 3.7 | 55.3     | -23.     | 1158.            |
|         |              | 5      | 29.9 | 27.3 | 22.7 | 23.7 | 17.0 | 11.4       | 9.1  | 6.7  | 5.8 | 4.5 | 67.7     | -23.     | 2127.            |
| 254     | 2            | 1      | 34.1 | 28.8 | 25.5 | 22.9 | 18.2 | 13.5       | 10.8 | 8.5  | 6.5 | 4.8 | 3760.0   | -23.     | 10730.           |
|         |              | 2      | 21.9 | 18.6 | 16.4 | 14.7 | 11.6 | 8.6        | 6.8  | 5.3  | 4.0 | 2.8 | 158.8    | -5.      | 1359.            |
|         |              | 3      | 23.0 | 19.1 | 16.6 | 14.8 | 11.5 | 8.4        | 6.7  | 5.1  | 4.0 | 2.8 | 78.8     | 1.       | 1346.            |
|         |              | 4      | 26.8 | 22.2 | 19.5 | 17.8 | 13.7 | 10.1       | 7.8  | 6.3  | 4.7 | 3.0 | 71.8     | -7.      | 2048.            |
|         |              | 5      | 41.8 | 33.7 | 33.0 | 33.0 | 25.4 | 13.4       | 14.7 | 10.8 | 8.7 | 6.4 | 57.9     | -33.     | 2480.            |
| 504     | 2            | 1      | 19.8 | 16.0 | 14.2 | 12.6 | 9.7  | 7.1        | 5.6  | 4.3  | 3.2 | 2.5 | 444.3    | 14.      | 996.             |

|      |   |   |      |       |      |      |      |      |      |      |     |     |        |       |       |
|------|---|---|------|-------|------|------|------|------|------|------|-----|-----|--------|-------|-------|
|      |   | 2 | 21.6 | 17.4  | 15.4 | 13.7 | 10.4 | 7.6  | 6.0  | 4.5  | 3.4 | 2.7 | 163.1  | -58.  | 1097. |
|      |   | 3 | 24.8 | 19.9  | 17.7 | 16.0 | 12.3 | 8.9  | 7.0  | 5.4  | 4.1 | 3.3 | 113.4  | 0.    | 1520. |
|      |   | 4 | 40.2 | 32.8  | 28.9 | 25.9 | 19.8 | 14.4 | 11.6 | 8.8  | 6.7 | 5.2 | 75.6   | 20.   | 1695. |
|      |   | 5 | 53.6 | 44.1  | 38.8 | 34.8 | 27.2 | 20.0 | 15.8 | 12.2 | 9.2 | 7.4 | 54.4   | -31.  | 1831. |
| 754  | 2 | 1 | 29.6 | 24.5  | 21.4 | 19.3 | 14.9 | 10.8 | 8.6  | 6.6  | 5.0 | 3.8 | 4108.0 | -55.  | 5370. |
|      |   | 2 | 31.3 | 26.0  | 22.8 | 20.5 | 16.0 | 11.7 | 9.3  | 7.2  | 5.5 | 4.2 | 1289.0 | 13.   | 5050. |
|      |   | 3 | 37.3 | 31.6  | 27.9 | 25.4 | 20.1 | 15.0 | 12.1 | 9.5  | 7.3 | 5.8 | 1033.0 | 2.    | 8000. |
|      |   | 4 | 43.5 | 36.7  | 32.5 | 29.5 | 23.3 | 17.3 | 14.0 | 11.0 | 8.4 | 6.6 | 699.5  | 14.   | 9150. |
|      |   | 5 | 39.4 | 33.6  | 29.8 | 27.2 | 21.7 | 16.3 | 13.2 | 10.3 | 8.0 | 6.4 | 269.5  | -18.  | 5280. |
| 1004 | 2 | 1 | 23.0 | 18.8  | 16.1 | 14.2 | 10.9 | 7.9  | 6.2  | 4.7  | 3.6 | 2.4 | 610.1  | -21.  | 1596. |
|      |   | 2 | 29.6 | 24.0  | 20.7 | 18.4 | 14.2 | 10.3 | 8.1  | 6.2  | 4.7 | 3.3 | 196.8  | -40.  | 1544. |
|      |   | 3 | 43.1 | -48.5 | 31.0 | 27.8 | 21.8 | 23.1 | 12.9 | 10.1 | 7.8 | 5.8 | 126.4  | -405. | 1980. |
| 1254 | 2 | 1 | 35.2 | 28.5  | 24.7 | 22.0 | 17.0 | 12.2 | 9.7  | 7.4  | 5.6 | 4.4 | 850.5  | -39.  | 1907. |
|      |   | 2 | 45.5 | 36.9  | 32.1 | 28.7 | 22.2 | 16.2 | 12.8 | 9.9  | 7.4 | 5.9 | 300.6  | 0.    | 2022. |
| 1504 | 2 | 1 | 45.2 | 36.8  | 31.8 | 28.5 | 21.8 | 16.1 | 12.5 | 9.6  | 7.2 | 5.2 | 795.1  | 0.    | 2377. |

IFR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L700S.IND

DATA FILE : L700S.DAT

LINE NO. : 7003

| Station | Receive Mode | Dipole : | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8  | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|----------|------|------|------|------|------|------------|------|------|-----|-----|----------|----------|------------------|
| 1002    | 2            | 1        | 31.9 | 25.8 | 23.0 | 20.6 | 16.1 | 11.7       | 9.4  | 7.3  | 5.6 | 4.5 | 1351.0   | -56.     | 3260.            |
|         |              | 2        | 37.1 | 30.6 | 27.3 | 24.7 | 19.5 | 14.4       | 11.6 | 9.0  | 6.9 | 5.6 | 1088.0   | 10.      | 7880.            |
|         |              | 3        | 33.6 | 27.9 | 24.9 | 22.5 | 17.6 | 13.1       | 10.7 | 8.3  | 6.3 | 5.0 | 523.2    | -11.     | 7560.            |
|         |              | 4        | 37.5 | 31.2 | 28.2 | 25.5 | 20.4 | 15.1       | 12.1 | 9.4  | 7.3 | 6.0 | 372.3    | 6.       | 8990.            |
|         |              | 5        | 43.7 | 36.7 | 32.8 | 29.8 | 23.7 | 17.7       | 14.3 | 11.2 | 8.6 | 6.9 | 331.2    | -8.      | 11990.           |
| 752     | 2            | 1        | 34.3 | 28.6 | 25.2 | 23.1 | 18.1 | 13.6       | 10.9 | 8.6  | 6.7 | 5.4 | 3213.0   | -40.     | 10080.           |
|         |              | 2        | 32.0 | 26.9 | 23.8 | 21.8 | 17.0 | 12.8       | 10.2 | 7.9  | 6.0 | 4.8 | 949.1    | -21.     | 8940.            |
|         |              | 3        | 36.0 | 30.4 | 27.1 | 24.9 | 19.7 | 14.7       | 12.0 | 9.5  | 7.3 | 5.8 | 530.1    | 21.      | 9960.            |
|         |              | 4        | 41.8 | 35.3 | 31.4 | 28.8 | 22.5 | 16.8       | 13.5 | 10.5 | 8.0 | 6.4 | 423.0    | -11.     | 13280.           |
|         |              | 5        | 35.7 | 30.2 | 27.0 | 24.7 | 19.5 | 14.7       | 11.9 | 9.4  | 7.3 | 5.9 | 110.0    | -7.      | 5160.            |
| 502     | 2            | 1        | 29.1 | 24.5 | 21.5 | 19.5 | 15.2 | 11.3       | 9.0  | 7.1  | 5.4 | 3.9 | 2071.0   | -55.     | 5000.            |
|         |              | 2        | 35.6 | 30.2 | 26.8 | 24.3 | 19.3 | 14.4       | 11.6 | 9.1  | 6.9 | 5.1 | 1105.0   | 2.       | 8000.            |
|         |              | 3        | 40.9 | 34.9 | 30.9 | 27.9 | 22.2 | 16.9       | 13.8 | 10.9 | 8.4 | 6.3 | 774.5    | 2.       | 11200.           |
|         |              | 4        | 35.9 | 30.8 | 27.3 | 24.8 | 19.8 | 14.6       | 11.7 | 9.1  | 7.1 | 5.5 | 189.5    | -4.      | 4570.            |
|         |              | 5        | 24.9 | 21.1 | 18.5 | 16.7 | 13.2 | 9.9        | 8.0  | 6.5  | 4.9 | 3.7 | 42.3     | -1.      | 1532.            |
| 252     | 2            | 1        | 31.6 | 26.3 | 23.4 | 21.1 | 16.6 | 12.3       | 9.9  | 7.7  | 5.9 | 4.7 | 3218.0   | -9.      | 8080.            |
|         |              | 2        | 38.8 | 32.5 | 29.0 | 26.2 | 20.8 | 15.5       | 12.6 | 9.8  | 7.4 | 6.0 | 1469.0   | -3.      | 11070.           |
|         |              | 3        | 34.3 | 28.9 | 25.7 | 23.3 | 18.6 | 13.8       | 11.1 | 8.8  | 6.9 | 5.5 | 320.0    | -2.      | 4810.            |
|         |              | 4        | 23.4 | 19.5 | 17.3 | 15.7 | 12.4 | 9.3        | 7.5  | 5.9  | 4.5 | 3.6 | 66.9     | -3.      | 1680.            |
|         |              | 5        | 25.3 | 20.8 | 17.7 | 15.9 | 13.1 | 9.3        | 6.8  | 5.6  | 3.9 | 3.2 | 43.8     | 1.       | 1651.            |
| 2       | 2            | 1        | 35.9 | 29.8 | 26.4 | 23.8 | 18.8 | 13.9       | 11.2 | 8.7  | 6.7 | 5.4 | 3565.0   | -28.     | 6990.            |
|         |              | 2        | 32.2 | 27.0 | 24.0 | 21.9 | 17.2 | 12.8       | 10.3 | 8.0  | 6.2 | 5.0 | 646.8    | -12.     | 3808.            |
|         |              | 3        | 21.3 | 17.6 | 15.8 | 14.3 | 11.2 | 8.2        | 6.6  | 5.2  | 4.0 | 3.2 | 124.4    | 14.      | 1460.            |
|         |              | 4        | 23.0 | 18.5 | 16.0 | 14.2 | 11.3 | 8.1        | 6.5  | 4.9  | 3.8 | 3.0 | 72.7     | -8.      | 1427.            |
|         |              | 5        | 26.0 | 20.9 | 18.4 | 16.4 | 12.8 | 9.2        | 7.4  | 5.7  | 4.3 | 3.5 | 82.0     | -3.      | 2413.            |
| 254     | 2            | 1        | 29.1 | 24.6 | 21.8 | 19.7 | 15.5 | 11.6       | 9.3  | 7.3  | 5.6 | 4.5 | 1968.0   | -8.      | 3250.            |

|      |   |   |      |      |      |      |      |      |      |      |      |      |        |      |       |
|------|---|---|------|------|------|------|------|------|------|------|------|------|--------|------|-------|
|      |   | 2 | 19.1 | 16.0 | 14.2 | 12.8 | 10.1 | 7.5  | 6.0  | 4.7  | 3.6  | 2.9  | 284.8  | 13.  | 1412. |
|      |   | 3 | 20.5 | 16.8 | 14.6 | 13.0 | 9.9  | 7.1  | 5.9  | 4.5  | 3.5  | 2.8  | 133.7  | 5.   | 1320. |
|      |   | 4 | 22.6 | 18.4 | 16.0 | 14.4 | 11.0 | 8.0  | 6.4  | 5.0  | 3.7  | 2.9  | 134.3  | -14. | 2210. |
|      |   | 5 | 51.7 | 43.0 | 37.7 | 34.0 | 26.6 | 19.7 | 16.0 | 12.4 | 9.6  | 7.8  | 86.7   | -21. | 2148. |
| 504  | 2 | 1 | 18.8 | 15.6 | 13.4 | 12.1 | 9.5  | 6.9  | 5.6  | 4.3  | 3.3  | 2.4  | 1010.0 | 0.   | 1710. |
|      |   | 2 | 20.1 | 16.4 | 14.0 | 12.5 | 9.7  | 6.9  | 5.4  | 4.2  | 3.1  | 2.2  | 297.6  | -4.  | 1515. |
|      |   | 3 | 19.5 | 15.9 | 13.6 | 12.1 | 9.3  | 6.7  | 5.4  | 4.1  | 3.0  | 2.2  | 236.2  | 3.   | 2400. |
|      |   | 4 | 48.0 | 39.8 | 34.8 | 31.4 | 24.6 | 18.1 | 14.5 | 11.3 | 8.6  | 6.7  | 142.2  | -28. | 2410. |
|      |   | 5 | 78.6 | 65.7 | 57.7 | 52.1 | 40.8 | 30.1 | 24.1 | 18.7 | 14.2 | 11.2 | 64.8   | 2.   | 1650. |
| 754  | 2 | 1 | 18.9 | 14.9 | 13.0 | 11.5 | 8.7  | 6.3  | 4.9  | 3.7  | 2.8  | 2.0  | 561.8  | -9.  | 840.  |
|      |   | 2 | 17.6 | 13.6 | 12.0 | 10.5 | 8.0  | 5.7  | 4.5  | 3.5  | 2.5  | 1.7  | 361.8  | 4.   | 1622. |
|      |   | 3 | 45.5 | 37.2 | 32.9 | 29.6 | 23.1 | 17.0 | 13.7 | 10.6 | 8.3  | 6.4  | 207.3  | -19. | 1850. |
|      |   | 4 | 76.5 | 63.3 | 55.9 | 50.5 | 39.4 | 29.0 | 23.2 | 18.0 | 13.7 | 10.7 | 90.2   | -7.  | 1348. |
| 1004 | 2 | 1 | 17.0 | 13.6 | 11.7 | 10.3 | 7.8  | 5.5  | 4.3  | 3.3  | 2.5  | 1.7  | 798.3  | -6.  | 1193. |
|      |   | 2 | 42.6 | 35.1 | 30.8 | 27.7 | 21.6 | 15.9 | 12.7 | 9.9  | 7.5  | 5.8  | 351.7  | -34. | 1577. |
|      |   | 3 | 73.2 | 60.8 | 53.6 | 48.4 | 37.9 | 27.9 | 22.3 | 17.4 | 13.1 | 10.2 | 130.6  | 11.  | 1160. |
| 1254 | 2 | 1 | 48.9 | 40.0 | 34.9 | 31.5 | 24.4 | 17.8 | 14.2 | 11.0 | 8.3  | 6.3  | 883.4  | -31. | 1981. |
|      |   | 2 | 78.9 | 65.4 | 57.5 | 52.1 | 40.7 | 29.9 | 23.9 | 18.5 | 14.1 | 11.0 | 225.4  | 1.   | 1516. |
| 1504 | 2 | 1 | 82.7 | 68.7 | 60.5 | 54.5 | 42.7 | 31.4 | 25.2 | 19.6 | 14.9 | 11.4 | 651.2  | -1.  | 2150. |

IFR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L650S.IND

DATA FILE : L650S.DAT

LINE NO. : 6503

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8  | M9  | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|-----|-----|----------|----------|------------------|
| 502     | 2            | 1      | 33.4 | 28.0 | 25.1 | 22.6 | 17.9 | 13.4       | 10.8 | 8.5  | 6.5 | 5.3 | 2217.0   | -47.     | 5801.            |
|         |              | 2      | 41.6 | 35.2 | 31.6 | 28.6 | 22.9 | 17.2       | 13.9 | 10.9 | 8.4 | 6.8 | 464.8    | 12.      | 3649.            |
|         |              | 3      | 38.8 | 32.9 | 30.1 | 26.8 | 21.4 | 16.1       | 13.1 | 10.3 | 8.0 | 6.4 | 622.6    | -4.      | 9754.            |
|         |              | 4      | 32.8 | 27.5 | 24.5 | 22.0 | 17.3 | 12.9       | 10.4 | 7.9  | 6.1 | 4.9 | 84.2     | 19.      | 2293.            |
|         |              | 5      | 23.4 | 19.4 | 17.5 | 15.6 | 12.4 | 9.3        | 7.5  | 5.8  | 4.5 | 3.6 | 33.1     | 8.       | 1300.            |
| 252     | 2            | 1      | 37.5 | 31.4 | 27.5 | 25.0 | 19.8 | 14.8       | 11.9 | 9.3  | 7.1 | 5.8 | 3286.0   | -34.     | 7937.            |
|         |              | 2      | 37.6 | 32.2 | 28.3 | 25.8 | 20.6 | 15.5       | 12.5 | 9.8  | 7.4 | 6.1 | 1507.0   | -24.     | 10920.           |
|         |              | 3      | 32.1 | 27.3 | 23.7 | 21.5 | 17.1 | 12.8       | 10.3 | 8.2  | 6.3 | 5.1 | 165.6    | 38.      | 2395.            |
|         |              | 4      | 23.5 | 19.9 | 17.3 | 15.8 | 12.5 | 9.2        | 7.5  | 6.0  | 4.6 | 3.7 | 59.8     | -1.      | 1443.            |
|         |              | 5      | 17.5 | 14.6 | 12.3 | 11.6 | 8.9  | 6.6        | 5.4  | 4.0  | 3.2 | 2.6 | 39.4     | 10.      | 1429.            |
| 2       | 2            | 1      | 34.8 | 29.4 | 26.1 | 23.7 | 18.9 | 14.2       | 11.5 | 9.0  | 7.0 | 5.6 | 5327.0   | -39.     | 11151.           |
|         |              | 2      | 29.8 | 25.0 | 22.1 | 19.9 | 15.7 | 11.7       | 9.4  | 7.3  | 5.6 | 4.5 | 345.8    | 40.      | 2172.            |
|         |              | 3      | 21.0 | 17.7 | 15.7 | 14.1 | 11.2 | 8.3        | 6.7  | 5.3  | 4.1 | 3.3 | 112.8    | 3.       | 1414.            |
|         |              | 4      | 15.2 | 12.5 | 10.9 | 9.7  | 7.7  | 5.7        | 4.5  | 3.5  | 2.6 | 2.0 | 67.7     | 0.       | 1416.            |
|         |              | 5      | 28.9 | 24.0 | 21.0 | 18.9 | 14.8 | 11.0       | 8.8  | 6.9  | 5.2 | 4.2 | 103.2    | -18.     | 3240.            |
| 254     | 2            | 1      | 28.9 | 24.2 | 21.1 | 19.3 | 15.1 | 11.2       | 9.0  | 7.1  | 5.4 | 4.0 | 851.4    | 21.      | 1782.            |
|         |              | 2      | 22.3 | 18.6 | 16.3 | 14.9 | 11.7 | 8.7        | 7.0  | 5.5  | 4.2 | 3.1 | 177.3    | -12.     | 1113.            |
|         |              | 3      | 15.7 | 13.0 | 11.2 | 10.2 | 7.9  | 5.9        | 4.7  | 3.7  | 2.7 | 1.8 | 96.6     | 20.      | 1211.            |
|         |              | 4      | 28.6 | 23.8 | 20.7 | 18.8 | 14.7 | 10.8       | 8.7  | 6.8  | 5.3 | 4.0 | 134.0    | -26.     | 2805.            |
|         |              | 5      | 53.0 | 43.9 | 38.3 | 34.8 | 27.2 | 20.0       | 16.0 | 12.4 | 9.4 | 7.2 | 74.3     | -9.      | 2334.            |
| 504     | 2            | 1      | 17.4 | 13.8 | 12.2 | 11.0 | 8.5  | 6.2        | 5.0  | 3.8  | 3.0 | 2.2 | 881.2    | -10.     | 1064.            |
|         |              | 2      | 12.5 | 9.7  | 8.5  | 7.6  | 5.8  | 4.2        | 3.4  | 2.5  | 1.9 | 1.3 | 360.6    | 23.      | 1306.            |
|         |              | 3      | 23.9 | 19.3 | 17.0 | 15.3 | 11.9 | 8.6        | 7.0  | 5.4  | 4.0 | 3.1 | 390.8    | -24.     | 2826.            |
|         |              | 4      | 47.8 | 39.2 | 34.3 | 30.9 | 23.9 | 17.4       | 13.7 | 10.4 | 7.9 | 6.2 | 201.0    | -21.     | 2427.            |
|         |              | 5      | 47.9 | 38.8 | 34.0 | 30.6 | 23.4 | 17.0       | 13.4 | 10.2 | 7.7 | 5.8 | 81.1     | -21.     | 1470.            |
| 754     | 2            | 1      | 14.9 | 11.8 | 10.3 | 9.2  | 7.0  | 5.0        | 4.0  | 3.0  | 2.3 | 1.6 | 757.8    | 13.      | 1133.            |

SURVEY: ABERMIN CORP  
 Index: L650S.IND  
 Data : L650S.DAT

|      |   |   |      |      |      |      |      |      |      |      |      |      |        |      |       |
|------|---|---|------|------|------|------|------|------|------|------|------|------|--------|------|-------|
|      |   | 2 | 23.8 | 19.3 | 16.9 | 15.3 | 11.7 | 8.5  | 6.9  | 5.2  | 3.9  | 2.9  | 479.3  | -41. | 2150. |
|      |   | 3 | 45.6 | 37.5 | 32.9 | 29.7 | 22.9 | 16.7 | 13.3 | 10.3 | 7.8  | 6.1  | 218.2  | 1.   | 1953. |
|      |   | 4 | 46.4 | 37.7 | 32.9 | 29.6 | 22.7 | 16.4 | 13.1 | 9.9  | 7.4  | 5.7  | 61.4   | -26. | 1218. |
|      |   | 5 | 73.3 | 60.5 | 53.7 | 48.2 | 36.6 | 26.7 | 20.9 | 15.7 | 12.5 | 9.5  | 66.8   | -26. | 1498. |
| 1004 | 2 | 1 | 24.3 | 19.8 | 17.3 | 15.8 | 12.1 | 8.9  | 7.1  | 5.5  | 4.2  | 3.2  | 1065.0 | -27. | 1239. |
|      |   | 2 | 43.9 | 36.0 | 31.5 | 28.6 | 22.1 | 16.1 | 12.8 | 9.9  | 7.6  | 5.9  | 434.2  | -6.  | 1515. |
|      |   | 3 | 44.2 | 35.9 | 31.3 | 28.3 | 21.7 | 15.8 | 12.5 | 9.7  | 7.3  | 5.7  | 141.9  | -20. | 988.  |
|      |   | 4 | 70.4 | 57.9 | 52.0 | 48.0 | 35.9 | 25.4 | 20.8 | 15.7 | 12.2 | 9.0  | 107.8  | -27. | 1254. |
| 1254 | 2 | 1 | 57.2 | 47.2 | 41.4 | 37.4 | 29.1 | 21.3 | 17.0 | 13.2 | 10.0 | 7.8  | 1489.0 | -22. | 2461. |
|      |   | 2 | 55.0 | 45.1 | 39.5 | 35.6 | 27.6 | 20.2 | 16.1 | 12.4 | 9.4  | 7.3  | 305.3  | -37. | 1514. |
|      |   | 3 | 74.4 | 61.1 | 53.6 | 48.4 | 37.6 | 27.5 | 21.9 | 16.8 | 12.8 | 9.9  | 159.7  | -9.  | 1580. |
| 1504 | 2 | 1 | 62.6 | 51.4 | 45.0 | 40.5 | 31.4 | 22.9 | 18.3 | 14.1 | 10.7 | 8.2  | 1002.0 | -39. | 2420. |
|      |   | 2 | 82.1 | 67.9 | 59.6 | 53.7 | 41.9 | 30.6 | 24.4 | 18.9 | 14.4 | 11.0 | 323.0  | -22. | 2341. |
| 1754 | 2 | 1 | 84.0 | 69.5 | 61.1 | 55.1 | 42.9 | 31.2 | 24.9 | 19.2 | 14.6 | 11.3 | 1009.0 | -26. | 1980. |



IFR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L600S.IND

DATA FILE : L600S.DAT

LINE NO. : 6003

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8   | M9   | Vp<br>mV | SP<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|------|------|----------|----------|------------------|
| 3002    | 2            | 1      | 57.2 | 49.2 | 44.4 | 40.9 | 33.4 | 25.9       | 21.5 | 17.3 | 13.7 | 11.3 | 2257.0   | 156.     | 10100.           |
|         |              | 2      | 54.5 | 46.4 | 41.6 | 38.1 | 30.8 | 23.6       | 19.4 | 15.6 | 12.2 | 10.0 | 629.6    | -87.     | 8470.            |
|         |              | 3      | 28.0 | 23.8 | 21.3 | 19.5 | 15.6 | 11.8       | 9.6  | 7.6  | 5.9  | 4.7  | 456.3    | 78.      | 12200.           |
|         |              | 4      | 40.4 | 33.4 | 29.5 | 27.0 | 21.8 | 16.5       | 13.5 | 10.6 | 8.1  | 6.7  | 211.6    | 29.      | 9400.            |
|         |              | 5      | 29.5 | 26.8 | 24.9 | 22.7 | 18.3 | 13.8       | 11.7 | 9.1  | 7.0  | 5.7  | 169.0    | 3.       | 11300.           |
| 2752    | 2            | 1      | 73.0 | 62.1 | 56.0 | 51.4 | 41.8 | 32.4       | 26.9 | 21.8 | 17.3 | 14.2 | 847.7    | -2.      | 5910.            |
|         |              | 2      | 37.1 | 31.0 | 28.0 | 25.6 | 20.6 | 15.7       | 12.8 | 10.2 | 8.0  | 6.5  | 406.7    | -11.     | 8510.            |
|         |              | 3      | 46.5 | 38.1 | 34.3 | 31.2 | 25.2 | 19.3       | 15.8 | 12.5 | 9.8  | 7.9  | 189.7    | 57.      | 7900.            |
|         |              | 4      | 33.8 | 30.4 | 28.0 | 25.8 | 20.8 | 15.7       | 12.8 | 10.3 | 8.0  | 6.4  | 144.0    | -8.      | 10000.           |
|         |              | 5      | 26.2 | 20.4 | 18.2 | 16.4 | 13.0 | 9.5        | 7.6  | 5.9  | 4.5  | 3.4  | 145.0    | -33.     | 15100.           |
| 2502    | 2            | 1      | 67.6 | 58.1 | 52.4 | 48.1 | 39.4 | 30.6       | 25.4 | 20.5 | 16.4 | 13.5 | 1946.0   | -21.     | 6400.            |
|         |              | 2      | 62.3 | 53.4 | 48.1 | 44.1 | 36.2 | 28.0       | 23.2 | 18.7 | 14.8 | 12.2 | 652.2    | 47.      | 6460.            |
|         |              | 3      | 48.6 | 42.2 | 38.3 | 35.2 | 28.7 | 22.0       | 18.1 | 14.6 | 11.5 | 9.4  | 441.6    | -1.      | 8700.            |
|         |              | 4      | 34.3 | 29.1 | 26.1 | 23.7 | 19.1 | 14.3       | 11.7 | 9.3  | 7.1  | 5.8  | 412.0    | -41.     | 13600.           |
|         |              | 5      | 31.1 | 26.7 | 24.5 | 21.8 | 17.2 | 12.8       | 10.6 | 8.1  | 6.3  | 4.8  | 253.8    | 31.      | 12500.           |
| 2252    | 2            | 1      | 64.4 | 54.8 | 49.1 | 45.0 | 36.6 | 28.2       | 23.4 | 18.8 | 14.9 | 12.3 | 2765.0   | 106.     | 5980.            |
|         |              | 2      | 59.7 | 51.6 | 46.4 | 42.6 | 34.7 | 26.8       | 22.1 | 17.7 | 14.0 | 11.5 | 1229.0   | -28.     | 7980.            |
|         |              | 3      | 40.0 | 34.1 | 30.5 | 27.8 | 22.4 | 17.0       | 13.9 | 11.0 | 8.6  | 7.0  | 963.9    | -14.     | 12490.           |
|         |              | 4      | 36.9 | 31.5 | 28.0 | 25.4 | 20.2 | 15.2       | 12.3 | 9.8  | 7.6  | 6.0  | 538.4    | 23.      | 11650.           |
|         |              | 5      | 34.3 | 27.9 | 25.4 | 23.8 | 18.1 | 14.0       | 11.5 | 9.0  | 7.1  | 5.4  | 298.5    | 3.       | 9690.            |
| 2002    | 2            | 1      | 56.0 | 48.0 | 42.9 | 39.4 | 32.0 | 24.7       | 20.3 | 16.4 | 12.9 | 10.6 | 2326.0   | -37.     | 9100.            |
|         |              | 2      | 35.8 | 30.3 | 26.9 | 24.5 | 19.6 | 14.7       | 12.0 | 9.5  | 7.4  | 6.0  | 1037.0   | -16.     | 12200.           |
|         |              | 3      | 32.1 | 27.6 | 24.1 | 21.8 | 17.4 | 13.1       | 10.5 | 8.2  | 6.2  | 4.9  | 477.8    | 34.      | 11200.           |
|         |              | 4      | 28.6 | 24.4 | 21.2 | 19.5 | 15.4 | 10.6       | 8.2  | 6.6  | 6.9  | 6.9  | 237.9    | -3.      | 9300.            |
|         |              | 5      | 39.0 | 32.8 | 28.8 | 26.0 | 21.0 | 17.1       | 14.4 | 11.0 | 5.8  | 2.6  | 159.0    | -3.      | 9300.            |
| 1752    | 2            | 1      | 44.4 | 37.5 | 33.5 | 30.7 | 24.8 | 18.9       | 15.6 | 12.5 | 9.8  | 8.0  | 1566.0   | 4.       | 6500.            |

|      |   |   |      |      |      |      |      |      |      |      |     |     |        |       |        |
|------|---|---|------|------|------|------|------|------|------|------|-----|-----|--------|-------|--------|
|      |   | 2 | 36.4 | 30.5 | 27.3 | 24.9 | 19.9 | 15.0 | 12.2 | 9.6  | 7.4 | 6.0 | 660.3  | 23.   | 8290.  |
|      |   | 3 | 32.7 | 27.1 | 24.0 | 21.9 | 17.5 | 13.1 | 10.6 | 8.3  | 6.4 | 5.3 | 296.6  | 18.   | 7400.  |
|      |   | 4 | 39.8 | 33.4 | 29.7 | 27.1 | 21.7 | 16.2 | 13.5 | 10.7 | 8.4 | 6.5 | 190.0  | -14.  | 7900.  |
|      |   | 5 | 41.1 | 34.8 | 31.2 | 28.9 | 23.2 | 17.6 | 14.3 | 11.4 | 8.6 | 7.0 | 187.8  | -13.  | 11700. |
| 1502 | 2 | 1 | 30.6 | 25.1 | 22.2 | 20.2 | 15.7 | 11.6 | 9.2  | 7.2  | 5.5 | 4.4 | 2523.0 | 13.   | 10500. |
|      |   | 2 | 30.0 | 24.7 | 21.8 | 19.9 | 15.5 | 11.5 | 9.2  | 7.4  | 5.6 | 4.4 | 655.2  | 22.   | 8220.  |
|      |   | 3 | 36.5 | 30.5 | 27.0 | 24.6 | 19.4 | 14.4 | 11.7 | 9.0  | 7.0 | 5.7 | 353.3  | -7.   | 8800.  |
|      |   | 4 | 40.0 | 33.6 | 30.0 | 27.4 | 21.8 | 16.4 | 13.3 | 10.5 | 8.2 | 6.6 | 313.0  | -28.  | 13100. |
|      |   | 5 | 45.8 | 38.7 | 34.6 | 31.6 | 25.4 | 19.0 | 15.6 | 12.3 | 9.6 | 7.8 | 211.6  | -28.  | 13200. |
| 1252 | 2 | 1 | 25.6 | 21.1 | 18.4 | 16.5 | 12.9 | 9.5  | 7.5  | 5.8  | 4.4 | 3.5 | 2528.0 | 3.    | 6100.  |
|      |   | 2 | 33.7 | 28.0 | 24.4 | 22.3 | 17.4 | 12.8 | 10.2 | 8.0  | 6.1 | 4.9 | 1062.0 | -25.  | 7690.  |
|      |   | 3 | 37.6 | 32.0 | 28.2 | 25.5 | 20.3 | 15.2 | 12.3 | 9.7  | 7.5 | 6.0 | 828.1  | -1.   | 11970. |
|      |   | 4 | 44.3 | 37.7 | 33.5 | 30.6 | 24.5 | 18.4 | 14.8 | 11.7 | 9.1 | 7.3 | 502.7  | -37.  | 12140. |
|      |   | 5 | 37.9 | 32.2 | 28.7 | 26.0 | 20.7 | 15.6 | 12.7 | 10.0 | 7.7 | 6.3 | 380.8  | 11.   | 13790. |
| 1002 | 2 | 1 | 28.0 | 22.9 | 20.1 | 18.0 | 14.0 | 10.1 | 8.1  | 6.2  | 4.7 | 3.7 | 2687.0 | -10.  | 7030.  |
|      |   | 2 | 37.3 | 31.1 | 27.6 | 25.0 | 19.6 | 14.6 | 11.6 | 9.1  | 7.0 | 5.6 | 1451.0 | -8.   | 11390. |
|      |   | 3 | 45.0 | 38.1 | 33.9 | 30.9 | 24.5 | 18.3 | 14.8 | 11.6 | 8.9 | 7.3 | 714.6  | -28.  | 11190. |
|      |   | 4 | 38.3 | 32.1 | 28.6 | 26.0 | 20.6 | 15.4 | 12.5 | 9.9  | 7.6 | 6.0 | 491.8  | -3.   | 12860. |
|      |   | 5 | 39.8 | 33.6 | 29.9 | 27.3 | 21.7 | 16.3 | 13.3 | 10.4 | 8.1 | 6.5 | 354.2  | 17.   | 13900. |
| 752  | 2 | 1 | 34.2 | 28.3 | 25.2 | 22.6 | 17.7 | 13.1 | 10.5 | 8.2  | 6.3 | 5.0 | 4257.0 | -42.  | 10690. |
|      |   | 2 | 47.6 | 40.2 | 35.9 | 32.6 | 25.9 | 19.4 | 15.6 | 12.2 | 9.4 | 7.6 | 1288.0 | -52.  | 9700.  |
|      |   | 3 | 40.5 | 34.0 | 30.4 | 27.5 | 21.8 | 16.4 | 13.2 | 10.4 | 8.1 | 6.5 | 760.4  | 20.   | 11430. |
|      |   | 4 | 40.6 | 34.2 | 30.7 | 27.9 | 22.2 | 16.7 | 13.5 | 10.6 | 8.2 | 6.5 | 496.6  | 8.    | 12470. |
|      |   | 5 | 36.4 | 31.1 | 27.7 | 25.1 | 19.4 | 14.8 | 13.0 | 9.1  | 7.3 | 5.6 | 151.6  | -93.  | 5710.  |
| 502  | 2 | 1 | 41.4 | 35.2 | 31.1 | 28.3 | 22.5 | 16.8 | 13.6 | 10.7 | 8.2 | 6.6 | 2563.0 | -23.  | 10800. |
|      |   | 2 | 43.1 | 36.4 | 32.2 | 29.3 | 23.3 | 17.5 | 14.2 | 11.2 | 8.6 | 7.0 | 784.9  | -8.   | 9850.  |
|      |   | 3 | 41.8 | 35.8 | 31.7 | 28.9 | 23.2 | 17.6 | 14.3 | 11.4 | 8.9 | 7.2 | 460.3  | 42.   | 11500. |
|      |   | 4 | 36.7 | 31.9 | 27.8 | 26.4 | 21.5 | 16.1 | 12.7 | 10.6 | 8.1 | 6.1 | 126.6  | -111. | 5300.  |
|      |   | 5 | 39.4 | 32.6 | 29.7 | 24.2 | 18.6 | 14.7 | 12.6 | 8.7  | 7.1 | 7.3 | 45.5   | 78.   | 2850.  |
| 252  | 2 | 1 | 40.4 | 34.5 | 30.2 | 27.4 | 21.8 | 16.2 | 13.1 | 10.2 | 7.8 | 6.3 | 3601.0 | -34.  | 8070.  |
|      |   | 2 | 41.1 | 35.1 | 31.1 | 28.4 | 22.7 | 17.1 | 13.9 | 10.9 | 8.4 | 6.9 | 1464.0 | 16.   | 9850.  |
|      |   | 3 | 36.6 | 31.5 | 28.0 | 25.6 | 20.5 | 15.5 | 12.6 | 9.9  | 7.7 | 6.2 | 350.9  | -94.  | 4710.  |
|      |   | 4 | 36.6 | 31.4 | 27.6 | 25.1 | 20.0 | 15.0 | 12.1 | 9.7  | 7.2 | 5.9 | 119.0  | 74.   | 2660.  |
|      |   | 5 | 25.7 | 21.9 | 19.3 | 17.5 | 13.9 | 10.2 | 8.4  | 6.5  | 4.9 | 3.9 | 41.7   | 11.   | 1401.  |
| 2    | 2 | 1 | 37.9 | 32.1 | 28.4 | 26.0 | 20.6 | 15.5 | 12.5 | 9.9  | 7.6 | 6.2 | 2951.0 | 6.    | 9700.  |
|      |   | 2 | 34.5 | 29.5 | 26.4 | 24.0 | 19.1 | 14.4 | 11.6 | 9.1  | 7.0 | 5.7 | 501.6  | -96.  | 4970.  |
|      |   | 3 | 35.6 | 30.3 | 26.7 | 24.4 | 19.4 | 14.4 | 11.6 | 9.1  | 6.9 | 5.6 | 150.7  | 84.   | 2900.  |
|      |   | 4 | 25.8 | 21.6 | 19.0 | 17.2 | 13.5 | 10.0 | 7.9  | 6.2  | 4.7 | 3.7 | 46.3   | -5.   | 1520.  |
|      |   | 5 | 22.0 | 18.3 | 16.0 | 14.6 | 11.5 | 8.4  | 6.9  | 5.3  | 4.0 | 3.2 | 35.6   | 18.   | 1760.  |
| 254  | 2 | 1 | 30.6 | 25.9 | 23.3 | 21.4 | 16.9 | 12.7 | 10.3 | 8.1  | 6.3 | 5.0 | 1840.0 | -117. | 4270.  |
|      |   | 2 | 34.1 | 28.4 | 25.3 | 23.1 | 18.1 | 13.4 | 10.8 | 8.4  | 6.6 | 5.4 | 440.4  | 67.   | 3073.  |
|      |   | 3 | 24.0 | 19.8 | 17.7 | 16.1 | 12.3 | 9.2  | 7.3  | 5.7  | 4.4 | 3.5 | 112.7  | 17.   | 1560.  |

|      |   |   |      |      |      |      |      |      |     |     |     |     |        |      |       |
|------|---|---|------|------|------|------|------|------|-----|-----|-----|-----|--------|------|-------|
|      |   | 4 | 20.5 | 17.0 | 15.1 | 13.8 | 10.8 | 8.1  | 6.6 | 5.2 | 4.0 | 3.2 | 78.5   | 2.   | 1825. |
|      |   | 5 | 22.0 | 18.1 | 16.0 | 14.6 | 11.3 | 8.5  | 6.9 | 5.5 | 4.4 | 3.7 | 51.5   | 2.   | 1796. |
| 504  | 2 | 1 | 26.8 | 22.5 | 19.5 | 17.6 | 13.9 | 10.2 | 8.2 | 6.4 | 4.9 | 3.7 | 2092.0 | 60.  | 2980. |
|      |   | 2 | 20.5 | 17.3 | 14.9 | 13.4 | 10.5 | 7.7  | 6.2 | 4.8 | 3.7 | 2.8 | 415.3  | 12.  | 1778. |
|      |   | 3 | 18.3 | 15.5 | 13.5 | 12.3 | 9.7  | 7.3  | 6.0 | 4.9 | 3.9 | 3.0 | 248.8  | 9.   | 2120. |
|      |   | 4 | 18.5 | 15.6 | 13.5 | 12.3 | 9.5  | 7.0  | 6.0 | 4.8 | 3.8 | 2.9 | 136.6  | -16. | 1940. |
| 754  | 2 | 1 | 18.2 | 14.7 | 12.9 | 11.6 | 8.9  | 6.5  | 5.1 | 4.0 | 3.0 | 2.1 | 526.5  | 1.   | 972.  |
|      |   | 2 | 15.8 | 12.7 | 11.2 | 10.1 | 7.8  | 5.7  | 4.6 | 3.6 | 2.7 | 1.9 | 267.0  | -11. | 1479. |
|      |   | 3 | 15.6 | 12.4 | 10.8 | 9.9  | 7.5  | 5.5  | 4.4 | 3.4 | 2.6 | 1.8 | 132.6  | 11.  | 1460. |
| 1004 | 2 | 1 | 17.8 | 14.5 | 12.5 | 11.2 | 8.7  | 6.3  | 5.0 | 3.9 | 2.9 | 2.1 | 713.1  | -9.  | 1176. |
|      |   | 2 | 16.1 | 13.0 | 11.1 | 9.8  | 7.6  | 5.6  | 4.3 | 3.4 | 2.6 | 2.1 | 239.9  | -3.  | 1189. |
| 1254 | 2 | 1 | 17.9 | 14.8 | 12.6 | 11.3 | 8.6  | 6.3  | 4.9 | 3.8 | 2.9 | 1.9 | 388.9  | -2.  | 672.  |

IFR-11 DATA SUMMARY

SURVEY : ABERMIN CORP

INDEX FILE : L550S.IND

DATA FILE : L550S.DAT

LINE NO. : 5503

| Station | Receive Mode | Dipole | M0   | M1   | M2   | M3   | M4   | M5<br>mV/V | M6   | M7   | M8   | M9   | Vp<br>mV | SF<br>mV | Apparent Resist. |
|---------|--------------|--------|------|------|------|------|------|------------|------|------|------|------|----------|----------|------------------|
| 3502    | 2            | 1      | 40.5 | 34.5 | 30.9 | 28.3 | 22.9 | 17.5       | 14.4 | 11.5 | 9.0  | 7.3  | 4356.0   | 11.      | 10940.           |
|         |              | 2      | 40.9 | 34.7 | 31.0 | 28.3 | 22.8 | 17.2       | 14.0 | 11.1 | 8.6  | 7.0  | 1428.0   | 2.       | 10760.           |
|         |              | 3      | 49.8 | 42.7 | 38.3 | 35.1 | 28.5 | 21.9       | 18.0 | 14.4 | 11.4 | 9.3  | 700.6    | -27.     | 10530.           |
|         |              | 4      | 55.0 | 47.3 | 42.6 | 39.1 | 31.8 | 24.5       | 20.2 | 16.1 | 12.6 | 10.4 | 430.5    | -16.     | 10810.           |
|         |              | 5      | 37.2 | 31.8 | 28.6 | 26.2 | 20.9 | 15.9       | 13.1 | 10.0 | 8.0  | 6.4  | 229.7    | 12.      | 8650.            |
| 3252    | 2            | 1      | 41.2 | 35.4 | 31.7 | 28.8 | 23.5 | 18.0       | 14.8 | 11.8 | 9.2  | 7.6  | 3557.0   | 11.      | 12400.           |
|         |              | 2      | 58.6 | 50.8 | 45.9 | 41.9 | 34.4 | 26.2       | 22.0 | 17.7 | 14.0 | 11.4 | 594.9    | -82.     | 6220.            |
|         |              | 3      | 56.2 | 48.8 | 43.9 | 40.1 | 32.9 | 25.3       | 20.9 | 17.0 | 13.5 | 11.0 | 429.9    | 18.      | 6900.            |
|         |              | 4      | 39.1 | 33.6 | 30.1 | 27.3 | 22.3 | 17.1       | 13.8 | 10.9 | 8.3  | 6.8  | 197.6    | -15.     | 6800.            |
|         |              | 5      | 50.2 | 42.2 | 38.2 | 35.0 | 28.7 | 21.8       | 18.3 | 14.5 | 11.4 | 9.7  | 144.7    | -126.    | 7500.            |
| 3002    | 2            | 1      | 43.3 | 36.7 | 33.0 | 30.2 | 24.4 | 18.7       | 15.4 | 12.4 | 9.8  | 8.0  | 3678.0   | -65.     | 9620.            |
|         |              | 2      | 52.8 | 45.6 | 41.1 | 37.8 | 30.6 | 23.7       | 19.6 | 15.7 | 12.4 | 10.1 | 1112.0   | -5.      | 8720.            |
|         |              | 3      | 36.9 | 31.6 | 28.3 | 25.8 | 20.8 | 15.7       | 12.9 | 10.3 | 8.0  | 6.4  | 448.5    | 10.      | 7020.            |
|         |              | 4      | 46.3 | 39.9 | 36.1 | 32.9 | 26.7 | 20.6       | 16.9 | 13.4 | 10.5 | 8.6  | 294.1    | -111.    | 7690.            |
|         |              | 5      | 65.2 | 56.6 | 51.3 | 47.3 | 39.0 | 30.0       | 25.0 | 20.1 | 15.7 | 13.0 | 145.9    | 146.     | 5720.            |
| 2752    | 2            | 1      | 62.9 | 54.2 | 48.8 | 44.7 | 36.1 | 28.2       | 23.2 | 18.8 | 15.2 | 12.5 | 2100.0   | -31.     | 7300.            |
|         |              | 2      | 40.8 | 35.0 | 31.2 | 28.6 | 23.1 | 17.6       | 14.4 | 11.4 | 8.9  | 7.2  | 607.2    | -15.     | 6350.            |
|         |              | 3      | 45.9 | 39.4 | 35.4 | 32.5 | 26.1 | 20.0       | 16.5 | 13.7 | 10.8 | 8.9  | 361.4    | -72.     | 7500.            |
|         |              | 4      | 68.5 | 59.8 | 54.1 | 50.1 | 41.7 | 32.8       | 26.7 | 20.4 | 16.0 | 13.0 | 165.5    | 129.     | 5700.            |
|         |              | 5      | 22.4 | 19.0 | 16.7 | 15.3 | 11.9 | 8.8        | 7.1  | 5.5  | 4.1  | 3.1  | 264.1    | -1.      | 13800.           |
| 2502    | 2            | 1      | 60.1 | 51.5 | 46.4 | 42.7 | 34.7 | 26.8       | 22.2 | 17.9 | 14.2 | 11.6 | 1101.0   | -22.     | 4600.            |
|         |              | 2      | 59.5 | 51.2 | 46.0 | 42.3 | 34.4 | 26.8       | 22.2 | 17.9 | 14.1 | 11.8 | 496.1    | -78.     | 6230.            |
|         |              | 3      | 77.6 | 67.5 | 61.2 | 56.5 | 46.3 | 36.3       | 30.1 | 24.5 | 19.6 | 16.3 | 198.9    | 139.     | 4900.            |
|         |              | 4      | 29.0 | 24.7 | 22.2 | 20.2 | 16.1 | 12.1       | 9.7  | 7.7  | 5.9  | 4.8  | 308.5    | -10.     | 12900.           |
|         |              | 5      | 28.4 | 23.8 | 21.2 | 19.4 | 15.1 | 11.3       | 9.4  | 7.0  | 5.3  | 4.2  | 228.1    | 14.      | 14300.           |
| 2252    | 2            | 1      | 48.9 | 41.6 | 37.0 | 33.9 | 27.4 | 20.9       | 17.1 | 13.7 | 10.7 | 8.8  | 2664.0   | -103.    | 7960.            |

|      |   |   |      |      |      |      |      |      |      |      |      |      |        |      |        |
|------|---|---|------|------|------|------|------|------|------|------|------|------|--------|------|--------|
|      |   | 2 | 80.0 | 69.4 | 62.7 | 57.7 | 47.2 | 36.7 | 30.5 | 24.7 | 19.6 | 16.2 | 589.5  | 109. | 5288.  |
|      |   | 3 | 34.3 | 29.5 | 26.3 | 24.0 | 19.3 | 14.7 | 11.8 | 9.2  | 7.0  | 5.6  | 696.9  | 12.  | 12470. |
|      |   | 4 | 32.7 | 27.7 | 24.6 | 22.3 | 17.7 | 13.2 | 10.6 | 8.4  | 6.5  | 5.3  | 464.9  | 10.  | 13900. |
|      |   | 5 | 27.0 | 22.3 | 20.3 | 18.1 | 14.7 | 8.6  | 6.0  | 3.4  | .4   | -1   | 195.9  | -17. | 8780.  |
| 2002 | 2 | 1 | 75.6 | 65.5 | 58.9 | 54.3 | 44.6 | 34.8 | 28.9 | 23.5 | 18.7 | 15.6 | 1547.0 | 128. | 5300.  |
|      |   | 2 | 32.1 | 27.4 | 24.2 | 22.1 | 17.7 | 13.3 | 10.8 | 8.5  | 6.5  | 5.3  | 1061.0 | 5.   | 11100. |
|      |   | 3 | 29.2 | 24.6 | 21.6 | 19.5 | 15.4 | 11.4 | 9.2  | 7.2  | 5.4  | 4.3  | 618.7  | 18.  | 12900. |
|      |   | 4 | 25.4 | 21.2 | 18.6 | 16.9 | 13.4 | 9.9  | 7.9  | 6.1  | 4.6  | 3.6  | 242.2  | -32. | 8400.  |
|      |   | 5 | 34.0 | 28.9 | 25.4 | 22.8 | 18.3 | 13.7 | 11.0 | 8.6  | 6.6  | 5.3  | 200.9  | 27.  | 10500. |
| 1752 | 2 | 1 | 44.7 | 38.4 | 34.4 | 31.5 | 25.5 | 19.6 | 16.1 | 12.9 | 10.2 | 8.3  | 1344.0 | -11. | 7600.  |
|      |   | 2 | 36.4 | 30.9 | 27.6 | 25.0 | 19.8 | 14.9 | 12.1 | 9.6  | 7.4  | 5.9  | 607.8  | -3.  | 10400. |
|      |   | 3 | 29.8 | 25.1 | 22.3 | 20.3 | 15.8 | 11.9 | 9.5  | 7.5  | 5.7  | 4.6  | 217.5  | -6.  | 7400.  |
|      |   | 4 | 36.5 | 31.0 | 27.5 | 24.6 | 19.8 | 14.9 | 12.1 | 9.5  | 7.4  | 5.7  | 164.9  | 14.  | 9400.  |
|      |   | 5 | 43.0 | 36.8 | 33.3 | 30.3 | 24.2 | 18.4 | 14.8 | 11.8 | 9.2  | 7.6  | 131.7  | 2.   | 11200. |
| 1502 | 2 | 1 | 44.4 | 37.5 | 33.4 | 30.4 | 24.4 | 18.5 | 15.2 | 12.0 | 9.4  | 7.7  | 3162.0 | -24. | 7630.  |
|      |   | 2 | 37.1 | 31.3 | 27.8 | 25.2 | 20.2 | 15.3 | 12.6 | 9.8  | 7.6  | 6.2  | 749.3  | -11. | 5429.  |
|      |   | 3 | 42.1 | 35.6 | 31.7 | 28.9 | 23.1 | 17.5 | 14.2 | 11.4 | 8.8  | 7.1  | 508.5  | 19.  | 7350.  |
|      |   | 4 | 48.3 | 41.3 | 36.9 | 33.9 | 27.4 | 20.7 | 17.1 | 13.6 | 10.6 | 8.7  | 380.4  | -7.  | 9180.  |
|      |   | 5 | 51.9 | 44.3 | 40.2 | 36.4 | 29.5 | 22.6 | 18.6 | 15.0 | 11.6 | 9.6  | 327.4  | -7.  | 11860. |
| 1252 | 2 | 1 | 25.3 | 20.7 | 18.2 | 16.4 | 12.7 | 9.2  | 7.4  | 5.7  | 4.3  | 3.4  | 1897.0 | -25. | 5410.  |
|      |   | 2 | 33.9 | 28.0 | 24.8 | 22.4 | 17.5 | 12.9 | 10.4 | 8.0  | 6.1  | 4.8  | 945.7  | -3.  | 8098.  |
|      |   | 3 | 41.1 | 34.6 | 30.9 | 28.2 | 22.4 | 16.9 | 13.8 | 11.0 | 8.5  | 6.9  | 591.0  | 18.  | 10100. |
|      |   | 4 | 45.5 | 38.7 | 34.5 | 31.7 | 25.8 | 19.7 | 15.8 | 12.6 | 10.0 | 8.1  | 444.2  | -6.  | 12670. |
|      |   | 5 | 35.7 | 30.2 | 27.6 | 25.1 | 19.4 | 14.5 | 12.2 | 9.4  | 7.1  | 5.7  | 206.4  | -8.  | 8830.  |
| 1002 | 2 | 1 | 28.7 | 23.7 | 20.7 | 18.7 | 14.6 | 10.6 | 8.5  | 6.5  | 5.0  | 3.9  | 5196.0 | -30. | 8580.  |
|      |   | 2 | 39.6 | 33.4 | 29.5 | 26.7 | 21.3 | 15.9 | 12.8 | 10.1 | 7.7  | 6.3  | 2225.0 | -10. | 11030. |
|      |   | 3 | 43.6 | 37.2 | 33.0 | 30.1 | 24.3 | 18.4 | 14.9 | 11.7 | 9.2  | 7.6  | 1335.0 | 12.  | 13200. |
|      |   | 4 | 32.1 | 27.6 | 24.5 | 22.2 | 17.7 | 13.2 | 10.6 | 8.3  | 6.4  | 5.1  | 543.1  | -19. | 8970.  |
|      |   | 5 | 34.1 | 28.9 | 25.5 | 23.1 | 18.3 | 13.5 | 10.9 | 8.5  | 6.5  | 5.3  | 655.8  | -7.  | 16250. |
| 752  | 2 | 1 | 45.5 | 37.8 | 33.4 | 30.4 | 24.0 | 17.9 | 14.5 | 11.4 | 8.8  | 7.1  | 4084.0 | 53.  | 14200. |
|      |   | 2 | 43.1 | 36.9 | 33.1 | 30.2 | 24.3 | 18.5 | 15.1 | 12.0 | 9.4  | 7.6  | 1139.0 | -3.  | 11900. |
|      |   | 3 | 30.9 | 26.3 | 23.4 | 21.3 | 16.9 | 12.6 | 10.1 | 7.9  | 6.1  | 4.9  | 379.9  | 3.   | 7900.  |
|      |   | 4 | 32.1 | 27.1 | 24.2 | 21.9 | 17.3 | 12.8 | 10.5 | 8.1  | 6.0  | 4.7  | 417.9  | -8.  | 14500. |
|      |   | 5 | 33.3 | 28.2 | 25.3 | 22.8 | 18.1 | 13.5 | 10.8 | 8.5  | 6.6  | 5.3  | 263.3  | -27. | 13700. |
| 502  | 2 | 1 | 47.6 | 40.7 | 36.5 | 33.3 | 27.0 | 20.7 | 17.0 | 13.6 | 10.6 | 8.7  | 1221.0 | 3.   | 8500.  |
|      |   | 2 | 33.0 | 28.3 | 25.2 | 23.0 | 18.1 | 13.5 | 10.9 | 8.5  | 6.5  | 5.1  | 285.3  | 3.   | 5970.  |
|      |   | 3 | 32.4 | 27.7 | 24.6 | 22.2 | 17.6 | 13.0 | 10.4 | 8.3  | 6.3  | 5.0  | 275.7  | -3.  | 11500. |
|      |   | 4 | 33.2 | 28.8 | 25.5 | 22.9 | 18.4 | 13.8 | 11.2 | 8.6  | 6.5  | 5.3  | 163.2  | -38. | 11300. |
|      |   | 5 | 34.8 | 26.9 | 24.8 | 25.2 | 18.7 | 12.4 | 11.8 | 7.5  | 7.6  | 4.5  | 19.9   | 65.  | 2080.  |
| 252  | 2 | 1 | 36.0 | 30.6 | 27.2 | 25.0 | 20.0 | 15.2 | 12.4 | 9.8  | 7.6  | 6.2  | 2187.0 | -23. | 5720.  |
|      |   | 2 | 36.6 | 31.0 | 27.6 | 25.3 | 20.1 | 15.0 | 12.2 | 9.6  | 7.4  | 5.9  | 1488.0 | -30. | 11680. |
|      |   | 3 | 36.8 | 31.3 | 27.8 | 25.4 | 20.2 | 15.2 | 12.3 | 9.7  | 7.5  | 6.1  | 751.7  | -15. | 11770. |

|      |   |   |      |      |      |      |      |      |      |      |     |     |        |      |        |
|------|---|---|------|------|------|------|------|------|------|------|-----|-----|--------|------|--------|
|      |   | 4 | 35.4 | 30.3 | 26.9 | 24.2 | 18.9 | 14.1 | 11.6 | 8.8  | 6.8 | 5.4 | 84.9   | 54.  | 2221.  |
|      |   | 5 | 28.5 | 23.0 | 20.4 | 19.1 | 15.4 | 11.3 | 8.8  | 7.3  | 5.4 | 4.6 | 61.5   | -49. | 2413.  |
| 2    | 2 | 1 | 38.3 | 32.3 | 28.8 | 26.3 | 21.0 | 15.9 | 13.0 | 10.3 | 8.0 | 6.5 | 2643.0 | -19. | 13866. |
|      |   | 2 | 40.3 | 34.2 | 30.6 | 28.0 | 22.4 | 16.9 | 13.8 | 10.9 | 8.5 | 6.9 | 817.7  | -15. | 11850. |
|      |   | 3 | 39.0 | 32.9 | 29.3 | 26.7 | 21.4 | 16.0 | 13.2 | 10.3 | 8.0 | 6.4 | 78.3   | 60.  | 2266.  |
|      |   | 4 | 33.3 | 28.0 | 24.9 | 22.9 | 17.9 | 13.6 | 10.8 | 8.5  | 6.6 | 5.3 | 51.6   | -56. | 2491.  |
|      |   | 5 | 33.5 | 27.4 | 24.3 | 22.1 | 17.5 | 12.5 | 10.3 | 8.1  | 6.1 | 4.8 | 22.1   | 19.  | 1599.  |
| 254  | 2 | 1 | 29.3 | 24.7 | 21.9 | 20.0 | 15.8 | 11.9 | 9.6  | 7.6  | 5.9 | 4.7 | 5133.0 | -84. | 11510. |
|      |   | 2 | 33.9 | 28.6 | 25.4 | 23.2 | 18.4 | 13.7 | 11.1 | 8.8  | 6.8 | 5.5 | 279.2  | 79.  | 1876.  |
|      |   | 3 | 29.7 | 25.0 | 22.2 | 20.3 | 16.1 | 12.1 | 9.7  | 7.7  | 5.9 | 4.7 | 160.3  | -53. | 2150.  |
|      |   | 4 | 30.8 | 25.4 | 22.2 | 20.2 | 15.8 | 11.6 | 9.3  | 7.1  | 5.6 | 4.5 | 64.7   | 6.   | 1450.  |
| 504  | 2 | 1 | 23.1 | 19.4 | 17.0 | 15.6 | 12.4 | 9.3  | 7.6  | 5.9  | 4.7 | 3.7 | 521.5  | 107. | 2720.  |
|      |   | 2 | 24.6 | 20.2 | 17.7 | 16.1 | 12.8 | 9.3  | 7.6  | 6.0  | 4.4 | 3.7 | 137.5  | -73. | 2150.  |
|      |   | 3 | 26.0 | 21.6 | 18.8 | 16.9 | 13.2 | 9.7  | 7.7  | 5.9  | 4.4 | 3.5 | 47.5   | 30.  | 1480.  |
| 754  | 2 | 1 | 20.3 | 16.6 | 14.6 | 13.1 | 10.2 | 7.6  | 6.0  | 4.7  | 3.6 | 2.3 | 683.3  | -69. | 2145.  |
|      |   | 2 | 21.9 | 17.7 | 15.4 | 13.8 | 10.5 | 7.6  | 6.0  | 4.6  | 3.5 | 2.3 | 163.6  | 16.  | 1541.  |
| 1004 | 2 | 1 | 23.5 | 19.1 | 16.5 | 14.7 | 11.4 | 8.4  | 6.6  | 5.3  | 4.1 | 3.0 | 74.3   | 19.  | 933.   |



ABERMIN CORPORATION

Lyle Creek - Highland Surprise Grid

Geophysics Interpretation

J.M. Thornton for  
Scott Geophysics Ltd.

November, 1987

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

16,758



TABLE OF CONTENTS

|                               | Page |
|-------------------------------|------|
| Summary                       | 2    |
| Introduction                  | 2    |
| Geophysics                    | 2    |
| Discussion of Results         | 3    |
| Conclusions                   | 5    |
| Recommendations               | 5    |
| Areas of Interest             | 6    |
| <br>                          |      |
| IP Pseudosections - Lyle Grid |      |

LIST OF PLATES  
(In Back Pockets)

|                                            |        |
|--------------------------------------------|--------|
| Lyle Grid - Detail VLF-EM                  | 1:2500 |
| Lyle Grid - Detail Magnetometer            | "      |
| Lyle Grid - Detail Geophysical Compilation | "      |

## Summary

Ground Magnetometer, VLF and Induced Polarization surveys have outlined 3 target areas for further examination. Induced Polarization data was more useful than the other techniques, although more limited in coverage because of electrical contact difficulties.

## Introduction

During the period Sept. 1-9, 1987, approximately 21.5 km. of ground magnetometer and VLF data and 2.2 km. of Induced Polarization data were gathered on lines 100 meters apart with some infill lines at 50 meter intervals in the vicinity of the Highland Surprise Mine. Field work was carried out under the supervision of Gerry MacArthur for Abermin and Jerry Thornton for Scott Geophysics.

## Geophysics

Ground Surveys were carried out using a station interval of 12.5 meters on a grid oriented N35W. The VLF station chosen was Annapolis, Maryland (21.4 kHz) as Cutler, Maine was off the air for the duration of the survey. Other stations, namely Seattle and Hawaii were very poorly situated with respect to the grid orientation.

The data was gathered using a Scintrex Integrated Geophysical System (IGS-2) which consisted of a microprocessor based magnetometer and VLF unit in a common housing. Up to 16 km of data can be stored internally.

A total field base station recording system was used to monitor the diurnal variations and to remove these variations from the field data before transferring the data to a floppy disk for archival storage and later processing. As time permitted, profiles and plan maps of the data were produced in the field, both to monitor the data quality and to provide preliminary maps for the field personell.

The IP survey employed a Scintrex IPR-11 time domain receiver, and a battery powered Hunttec LOPO transmitter. High resistivity rocks on the property eliminated the need for a conventional high power transmitter. Received signals were strong;  $V_p > 50$  mv. in the high separations. The area surveyed was limited to areas having a little soil and areas free of talus.

Profiles of magnetometer and VLF in-phase, quadrature and field strength were produced at a scale of 1:2500.

IP pseudo-sections at a scale of 1:1250 were produced for resistivity and chargeability (M7). The spectral parameters, c and tau, were calculated and listed.

Hand contoured plan maps of magnetics, fraser filtered VLF in-phase, resistivity and chargeability at a scale of 1:2500 were produced. Final computer generated maps of the data were produced at a scale of 1:5000.

Data from the area in the immediate vicinity of the Highland Surprise was replotted; stacked profiles of magnetics and the VLF parameters were generated for the detailed area at a scale of 1:2500.

### Discussion of Results

#### Magnetics

1) Strong magnetic contrast between ultramafics and other rocks on the property. Volcanic sequence is essentially non-magnetic, or extremely homogenous. No magnetic difference between volcanics and diorite.

2) Contact zone consists of several parallel faults containing shards or blocky lenses of ultramafic within a 50-75 meter zone.

3) West boundary of the fault zone is marked by a sharp increase in the magnetic response.

4) Weak magnetic high on or near the west side of the Highland Surprise mine area. Alternatively, might be a sliver of ultramafics along a fault plane.

5) A <sup>W</sup> NNE trending magnetic feature (200-400nT) can be traced from Line 5+50S-150E to Line 10+00S-0E. It may continue further south, but considerably weaker (50-100nT). It is co-incident with a shear zone mineralized with magnetite and pyrrhotite. A second very weak parallel structure some 70 meters east is noted on the two northern lines and again between lines 9+00S to 11+00S.

6) The magnetic signature of the ultramafics changes from north to south in the area. The ultramafic, which outcrops north of line 11+00S is not mapped to the south. Magnetism indicates that it is buried; approximately 70 meters at line 14+75S. At this depth, it appears as a sill-like body dipping to the west. A second near-surface anomaly lies just above or slightly east of the east edge of this sill.

Data from line 14+00S suggests the same deep feature but the near surface feature is essentially absent. Line 13+00S data indicates the source to be somewhat closer to the surface.

There is no evidence of the ultramafic east of the mapped fault contact zone, either in the surface mapping or to a considerable depth in the magnetic data. By inference, the east block has been uplifted.

#### VLF

1) The VLF station direction was not ideal for this property. Of the possible stations, Cutler and Annapolis were best suited; however the station direction was 45 degrees to the grid.

2) Since the 'fabric' of the rocks is almost at right angles to the station direction; the expected response is extremely low - very

little current induced into conductors aligned this way. Many of the anomalies encountered are weak and poorly defined. Signal strengths were adequate for the survey, although influenced by the topography.

3) Strong anomalies were encountered at the fault contact; response is of the multiple conductor type, most lines having two or more overlapping anomalies in the fault zone. The main Fraser Filter anomaly co-incides with the middle of the fault contact zone, with the 15 unit contour marking the east boundary.

The overhead cable comes quite close to the ground between lines 8+00S and 9+00S. Just how much influence it creates is uncertain. It is most likely that the tongue or splay in the Fraser Filter data is really caused by a separate anomaly 50 meters east of the main fault.

4) West of the fault, a weak continuous Fraser Filter anomaly at 175W is co-incident with the upper contact of ultramafic/volcanics.

A very weak VLF feature was observed near the weak NNE trending magnetic feature. This feature is quite distinct on lines 5+50S and 7+50S, some 25 meters west of the magnetic structure. VLF response is most likely due to the increased porosity in the sheared rocks. A better located VLF station would undoubtedly have produced better anomalies from this structure.

Scattered weak and poorly defined cross-overs were noted; many are just noise. They are not visible in the Fraser filter data.

#### Induced Polarization

1) Confined to areas where ground contact was possible.

2) Low resistivity rocks deemed to be altered/weathered ultramafics.

High resistivities attributed to volcanics/diorite, non-porous; alteration - silicification and/or carbonatization.

3) Resistivity lows east of the fault zone are thought to be caused by shearing and/or clay alteration products, or other porosity increase.

4) High chargeabilities (>15 msec) at east ends of lines 5+50S and 6+00S are most likely due to mineralized veins or shears. These two zones trend NNE and are near to but not co-incident with the magnetic feature. This zone may continue south to 8+00S.

5) A weak distinct anomaly on 5+50S at 25W is almost certainly the IP signature of the Highland Surprise. The anomaly appears as a swelling in the chargeabilities on the pseudo-section for line 6+00S. A semi-continuous narrow zone of higher chargeabilities extends from the north limit of the survey to line 8+00S at approximately 50E. This zone gradually deepens to the south, and is sub-vertical at the north but appears to dip steeply east at 8+00S.

6) Chargeability anomaly on west end of lines due to sulfides in the ultramafics and overlying volcanics.

## Conclusions

1) East block uplifted; ultramafics eroded away. Little or no movement along the mapped east-west fracturing direction.

2) Clearest geophysical picture developed from IP data. High resistivity rocks east of fault are 'tight' (non-porous) and host several chargeability highs. Low resistivity rocks lie west of the fault and are most likely due to altered ultramafics. Shear zones (serpentinized) are quite distinct in the pseudo-sections; faults/shears/contacts marked by resistivity breaks.

Very limited data suggests that the long linear IP anomaly at 50E is similar to IP anomaly associated with the Highland Surprise. Both resistivity and chargeability data are in the same range. The zone is distinct, 10-30 meters wide and near surface at line 6+00S, gradually deepening to line 8+00S.

3) Strong chargeability high at 300E on northern lines and also on lines 8+00S and 8+50S due to increased sulfide concentration. Little or no pyrrhotite in the sulfides. The zone is probably continuous and extends further south.

4) VLF maps fault zone fairly well. Ultramafic/volcanic contact at 175W on most lines agrees very well with geological mapping. Topography and generally noisy data require the VLF data to be interpreted primarily through the Fraser Filter data.

A subtle NNW trending feature can be inferred from the VLF Fraser filter (FF) data, extending from 200W on line 5+50S to 50E on line 9+00S.

Single VLF anomalies as picked may be simply noise.

The VLF anomaly at 50E on lines 9+00S to 11+00S is unexplained. It may be a splay of the main fault, a short fault bounded by E/W structures, or a shear zone that is better coupled to the station and thus gives better response.

## Recommendations

### Further Geophysics

#### Magnetics

- several short lines north of the survey area to investigate the Highland Surprise mine and the high sulfide area to the east on line 5+00S

- one or more short lines south of L14+75S to delimit the mag feature east(?) of the ultramafic contact.

- mapping the ultramafic boundary is probably not important, but determining if there are more py/po enriched zones probably is.

#### VLF

- If E-W structure is found to be important, run survey with lines at right angles to present grid. Use current stations, NSS

and NAA (Cutler and Annapolis)

- If N-S structure is important, use a portable VLF Transmitter stationed at the Whitewater Glacier. Both the Whitewater and the Lyle-Ibex grids would benefit. Use the existing grids.

- An alternative to VLF - use 'Shootback' equipment at its highest frequency to determine structural detail.

IP

- In view of the very limited area available for IP, it would be difficult to perform the survey on much of the property, especially East of Lyle creek.

- survey above the geochem anomaly at 3+00E around approx. 4+00S

- survey at least 1 line above the Highland Surprise.

### Areas of Interest

I IP target at 50E from 5+50S to 8+00S. Target is a 10 to 30 meter wide, vertically oriented zone just east of the portal on line 6+00S. Target sub-crops at 6+00S but buried 30-50 meters at south end.

II Zone of possible ground preparation from 9+00S to 11+00S caused by:

a) shear zones (continuation of NNE<sup>W</sup> shear zone),

b) splay fault or sub-fault,

c) NNW trending structure seen in Fraser filter data.

This zone appears to be a 'focus' point where the two IP anomalies might intersect. Completely covered - no exposure.

III High chargeability/high resistivity anomalies with associated geochem anomaly in the NE corner of survey area, specifically the zone at 200 - 275E on line 5+50S which extends toward 125E on line 8+00S. These anomalies appear to trend toward the high sulfide IBEX area.

LEGEND FOR IP PSEUDOSECTIONS

|               |                    |           |
|---------------|--------------------|-----------|
| Resistivity   | >10,000 mho        | —————     |
|               | > 5,000            | - - - - - |
|               | < 2,000            |           |
| Chargeability | >10.0 milliseconds | —————     |
|               | > 7.5              | - - - - - |







ABERMIN CORP

Lyle Grid

LINE NUMBER: 650 SOUTH

"A": 25.0 METRES

N=1 TO 5

SCINTREX IPR-11 RECEIVER

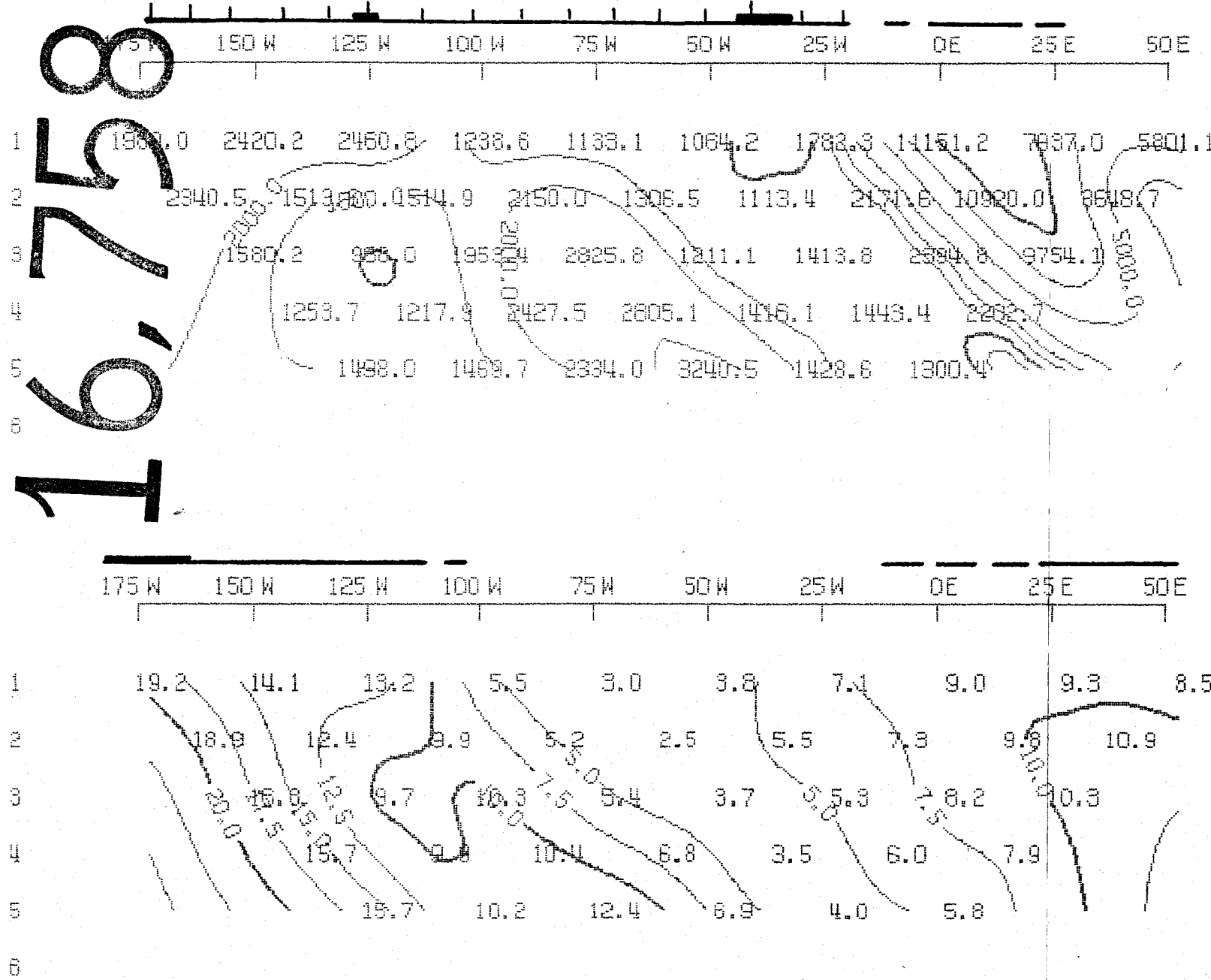
TX PULSE TIME: 2.0 SEC

POLE-DIPOLE ARRAY

RECEIVE TIME: 2.0 SEC

SCALE GEOLOGICAL BRANCH  
ASSESSMENT REPORT

SLICE 7 (M7)





# ABERMIN CORP

Lyle Grid

LINE NUMBER: 750 SOUTH

"R": 25.0 METRES

N=1 TO 5

SCINTREX IPA-11 RECEIVER

TX PULSE TIME: 2.0 SEC

POLE-DIPOLE ARRAY

RECEIVE TIME: 2.0 SEC

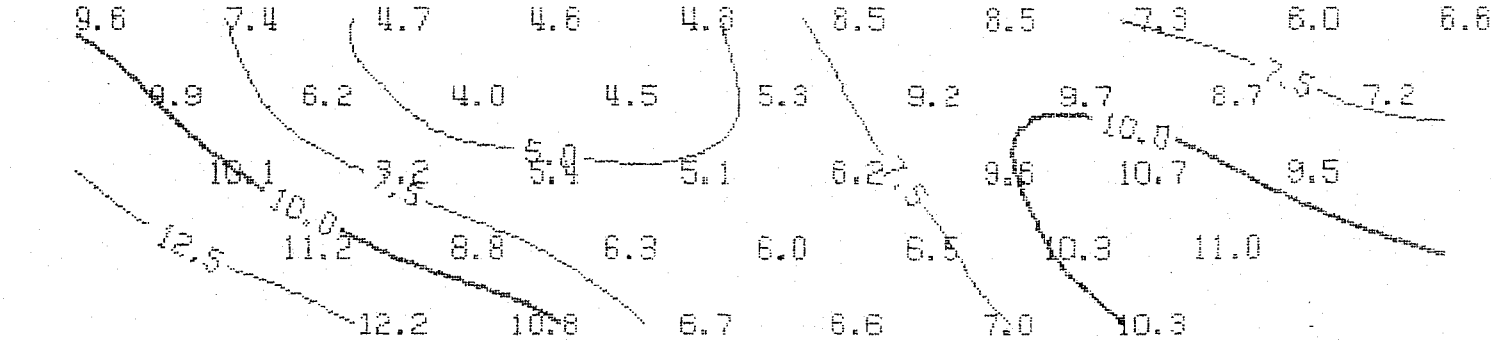
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SLICE 7 (M7)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

# 16,758

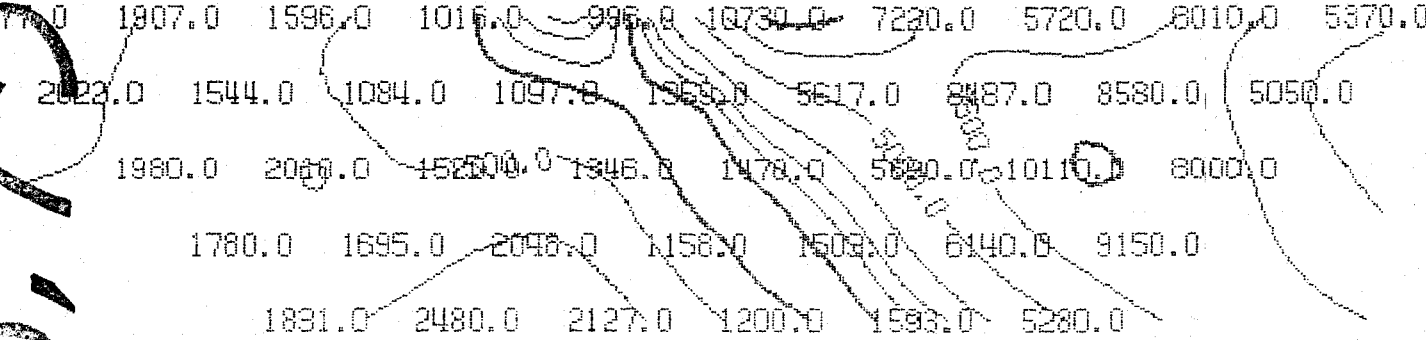
1  
2  
3  
4  
5  
6



150 W 125 W 100 W 75 W 50 W 25 W 0E 25 E 50 E 75 E

150 W 125 W 100 W 75 W 50 W 25 W 0E 25 E 50 E 75 E

1  
2  
3  
4  
5  
6



150 W 125 W 100 W 75 W 50 W 25 W 0E 25 E 50 E 75 E



# ABERMIN CORP

Lyle Grid

LINE NUMBER: 850 SOUTH

"A": 25.0 METRES

N=1 TO 5

SCINTREX IPA-11 RECEIVER

TX PULSE TIME: 2.0 SEC

POLE-DIPOLE ARRAY

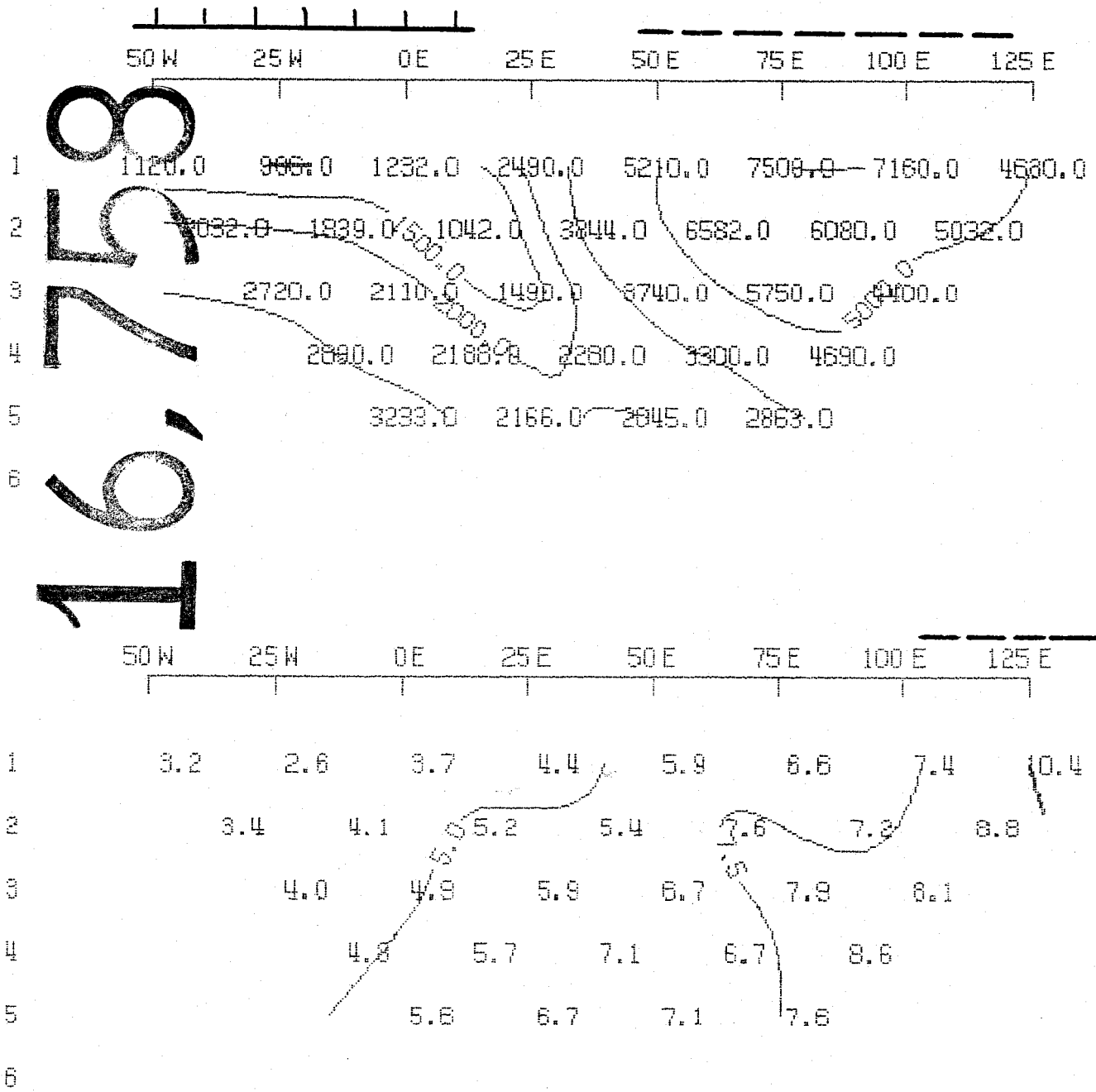
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SCALE 1: 1250

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

SLICE 7 (M7)

# 16,758





APPENDIX III



APPENDIX III  
PETROGRAPHIC REPORT

## PETROGRAPHIC REPORT

The petrographic report by J. Harris is instructive in as much as it gives additional information about the rocks which were not discernable in hand specimen.

The Kaslo Group volcanics have been subjected to low grade greenschist metamorphism. The common mineral assemblage is Albite-epidote-actinolite + chlorite. Kaslo Group andesitic volcanics containing primary pyroxene commonly show the alteration to actinolite. Many of the rocks are recrystallized and have an equigranular compact skarny or hornfels texture. The rocks are strongly albitic and it would appear that they are spilitized (no metasomatism) possibly during an early diagenetic reaction with circulating sea water. These rocks are also affected by widespread carbonatization.

PETROGRAPHIC REPORT  
SAMPLE LOCATION & DESCRIPTION

| <u>Slide No.</u> | <u>Sample</u> | <u>Location</u>                 | <u>Description</u>                                               |
|------------------|---------------|---------------------------------|------------------------------------------------------------------|
| 379              | 51298         | L22N/2+75E                      | Gold quartz area - altered wall rock with quartz vein and pyrite |
| 380              | 51299         | L22N/2+75E                      | Gold quartz area - quartz vein with chalcopyrite-galena-pyrite   |
| 381              | GQ-1          | L27N/13E                        | Gold quartz ridge - quartz vein with chalcopyrite-galena-pyrite  |
| 382              | 51229         | Highland Surprise Level #4      | Vein zone-quartz vein and pyrite                                 |
| 383              | 51230         | Highland Surprise Level #4      | Vein zone quartz vein and pyrite chalcopyrite                    |
| 384              | HS-2          | Highland Surprise Level #4      | Altered wallrock                                                 |
| 385              | HS-3          | Highland Surprise Level #1 Dump | Altered wallrock                                                 |
| 386              | L16N/9E       | Whitewater Grid                 | Altered wall rock and dyke - large pyrite                        |
| 387              | 51223         | Highland Surprise Level #4      | Altered wallrock andesite                                        |
| 388              | 51225         | Highland Surprise Level #4      | Feldspar porphyry dyke                                           |
| 389              | HS-1          | Highland Surprise Level #4      | Altered wallrock                                                 |
| 390              | L9S/3E        | Lyle Grid                       | Andesite with quartz-calcite veining                             |
| 391              | L8+50S/3E     | Lyle Grid                       | Andesite volcanic breccia                                        |
| 392              | GFM-8-3A      | L11S/2E Lyle Grid               | Andesite pyroclastic                                             |
| 393              | DM001         | L25N/11E Whitewater Grid        | Variolitic basalt                                                |
| 394              | DM10          | L1+50S/10E Lyle Grid            | Diorite intruding Milford                                        |
| 396              | L13N/6+72E    | Whitewater Grid                 | Whitewater diorite                                               |
| 396              | MF-3-26-06    | L1+50S/7+50E Lyle Grid          | Kaslo Group diorite                                              |
| 397              | DMRG29        | L8+50S/0+75E Lyle Grid          | Feldspar porphyry dyke                                           |

*Harris*  
EXPLORATION  
SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6

TELEPHONE (604) 929-5867

Invoice #87-122

In account with: Abermin Corp.,  
1500-1075 West Georgia St.,  
Vancouver, B.C.  
V6E 3C9

November 24th, 1987

Charges for professional services re petrographic study of rocks from the  
Whitewater Project for Gerry McArthur.

|                                                                                                 |             |
|-------------------------------------------------------------------------------------------------|-------------|
| Preparation (including impregnation and<br>staining)                                            |             |
| 8 polished thin sections, 11 thin sections                                                      | \$ 268.00   |
| Microscopic work                                                                                |             |
| 19 transmitted light examinations, 8 reflected<br>light examinations; report and interpretation | 1066.00     |
| Photomicrographs                                                                                | 134.00      |
|                                                                                                 | <hr/>       |
| Total                                                                                           | \$ 1468.00  |
|                                                                                                 | <hr/> <hr/> |

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SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6

TELEPHONE (604) 929-5867

Job #87-122

Report for: Gerry McArthur,  
Abermin Corporation,  
1500-1075 West Georgia St.,  
Vancouver, B.C.  
V6E 3C9

November 24th, 1987

Samples:

19 rock samples from the Whitewater project for sectioning and petrographic study.

Samples and corresponding slide numbers are listed in the following table:

| Sample No.    | Slide No. | Preparation type      |
|---------------|-----------|-----------------------|
| 51298         | 87-379X   | Polished thin section |
| 51299         | 380X      | Polished thin section |
| GQ-1          | 381X      | Polished thin section |
| 51229         | 382X      | Polished thin section |
| 51230         | 383X      | Polished thin section |
| HS-GFM-87-2   | 384X      | Polished thin section |
| HS-GFM-87-3   | 385X      | Polished thin section |
| WW-L16N-9E    | 386X      | Polished thin section |
| HS-51223      | 387X      | Thin section          |
| HS-51225      | 388X      | Thin section          |
| HS-GFM-87-1   | 389X      | Thin section          |
| WW-L9S-3E     | 390X      | Thin section          |
| WW-L850S-3E   | 391X      | Thin section          |
| WW-GFM-8-3A   | 392X      | Thin section          |
| DM-001        | 393X      | Thin section          |
| DM-010        | 394X      | Thin section          |
| DM L13N/6+72E | 395X      | Thin section          |
| MF-3-26-06    | 396X      | Thin section          |
| DM-RG-29      | 397X      | Thin section          |

Summary:

The rocks of this suite appear to be entirely of igneous affinities. A distinctive feature throughout is the strongly sodic composition (albite) of the plagioclase, even where the associated assemblage is of characteristic intermediate-mafic type. They appear, therefore, to be of the spilitic association. Quartz

is notably lacking, except where the rocks are veined and/or strongly altered.

The degree of metamorphism is difficult to ascertain. Some of the rocks show apparent recrystallization but in others, primary igneous textures are perfectly preserved. Foliated fabrics are rare, and the recrystallized rocks typically show non-oriented fabrics which, in some aspects, are suggestive of hornfelses.

The actinolitic amphibole which is prominent in some samples is interpreted as a late magmatic or deuteric alteration of primary pyroxene rather than a metamorphic product. The finer-grained biotite, typical of others, could be a metamorphic overprint (possibly of thermal type) or is, perhaps, a hydrothermal alteration product. The origin of the carbonate (of dolomitic or ankeritic composition) which is an abundant component of many of the rocks is also uncertain. It is presumably a secondary or late-stage product, but is typically present in intimate textural intergrowth with fresh plagioclase. The lack of sericitic alteration is notable.

For purposes of brevity, samples are referred to by the corresponding slide numbers in the following discussion.

Several compositional/textural groups may be distinguished within the suite.

Samples 379X, 381X and 385X are related to quartz veining. 381X is essentially monomineralic quartz, 379X is quartz with included albite-carbonate wall-rock material, and 385X illustrates the contact zone of vein-type quartz and a biotite-carbonate albitite.

Samples 380X, 386X and 387X are all non-foliated microgranular albitites - possibly 'dyke' rocks - having varying, but generally minor, amounts of carbonate and secondary biotite. 388X is of similar composition, but shows prominent phenocrysts or crystal clasts in a fine groundmass.

Sample 397X is another sub-porphyrific, non-foliated albitite (dyke?), which is distinctive for its content of accessory K-spar.

Samples 382X, 383X, 384X and 389X are compositionally similar in that they are composed of albite with substantial proportions of both carbonate and secondary biotite. They are also the only rocks in the suite to show foliated textures. They may be recrystallized fine-grained tuffs. The first three all include concordant quartz bands which appear to have been recrystallized along with the host, and may represent primary chert intercalations rather than veins. Gold was seen in this environment in sample 383X, as well as with disseminated pyrite in the host rock.

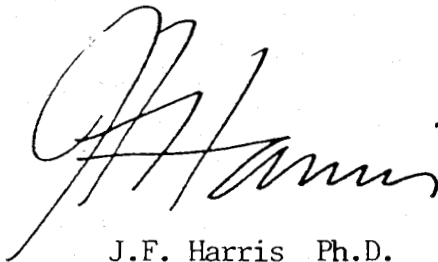
The remaining samples of the suite (390X - 396X) all show a distinctive composition of actinolitic amphibole and albitic plagioclase, mostly with major amounts of associated epidote. They contain no biotite.

Of this group, 390X - 392X are more or less clearly fragmental and represent coarse lithic or fine-grained tuffs of andesitic-basaltic composition. Sample 393X may be of similar type, but is more extensively recrystallized. Samples 394X - 396X show typical textures of minor intrusives, and are probably spilitic diabase dykes.

The sulfide association in the mineralized samples is extremely simple, consisting essentially of pyrite with minor associated chalcopyrite. Rare argentite was seen within pyrite or as tiny intergranular pockets in quartz.

Native Au and/or electrum was recognized in 3 samples (379X, 381X and 383X). It occurs as specks 1 to 50 microns in size, associated with argentite or with chalcopyrite inclusions in pyrite, or as individual blebs within, or on the contacts of, pyrite.

Individual petrographic descriptions are attached, together with photomicrographs illustrating some of the observed features.



J.F. Harris Ph.D.

PHOTOMICROGRAPHS

All photos are by cross-polarized transmitted light at a scale of 1cm = 170 microns except where otherwise stated.

| Slide No. | Neg. # |                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 379X      | 105-0  | Reflected light. Scale 1cm = 42 microns.<br>Two 20 micron gold grains (yellow) in pyrite (cream colour).<br>Medium grey (upper centre) is limonite developed marginal to a microfracture. Black (right) is quartz.                                                                                                                                                    |
|           | 105-1  | Reflected light. Scale 1cm = 42 microns.<br>20 micron grain of electrum (bright yellowish white, lower right centre) associated with angular pocket of argentite (dark grey, in contact with electrum) included within pyrite (cream colour).<br>Note also inclusions of chalcopyrite (brownish yellow) and veining and partial rimming of pyrite by limonite (grey). |
| 383X      | 105-2  | Reflected light. Scale 1cm = 42 microns.<br>30 micron equant grain of gold (circled) on contact of pyrite, and thread-like gold (also circled) associated with a microfracture in the pyrite. Flecked dark background is fine felsitic host rock. Slightly lighter grey grains at and near pyrite contact are sphene.                                                 |
| 381X      | 105-8  | Reflected light. Scale 1cm = 42 microns.<br>Argentite pockets (light grey, top right, bottom left) in quartz.<br>Note fine-grained electrum (bright flecks) associated with the argentite. Argentite inclusions (30 - 50 microns) also within the pyrite grain.                                                                                                       |
| 380X      | 105-15 | Fine-grained brown biotite and carbonate (pinkish beige) in granular albitite (matrix greys, locally showing lamellar twinning).                                                                                                                                                                                                                                      |
| 382X      | 105-16 | Plane polarized transmitted light.<br>Olive green biotite as fine-grained wisps and flecks and pockets associated with pyrite clusters (black) in weakly foliated, fine-grained felsitic rock.                                                                                                                                                                        |
|           | 105-17 | Same field as 105-16 but cross-polarized light.<br>Shows fine grain size and textural character of partially recrystallized felsitic rock. Portion of a lens of finely granular quartz (crenulate boundaries) at top right.                                                                                                                                           |
| 384X      | 105-18 | Contact of quartz vein (right) with altered host rock; greys in host material are phenocrystic and felsitic albite, and pinks/olives are biotite. Beige-coloured irregular patches in contact zone of quartz are carbonate. Note strongly strained, recrystallized fabric of quartz and irregular form of contact.                                                    |



- 386X 105-19 Granular albitite, composed of interlocking prismatic plagioclase (greys, partly twinned) with interstitial flecks and patches of carbonate (pinkish beige) and chlorite (dark olive: e.g. centre). Slide includes disseminated pyrite (opaque, totally black grain).
- 387X 105-20 Recrystallized fine-grained matrix of plagioclase showing diffuse lath-like forms. Strongly pervaded by carbonate (pinkish beige) and brown biotite. Field includes veinlet of albite (note twinning) and carbonate.
- 388X 105-21 Flow-textured porphyry or crystal tuff. Euhedral albite crystals in minutely fine-grained felsitic matrix. Note incipient foliation, emphasized by streaks of fine-grained biotite (olive browns: e.g. centre). Also minor flecks of carbonate (e.g. bottom right). Foliation swings around coarse crystals: compaction effect in unconsolidated ash?
- 392X 105-22 Contact between sub-porphyrific actinolite-plagioclase rock (right) and tuff phase (left). The tuff contains lithic fragments of similar composition to the granular phase, plus crystal clasts of amphibole (colours) and plagioclase (white), in a dark sub-opaque matrix.
- 394X 105-23 Coarse amphibole (orange, left) with optically enclosed plagioclase (speckled with sericite) set in finer-grained intergrowth of plagioclase, amphibole and epidote (right).
- 395X 105-24 Non-foliated, equigranular aggregate of subhedral amphibole (colours) and plagioclase (greys). Field includes interstitial epidote (bluish; e.g. right centre, with small patch beige carbonate) and angular/skeletal grains of sphene/leucosene (dark brown to black, e.g. upper right centre adjacent to the granular epidote pocket).
- 396X 105-25 Sub-porphyrific texture. Subhedral individual grains of amphibole (colours: note ragged terminations suggestive of secondary origin) in finer, diabase-like meshwork aggregate of albitic plagioclase (greys) with interstitial epidote (blue-black).

Sample 51298 (Slide 87-379X)

Estimated mode

|              |       |
|--------------|-------|
| Wall rock    |       |
| Plagioclase  | 22    |
| K-feldspar   | trace |
| Carbonate )  | 3     |
| Limonite )   |       |
| Vein         |       |
| Quartz       | 68    |
| Barite       | trace |
| Pyrite       | 5     |
| Chalcopyrite | 1     |
| Sphalerite   | trace |
| Electrum     | trace |
| Argentite    | trace |
| Limonite     | trace |
| Malachite    | trace |

This slide illustrates a vein or segregation of quartz in contact with presumed wall-rock material. The latter is seen as one substantial area, plus several smaller included remnants within the vein.

The wall-rock phase is of simple mineralogy, consisting essentially of a fine-grained aggregate of plagioclase. This is principally of microgranular felsitic texture, of grain size 0.02 - 0.05mm. Patchy textural variations, grading to a more meshwork-textured aggregate, are observable and the rock apparently represents a somewhat recrystallized, possibly fragmental volcanic approaching albitite in composition.

The only other constituent of the wall-rock phase is a limonite-stained (and presumably ankeritic) carbonate, occurring, in patchily varying abundance, as a random fine-grained dissemination.

The vein material is composed essentially of quartz, as an anhedral, crenulate-margined, strained aggregate of grain size up to about 5.0mm. Partial recrystallization is evidenced by the development of fine cherty/granulated material in some grain boundaries.

A very minor component of barite is present as local intergranular pockets and networks in the quartz, often at or near the contacts with wall-rock remnants.

Partial reaction and assimilation of wall-rock material is apparent. Hairline veinlets of quartz cutting the albitite contain well-formed crystals of albite (presumably redistributed from the wall-rock) and similar sparry albite is developed sporadically at the contacts of wall-rock xenoliths in the quartz. Minor redistribution of assimilated wall-rock material is evident as rare wisps of albite and carbonate in vein quartz grain boundaries.

The quartz contains sulfides in the form of clusters of anhedral-subhedral grains of pyrite, 0.1 - 2.0mm in size. Chalcopyrite is an accessory component,

Sample 51298 cont.

typically in interstitial mode - cementing between and moulding round the pyrite grains. More rarely chalcopyrite is seen as tiny threadlike veinlets or small inclusions within pyrite. Rare traces of associated sphalerite are present.

The pyrite and chalcopyrite are extensively rimmed and replaced by limonite, via grain boundaries and micro-fractures.

Minor pyrite also occurs as fine-grained disseminations and fracture fillings in the wall-rock.

Several examples of native gold or electrum were seen, always within pyrite. These are grains 5 - 50 microns in size, occurring as discrete blebs or composite with tiny inclusions of argentite.

Sample 51299 (Slide 87-380X)

Estimated mode

|              |       |
|--------------|-------|
| Plagioclase  | 65    |
| Carbonate    | 24    |
| Quartz       | 1     |
| Biotite      | 5     |
| Sericite     | 1     |
| Pyrite       | 2     |
| Fe-Ti oxides | 2     |
| Chalcopyrite | trace |

This sample is described in the covering letter as 'quartz vein: GQ Ridge'. The hand specimen does, in fact, contain a somewhat irregular stringer of apparent quartz, about 1 cm thick, but this is not included in the slide. One of a number of thinner veinlets which traverse the sample is represented. This is found to be a mixture of albite, carbonate and quartz rather than straight quartz.

The slide is made up predominantly of feldspathic rock of related composition to the host rock remnants described in the previous sample.

It is a rather even-grained, anhedral-subhedral, interlocking prismatic aggregate of fresh plagioclase, ranging up to 0.4mm in grain size. A proportion of very fine-grained felsitic material down to 0.01mm grain size occurs in intergranular mode, and as diffuse streaks.

The plagioclase is apparently of albitic composition and the rock could reasonably be classified as an (altered) albitite.

The albite aggregate is strongly pervaded throughout by fine-grained carbonate, as clusters of tiny granules, 0.01mm or less in size, coalescing to intergranular networks and irregular clumps and vein-like segregations of 0.5mm or more.

Reddish biotite occurs in similar mode but is less abundant. It forms wisps and clusters of tiny flakes, often with associated fine-grained Fe-Ti oxides. Rarely it forms short sub-parallel lenses, sometimes with intergrown sericite, producing an extremely weak, incipient foliation. Wisps of dust-sized opaques reinforce this trend.

Pyrite occurs as randomly disseminated individual subhedra 0.05 - 0.5mm in size (occasionally to 1.0mm). Minor chalcopyrite is associated, as moulded-on or included flecks. Inclusions of oxides in the pyrite are also seen.

The rock is cut by a thin (2 - 3mm) veinlet composed of rather coarse-grained sparry albite, carbonate and quartz. One small pocket of sulfides occurs in the vein, but it does not appear strongly mineralized. The rock is cut by various other less well-defined veinlets, including some of carbonate alone.

This rock appears to be of igneous affinities, though the highly specialized (albitic) composition is unusual. The disseminated biotite may be a metamorphic product, possibly related to a thermal event. The carbonate is unreactive to dilute acid and probably of dolomitic or ankeritic composition.

Sample GQ-1 (Slide 87-381X)

Estimated mode

|              |       |
|--------------|-------|
| Quartz       | 99    |
| Pyrite       | 1     |
| Chalcopyrite | trace |
| Argentite    | trace |
| Electrum     | trace |
| Limonite     | trace |

This sample is composed of essentially monomineralic vein-type quartz in the form of an anhedral aggregate of grain size 1 - 7mm. It shows the effects of intense strain and shearing, in the form of crenulate grain boundaries, shadowy, mottled/lenticular strain polarization, intergranular recrystallization/granulation, and local parallel grain elongation.

The slide includes rare clumps of pyrite grains, 0.01 - 1.0mm in size, with associated chalcopyrite. The latter occurs principally as intergranular threads and networks in the quartz and, occasionally, moulded on to pyrite grains.

Rims of limonitization and secondary Cu minerals are rather common on the chalcopyrite. The pyrite is essentially fresh.

Trace accessories are tiny specks (10 - 50 microns) of argentite in quartz and pyrite. These sometimes include minute flecks (1 - 20 microns) of electrum. A 25 micron bleb of native Au was seen on the contact of an intergranular thread of chalcopyrite in quartz.

Sample 51229 (Slide 87-382X)

Estimated mode

|             |       |
|-------------|-------|
| Plagioclase | 38    |
| Carbonate   | 16    |
| Biotite     | 24    |
| Quartz      | 20    |
| Sphene      | trace |
| Rutile      | trace |
| Pyrite      | 2     |

This is a somewhat similar rock type to 380X, but differs in having a much higher content of biotite and in exhibiting a distinct foliation.

It is composed predominantly of plagioclase, as a fine-grained, anhedral to subhedral/prismatic aggregate of grain size 0.02 - 0.3mm. Felsitic material in the lower end of this grain size range predominates, but there are some crudely-banded variations to slightly coarser, meshwork-textured material.

Carbonate (dolomite or ankerite) and biotite are major accessories, tending to vary in abundance in a banded or lenticular fashion. The biotite is an olive-green variety and forms close-spaced networks and lenses of sub-oriented tiny flakes. Carbonate partly segregates as vein-like bodies intergrown with albite.

The distinct foliation is further emphasized by sub-parallel wisps of dust-sized rutile/leucosene.

Sphene is another notable trace accessory as scattered, small clumps, sometimes associated with biotite or with pyrite.

The lensy-banded fabric of this rock is suggestive of its being a fine-grained tuff.

It includes a discrete vein-like body of quartz about 7mm thick. This parallels the prevalent foliation and is flanked on one side by a zone of diffuse quartz development as wisps and thin lenses interlaminated with the plagioclase.

The main quartz band has a little intergrown carbonate near the margin. It does not appear to carry sulfides, though these (in the form of fine-grained disseminated pyrite in the host rock) show a distinct tendency to concentrate as a marginal envelope to the quartz band.

The quartz is strongly strained and shows extensive recrystallization, suggesting that it may be pre-metamorphic in origin. There is a possibility that it is not a true vein but, rather, an interband of exhalative chert in the original bedded tuff.

Sample 51230 (Slide 87-383X)

Estimated mode

|              |       |
|--------------|-------|
| Plagioclase  | 56    |
| Biotite      | 15    |
| Carbonate    | 12    |
| Quartz       | 14    |
| Rutile       | 1     |
| Sphene       | trace |
| Pyrite       | 2     |
| Chalcopyrite | trace |
| Gold         | trace |

This is a very similar type of rock to the previous sample.

Plagioclase varies, in lency/clumpy fashion, from very fine-grained felsitic to diffuse-margined, partially recrystallized meshwork aggregates. There are also some concordant stringer-like segregations of sparry (remobilized?) albite with intergrown carbonate.

As in 382X, carbonate and biotite are abundant accessories throughout. The carbonate occurs most commonly as small, elongate granules. The biotite is generally rather well-oriented and very fine-grained. Dust-sized rutile/leucoxene is abundant, and there are small 'spongy' clusters of granular sphene; the latter is sometimes seen intergrown with pyrite.

Quartz occurs as a discrete vein-like body or band, 5mm thick, concordant to the foliation. It also forms dispersed wisps, lenses and sub-concordant trains intergrown with the dominant plagioclase elsewhere in the slide.

The quartz of the main band is intensely strained and strongly recrystallized, with partial development of grain elongation parallel to the foliation of the enclosing rock. It contains a little intergrown, accessory carbonate.

Pyrite occurs in this sample as fine-grained, disseminated euhedra, 0.02 - 0.2mm in size. These tend to show some concentration as concordant strings of partially coalescent grains in a zone marginal to the main quartz band. A little of this type of pyrite is also seen locally within the quartz, associated with wisps of pyrite and probably representing some intermingling of quartz and wall-rock. One or two discrete, much coarser pyrite grains occur within the quartz.

Accessory chalcopyrite is present as rare traces.

Despite the lack of strong vein-quartz development and the paucity of accessory sulfides, several grains of gold were observed in this sample. These include a 15 micron bleb within a coarse pyrite grain in the quartz vein; a 7 micron inclusion, a 15 micron thread in a microfracture, and a 30 micron grain on the contact of pyrite and sphene - all the latter examples being associated with disseminated pyrite in the host rock, unconnected with the quartz vein.

The possibility exists, as in the previous sample, that the quartz band is really a concordant, pre-metamorphic chert segregation.

Sample HS-GFM-87-2 (Slide 87-384X)

Estimated mode

|             |       |
|-------------|-------|
| Plagioclase | 36    |
| Biotite     | 34    |
| Carbonate   | 10    |
| Quartz      | 18    |
| Rutile      | trace |
| Sphene      | 1     |
| Magnetite   | trace |
| Pyrite      | 1     |

This sample is of essentially identical type to the previous two.

It contains a 6 - 9mm concordant band of quartz which shows similar features to the corresponding quartz bodies previously described. It is strained, shows crenulate grain boundaries and intergranular recrystallization, and locally exhibits an oriented fabric roughly paralleling the contacts. It contains accessory carbonate as interstitial networks and local coarse pockets.

The rock type is again composed of fine-grained, felsitic plagioclase, showing a somewhat clumpy/lensy distribution of slightly coarser meshwork aggregates.

Biotite is abundant. It is again an olive-green variety, occurring as a network matrix of sub-oriented flakes outlining plagioclase and carbonate grains. It locally concentrates as schlieren. Sphene is a common associate.

Carbonate is relatively less abundant in this sample and tends to be associated as clumps within the lenses or laminae of coarser plagioclase which alternate with the strongly biotitic felsite zones.

Quartz appears to be essentially confined to the single discrete band in this sample.

Pyrite is sparse and of very fine-grained, disseminated form. A slight increase in its abundance is observable adjacent to the quartz band.

The latter shows sharp contacts with the biotite-plagioclase host, but lacks any crustified or banded textures such as might be expected of a vein. It is possible that such features have been obliterated by metamorphic recrystallization, or that the quartz body is a concordant chert band rather than a vein.

The rock appears to be a fine-grained tuff or tuffaceous sediment.



Sample HS-GFM-87-3 (Slide 87-385X)

Estimated mode

|             |    |
|-------------|----|
| Quartz      | 20 |
| Plagioclase | 22 |
| Carbonate   | 23 |
| Biotite     | 17 |
| Sphene      | 2  |
| Ilmenite    | 1  |
| Pyrite      | 15 |

This slide illustrates the contact of vein(?) quartz and host-rock in a sample showing complex intermingling of these two components.

The host-rock is compositionally similar to that of the previous few samples but differs texturally. It is most similar to that described for 380X, being a non-foliated, meshwork aggregate of subhedral prismatic plagioclase, of grain size up to 1.0mm, locally showing a weak preferred orientation (flow feature?). The fabric is somewhat reminiscent of a diabase.

The plagioclase aggregate is intimately pervaded by very fine-grained, olive-green biotite as an intergranular phase, and as a dusting of tiny flecks within plagioclase. Carbonate locally forms diffuse areas of granular intergrowth with plagioclase and biotite, but is mainly concentrated in irregular veniform bodies showing a finely recrystallized, oriented texture. It appears to be dolomite.

The quartz vein is of texturally heterogenous character, showing rapid variations from coarse grain to fine, recrystallized, sheared-looking material. It contains abundant irregular patches of coarse carbonate and streaky inclusions of felted biotite. Vein-like segregations of coarse albite are locally developed in an apparent hybrid zone at the wall-rock contact. That part of the vein included in the slide may, in effect, all be of the hybrid type.

Pyrite is a prominent constituent of the contact zone of the vein. It is in the form of relatively coarse subhedral grains, 0.2 - 2.0mm in size, concentrated as semi-coalescent clusters. It is intergrown with biotite, carbonate, quartz, sphene and a prominent accessory - not hitherto observed in the suite - acicular ilmenite.

Oxide inclusions are common in the pyrite, but accessory sulfides (such as chalcopyrite) are apparently absent, nor was any gold observed.

Sample WW-L16N-9E (Slide 87-386X)

Estimated mode

|                      |       |
|----------------------|-------|
| Plagioclase (albite) | 75    |
| Biotite              | 3     |
| Chlorite             | 6     |
| Carbonate            | 8     |
| Rutile               | trace |
| Sphene               | trace |
| Pyrite               | 8     |
| Limonite             | trace |

This sample is a feldspar-rich rock of distinctive textural type. Of previously described samples, it most resembles 380X, but contains much less carbonate and biotite.

It is composed of a non-oriented aggregate of well-defined, fresh, blocky, subhedral-prismatic albite, of grain size 0.02 - 1.0mm. Wisps and network clumps of the finest grained material occur in grain boundaries of the coarser aggregates.

Accessory carbonate, chlorite and fine-grained orange biotite, intergrown in various proportions or mineralogically discrete, occur as randomly disseminated clumps and networks. Fine-grained rutile and sphene are associated.

Pyrite is the other accessory. It shows a huge size range, from 0.02 - 8.0mm. It occurs disseminated, as individuals and some close-packed clusters of tiny grains. To some degree it tends to concentrate in the wisps and patches of biotite and chlorite, and these minerals sometimes form partial selvages on coarse pyrite grains.

The coarser pyrite grains show slight marginal and microfracture-controlled limonitization.

This rock is non-foliated and rather homogenous. Its origin is debatable. The freshness and textural aspect of the albite aggregate somehow do not look right for a primary igneous rock. Occasional crystal-cluster ghost textures picked out by dusty opaques are overgrown in random fashion by the present grain structure, and it may be that this is a metasomatic product.

Sample HS-51223 (Slide 87-387X)

Estimated mode

|             |    |
|-------------|----|
| Plagioclase | 65 |
| Carbonate   | 18 |
| Biotite     | 8  |
| Chlorite    | 3  |
| Sphene      | 4  |
| Pyrite      | 2  |

This rock has a similar composition to the previous sample but is texturally different.

It is much finer grained overall and consists essentially of a plagioclase aggregate of grain size 0.1 - 0.2mm. The granularity is rather ill defined and the rock has the aspect of being partially recrystallized. Scattered, randomly oriented, slender, lath-like plagioclase crystals, up to 1.0mm in length, are developed in porphyroblastic fashion within the granular aggregate.

The diffuse appearance of the rock in thin section is emphasized by an abundance of disseminated, fine-grained carbonate, orange biotite, chlorite and sphene. These form patches, networks and clusters of granules, evenly sprinkled through the plagioclase matrix without obvious relation to the plagioclase grain fabric.

Generally the fabric of the rock is totally random, but there is local segregation of carbonate into vein-like masses, sometimes with intergrown chlorite. Carbonate in this rock is only faintly reactive to dilute HCl, and is probably mainly dolomite.

Macroscopic examination of the slide indicates that the rock is traversed by a network of clear veinlets. These are mostly much less well-defined on the microscopic scale, and appear to be in the nature of zones of recrystallization following a micro-fracture network. They are composed of blocky albite, often with intergrown carbonate. The grain structure in the veinlets often overlaps into the adjacent rock matrix, and these appear to be segregation veinlets rather than true fissure fillings.

The rock contains very minor disseminated pyrite. This is occasionally associated with albite-carbonate veinlets, but this is not a consistent relation.

The origin of this rock is unclear. It has somewhat the aspect of a partially recrystallized (thermally metamorphosed?) feldspathic volcanic or dyke rock.

Sample HS-51225 (Slide 87-388X)

Estimated mode

|                         |       |
|-------------------------|-------|
| Plagioclase phenocrysts | 45    |
| Plagioclase groundmass  | 47    |
| Biotite                 | 4     |
| Sericite                | 2     |
| Carbonate               | 2     |
| Sphene                  | trace |
| Apatite                 | trace |
| Opagues                 | trace |

This is another rock composed predominantly of plagioclase, like many of the previous samples. It is, however, texturally distinctive and unlike any previous samples.

It consists of well-defined, subhedral-euhedral plagioclase phenocrysts and phenocryst-clusters set in a minutely fine-grained, strongly foliated groundmass of plagioclase.

The phenocrysts range in size from 0.2 - 2.0mm or more, and are essentially fresh. They have the composition of albite. Some are very lightly dusted with sericite, and the occasional clusters (which are more in the nature of patches of anhedral plagioclase aggregate) are often rimmed and cemented by sericite and carbonate.

The phenocrysts show a striking sub-parallel orientation, and the uniformly fine-grained felsitic groundmass (grain size 5 - 20 microns) shows an incipient foliation where it is compacted between, or diverted around, the phenocrysts. The groundmass foliation is emphasized by the presence of sparse, minute wisps of sericite and elongate lenses of olive-green biotite.

A few larger and more prominent segregations of biotite occur. These are ragged lenticular in shape (paralleling the foliation) and are composed of felted biotite with tiny granules of sphene and/or fine-grained pyrite. Occasional comparable zones rich in sericite are also seen.

The origin of this fabric is uncertain. The rock is either a flow-textured porphyritic volcanic or minor intrusive (in which case the biotitic lenses may be altered xenoliths), or it is a mildly sheared and recrystallized crystal tuff (in which case the micaceous segregations may be altered lithic clasts or inter-layered mafic lenses). The well-preserved crystal form and lack of fracturing of the phenocrysts, and the homogenous, uncoarsened nature of the groundmass, indicate the absence of strong shearing.

Sample HS-GFM-87-1 (Slide 87-389X)

Estimated mode

|             |    |
|-------------|----|
| Plagioclase | 48 |
| Biotite     | 25 |
| Chlorite    | 1  |
| Carbonate   | 23 |
| Sphene      | 2  |
| Pyrite      | 1  |

This is another textural variant of the albite-carbonate-biotite mineralogy making up many of the rocks of this suite - and, like others, its origin is not clearly apparent.

On the macroscopic scale it shows a distinct, possibly disrupted banded structure, defined largely by variations in biotite content. Under the microscope these segregations are less clear-cut; moreover, the overall grain structure of the rock is totally non-oriented and lacks the foliation which normally accompanies mineralogical banding.

The rock exhibits an evenly granular texture, made up of close-packed, equant, sub-rounded plagioclase grains, 0.05 - 0.3mm in size. Carbonate, showing a similar mosaic granularity, and green biotite, as fine-grained, felted to sub-oriented aggregates, are intergrown with the plagioclase in varying proportions. Relatively carbonate-rich or biotite-rich assemblages form streaky and/or banded segregations throughout.

Some zones consist of plagioclase grains set in a matrix of felted biotite. Other zones are composed of fine, felsitic plagioclase, whilst others are composed of marble-like equigranular carbonate mosaics sprinkled with individual equant/sub-rounded grains of plagioclase. The carbonate is unreactive to dilute acid, and is probably dolomite.

These variations define the disturbed or remnant macroscopic banded structure.

Sphene is a common accessory of the biotitic zones, as tiny disseminated granules. A little randomly disseminated pyrite is also present.

It seems likely that this is a recrystallized igneous rock of some kind, possibly a tuff. The recrystallization is totally non-directional and could be largely a thermal readjustment. The equigranular fabric and abundance of biotite are somewhat reminiscent of a hornfels. The albitic composition of the plagioclase is distinctive, and appears characteristic of the overall suite; it possibly indicates spilitic affinities.

Sample WW-L9S-3E (Slide 87-390X)

Estimated mode

|             |       |
|-------------|-------|
| Plagioclase | 3     |
| Carbonate   | 22    |
| Epidote     | 38    |
| Amphibole   | 23    |
| Quartz      | 8     |
| Chlorite    | 1     |
| Leucoxene   | 5     |
| Pyrite      | trace |

This is a rock of crudely banded character, in which the various bands show wispy/sinuuous irregularities and microdeformation features. The banding also shows displacement along a microfault.

It is texturally heterogenous under the microscope and apparently strongly altered and recrystallized.

There are two main component assemblages. One is an intimate intergrowth of turbid, very fine-grained epidote with carbonate. Carbonate tends to form diffuse, epidote-free pools and streaks within the intergrowth, and there are also zones in which the epidote is coarser and better crystallized. The other main component is an intergrowth of very fine-grained, fibrous amphibole and sub-opaque leucoxene. This material forms ragged, wispy lenses in the epidote carbonate component, with all stages of gradational admixture.

One band shows a porphyritic texture with equant phenocrysts (or possibly porphyroblasts) of pale green, actinolitic amphibole (possibly after pyroxene?) and a few elongate prisms of plagioclase, in a groundmass of amphibole-leucoxene.

A third component group is a veining or remobilized one, including lenses, pockets and discontinuous veinlets of carbonate with quartz; veinlets of epidote and epidote-carbonate, sometimes showing contorted, ptigmatic form; and various shear-related segregations of carbonate and chlorite.

The carbonate shows no reaction with dilute acid, and is presumably dolomite or ankerite.

The rock has the aspect of a strongly altered, recrystallized and deformed andesitic tuff. The mineralogy and certain textural features are also somewhat suggestive of skarnic affinities.

Sample WW-L850S-3E (Slide 87-391X)

Estimated mode

|                     |      |
|---------------------|------|
| Amphibole           | 30   |
| Plagioclase         | 40   |
| Epidote             | 17   |
| Chlorite            | 2    |
| Leucoxene           | ) 10 |
| Opaque pigmentation |      |
| Sphene              | 1    |

This is a heterogenous rock of apparent fragmental character.

The fragments are composed predominantly of intergrowths of fine-grained plagioclase and pale green, probably actinolitic, amphibole, showing a non-oriented, felsitic to meshwork texture. Constituent fragments vary in coarseness and mineral proportions, with occasional development of ragged phenocryst-like amphibole and plagioclase crystals. The latter sometimes show the extremely elongate form noted in slide 387X, and the amphibole is often of acicular aggregate form indicative of secondary origin. These may, in fact, be porphyroblasts rather than phenocrysts.

Much of the rock consists of small clasts, 0.1 - 0.5mm in size, in a pervasive matrix of fine-grained leucoxene and a black pigmentation (graphitic?). Larger, better-defined clasts up to 2 or 3mm in size are also seen outlined by sinuous schlieren and networks of the dark matrix phase.

Epidote is a prominent component, forming diffuse granular masses within the black matrix areas, and local clumps and discontinuous vein-like masses randomly scattered throughout. Some of the epidote grains have the aspect of altered crystal clasts.

Notable features of this rock, which distinguish it from others of the suite, are a lack of carbonate, quartz and pyrite.

It is clearly an altered and recrystallized lithic tuff. Refractive index measurements indicate that the plagioclase is once again of albitic composition, so that the rock appears to be of spilitic type rather than a normal andesite.

Sample WW-GFM-8-3A (Slide 87-392X)

This sample consists of two distinct rock types in contact.

Half of the slide is made up of a fine-grained, microporphyritic rock having the following approximate mode:

|             |    |
|-------------|----|
| Plagioclase | 36 |
| Sericite    | 4  |
| Amphibole   | 52 |
| Chlorite    | 1  |
| Epidote     | 2  |
| Sphene      | 5  |

It consists predominantly of a rather equigranular intergrowth of plagioclase, pale green amphibole and fine-grained sphene, in the grain size range 0.05 - 0.3mm. The amphibole is somewhat fibrous/acicular in character and shows a partial preferred orientation which, together with the linear distribution of granular sphene and occasional diffuse concentrations of epidote, defines a weak foliation.

Scattered, somewhat coarser grains, 0.4 - 2.0mm, of partially sericitized plagioclase and of amphibole (the latter sometimes clumped) occur throughout. The plagioclase has the composition of albite. These could be phenocrysts in a porphyry, or coarser clasts in a crystal tuff. The distinctly granular, sub-oriented fabric, with an essentially complete size gradation to the coarser 'phenocrysts', favours the latter interpretation.

This homogenous lithotype is in irregular, but sharp contact with one of obvious fragmental character. This consists of abundant lithic clasts, 0.2 - 10.0mm or more in size, of various meta-andesitic rocks. These are composed of various proportions of amphibole, plagioclase, epidote and leucoxene, and are set in a dark cryptocrystalline matrix rich in chlorite and leucoxene. The clasts include rocks showing a variety of textures including porphyritic and glassy types. They commonly show foliated textures and are sometimes of ragged, elongate form. Crystal clasts of amphibole and plagioclase are also present.

This lithotype is clearly an andesite lapilli tuff.

The direction of elongation of the clasts in the tuff phase, and the internal foliation within those clasts, parallels the foliation in the other lithotype with which it is in contact. The contact, however, is essentially normal to this foliation direction.



Sample DM-001 (Slide 87-393X)

Estimated mode

|             |     |
|-------------|-----|
| Amphibole   | 50  |
| Plagioclase | 20  |
| Epidote     | 27  |
| Carbonate   | 2   |
| Quartz      | ) 1 |
| K-feldspar  |     |

This is an intensely altered rock which, like many others of the suite, shows extensive recrystallization without any oriented fabric. In this respect it has the aspect of a thermally metamorphosed product.

It exhibits a simple mineralogy, being composed predominantly of what is tentatively identified as amphibole. This is a colourless to olive-brown, prismatic to granular material, of grain size 0.02 - 0.1mm. In addition to the predominant tiny prismatic grains, this also forms small atoll-like bodies.

The amphibole forms an even, dense dissemination through a matrix made up of fine-grained epidote and plagioclase. The latter two components alternate in a diffuse, patchy manner which could reflect a remnant granular fabric on the scale 0.5 - 2.0mm.

Rare phenocryst-like grains of coarser amphibole and plagioclase, more or less altered to epidote and carbonate, are seen, attesting to the probable igneous origin of the rock.

The rock is cut by sparse veinlets and diffuse replacement patches of carbonate, sometimes with intergrown quartz and K-feldspar. There are also some discontinuous hairline threads and pools of plagioclase, which appear to be in the nature of localized zones free of the prevalent fine-grained amphibole; they possibly represent local 'clearing' recrystallization along late microfractures.

The origin of this fine-grained rock is obscure. It is non-foliated and homogenous but for patchy variations in matrix composition. It is probably a form of altered andesite.

Sample DM-010 (Slide 87-394X)

Estimated mode

|             |    |
|-------------|----|
| Amphibole   | 43 |
| Plagioclase | 40 |
| Sericite    | 2  |
| Epidote     | 10 |
| Quartz      | 1  |
| Leucoxene   | 4  |

This is a somewhat altered diabase in which the primary ophitic texture is clearly preserved. The alteration is probably deuteric in nature and the rock does not appear metamorphically modified.

Clumps of optically continuous, pale green amphibole, 1 - 3mm in size, optically enclose prismatic grains of lightly sericitized plagioclase, 0.2 - 1.0mm in size.

Between the ophitic clumps, the rock is composed of randomly oriented, granular to lath-like plagioclase intergranularly pervaded by epidote and fine-grained fibrous amphibole. The plagioclase also shows some dusting and internal replacement by the secondary minerals.

Other components are minor interstitial quartz and rather abundant, diffuse/skeletal grains of leucoxene (presumably after rutile).

This rock, though somewhat 'messy' in appearance by virtue of pervasive fine-grained secondary products, appears unrecrystallized. The amphibole (including the well-defined ophitic masses) is presumably a late-magmatic modification of original pyroxene.

The plagioclase does not show good twinning, but refractive index measurements suggest that it is of albitic composition. The rock is thus indicated as of spilitic type.

Sample DM 113N/6+72E (Slide 87-395X)

Estimated mode

|             |    |
|-------------|----|
| Amphibole   | 56 |
| Plagioclase | 33 |
| Epidote     | 7  |
| Carbonate   | 2  |
| Leucoxene   | 2  |

This is another rather homogenous, even-grained rock of intrusive igneous aspect.

It consists dominantly of a randomly oriented, rather equigranular aggregate of grains of fresh, pale green amphibole, 0.2 - 1.0mm in size. This is intergrown with plagioclase, as similar or slightly smaller sized subhedra, and some areas of finer anhedral material.

Interstitial pockets are occupied by epidote and lesser carbonate. The epidote also forms intimate intergrowths and probable local replacements of some finer-grained patches of plagioclase.

Leucoxenised rutile is rather common, as randomly scattered, reticulate/skeletal patches to 0.5mm.

The slide is cut by a microshear showing local development of fine-grained carbonate and fibrous amphibole.

This rock is of generally similar mineralogy and type to the previous sample and appears unmetamorphosed. Texturally it is somewhat different, lacking ophitic features. The amphibole is homogenous, though slightly ragged and marginally fibrous in its outline. It may have developed from original pyroxene (though, as in the previous sample, no remnants are seen) or could be primary.

The plagioclase is not well-twinned, but optical properties, where measurable, suggest that it is of sodic composition - and possibly largely albitic. These rocks thus appear to be typical spilites.

Sample MF-3-26-06 (Slide 87-396X)

Estimated mode

|             |       |
|-------------|-------|
| Plagioclase | 38    |
| Amphibole   | 35    |
| Epidote     | 20    |
| Chlorite    | 3     |
| Leucoxene   | 4     |
| Carbonate   | trace |

This is another amphibole-plagioclase rock which is clearly of similar general type to the previous two samples, but shows distinctive textural features.

In overall grain size it resembles 394X rather than the recognizably finer grained 395X, but it does not show ophitic character.

It consists of stumpy, subhedral grains, 0.5 - 2.0mm in size, of the same fresh-looking, pale green (probably actinolitic) amphibole as the previous samples. These are set, in sub-porphyritic fashion, in a meshwork-aggregate of sharply euhedral, lath-like plagioclase of grain size 0.1 - 1.0mm.

The plagioclase matrix is strongly pervaded and interstitially cemented by microgranular epidote. Epidote also commonly forms core replacements of plagioclase grains. Minor chlorite and traces of carbonate are additional interstitial components.

Dark brown, partially leucoxenized sphene is rather abundant, forming randomly scattered reticulate/poikilitic, graphic-textured grains to 1.0mm in size. These incorporate portions of the other silicate components and/or conform to the angular interstices of the plagioclase meshwork.

The plagioclase composition is again indicated as albite, and this rock is best classified as a sub-porphyritic spilitic diabase. It appears essentially unmetamorphosed.

Sample DM RG 29 (Slide 87-397X)

Estimated mode

|            |       |
|------------|-------|
| Albite     | 85    |
| K-feldspar | 9     |
| Quartz     | 1     |
| Chlorite   | 1     |
| Sericite   | 2     |
| Carbonate  | trace |
| Limonite ) | 2     |
| Pyrite )   |       |

This rock is composed almost entirely of feldspar.

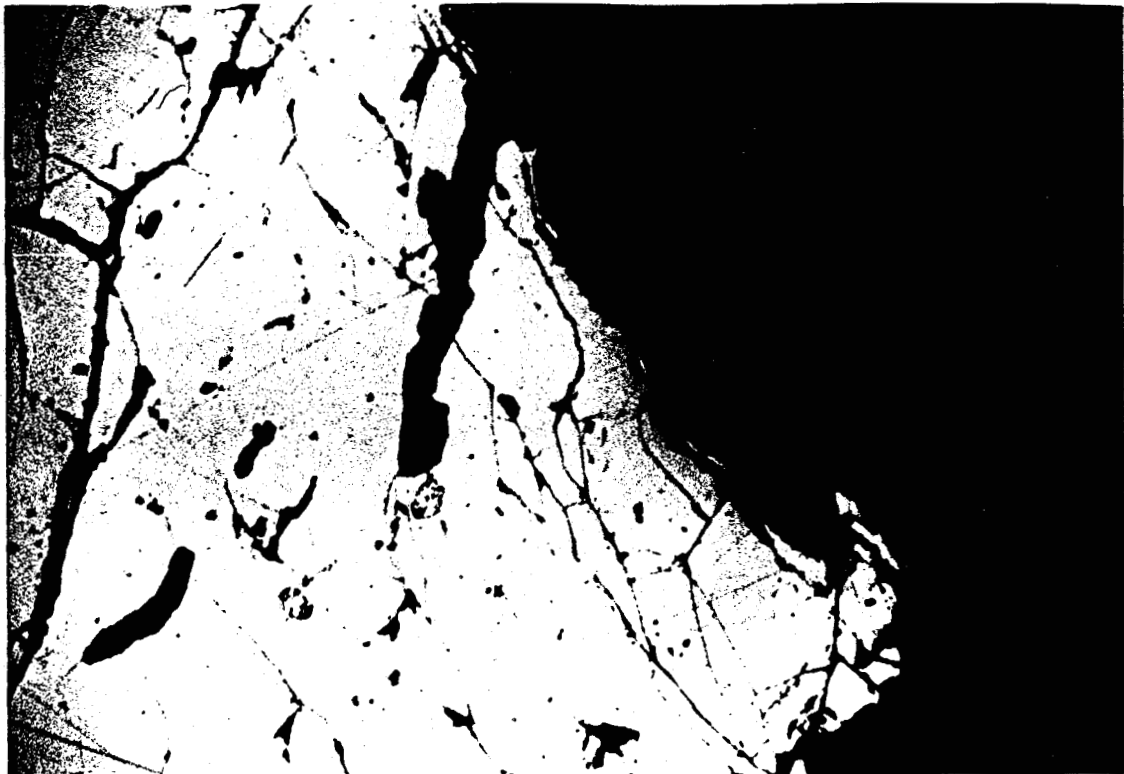
Texturally it consists of abundant, rather ragged, randomly oriented, equant/prismatic phenocrysts and phenocryst clusters of albite and lesser K-spar (sometimes showing microcline cross-hatching), 0.2 - 2.0mm in size, in a finer plagioclase groundmass. The latter is a felsitic, interlocking anhedral aggregate of grain size 10 - 50 microns. It contains tiny sub-phenocrysts of 0.1mm or so in size, such that there is an almost complete size range from the finest felsite to the coarser phenocrysts. The outlines of the phenocrysts are typically crenulate against the enclosing microgranular matrix.

This fabric is typical of many albitites. A few plagioclase phenocrysts show mild sericitization, but the majority are completely fresh, as is the groundmass plagioclase.

The only accessories are sparsely scattered flecks of chlorite, and relatively abundant, empty and limonite-encrusted casts which are probably derived from the oxidation and leaching of pyrite (traces of which are seen in the cut-off chip though not in the slide). Rare small grains of limonitized carbonate are also seen.

The rock is cut by rare, discontinuous veinlets of quartz with intergrown albite.

This is a leucocratic, potash feldspar-bearing albitite which may represent a genetically-related keratophyric variant of the spilitic dyke rocks exemplified by the previous few samples.

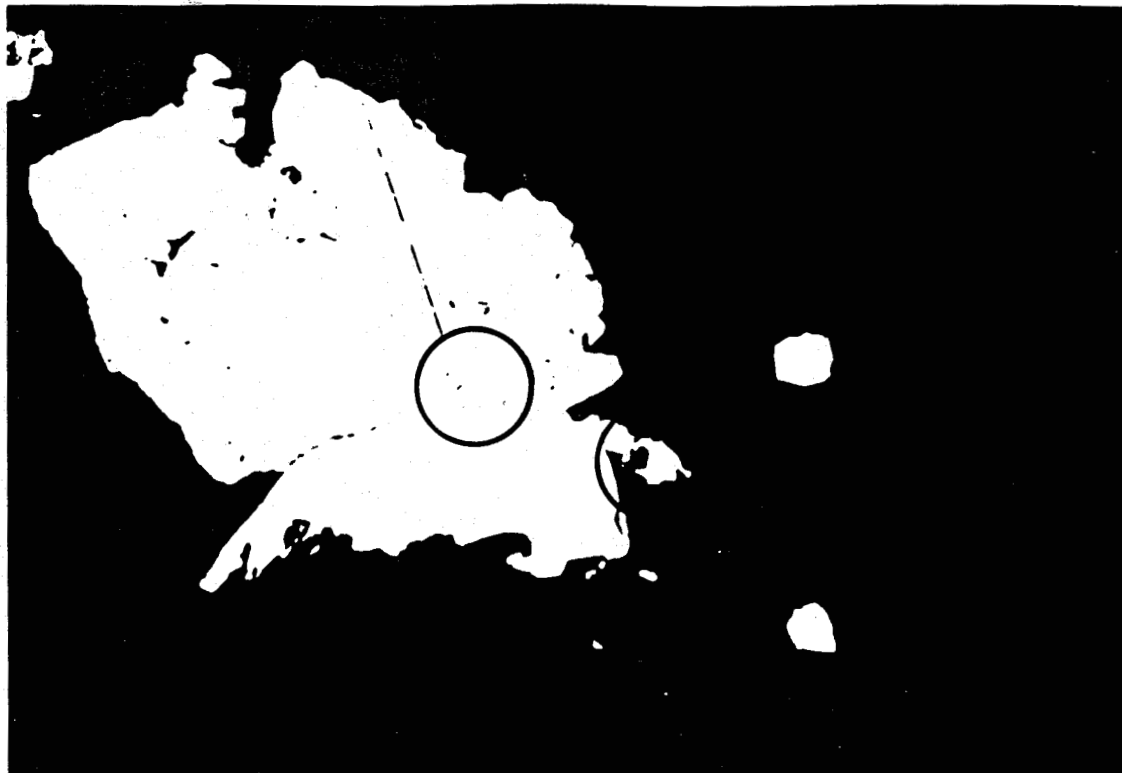


379X

105-0 Reflected light. Scale 1cm = 42 microns.  
Two 20 micron gold grains (yellow) in pyrite (cream colour).  
Medium grey (upper centre) is limonite developed marginal to a  
microfracture. Black (right) is quartz.



105-1 Reflected light. Scale 1cm = 42 microns.  
20 micron grain of electrum (bright yellowish white, lower right  
centre) associated with angular pocket of argentite (dark grey,  
in contact with electrum) included within pyrite (cream colour).  
Note also inclusions of chalcopyrite (brownish yellow) and  
veining and partial rimming of pyrite by limonite (grey).



383X

105-2 Reflected light. Scale 1cm = 42 microns.  
 30 micron equant grain of gold (circled) on contact of pyrite,  
 and thread-like gold (also circled) associated with a micro-  
 fracture in the pyrite. Flecked dark background is fine  
 felsitic host rock. Slightly lighter grey grains at and near  
 pyrite contact are sphene.

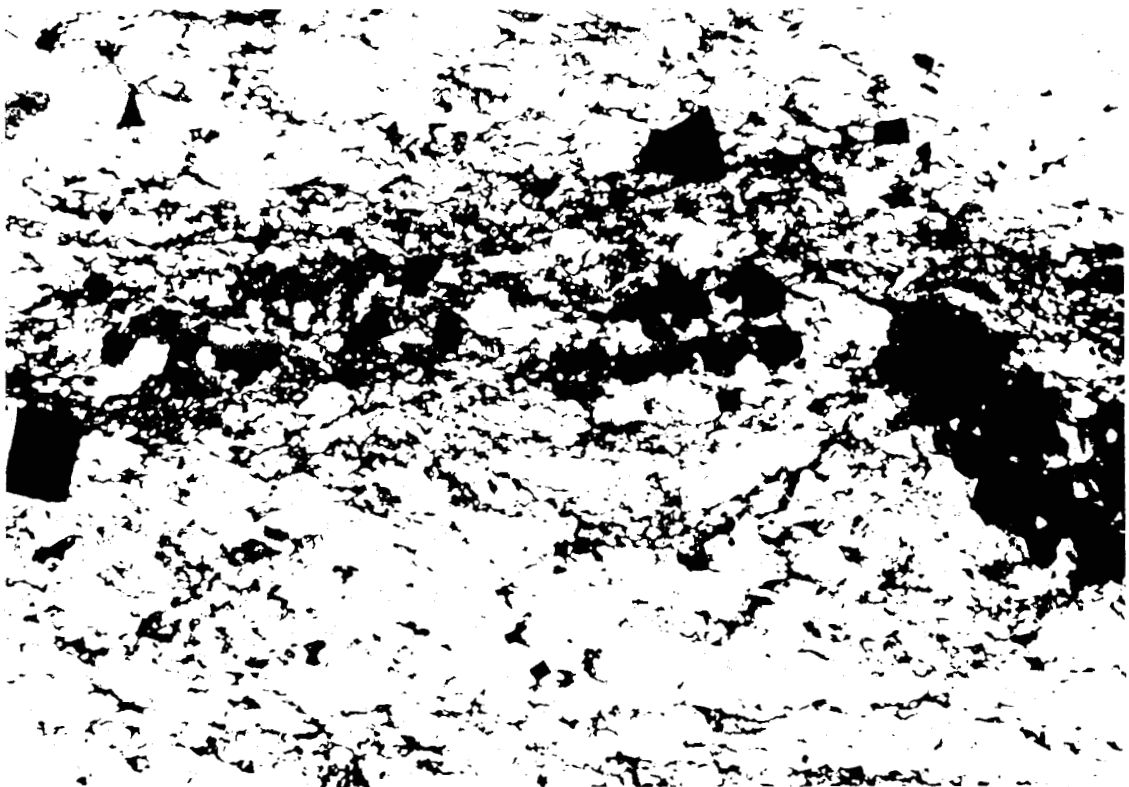


381X

105-8 Reflected light. Scale 1cm = 42 microns.  
 Argentite pockets (light grey, top right, bottom left) in quartz.  
 Note fine-grained electrum (bright flecks) associated with the  
 argentite. Argentite inclusions (30 - 50 microns) also within  
 the pyrite grain.

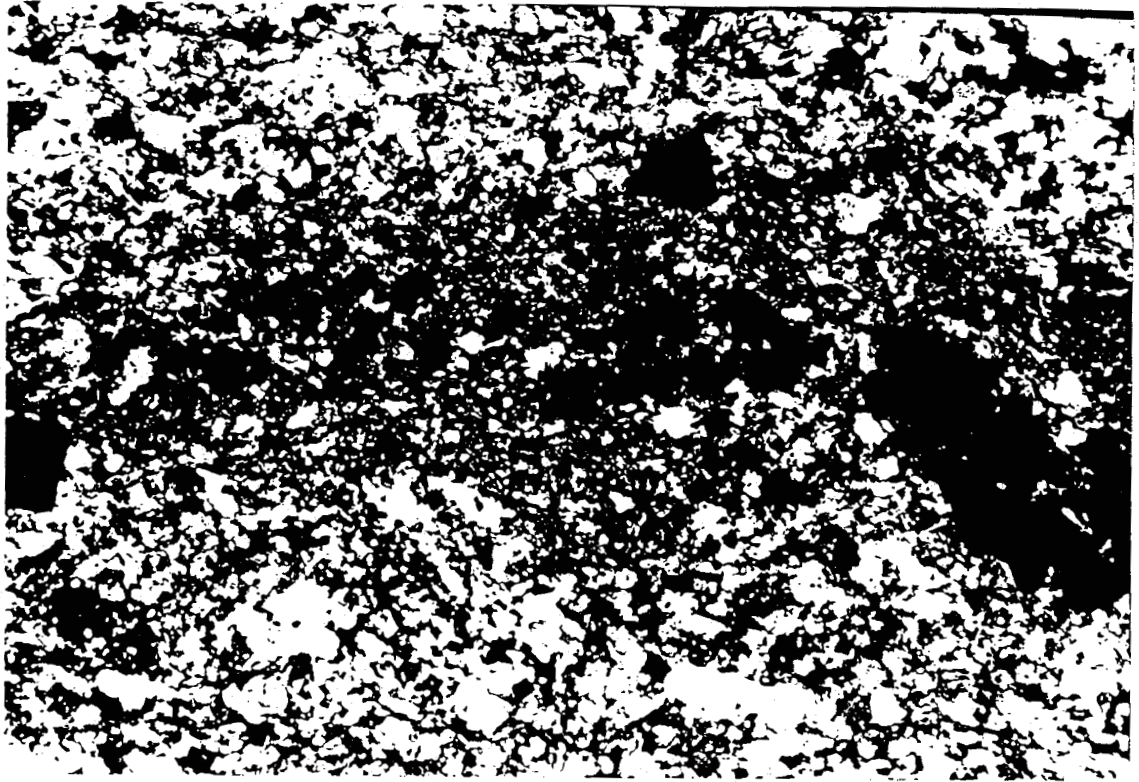


380X      105-15    Fine-grained brown biotite and carbonate (pinkish beige) in granular albitite (matrix greys, locally showing lamellar twinning).

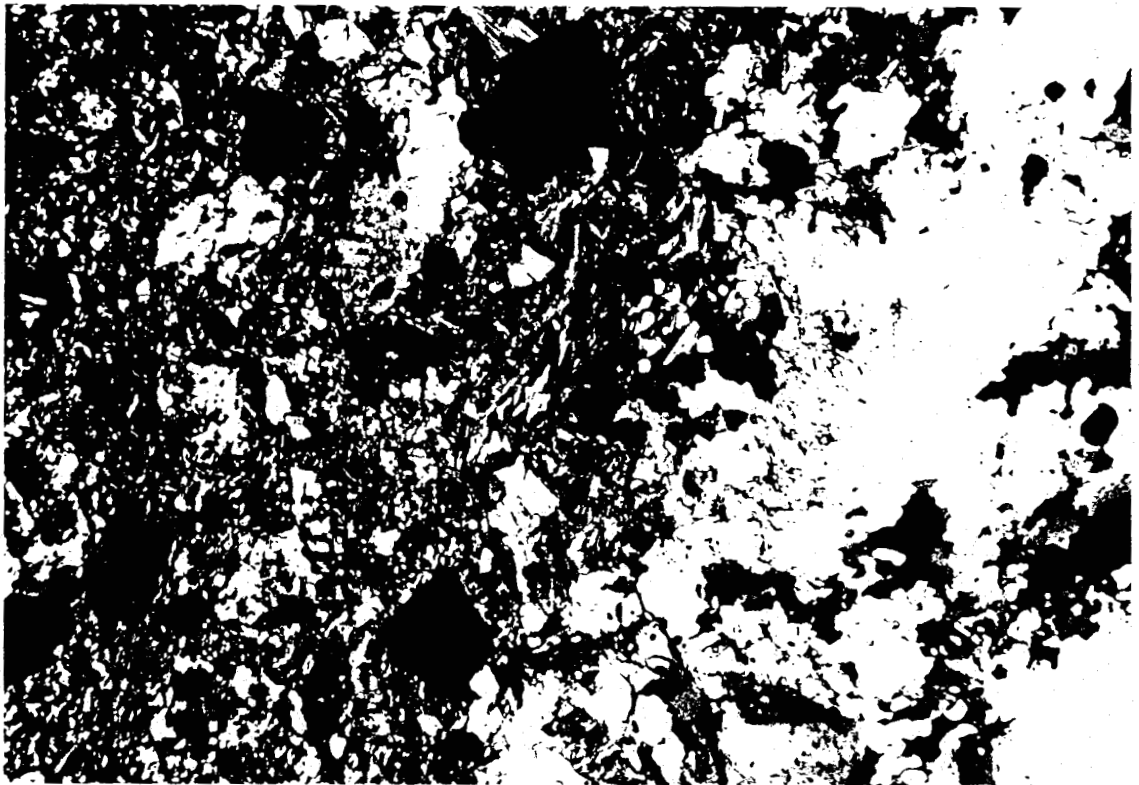


382X      105-16    Plane polarized transmitted light. Olive green biotite as fine-grained wisps and flecks and pockets associated with pyrite clusters (black) in weakly foliated, fine-grained felsitic rock.



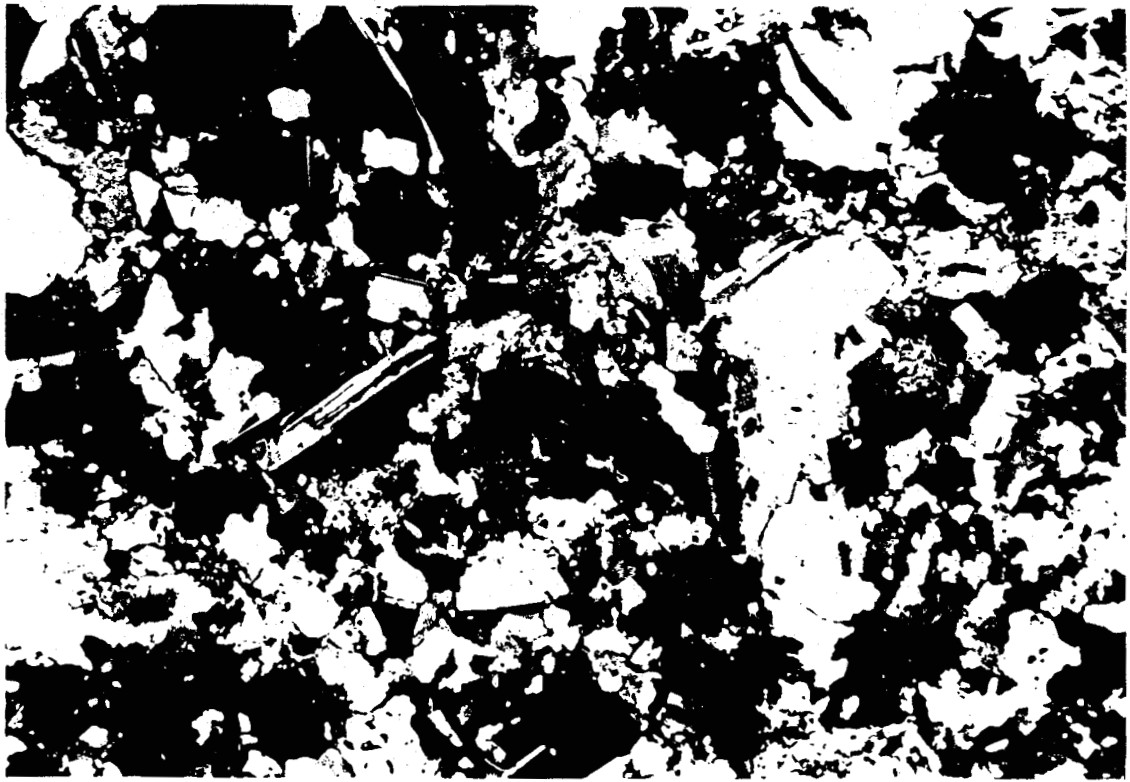


105-17 Same field as 105-16 but cross-polarized light. Shows fine grain size and textural character of partially recrystallized felsitic rock. Portion of a lens of finely granular quartz (crenulate boundaries) at top right.



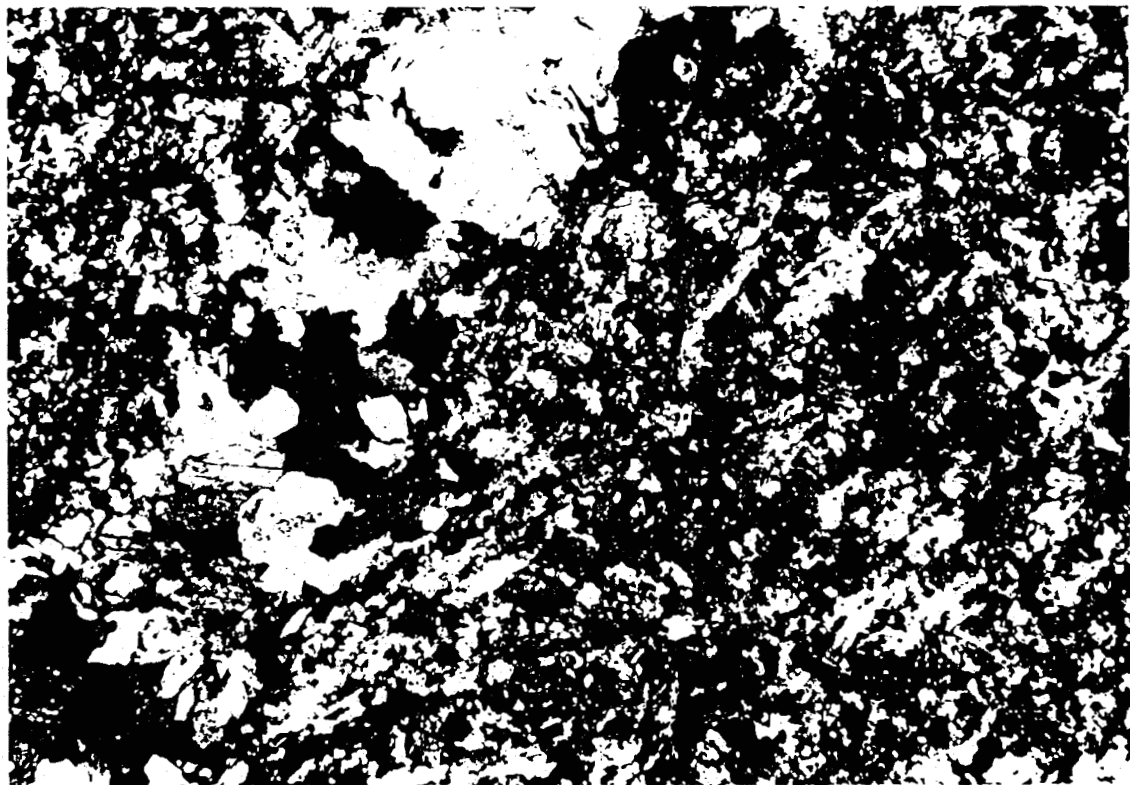
384X

105-18 Contact of quartz vein (right) with altered host rock; greys in host material are phenocrystic and felsitic albite, and pinks/olives are biotite. Beige-coloured irregular patches in contact zone of quartz are carbonate. Note strongly strained, recrystallized fabric of quartz and irregular form of contact.



386X

105-19 Granular albitite, composed of interlocking prismatic plagioclase (greys, partly twinned) with interstitial flecks and patches of carbonate (pinkish beige) and chlorite (dark olive: e.g. centre). Slide includes disseminated pyrite (opaque, totally black grain).



387X

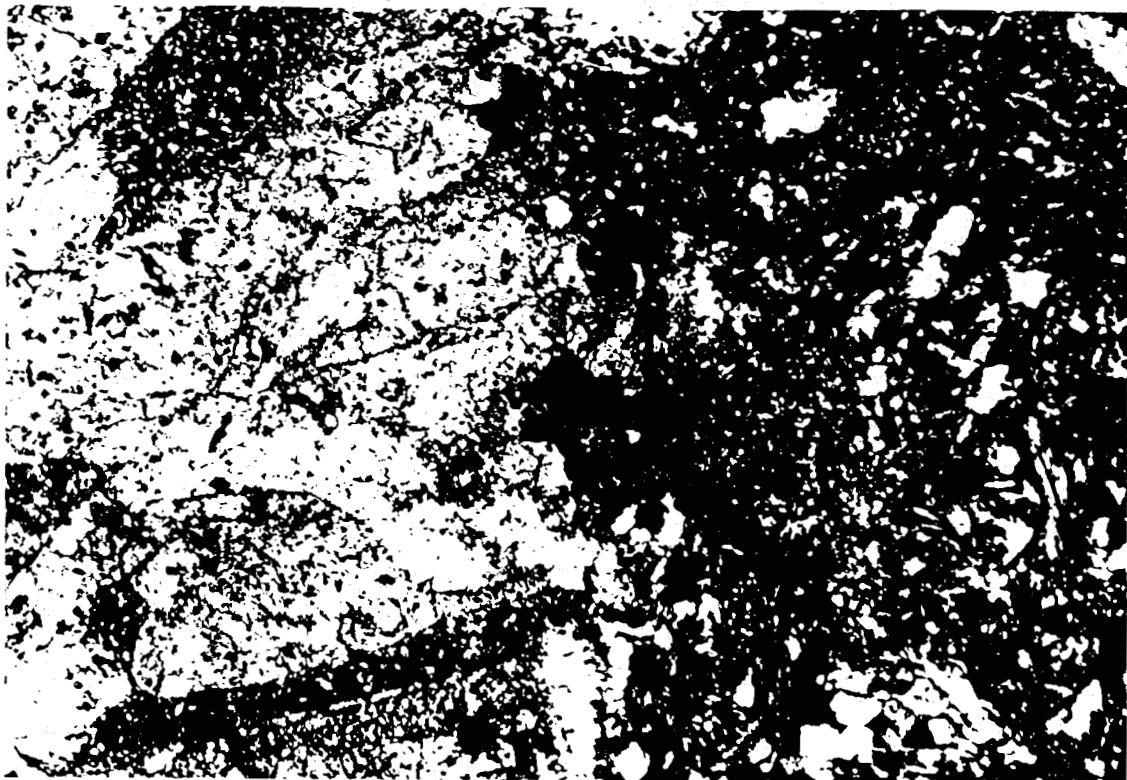
105-20 Recrystallized fine-grained matrix of plagioclase showing diffuse lath-like forms. Strongly pervaded by carbonate (pinkish beige) and brown biotite. Field includes veinlet of albite (note twinning) and carbonate.



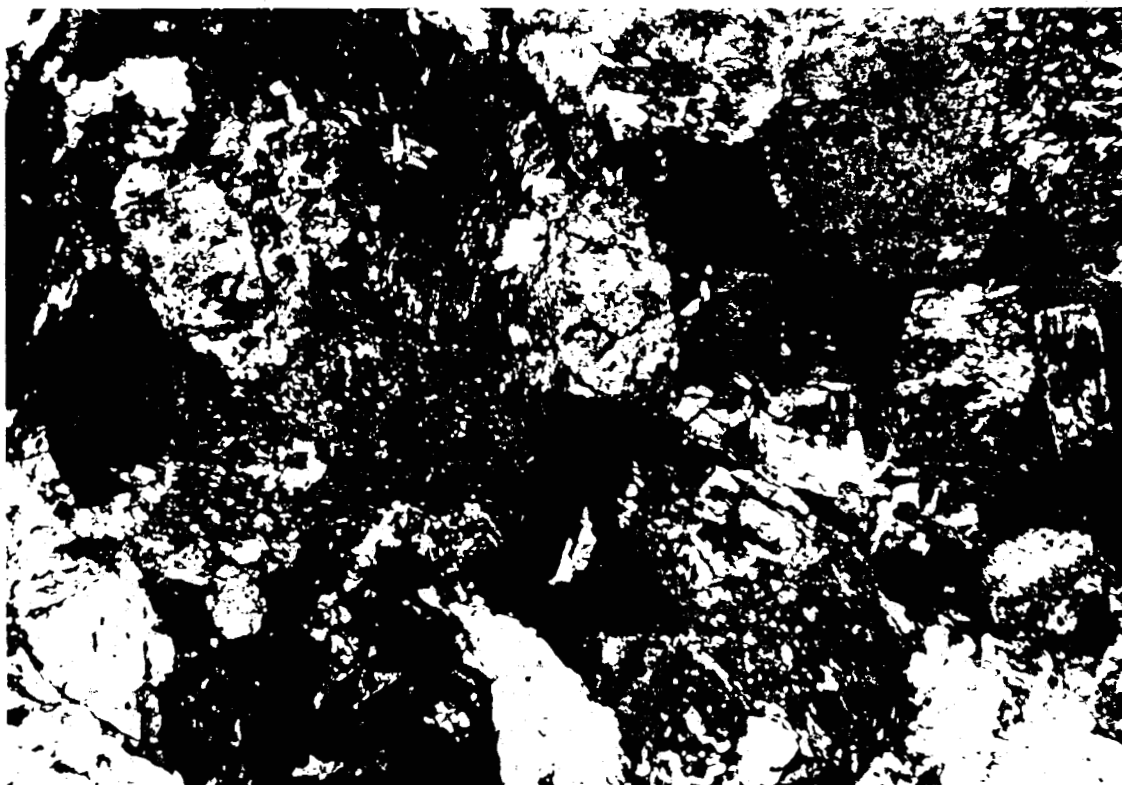
388X 105-21 Flow-textured porphyry or crystal tuff. Euhedral albite crystals in minutely fine-grained felsitic matrix. Note incipient foliation, emphasized by streaks of fine-grained biotite (olive browns: e.g. centre). Also minor flecks of carbonate (e.g. bottom right). Foliation swings around coarse crystals: compaction effect in unconsolidated ash?



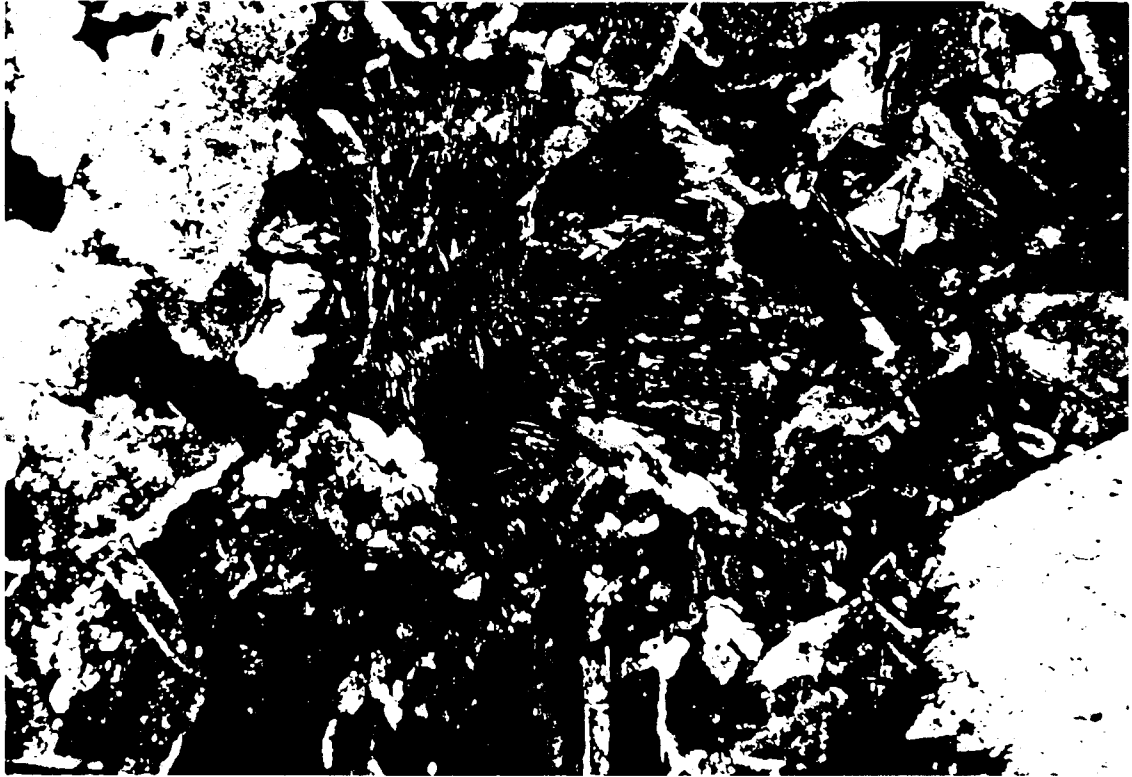
392X 105-22 Contact between sub-porphyrific actinolite-plagioclase rock (right) and tuff phase (left). The tuff contains lithic fragments of similar composition to the granular phase, plus crystal clasts of amphibole (colours) and plagioclase (white), in a dark sub-opaque matrix.



394X 105-23 Coarse amphibole (orange, left) with ophitically enclosed plagioclase (speckled with sericite) set in finer-grained intergrowth of plagioclase, amphibole and epidote (right).



395X 105-24 Non-foliated, equigranular aggregate of subhedral amphibole (colours) and plagioclase (greys). Field includes interstitial epidote (bluish; e.g. right centre, with small patch beige carbonate) and angular/skeletal grains of sphene/leucoxene (dark brown to black, e.g. upper right centre adjacent to the granular epidote pocket).



396X

105-25

Sub-porphyritic texture. Subhedral individual grains of amphibole (colours: note ragged terminations suggestive of secondary origin) in finer, diabase-like meshwork aggregate of albitic plagioclase (greys) with interstitial epidote (blue-black).



APPENDIX IV  
ENGINEERS REPORT

JSM

STEFFEN, ROBERTSON AND KIRSTEN (B.C.) INC.  
Suite 801, The Burrard Building  
1030 West Georgia Street  
Vancouver, B.C., Canada V6E 2Y3  
Tel. (604) 681-4196 Telex 04-352578

September 2, 1987

File: 64301

Copy RPT  
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BWS  
JSM  
RJB

Abermin Corporation  
1500 - 1075 West Georgia Street  
Vancouver, B.C.  
V6E 3C9

Attention: Mr. J. S. McKinney

Dear Sir:

A site visit of the Highland Surprise Mine at Retallack B.C. was conducted on September 1, 1987. The purpose of this visit was to evaluate the stability of the underground openings. The following observations and recommendations are presented.

Observations

1. The Number Four Level (130 Level) was the only part of the mine which was examined because the portals of the other levels were collapsed or blocked.
2. The timber from the portal through to the bedrock is intact and shows no sign of distortion; however, the timbers are rotting.
3. The rock throughout the level with the exception of the portal and the chute access from the 416 XCW is competent and tight with weak to moderate schistosity and weakly developed joint sets. The joints are generally smooth, undulating and discontinuous. The rock is unsupported and has not loosened after 46 years.
4. Two interconnected stopes (4.0 m x 8.0 m) have been developed from 416 XCW and appear to connect to the Number 3 Level. These are not shown on the Jan. 1941 plan by V.J. Southey. The stopes are unsupported and have not experienced rockfall since the completion of mining. The timbers in chutes of these stopes are rotten and are supporting some loosening rock.
5. The timbered manways in the stopes are quite rotten and are in poor condition.
6. The rock mass quality was assessed at 13 locations throughout the level using the NGI Tunnelling Quality Index. The average Q value was 1.45.

Recommendations

1. The timbers in the Number 4 Portal are acceptable for man access only. Personnel should not disturb the timbers. The overburden above the portal has recently failed and blocked the portal. Excavation equipment should be on standby at the portal when personnel are in the mine whenever there has been rainfall during the preceding three weeks.



2. All of the level; walls and roof, between the end of the portal timber and chute access below the stopes should be scaled for any loose rock. Additional rock support should not be required.
3. Access to the chute area below the stopes and the stope manways should be restricted because the rock and timbers are not in good condition and the chutes cannot be expected to resist any rockfall which may occur in the stopes.
4. If access for drilling equipment is required the portal timbers must be replaced. If slashing for drill stations is required in the mine some rock support in the form of bolts and screen may be required if the width of the opening exceeds 4.0 m.
5. It is understood that the present plans are to excavate the collapsed overburden at the Number 3 Level (120 Level) portal to allow access for sampling. This excavation should not have unsupported vertical walls and excavation equipment may have to be on standby as per recommendation 1 depending on the slope of the excavation.

In conclusion the rock mass beyond the till and weathered zone is fair and the tunnel dimension is small. Their cost of rehabilitation will be trivial and involve less than 2 mandays. The use of multi-plate culvert for rehabilitation of collapsed portals can be considered. Cost may be in region of \$500/m.

No. 4 level, at present, can only be used for sampling. Any other work on the level would require rehabilitation of the portal along the lines indicated above.

We hope that this satisfies your requirements.

Yours truly,

STEFFEN ROBERTSON & KIRSTEN (B.C.) INC.



John Brodie, P.Eng.

APPENDIX V

APPENDIX V  
EXPENDITURES

ABERMIN CORPORATION  
A.F.E. STATUS REPORT  
Dec-87

PROJECT I.D.....WHITewater  
WORKING INTEREST.....100.00%  
A.F.E. NO.....WHI701

| CODE          | DESCRIPTION           | CURRENT MONTH | YEAR TO DATE | ABERMIN SHARE YEAR-TO-DATE | ABERMIN BUDGET | % BUDGET USED |
|---------------|-----------------------|---------------|--------------|----------------------------|----------------|---------------|
| 001           | Salaries,Permanent    | 4,265.00      | 56,660.00    | 56,660.00                  | 46,000.00      | 123.17        |
| 002           | Salaries,Temporary    | 0.00          | 32,460.00    | 32,460.00                  | 27,700.00      | 117.18        |
| 003           | Contract labour       | 0.00          | 23,771.30    | 23,771.30                  | 0.00           | 0.00          |
| 009           | Business expense      | (55.00)       | 2,463.64     | 2,463.64                   | 1,000.00       | 246.36        |
| 010           | Accomodation          | 0.00          | 3,134.51     | 3,134.51                   | 1,800.00       | 174.14        |
| 011           | Camp & expenses       | 0.00          | 639.98       | 639.98                     | 0.00           | 0.00          |
| 012           | Camp food             | 366.12        | 5,802.68     | 5,802.68                   | 9,000.00       | 64.47         |
| 014           | Equipment rentals     | 0.00          | 12,131.74    | 12,131.74                  | 9,000.00       | 134.80        |
| 015           | Equipmt user charge   | 0.00          | 1,480.20     | 1,480.20                   | 500.00         | 296.04        |
| 016           | Field materials       | 0.00          | 1,991.59     | 1,991.59                   | 0.00           | 0.00          |
| 030           | Transportation        | 0.00          | 677.60       | 677.60                     | 500.00         | 135.52        |
| 031           | Shipping              | 15.55         | 793.81       | 793.81                     | 500.00         | 158.76        |
| 035           | Helicopter-time       | 0.00          | 7,335.60     | 7,335.60                   | 0.00           | 0.00          |
| 050           | Geochemical analysis  | 0.00          | 0.00         | 0.00                       | 24,000.00      | 0.00          |
| 051           | Geological consulting | 0.00          | 1,468.00     | 1,468.00                   | 0.00           | 0.00          |
| 052           | Geophysical surveys   | 0.00          | 17,775.58    | 17,775.58                  | 10,000.00      | 177.76        |
| 053           | Linecutting           | 0.00          | 16,036.00    | 16,036.00                  | 17,000.00      | 94.33         |
| 056           | Trenching             | 0.00          | 0.00         | 0.00                       | 11,000.00      | 0.00          |
| 070           | Assays                | 363.50        | 8,345.37     | 8,345.37                   | 1,500.00       | 556.36        |
| 073           | Permits               | 0.00          | 50.00        | 50.00                      | 7,500.00       | 0.67          |
| 082           | Drafting              | 13.48         | 5,898.04     | 5,898.04                   | 3,000.00       | 196.60        |
| 083           | Engineer consulting   | 0.00          | 810.00       | 810.00                     | 3,000.00       | 27.00         |
| 084           | Enviromental studies  | 0.00          | 0.00         | 0.00                       | 5,000.00       | 0.00          |
| 901           | Option payments       | 0.00          | 10,000.00    | 10,000.00                  | 10,000.00      | 100.00        |
| 902           | Legal fees            | 0.00          | 787.25       | 787.25                     | 0.00           | 0.00          |
| 903           | Filing fees           | 3,325.00      | 4,065.00     | 4,065.00                   | 0.00           | 0.00          |
| 905           | Fame grant            | (20,000.00)   | (20,000.00)  | (20,000.00)                | 0.00           | 0.00          |
| 996           | Overhead              | (1,633.75)    | 10,509.17    | 10,509.17                  | 10,000.00      | 105.09        |
| PROJECT TOTAL |                       | (\$13,340.10) | \$205,087.06 | \$205,087.06               | \$198,000.00   | 103.53%       |

WHITEWATER PROJECT

COST SUMMARY

|                          |                  |                            |
|--------------------------|------------------|----------------------------|
| Wages                    |                  | \$ 87,425.00               |
| Contractors:             |                  |                            |
| Topo Maps                | \$ 3,840.00      |                            |
| Line                     | 16,036.00        |                            |
| Geophysics               | 17,775.58        |                            |
| Petrographic             | 1,468.00         |                            |
| Mining Engineer          | 810.00           |                            |
| Re-open Mine             | 20,091.30        |                            |
| Helicopter               | 7,335.60         |                            |
| Drafting & Reproduction  | 5,898.04         |                            |
| Geochem                  | <u>7,768.28</u>  | 81,022.80                  |
| Support Cost             |                  |                            |
| Room & Board & Equipment | \$ 16,190.20     |                            |
| Vehicle Rental           | <u>12,131.74</u> | <u>28,321.94</u>           |
| TOTAL                    |                  | <u><u>\$196,769.74</u></u> |

WHITewater PROJECT

WAGES

Permanent

|                                                              |                 |              |
|--------------------------------------------------------------|-----------------|--------------|
| Dr. B. W. Smee Exploration Supervisor<br>12 days @ \$360/day | = \$ 4,320.00   |              |
| G. F. McArthur, Senior Geologist<br>177 days @ \$270-300/day | = \$49,410.00   |              |
| K. M. Jumpsen, Technician<br>2 days @ \$145/day              | = <u>290.00</u> | \$ 54,020.00 |

Temporary

|                                                                  |                      |              |
|------------------------------------------------------------------|----------------------|--------------|
| A. D. McLaughlin, Contract Geologist<br>108 days @ \$140-175/day | = \$15,785.00        |              |
| M. Fields, Contract Geologist<br>36 days @ \$125/day             | = \$ 4,500.00        |              |
| W. B. Girling, Geological Assistant<br>100 days @ \$120/day      | = <u>\$12,000.00</u> | \$ 32,285.00 |

Casual:

|                                       |  |                    |
|---------------------------------------|--|--------------------|
| Charlie Bissett<br>14 days @ \$80/day |  | \$ <u>1,120.00</u> |
|---------------------------------------|--|--------------------|

TOTAL WAGES

\$ 87,425.00

WHITewater PROJECT

CONTRACTORS

|                                                        |                    |                     |
|--------------------------------------------------------|--------------------|---------------------|
| Eagle Mapping                                          |                    |                     |
| Topographic maps 1:5000                                |                    | \$ 3,840.00         |
| Waldsbach Holdings - Linecutting                       |                    |                     |
| Whitewater Grid 16.7 km - 13 days                      | \$ 5,773.50        |                     |
| Lyle Grid 22.9 km - 24 days                            | \$ 7,722.50        |                     |
| 39.6 km - 38 days                                      |                    |                     |
| Truck - 37 days @ \$45/day =                           | \$ 1,665.00        |                     |
| Pickets - 2500 @ \$0.35 =                              | \$ 875.00          |                     |
| Total Cost                                             |                    | 16,036.00           |
| Scott Geophysics - Geophysics                          |                    |                     |
| Whitewater Grid 32.5 km VLF-Mag                        |                    |                     |
| Lyle Grid 21.5 km VLF-Mag                              |                    |                     |
| 2.5 km IP                                              |                    |                     |
| Report by Jerry Thornton                               |                    |                     |
| Labour - 2 people for 2 days                           |                    | 17,775.58           |
| Petrographic Report - J. Harris                        |                    |                     |
| 19 rock sections                                       |                    | 1,468.00            |
| Mining Engineer                                        |                    |                     |
| Steffan Robertson & Kirsten                            |                    |                     |
| John Brodie - Site examination                         |                    | 810.00              |
| Highland Surprise Mine                                 |                    |                     |
| Re-open Level 4 (August)                               |                    |                     |
| P. Leontowicz 10 days - 100 hours @ \$50/hr =          | \$5,000.00         |                     |
| D. Tyers 15 days - 113 hours @ \$50/hr =               | 5,650.00           |                     |
|                                                        | <u>\$10,650.00</u> |                     |
| Re-open Level 3 (September)                            |                    |                     |
| R & S Holdings 10 days                                 |                    |                     |
| 16 hours blasting                                      | = \$1,096.80       |                     |
| 45 hours excavator Cat 215B                            | = \$4,027.50       |                     |
| 42 hours D-6 Cat                                       | = \$3,465.00       |                     |
| Mob-Demob                                              | = \$ 852.00        |                     |
|                                                        | <u>\$9,441.30</u>  |                     |
| Total Cost to re-open Levels 3 & 4                     |                    | 20,091.30           |
| Vernon Helicopters - 13 hours Bell 206B + fuel(900.60) |                    | 7,335.60            |
| Contract Drafting & Reproduction                       |                    | 5,898.04            |
| Bondar-Clegg & Co. - Geochemical Analysis              |                    |                     |
| 206 Soils - Cu, Pb, Zn, Au, Ag                         | = \$2,272.90       |                     |
| 188 Rock geochem - Cu, Pb, Zn, Au, Ag                  | = \$2,413.58       |                     |
| 135 Rock assays                                        | = \$2,287.99       |                     |
| Shipping                                               | = \$ 793.81        |                     |
|                                                        |                    | <u>7,768.28</u>     |
| TOTAL                                                  |                    | <u>\$ 81,022.80</u> |

WHITewater PROJECT

SUPPORT COSTS

|                  |  |               |
|------------------|--|---------------|
| Business Expense |  | \$ 2,463.64   |
| Accomodation     |  | 3,134.51      |
| Camp Equipment   |  | 639.98        |
| Camp Food        |  | 5,802.68      |
| Equipment Rental |  | 1,480.20      |
| Field Equipment  |  | 1,991.59      |
| Transportation   |  | <u>677.60</u> |
| TOTAL            |  | \$ 16,190.20  |

Vehicle Rental - 4 months each vehicle

1 Chev 3/4 ton 4x4 - \$ 954.00/month  
1 Toyota Landcruiser - \$1,128.90/month \$8,331.60

Gas & Service - \$3,800.14 12,131.74

Total \$ 28,321.94





Cost Breakdown by Job (Cont'd)

Geochem Soils

|                                |            |               |                    |
|--------------------------------|------------|---------------|--------------------|
| 206 Soils                      | + Shipping |               |                    |
| \$2,272.90                     | + 264.60 = | \$ 2,537.50   |                    |
| Labour - 4 days x \$80/day =   |            | 320.00        |                    |
| Abermin - 3 days x 270 =       |            | 810.00        |                    |
| Support - 3 x 44.23 = \$132.69 |            |               |                    |
| 3 x 55.14 = \$165.42           |            | <u>298.11</u> |                    |
| Total Cost                     |            |               | <u>\$ 3,965.61</u> |

Highland Surprise Mine Work - Re-opening Levels 3 & 4

|                                           |                 |          |                     |
|-------------------------------------------|-----------------|----------|---------------------|
| Contractor Costs: 5000 + 5650 + 9441.30 = | \$20,091.30     |          |                     |
| Abermin:                                  |                 |          |                     |
| Labour - 10 x \$80/day                    | = \$ 800.00     |          |                     |
| Wages - 16 man-days                       | = 3,350.00      |          |                     |
| Support - 5 days @ 110.28                 | = 551.40        |          |                     |
| R&B 16 x 44.23                            | = <u>707.68</u> | 5,409.08 |                     |
| Total Cost                                |                 |          | <u>\$ 25,500.38</u> |

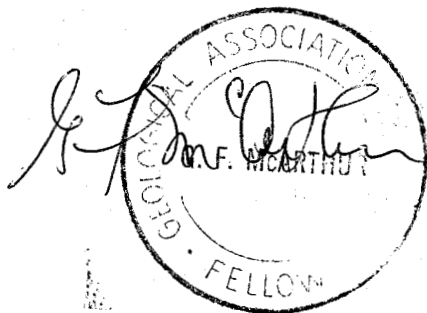
APPENDIX VI

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STATEMENT OF QUALIFICATIONS

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I, Gerald F. McArthur of Delta, British Columbia hereby certify that:

- 1) I am a Senior Geologist employed in the field of mineral exploration by Abermin Corporation of Suite 1500 - 1075 West Georgia Street, Vancouver, B.C.
- 2) I am a graduate of the University of British Columbia, holding the degree of Bachelor of Science in Geology, obtained in 1973.
- 3) I am a Professional Geologist registered in the province of Alberta, member of the CIMM and a fellow of the Geological Association of Canada. I have been engaged in the field of mineral exploration since 1973.
- 4) The work discussed in this report was done under my supervision and I am the author of this report.



STATEMENT OF QUALIFICATIONS

I, A. Douglas McLaughlin of Vancouver, British Columbia hereby certify that:

- 1) I am a Senior employed in the field of mineral exploration by Abermin Corporation of Suite 1500 - 1075 West Georgia Street, Vancouver, B.C.
- 2) I am a graduate of the Acadia University, Wolfville, Nova Scotia, holding the degree of Bachelor of Science in Geology, obtained in 1977.
- 3) I am a member of the CIMM and the Geological Association of Canada. I have been engaged in the field of mineral exploration since 1978.

*Doug McLaughlin*