ARIS SUMMARY SHEET

District Geologist, Nelson Off Confidential: 91.12.27

ASSESSMENT REPORT 20531 MINING DIVISION: Osoyoos

PROPERTY: Richter
LOCATION: LAT 49 07 00 LONG 119 38 00
UTM 11 5443545 307845
NTS 082E04E

CAMP: 009 Similkameen - Boundary Area

CLAIM(S): Rich 8,Rich 11-13
OPERATOR(S): Minnova
AUTHOR(S): Clayton, C.J.
REPORT YEAR: 1990, 237 Pages
COMMODITIES
SEARCHED FOR: Gold
KEYWORDS: Carboniferous,Kobau Group,Nelson Plutonic Rocks,Quartzites Phyllites,Granodiorites
WORK
DONE: Geochemical,Geological,Physical
GEOL 2500.0 ha
Map(s) - 2; Scale(s) - 1:2500,1:10 000
LINE 33.5 km
ROCK 78 sample(s) ;CU,PB,ZN,AU,AG,SB,BA
Map(s) - 5; Scale(s) - 1:2500
SOIL 1446 sample(s) ;CU,PB,ZN,AU,AG,SB,BA
Map(s) - 14; Scale(s) - 1:2500,1:10 000
RELATED
REPORTS: 19284

FILMED

Assessment Report
on
1989 Geological Mapping, Lithogeochemical Sampling, and Soil Sampling
of the
Richter I Group
near Osoyoos, B.C.

Osoyoos Mining Division

NTS 82E/4E

Latidude 49° 07'N Longitude 119° 38'W

Owner and Operator:

Minnova, Inc.
3rd Floor - 311 Water Street
Vancouver, B.C.
V6B-1B8

C.J. Clayton
November, 1990

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1.0 INTRODUCTION

1.1 General

This report describes the results of geological mapping, lithogeochemical sampling, and soil sampling completed on the Richter I Group (Rich 8, Rich 11, Rich 12, and Rich 13) between September 1, 1989 and October 30 1989.

The area in the past has been held as a military reserve, and the removal of this status in 1988 allowed staking of the claims.

The 1989 program focussed on preliminary regional mapping and sampling of the property, as well as more detailed soil sampling, mapping, and lithogeochemical sampling of the Ridge Grid and Reed Lake Grid. A total of 626 grid soil samples were taken over the Reed Lake Grid, and 585 grid soils from the Ridge Grid area. In addition to these, 235 reconnaissance soil samples were obtained from contour soil sampling of the Richter I Group. Samples were sent to Min-En Laboratories of North Vancouver for analysis for trace elements and major oxides.

1.2 Property Location and Access (Figures 1 and 2)

The Richter property (Richter I, II, and III groups) is situated within the Osoyoos Mining Division of south-central British Columbia, and is centred at Latitude 49° 07' North, and Longitude 119° 38' West on NTS map sheet 82E/4E.

Access to the claims is via the Queen Elizabeth II Observatory Road, a good all-weather gravel road ascending Mt. Kobau from Richter Pass roughly 8 km west from Osoyoos along Highway 3. Access may also be gained from the Oliver area at the base of Testalinden Ridge through the property of Robert Thompson with permission. Further access from the north is obtained along a British Columbia Forest Service road extending north from the

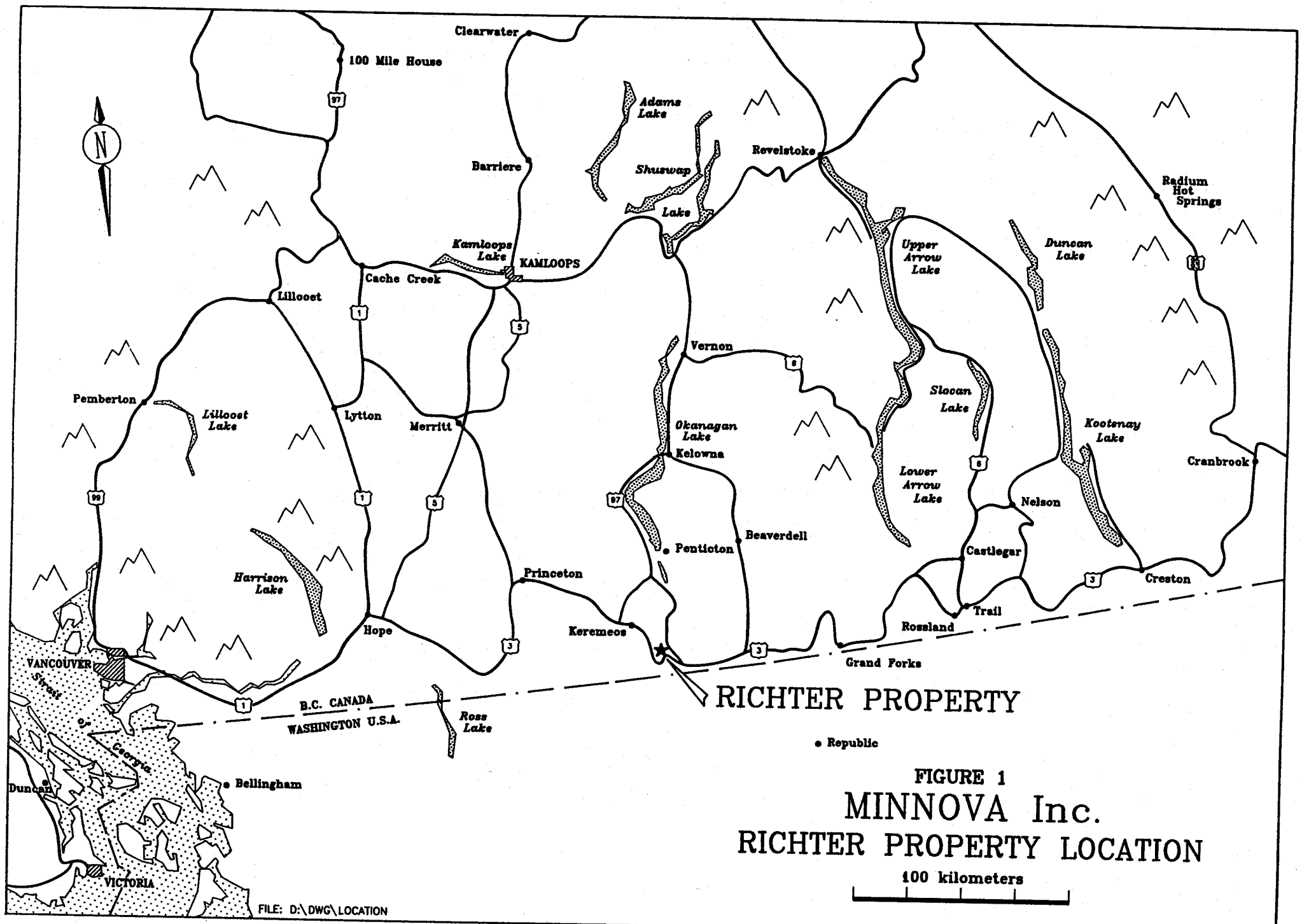

FIGURE 1

MINNOVA Inc.

RICHTER PROPERTY LOCATION

100 kilometers

Oliver-Cawston road, 5.5km east of Cawston. This road traverses in a north-south direction to Mt. Kobau where it joins the aforementioned Observatory road. From the Observatory area at the summit of Mt. Kobau several four-wheel drive ranching roads provide further access to the property area.

1.3 Topography, Vegetation, and Climate

The Richter property lies west of the Okanagan Highlands in the southwest corner of the Thompson Plateau. Both the highlands and plateau were formed during a late Tertiary erosional event (Holland, 1964). The property is covered by varying thicknesses of glacial till and glacial lacustrine deposits up to 75 m thick as exposed in the Testalinden Creek valley.

Elevation ranges from 515 m above sea level at Richter Lake at the southern end of the property to 1848 m along the ridge on the western side of the property. Three steeply incised valleys drain to the east. Vegetation along these valley walls is thick with evergreen forest and scrub brush making travel difficult. Ridge crests and south facing slopes are generally open and sage covered allowing for easy travel.

Climate is dry with temperatures ranging from -25°C during winter to +30°C in summer. Precipitation is low to moderate and a snowfree period exists from May to late October.

1.4 Property and Ownership (Figure 2)

The Richter property consists of 13 contiguous MGS mineral claims that total 212 units, and is wholly owned and operated by Minnova, Inc. For the purposes of grouping, the claims have been divided as follows:

Richter I Group: Rich 8, Rich 11, Rich 12, Rich 13
Richter II Group: Rich 2, Rich 5, Rich 6, Rich 9, Rich 10
Richter III Group: Rich 1, Rich 3, Rich 4

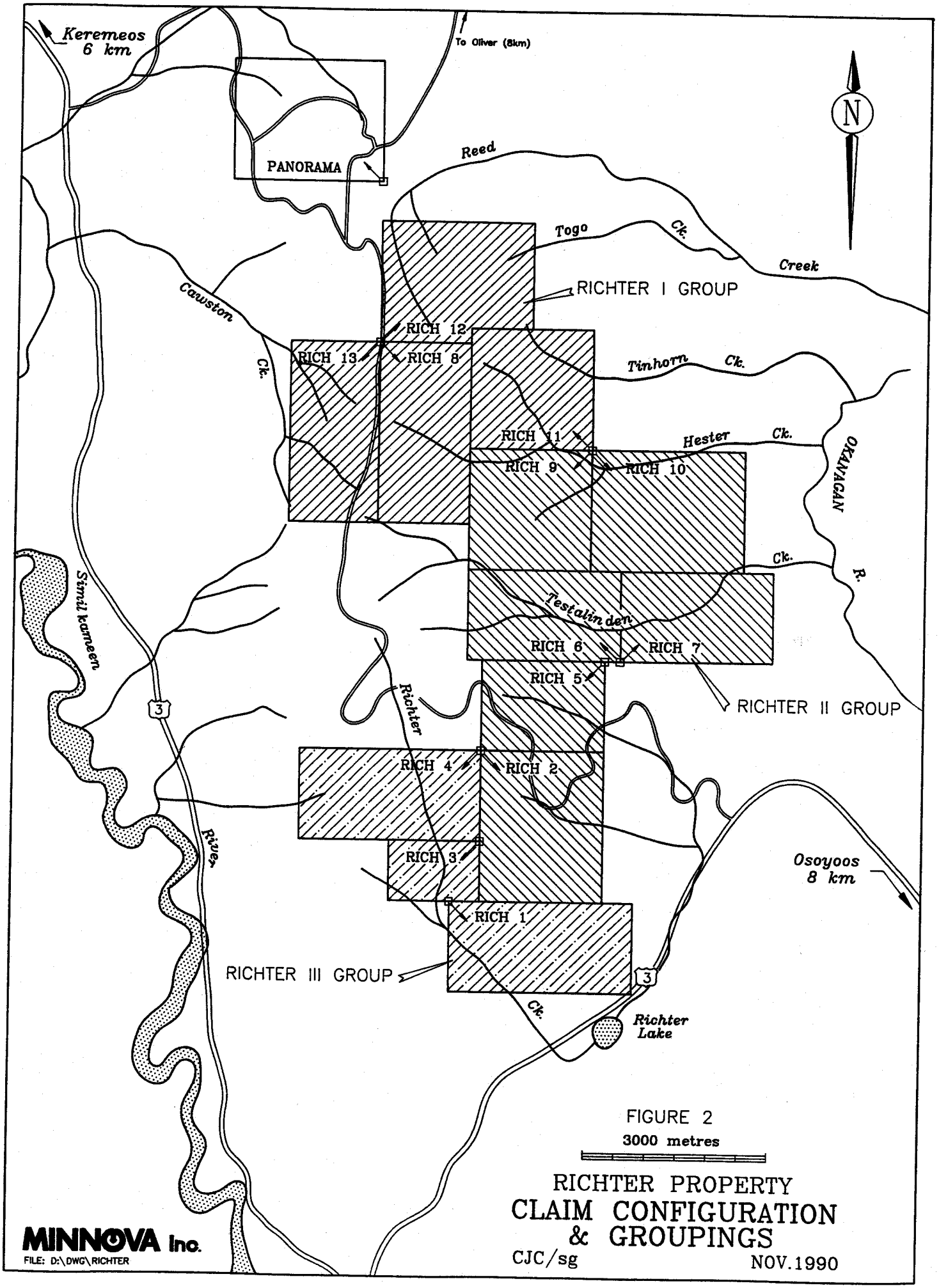

FIGURE 2

3000 metres

RICHTER PROPERTY
CLAIM CONFIGURATION & GROUPINGS

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The Richter I Group consists of 72 claim units.

Claim configurations are shown in Figure 2 and claim data summarised in Table I.

Table I: SUMMARY OF CLAIM STATUS - RICHTER PROPERTY

CLAIM NAME	RECORD #	UNITS	EXPIRY DATE	GROUP
Rich 1	2989	18	08/26/92**	Richter III
Rich 2	2990	20	08/26/93**	Richter II
Rich 3	2991	6	08/26/92**	Richter III
Rich 4	2992	18	08/26/92**	Richter III
Rich 5	2993	12	08/26/93**	Richter II
Rich 6	2994	15	08/26/93**	Richter II
Rich 7	2995	15	08/26/93**	Richter II
Rich 8	2996	18	08/15/94*	Richter I
Rich 9	2997	16	08/26/93**	Richter II
Rich 10	2998	20	08/26/93**	Richter II
Rich 11	2999	16	08/15/94*	Richter I
Rich 12	3000	20	08/26/94*	Richter I
Rich 13	3001	18	08/29/94*	Richter I
	TOTAL	**212 UNITS**		

* Assuming acceptance of this report.
** Assuming acceptance of Richter II and III assessment reports to follow.

1.5 Property History

The Richter property is located in the same region as four past producing mines: the Fairview Camp, the Dankoe Mine, the Mak Siccar Mine and the Dividend-Lakeview Mine. Mining history dates back to the late 1800's, the oldest and most familiar camp being the Fairview Gold Camp. This camp lies directly north of the Richter Property and is comprised of the Fairview, Stemwinder, Morning Star, and Tinhorn mines, as well as several other smaller prospects. Production from this area spanned the years between 1895 and 1904 and intermittent work continued to 1961. Gold is hosted in north-west trending quartz veins within the Kobau Group metasediments and metavolcanics adjacent to the Oliver and Fairview

granodiorite. The Fairview Camp is currently under active exploration.

The Dankoe mine, located on the lower slopes of Mt. Kobau, produced gold, silver, copper, lead, and zinc from lenticular quartz veins hosted in Kruger Syenite during the period 1913 to 1928, and intermittently until 1979.

West of Osoyoos, hosted in the Anarchist Group of altered volcanics and sediments, is the Dividend-Lakeview property. Okulitch (1969) feels this group may possibly correlate with the Kobau Group. Between 1907 and 1949 it was mined intermittently and produced 504396 grams of gold, 87244 grams of silver, and 73351 kg of copper from a total of 111,252 tonnes mined. The Dividend-Lakeview is a skarn type deposit with typical skarn mineralogy in the form of garnet, epidote, and diopside.

The Mak Siccar mine, located on the west slope of Mt. Kobau, produced 4012 g gold and 1960 g silver from 189 tonnes mined during the period 1934 to 1939. Mineralisation occurs along the faulted contact of the diorite and Kobau sediments in quartz veins.

Mineral exploration on the Richter property itself has been restricted in the past because of the previously mentioned military reserve status of the area. As a result there is currently no published material available.

1.6 Summary of 1989 Assessment Work - Richter I Group

Line Cutting	33.5 line km		
Geological Mapping	29	man days sampling and mapping	Samples analysed for Cu, Zn, Pb, Sb, Ag, Ba,Au,As
	29	lithogeochemical samples	Al_2O_3,BaT, CaO, Fe_2O_3, K_2O,MgO, MnO_2, Na_2O, P_2O_5, SiO_2, TiO_2, S, and LOI.
	49	trace samples	
Soil Sampling	1211	grid soil samples	Analysed for Cu, Pb, Zn, Au, Ag,Sb, Ba, As
	235	reconnaissance soil samples	Analysed for Cu, Pb, Zn, Au, Ag, As, Sb, Ba

2.0 GEOLOGY

2.1 Regional Geology (Figure 3)

Regional geology of the Southern Okanagan consists of a sequence of sediments and volcanics of the Lower Paleozoic and/or Pre-Cambrian Monashee Group of the Shuswap Complex, stratigraphically overlain by pre-middle Mesozoic metamorphic rocks of the Kobau Group, and the Cache Creek Group of the Blind Creek Formation. These come into contact with the Triassic Anarchist Group metamorphosed volcanics and sediments immediately south of the Richter property. Jurassic and/or Cretaceous intrusive bodies of the Okanagan Batholith Complex occur throughout the region. These intrusions include the Testalinden, Osoyoos, Similkameen, Colville, Oliver, Kruger, and Fairview intrusive bodies.

The most prominent regional structure in the area is defined by the Okanagan Valley as it follows a gently west-dipping crustal shear (Tempelman-Kluit, Parkinson, 1986).

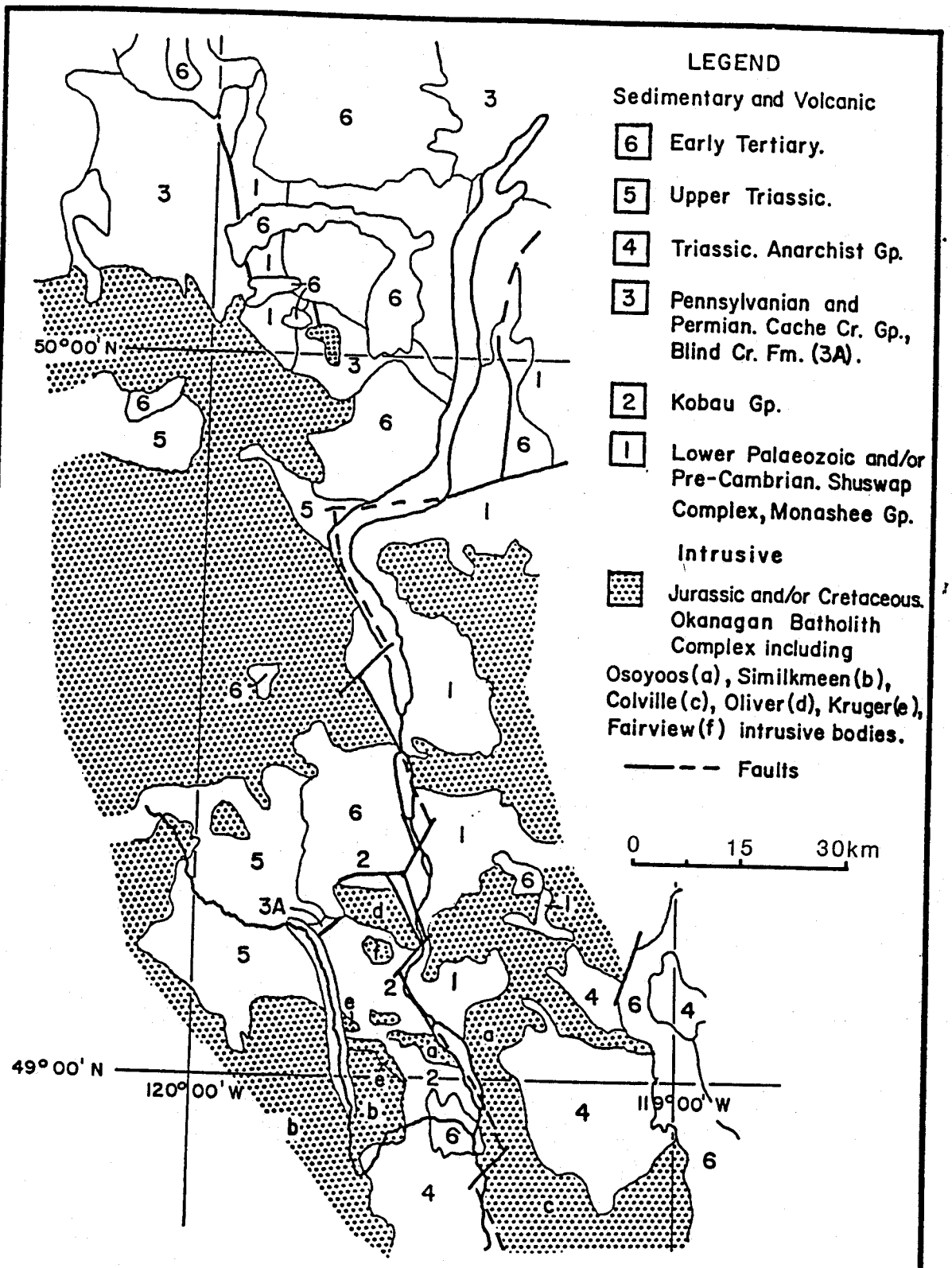


FIGURE 3

REGIONAL GEOLOGY OF THE SOUTHERN OKANAGAN

2.2 Property Geology (Figure 4, Figure 6)

Metasediments and metavolcanics of the Carboniferous Kobau Group, and Mesozoic Nelson Plutonic rocks underly much of the claim area.

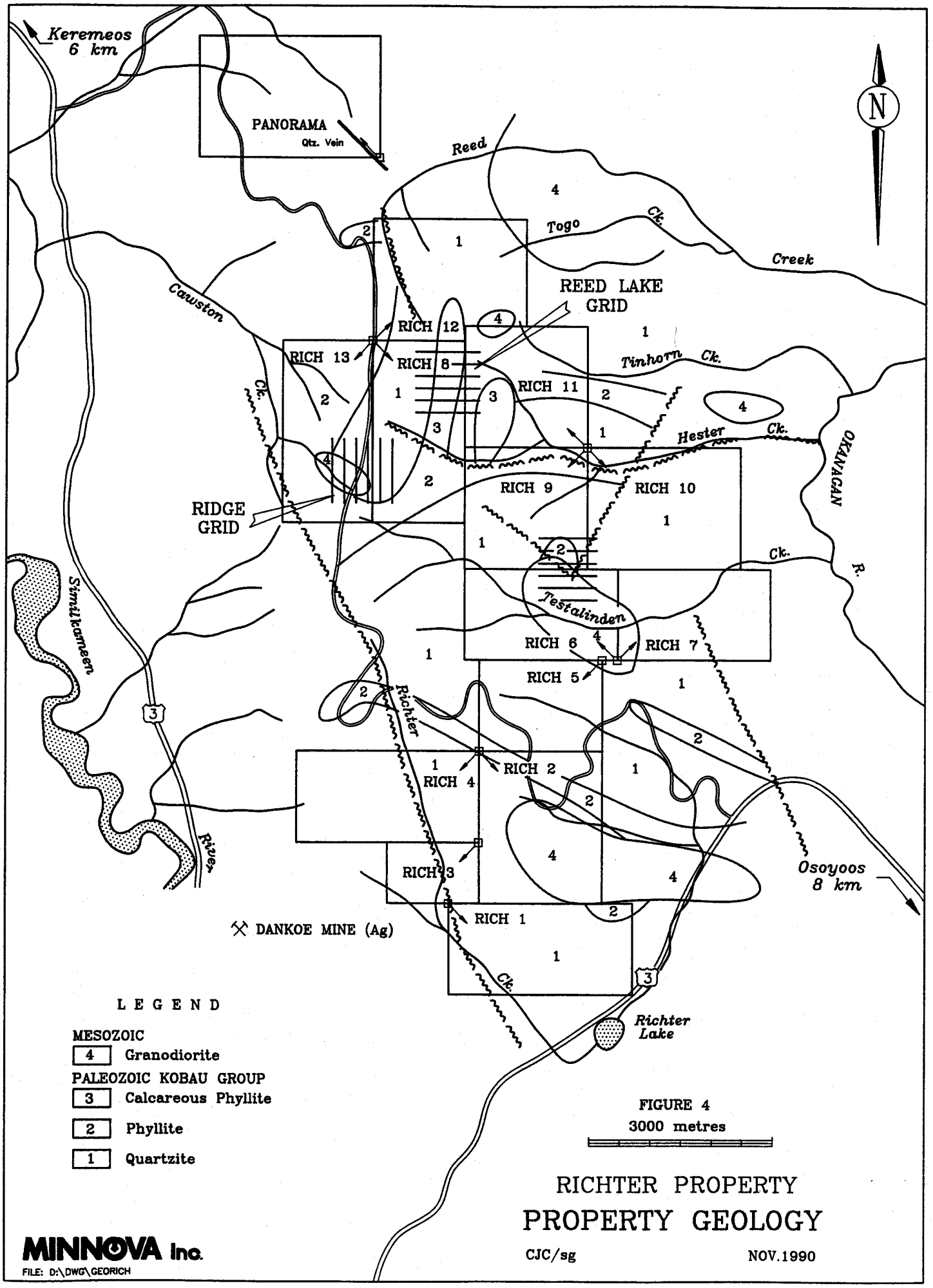
2.2.1 Carboniferous Kobau Group

Bostock (1940) first defined the Kobau Group as a separate unit of Carboniferous age, a designation supported by Okulitch (1969a). Okulitch (1969a) defines six mappable units within the Kobau group, however field observations indicate the transitional boundaries between units can be so gradational as to make positive field identification of some units extremely difficult. For exploration purposes, therefore, 3 mappable units have been recognised. These are units 1, 2, and 3 as shown in Figures 4 and 6.

Three phases of deformation are indicated in the area, the first of which resulted in regional metamorphism of Kobau Group sedimentary and volcanic protoliths to greenschist facies. According to Gibson (1989 Assessment Report), an outcrop within the Testalinden Grid area contained garnet suggesting localised higher grade contact metamorphism due to proximity to an intrusive body. True chronostratigraphy of the area is unclear due to the extents of regional metamorphic overprinting.

KB1

Quartzite is generally grey to green to blue in colour, is fine to coarse grained, and varies from foliated to massive. The foliated quartzite contains micaceous partings intercalated with lenticular quartz in 1-2mm intervals. Foliae are generally discontinuous and anastomosing. Massive quartzite varies from fine to coarse grained indistinctly foliated quartzite, to massive fine grained pure siliceous rock, possibly meta-chert or microcrystalline quartzite. This form is commonly highly fractured


Keremeos
6 km
PANORAMA
Qtz. Vein
Reed
Togo
Ck.
Creek
N
REED LAKE
GRID
RICH 12
RICH 13
RICH 8
RICH 11
Tinhorn Ck.
Hester Ck.
OKANAGAN
R.
Cawston
Ck.
RIDGE
GRID
RICH 9
RICH 10
Testalinden
Ck.
RICH 6
RICH 7
RICH 5
Similkameen
River
Richter
RICH 2
RICH 4
RICH 3
RICH 1
DANKOE MINE (Ag)
Osoyoos
8 km
Richter
Lake
LEGEND
MESOZOIC
4 Granodiorite
PALEOZOIC KOBAU GROUP
3 Calcareous Phyllite
2 Phyllite
1 Quartzite
FIGURE 4
3000 metres
RICHTER PROPERTY
PROPERTY GEOLOGY
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with stockwork quartz veining on a millimetre scale, and extreme silicification suggests remobilisation of silica from the quartzite itself during dynamo-thermal metamorphism, or possibly from some deep seated silica rich intrusive body.

KB2

The chloritic phyllite is well foliated, light green in colour, and fine grained with occasional small lenses of dark green and amphibolitic and chloritic greenstone containing sheared lens shaped bodies possibly of pyroclastic origin. Common rock forming minerals are chlorite, tremolite, biotite and plagioclase with lesser amounts of quartz, sphene, and epidote. Thin stringers and foliae of calcite are occasionally present. Foliation is well developed consisting of closely spaced phyllitic cleavage and fine chloritic and micaceous schistosity. This unit may be silicified to the point of being unrecognisable from the foliated variety of quartzite.

KB3

Calcareous chloritic phyllite is similar to the chloritic unit however carbonate alteration is pervasive throughout the matrix, and concordant and discordant carbonate veinlets are commonly present. This unit contains a subunit of white to light blue pure crystalline calcite marble which, locally, can be strongly silicified as indicated from the weathering pattern of outcrop showing resistant stockwork quartz veining within the less resistant marble.

2.2.2 Intrusive Rocks

Kobau Group mafic and ultramafic intrusions have since been metamorphosed to actinolitic and chloritic phyllitic greenstone and are conformable with the rest of the Kobau Group.

NPS (Nelson Plutonic Suite)

Rocks of the Triassic Nelson Plutonic Suite are recognised within the Richter I Group, and field mapping suggests possibly two separate intrusive events may have resulted in their emplacement. These are primarily granodiorite, diorite, monzonite, and gabbro. Diorite, granodiorite, and gabbro may be part of the first episode of intrusion representing border phases of the Nelson granodiorite.

The Osoyoos and Testalinden granodiorites occur as two large stocks on the south end of the property and are considered part of the larger Triassic (?)-Jurassic Nelson Plutonic Suite (Little, 1961). These are fine to medium grained with macroscopic plagioclase, K-feldspar and quartz with minor biotite and/or hornblende.

Diorite is interpretted as a phase of the granodiorite as it commonly occurs spatially associated with it. The diorite is typically finer grained and less weathered than the granodiorite, and may be hornblende porphyritic.

Monzonite is predominant in the northern half of the Richter property occurring as a grey hornblende porphyry or as a medium to fine grained rock similar to the granodiorite. It is believed the monzonite is a border phase of the granodiorite.

Gabbro is very coarse grained and occurs along the borders of the Testalinden granodiorite. It may also be fine to medium grained containing parallel to subparallel aligned mafic phenocrysts in regions more distal from the granodiorite. Albitization and silicification occur locally accompanied by a high degree of oxidation.

2.2.3 Structure

At least three phases of regional deformation are indicated in the Kobau Group. The first phase of folding resulted in large, recumbent tightly compressed nappes and shearing and was accompanied by greenschist facies metamorphism (Okulitch, 1969a). Secondary folding resulted in deformation of first phase structures with associated interference patterns, and culminated in producing overturned and normal folds. These earlier structures were deformed further during the Mesozoic by small granitic and dioritic intrusions (Okulitch, 1969a). Third phase deformation again created interference structures in the form of doming and further gentle folds. Jointing and fracturing may have occurred during this phase as field observations indicate these structures cut previous deformations.

Local faulting on the Richter property is thought to have occurred during Tertiary time according to Church (1967). Previous mapping by Gibson (1989) has shown the majority of faults on the Richter Property trend in northwesterly direction between 300° and 340°. The regional trend of foliation strongly correlates with the predominant fault trend.

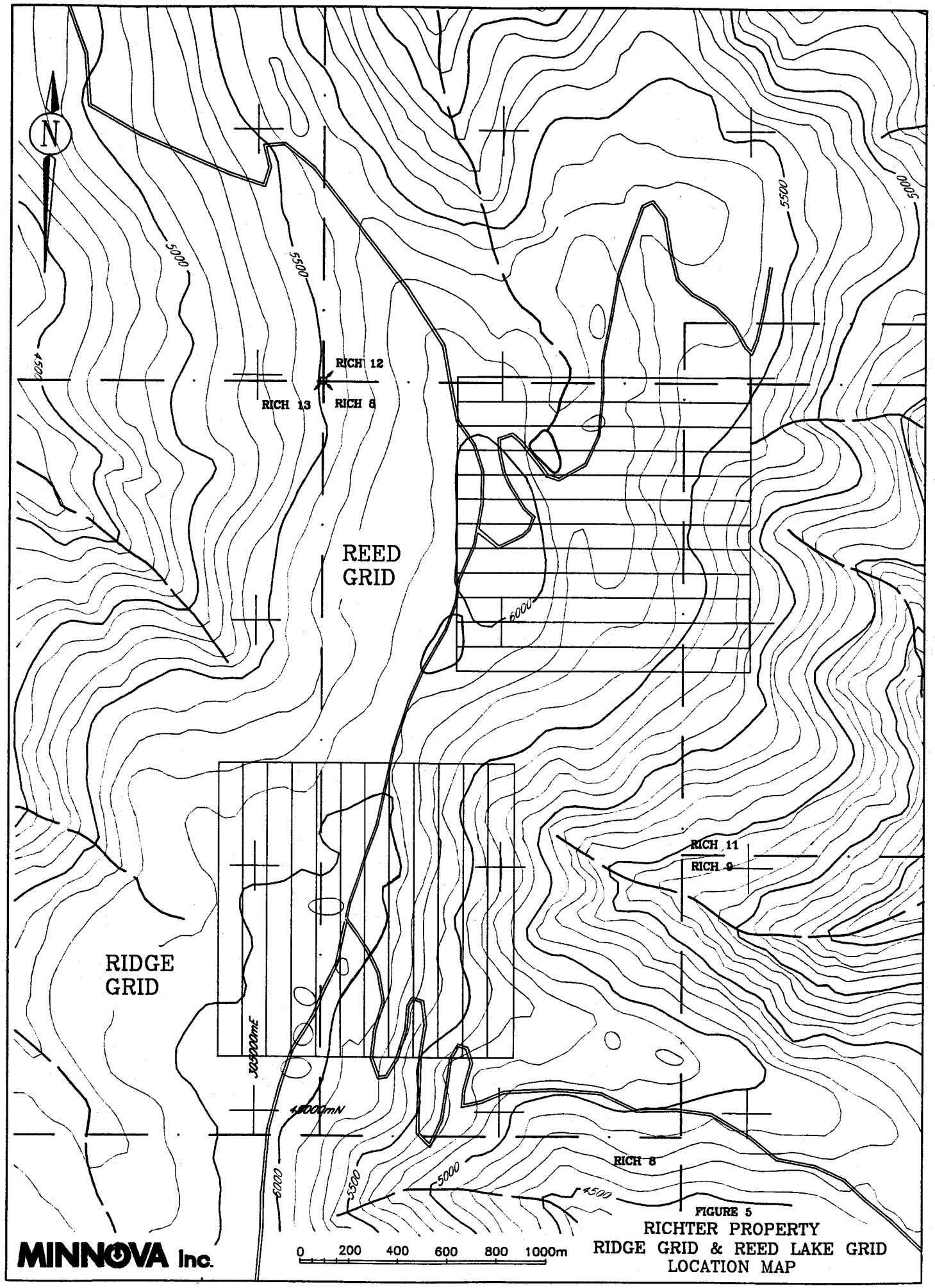

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FIGURE 5
RICHTER PROPERTY
RIDGE GRID & REED LAKE GRID
LOCATION MAP

3.0 RESULTS OF 1989 FIELD WORK

Field work between September 1 and October 30, 1989, focussed primarily on initial exploration of the property. Two grids were established on the Richter I Group: the Reed Lake Grid, and the Ridge Grid (Figure 5). As well, several contour soil lines were sampled to provide information on a more regional scale.

3.1 Reconnaissance Soil Sampling

A total of 235 reconnaissance soil samples were taken along specific contour elevations over the Rich I Group. Sample locations are plotted on Figure 7 and original analytical results are found in Appendix II. Samples were analysed for Au, Ag, Sb, As, Cu, Pb, and Zn. Results are plotted on Figures 8 through 14, respectively. Two hundred and twenty five values were statistically analysed to determine the best range of anomalous values. Table V summarises statistical results, and statistical data are contained in Appendix VIII.

TABLE II: ARITHMETRIC AND GEOMETRIC SUMMARY STATISTICS - RECONNAISSANCE SOIL SAMPLING

Variable	Au		Ag		As	
	Arith	Geom	Arith	Geom	Arith	Geom
N=225						
Minimum	5.00	0.699	0.200	-0.699	1.000	0.000
Maximum	55.00	1.740	8.000	0.903	175.0	2.243
Mean	6.44	0.757	0.817	-0.131	13.39	0.986
Std.Dev.	5.49	0.166	0.552	0.185	16.95	0.341

Variable	Cu		Pb		Zn	
	Arith	Geom	Arith	Geom	Arith	Geom
N=225						
Minimum	20.00	1.301	2.00	0.301	54.00	2.045
Maximum	136.00	2.134	69.00	1.839	330.00	2.519
Mean	55.87	1.714	19.56	1.261	115.26	2.045
Std.Dev.	21.74	0.171	7.50	0.169	35.62	0.116

Gold Distribution

Gold results do not approach a normal or lognormal distribution. Approximately 97% of the samples lie below 19 ppb

Au in both the arithmetic and geometric cases. An arbitrary value of 20 ppb Au was chosen to represent threshold.

Silver Distribution

Silver results poorly approximated a lognormal distribution. An arbitrary value 1.5 ppm Ag was arrived at for a threshold value.

Arsenic Distribution

Arithmetic analysis shows As to be positively skewed. Log transformation of the data resulted in an approximately lognormal distribution with a slight negative skew. A value of 30 ppm was chosen as threshold.

Copper Distribution

Both arithmetic and geometric analysis of Cu results show erratic distributions. For purposes of determining an arbitrary threshold value an approximation to a lognormal distribution was assumed and a value of 95 ppm was chosen.

Lead Distribution

Lead appears to approximate a lognormal distribution with a minor negative skew. A value of 35 ppm Pb was chosen as threshold.

Zinc Distribution

Arithmetic statistical analysis of Zn results show a positively skewed distribution. Geometric analysis is roughly lognormal and a threshold value of 150 ppm was chosen.

The following table summarises reconnaissance soil samples found to exhibit a concentration higher than the threshold chosen. The erratic nature of the majority of results and the generally non-conformable nature of the results to normal and lognormal distributions may have resulted in threshold values that are slightly high. For sample locations refer to Figure 7.

Table III: SUMMARY OF ANOMALOUS RECONNAISSANCE SOIL VALUES

SAMPLE	Au >20	Ag >1.5	As >30	Cu >95	Pb >35	Zn >150	Anomalous Response
TCS151526	5	1.2	9	65	30	152	Zn
TCS151528	5	0.8	15	106	24	160	Cu, Zn
TCS151531	5	0.9	12	112	16	162	Cu, Zn
TCS151532	5	0.5	14	45	18	161	Zn
TCS157528	5	1.0	6	56	25	172	Zn
TCS157529	5	0.6	13	42	21	152	Zn
RRS490009	5	0.8	10	49	34	290	Zn
RRS51005000	5	0.6	5	55	16	150	Zn
RHT48001100	5	1.2	14	100	32	330	Cu, Zn
RHT48001300	5	1.1	11	98	32	147	Cu
RHT48001500	10	1.2	20	61	23	150	Zn
RHT48002000	20	0.9	20	70	25	93	Au
RHT48002200	35	0.7	13	50	24	114	Au
RHT48002600	10	0.7	9	73	19	300	Zn
RHT48002700	5	0.6	10	126	22	178	Cu, Zn
RHT5000000	5	1.4	12	110	18	152	Cu, Zn
RHT5000500	5	0.5	35	61	17	92	As
RHT50001000	30	0.8	16	72	20	101	Au
RHT50001100	5	1.0	14	97	25	132	Cu
RHT50001500	20	0.9	18	103	27	138	Cu, Au
RHT50001600	35	0.6	35	67	20	98	Au
RHT50001700	40	0.7	12	68	21	118	Au
RHT50002600	5	1.0	17	77	12	170	Zn
RHT50002800	5	0.5	25	67	13	150	Zn
RHT50002900	5	0.7	13	48	17	154	Zn
RHT50004200	5	0.7	15	109	15	184	Cu, Zn
L480004	5	0.8	20	82	33	184	Zn
L480007	5	1.4	175	52	20	100	As
L480008	5	1.3	98	44	22	178	Zn, As
L480012	10	1.0	30	51	69	180	Pb, Zn
L480013	5	1.2	24	136	30	120	Cu
L480014	10	8.0	29	82	39	138	Ag, Pb
TCS157506	30	0.5	1	22	14	129	Au
TCS157509	5	0.7	1	56	23	159	Zn
TCS157510	60	0.9	1	79	27	123	Au
TCS157513	5	1.6	1	59	28	131	Ag
TCS157520	5	0.9	73	69	32	136	As
TCS157521	5	1.0	1	102	32	165	Cu, Zn
TCS151513	5	1.2	31	34	17	60	As
TCS151514	5	1.5	12	55	36	123	Ag, Pb
TCS151515	5	1.3	2	117	40	131	Cu, Pb
TCS151516	5	0.8	30	58	24	152	As, Zn
TCS151519	5	1.6	21	84	32	107	Ag
TCS151524	5	1.1	141	87	27	129	As

3.2 Reed Lake Grid (Figures 15 through 17)

The Reed Lake Grid totals 14.4 line kilometres with 1.2 km baseline and tie-line oriented north-south. Wing lines are oriented east-west. Line spacings are 100m apart, with station spacings at 25 metre intervals.

3.2.1 Reed Lake Soil Geochemistry

A total of 626 grid soil samples were taken from the Reed Lake Grid. In all cases an attempt was made to collect representative "B" horizon soil. Samples were sent to Min-En Labs of North Vancouver for analysis for the following trace elements: Ag, As, Ba, Cu, Pb, Sb, Zn, and Au. Figures 15 through 17 show plotted results of these analyses. The following table summarises statistical analyses of the sample set, with statistical data contained in Appendix IX. Original results are in Appendix III.

TABLE IV: ARITHMETRIC AND GEOMETRIC SUMMARY STATISTICS - REED LAKE SOIL SAMPLING

Variable	Au		Ag		As		Sb	
	Arith	Geom	Arith	Geom	Arith	Geom	Arith	Geom
N=626								
Minimum	5.00	0.699	0.100	N/A	1.00	0.000	N/A	N/A
Maximum	65.00	1.813	2.500	N/A	82.00	1.914	N/A	N/A
Mean	6.80	0.785	0.769	N/A	11.80	0.743	N/A	N/A
Std.Dev.	4.89	0.171	0.346	N/A	12.82	0.599	N/A	N/A

Variable	Cu		Pb		Zn		Ba	
	Arith	Geom	Arith	Geom	Arith	Geom	Arith	Geom
N=626								
Minimum	5.0	0.699	1.0	0.000	22.0	1.342	43.0	1.633
Maximum	144.0	2.158	183.0	2.262	255.0	2.407	443.0	2.646
Mean	47.5	1.643	27.0	1.360	109.5	2.024	163.2	2.194
Std.Dev.	18.8	0.176	14.9	0.282	30.4	0.118	53.5	0.126

Gold Distribution

Gold distribution is erratic with approximately 97% of the samples having a value below 20 ppb. Both arithmetic and geometric analysis show similar results. A threshold of 20 ppb Au was chosen.

Silver Distribution

Silver distribution was approximately normal and a value of 1.3 ppm was chosen to represent threshold.

Arsenic Distribution

Arsenic, under preliminary inspection, appeared to show a random distribution by arithmetic analysis. When log transformed, however, the distribution suggests the presence of two populations. A threshold value of 30 ppm As was arrived at using the log transformed data.

Antimony Distribution

Antimony values obtained were consistantly low with a very small range. These values were not statistically analysed, however an arbitrary value of 3 ppm was used to aid in determining any multielemental geochemical responses.

Copper Distribution

The distribution of elemental Cu in soil shows a strong positive skew away from a normal distribution. The geometric analysis of Cu shows a slight negatively skewed lognormal distribution. A threshold value of 80 ppm was chosen.

Lead Distribution

Analysis of Pb suggests an approximately normal distribution. The log transformed data shows a prominant negatively skewed distribution. A threshold value of 50 ppm was chosen.

Zinc Distribution

Both arithmetic and geometric distributions for this element approach normal and lognormal distributions. The arithmetic normal distribution has a slight positive skew, while the geometric lognormal distribution has a minor negative skew. A threshold value of 170 ppm was chosen.

Barium Distribution

Barium displays a good lognormal distribution, and a threshold value of 250 ppm was chosen.

3.2.2 Reed Lake Grid Soil Geochemistry Results

Au, Ag Response (Figure 15)

Gold response consists primarily of a series of point anomalies and very little correlation with Ag response. The highest Au value of 65 ppb occurs on line 0+00N at 7+75E but does not appear to have any lateral continuity. A possible weak north-south linear trend may be traced from line 5+00N, 7+50E to line 12+00N between 8+00E and 9+25E. Although Au values along this linear trend are generally not above threshold values, they are elevated to some degree. Responses of 20 ppb Au on line 6+00N, 7+25E and 45 ppb Au on line 7+00N and 7+75E attenuating north and south may be indicative of this trend.

Cu, Pb, Zn Response (Figure 16)

A broadly anomalous multielemental response zone occurs on line 5+00N between 7+00E and 8+50E. The response attenuates slowly to the east but does not appear continuous laterally.

A less distinct zone of multielemental response occurs at the eastern end of lines 0+00N through 2+00N between 10+50E and 11+75E. This zone may have a weak linear trend associated with it.

Other weak Cu, Pb, and Zn anomalies occur throughout the grid area.

As, Sb, Ba Response (Figure 17)

As for Cu, Pb, and Zn a strong multielemental response occurs on line 5+00N between 7+00E and 8+25E and attenuates slowly to the east. Unlike the Cu, Pb, Zn zone, however, this zone displays some lateral continuity and can be traced in a northerly direction for approximately 200 metres, and in a southerly direction for roughly 300 metres.

Again, lines 0+00N to 3+00N display a broad yet somewhat linear northeasterly-southwesterly trending multielemental response.

Other sporadic anomalies occur on the grid.

3.3 Ridge Grid (Figures 18 through 26)

The Ridge Grid totals 14.3 line kilometres, with 1.2 km baseline and tie-line oriented in an east-west direction and wing lines oriented north-south. Line spacings are 100 metres with station spacings at 25 metre intervals.

3.3.1 Ridge Grid Soil Geochemistry

A total of 585 grid soil samples were taken from the Ridge Grid area. An attempt was made to collect representative samples of "B" horizon soil. Samples were sent to Min-En Labs of North Vancouver for analysis for the following trace elements: Ag, As, Cu, Pb, Sb, Zn, and Au. Figures 18 through 20 show results of analyses presented in plan form. Appendix IV contains original analytical results obtained from Min-En Labs. Statistical results are summarised in the following table, and statistical data is contained in Appendix X.

Table V: ARITHMETRIC AND GEOMETRIC SUMMARY STATISTICS - RIDGE GRID SOIL SAMPLING

Variable	Au		Ag		As		Sb	
	Arith	Geom	Arith	Geom	Arith	Geom	Arith	Geom
N=585								
Minimum	5.0	0.699	0.100	-1.000	1.00	0.000	1.00	0.000
Maximum	110.0	2.041	3.500	0.544	30.00	1.477	6.00	0.778
Mean	6.3	0.738	0.766	-0.171	9.36	0.849	1.19	0 046
Std.Dev.	7.6	0.159	0.378	0.236	5.64	0.383	0.61	0.136

Variable	Cu		Pb		Zn	
	Arith	Geom	Arith	Geom	Arith	Geom
N=585						
Minimum	20.0	1.301	1.00	0.000	52.0	1.716
Maximum	123.0	2.090	64.00	1.806	267.0	2.427
Mean	49.8	1.680	23.89	1.335	114.0	2.049
Std.Dev.	14.5	0.122	9.63	0.216	22.2	0.079

Gold Distribution

Gold distribution is erratic for both the arithmetic and geometric case. The log transformed data was used to arrive at a threshold value for Au of 20 ppb.

Silver Distribution

The arithmetic distribution of Ag appears bimodal possibly indicating two populations. The log transformed data approximates a lognormal distribution. A threshold value of 1.2 ppm was chosen for Ag.

Arsenic Distribution

Both arithmetic and geometric statistics for arsenic are very erratic allowing for little information to be obtained from their study. However, using the geometric statistics as a rough approximation of a lognormal distribution, an arbitrary threshold value of 15 ppm was arrived at.

Antimony Distribution

Both arithmetic and geometric statistics for Sb provide little information as to the distribution of this element. An arbitrary value of 3 ppm was chosen as threshold.

Copper Distribution

The arithmetic and geometric distributions of Cu are positively skewed, however geometric values resemble more closely a lognormal distribution. An arbitrary threshold of 70 ppm was thus chosen for Cu.

Lead Distribution

Lead distribution approximates a normal distribution with a very slight positive skew. A threshold value of 40 ppm was therefore chosen.

Zinc Distribution

Zinc distribution roughly approximates a lognormal distribution with a slight positive skew. A threshold value of 140 ppm was chosen for Zn.

3.3.2 Ridge Grid Soil Geochemistry Results

Au, Ag Response (Figure 18)

Little correlation exists between Ag and Au in soil geochemical response. Generally Au anomalous responses occur independently of Ag responses. Three coincident point occurrences, however, do exist. The first is 110 ppb Au with 1.2 ppm Ag on line 12+00E, 8+75N, the second is 60 ppb Au with 2.2 ppm Ag on line 11+00E, 10+25N, and the third is 20 ppb Au with 1.3 ppm Ag on line 1+00E, 5+25N. A weak three line linear trend for Au exists between line 1+00E, 5+25N and line 3+00E, 6+75N.

No distinctly linear anomalous zones occur for Ag. Several multi-station anomalous zones occur, specifically line 1+00E, 4+75N to 5+25N, line 2+00E, 1+50N to 3+75N, line 8+00E, 4+25N to 5+75N, and line 9+00E, 2+00N to 3+50N. These zones, although not displaying any trend perpendicular to the grid lines, may indicate a more north-northwesterly south-southeasterly elemental dispersion trend.

Cu, Pb, Zn Response (Figure 19)

No strong multielemental trends are evident from the plotted results. There appears to be an inverse correlation between Pb and Zn occurrences and a weak correlation between Pb and Cu, as well as Cu and Zn. An anomalous Cu in soil zone occurs at the southern end of lines 3+00E, 6+00E, 7+00E, and 9+00E.

The majority of results appear to occur in the southeastern quadrant of the grid.

As, Sb Response (Figure 20)

Again there is no obvious linear geochemical trends associated with these elements. Arsenic shows a number of line anomalies but these tend to lack any lateral continuity. The largest zone occurs along line 4+00E from 0+00N to 7+00N. Antimony results yield little information.

3.3.3 Ridge Grid Geological Mapping and Sample Descriptions (Figure 21 and 22)

A total of 78 rock samples were collected during the mapping program, 29 of which were sent for lithogeochemical analysis, and 49 for trace geochemical analysis. The following are field descriptions of the samples collected.

SAMPLE NO.	DESCRIPTION
RL197	**-altered (gossanous) quartz vein hosted in phyllitic quartzite** -similar in appearance to gossanous zones present in Testalinden Grid area
RL198	**-granodiorite** -3% pyrite occurring as fine grained euhedral disseminated crystals -silicified, weakly gossanous in appearance -located on west side of N-S trending fault
RL199	**-granadiorite** -medium grained, light grey -siliceous
RL200	**-gossanous quartzite** -buff coloured with occasional black bands -fine to coarsely crystalline, massive -90% quartz with minor foliations -hematitic staining -no visible sulphides
RL201	**-gossanous quartzite** -buff coloured with occasional rusty staining -local small (10 cm) bull white quartz veins -manganiferous staining on fracture surfaces -10% of outcrop weakly phyllitic

SAMPLE NO.	DESCRIPTION
RL202	**-granodiorite** -buff/cream coloured with rusty weathering -medium grained, massive -weakly silicified with 1% f.g. pyrite
RL203	**-phyllitic quartzite** -grey with white banding -rusty locally -contorted foliation with dominant orientation at 164/30E
RL204	**-granodiorite** -adjacent to phyllitic quartzite -silicified, moederately gossanous
RL205	**-granodiorite** -grey green in colour -silicified -contains xenoliths of quartzite 1-5 cm in dimension
RL206	**-quartzite** -massive -underlying sample RL207 (granodiorite dyke) and overlying sample RL205 (silicified granodiorite)
RL207	**-granodiorite** -silicified -intrudes quartzite
RL208	**-granodiorite** -fine grained, green in colour -silicified -weakly foliated
RL209	**-diorite** -dark green -fine grained amphiboles -15% parallel alignment of amphiboles -locally strongly silicified
RL210	**-granodiorite** -fine grained, green -locally silicified -lithogeochemistry indicates strong Na depletion

SAMPLE NO.	DESCRIPTION
RL211	**-diorite** -fine to medium grained -light blue to grey in colour -locally silicified -5% fine grained pyrite occurring in blebs -fracture surfaces are rusty
RL212	**-phyllite** -gossanous, fine grained, green in colour -foliated 360/30W -rusty foliae and fracture surfaces
RL213	**-diorite** -micaceous (phlogopite) -medium grained -silicified
RL214	**-diorite dyke** -medium grained, tan coloured -micaceous, pyroxene crystals -possible orientation of 320/20N
RL215	**-quartzite** -fine grained -siliceous, blocky fractures -sample taken from contact with siliceous phyllite
RL216	**-diorite sill** -tan weathered surface -medium grained, weakly foliated -concordant with foliation
RL217	**-diorite** -light blue/grey -weakly foliated -gossanous -5% disseminated pyrrhotite associated with quartz stringers
RL218	**-diorite** -light blue/grey -weakly foliated -gossanous -5% disseminated pyrrhotite associated with quartz stringers -1 cm wide rusty quartz vein

SAMPLE NO.	DESCRIPTION
RL219	**-skarnified phyllite** -black in colour -20% pyrite hosted in phyllitic host rock -related to dyke
RL220	**-quartz monzonite** -light to blue grey -1/2 cm inclusions of quartz -oriented 300/80N 2% disseminated pyrite within quartz and feldspar phenocrysts
RL221	**-diorite** -light green, fresh -medium grained, massive
RL222	**-diorite** -light green, fresh -medium grained, massive
RL223	**-diorite** -blue grey in colour -fine grained, massive -fault contact with meta-sediments
RL224	**-gossan** -probably altered diorite as indicated from lithogeochemistry
RL225	**-diorite** -dark grey, fine grained -silicified localy -manganiferous staining
RG404	**-quartz vein in quartzite** -bull white quartz variable in width from 20 to 40 cm -irregular quartz blebs and discontinuous veins in quartzite -orientation parallels joints at 010/90E
RG405	**-quartz vein in quartzite** -bull white quartz vein variable in width from 1.5 m to 0.01 m -10% quartzite with 10 cm quartz veins -weak hematitic stain -chip sample

SAMPLE NO.	DESCRIPTION
RG406	**-quartz vein in quartzite** -weak hematitic stain
RG407	**-quartz vein in quartzite** -bull white with minor hematitic staining -3 cm in width
RG408	**-quartz vein in quartzite** -moderate hematitic staining giving gossanous appearance
RG409	**-gossan** -small pocket in highly siliceous quartzite/meta-chert -strongly hematitic -possibly quartz vein
RG410	**-quartz vein within siliceous quartzite/meta-chert** -limonitic gossan
RG411	**-quartz vein** -gossanous (rusty colour) -40 cm wide oriented 360/70E -host rock is fine grained foliated grey granodiorite
RG412	**-quartz vein in quartzite** -rusty colour -host rock is siliceous quartzite/meta-chert
RG413	**-massive quartzite/meta-chert** -stockwork cross cutting white quartz veinlets 1/2 cm in width
RG414	**-quartzite/meta-chert** -weakly gossanous -adjacent to altered granodiorite outcrop
RG415	**-quartz vein** -bull white, barren -10 cm wide within very fine grained phyllitic, chloritic quartzite
RG416	**-quartz vein** -bull white up to 3 metres wide at border of granodiorite

SAMPLE NO.	DESCRIPTION
RG417	**-quartz vein** -bull white 4 cm wide -oriented at 210/80N -contained within quartzite/meta-chert with stockwork quartz veining -adjacent to previously sampled 200 ppb Au gossan
RG418	**-quartz vein in quartzite/meta-chert** -4cm wide with orientation 060/90 -extremely silicified zone
RG419	**-quartzite/meta-chert** -fine grained massive -white to grey
RG420	-sample location and rock type unknown
RG421	**-siliceous phyllite** -gossanous -foliation 010/45W
RG422	**-siliceous phyllite** -gossanous
RG423	**-quartz vein** -gossanous, 5 cm wide
RG424	**-quartz vein** -bull white 1 metre wide oriented 250/90 -barren
RG425	**-siliceous zone/quartzite** -lower stratigraphic contact with sample RL216, a diorite sill
RG426	**-gossanous phyllite** -limonitic
RG427	**-gossanous phyllite** -strongly foliate with massive pyrite occurring along foliation
RG428	**-skarnified phyllite** -strongly magnetic -20% pyrite

SAMPLE NO.	DESCRIPTION
RG429	**-quartz vein in quartzite** -rusty staining with manganiferous staining -local 0.5 m scale irregular stockwork quartz veining -5% of outcrop weakly foliated at 105/90 -rusty fractures
RG430	**-quartz vein in quartzite** -bull white quartz vein -no visible mineralisation
RG431	**-phyllite** -strong rusty staining over a $2m^2$ area -interbeds of quartzite
RG432	**-quartz vein** -bull white -no visible mineralisation
RG433	**-phyllitic quartzite** -moderate hematitic staining on phyllitic beds -beds roughly 10-20 cm thick
RG434	**-phyllite** -finely laminated -moderate to strong hematitic staining -contorted folding -trend of fold axis 270/20
RG435	**-quartz vein in phyllitic quartzite** -1% pyrite -silicified zone -minor rust staining
RG436	**-quartz vein in quartzite/meta-chert** -manganiferous and rusty hematitic staining -5 metres from contact with granodiorite
RG437	**-quartz vein** -manganiferrous and rustly hematitic staining
RG438	**-quartzite** -minor hematitic staining along joints
RG439	**-quartz vein in phyllite** -hematitic staining

SAMPLE NO.	DESCRIPTION
RG440	**-quartz vein** -weak hematitic staining, weak epidote -minor malachite staining (?) along joint fracture surfaces -country rock is phyllite foliated horizontally with quartz vein parallel to foliation
RG441	**-quartz vein** -massive white vein type material -minor weak hematitic staining
RG442	**-quartz vein in quartzite** -3 cm wide -barren -minor hematitic staining
RG443	**-quartz vein in quartzite** -barren
RG444	**-silicified diorite** -manganiferous staining with local silicification
RG445	**-quartzite** -gossanous -sample may be float material but is angular thus probably local derivation -strong rusty staining
RG446	**-quartz vein in phyllitic quartzite** -moderate to weak Fe staining -roughly 10 cm in width
RG447	**-quartz vein in quartzite/meta-chert** -Fe staining -50% stockwork quartz veining 0.5 mm to 2 mm
RG448	**-quartz veinlets in quartzite/meta-chert** -20% stockwork quartz veining -some 10 to 30 cm thick oriented 028/90
RG449	**-phyllitic quartzite** -gossanous -moderate to strong Fe staining -poorly developed foliation -locally silicified

SAMPLE NO.	DESCRIPTION
RG450	**-phyllitic quartzite** -unaltered -5% 0.5 cm quartz veins
RG451	**-quartzite** -Fe staining throughout -leached -no visible sulphides -adjacent to outcrop of marble
RG452	**-granodiorite (?)** -intruding quartzite -dark grey to black -weakly foliated -weak Fe staining

Ridge Grid geology is plotted on Figure 21, with Figure 22 showing locations of samples sent for lithogeochemical and trace analysis.

3.3.4 Results of Lithogeochemical and Trace Element Analysis

Rock samples collected were representative of the outcrop from which they were taken. Samples coded with an RL- prefix were sent to Min-En Labs of North Vancouver for analysis for Ag, As, Ba, Cu, Pb, Sb, Zn, Au, Al_2O_3, BaT, CaO, Fe_2O_3, K_2O, MgO, MnO_2, Na_2O, P_2O_5, SiO_2, TiO_2, and S. Samples coded with an RG- prefix were sent for analysis for Cu, Pb, Zn, Ag, and Au. Sample locations and major oxide results are plotted on Figures 22 and 23. Analytical reports are contained within Appendix V. Statistical results are contained in Appendix XI. A summary of major oxide results and rock types are presented in the following table.

Table VII

RIDGE GRID 1989 MAJOR OXIDE RESULTS

SAMPLE NUMBER	ROCK TYPE	AL2O3 %	BAT %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT %	LOI %
RL197	QVN/QTZT	18.35	0.065	0.1	5.1	2.96	0.4	0.26	7.51	0.05	61.92	0.13	0.04	96.91	2
RL198	GDR	18.05	0.05	2.2	8.17	2.06	3.2	0.13	3.27	0.14	55.93	0.61	0.66	94.48	5.1
RL199	GDR	17.03	0.23	4.07	5.1	3.76	1.76	0.14	2.68	0.15	59.31	0.51	0.16	94.91	4.6
RL200	QUARTZIT	19.39	0.03	0.13	3.63	1.79	0.31	0.02	9.39	0.05	62.84	0.13	0.01	97.72	1.25
RL201	QUARTZIT	19.15	0.095	0.06	4.28	6.8	0.12	0.04	6.05	0.04	61.66	0.12	0.06	98.47	0.6
RL202	GDR	5.13	0.015	2.3	7.52	0.49	1.67	0.18	0.63	0.12	77.58	0.56	0.9	97.1	3
RL203	PHY/QTZ	18.92	0.33	0.24	5.3	2.21	1.36	0.08	7.91	0.07	60.31	0.35	0.22	97.3	1.9
RL204	SIL DIOR	14.09	0.085	4.85	10.54	3.26	7.19	0.29	3.14	0.25	51.68	1.05	0.04	96.48	2.5
RL205	SIL GDR	16.17	0.045	2.67	8.41	1.38	4.72	0.28	3.63	0.18	56.25	0.91	0.14	94.8	4.4
RL206	QUARTIZIT	10.35	0.03	1.72	6.48	0.82	2.51	0.22	2.29	0.12	71.69	0.79	0.19	97.2	2.1
RL207	GDR	17.92	0.085	4.17	5.67	2.13	2.19	0.16	3.14	0.17	60.4	0.43	0.3	96.74	2.5
RL208	GDR	15.79	0.06	6.47	10.55	2.35	6.05	0.22	2.65	0.28	49.89	1.07	0.66	96.04	3.7
RL209	DIORITE	17.8	0.13	3.56	5.78	2.67	2.37	0.3	4.57	0.15	57.32	0.49	0.08	95.21	3.8
RL210	GDR	13.48	0.07	5.99	9.37	2.43	4.2	0.31	0.96	0.24	56.86	1.87	0.12	95.9	3.5
RL211	DIORITE	16.4	0.065	4.99	5.93	1.88	2.49	0.16	2.82	0.17	60.81	0.49	0.15	96.36	2.7
RL212	PHYLLITE	8.96	0.06	0.32	7.04	2.01	2.61	0.15	0.06	0.11	73.58	0.81	0.02	95.73	3.2
RL213	DIORITE	15.97	0.085	3.32	3.57	3.53	1.03	0.14	3.45	0.11	63.8	0.36	0.02	95.4	4
RL214	DIORITE	16.74	0.065	2.83	3.42	3.36	0.92	0.08	2.82	0.11	64.07	0.31	0.08	94.82	4.3
RL215	QUARTZIT	17.95	0.12	0.39	4.42	6.08	0.36	0.14	5.7	0.06	62.48	0.13	0.03	97.87	1.15
RL216	DIORITE	16.9	0.085	0.7	5.34	3.69	1.48	0.08	2.82	0.09	64.22	0.43	0.02	95.87	3.4
RL217	DIORITE	12.15	0.045	7.1	11.24	1.75	5.98	0.34	1.91	0.29	53.19	1.9	0.66	96.57	3.1
RL218	DIORITE	12.8	0.065	9.23	11.31	2.16	4.86	0.4	1.03	0.3	49.93	2.45	1.42	95.97	4.4
RL219	PHYLLITE	10.31	0.005	3.04	31.28	0.01	1.45	6.64	1.55	0.32	39.95	0.39	3.5	98.42	4.1
RL220	MONZONIT	13.54	0.06	3.62	3.94	2.88	1.51	0.12	2.62	0.13	65.62	0.38	0.1	94.54	4.7
RL221	DIORITE	14.7	0.04	9	10.46	0.62	6.79	0.19	3.69	0.31	47.35	2.3	0.25	95.7	3.4
RL222	DIORITE	17.28	0.05	3.86	4.29	1.64	1.58	0.08	4.07	0.13	58.85	0.4	0.05	92.27	6.7
RL223	DIORITIE	19.2	0.06	0.52	5.2	2.34	0.37	0.14	8.61	0.07	61.68	0.15	0.03	98.37	0.55
RL224	GOSSAN	17.91	0.05	0.07	4.69	7.22	0.11	0.03	4.76	0.04	63.24	0.09	0.04	98.25	0.75
RL225	DIORITE	19.42	0.085	0.5	7.4	4.32	0.55	0.68	5.87	0.08	58.33	0.81	0.04	98.1	1.25

Both major and trace elements were analysed by ICP methods using a lithium borate fusion and aqua regia digestion. Au was analysed by fire assay with an AA finish.

The following table presents arithmetic and geometric summary statistics of trace element analyses for the following elements: Au, Ag, Cu, Pb, and Zn.

TABLE VII: ARITHMETRIC AND GEOMETRIC SUMMARY STATISTICS - RIDGE GRID ROCK SAMPLES

Variable	Au		Ag	
	Arith	Geom	Arith	Geom
N=82				
Minimum	1.000	0.000	0.100	-1.000
Maximum	230.000	2.362	4.600	0.633
Mean	8.317	0.595	0.518	-0.520
Std.Dev.	25.635	0.424	0.785	0.415

Variable	Cu		Pb		Zn	
	Arith	Geom	Arith	Geom	Arith	Geom
N=82						
Minimum	2.000	0.301	3.000	0.477	5.000	0.699
Maximum	216.000	2.334	101.000	2.004	176.000	2.246
Mean	39.549	1.411	21.232	1.222	57.890	1.615
Std.Dev.	38.610	0.425	16.511	0.303	42.170	0.401

Gold Distribution

Gold values approximate a lognormal distribution with a slight positive skew. For interpretive purposes a threshold value of 20 ppb Au has been chosen below which roughly 95% of the sample results occur.

Silver Distribution

Arithmetric statistics for Ag are positively skewed with a large percentage (96.34%) of the population falling below a value of 1.5 ppm Ag. Log transformation of the data does not yield a better understanding of the distribution of results. An arbitrary value of 1.5 ppm Ag was chosen as a threshold value.

Copper Distribution

With no transformation of data Ag results show a positively skewed distribution. Log transformation yields an approximately lognormal distribution. A threshold value of 100 ppm Cu was chosen.

Lead Distribution

Log transformation of the Pb data results in an approximately lognormal distribution. A value of 45 ppm Pb was chosen as threshold.

Zinc Distribution

Arithmetric statistics for Zn do not yield very useful information regarding the distribution of results. Log transformation results in a weak approximation of a lognormal distribution. A threshold value of 125 ppm Zn was chosen.

Trace element results are plotted on Figures 24 through 26 and summarised in Tables VIII, and IX.

As was the case for soil geochemistry no apparent correlation exists between Au and Ag distribution in rock geochemistry. Samples RL217 and -218, however have a weak correlation, RL217 containing 4.3 ppm Ag and 20 ppb Au, and RL218 with 4.6 ppm Ag and 15 ppb Au. These samples were taken from a gossanous diorite near its margins and in the proximity of a north-south trending fault zone.

An observation on Au response in soils indicates a relationship exists between higher Au values in soil and proximity to the margins of an intrusive body centred roughly on line 2+00E, 6+50N, and another intrusive in the northeastern corner of the grid. Rock samples taken from these areas do not yield anomalous results in Ag and Au. Two rock samples of skarnified phyllite,

Table VIII

SUMMARY OF RIDGE GRID 1989 TRACE ELEMENT RESULTS

LITHO-GEOCHEM ANALYSIS

SAMPLE NUMBER	LINE EAST	ROCK TYPE	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RL197	0+00	PHYL/QUARTZIT	0.1	1	125	25	23	1	117	5
RL198	1+00	GRANODIORITE	0.1	1	48	35	44	1	82	5
RL199	0+00	GRANODIORITE	0.1	1	260	6	30	1	60	5
RL200	1+00	QUARTZITE	0.1	30	36	75	12	1	39	5
RL201	1+00	QUARTZITE	0.1	13	61	19	4	1	112	230
RL202	1+00	GRANODIORITE	0.1	15	26	66	26	2	49	5
RL203	2+00	PHYL/QUARTZIT	0.1	1	145	32	21	3	121	10
RL204	2+00	SIL GRANODIORI	0.1	35	35	71	46	4	69	5
RL205	2+00	SIL GRANODIORI	0.1	1	59	19	54	1	128	5
RL206	2+00	QUARTZITE	0.1	17	53	35	42	1	89	5
RL207	2+00	GRANODIORITE	0.1	1	90	27	32	1	69	5
RL208	4+00	GRANODIORITE	0.1	9	84	83	39	1	63	5
RL209	5+00	DIORITE	0.1	1	159	50	37	1	77	5
RL210	3+00	GRANODIORITE	0.1	1	251	55	52	2	115	5
RL211	3+00	DIORITE	0.9	1	54	21	23	1	76	5
RL212	3+00	PHYLLITE	0.2	1	62	67	32	1	91	10
RL213	3+00	DIORITE	0.4	5	116	31	10	1	25	10
RL214	3+00	DIORITE DYKE	0.4	16	86	6	6	1	37	10
RL215	4+00	QUARTZITE	0.6	3	101	7	13	1	176	5
RL216	5+00	DIORITE SILL	0.6	16	103	87	101	1	36	5
RL217	5+00	DIORITE	4.3	1	41	76	40	5	74	20
RL218	5+00	DIORITE	4.6	13	116	128	41	6	68	15
RL219	5+00	PHYLLITE SKARN	0.1	1	23	216	80	11	114	15
RL220	5+00	QTZ MONZONITE	0.4	1	89	10	14	1	33	10
RL221	11+00	DIORITE	3.6	14	47	99	46	2	96	5
RL222	12+00	DIORITE	1.2	17	142	74	28	1	78	5
RL223	4+00	DIORITE	0.1	1	143	4	16	1	162	10
RL224	4+00	GOSSAN	0.1	14	24	17	10	1	66	40
RL225	4+00	DIORITE	0.1	5	103	15	27	1	165	5

Table IX

SUMMARY OF RIDGE GRID 1989 TRACE ELEMENT RESULTS

TRACE ELEMENT ANALYSIS

SAMPLE NUMBER	LINE EAST	ROCK TYPE	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG404	2+00	QVN/QUARTZITE	11	9	36	0.4	2
RG405	2+00	QVN/QUARTZITE	6	8	12	0.2	8
RG406	2+00	QVN/QUARTZITE	18	12	8	0.5	2
RG407	0+00	QVN/QUARTZITE	22	12	61	0.4	4
RG408	2+00	QVN/QUARTZITE	32	22	27	0.4	3
RG409	2+00	GOSSAN	86	14	48	0.6	2
RG410	2+00	QVN/QUARTZITE	48	15	42	0.3	1
RG411	4+00	QUARTZ VEIN	12	8	11	0.6	9
RG412	4+00	QVN/QUARTZITE	16	13	20	0.4	1
RG413	5+00	QTZTE/METACHE	8	8	7	0.4	1
RG414	0+00	QTZTE/METACHE	10	6	6	0.3	2
RG415	0+00	QUARTZ VEIN	14	12	45	0.5	3
RG416	0+00	QUARTZ VEIN	12	9	11	0.2	2
RG417	3+00	QUARTZ VEIN	4	6	8	0.3	1
RG418	3+00	QVN/QUARTZITE	11	9	14	0.6	3
RG419	4+00	QTZTE/METACHE	13	5	5	0.2	6
RG420		UNKNOWN	26	41	31	0.4	7
RG421	3+00	SIL PHYLLITE	37	19	88	0.4	2
RG422	3+00	SIL PHYLLITE	99	23	68	0.9	8
RG423	3+00	QUARTZ VEIN	23	7	21	0.4	2
RG424	4+00	QUARTZ VEIN	2	3	5	0.1	1
RG425	5+00	SIL QUARTZITE	36	10	12	0.3	1
RG426	5+00	GOSS PHYLLITE	54	24	57	0.9	2
RG427	5+00	GOSS PHYLLITE	60	29	48	1	4
RG428	5+00	PHYLLITE SKARN	174	32	99	1.3	9
RG429	6+00	QVN/QUARTZITE	21	20	37	0.3	8
RG430	7+00	QVN/QUARTZITE	19	11	14	0.2	1
RG431	7+00	PHYLLITE	14	24	137	0.4	2
RG432	7+00	QUARTZ VEIN	11	8	20	0.1	3
RG433	8+00	PHYL QUARTZIT	72	19	49	0.3	2
RG434	8+00	PHYLLITE	30	15	26	0.2	4
RG435	8+00	QVN/QUARTZITE	51	23	28	0.2	2
RG436	8+00	QVN/QUARTZITE	65	24	28	0.3	4
RG437	8+00	QUARTZ VEIN	17	10	10	0.1	2
RG438	8+00	QUARTZITE	51	18	50	0.2	4
RG439	8+00	QVN/PHYLLITE	62	11	26	0.1	1

Table IX, cont'd

SUMMARY OF RIDGE GRID 1989 TRACE ELEMENT RESULTS

TRACE ELEMENT ANALYSIS

SAMPLE NUMBER	LINE EAST	ROCK TYPE	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG440	9+00	QUARTZ VEIN	10	14	30	0.1	2
RG441	9+00	QUARTZ VEIN	15	9	15	0.1	1
RG442	4+00	QVN/QUARTZITE	16	14	84	0.3	40
RG443	4+00	QVN/QUARTZITE	26	18	85	0.4	10
RG444	5+00	DIORITE	19	21	21	0.5	2
RG445	9+00	QUARTZITE	48	12	105	0.6	1
RG446	9+00	QVN/QUARTZITE	16	23	75	1.1	8
RG447	9+00	QVN/METACHER	5	7	7	0.2	2
RG448	9+00	QVN/METACHER	5	6	11	0.5	1
RG449	9+00	PHYL QUARTZIT	36	20	63	0.9	2
RG450	10+00	PHYL QUARTZIT	44	23	106	1.3	1
RG451	10+00	QUARTZITE	22	9	65	0.9	1
RG452	10+00	GRANODIORITE	138	29	110	1.2	2

RL219 and RG428, taken from line 5+00E, 6+25N contained the best multi-elmental Cu, Pb, Zn results from samples collected. RL219 contained 216 ppm Cu, 80 ppm Pb, 114 ppm Zn and minor Au (15 ppb) while RG428 contained 174 ppm Cu, 32 ppm Pb, 99 ppm Zn and minor Au (9 ppb). These samples, along with RL217 and RL218, were taken near the flanks of an intrusive and proximal to the same north-south trending fault zone.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Reconnaissance Soil Sampling

The reconnaissance soil sampling program of the Richter I Group was effective in determining weakly anomalous zones on a regional scale that may warrant a more detailed follow-up program. Prospecting of some of these areas would be a useful method of evaluating their further potential. Further heavy mineral sampling of drainages in these areas is suggested to winnow less prospective targets. A continued program of connecting existing contour soil lines is suggested to improve reconnaissance coverage of the group.

Reed Lake Soil Sampling

Soil sampling of the Reed Lake Grid resulted in the possible delineation of a weak north-south trending Au, Ag anomaly. This pattern may suggest a structure present in the area. A weak to moderately strong zone of multielemental response occurs in the southeastern quadrant of the grid. The response consists primarily of As, Pb, and Zn with minor elevated levels of Cu, Ag, Au, and As. Other smaller anomalous zones occur on the grid as well.

Follow-up rock sampling and geological mapping is suggested to determine the source of soil geochemical anomalies. A VLF-Resistivity survey should be considered to aid in outlining silicified zones. A geophysical survey of this type, however, must address problems arising from the ubiquitous presence of quartzite

in this area.

Ridge Grid Soil Sampling and Geological Mapping

Soil sampling of the Ridge Grid area was not as encouraging as for the Reed Lake area. No distinctly anomalous linear trends were obvious from the results obtained. A weak three line linear trend in elevated Au values was observed. An area in the southeastern corner of the grid displays elevated multielemental responses.

Correlating soil geochemistry with geologic mapping reveals a relation between elevated trace element results, and proximity to the flanks of dykes and sills covered by the grid. These responses, too, may be enhanced in areas of major structures cross cutting the intrusions. Only one highly anomalous Au value (230 ppb Au) was obtained from rock samples taken from the Ridge Grid area. Further exploration should be concentrated away from this area and towards areas not yet adequately prospected and sampled.

5.0 REFERENCES

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Holland, S.S. Land Forms of British Columbia, A Physiographic Outline, British Columbia Department of Mines and Petroleum Resources, Bulletin No. 48, 1964.

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Okulitch, A.V. Geology of Mount Kobau, unpublished PhD Thesis, University of British Columbia, 1969a.

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APPENDIX I

STATEMENT OF COSTS

STATEMENT OF COSTS

Geology

Nick Gibson	- geologist	9 days @ $300 per	= $ 2700
Rory MacIntosh	- geologist	9 days @ $300 per	= $ 2700
Kevin Lee	- assistant	5 days @ $150 per	= $ 750
Jim Foffonoff	- assistant	6 days @ $150 per	= $ 900

Geochemistry

Min-En Laboratories, North Vancouver, B.C.

29 litho samples	@ $30.00 per	= $ 870
49 trace samples	@ $15.00 per	= $ 735
1211 grid soil samples	@ $13.00 per	= $ 15743
235 recon soil samples	@ $13.00 per	= $ 3055
Freight		= $ 350

Linecutting

33.50 km @ $ 440 per = $ 14740

Truck Rental and Fuel

10 days @ $ 65 per = $ 650

Food and Accomodation

29 mandays @ $ 25 per = $ 1450

Drafting

2 mandays @ $ 300 per = $ 600

Report Preparation

6 mandays @ $ 300 per **= $ 1800**

TOTAL EXPENDITURES = $ 47043

APPENDIX II

RECONNAISSANCE SOIL SAMPLING RESULTS

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NORTH VANCOUVER, B.C. CANADA V7M 1T2
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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

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9V-1134-SG1

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-23-89
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2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
TCS1515-26	65	30	152	1.2	5	9
TCS1515-27	79	21	146	0.9	5	27
TCS1515-28	106	24	160	0.8	5	15
TCS1515-29	81	23	137	0.9	5	15
TCS1515-30	75	22	124	0.7	5	10
TCS1515-31	112	16	162	0.9	5	12
TCS1515-32	45	18	161	0.6	5	14
TCS1515-33	41	15	131	0.5	5	18
TCS1515-34	31	17	128	0.4	5	8
TCS1515-35	29	19	118	0.6	5	7
TCS1515-36	42	13	106	0.9	5	10
TCS1515-37	54	20	109	1.0	5	15
TCS1515-38	39	22	123	0.8	5	17
TCS1575-22	61	21	130	1.2	5	15
TCS1575-23	49	20	120	1.0	5	17
TCS1575-24	61	14	128	0.8	5	15
TCS1575-25	66	19	110	0.7	5	18
TCS1575-26	40	16	128	0.9	10	16
TCS1575-27	57	23	100	0.9	5	14
TCS1575-28	56	25	172	1.0	5	6
TCS1575-29	42	21	152	0.6	5	13
TCS1575-30	59	19	144	0.7	5	12
TCS1575-31	32	12	96	0.5	5	12
TCS1575-32	30	19	129	0.9	5	15
TCS1575-33	25	21	120	0.8	5	9
TCS1575-34	32	18	140	1.0	5	10
TCS1575-35	37	26	136	0.9	5	8
RRS4900-02	45	16	80	0.6	5	6
RRS4900-09	49	34	290	0.8	5	10
RRS4900-10	58	33	134	1.0	5	15

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TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

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Company: MINNOVA INC.
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Attn: I.PIRIE/G.EVANS

Date: SEP-23-89
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He hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
RRS4900-11	61	32	112	0.8	5	15
RRS4900-12	62	26	121	0.8	5	10
RRS4900-13	72	27	114	0.7	5	16
RRS4900-14	51	29	112	0.5	5	8
RRS4900-15	42	23	108	0.5	5	7
RRS4900-16	30	17	102	0.4	5	4
RRS4900-17	24	16	96	0.5	5	4
RRS4900-18	26	18	112	0.6	5	6
RRS4900-19	33	14	108	0.5	5	5
RRS4900-20	33	14	117	0.6	5	5
RRS4900-21	25	11	97	0.7	5	4
RRS4900-22	38	15	88	0.5	5	7
RRS4900-23	35	12	80	0.8	5	4
RRS4900-24	25	10	66	0.4	5	6
RRS4900-25	26	15	106	0.7	5	4
RRS4900-26	32	14	89	0.6	5	5
RRS4900-27	31	13	80	0.7	5	8
RRS4900-28	29	9	72	0.5	5	5
RRS4900-29	35	19	54	0.4	5	7
RRS4900-30	27	20	68	0.6	5	3
RRS4900-31	31	14	67	0.7	5	9
RRS4900-32	33	16	88	1.0	10	7
RRS4900-33	43	19	144	1.0	5	12
RRS4900-34	52	15	94	0.8	5	7
RRS4900-35	51	14	116	0.9	5	6
RRS4900-36	52	10	95	0.8	5	7
RRS4900-37	40	14	126	1.0	5	9
RRS4900-38	36	11	92	0.9	5	11
RRS4900-39	52	16	100	1.0	5	8
RRS4900-40	39	13	88	0.9	5	9

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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

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Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-23-89
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2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
RRS5100-0+00N	57	22	84	0.5	5	7
RRS5100-1+00N	55	21	104	0.5	5	6
RRS5100-2+00N	60	20	96	0.6	10	7
RRS5100-3+00N	65	24	99	0.8	5	8
RRS5100-4+00N	57	16	104	0.5	5	6
RRS5100-5+00N	55	16	150	0.6	5	5
RRS5100-6+00N	62	20	104	0.5	5	10
RRS5100-7+00N	52	18	100	0.7	5	6
RRS5100-8+00N	32	8	107	0.3	5	3
RRS5100-9+00N	41	7	88	0.5	5	3
RRS5100-10+00N	45	9	99	0.6	10	6
RRS5100-11+00N	52	14	100	0.7	5	8
RRS5100-12+00N	43	17	108	0.5	5	11
RRS5100-13+00N	33	16	130	0.4	5	8
RRS5100-14+00N	23	10	97	0.3	5	5
RRS5100-15+00N	39	15	82	0.3	5	6
RRS5100-16+00N	26	14	96	0.2	10	5
RRS5100-17+00N	34	16	84	0.8	5	3
RRS5100-18+00N	34	12	88	0.9	5	6
RRS5100-19+00N	36	10	78	0.5	5	4
RRS5100-20+00N	46	14	94	0.7	10	4
RRS5100-21+00N	30	19	104	0.9	5	2
RRS5100-22+00N	31	17	99	0.5	5	3
RRS5100-23+00N	29	20	85	0.2	5	5
RRS5100-24+00N	20	18	81	0.7	5	3
RRS5100-25+00N	34	15	71	0.6	5	10
RRS5100-26+00N	20	13	69	0.3	5	1
RRS5100-27+00N	28	19	81	0.4	5	4
RRS5100-28+00N	98	19	62	0.9	5	3
RRS5100-29+00N	29	16	69	0.3	5	5

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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

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9V-1134-SG4

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-23-89
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2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
RRS5100-30+00N	35	19	84	1.0	5	8
RRS5100-31+00N	26	18	111	0.7	5	6
RRS5100-32+00N	36	20	92	0.9	10	7
RRS5100-33+00N	33	21	88	0.8	5	7
RRS5100-34+00N	30	16	69	0.9	5	9
RRS5100-35+00N	34	22	100	1.0	5	6
RRS5100-36+00N	34	15	102	1.0	10	11
RRS5100-37+00N	33	10	60	0.9	5	9
RRS5100-38+00N	27	13	84	0.9	5	4
RRS5100-39+00N	58	16	111	1.0	5	9
RRS5100-40+00N	49	13	92	1.1	5	10
RHT4800-0+00M	69	18	129	1.2	5	7
RHT4800-1+00M	59	20	109	1.0	5	6
RHT4800-2+00M	60	11	92	0.8	5	8
RHT4800-3+00M	71	16	129	1.1	5	13
RHT4800-4+00M	63	17	104	1.2	5	8
RHT4800-5+00M	60	15	103	0.9	5	7
RHT4800-6+00M	41	10	114	0.7	5	6
RHT4800-7+00M	30	9	78	0.9	5	6
RHT4800-8+00M	58	19	122	1.0	5	9
RHT4800-9+00M	64	15	108	1.2	5	12
RHT4800-10+00M	65	17	102	1.3	5	8
RHT4800-11+00M	100	32	330	1.2	5	14
RHT4800-12+00M	54	16	114	1.0	10	8
RHT4800-13+00M	98	32	147	1.1	5	11
RHT4800-14+00M	76	21	146	1.3	5	12
RHT4800-15+00M	61	23	150	1.2	10	20
RHT4800-16+00M	59	21	103	1.0	5	8
RHT4800-17+00M	72	31	106	1.2	55	10
RHT4800-18+00M	42	25	112	1.1	5	8

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TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

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9V-1134-SG5

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-24-89
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He hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
RHT4800-19+00M	82	23	99	0.6	5	12
RHT4800-20+00M	70	25	93	0.9	20	20
RHT4800-21+00M	68	19	100	0.8	10	10
RHT4800-22+00M	50	24	114	0.7	35	13
RHT4800-23+00M	51	22	102	0.4	5	15
RHT4800-24+00M	66	24	103	0.6	5	16
RHT4800-25+00M	59	23	118	0.6	5	12
RHT4800-26+00M	73	19	300	0.7	10	9
RHT4800-27+00M	126	22	178	0.6	5	10
RHT4800-28+00M	52	20	88	0.5	10	8
RHT5000-0+00S	110	18	152	1.4	5	12
RHT5000-1+00S	79	17	100	0.9	5	14
RHT5000-2+00S	77	17	108	0.9	10	21
RHT5000-3+00S	69	18	98	0.8	10	13
RHT5000-4+00S	75	16	90	0.3	10	12
RHT5000-5+00S	61	17	92	0.5	5	35
RHT5000-6+00S	48	16	100	0.6	5	11
RHT5000-7+00S	39	11	98	0.5	5	23
RHT5000-8+00S	44	17	102	0.6	10	13
RHT5000-9+00S	63	18	104	0.7	5	12
RHT5000-10+00S	72	20	101	0.8	30	16
RHT5000-11+00S	97	25	132	1.0	5	14
RHT5000-12+00S	74	19	89	0.9	5	12
RHT5000-13+00S	62	21	102	0.7	5	13
RHT5000-14+00S	51	14	88	0.6	5	7
RHT5000-15+00S	103	27	138	0.9	20	18
RHT5000-16+00S	67	20	98	0.6	35	12
RHT5000-17+00S	68	21	118	0.7	40	12
RHT5000-18+00S	57	20	94	0.5	10	6
RHT5000-19+00S	82	13	122	0.9	5	14

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LABORATORIES

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-1134-SG6

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-24-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Geochemical Analysis of 30 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
RHT5000-20+00S	63	27	117	0.7	5	27
RHT5000-21+00S	62	23	104	0.3	5	25
RHT5000-22+00S	73	13	97	0.5	5	27
RHT5000-23+00S	58	15	90	0.7	5	22
RHT5000-24+00S	80	12	147	1.0	5	20
RHT5000-25+00S	72	10	134	0.7	10	15
RHT5000-26+00S	77	12	170	1.0	5	17
RHT5000-27+00S	75	10	134	0.3	5	18
RHT5000-28+00S	67	13	150	0.5	5	25
RHT5000-29+00S	48	17	154	0.7	5	13
RHT5000-30+00S	52	13	137	1.0	5	28
RHT5000-31+00S	53	8	134	1.0	5	15
RHT5000-32+00S	63	13	109	0.8	5	23
RHT5000-33+00S	55	15	84	0.7	5	17
RHT5000-34+00S	30	8	57	0.3	5	20
RHT5000-35+00S	35	12	104	0.8	5	18
RHT5000-36+00S	87	23	134	1.3	5	28
RHT5000-37+00S	47	10	97	0.3	5	8
RHT5000-38+00S	57	17	134	0.5	5	17
RHT5000-39+00S	47	22	100	0.7	5	18
RHT5000-40+00S	35	18	120	1.0	5	17
RHT5000-41+00S	67	12	104	0.2	10	12
RHT5000-42+00S	109	15	184	0.7	5	15
RHT5000-43+00S	57	13	134	0.5	5	13
L4800-01	89	27	170	0.7	5	23
L4800-02	90	28	134	0.5	5	27
L4800-03	30	20	80	0.3	5	15
L4800-04	82	33	184	0.8	5	20
L4800-05	45	8	110	0.5	5	12
L4800-06	58	22	130	0.7	5	15

Certified by _____

MIN-EN LABORATORIES

MIN
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LABORATORIES [redacted].

SPECIALISTS IN MINERAL ENVIRONMENTS
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Geochemical Analysis Certificate

9V-1134-SG7

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/G.EVANS

Date: SEP-23-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 9 SOIL samples submitted SEP-14-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-WET PPB	AS PPM
L4800-07	52	20	100	1.4	5	175
L4800-08	44	22	178	1.3	5	98
L4800-09	42	19	110	0.9	10	26
L4800-10	43	15	107	1.0	5	17
L4800-11	85	32	121	1.2	5	17
L4800-12	51	69	280	1.0	10	30
L4800-13	136	30	120	1.2	5	24
L4800-14	82	39	138	8.0	10	29
RRS510041+00N	26	17	77	1.0	10	13

Certified by [signature]

MIN-EN LABORATORIES

COMP: MINNOVA INC.
PROJ: 656
ATTN: I.PIRIE/N.GIBSON/G.EVANS

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1086-SJ1+2
DATE: SEP-19-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RTS10+00N04+25W	.8	1	79	32	1	155	10
RTS10+00N04+50W	.9	1	75	41	1	108	5
RTS10+00N04+75W	.8	1	72	40	1	100	5
RTS10+00N05+00W	.7	1	35	19	1	89	5
RTS10+00N05+25W	.5	1	58	33	1	133	5
RTS10+00N05+50W	.8	1	48	29	1	99	10
RTS10+00N05+75W	.6	1	41	17	1	72	5
RTS10+00N06+00W	.8	1	26	13	1	61	5
RTS10+00N06+25W	.6	1	23	7	1	68	5
RTS10+00N06+50W	.8	1	26	3	1	88	5
RTS10+00N06+75W	.7	1	27	8	1	124	5
RTS10+00N07+00W	.4	1	38	16	1	107	5
RTS10+00N07+25W	.8	3	61	30	1	100	5
RTS10+00N07+50W	1.0	1	71	35	1	111	5
RTS10+00N07+75W	.9	11	55	50	1	120	5
RTS10+00N08+00W	.4	1	44	36	1	93	5
RTS10+00N08+25W	.5	1	54	23	1	97	5
RTS10+00N08+50W	.8	1	55	32	1	91	70
RTS10+00N08+75W	1.2	1	67	29	1	101	5
RTS10+00N09+00W	1.6	1	72	41	1	136	10
RTS10+00N09+25W	1.4	1	75	33	1	146	5
RTS10+00N09+50W	1.0	1	53	27	1	88	5
RTS10+00N09+75W	.9	1	58	27	1	97	5
RTS10+00N10+00W	.9	1	55	23	1	97	5
RTS05+00N05+00W	.7	1	68	37	1	101	5
RTS05+00N05+25W	.7	1	67	27	1	95	5
RTS05+00N05+50W	.7	1	53	35	1	85	5
RTS05+00N05+75W	.8	1	76	40	1	108	5
RTS05+00N06+00W	.5	1	54	36	1	96	5
RTS05+00N06+25W	1.1	1	75	41	1	106	5
RTS05+00N06+50W	.8	1	49	30	1	93	5
RTS05+00N06+75W	.9	1	66	42	1	104	5
RTS05+00N07+00W	1.0	1	68	38	1	108	5
RTS05+00N07+25W	1.0	1	52	35	1	91	5
RTS05+00N07+50W	.9	1	63	35	1	99	5
RTS05+00N07+75W	.5	1	43	27	1	109	5
RTS05+00N08+00W	1.1	1	59	32	1	133	5
RTS05+00N08+25W	1.0	1	70	39	2	155	5
RTS05+00N08+50W	.8	1	58	28	1	130	5
RTS05+00N08+75W	.8	1	59	23	1	130	5
RTS05+00N09+00W	.7	1	71	36	1	116	5
RTS05+00N09+25W	.9	1	63	32	1	108	5
RTS05+00N09+50W	.7	1	47	32	1	93	5
RTS05+00N09+75W	1.4	1	53	32	1	92	5
RTS05+00N10+00W	1.1	1	64	36	1	110	5
TCS157501	.5	1	35	23	1	71	5
TCS157502	.7	1	42	21	1	127	5
TCS157503	.6	1	32	12	1	128	15
TCS157504	.7	1	36	22	1	84	5
TCS157505	.9	1	35	12	1	92	5
TCS157506	.5	1	22	14	1	129	30
TCS157507	.7	1	32	19	1	106	5
TCS157508	.9	1	46	28	1	99	5
TCS157509	.7	1	56	23	1	159	5
TCS157510	.9	1	79	27	1	123	60
TCS157511	1.3	1	74	32	1	142	5
TCS157512	.5	1	33	18	1	81	5
TCS157513	1.6	1	59	28	1	131	5
TCS157514	1.0	1	28	26	1	115	5
TCS157515	1.2	1	35	20	1	119	5

COMP: MINNOVA INC.
PROJ: 656
ATTN: I.PIRIE/N.GIBSON/G.EVANS

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1086-SJ3+4
DATE: SEP-19-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
TCS157516	.8	18	44	31	1	127	5
TCS157517	.8	3	52	30	1	144	5
TCS157518	1.0	4	93	33	1	144	5
TCS157519	1.0	1	66	25	1	136	5
TCS157520	.9	73	69	32	1	136	5
TCS157521	1.0	1	102	32	1	165	5
TCS151501	1.0	7	37	20	1	84	5
TCS151502	.9	4	50	34	1	126	5
TCS151503	.7	10	43	14	1	99	5
TCS151504	.9	1	46	10	1	123	5
TCS151505	1.0	14	70	29	1	114	5
TCS151506	.5	15	66	28	1	114	5
TCS151507	.6	4	53	26	1	99	5
TCS151508	.8	3	67	29	1	101	5
TCS151509	.8	2	69	30	1	104	5
TCS151510	1.1	12	70	26	1	114	5
TCS151511	.9	1	67	31	1	126	5
TCS151512	.6	19	65	31	1	125	10
TCS151513	1.2	31	34	17	4	60	5
TCS151514	1.5	12	55	36	3	123	5
TCS151515	1.3	2	117	40	1	131	5
TCS151516	.8	30	58	24	1	152	5
TCS151517	1.0	11	62	23	1	118	5
TCS151518	1.2	19	62	29	1	140	5
TCS151519	1.6	21	84	32	1	107	5
TCS151520	1.2	25	66	22	1	115	5
TCS151521	1.0	13	55	20	1	137	5
TCS151522	1.0	14	66	19	1	135	5
TCS151523	1.1	2	88	24	1	142	5
TCS151524	1.1	141	87	27	1	129	5
TCS151525	1.1	1	92	30	1	136	5

APPENDIX III

REED LAKE GRID SOIL SAMPLE RESULTS

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ1+2
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L0+00N0+00E	.4	1	127	52	36	1	102	5
L0+00N0+25E	.7	1	134	44	23	1	90	10
L0+00N0+50E	.7	1	146	45	27	1	95	5
L0+00N0+75E	.2	1	157	34	16	1	83	5
L0+00N1+00E	.2	1	159	30	12	1	88	5
L0+00N1+25E	.7	1	135	39	16	1	83	5
L0+00N1+50E	.7	2	128	50	28	1	80	5
L0+00N1+75E	.6	4	127	64	32	1	86	5
L0+00N2+00E	.4	21	117	70	39	1	108	5
L0+00N2+25E	.5	14	140	56	26	1	101	5
L0+00N2+50E	.7	1	129	61	30	3	92	10
L0+00N2+75E	.8	13	128	64	40	1	91	5
L0+00N3+00E	.7	23	123	65	35	2	93	5
L0+00N3+25E	.5	14	121	52	25	1	85	5
L0+00N3+50E	.8	14	106	44	20	1	79	5
L0+00N3+75E	1.5	1	171	39	16	1	106	10
L0+00N4+00E	.9	1	151	40	23	1	105	5
L0+00N4+25E	1.3	17	139	47	26	1	99	5
L0+00N4+50E	1.0	1	170	37	24	1	113	5
L0+00N4+75E	.9	1	134	27	13	1	90	5
L0+00N5+00E	1.1	2	144	27	18	1	75	5
L0+00N5+25E	1.1	21	173	38	23	1	90	5
L0+00N5+50E	1.1	12	194	40	21	1	100	5
L0+00N5+75E	1.4	14	197	53	33	1	106	5
L0+00N6+00E	.8	13	159	39	20	1	103	5
L0+00N6+25E	1.3	21	144	38	27	1	106	5
L0+00N6+50E	.8	1	176	41	26	1	99	5
L0+00N6+75E	.8	11	161	56	40	1	97	5
L0+00N7+00E	1.0	12	165	68	46	2	127	5
L0+00N7+25E	.4	2	168	64	26	1	112	5
L0+00N7+50E	.3	12	171	71	35	1	101	5
L0+00N7+75E	.6	14	148	82	51	1	118	65
L0+00N8+00E	.8	17	158	75	31	1	117	5
L0+00N8+25E	.5	19	188	82	41	1	114	5
L0+00N8+50E	.8	30	182	92	52	1	113	5
L0+00N8+75E	.9	23	180	81	43	2	119	5
L0+00N9+00E	1.0	25	171	62	39	2	109	5
L0+00N9+25E	.9	14	240	58	33	1	127	5
L0+00N9+50E	.9	3	380	50	23	1	150	5
L0+00N9+75E	1.3	15	194	39	24	1	107	5
L0+00N10+00E	.9	29	161	43	33	1	105	5
L0+00N10+25E	.7	5	164	43	22	1	104	5
L0+00N10+50E	.4	1	197	34	21	1	111	5
L0+00N10+75E	.7	32	132	108	41	1	143	10
L0+00N11+00E	.4	20	163	84	41	1	150	5
L0+00N11+25E	.1	19	154	72	41	1	167	5
L0+00N11+50E	.1	1	211	72	30	1	155	5
L0+00N11+75E	.8	12	185	70	35	1	128	5
L0+00N12+00E	1.2	29	147	62	38	1	124	10
L1+00N0+00E	1.3	6	148	44	27	1	97	5
L1+00N0+25E	.8	13	139	55	23	1	100	5
L1+00N0+50E	1.4	1	133	35	21	1	77	5
L1+00N0+75E	.2	1	156	42	38	1	99	5
L1+00N1+00E	.5	1	163	36	21	1	90	5
L1+00N1+25E	.3	1	141	41	21	1	85	5
L1+00N1+50E	.5	3	149	42	20	1	89	5
L1+00N1+75E	.2	1	169	57	34	1	96	5
L1+00N2+00E	.2	1	166	60	23	1	87	5
L1+00N2+25E	.2	12	137	73	27	1	90	5
L1+00N2+50E	.7	14	134	73	35	2	101	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ3+4
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L1+00N2+75E	.2	8	125	63	29	1	110	5
L1+00N3+00E	.2	1	94	41	29	1	90	10
L1+00N3+25E	.4	4	118	42	24	1	104	10
L1+00N3+50E	.6	1	128	46	35	1	115	5
L1+00N3+75E	.2	20	162	52	30	1	99	5
L1+00N4+00E	.6	23	125	58	44	2	94	5
L1+00N4+25E	.2	6	121	35	16	1	80	5
L1+00N4+50E	1.0	10	191	46	20	1	124	10
L1+00N4+75E	1.0	8	190	33	27	1	108	5
L1+00N5+00E	1.2	1	165	40	33	1	105	5
L1+00N5+25E	1.1	20	147	37	23	1	104	5
L1+00N5+50E	1.0	43	156	35	37	1	95	5
L1+00N5+75E	.7	4	174	28	22	1	124	10
L1+00N6+00E	.8	5	154	36	23	1	118	5
L1+00N6+25E	1.0	21	152	43	23	1	115	5
L1+00N6+50E	.7	23	155	38	28	1	105	5
L1+00N6+75E	1.0	18	142	76	41	3	123	5
L1+00N7+00E	.9	38	175	85	53	3	133	10
L1+00N7+25E	.5	35	168	78	59	2	144	5
L1+00N7+50E	1.2	21	196	96	49	1	118	5
L1+00N7+75E	.4	12	177	73	40	1	122	5
L1+00N8+00E	1.0	26	149	74	44	1	125	5
L1+00N8+25E	1.3	31	155	68	48	2	118	10
L1+00N8+50E	1.1	41	163	60	42	1	119	5
L1+00N8+75E	.4	26	204	57	37	2	121	5
L1+00N9+00E	.9	13	185	68	51	1	136	5
L1+00N9+25E	.5	24	215	64	47	1	138	10
L1+00N9+50E	.8	17	208	74	52	2	123	5
L1+00N9+75E	.7	54	216	68	53	6	125	5
L1+00N10+00E	.5	8	160	66	29	1	98	5
L1+00N10+25E	.7	14	281	37	21	1	149	5
L1+00N10+50E	.6	26	126	44	13	1	147	10
L1+00N10+75E	1.6	46	117	144	39	1	165	10
L1+00N11+00E	.2	9	141	71	22	1	144	5
L1+00N11+25E	.3	21	191	74	54	1	149	5
L1+00N11+50E	1.2	18	205	95	47	1	156	5
L1+00N11+75E	1.2	36	189	100	42	1	144	10
L1+00N12+00E	.7	12	269	72	41	1	144	5
L2+00N0+00E	1.3	15	124	53	26	1	101	5
L2+00N0+25E	.7	16	142	53	33	1	102	10
L2+00N0+50E	1.0	6	112	44	27	1	108	5
L2+00N0+75E	1.3	40	152	63	42	2	112	5
L2+00N1+00E	.5	21	151	51	24	1	93	5
L2+00N1+25E	.5	1	133	37	18	1	81	5
L2+00N1+50E	.5	13	136	40	20	1	86	10
L2+00N1+75E	.7	14	142	46	21	2	96	5
L2+00N2+00E	.4	5	151	36	21	1	93	5
L2+00N2+25E	.4	1	146	42	26	1	93	20
L2+00N2+50E	.2	1	143	32	19	1	82	5
L2+00N2+75E	.5	1	151	37	23	1	83	10
L2+00N3+00E	.4	1	170	42	19	1	92	5
L2+00N3+25E	.3	4	170	41	22	1	88	5
L2+00N3+50E	.4	14	161	52	25	1	89	5
L2+00N3+75E	.7	24	145	63	38	2	98	5
L2+00N4+00E	.6	31	144	65	39	1	106	5
L2+00N4+25E	1.0	37	177	67	37	1	123	10
L2+00N4+50E	.8	20	212	55	31	1	126	5
L2+00N4+75E	.6	16	182	39	21	1	112	5
L2+00N5+00E	1.2	7	123	50	43	1	112	5
L2+00N5+25E	.7	25	114	35	24	1	91	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ5+6
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L2+00N5+50E	.1	40	102	35	45	2	77	5
L2+00N5+75E	.3	13	137	27	18	1	90	10
L2+00N6+00E	.5	15	135	47	28	1	99	5
L2+00N6+25E	.9	27	135	58	41	1	106	5
L2+00N6+50E	.3	9	193	40	21	1	137	5
L2+00N6+75E	.4	23	155	90	43	1	129	5
L2+00N7+00E	.4	36	164	81	44	3	129	10
L2+00N7+25E	.7	19	131	44	31	1	105	5
L2+00N7+50E	.6	17	199	42	31	1	100	5
L2+00N7+75E	2.1	41	151	56	45	1	120	5
L2+00N8+00E	1.0	9	227	51	29	1	117	5
L2+00N8+25E	1.0	26	246	70	36	1	119	5
L2+00N8+50E	.6	33	166	60	34	1	118	10
L2+00N8+75E	.7	20	208	57	37	1	164	10
L2+00N9+00E	.5	29	311	68	61	1	174	5
L2+00N9+25E	.7	21	242	46	31	1	128	5
L2+00N9+50E	1.5	27	245	62	43	1	131	5
L2+00N9+75E	.7	24	186	49	42	1	108	5
L2+00N10+00E	.8	25	174	41	27	1	127	5
L2+00N10+25E	.9	31	177	52	30	1	114	50
L2+00N10+50E	.4	23	130	71	32	1	152	5
L2+00N10+75E	.4	4	137	48	28	1	218	5
L2+00N11+00E	.1	55	175	78	66	3	145	20
L2+00N11+25E	.6	35	256	71	54	1	150	10
L2+00N11+50E	.4	9	218	69	46	1	135	5
L2+00N11+75E	2.5	39	199	84	56	2	159	5
L2+00N12+00E	1.1	21	213	67	30	1	130	5
L3+00N0+00E	.9	23	82	38	28	1	87	5
L3+00N0+25E	.5	1	84	51	17	1	102	10
L3+00N0+50E	.4	1	144	45	30	1	92	5
L3+00N0+75E	.1	7	154	31	13	1	79	5
L3+00N1+00E	.3	1	131	42	22	1	86	5
L3+00N1+25E	.4	19	137	56	20	1	99	5
L3+00N1+50E	.6	15	113	85	33	1	101	5
L3+00N1+75E	.2	12	130	46	20	1	130	5
L3+00N2+00E	.5	11	132	42	13	1	98	5
L3+00N2+25E	.3	1	122	41	15	1	79	10
L3+00N2+50E	.2	10	159	36	15	1	87	5
L3+00N2+75E	.4	7	171	36	25	1	96	10
L3+00N3+00E	.3	9	157	45	28	1	98	5
L3+00N3+25E	.4	1	185	50	21	1	94	5
L3+00N3+50E	.5	11	169	65	23	1	97	10
L3+00N3+75E	.6	23	166	57	23	1	97	5
L3+00N4+00E	.8	26	149	61	42	1	106	5
L3+00N4+25E	1.1	34	209	70	48	1	135	5
L3+00N4+50E	1.1	24	119	38	29	1	119	5
L3+00N4+75E	1.0	9	131	25	16	1	111	5
L3+00N5+00E	1.3	13	254	28	23	1	148	5
L3+00N5+25E	1.0	1	129	27	20	1	113	20
L3+00N5+50E	.9	28	125	62	39	1	108	15
L3+00N5+75E	.7	28	145	64	43	1	106	10
L3+00N6+00E	.6	20	151	59	48	1	114	20
L3+00N6+25E	.7	25	192	83	47	1	126	5
L3+00N6+50E	.6	33	172	51	36	2	101	5
L3+00N6+75E	.9	41	145	71	42	3	110	15
L3+00N7+00E	.8	22	191	41	33	1	109	5
L3+00N7+25E	.8	51	171	66	41	1	113	5
L3+00N7+50E	1.1	23	182	64	49	2	137	5
L3+00N7+75E	1.0	28	180	45	32	1	100	5
L3+00N8+00E	1.0	22	161	42	26	1	111	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ7+8
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L3+00N8+25E	.6	1	159	50	28	1	109	5
L3+00N8+50E	.6	1	124	36	24	1	100	5
L3+00N8+75E	.9	5	210	33	10	1	126	5
L3+00N9+00E	1.1	1	237	27	16	1	135	5
L3+00N9+25E	.9	6	203	38	40	1	121	5
L3+00N9+50E	.6	18	80	44	24	2	119	10
L3+00N9+75E	.6	1	122	47	15	1	107	5
L3+00N10+00E	.3	1	200	45	29	1	182	5
L3+00N10+25E	.5	1	207	42	20	1	127	10
L3+00N10+50E	1.4	6	173	58	49	1	134	10
L3+00N10+75E	1.4	8	188	67	32	1	134	5
L3+00N11+00E	1.3	20	206	76	42	1	156	15
L3+00N11+25E	1.5	6	202	70	43	1	154	5
L3+00N11+50E	1.8	7	253	62	38	1	163	10
L3+00N11+75E	1.4	16	443	107	45	1	195	5
L3+00N12+00E	1.4	1	212	52	27	1	117	5
L4+00N0+00E	.3	10	140	52	25	1	101	5
L4+00N0+25E	.2	1	163	40	20	1	90	5
L4+00N0+50E	.6	1	108	36	24	1	89	5
L4+00N0+75E	.4	5	135	61	36	1	110	5
L4+00N1+00E	.4	5	128	59	32	1	97	10
L4+00N1+25E	.2	1	140	40	19	1	94	5
L4+00N1+50E	.5	17	128	57	25	1	94	10
L4+00N1+75E	.3	1	131	61	32	1	97	5
L4+00N2+00E	.5	22	119	64	29	2	94	10
L4+00N2+25E	.3	6	119	52	29	1	102	5
L4+00N2+50E	.6	13	136	58	32	1	107	5
L4+00N2+75E	.6	6	171	44	25	1	100	5
L4+00N3+00E	.4	13	168	37	14	1	91	5
L4+00N3+25E	.4	1	144	56	34	1	104	5
L4+00N3+50E	.1	1	140	35	13	1	93	5
L4+00N4+00E	.4	1	168	101	42	1	140	15
L4+00N4+25E	.3	1	280	70	42	1	148	5
L4+00N4+50E	.4	1	213	66	26	1	125	5
L4+00N4+75E	.7	1	106	19	1	1	39	5
L4+00N5+00E	.9	1	173	28	8	1	54	5
L4+00N5+25E	.8	1	90	31	22	1	109	5
L4+00N5+50E	.7	11	148	44	22	1	97	5
L4+00N5+75E	.7	2	128	55	33	1	97	5
L4+00N6+00E	.5	11	160	48	27	1	93	5
L4+00N6+25E	.7	18	133	75	44	3	111	5
L4+00N6+50E	.8	11	149	70	41	1	114	5
L4+00N6+75E	.8	15	169	55	33	1	105	5
L4+00N7+00E	.7	3	153	53	35	2	109	5
L4+00N7+25E	.9	22	161	59	35	1	108	5
L4+00N7+50E	1.1	13	148	62	35	1	97	5
L4+00N7+75E	1.1	20	126	59	36	1	115	5
L4+00N8+00E	1.0	16	149	59	28	1	118	5
L4+00N8+25E	.9	1	168	54	36	1	113	5
L4+00N8+50E	.8	12	152	49	32	1	117	5
L4+00N8+75E	1.1	1	127	43	22	1	107	5
L4+00N9+00E	.9	1	100	34	18	1	100	5
L4+00N9+25E	.9	2	158	42	24	1	96	5
L4+00N9+50E	1.2	11	223	42	23	1	104	5
L4+00N9+75E	.8	1	159	30	9	1	96	10
L4+00N10+00E	1.1	7	144	37	24	1	98	5
L4+00N10+25E	1.2	14	138	45	30	1	109	5
L4+00N10+50E	1.4	3	172	61	29	1	115	5
L4+00N10+75E	1.0	11	174	44	26	1	98	5
L4+00N11+00E	.9	1	163	38	18	1	109	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ9+10
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L4+00N11+25E	.7	1	319	31	20	1	152	5
L4+00N11+50E	.7	1	180	28	15	1	105	5
L4+00N11+75E	.7	1	212	32	21	1	139	5
L4+00N12+00E	1.2	1	194	46	21	1	119	5
L5+00N0+00E	.7	1	138	36	18	1	93	5
L5+00N0+25E	.9	6	184	45	26	1	104	5
L5+00N0+50E	.7	20	183	44	37	1	118	10
L5+00N0+75E	.4	23	163	60	29	1	126	5
L5+00N1+00E	.3	3	153	53	25	1	114	5
L5+00N1+25E	.5	1	150	34	15	1	93	5
L5+00N1+50E	.4	4	156	46	19	1	105	5
L5+00N1+75E	.6	24	144	58	30	1	98	10
L5+00N2+00E	.7	21	129	63	30	1	100	5
L5+00N2+25E	.3	10	149	41	15	1	95	10
L5+00N2+50E	.6	14	138	43	35	1	107	5
L5+00N2+75E	.8	7	122	36	15	1	116	5
L5+00N3+00E	.6	8	162	49	30	1	118	5
L5+00N3+25E	.7	9	164	58	32	1	117	5
L5+00N3+50E	.4	6	172	43	27	1	101	5
L5+00N3+75E	.9	26	136	63	41	1	108	5
L5+00N4+00E	.7	1	155	60	28	1	104	5
L5+00N4+75E	1.0	1	75	22	4	1	57	5
L5+00N5+00E	1.4	1	164	48	6	1	57	5
L5+00N5+25E	1.1	10	103	26	16	1	89	5
L5+00N5+50E	1.0	24	173	54	33	1	104	5
L5+00N5+75E	1.0	20	141	55	37	2	103	5
L5+00N6+00E	1.0	3	192	48	38	1	117	5
L5+00N6+25E	1.2	13	186	46	29	1	109	5
L5+00N6+50E	1.1	40	170	59	29	1	114	5
L5+00N6+75E	.8	37	165	58	32	1	97	10
L5+00N7+00E	1.1	76	353	128	85	1	237	10
L5+00N7+25E	1.4	74	369	126	96	1	243	15
L5+00N7+50E	1.4	20	430	112	93	3	246	15
L5+00N7+75E	1.5	53	400	113	93	1	238	10
L5+00N8+00E	1.2	48	365	106	77	1	255	5
L5+00N8+25E	1.1	35	394	89	61	1	252	5
L5+00N8+50E	1.0	32	302	56	32	1	211	10
L5+00N8+75E	1.1	19	341	71	54	1	214	5
L5+00N9+00E	.9	25	303	56	47	1	203	5
L5+00N9+25E	1.3	48	341	93	72	1	216	5
L5+00N9+50E	1.1	19	357	69	48	1	223	10
L5+00N9+75E	1.2	37	310	65	47	1	214	10
L5+00N10+00E	2.2	69	415	107	80	1	251	5
L5+00N10+25E	1.0	24	266	63	49	1	185	5
L5+00N10+50E	1.1	12	321	64	52	1	198	5
L5+00N10+75E	1.7	49	317	110	46	1	152	5
L5+00N11+00E	1.2	31	306	81	47	1	180	5
L5+00N11+25E	1.0	42	360	93	60	1	227	5
L5+00N11+50E	.9	20	300	96	55	1	186	5
L5+00N11+75E	.6	3	275	68	45	1	174	5
L5+00N12+00E	1.3	60	198	83	59	3	135	5
L6+00N0+00E	.6	32	173	87	45	1	144	5
L6+00N0+25E	.3	40	186	61	41	1	130	5
L6+00N0+50E	.5	1	179	47	36	1	144	5
L6+00N0+75E	.4	1	172	59	22	1	137	5
L6+00N1+00E	.3	11	183	69	54	1	136	10
L6+00N1+25E	.1	16	215	47	27	1	120	5
L6+00N1+50E	.3	19	179	69	40	1	121	5
L6+00N1+75E	.1	23	165	59	29	1	114	5
L6+00N2+00E	.1	1	178	33	11	1	96	10

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ11+12
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L6+00N2+25E	.5	31	131	56	21	1	109	5
L6+00N2+50E	.6	25	166	60	38	1	119	15
L6+00N2+75E	.2	4	129	42	22	1	100	20
L6+00N3+00E	.8	60	153	72	40	2	120	5
L6+00N3+25E	.9	33	162	68	38	1	111	5
L6+00N3+50E	.8	35	169	61	27	1	103	10
L6+00N3+75E	1.0	18	135	49	24	1	106	25
L6+00N4+50E	1.1	1	200	18	1	1	125	15
L6+00N4+75E	.9	1	101	28	8	1	104	10
L6+00N5+00E	.7	9	162	38	18	1	94	20
L6+00N5+25E	.9	33	133	69	37	1	114	20
L6+00N5+50E	.7	22	179	37	23	1	106	10
L6+00N5+75E	.7	29	145	49	33	1	111	5
L6+00N6+00E	.3	20	136	83	36	1	96	10
L6+00N6+25E	.4	24	152	49	31	1	93	5
L6+00N6+50E	.5	23	155	48	36	1	87	5
L6+00N6+75E	.7	30	135	58	37	2	91	5
L6+00N7+00E	1.0	35	140	54	42	2	110	20
L6+00N7+25E	.9	23	183	45	36	3	123	5
L6+00N7+50E	1.2	10	139	29	11	1	102	10
L6+00N7+75E	1.0	6	160	22	19	1	107	5
L6+00N8+00E	.9	16	157	29	22	1	107	10
L6+00N8+25E	1.0	13	155	39	20	1	106	15
L6+00N8+50E	1.0	1	145	25	7	1	87	10
L6+00N8+75E	1.0	29	170	42	26	1	97	5
L6+00N9+00E	1.4	38	158	72	32	1	101	5
L6+00N9+25E	1.1	1	214	32	16	1	108	5
L6+00N9+50E	.7	7	221	35	9	1	108	5
L6+00N9+75E	.9	4	146	39	23	1	102	10
L6+00N10+00E	1.1	10	147	35	22	1	86	5
L6+00N10+25E	.8	5	126	71	19	1	75	10
L6+00N10+50E	.8	1	124	45	18	1	75	5
L6+00N10+75E	1.2	26	157	45	25	1	92	5
L6+00N11+00E	1.0	16	232	67	32	2	126	5
L6+00N11+25E	1.0	18	171	51	25	1	99	10
L6+00N11+50E	.7	8	234	44	23	1	98	5
L6+00N11+75E	.7	6	188	48	22	1	86	5
L6+00N12+00E	.5	9	213	36	14	1	98	5
L7+00N0+00E	.6	12	128	33	11	1	92	5
L7+00N0+25E	.6	14	137	47	15	1	99	10
L7+00N0+50E	.2	20	141	51	29	1	102	5
L7+00N0+75E	.2	5	136	52	30	1	96	5
L7+00N1+00E	.4	24	135	66	31	1	114	5
L7+00N1+25E	.2	12	149	41	21	1	96	5
L7+00N1+50E	.2	1	162	48	20	1	103	5
L7+00N1+75E	.5	9	149	63	30	1	106	5
L7+00N2+00E	1.0	3	152	38	26	1	93	5
L7+00N2+25E	1.1	9	137	31	14	1	113	5
L7+00N2+50E	1.0	5	149	37	24	1	110	10
L7+00N2+75E	.9	16	166	50	31	1	113	5
L7+00N3+00E	1.0	12	169	47	36	1	112	5
L7+00N3+25E	.9	10	158	38	19	1	97	5
L7+00N3+50E	.7	1	178	34	19	1	102	5
L7+00N4+00E	.4	4	430	58	21	1	239	5
L7+00N4+25E	.4	1	136	13	1	1	186	5
L7+00N4+50E	1.2	1	124	20	1	1	98	10
L7+00N4+75E	1.2	5	74	27	6	1	91	25
L7+00N5+00E	.9	1	131	28	17	1	108	15
L7+00N5+25E	.6	8	130	26	12	1	90	5
L7+00N5+50E	.6	10	129	38	16	1	84	10

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ13+14
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L7+00N5+75E	.4	1	153	53	36	1	122	10
L7+00N6+00E	.2	1	131	50	30	1	104	5
L7+00N6+25E	.4	1	147	45	37	1	102	5
L7+00N6+50E	.4	1	251	37	34	1	114	5
L7+00N6+75E	.5	1	181	42	26	1	123	5
L7+00N7+00E	.8	1	122	34	20	1	115	5
L7+00N7+25E	.9	1	139	33	15	1	131	5
L7+00N7+50E	.7	1	121	28	26	1	95	45
L7+00N7+75E	.7	1	113	28	13	1	79	5
L7+00N8+00E	.8	1	119	32	23	1	83	5
L7+00N8+25E	.6	1	130	35	16	1	86	5
L7+00N8+50E	.5	1	106	37	16	1	100	5
L7+00N8+75E	.6	1	83	26	22	1	73	5
L7+00N9+00E	.9	1	166	116	23	1	75	5
L7+00N9+25E	.6	1	102	47	23	1	68	10
L7+00N9+50E	.9	4	113	68	15	1	78	5
L7+00N9+75E	1.1	1	107	63	21	1	76	5
L7+00N10+00E	1.3	1	140	38	23	1	103	5
L7+00N10+25E	1.2	1	189	52	35	1	121	15
L7+00N10+50E	.8	1	271	43	27	1	120	35
L7+00N10+75E	1.0	14	216	55	30	2	115	20
L7+00N11+00E	1.0	9	169	55	27	1	105	5
L7+00N11+25E	.9	7	193	42	35	3	110	5
L7+00N11+50E	.7	4	177	40	33	1	97	5
L7+00N11+75E	.8	11	128	51	30	1	88	5
L7+00N12+00E	1.1	3	164	46	30	2	89	10
L8+00N0+00E	.6	5	137	47	23	1	112	20
L8+00N0+25E	.5	1	110	44	19	1	101	5
L8+00N0+50E	.7	1	102	40	20	1	99	5
L8+00N0+75E	.5	1	87	46	21	1	102	10
L8+00N1+00E	.9	1	105	74	28	1	122	5
L8+00N1+25E	.7	1	109	61	22	1	119	5
L8+00N1+50E	.9	5	128	43	30	1	112	10
L8+00N1+75E	.9	2	148	38	30	1	108	5
L8+00N2+00E	.9	4	138	34	22	1	116	5
L8+00N2+25E	1.2	13	121	35	29	1	135	5
L8+00N2+50E	.9	4	122	29	21	1	107	5
L8+00N2+75E	1.2	1	159	40	29	1	101	10
L8+00N3+00E	.9	8	233	34	27	1	128	5
L8+00N3+50E	1.0	4	297	73	50	1	154	5
L8+00N3+75E	.3	1	369	27	14	1	154	5
L8+00N4+00E	.7	1	54	14	3	1	41	5
L8+00N4+25E	.1	1	69	10	5	1	22	10
L8+00N4+50E	1.1	1	121	29	7	1	58	5
L8+00N4+75E	.8	1	158	65	30	1	116	5
L8+00N5+00E	.6	18	169	73	54	4	123	5
L8+00N5+25E	.5	1	164	41	32	1	98	5
L8+00N5+50E	.6	17	161	37	21	1	84	5
L8+00N5+75E	.5	14	163	53	43	2	96	10
L8+00N6+00E	.4	9	170	49	34	2	92	5
L8+00N6+25E	.8	16	116	58	45	1	98	5
L8+00N6+50E	.6	19	172	41	33	1	96	10
L8+00N6+75E	.8	1	149	41	30	1	113	5
L8+00N7+00E	.7	14	109	24	12	1	76	10
L8+00N7+25E	.9	1	142	44	21	1	78	5
L8+00N7+50E	.8	10	128	35	33	1	80	5
L8+00N7+75E	.7	7	142	37	28	1	89	10
L8+00N8+00E	.9	1	161	62	20	1	76	5
L8+00N8+25E	.6	1	110	30	18	1	79	5
L8+00N8+50E	.9	1	135	42	15	1	86	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ15+16
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L8+00N8+75E	1.0	1	160	78	29	1	96	5
L8+00N9+00E	.5	1	168	45	40	1	114	10
L8+00N9+25E	.7	1	163	44	36	1	114	10
L8+00N9+50E	.5	1	117	42	7	1	60	5
L8+00N9+75E	.8	1	144	31	14	1	100	5
L8+00N10+00E	.6	1	216	36	34	1	107	5
L8+00N10+25E	.6	1	205	35	20	1	108	5
L8+00N10+50E	.8	1	176	39	19	1	104	5
L8+00N10+75E	.9	1	181	42	25	1	111	10
L8+00N11+00E	.9	1	166	42	30	1	110	5
L8+00N11+25E	.5	1	217	32	22	1	118	5
L8+00N11+50E	.7	1	137	29	14	1	76	5
L8+00N11+75E	.6	28	122	34	26	1	78	10
L8+00N12+00E	.4	12	148	48	32	1	81	5
L9+00N0+00E	.5	1	130	43	23	1	114	5
L9+00N0+25E	.8	1	140	47	27	1	111	5
L9+00N0+50E	.7	1	164	46	22	1	110	5
L9+00N0+75E	1.1	1	178	51	30	1	119	5
L9+00N1+00E	1.0	3	147	46	22	1	117	10
L9+00N1+25E	.9	1	149	41	20	1	104	5
L9+00N1+50E	1.0	1	120	31	12	1	92	5
L9+00N1+75E	.8	1	122	30	14	1	123	5
L9+00N2+00E	.9	1	157	48	24	1	105	10
L9+00N2+25E	1.0	1	157	38	31	1	123	5
L9+00N2+50E	.6	1	164	27	18	1	118	5
L9+00N2+75E	1.1	11	212	61	39	1	144	5
L9+00N3+00E	.8	1	136	24	2	1	108	10
L9+00N3+25E	1.7	13	137	91	36	1	123	5
L9+00N3+50E	.8	1	105	34	3	1	70	5
L9+00N4+25E	.1	1	43	9	3	2	23	5
L9+00N4+50E	.6	1	138	40	28	1	113	5
L9+00N4+75E	.3	1	140	43	30	1	122	5
L9+00N5+00E	.1	1	130	45	18	1	105	5
L9+00N5+25E	.2	1	143	58	32	1	114	10
L9+00N5+50E	.3	1	156	52	22	1	99	5
L9+00N5+75E	.1	15	133	57	26	1	101	5
L9+00N6+00E	.7	9	179	42	34	1	93	5
L9+00N6+25E	.9	17	179	42	27	1	101	5
L9+00N6+50E	.7	15	174	29	24	1	113	5
L9+00N6+75E	1.0	1	145	36	6	1	74	10-
L9+00N7+00E	1.2	1	195	49	29	1	98	5
L9+00N7+25E	.9	3	198	62	31	2	101	5
L9+00N7+50E	1.8	1	182	79	46	4	108	15
L9+00N7+75E	1.7	9	175	59	29	1	103	5
L9+00N8+00E	.7	1	110	57	29	1	109	10
L9+00N8+25E	.8	7	157	41	20	1	90	5
L9+00N8+50E	.5	5	122	25	36	1	91	5
L9+00N8+75E	.9	1	170	54	40	1	101	10
L9+00N9+00E	.7	30	203	48	38	1	119	5
L9+00N9+25E	.7	1	134	22	1	1	99	5
L9+00N9+50E	1.1	11	143	48	10	1	112	5
L9+00N9+75E	1.2	12	173	35	14	1	102	5
L9+00N10+00E	1.4	1	208	50	28	2	133	5
L9+00N10+25E	1.3	11	180	42	20	1	111	10
L9+00N10+50E	1.2	1	206	34	23	1	112	5
L9+00N10+75E	1.3	17	160	42	23	1	96	5
L9+00N11+00E	1.2	3	204	43	25	1	108	5
L9+00N11+25E	.9	1	153	26	4	1	65	5
L9+00N11+50E	1.3	1	164	40	9	1	80	5
L9+00N11+75E	1.0	2	169	30	8	1	100	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ17+18
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L9+00N12+00E	.4	1	241	29	19	1	106	5
L10+00N0+00E	.5	1	121	32	15	1	99	10
L10+00N0+25E	1.1	1	170	38	17	1	110	10
L10+00N0+50E	.7	1	148	33	9	1	100	5
L10+00N0+75E	1.3	11	161	34	22	1	118	5
L10+00N1+00E	2.2	1	121	46	183	1	130	5
L10+00N1+25E	1.4	1	133	33	14	1	118	10
L10+00N1+50E	1.0	1	122	31	1	1	108	5
L10+00N1+75E	1.0	1	112	37	14	1	102	5
L10+00N2+00E	.9	12	152	35	23	1	124	5
L10+00N2+25E	1.0	17	170	41	29	1	135	10
L10+00N2+50E	1.0	1	175	29	6	1	136	5
L10+00N2+75E	.8	1	126	26	11	1	110	10
L10+00N3+00E	1.0	1	178	35	18	1	126	5
L10+00N3+25E	1.3	1	134	32	12	1	129	5
L10+00N3+50E	.8	1	164	22	6	1	82	5
L10+00N3+75E	.1	1	68	6	4	1	36	5
L10+00N4+00E	.2	1	82	6	3	1	29	10
L10+00N4+25E	.3	1	86	10	5	2	32	5
L10+00N4+50E	1.1	9	138	34	16	1	85	5
L10+00N4+75E	.9	20	174	42	21	1	131	5
L10+00N5+00E	1.0	20	193	57	33	1	145	10
L10+00N5+25E	1.1	35	137	50	33	1	115	5
L10+00N5+50E	1.0	13	154	42	23	1	112	5
L10+00N5+75E	.7	7	179	28	17	1	113	10
L10+00N6+00E	.8	2	147	31	14	1	98	5
L10+00N6+25E	.8	1	159	24	5	1	98	5
L10+00N6+50E	.5	1	151	20	18	1	103	10
L10+00N6+75E	1.0	3	136	32	13	1	95	5
L10+00N7+00E	.7	12	154	39	36	1	88	5
L10+00N7+25E	.7	27	157	63	47	2	115	5
L10+00N7+50E	1.3	28	157	63	45	3	106	5
L10+00N7+75E	.8	12	193	46	32	1	105	5
L10+00N8+00E	.7	1	166	31	12	1	96	10
L10+00N8+25E	.8	6	152	46	26	1	103	5
L10+00N8+50E	.7	15	179	41	23	1	102	5
L10+00N8+75E	.5	31	153	57	45	1	153	5
L10+00N9+00E	.7	4	159	38	26	1	111	5
L10+00N9+25E	.2	1	190	36	10	1	214	5
L10+00N9+50E	.7	7	206	36	18	1	122	5
L10+00N9+75E	1.4	1	204	55	22	1	133	5
L10+00N10+00E	.8	8	226	29	20	1	125	5
L10+00N10+25E	.3	1	293	28	22	1	113	10
L10+00N10+50E	1.1	14	171	45	24	1	109	5
L10+00N10+75E	1.1	12	159	47	26	1	105	5
L10+00N11+00E	.7	19	176	46	30	1	128	5
L10+00N11+25E	.6	1	168	25	7	1	105	10
L10+00N11+50E	.7	9	128	22	10	1	73	5
L10+00N11+75E	.3	3	129	22	8	3	44	5
L10+00N12+00E	.4	1	132	23	9	1	90	10
L11+00N0+00E	.9	9	160	37	24	1	105	5
L11+00N0+25E	.9	2	179	38	13	1	117	10
L11+00N0+50E	1.0	1	132	31	10	1	103	5
L11+00N0+75E	1.1	5	130	28	11	1	100	5
L11+00N1+00E	1.2	22	161	42	25	1	107	5
L11+00N1+25E	.9	17	178	35	12	1	128	5
L11+00N1+50E	1.1	13	151	43	19	1	105	5
L11+00N1+75E	1.0	18	170	54	28	1	116	10
L11+00N2+00E	1.2	34	148	63	21	1	117	5
L11+00N2+25E	.5	10	148	42	20	1	110	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ19+20
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L11+00N2+50E	.7	1	158	38	14	1	137	5
L11+00N2+75E	.6	1	132	33	11	1	109	5
L11+00N3+00E	1.2	10	153	33	18	1	106	10
L11+00N3+25E	.9	1	159	32	12	1	115	5
L11+00N3+50E	.9	20	84	24	25	2	94	5
L11+00N3+75E	.9	1	153	40	18	1	100	5
L11+00N4+00E	.7	1	126	18	6	1	60	5
L11+00N4+25E	.7	1	135	23	6	1	87	5
L11+00N4+50E	.5	1	109	18	5	1	108	5
L11+00N4+75E	.7	1	157	34	9	1	116	10
L11+00N5+00E	.7	8	118	45	27	1	110	5
L11+00N5+25E	.9	11	134	30	16	1	91	5
L11+00N5+50E	.7	1	118	25	16	1	94	5
L11+00N5+75E	.9	1	117	29	25	1	97	10
L11+00N6+00E	.6	1	129	39	19	1	96	5
L11+00N6+25E	.7	1	126	33	19	1	96	5
L11+00N6+50E	.9	15	136	38	29	1	90	5
L11+00N6+75E	.8	15	155	62	34	1	115	5
L11+00N7+00E	.9	18	141	46	35	2	96	10
L11+00N7+25E	1.0	1	241	38	11	1	102	5
L11+00N7+50E	.7	1	119	32	16	1	83	5
L11+00N7+75E	1.0	15	122	37	41	1	148	5
L11+00N8+00E	.8	1	160	34	14	1	94	5
L11+00N8+25E	.3	1	132	42	27	1	85	10
L11+00N8+50E	.7	14	146	55	45	3	91	5
L11+00N8+75E	.8	1	224	29	23	1	135	5
L11+00N9+00E	.9	10	129	34	25	1	95	5
L11+00N9+25E	.5	1	81	15	5	1	108	5
L11+00N9+50E	.9	1	120	34	9	1	61	10
L11+00N9+75E	.8	13	136	26	15	1	94	5
L11+00N10+00E	.7	15	154	39	20	1	108	5
L11+00N10+25E	.4	1	193	27	13	1	98	10
L11+00N10+50E	.6	1	160	31	22	1	104	5
L11+00N10+75E	.2	1	218	25	7	1	68	5
L11+00N11+00E	.6	1	192	36	12	1	80	5
L11+00N11+25E	.7	9	140	30	13	1	85	5
L11+00N11+50E	.8	20	145	31	14	1	92	5
L11+00N11+75E	.9	17	194	47	18	1	89	5
L11+00N12+00E	.9	6	189	37	19	1	78	10
L12+00N0+00E	.6	1	145	32	17	1	95	5
L12+00N0+25E	.5	3	133	30	5	1	96	10
L12+00N0+50E	.7	2	110	33	8	1	99	5
L12+00N0+75E	.8	21	131	53	29	1	108	5
L12+00N1+00E	.7	29	169	46	28	1	102	5
L12+00N1+25E	.6	20	138	42	26	1	100	10
L12+00N1+50E	.7	16	170	40	20	1	121	5
L12+00N1+75E	.9	17	148	43	16	1	108	5
L12+00N2+00E	.9	14	186	40	22	1	110	5
L12+00N2+25E	.6	1	108	37	7	1	91	5
L12+00N2+50E	.9	19	131	31	15	1	98	5
L12+00N2+75E	1.1	34	115	45	27	1	104	10
L12+00N3+00E	.8	1	108	23	10	1	96	5
L12+00N3+25E	.7	10	138	26	19	1	110	5
L12+00N3+50E	.9	1	167	30	17	1	89	5
L12+00N3+75E	1.0	1	118	28	3	1	78	5
L12+00N4+00E	1.0	2	130	35	12	1	90	5
L12+00N4+25E	.9	11	133	31	25	1	118	10
L12+00N4+50E	.7	1	326	35	3	1	68	5
L12+00N4+75E	.7	1	126	26	15	1	161	5
L12+00N5+00E	.1	5	58	5	4	3	24	5

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1336-SJ21
DATE: OCT-24-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L12+00N5+25E	.5	1	60	22	10	1	67	5
L12+00N5+50E	.5	4	74	15	8	1	76	10
L12+00N5+75E	.4	5	99	24	18	1	75	5
L12+00N6+00E	.5	8	159	30	18	1	85	5
L12+00N6+25E	.6	14	95	38	18	1	83	5
L12+00N6+50E	.6	82	112	59	43	1	101	10
L12+00N6+75E	.5	10	103	28	6	1	83	5
L12+00N7+00E	.5	20	120	33	17	1	77	5
L12+00N7+25E	.4	23	131	33	19	1	83	10
L12+00N7+50E	.6	18	129	42	38	1	84	10
L12+00N7+75E	.6	14	132	40	19	1	75	5
L12+00N8+00E	.1	1	160	29	16	1	81	5
L12+00N8+25E	.2	3	156	42	30	1	84	10
L12+00N9+00E	.9	9	90	87	20	1	75	5
L12+00N9+25E	1.0	9	130	28	21	1	78	45
L12+00N9+50E	1.1	3	135	36	19	1	92	5
L12+00N9+75E	.9	20	133	41	29	1	97	5
L12+00N10+00E	.8	15	133	39	27	1	89	10
L12+00N10+25E	.8	3	139	42	19	1	91	5
L12+00N10+50E	.9	13	140	33	22	1	124	5
L12+00N10+75E	1.1	39	186	45	26	1	111	5
L12+00N11+00E	1.0	45	184	38	25	1	116	5
L12+00N11+25E	.8	14	173	32	24	1	95	5
L12+00N11+50E	.7	14	173	27	15	1	82	10
L12+00N11+75E	.7	21	137	37	19	1	98	10
L12+00N12+00E	.5	10	147	33	24	1	110	5

APPENDIX IV

RIDGE GRID SOIL SAMPLE RESULTS

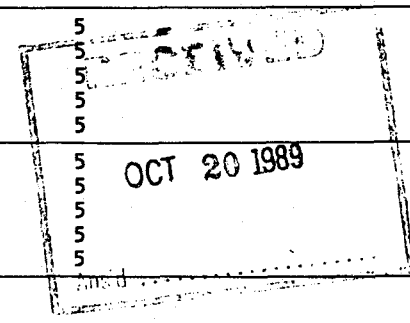
COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ1+2
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L0+00E 0+00N	1.0	1	44	30	1	115	20
L0+00E 0+25N	.8	1	53	21	1	113	5
L0+00E 0+50N	.5	1	40	22	1	109	5
L0+00E 0+75N	.6	1	43	11	1	99	5
L0+00E 1+00N	.5	1	37	19	1	97	5
L0+00E 1+25N	.4	1	35	21	1	96	5
L0+00E 1+50N	.6	2	38	12	1	97	5
L0+00E 1+75N	.6	1	34	21	1	108	5
L0+00E 2+00N	.5	1	28	14	1	97	5
L0+00E 2+25N	.4	1	36	16	1	117	5
L0+00E 2+50N	.4	1	30	13	1	110	10
L0+00E 2+75N	.6	1	37	5	1	88	5
L0+00E 3+00N	1.0	1	28	12	1	103	10
L0+00E 3+25N	.8	7	34	8	1	103	5
L0+00E 3+50N	1.1	9	44	32	1	113	5
L0+00E 3+75N	1.2	4	44	29	1	121	5
L0+00E 4+00N	.8	8	43	18	1	109	5
L0+00E 4+25N	1.0	11	40	33	1	131	10
L0+00E 4+50N	.7	5	36	27	1	94	5
L0+00E 4+75N	.9	2	41	24	1	98	10
L0+00E 5+00N	.9	1	46	19	1	113	5
L0+00E 5+25N	.8	5	31	3	1	113	10
L0+00E 5+50N	.7	6	34	14	1	100	5
L0+00E 5+75N	1.0	1	52	23	1	120	5
L0+00E 6+00N	1.3	1	65	37	1	122	5
L0+00E 6+25N	1.5	11	52	40	1	121	5
L0+00E 6+50N	.9	16	46	21	1	111	5
L0+00E 6+75N	1.2	10	47	23	1	103	10
L0+00E 7+00N	1.0	1	37	11	1	114	5
L0+00E 7+25N	1.4	3	38	21	1	120	5
L0+00E 7+50N	.8	1	49	32	1	120	30
L0+00E 7+75N	.5	1	44	23	1	106	5
L0+00E 8+00N	1.1	5	43	28	1	109	5
L0+00E 8+25N	1.0	2	44	20	1	102	5
L0+00E 8+50N	.7	1	30	12	1	97	5
L0+00E 8+75N	.7	5	29	17	1	91	5
L0+00E 9+00N	.8	6	36	16	1	106	5
L0+00E 9+25N	.6	1	39	14	1	124	5
L0+00E 9+50N	.4	1	40	13	1	102	5
L0+00E 9+75N	.4	1	29	5	1	101	5
L0+00E 10+00N	.6	1	59	6	1	106	5
L0+00E 10+25N	.5	1	40	22	1	113	5
L0+00E 10+50N	.4	1	32	20	1	100	5
L0+00E 10+75N	.5	1	34	15	1	104	5
L0+00E 11+00N	.3	3	62	24	1	156	5
L1+00E 0+00N	.6	1	42	29	1	108	5
L1+00E 0+25N	.5	1	44	36	1	113	5
L1+00E 0+50N	.5	3	56	37	1	120	5
L1+00E 0+75N	.6	9	39	43	1	129	5
L1+00E 1+00N	.5	5	34	25	1	105	5
L1+00E 1+25N	.4	1	48	11	1	105	5
L1+00E 1+50N	.6	1	29	19	1	122	5
L1+00E 1+75N	.9	1	44	14	1	135	5
L1+00E 2+00N	.8	7	39	25	1	127	5
L1+00E 2+25N	.5	1	39	10	1	131	5
L1+00E 2+50N	.7	1	34	19	1	115	5
L1+00E 2+75N	1.1	8	37	20	1	102	5
L1+00E 3+00N	.8	1	30	4	1	75	5
L1+00E 3+25N	.8	6	36	3	1	97	5
L1+00E 3+50N	.8	13	35	33	1	102	5



COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ3+4
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L1+00E 3+75N	.7	1	36	15	1	109	15
L1+00E 4+00N	.6	1	29	11	1	108	5
L1+00E 4+25N	1.0	2	48	27	1	122	5
L1+00E 4+50N	.9	4	38	27	1	115	5
L1+00E 4+75N	1.3	1	45	39	1	128	5
L1+00E 5+00N	2.2	1	56	44	1	134	5
L1+00E 5+25N	1.3	1	37	20	1	135	20
L1+00E 5+50N	1.5	6	46	30	1	133	5
L1+00E 5+75N	1.4	3	47	26	1	122	10
L1+00E 6+00N	.9	1	49	10	1	125	5
L1+00E 6+25N	.9	1	42	25	1	125	5
L1+00E 6+50N	.9	1	41	10	1	111	5
L1+00E 6+75N	1.2	8	46	33	1	99	5
L1+00E 7+00N	1.1	6	48	15	1	107	5
L1+00E 7+25N	1.4	1	24	21	1	95	5
L1+00E 7+50N	.5	1	23	2	1	94	5
L1+00E 7+75N	1.1	7	42	14	1	106	5
L1+00E 8+00N	.8	1	25	3	1	97	5
L1+00E 8+25N	1.2	10	41	19	1	112	5
L1+00E 8+50N	1.1	7	39	16	1	102	10
L1+00E 8+75N	.9	1	43	15	1	115	5
L1+00E 9+00N	1.0	5	57	22	1	124	5
L1+00E 9+25N	1.3	1	49	30	1	148	5
L1+00E 9+50N	1.1	20	52	9	1	112	5
L1+00E 9+75N	.9	1	54	18	1	127	5
L1+00E 10+00N	.6	11	78	15	1	166	5
L1+00E 10+25N	.6	12	66	6	1	122	5
L1+00E 10+50N	.7	1	57	18	1	106	5
L1+00E 10+75N	.4	4	43	9	1	136	35
L1+00E 11+00N	.5	2	62	12	1	107	30
L2+00E 0+00N	.2	2	46	40	1	113	5
L2+00E 0+25N	.1	8	48	36	1	111	5
L2+00E 0+50N	.6	6	58	35	1	131	5
L2+00E 0+75N	.7	15	44	24	1	120	5
L2+00E 1+00N	.8	16	42	25	1	120	5
L2+00E 1+25N	.9	10	52	27	1	125	5
L2+00E 1+50N	1.2	11	46	37	1	139	5
L2+00E 1+75N	1.7	12	57	43	1	138	5
L2+00E 2+00N	1.1	13	44	35	1	124	5
L2+00E 2+25N	1.3	5	57	37	1	134	5
L2+00E 2+50N	1.4	9	67	59	1	144	5
L2+00E 2+75N	1.4	12	45	35	1	127	5
L2+00E 3+00N	1.7	16	55	37	1	140	5
L2+00E 3+25N	1.2	17	44	24	1	113	5
L2+00E 3+50N	1.5	12	54	28	1	126	5
L2+00E 3+75N	1.2	8	46	17	1	110	5
L2+00E 4+00N	.7	15	47	25	1	127	5
L2+00E 4+25N	1.1	14	49	34	1	123	5
L2+00E 4+50N	.8	18	47	26	1	121	5
L2+00E 4+75N	.5	13	57	28	1	123	5
L2+00E 5+00N	.7	22	42	21	1	115	10
L2+00E 5+25N	.8	1	33	13	1	104	5
L2+00E 5+50N	.8	1	45	14	1	107	5
L2+00E 5+75N	.9	5	31	12	1	94	5
L2+00E 6+00N	.7	11	47	21	1	131	5
L2+00E 6+25N	.9	11	39	39	1	131	55
L2+00E 6+50N	.9	13	52	32	1	123	10
L2+00E 6+75N	.7	16	47	35	1	119	5
L2+00E 7+00N	.5	10	36	12	1	97	5
L2+00E 7+25N	.2	14	25	2	1	107	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ5+6
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L2+00E 7+50N	.4	8	36	20	1	112	5
L2+00E 7+75N	.5	5	33	10	1	83	5
L2+00E 8+00N	1.0	22	52	28	1	92	5
L2+00E 8+25N	.8	9	44	23	1	101	5
L2+00E 8+50N	.8	5	36	25	1	120	5
L2+00E 8+75N	.6	11	30	24	1	94	5
L2+00E 9+00N	.9	5	45	9	1	101	5
L2+00E 9+25N	.7	4	60	20	1	109	5
L2+00E 9+50N	.5	8	55	24	1	148	5
L2+00E 9+75N	.8	14	50	25	1	115	5
L2+00E 10+00N	.8	12	44	12	1	93	5
L2+00E 10+25N	.7	10	48	22	1	108	5
L2+00E 10+50N	.9	7	51	18	1	98	10
L2+00E 10+75N	.6	12	39	17	1	100	5
L2+00E 11+00N	.7	11	44	14	1	81	5
L3+00E 0+00N	.6	9	116	64	6	163	5
L3+00E 0+25N	.3	7	50	29	1	112	5
L3+00E 0+50N	.2	7	56	30	2	110	5
L3+00E 0+75N	.4	8	56	34	2	112	5
L3+00E 1+00N	.9	12	69	35	4	105	5
L3+00E 1+25N	.7	13	54	42	4	114	5
L3+00E 1+50N	.4	19	49	35	1	110	5
L3+00E 1+75N	.3	13	55	31	1	121	5
L3+00E 2+00N	.8	13	63	34	3	111	5
L3+00E 2+25N	.3	15	64	42	3	133	5
L3+00E 2+50N	.3	8	62	33	2	102	5
L3+00E 2+75N	.5	16	67	36	2	102	5
L3+00E 3+00N	.5	15	64	30	3	106	5
L3+00E 3+25N	.4	12	55	36	1	105	5
L3+00E 3+50N	.9	12	51	30	2	111	10
L3+00E 3+75N	.5	7	45	31	2	108	10
L3+00E 4+00N	.1	5	40	31	1	142	5
L3+00E 4+25N	.5	8	41	25	1	86	5
L3+00E 4+50N	.2	4	30	9	1	92	5
L3+00E 4+75N	.1	4	27	20	1	94	5
L3+00E 5+00N	.7	11	41	22	1	87	5
L3+00E 5+25N	.3	8	42	24	1	104	5
L3+00E 5+50N	.6	8	46	17	1	113	5
L3+00E 5+75N	.9	13	67	40	3	124	5
L3+00E 6+00N	.5	9	67	33	2	110	5
L3+00E 6+25N	.3	13	37	20	1	93	5
L3+00E 6+50N	.5	9	44	25	1	89	5
L3+00E 6+75N	.4	8	26	25	1	93	45
L3+00E 7+00N	.8	6	28	24	1	85	5
L3+00E 7+25N	.8	15	42	27	1	92	5
L3+00E 7+50N	.7	11	21	16	1	92	10
L3+00E 7+75N	.5	8	42	11	1	106	25
L3+00E 8+00N	.9	10	40	21	1	110	5
L3+00E 8+25N	.9	8	43	27	2	93	5
L3+00E 8+50N	.8	14	39	18	1	99	5
L3+00E 8+75N	.8	13	46	26	3	103	5
L3+00E 9+00N	.6	13	44	20	1	93	10
L3+00E 9+25N	.8	6	30	24	2	123	5
L3+00E 9+50N	.5	11	37	18	1	118	5
L3+00E 9+75N	.6	11	39	19	1	98	5
L3+00E 10+00N	.8	9	41	21	1	145	5
L3+00E 10+25N	.6	12	41	16	1	98	5
L3+00E 10+50N	.8	12	43	23	1	113	5
L3+00E 10+75N	.9	15	47	23	3	98	5
L3+00E 11+00N	.9	14	46	24	1	108	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ7+8
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L4+00E 0+00N	1.1	17	51	43	2	141	5
L4+00E 0+25N	.9	21	52	33	3	117	5
L4+00E 0+50N	1.0	21	57	36	1	107	5
L4+00E 0+75N	.3	15	61	34	1	105	5
L4+00E 1+00N	.2	18	61	37	1	120	5
L4+00E 1+25N	.3	14	57	32	1	106	85
L4+00E 1+50N	.2	11	107	59	3	136	5
L4+00E 1+75N	.5	12	80	51	1	132	5
L4+00E 2+00N	.1	16	43	28	1	98	5
L4+00E 2+25N	.5	15	47	26	1	103	5
L4+00E 2+50N	.7	18	56	24	1	127	5
L4+00E 2+75N	.4	13	36	24	1	111	5
L4+00E 3+00N	.6	18	40	24	1	94	5
L4+00E 3+25N	.3	17	47	28	1	113	5
L4+00E 3+50N	.7	22	74	42	3	120	5
L4+00E 3+75N	.7	22	65	47	4	123	10
L4+00E 4+00N	.6	21	61	26	1	120	5
L4+00E 4+25N	.6	14	55	26	1	147	5
L4+00E 4+50N	.9	20	50	41	2	159	5
L4+00E 4+75N	.8	18	38	23	1	95	5
L4+00E 5+00N	.9	23	42	29	1	87	5
L4+00E 5+25N	1.0	16	48	29	1	107	5
L4+00E 5+50N	.7	19	60	39	1	111	5
L4+00E 5+75N	.6	25	67	40	1	103	5
L4+00E 6+00N	.7	30	73	35	3	120	5
L4+00E 6+25N	.7	28	45	29	1	96	5
L4+00E 6+50N	.6	16	36	25	1	101	5
L4+00E 6+75N	.6	15	50	24	1	106	5
L4+00E 7+00N	.9	22	37	19	1	77	5
L4+00E 7+25N	.6	12	26	11	1	86	5
L4+00E 7+50N	1.6	4	41	34	3	100	5
L4+00E 7+75N	1.1	1	38	18	1	91	5
L4+00E 8+00N	.6	5	26	10	1	93	5
L4+00E 8+25N	.9	1	37	10	1	107	5
L4+00E 8+50N	.7	7	38	21	1	94	5
L4+00E 8+75N	.8	14	41	17	1	123	5
L4+00E 9+00N	.4	13	34	16	1	94	5
L4+00E 9+25N	.9	6	28	18	1	150	5
L4+00E 9+50N	.6	15	34	19	1	135	5
L4+00E 9+75N	1.1	8	38	15	1	122	5
L4+00E 10+00N	.7	7	37	16	1	101	5
L4+00E 10+25N	.7	7	35	22	1	116	5
L4+00E 10+50N	.9	13	33	7	1	98	5
L4+00E 10+75N	1.1	7	36	15	1	109	10
L4+00E 11+00N	1.1	11	39	17	1	115	5
L5+00E 0+00N	.6	5	25	20	1	75	5
L5+00E 0+25N	.5	14	30	9	1	86	5
L5+00E 0+50N	.8	10	37	18	1	80	5
L5+00E 0+75N	.6	9	43	30	1	87	5
L5+00E 1+00N	.7	8	49	29	1	94	5
L5+00E 1+25N	.7	5	34	24	1	86	5
L5+00E 1+50N	.9	6	33	12	1	86	5
L5+00E 1+75N	.6	8	41	21	1	76	5
L5+00E 2+00N	.6	9	40	21	1	74	5
L5+00E 2+25N	.6	16	43	26	2	92	5
L5+00E 2+50N	.8	16	51	30	2	94	5
L5+00E 2+75N	.5	2	42	30	1	89	5
L5+00E 3+00N	.6	4	60	25	1	137	5
L5+00E 3+25N	.4	9	55	28	1	161	5
L5+00E 3+50N	.4	11	47	21	1	137	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ9+10
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L5+00E 3+75N	.5	10	46	33	3	129	5
L5+00E 4+00N	.2	2	54	37	1	128	10
L5+00E 4+25N	.5	2	66	29	1	132	5
L5+00E 4+50N	.7	4	61	31	1	111	5
L5+00E 4+75N	.1	7	60	40	1	152	5
L5+00E 5+00N	.2	14	108	43	1	169	5
L5+00E 5+25N	.4	2	52	24	1	115	5
L5+00E 5+50N	.5	6	51	15	1	113	5
L5+00E 5+75N	.5	1	61	28	1	118	5
L5+00E 6+00N	.8	9	71	18	1	123	5
L5+00E 6+25N	.5	4	44	12	1	115	5
L5+00E 6+50N	.8	8	48	15	1	116	5
L5+00E 6+75N	.8	5	40	14	1	112	5
L5+00E 7+00N	.8	8	37	12	1	97	5
L5+00E 7+25N	.9	14	39	24	1	96	5
L5+00E 7+50N	.7	12	34	18	1	92	5
L5+00E 7+75N	.9	13	42	20	1	108	5
L5+00E 8+00N	1.0	16	37	17	1	98	5
L5+00E 8+25N	1.1	10	40	17	1	93	5
L5+00E 8+50N	1.0	8	38	8	1	89	5
L5+00E 8+75N	.8	6	29	3	1	76	5
L5+00E 9+00N	.8	5	31	1	1	82	5
L5+00E 9+25N	1.2	6	47	26	1	104	5
L5+00E 9+50N	1.1	13	45	25	1	94	5
L5+00E 9+75N	.9	12	41	30	1	94	5
L5+00E 10+00N	.9	8	49	17	1	117	5
L5+00E 10+25N	1.2	4	50	24	1	117	5
L5+00E 10+50N	1.2	14	68	25	6	117	5
L5+00E 10+75N	1.0	14	41	13	1	102	5
L5+00E 11+00N	.7	12	28	5	1	78	5
L6+00E 0+00N	1.4	9	67	35	5	122	5
L6+00E 0+25N	.6	13	66	40	3	135	5
L6+00E 0+50N	.1	9	83	47	1	151	5
L6+00E 0+75N	.4	9	36	15	1	79	5
L6+00E 1+00N	.3	3	37	12	1	78	5
L6+00E 1+25N	.4	14	44	27	1	89	5
L6+00E 1+50N	.3	10	50	22	1	85	5
L6+00E 1+75N	.4	11	45	16	1	83	5
L6+00E 2+00N	.3	9	47	21	1	92	10
L6+00E 2+25N	.4	9	47	20	1	94	5
L6+00E 2+50N	.3	6	56	21	1	99	5
L6+00E 2+75N	.5	13	60	25	1	113	5
L6+00E 3+00N	.8	12	69	33	1	112	5
L6+00E 3+25N	.6	16	55	24	1	90	5
L6+00E 3+50N	.6	9	56	25	1	98	5
L6+00E 3+75N	.3	5	42	16	1	95	5
L6+00E 4+00N	.5	8	64	27	1	118	5
L6+00E 4+25N	.9	11	55	25	1	100	5
L6+00E 4+50N	.7	17	52	23	1	102	5
L6+00E 4+75N	.5	17	72	36	1	148	5
L6+00E 5+00N	.7	5	45	12	1	101	5
L6+00E 5+25N	.7	10	54	26	1	107	5
L6+00E 5+50N	.5	15	44	27	1	103	5
L6+00E 5+75N	.6	18	49	23	1	88	5
L6+00E 6+00N	.7	14	45	25	1	93	5
L6+00E 6+25N	.6	15	36	13	1	75	5
L6+00E 6+50N	1.0	13	35	19	1	84	5
L6+00E 6+75N	.4	8	31	17	1	84	5
L6+00E 7+00N	.4	5	38	19	1	78	5
L6+00E 7+25N	.9	11	61	28	1	99	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ11+12
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L6+00E 7+50N	.2	2	38	18	1	84	5
L6+00E 7+75N	.5	4	54	25	1	99	5
L6+00E 8+00N	.1	3	56	17	1	94	5
L6+00E 8+25N	1.3	8	50	33	1	104	5
L6+00E 8+50N	1.0	12	34	25	1	101	5
L6+00E 8+75N	.6	5	37	20	1	103	5
L6+00E 9+00N	.8	13	46	20	1	88	5
L6+00E 9+25N	.3	9	48	19	1	80	5
L6+00E 9+50N	.4	9	56	28	1	94	5
L6+00E 9+75N	.6	10	52	23	1	101	5
L6+00E 10+00N	1.2	11	51	24	1	111	5
L6+00E 10+25N	.9	15	37	20	1	105	5
L6+00E 10+50N	1.3	14	42	16	1	96	5
L6+00E 10+75N	.6	5	32	22	1	91	5
L6+00E 11+00N	1.1	8	39	22	1	102	5
L7+00E 0+00N	.4	14	61	28	1	115	5
L7+00E 0+25N	.8	13	55	28	1	109	5
L7+00E 0+50N	.4	17	91	29	1	151	5
L7+00E 0+75N	.8	20	89	41	2	137	5
L7+00E 1+00N	1.0	9	81	38	1	116	5
L7+00E 1+25N	1.4	9	72	39	3	135	5
L7+00E 1+50N	1.0	11	72	33	2	136	5
L7+00E 1+75N	.5	7	55	31	1	121	5
L7+00E 2+00N	.1	5	43	21	1	102	5
L7+00E 2+25N	.3	4	52	17	1	112	5
L7+00E 2+50N	.3	14	57	21	1	108	5
L7+00E 2+75N	.3	14	58	31	1	114	5
L7+00E 3+00N	.3	10	52	36	1	112	5
L7+00E 3+25N	.1	7	41	22	1	97	5
L7+00E 3+50N	.1	5	51	12	1	114	5
L7+00E 3+75N	.7	8	48	22	1	113	5
L7+00E 4+00N	.5	8	71	35	1	145	5
L7+00E 4+25N	.8	13	63	36	1	132	5
L7+00E 4+50N	.9	3	65	42	2	114	5
L7+00E 4+75N	.8	15	51	33	1	113	5
L7+00E 5+00N	.8	15	54	23	1	117	5
L7+00E 5+25N	1.6	8	69	34	1	141	5
L7+00E 5+50N	1.0	11	58	35	1	130	5
L7+00E 5+75N	1.2	12	57	29	1	118	5
L7+00E 6+00N	1.1	12	57	37	1	126	5
L7+00E 6+25N	1.0	9	61	28	1	124	5
L7+00E 6+50N	.8	15	54	27	1	100	5
L7+00E 6+75N	.8	8	68	26	1	119	5
L7+00E 7+00N	.3	2	78	23	1	116	5
L7+00E 7+25N	.8	19	78	36	1	122	5
L7+00E 7+50N	.7	6	123	35	1	130	5
L7+00E 7+75N	.6	16	118	36	1	121	5
L7+00E 8+00N	.9	2	83	43	1	150	5
L7+00E 8+25N	1.1	20	47	23	1	101	5
L7+00E 8+50N	.9	12	38	28	1	91	5
L7+00E 8+75N	.9	15	44	25	1	93	5
L7+00E 9+00N	1.0	9	37	15	1	96	5
L7+00E 9+25N	1.0	22	40	15	1	90	5
L7+00E 9+50N	1.2	12	47	27	1	102	5
L7+00E 9+75N	.8	17	72	25	1	125	5
L7+00E 10+00N	.2	9	78	33	2	129	5
L7+00E 10+25N	.7	15	59	37	1	120	5
L7+00E 10+50N	.6	6	60	28	1	109	5
L7+00E 10+75N	.6	10	71	32	1	118	5
L7+00E 11+00N	.7	7	48	20	1	97	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ13+14
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L8+00E 0+00N	1.5	5	78	31	1	114	5
L8+00E 0+25N	1.0	4	50	20	1	123	5
L8+00E 0+50N	.6	5	49	23	1	105	5
L8+00E 0+75N	.9	3	58	30	1	111	5
L8+00E 1+00N	.5	16	48	25	1	104	5
L8+00E 1+25N	.7	14	59	32	1	105	5
L8+00E 1+50N	.3	12	54	26	1	114	5
L8+00E 1+75N	.8	6	61	27	1	106	5
L8+00E 2+00N	.8	16	49	22	1	117	5
L8+00E 2+25N	.4	10	35	17	1	125	5
L8+00E 2+50N	.5	7	49	10	1	133	5
L8+00E 2+75N	1.8	8	60	47	1	131	5
L8+00E 3+00N	.7	6	56	26	1	170	5
L8+00E 3+25N	.5	6	56	24	1	196	5
L8+00E 3+50N	.9	4	60	16	1	118	5
L8+00E 3+75N	1.1	9	60	30	1	117	5
L8+00E 4+00N	.6	8	58	17	1	117	5
L8+00E 4+25N	1.9	6	63	31	2	164	5
L8+00E 4+50N	1.8	18	64	39	1	151	5
L8+00E 4+75N	2.5	8	62	33	1	128	5
L8+00E 5+00N	3.5	10	65	38	3	144	5
L8+00E 5+25N	2.0	6	55	34	1	146	5
L8+00E 5+50N	2.3	9	64	31	1	118	5
L8+00E 5+75N	1.2	15	48	19	1	140	5
L8+00E 6+00N	.5	2	39	17	1	115	5
L8+00E 6+25N	.7	6	45	23	1	107	5
L8+00E 6+50N	1.2	13	67	27	1	116	5
L8+00E 6+75N	.9	10	70	27	1	131	5
L8+00E 7+00N	1.2	8	68	36	1	133	5
L8+00E 7+25N	.7	9	64	29	1	118	5
L8+00E 7+50N	1.1	8	66	43	4	130	5
L8+00E 7+75N	.6	20	73	29	2	134	5
L8+00E 8+00N	.4	9	45	16	1	100	10
L8+00E 8+25N	.2	3	49	14	1	121	5
L8+00E 8+50N	.3	7	45	24	1	113	5
L8+00E 8+75N	.8	8	50	23	1	113	5
L8+00E 9+00N	.4	11	36	12	1	88	5
L8+00E 9+25N	.8	11	44	26	1	124	5
L8+00E 9+50N	1.0	10	45	22	1	108	5
L8+00E 9+75N	.8	11	42	16	1	110	5
L8+00E 10+00N	1.1	14	45	31	2	110	5
L8+00E 10+25N	1.1	13	50	22	1	108	10
L8+00E 10+50N	.8	11	59	24	1	111	60
L8+00E 10+75N	.9	7	76	21	1	98	5
L8+00E 11+00N	.7	11	65	24	1	112	5
L9+00E 0+00N	.4	13	48	18	1	114	5
L9+00E 0+25N	1.3	21	83	40	3	131	5
L9+00E 0+50N	1.2	19	83	37	4	138	5
L9+00E 0+75N	.8	13	61	31	1	107	5
L9+00E 1+00N	1.2	20	85	44	3	138	5
L9+00E 1+25N	.9	15	63	24	2	130	5
L9+00E 1+50N	.8	9	55	13	1	126	5
L9+00E 1+75N	1.1	10	74	40	2	152	5
L9+00E 2+00N	1.3	1	52	25	1	126	5
L9+00E 2+25N	1.3	7	64	36	1	148	5
L9+00E 2+50N	1.8	12	61	44	4	206	5
L9+00E 2+75N	1.2	18	57	29	1	130	5
L9+00E 3+00N	1.5	12	53	35	2	132	5
L9+00E 3+25N	1.5	9	64	40	3	130	5
L9+00E 3+50N	1.2	17	57	23	1	126	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ15+16
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L9+00E 3+75N	.6	1	40	19	1	177	5
L9+00E 4+00N	.6	2	53	17	1	125	5
L9+00E 4+25N	.8	8	67	27	1	156	5
L9+00E 4+50N	.8	1	72	21	1	174	5
L9+00E 4+75N	.6	10	59	16	1	136	5
L9+00E 5+00N	.6	8	42	14	1	148	5
L9+00E 5+25N	.2	7	63	23	1	160	5
L9+00E 5+50N	.6	11	72	19	1	134	5
L9+00E 5+75N	.6	9	74	24	1	140	5
L9+00E 6+00N	.5	4	72	23	1	157	5
L9+00E 6+25N	.4	9	80	34	1	168	10
L9+00E 6+50N	.2	10	85	29	1	157	5
L9+00E 6+75N	.7	19	63	38	1	125	5
L9+00E 7+00N	.1	1	53	26	1	139	5
L9+00E 7+25N	.9	19	64	38	2	141	5
L9+00E 7+50N	1.1	5	54	23	1	106	5
L9+00E 7+75N	1.4	10	61	23	2	115	5
L9+00E 8+00N	1.6	6	60	45	1	124	5
L9+00E 8+25N	.8	9	47	28	1	140	5
L9+00E 8+50N	.8	13	49	34	1	129	5
L9+00E 8+75N	1.2	12	56	30	1	123	5
L9+00E 9+00N	1.6	26	76	57	1	109	5
L9+00E 9+25N	1.1	15	66	33	1	142	5
L9+00E 9+50N	1.2	11	43	26	1	108	5
L9+00E 9+75N	1.1	10	43	17	1	100	5
L9+00E 10+00N	1.5	14	44	23	1	116	10
L9+00E 10+25N	1.1	10	48	22	1	102	5
L9+00E 10+50N	.9	4	36	14	1	105	5
L9+00E 10+75N	1.2	5	33	18	1	108	5
L9+00E 11+00N	1.2	12	46	24	1	123	5
L10+00E 0+00N	.4	9	50	25	1	96	5
L10+00E 0+25N	.2	4	46	17	1	73	5
L10+00E 0+50N	.5	9	40	18	1	83	5
L10+00E 0+75N	.5	8	39	16	1	110	5
L10+00E 1+00N	.5	9	55	20	1	102	5
L10+00E 1+25N	.6	14	51	22	1	107	5
L10+00E 1+50N	.6	6	41	11	1	116	5
L10+00E 1+75N	.5	10	40	13	1	125	5
L10+00E 2+00N	.4	4	33	8	1	120	5
L10+00E 2+25N	.8	9	42	13	1	267	5
L10+00E 2+50N	.5	1	36	20	1	120	5
L10+00E 2+75N	.6	8	38	19	1	98	5
L10+00E 3+00N	1.0	7	40	19	1	121	5
L10+00E 3+25N	.8	10	46	19	1	113	5
L10+00E 3+50N	1.3	8	67	26	2	217	5
L10+00E 3+75N	1.1	5	42	15	1	211	5
L10+00E 4+00N	.8	11	32	18	1	109	5
L10+00E 4+25N	.6	8	32	9	1	117	5
L10+00E 4+50N	.6	2	29	6	1	240	5
L10+00E 4+75N	.5	6	40	18	1	181	5
L10+00E 5+00N	.5	1	33	11	1	106	5
L10+00E 5+25N	.7	8	37	16	1	103	5
L10+00E 5+50N	.7	11	50	17	1	117	5
L10+00E 5+75N	.8	13	56	25	2	122	5
L10+00E 6+00N	.6	11	48	21	1	112	5
L10+00E 6+25N	.6	6	64	28	1	146	5
L10+00E 6+50N	.3	14	66	19	1	151	5
L10+00E 6+75N	.6	14	61	30	2	123	5
L10+00E 7+00N	.1	6	55	36	1	135	5
L10+00E 7+25N	.5	6	50	23	1	105	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ17+18
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L10+00E 7+50N	1.4	12	72	49	2	124	5
L10+00E 7+75N	.6	7	58	42	1	125	5
L10+00E 8+00N	.7	2	58	29	1	138	5
L10+00E 8+25N	.6	11	64	20	1	114	10
L10+00E 8+50N	.8	3	45	18	1	125	5
L10+00E 8+75N	.8	11	48	21	1	132	5
L10+00E 9+00N	.6	5	47	19	1	139	5
L10+00E 9+25N	.4	10	57	12	1	72	5
L10+00E 9+50N	.9	14	56	31	1	147	5
L10+00E 9+75N	.6	6	69	21	1	109	5
L10+00E 10+00N	1.6	21	95	39	2	124	5
L10+00E 10+25N	1.1	18	50	34	2	97	5
L10+00E 10+50N	1.1	21	49	26	1	110	5
L10+00E 10+75N	.8	1	35	14	1	99	5
L10+00E 11+00N	.3	16	29	21	1	52	5
L11+00E 0+00N	.6	11	37	13	1	135	5
L11+00E 0+25N	.5	10	51	24	1	134	5
L11+00E 0+50N	.3	6	45	16	1	129	5
L11+00E 0+75N	.3	10	47	14	1	149	25
L11+00E 1+00N	.7	9	65	18	1	130	5
L11+00E 1+25N	.7	9	54	24	1	137	5
L11+00E 1+50N	.6	18	56	21	1	131	5
L11+00E 1+75N	.5	9	44	21	1	162	5
L11+00E 2+00N	.2	13	42	10	1	154	5
L11+00E 2+25N	1.1	18	51	26	1	116	5
L11+00E 2+50N	.8	10	43	15	1	114	5
L11+00E 2+75N	.6	13	36	4	1	93	5
L11+00E 3+00N	.6	2	25	5	1	92	5
L11+00E 3+25N	.6	9	37	14	1	94	5
L11+00E 3+50N	.2	5	30	11	1	108	5
L11+00E 3+75N	.7	3	20	14	1	92	5
L11+00E 4+00N	.3	3	24	14	1	99	5
L11+00E 4+25N	.7	6	24	7	1	81	5
L11+00E 4+50N	.5	5	26	8	1	74	5
L11+00E 4+75N	.6	11	27	8	1	79	5
L11+00E 5+00N	.6	9	44	13	1	100	5
L11+00E 5+25N	.5	10	48	15	1	111	5
L11+00E 5+50N	.8	13	45	18	1	130	5
L11+00E 5+75N	1.0	16	46	24	1	99	5
L11+00E 6+00N	1.0	21	57	29	3	110	5
L11+00E 6+25N	.7	14	49	17	1	114	5
L11+00E 6+50N	.7	19	40	16	1	103	5
L11+00E 6+75N	.5	15	40	14	1	116	5
L11+00E 7+00N	1.1	14	55	35	1	105	5
L11+00E 7+25N	.9	13	60	21	1	107	10
L11+00E 7+50N	.8	16	53	22	1	116	5
L11+00E 7+75N	1.0	22	47	26	1	123	5
L11+00E 8+00N	.9	13	36	12	1	104	5
L11+00E 8+25N	1.6	25	69	39	1	120	5
L11+00E 8+50N	.8	13	40	26	1	105	5
L11+00E 8+75N	1.5	18	49	31	1	112	5
L11+00E 9+00N	.8	22	94	32	2	150	5
L11+00E 9+25N	1.1	21	58	31	1	110	5
L11+00E 9+50N	1.6	14	76	40	3	122	5
L11+00E 9+75N	.9	13	44	28	1	122	5
L11+00E 10+00N	1.4	17	63	32	1	107	5
L11+00E 10+25N	2.2	16	61	34	3	116	60
L11+00E 10+50N	.6	23	47	26	2	96	5
L11+00E 10+75N	.8	13	44	18	1	89	5
L11+00E 11+00N	.3	15	40	19	1	94	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ19+20
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
L12+00E 0+00N	.6	1	44	23	1	106	10
L12+00E 0+25N	.6	3	53	19	1	132	5
L12+00E 0+50N	.6	1	28	14	1	114	10
L12+00E 0+75N	.5	1	51	20	1	113	5
L12+00E 1+00N	.8	6	77	37	2	134	5
L12+00E 1+25N	.5	7	75	28	1	97	5
L12+00E 1+50N	.5	6	65	33	1	104	5
L12+00E 1+75N	.6	6	54	26	1	96	5
L12+00E 2+00N	.7	17	60	26	1	95	5
L12+00E 2+25N	.4	2	50	20	1	99	5
L12+00E 2+50N	.7	7	53	28	1	134	5
L12+00E 2+75N	.6	8	45	17	1	115	5
L12+00E 3+00N	.6	9	40	25	1	100	5
L12+00E 3+25N	.8	6	45	17	1	106	5
L12+00E 3+50N	.8	2	64	18	1	111	5
L12+00E 3+75N	.4	4	29	14	1	84	10
L12+00E 4+00N	.9	1	56	17	1	94	5
L12+00E 4+25N	1.4	1	47	31	1	115	15
L12+00E 4+50N	1.2	6	44	16	1	128	5
L12+00E 4+75N	1.3	8	68	32	1	111	5
L12+00E 5+00N	1.2	15	46	30	1	98	5
L12+00E 5+25N	.8	11	56	28	1	123	5
L12+00E 5+50N	.8	7	54	27	1	90	5
L12+00E 5+75N	.8	10	61	21	1	98	5
L12+00E 6+00N	.3	10	54	25	1	84	5
L12+00E 6+25N	.8	6	38	8	1	85	5
L12+00E 6+50N	.6	9	44	15	1	83	5
L12+00E 6+75N	.6	11	44	18	1	87	5
L12+00E 7+00N	.4	5	36	17	1	84	5
L12+00E 7+25N	.6	5	54	23	1	96	5
L12+00E 7+50N	.4	1	39	18	1	101	5
L12+00E 7+75N	.2	6	40	23	1	104	5
L12+00E 8+00N	.7	7	52	34	1	121	5
L12+00E 8+25N	.6	9	44	29	1	116	10
L12+00E 8+50N	.7	1	50	21	1	124	5
L12+00E 8+75N	1.2	10	83	17	1	111	110
L12+00E 9+00N	1.4	20	69	16	2	72	5
L12+00E 9+25N	.7	8	44	17	1	116	5
L12+00E 9+50N	.7	10	55	21	1	115	5
L12+00E 9+75N	.7	8	68	32	1	115	5
L12+00E 10+00N	1.0	20	84	33	2	141	5
L12+00E 10+25N	.4	11	70	28	2	132	5
L12+00E 10+50N	.6	9	50	19	1	102	70
L12+00E 10+75N	.4	7	60	23	1	103	5
L12+00E 11+00N	.5	10	53	21	1	107	5
RTS 10+50N 10+00W	.4	12	73	31	1	109	5
RTS 10+50N 10+25W	.1	10	68	29	1	107	5
RTS 10+50N 10+50W	.4	19	76	32	1	123	5
RTS 10+50N 10+75W	.3	11	87	33	1	315	120
RTS 10+50N 11+00W	.5	14	68	26	1	143	5
RTS 10+50N 11+25W	.3	7	41	11	1	90	5
RTS 10+50N 11+50W	1.5	17	83	25	1	99	5
RTS 10+50N 11+75W	1.0	17	90	37	1	108	5
RTS 10+50N 12+00W	.6	15	75	24	1	107	5
RTS 11+00N 10+00W	.4	6	55	22	1	107	5
RTS 11+00N 10+25W	.5	8	45	28	1	108	5
RTS 11+00N 10+50W	.4	2	57	30	1	116	5
RTS 11+00N 10+75W	.4	6	50	24	1	124	5
RTS 11+00N 11+00W	.5	1	51	19	1	98	5
RTS 11+00N 11+25W	.3	9	56	34	1	121	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1274-SJ21
DATE: OCT-13-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RTS 11+00N 11+50W	.7	1	58	35	2	121	5
RTS 11+00N 11+75W	.4	1	41	23	1	100	5
RTS 11+00N 12+00W	1.0	8	46	32	2	93	5
RTS 11+50N 10+00W	2.0	2	121	55	4	131	5
RTS 11+50N 10+25W	1.4	5	76	38	3	110	5
RTS 11+50N 10+50W	1.2	1	100	55	3	135	5
RTS 11+50N 10+75W	.7	1	82	22	1	94	5
RTS 11+50N 11+00W	.4	6	45	20	1	103	5
RTS 11+50N 11+25W	.6	5	69	35	1	114	10
RTS 11+50N 11+50W	.3	11	51	15	1	112	5
RTS 11+50N 11+75W	.5	1	66	35	2	123	5
RTS 11+50N 12+00W	.4	3	52	23	1	118	5
RTS 12+00N 10+25W	.9	3	59	23	1	116	5
RTS 12+00N 10+50W	.6	5	43	17	1	185	5
RTS 12+00N 10+75W	.6	5	78	35	1	141	5
RTS 12+00N 11+00W	.6	7	56	19	1	116	5
RTS 12+00N 11+25W	.8	8	65	17	2	104	5
RTS 12+00N 11+50W	.8	6	57	4	1	73	5
RTS 12+00N 12+00W	.8	8	82	42	3	134	5
RRS 4900-001	.3	2	65	2	1	91	5
RRS 4900-003	.6	14	70	17	1	123	15
RRS 4900-004	.9	16	76	14	1	101	5
RRS 4900-005	.9	11	84	29	1	135	5
RRS 4900-006	.7	8	71	21	3	95	5
RRS 4900-008	.6	11	74	23	1	134	5

APPENDIX V

RIDGE GRID ROCK SAMPLE RESULTS

COMP: MINNOVA INC.
PROJ: 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1332-RJ2
DATE: OCT-25-89
* TYPE ROCK GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RL197	.1	1	125	25	23	1	117	5
RL198	.1	1	48	35	44	1	82	5
RL199	.1	1	260	6	30	1	60	5
RL200	.1	30	36	75	12	1	39	5
RL201	.1	13	61	19	4	1	112	230
RL202	.1	15	26	66	26	2	49	5
RL203	.1	1	145	32	21	3	121	10
RL204	.1	35	35	71	46	4	69	5
RL205	.1	1	59	19	54	1	128	5
RL206	.1	17	53	35	42	1	89	5
RL207	.1	1	90	27	32	1	69	5
RL208	.1	9	84	83	39	1	63	5
RL209	.1	1	159	50	37	1	77	5
RL210	.1	1	251	55	52	2	115	5
RL223	.1	1	143	4	16	1	162	10
RL224	.1	14	24	17	10	1	66	40
RL225	.1	5	103	15	27	1	165	5

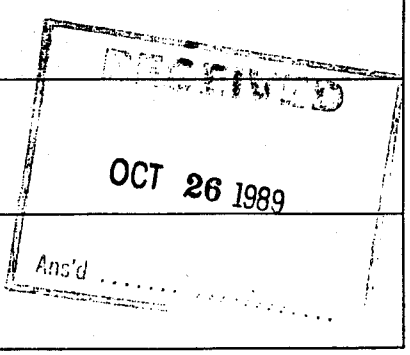
COMP: MINNOVA INC.
PROJ: 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1332-RL2
DATE: OCT-25-89
* TYPE ROCK GEOCHEM * (ACT:FIRE)

SAMPLE NUMBER	AL2O3 %	BAT %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT(%)
RL197	18.35	.065	.10	5.10	2.96	.40	.26	7.51	.05	61.92	.13	.04	96.91
RL198	18.05	.050	2.20	8.17	2.06	3.20	.13	3.27	.14	55.93	.61	.66	94.48
RL199	17.03	.230	4.07	5.10	3.76	1.76	.14	2.68	.15	59.31	.51	.16	94.91
RL200	19.39	.030	.13	3.63	1.79	.31	.02	9.39	.05	62.84	.13	.01	97.72
RL201	19.15	.095	.06	4.28	6.80	.12	.04	6.05	.04	61.66	.12	.06	98.47
RL202	5.13	.015	2.30	7.52	.49	1.67	.18	.63	.12	77.58	.56	.90	97.10
RL203	18.92	.330	.24	5.30	2.21	1.36	.08	7.91	.07	60.31	.35	.22	97.30
RL204	14.09	.085	4.85	10.54	3.26	7.19	.29	3.14	.25	51.68	1.05	.04	96.48
RL205	16.17	.045	2.67	8.41	1.38	4.72	.28	3.63	.18	56.25	.91	.14	94.80
RL206	10.35	.030	1.72	6.48	.82	2.51	.22	2.29	.12	71.69	.79	.19	97.20
RL207	17.92	.085	4.17	5.67	2.13	2.19	.16	3.14	.17	60.40	.43	.30	96.74
RL208	15.79	.060	6.47	10.55	2.35	6.05	.22	2.65	.28	49.89	1.07	.66	96.04
RL209	17.80	.130	3.56	5.78	2.67	2.37	.30	4.57	.15	57.32	.49	.08	95.21
RL210	13.48	.070	5.99	9.37	2.43	4.20	.31	.96	.24	56.86	1.87	.12	95.90
RL223	19.20	.060	.52	5.20	2.34	.37	.14	8.61	.07	61.68	.15	.03	98.37
RL224	17.91	.050	.07	4.69	7.22	.11	.03	4.76	.04	63.24	.09	.04	98.25
RL225	19.42	.085	.50	7.40	4.32	.55	.68	5.87	.08	58.33	.81	.04	98.10



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LABORATORIES

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Assay Certificate

9V-1332-RA1

Company: MINNOVA INC.
Project: 656
Attn: I.PIRIE/N.GIBSON

Date: OCT-25-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Assay of 17 ROCK samples submitted OCT-11-89 by K.LEE.

Sample Number	LOI %
RL197	2.00
RL198	5.10
RL199	4.60
RL200	1.25
RL201	.60
RL202	3.00
RL203	1.90
RL204	2.50
RL205	4.40
RL206	2.10
RL207	2.50
RL208	3.70
RL209	3.80
RL210	3.50
RL223	.55
RL224	.75
RL225	1.25

Certified by _____

MIN-EN LABORATORIES

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1312-RJ3
DATE: OCT-16-89
* TYPE ROCK GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RL211	.9	1	54	21	23	1	76	5
RL212	.2	1	62	67	32	1	91	10
RL213	.4	5	116	31	10	1	25	10
RL214	.4	16	86	6	6	1	37	10
RL215	.6	3	101	7	13	1	176	5
RL216	.6	16	103	87	101	1	36	5
RL217	4.3	1	41	76	40	5	74	20
RL218	4.6	13	116	128	41	6	68	15
RL219	.1	1	23	216	80	11	114	15
RL220	.4	1	89	10	14	1	33	10

COMP: MINNOVA INC.
PROJ: 656 RICHTER
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1312-RL3
DATE: OCT-16-89
* TYPE ROCK GEOCHEM * (ACT:FIRE)

SAMPLE NUMBER	AL2O3 %	BAT %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT(%)
RL211	16.40	.065	4.99	5.93	1.88	2.49	.16	2.82	.17	60.81	.49	.15	96.36
RL212	8.96	.060	.32	7.04	2.01	2.61	.15	.06	.11	73.58	.81	.02	95.73
RL213	15.97	.085	3.32	3.57	3.53	1.03	.14	3.45	.11	63.80	.36	.02	95.40
RL214	16.74	.065	2.83	3.42	3.36	.92	.08	2.82	.11	64.07	.31	.08	94.82
RL215	17.95	.120	.39	4.42	6.08	.36	.14	5.70	.06	62.48	.13	.03	97.87
RL216	16.90	.085	.70	5.34	3.69	1.48	.08	2.82	.09	64.22	.43	.02	95.87
RL217	12.15	.045	7.10	11.24	1.75	5.98	.34	1.91	.29	53.19	1.90	.66	96.57
RL218	12.80	.065	9.23	11.31	2.16	4.86	.40	1.03	.30	49.93	2.45	1.42	95.97
RL219	10.31	.005	3.04	31.28	.01	1.45	6.64	1.55	.32	39.95	.39	3.50	98.42
RL220	13.54	.060	3.62	3.94	2.88	1.51	.12	2.62	.13	65.62	.38	.10	94.54

MIN
• EN
LABORATORIES

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Assay Certificate

9V-1312-RA1

Company: MINNOVA INC.
Project: 656 RICHTER
Attn: I.PIRIE/N.GIBSON

Date: OCT-16-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 10 ROCK samples submitted OCT-11-89 by J.FOFONOFF.

Sample Number	LOI %
RL211	2.70
RL212	3.20
RL213	4.00
RL214	4.30
RL215	1.15
RL216	3.40
RL217	3.10
RL218	4.40
RL219	4.10
RL220	4.70

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MIN-EN LABORATORIES

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1339-RJ1
DATE: OCT-25-89
* TYPE ROCK GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
RL 221	3.6	14	47	99	46	2	96	5
RL 222	1.2	17	142	74	28	1	78	5

COMP: MINNOVA INC.
PROJ: RICHTER 656
ATTN: I.PIRIE/N.GIBSON

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1339-RL2
DATE: OCT-25-89
* TYPE ROCK GEOCHEM * (ACT:FIRE)

SAMPLE NUMBER	AL2O3 %	BAT %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT(%)
RL221	14.70	.040	9.00	10.46	.62	6.79	.19	3.69	.31	47.35	2.30	.25	95.70
RL222	17.28	.050	3.86	4.29	1.64	1.58	.08	4.07	.13	58.85	.40	.05	92.27

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• EN
LABORATORIES [redacted].

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Assay Certificate

9V-1339-RA1

Company: MINNOVA INC.
Project: RICHTER 656
Attn: I.PIRIE/N.GIBSON

Date: OCT-25-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

He hereby certify the following Assay of 2 ROCK samples submitted OCT-16-89 by W.HINDLEY.

Sample Number	LOI %
RL221	3.40
RL222	6.70

[redacted]

Certified by _____

MIN-EN LABORATORIES

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VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-1332-RG1

Company: MINNOVA INC.
Project: 656
Attn: I.PIRIE/N.GIBSON

Date: OCT-20-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 28 ROCK samples submitted OCT-11-89 by K.LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG404	11	9	36	0.4	2
RG405	6	8	12	0.2	8
RG406	18	12	8	0.5	2
RG407	22	12	61	0.4	4
RG408	32	22	27	0.4	3
RG409	86	14	48	0.6	2
RG410	48	15	42	0.3	1
RG411	12	8	11	0.6	9
RG412	16	13	20	0.4	1
RG413	8	8	7	0.4	1
RG414	10	6	6	0.3	2
RG415	14	12	45	0.5	3
RG416	12	9	11	0.2	2
RG417	4	6	8	0.3	1
RG418	11	9	14	0.6	3
RG419	13	5	5	0.2	6
RG420	26	41	31	0.4	7
RG442	16	14	84	0.3	40
RG443	26	18	85	0.4	10
RG444	19	21	21	0.5	2
RG445	48	12	105	0.6	1
RG446	16	23	75	1.1	8
RG447	5	7	7	0.2	2
RG448	5	6	11	0.5	1
RG449	36	20	63	0.9	2
RG450	44	23	106	1.3	1
RG451	22	9	65	0.9	1
RG452	138	29	110	1.2	2

OCT 1989

Certified by _____

MIN-EN LABORATORIES

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VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-1312-RG1

Company: MINNOVA INC.
Project: 656 RICHTER
Attn: I.PIRIE/N.GIBSON

Date: OCT-16-89
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted OCT-11-89 by J.FOFONOFF.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
JK01	4	176	23	0.4	2
JK02	28	67	69	0.6	1
JK03	13	26	18	0.3	10
JK04	22	33	16	0.5	4
JK05	1	15	8	0.1	5
JK06	37	18	73	0.5	4
JK07	2	10	58	0.4	2
JK08	4	2	8	0.1	4
JK09	143	16	68	0.9	1
JK10	40	18	47	0.7	2
1	12	12	62	0.2	6
RG421	37	19	88	0.4	2
RG422	99	23	68	0.9	8
RG423	23	7	21	0.4	2
RG424	2	3	5	0.1	1
RG425	36	10	12	0.3	1
RG426	54	24	57	0.9	2
RG427	60	29	48	1.0	4
RG428	174	32	99	1.3	9
RG429	21	20	37	0.3	8
RG430	19	11	14	0.2	1
RG431	14	24	137	0.4	2
RG432	11	8	20	0.1	3
RG433	72	19	49	0.3	2
RG434	30	15	26	0.2	4
RG435	51	23	28	0.2	2
RG436	65	24	28	0.3	4
RG437	17	10	10	0.1	2
RG438	51	18	50	0.2	1
RG439	62	11	26	0.1	1

Certified by _____

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VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-1312-RG2

Company: MINNOVA INC.
Project: 656 RICHTER
Attn: I.PIRIE/N.GIBSON

Date: OCT-16-89

Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 2 ROCK samples submitted OCT-11-89 by J.FOFONOFF.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG440	10	14	30	0.1	2
RG441	15	9	15	0.1	1

Certified by

MIN-EN LABORATORIES

APPENDIX VI

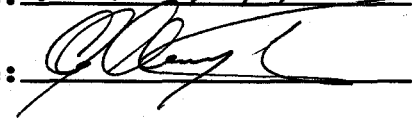
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Cameron J. Clayton, of 1285 Bracknell Place, North Vancouver, B.C. do hereby certify that:

1. I am a graduate of Queen's University, Kingston, Ontario with a B.Sc. in Geological Engineering.
2. I have practised my profession for four years.
3. I am a contract geologist currently employed by Minnova, Inc.
4. I have personally reviewed all rock samples and analytical results presented in this report.
5. I have personally worked on the Richter Property for Minnova, Inc for the purposes of continuing exploration begun in 1989.

Date: Nov. 9, 1990

Signature: 

APPENDIX VII

BIBLIOGRAPHY

BIBLIOGRAPHY

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APPENDIX VIII

RECONNAISSANCE SOIL SAMPLING STATISTICAL ANALYSES

```
*****  *****  *     *  *    *  *****  *    *          06-NOV-90
*      *   *  *     *  **   *  *      *    *
*      *****  *     *  * *  *  *      *****
*      * *    *     *  *  ** *  *      *    *
*****  *  **  ******  *    *  *****  *    *
```

A PROGRAM IN THE Q'GAS SYSTEM TO PREPARE
DATA FOR USE WITH OTHER Q'GAS PROGRAMS

Version 5.0.3 March 1986

NPUT DATA TITLE: RICH I GROUP 1989 RECONNAISSANCE SOILS

THE FOLLOWING VARIABLES HAVE BEEN RECOGNIZED ON THE INPUT DATA SET.

AG AS CU PB ZN AU

** THE FOLLOWING SPECIAL VALUES WERE RECODED TO EQUAL -1234.567 **

ARIABLE NAME SPECIAL VALUE

AG	-999.000
AS	-999.000
CU	-999.000
PB	-999.000
ZN	-999.000
AU	-999.000

***** THE FOLLOWING TRANSFORMATIONS WERE USED IN CREATING THIS DATA SET. *****

```
LOGAG  =  LOG(10) AG
LOGAS  =  LOG(10) AS
LOGCU  =  LOG(10) CU
LOGPB  =  LOG(10) PB
LOGZN  =  LOG(10) ZN
LOGAU  =  LOG(10) AU
```

THE FOLLOWING VARIABLES WERE TRANSFERRED TO THE OUTPUT DATA SET.

AG AS CU PB ZN AU LOGAG
LOGAS LOGCU LOGPB LOGZN LOGAU

NUMBER OF OUTPUT SAMPLES = 225

```
 ****    *****  *****    *     *****  *****          06-NOV-90
 *   *   *        *      * *      *    *
 *   *   *****    *     *   *     *    *****
 *   *       *    *     *****     *        *
 ****    *****    *     *   *     *    *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

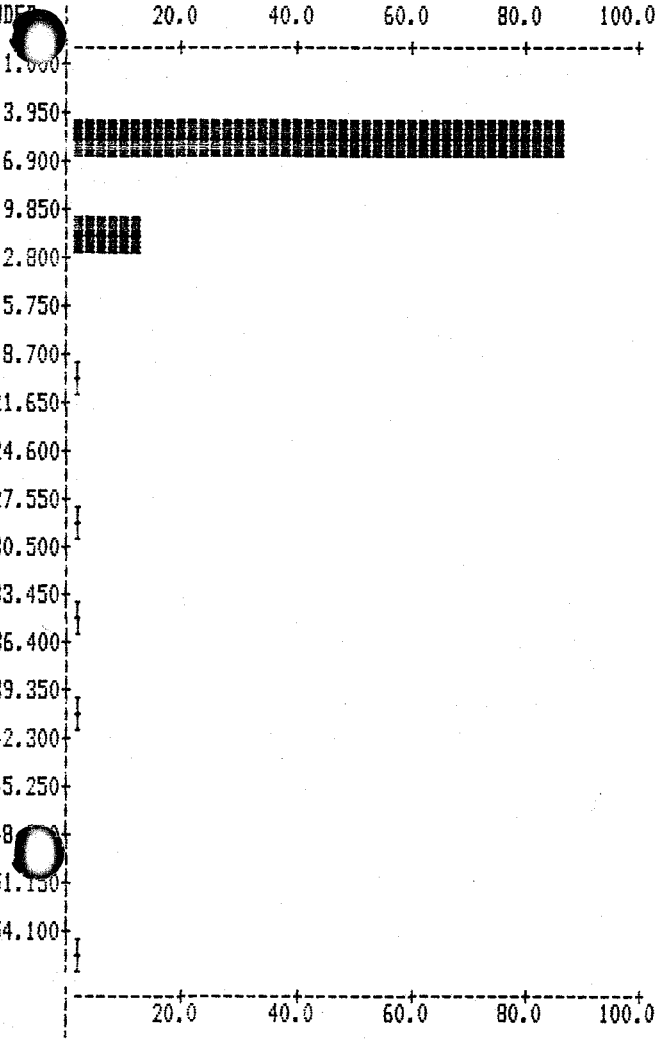
DATA TITLE: RICH I GROUP 1989 RECONNAISSANCE SOILS

THE LOWING VARIABLES ARE IN THE DATA SET:

AG	AS	CU	PB	ZN	AU	LOGAG	LOGAS
LOGCU	LOGPB						
LOGZN	LOGAU						

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : AU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	0	0.00	0.00	3.950
3.950	193	85.78	85.78	6.900
6.900	0	0.00	85.78	9.850
9.850	25	11.11	96.89	12.800
12.800	0	0.00	96.89	15.750
15.750	0	0.00	96.89	18.700
18.700	2	0.89	97.78	21.650
21.650	0	0.00	97.78	24.600
24.600	0	0.00	97.78	27.550
27.550	1	0.44	98.22	30.500
30.500	0	0.00	98.22	33.450
33.450	2	0.89	99.11	36.400
36.400	0	0.00	99.11	39.350
39.350	1	0.44	99.56	42.300
42.300	0	0.00	99.56	45.250
45.250	0	0.00	99.56	48.200
48.200	0	0.00	99.56	51.150
51.150	0	0.00	99.56	54.100
54.100	1	0.44		

VARIABLE:	AU
NUMBER OF OBSERVATIONS:	225
MINIMUM:	5.000
MAXIMUM:	55.000
MEAN:	6.444
STANDARD ERROR OF MEAN:	0.366
STANDARD DEVIATION:	5.492
COEFFICIENT OF VARIATION:	85.216
SKEWNESS:	5.834
KURTOSIS:	38.712

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.594	0	22.5	-22.5	22.500
-0.594	TO	1.823	0	22.5	-22.5	22.500
1.823	TO	3.565	0	22.5	-22.5	22.500
3.565	TO	5.053	193	22.5	170.5	1292.011
5.053	TO	6.444	0	22.5	-22.5	22.500
6.444	TO	7.835	0	22.5	-22.5	22.500

9.324	TO	11.066	25	22.5	2.5	0.278
11.066	TO	13.483	0	22.5	-22.5	22.500
13.483	TO	+INFINITY	7	22.5	-15.5	10.678

CHI-SQUARED VALUE IS 1460.47. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

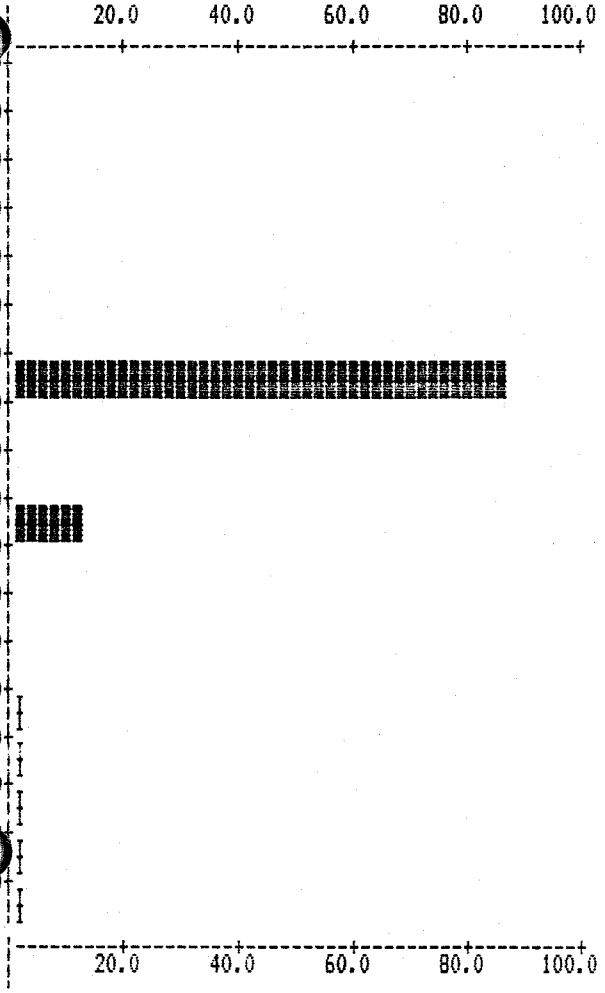
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

ATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

ARIABLE : LOGAU



LOWER BOUND NCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.100	0	0.00	0.00	0.100
0.200	0	0.00	0.00	0.200
0.300	0	0.00	0.00	0.300
0.400	0	0.00	0.00	0.400
0.500	0	0.00	0.00	0.500
0.600	0	0.00	0.00	0.600
0.700	193	85.78	85.78	0.700
0.800	0	0.00	85.78	0.800
0.900	0	0.00	85.78	0.900
1.000	25	11.11	96.89	1.000
1.100	0	0.00	96.89	1.100
1.200	0	0.00	96.89	1.200
1.300	0	0.00	96.89	1.300
1.400	2	0.89	97.78	1.400
1.500	1	0.44	98.22	1.500
1.600	2	0.89	99.11	1.600
1.700	1	0.44	99.56	1.700
	1	0.44		

VARIABLE:	LOGAU
NUMBER OF OBSERVATIONS:	225
MINIMUM:	0.699
MAXIMUM:	1.740
MEAN:	0.757
STANDARD ERROR OF MEAN:	0.011
STANDARD DEVIATION:	0.166
COEFFICIENT OF VARIATION:	21.889
SKEWNESS:	3.452
KURTOSIS:	13.124

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : LOGAU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFIN	TO	0.545	0	22.5	-22.5	22.500
0.545	TO	0.618	0	22.5	-22.5	22.500
0.618	TO	0.670	0	22.5	-22.5	22.500
0.670	TO	0.715	193	22.5	170.5	1292.011
0.715	TO	0.757	0	22.5	-22.5	22.500
0.757	TO	0.799	0	22.5	-22.5	22.500
0.799	TO	0.844	0	22.5	-22.5	22.500
[illegible]	TO	[illegible]	[illegible]	22.5	-22.5	22.500

0.897	TO 0.970	0	22.5	-22.5	22.500
0.970	TO +INFINITY	32	22.5	9.5	4.011

CHI-SQUARED VALUE IS 1476.02. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

0.957	TO	1.106	42	22.5	19.5	16.900
1.106	TO	1.281	13	22.5	-9.5	4.011
1.281	TO	1.524	8	22.5	-14.5	9.344
1.524	TO	+INFINITY	2	22.5	-20.5	18.678

CHI-SQUARED VALUE IS 131.67. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

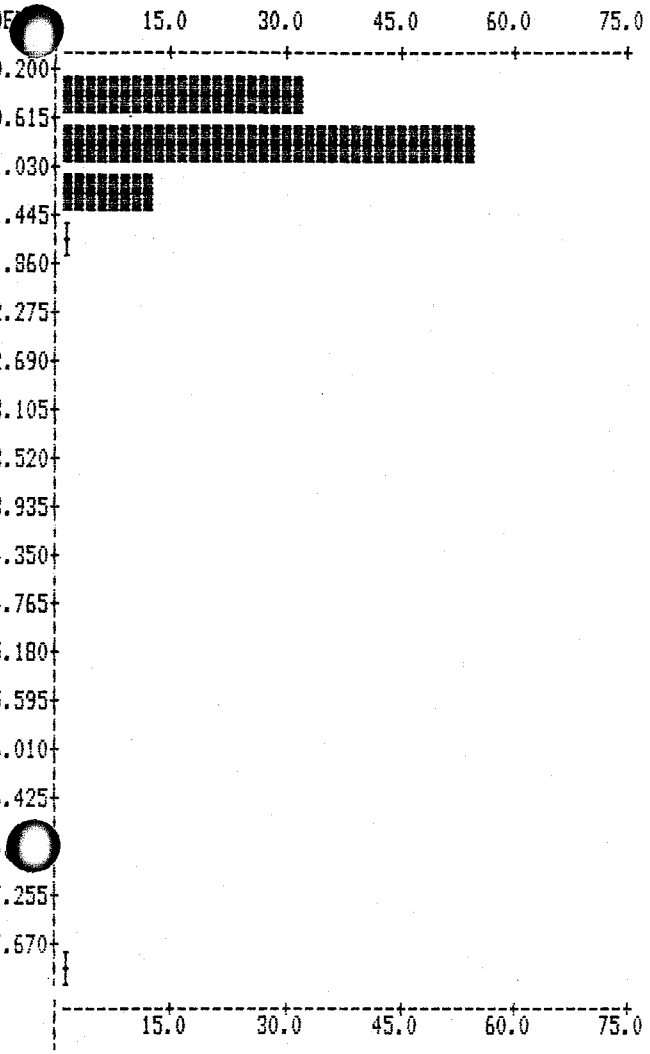
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : AG



LOWER BOUND INCLUDE	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.200
0.200	72	32.00	32.00	0.615
0.615	122	54.22	86.22	1.030
1.030	28	12.44	98.67	1.445
1.445	2	0.89	99.56	1.860
1.860	0	0.00	99.56	2.275
2.275	0	0.00	99.56	2.690
2.690	0	0.00	99.56	3.105
3.105	0	0.00	99.56	3.520
3.520	0	0.00	99.56	3.935
3.935	0	0.00	99.56	4.350
4.350	0	0.00	99.56	4.765
4.765	0	0.00	99.56	5.180
5.180	0	0.00	99.56	5.595
5.595	0	0.00	99.56	6.010
6.010	0	0.00	99.56	6.425
6.425	0	0.00	99.56	6.840
6	0	0.00	99.56	7.255
7.255	0	0.00	99.56	7.670
7.670	1	0.44		

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	225
MINIMUM:	0.200
MAXIMUM:	8.000
MEAN:	0.817
STANDARD ERROR OF MEAN:	0.037
STANDARD DEVIATION:	0.552
COEFFICIENT OF VARIATION:	67.555
SKEWNESS:	9.772
KURTOSIS:	124.741

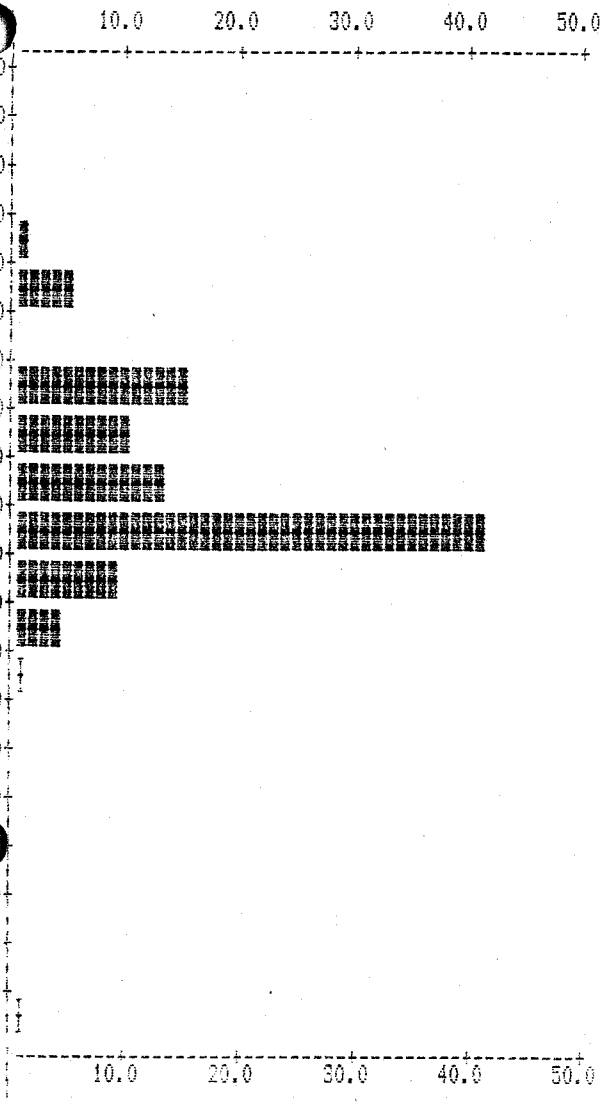
CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE: AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.110	0	22.5	-22.5	22.500
0.110	TO	0.352	15	22.5	-7.5	2.500
0.352	TO	0.528	34	22.5	11.5	5.878
0.528	TO	0.677	23	22.5	0.5	0.011
0.677	TO	0.817	55	22.5	32.5	46.944
0.817	TO	0.957	33	22.5	10.5	4.900

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : LOGAG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	-1.000
-1.000	0	0.00	0.00	-0.900
-0.900	0	0.00	0.00	-0.800
-0.800	0	0.00	0.00	-0.700
-0.700	3	1.33	1.33	-0.600
-0.600	12	5.33	6.67	-0.500
-0.500	0	0.00	6.67	-0.400
-0.400	34	15.11	21.78	-0.300
-0.300	23	10.22	32.00	-0.200
-0.200	30	13.33	45.33	-0.100
-0.100	92	40.89	86.22	0.000
0.000	21	9.33	95.56	0.100
0.100	8	3.56	99.11	0.200
0.200	1	0.44	99.56	0.300
0.300	0	0.00	99.56	0.400
0.400	0	0.00	99.56	0.500
0.500	0	0.00	99.56	0.600
0.600	0	0.00	99.56	0.700
0.700	0	0.00	99.56	0.800
0.800	0	0.00	99.56	0.900
0.900	1	0.44		

VARIABLE:	LOGAG
NUMBER OF OBSERVATIONS:	225
MINIMUM:	-0.699
MAXIMUM:	0.903
MEAN:	-0.131
STANDARD ERROR OF MEAN:	0.012
STANDARD DEVIATION:	0.185
COEFFICIENT OF VARIATION:	-141.512
SKEWNESS:	-0.006
KURTOSIS:	4.140

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2] / EXP]
-INFINITY	TO	-0.368	22	22.5	-0.5	0.011
-0.368	TO	-0.297	27	22.5	4.5	0.900
-0.297	TO	-0.226	0	22.5	-22.5	22.500
[illegible]	TO	[illegible]	19	18.5	0.5	[illegible]

-0.131	TO	-0.084	25	22.5	2.5	0.278
-0.084	TO	-0.034	33	22.5	10.5	4.900
-0.034	TO	0.025	34	22.5	11.5	5.878
0.025	TO	0.107	21	22.5	-1.5	0.100
0.107	TO	+INFINITY	10	22.5	-12.5	6.944

CHI-SQUARED VALUE IS 44.02. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

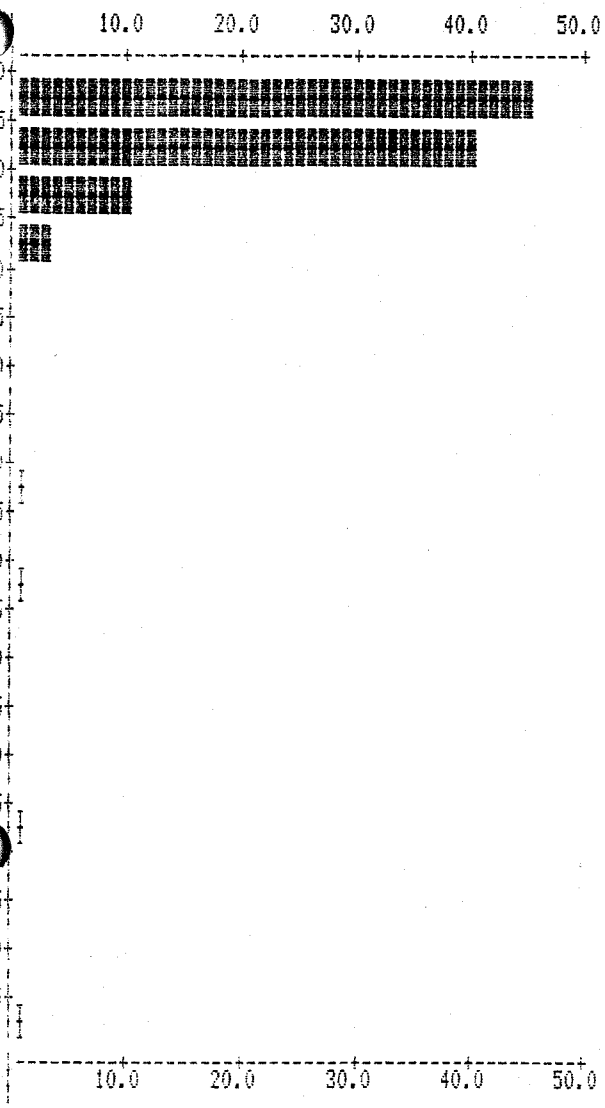
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

ATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

ARIABLE : AS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.500
	101	44.89	44.89	9.475
	91	40.44	85.33	18.450
	22	9.78	95.11	27.425
	7	3.11	98.22	36.400
	0	0.00	98.22	45.375
	0	0.00	98.22	54.350
	0	0.00	98.22	63.325
	0	0.00	98.22	72.300
	1	0.44	98.67	81.275
	0	0.00	98.67	90.250
	1	0.44	99.11	99.225
	0	0.00	99.11	108.200
	0	0.00	99.11	117.175
	0	0.00	99.11	126.150
	0	0.00	99.11	135.125
	1	0.44	99.56	144.100
	0	0.00	99.56	153.075
	0	0.00	99.56	162.050
	0	0.00	99.56	171.025
	1	0.44		

VARIABLE:	AS
NUMBER OF OBSERVATIONS:	225
MINIMUM:	1.000
MAXIMUM:	175.000
MEAN:	13.387
STANDARD ERROR OF MEAN:	1.130
STANDARD DEVIATION:	16.945
COEFFICIENT OF VARIATION:	126.581
SKEWNESS:	6.502
KURTOSIS:	51.596

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

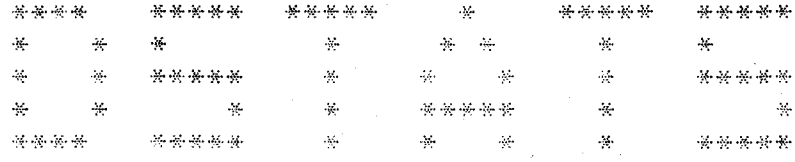
ARIABLE : AS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-8.330	0	22.5	-22.5	22.500
-8.330	TO	-0.974	0	22.5	-22.5	22.500
-0.974	TO	4.501	32	22.5	9.5	4.011
4.501	TO	9.975	59	22.5	46.5	96.[illegible]

13.387	TO	17.679	36	22.5	13.5	8.100
17.679	TO	22.273	17	22.5	-5.5	1.344
22.273	TO	27.648	12	22.5	-10.5	4.900
27.648	TO	35.103	7	22.5	-15.5	10.678
35.103	TO	+INFINITY	4	22.5	-18.5	15.211

CHI-SQUARED VALUE IS 214.24. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30



06-NOV-90

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

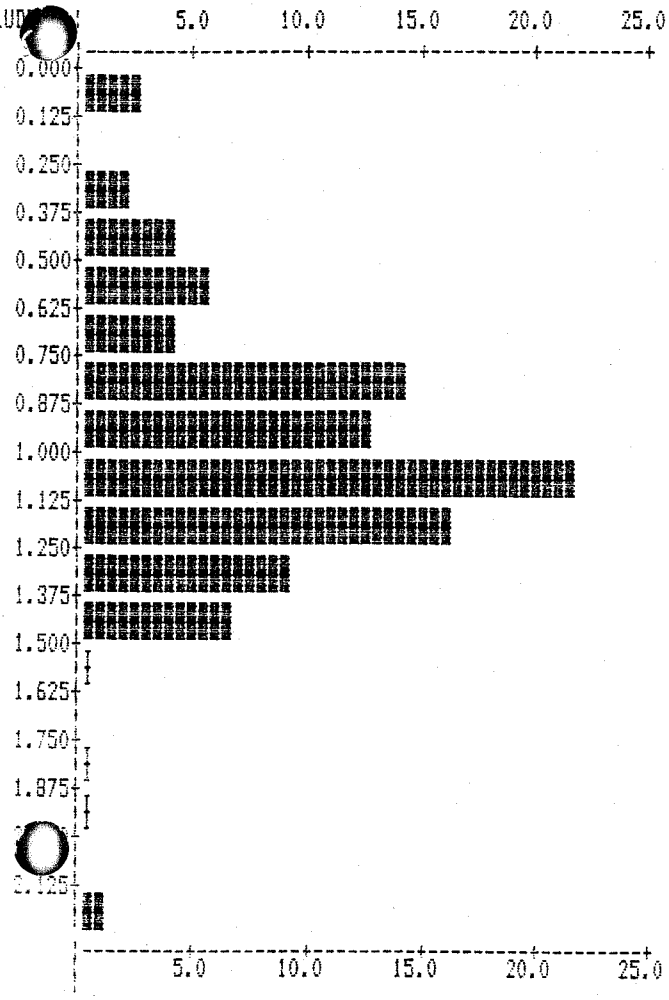
DATA TITLE: RICH I GROUP 1989 RECONNAISSANCE SOILS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG	AS	CU	PB	ZN	AU	LOGAG	LOGAS
LOGCU	LOGPB						
LOGZN	LOGAU						

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : LOGAS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	6	2.67	2.67	0.125
0.125	0	0.00	2.67	0.250
0.250	5	2.22	4.89	0.375
0.375	9	4.00	8.89	0.500
0.500	12	5.33	14.22	0.625
0.625	9	4.00	18.22	0.750
0.750	32	14.22	32.44	0.875
0.875	28	12.44	44.89	1.000
1.000	48	21.33	66.22	1.125
1.125	36	16.00	82.22	1.250
1.250	20	8.89	91.11	1.375
1.375	15	6.67	97.78	1.500
1.500	1	0.44	98.22	1.625
1.625	0	0.00	98.22	1.750
1.750	1	0.44	98.67	1.875
1.875	1	0.44	99.11	2.000
2.000	0	0.00	99.11	2.125
2.125	2	0.89		

VARIABLE:	LOGAS
NUMBER OF OBSERVATIONS:	225
MINIMUM:	0.000
MAXIMUM:	2.243
MEAN:	0.986
STANDARD ERROR OF MEAN:	0.023
STANDARD DEVIATION:	0.341
COEFFICIENT OF VARIATION:	34.561
SKEWNESS:	-0.210
KURTOSIS:	1.837

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INF	TO	0.549	20	22.5	-2.5	0.278
0.549	TO	0.699	21	22.5	-1.5	0.100
0.699	TO	0.807	17	22.5	-5.5	1.344
0.807	TO	0.900	15	22.5	-7.5	2.500
0.900	TO	0.986	28	22.5	5.5	1.344
0.986	TO	1.072	20	22.5	-2.5	0.278
1.072	TO	1.165	36	22.5	13.5	8.100
1.165	TO	1.277	28	22.5	5.5	1.344

1.423	TO +INFINITY	15	22.5	-7.5	2.500

CHI-SQUARED VALUE IS 24.29. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

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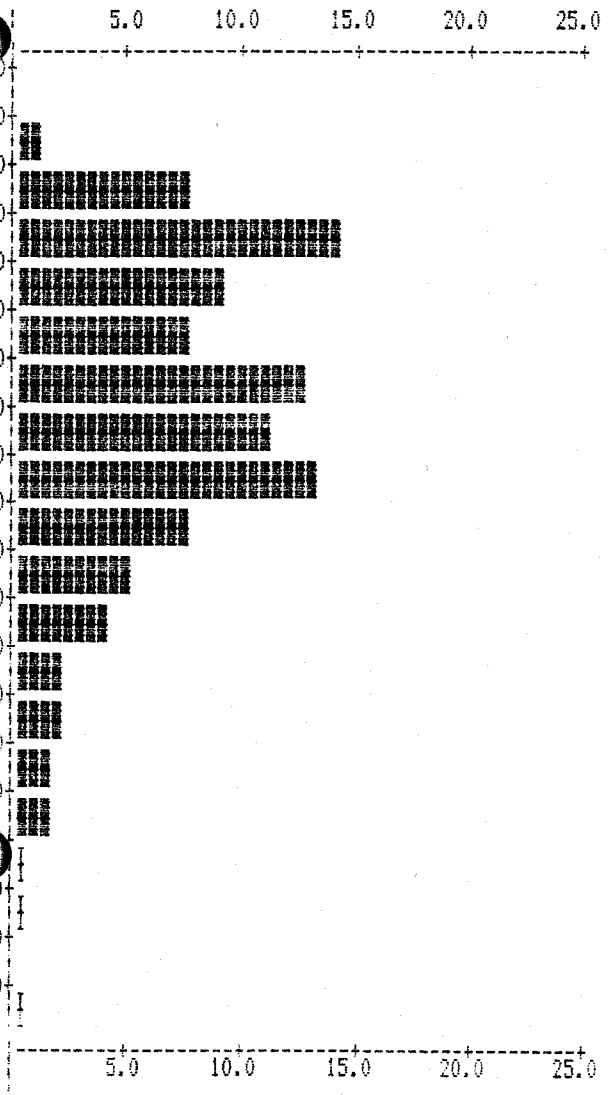
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : CU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	10.000
10.000	0	0.00	0.00	16.500
16.500	2	0.89	0.89	23.000
23.000	17	7.56	8.44	29.500
29.500	32	14.22	22.67	36.000
36.000	20	8.89	31.56	42.500
42.500	17	7.56	39.11	49.000
49.000	28	12.44	51.56	55.500
55.500	25	11.11	62.67	62.000
62.000	29	12.89	75.56	68.500
68.500	17	7.56	83.11	75.000
75.000	11	4.89	88.00	81.500
81.500	9	4.00	92.00	88.000
88.000	5	2.22	94.22	94.500
94.500	4	1.78	96.00	101.000
101.000	3	1.33	97.33	107.500
107.500	3	1.33	98.67	114.000
114	1	0.44	99.11	120.500
120.500	1	0.44	99.56	127.000
127.000	0	0.00	99.56	133.500
133.500	1	0.44		

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	225
MINIMUM:	20.000
MAXIMUM:	136.000
MEAN:	55.871
STANDARD ERROR OF MEAN:	1.449
STANDARD DEVIATION:	21.741
COEFFICIENT OF VARIATION:	38.913
SKEWNESS:	0.757
KURTOSIS:	0.567

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE: CU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	28.008	15	22.5	-7.5	2.500
28.008	TO	37.574	41	22.5	18.5	15.211
37.574	TO	44.470	22	22.5	-0.5	0.011
44.470	TO	50.351	15	22.5	-7.5	2.500
50.351	TO	55.471	23	22.5	0.5	0.011

61.378	TO	67.272	27	22.5	4.5	0.900
67.272	TO	74.168	19	22.5	-3.5	0.544
74.168	TO	83.734	15	22.5	-7.5	2.500
83.734	TO	+INFINITY	23	22.5	0.5	0.011

CHI-SQUARED VALUE IS 24.47. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

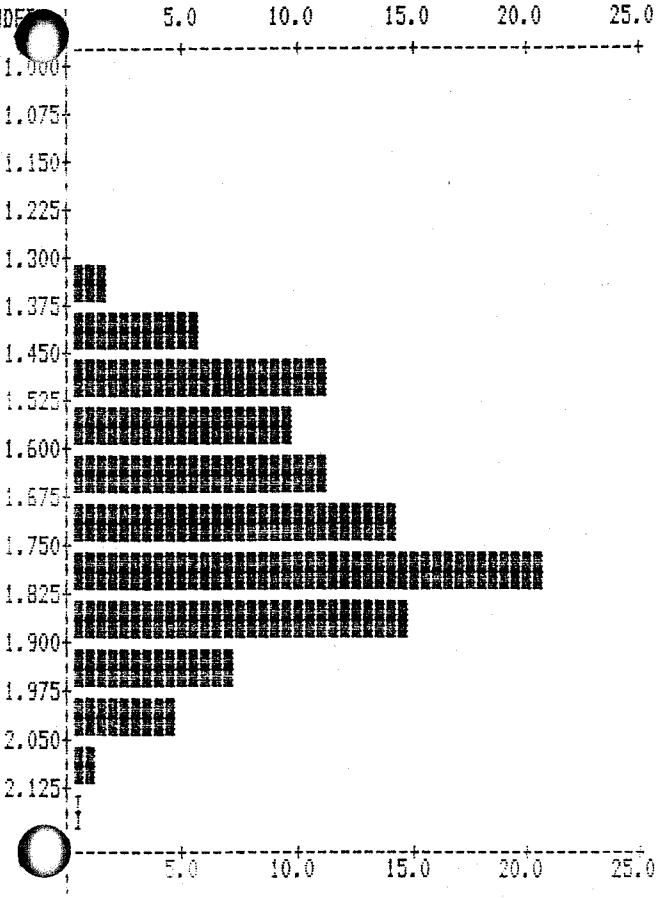
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : LOGCU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	0	0.00	0.00	1.075
1.075	0	0.00	0.00	1.150
1.150	0	0.00	0.00	1.225
1.225	0	0.00	0.00	1.300
1.300	3	1.33	1.33	1.375
1.375	12	5.33	6.67	1.450
1.450	25	11.11	17.78	1.525
1.525	21	9.33	27.11	1.600
1.600	25	11.11	38.22	1.675
1.675	31	13.78	52.00	1.750
1.750	46	20.44	72.44	1.825
1.825	33	14.67	87.11	1.900
1.900	16	7.11	94.22	1.975
1.975	10	4.44	98.67	2.050
2.050	2	0.89	99.56	2.125
2.125	1	0.44		

VARIABLE:	LOGCU
NUMBER OF OBSERVATIONS:	225
MINIMUM:	1.301
MAXIMUM:	2.134
MEAN:	1.714
STANDARD ERROR OF MEAN:	0.011
STANDARD DEVIATION:	0.171
COEFFICIENT OF VARIATION:	9.996
SKEWNESS:	-0.145
KURTOSIS:	-0.618

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGCU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.495	30	22.5	7.5	2.500
1.495	TO	1.570	26	22.5	3.5	0.544
1.[illegible]	TO	1.625	15	22.5	-7.5	2.500
1.[illegible]	TO	1.671	13	22.5	-9.5	4.011
1.671	TO	1.714	14	22.5	-8.5	3.211
1.714	TO	1.758	25	22.5	2.5	0.278
1.758	TO	1.804	28	22.5	5.5	1.344
1.804	TO	1.859	32	22.5	9.5	4.011
1.859	TO	1.934	22	22.5	-0.5	0.011
1.934	TO	+INFINITY	20	22.5	-2.5	0.278

CHI-SQUARED VALUE IS 18.69. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

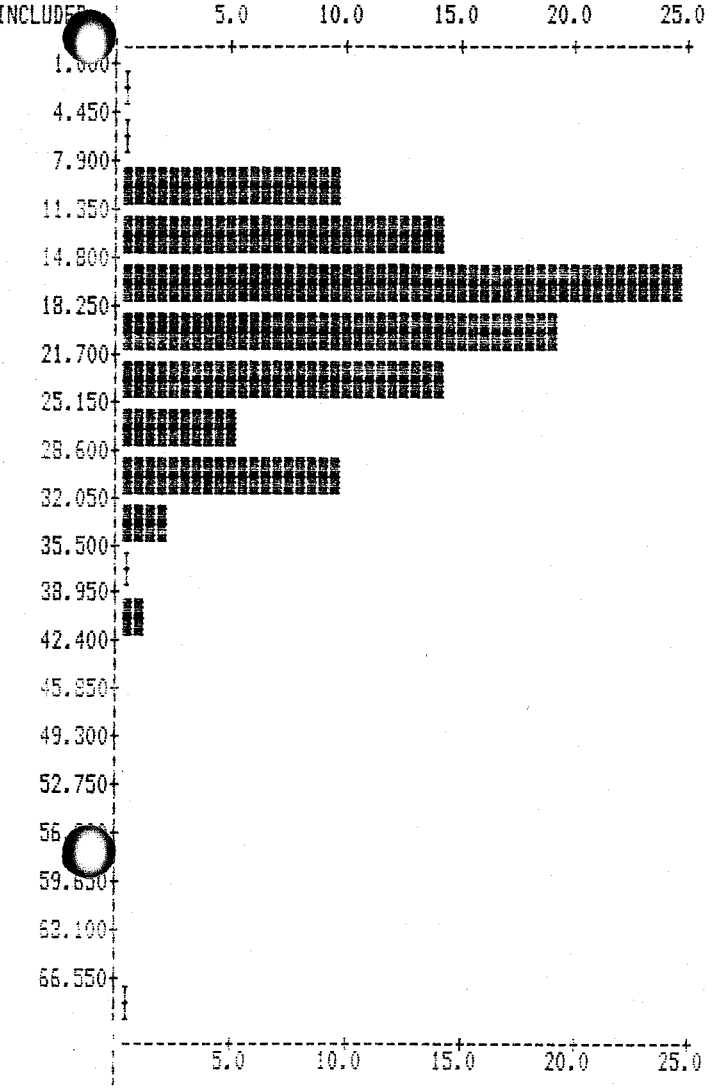
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : PB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	1	0.44	0.44	4.450
4.450	1	0.44	0.89	7.900
7.900	21	9.33	10.22	11.350
11.350	32	14.22	24.44	14.800
14.800	55	24.44	48.89	18.250
18.250	43	19.11	68.00	21.700
21.700	31	13.78	81.78	25.150
25.150	11	4.89	86.67	28.600
28.600	21	9.33	96.00	32.050
32.050	5	2.22	98.22	35.500
35.500	1	0.44	98.67	38.950
38.950	2	0.89	99.56	42.400
42.400	0	0.00	99.56	45.850
45.850	0	0.00	99.56	49.300
49.300	0	0.00	99.56	52.750
52.750	0	0.00	99.56	56.200
56.200	0	0.00	99.56	59.650
59.650	0	0.00	99.56	63.100
63.100	0	0.00	99.56	66.550
66.550	1	0.44		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	225
MINIMUM:	2.000
MAXIMUM:	69.000
MEAN:	19.556
STANDARD ERROR OF MEAN:	0.500
STANDARD DEVIATION:	7.497
COEFFICIENT OF VARIATION:	38.339
SKEWNESS:	1.592
KURTOSIS:	7.309

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE: PB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	9.947	9	22.5	-13.5	8.100
9.947	TO	13.246	33	22.5	10.5	4.900
13.246	TO	15.624	26	22.5	3.5	0.544
15.624	TO	17.858	31	22.5	8.5	3.211
17.858	TO	19.956	27	22.5	5	1.111

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21.455	TO	23.487	20	22.5	-2.5	0.278
23.487	TO	25.865	11	22.5	-11.5	5.878
25.865	TO	29.164	16	22.5	-6.5	1.878
29.164	TO	+INFINITY	25	22.5	2.5	0.278

CHI-SQUARED VALUE IS 26.87. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

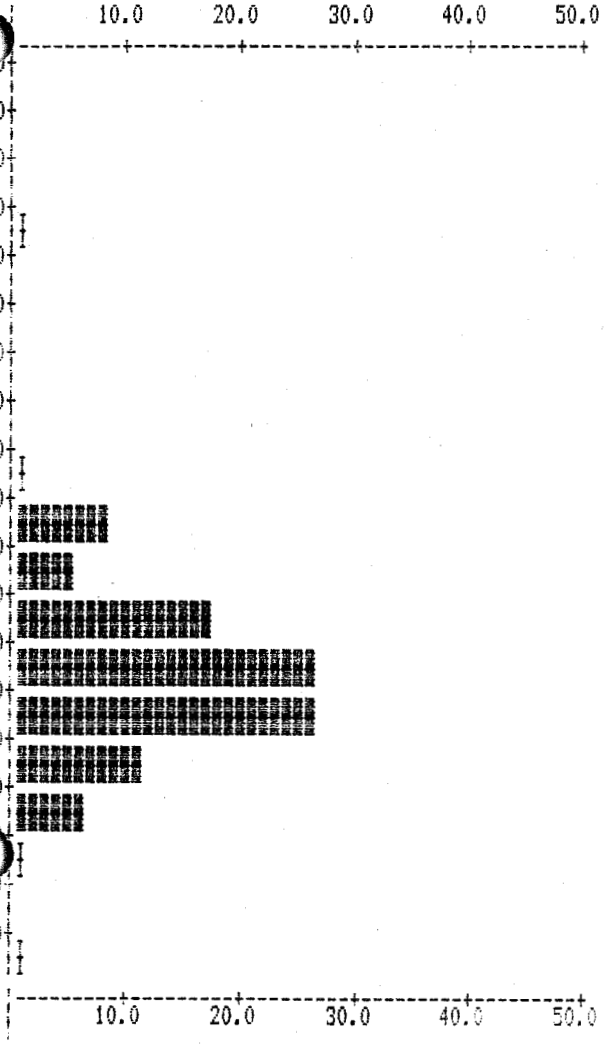
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : LOGPB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.100	0	0.00	0.00	0.100
0.200	0	0.00	0.00	0.200
0.300	0	0.00	0.00	0.300
0.400	1	0.44	0.44	0.400
0.500	0	0.00	0.44	0.500
0.600	0	0.00	0.44	0.600
0.700	0	0.00	0.44	0.700
0.800	0	0.00	0.44	0.800
0.900	1	0.44	0.89	0.900
1.000	17	7.56	8.44	1.000
1.100	11	4.89	13.33	1.100
1.200	38	16.89	30.22	1.200
1.300	58	25.78	56.00	1.300
1.400	58	25.78	81.78	1.400
1.500	25	11.11	92.89	1.500
1.600	14	6.22	99.11	1.600
1.700	1	0.44	99.56	1.700
1.800	0	0.00	99.56	1.800
	1	0.44		

VARIABLE:	LOGPB
NUMBER OF OBSERVATIONS:	225
MINIMUM:	0.301
MAXIMUM:	1.839
MEAN:	1.261
STANDARD ERROR OF MEAN:	0.011
STANDARD DEVIATION:	0.169
COEFFICIENT OF VARIATION:	13.380
SKEWNESS:	-0.769
KURTOSIS:	4.025

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGPB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.044	23	22.5	0.5	0.011
1.044	TO	1.119	19	22.5	-3.5	0.544
1.119	TO	1.172	13	22.5	-9.5	4.011
1.172	TO	1.218	30	22.5	7.5	2.500
1.218	TO	1.261	25	22.5	2.5	0.278
1.261	TO	1.309	22	22.5	-0.5	0.011

1.349	TO	1.403	21	22.5	-1.5	0.100
1.403	TO	1.477	16	22.5	-6.5	1.878
1.477	TO	+INFINITY	25	22.5	2.5	0.278

CHI-SQUARED VALUE IS 13.71. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

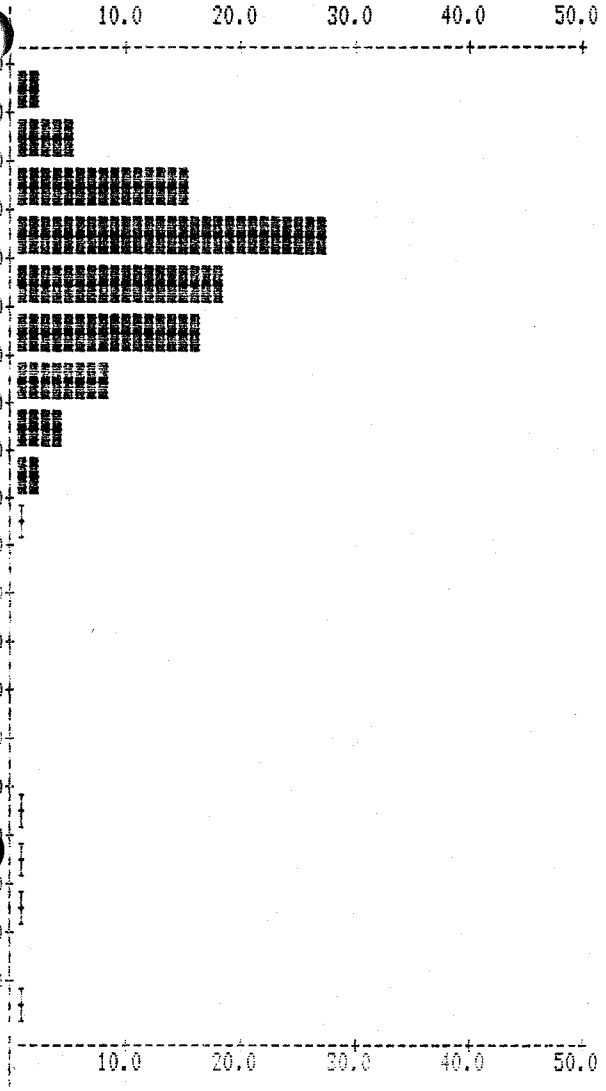
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : ZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	50.000
50.000	5	2.22	2.22	64.500
64.500	11	4.89	7.11	79.000
79.000	33	14.67	21.78	93.500
93.500	60	26.67	48.44	108.000
108.000	40	17.78	66.22	122.500
122.500	37	16.44	82.67	137.000
137.000	19	8.44	91.11	151.500
151.500	9	4.00	95.11	166.000
166.000	5	2.22	97.33	180.500
180.500	2	0.89	98.22	195.000
195.000	0	0.00	98.22	209.500
209.500	0	0.00	98.22	224.000
224.000	0	0.00	98.22	238.500
238.500	0	0.00	98.22	253.000
253.000	0	0.00	98.22	267.500
267.500	1	0.44	98.67	282.000
282.000	1	0.44	99.11	296.500
296.500	1	0.44	99.56	311.000
311.000	0	0.00	99.56	325.500
325.500	1	0.44		

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	225
MINIMUM:	54.000
MAXIMUM:	330.000
MEAN:	115.258
STANDARD ERROR OF MEAN:	2.374
STANDARD DEVIATION:	35.616
COEFFICIENT OF VARIATION:	30.901
SKEWNESS:	2.559
KURTOSIS:	11.456

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE: ZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	69.613	11	22.5	-11.5	5.878
69.613	TO	85.284	19	22.5	-3.5	0.544
85.284	TO	96.581	28	22.5	5.5	1.344
96.581	TO	106.235	48	22.5	25.5	28.900
106.235	TO	115.57	19	22.5	-3.5	0.544

124.279	TO	133.935	18	22.5	-4.5	0.900
133.935	TO	145.232	27	22.5	4.5	0.900
145.232	TO	160.903	13	22.5	-9.5	4.011
160.903	TO	+INFINITY	14	22.5	-8.5	3.211

CHI-SQUARED VALUE IS 47.58. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

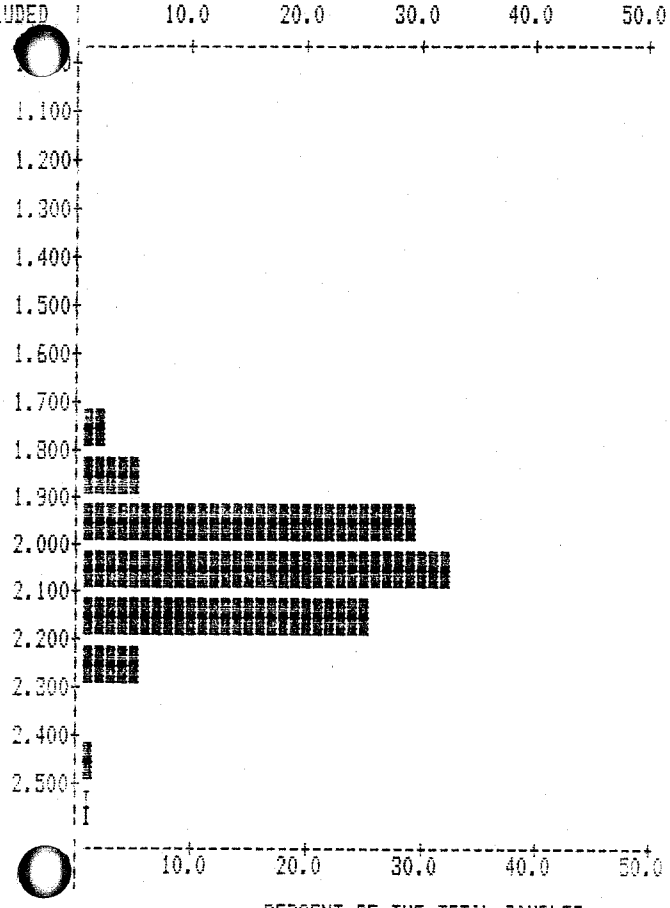
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RICH I GROUP 1989 RECONNAISSANCE SOILS

VARIABLE : LOGZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.100	0	0.00	0.00	1.100
1.200	0	0.00	0.00	1.200
1.300	0	0.00	0.00	1.300
1.400	0	0.00	0.00	1.400
1.500	0	0.00	0.00	1.500
1.600	0	0.00	0.00	1.600
1.700	0	0.00	0.00	1.700
1.800	5	2.22	2.22	1.800
1.900	11	4.89	7.11	1.900
2.000	65	28.89	36.00	2.000
2.100	73	32.44	68.44	2.100
2.200	56	24.89	93.33	2.200
2.300	11	4.89	98.22	2.300
2.400	0	0.00	98.22	2.400
2.500	3	1.33	99.56	2.500
	1	0.44		

VARIABLE:	LOGZN
NUMBER OF OBSERVATIONS:	225
MINIMUM:	1.732
MAXIMUM:	2.519
MEAN:	2.045
STANDARD ERROR OF MEAN:	0.008
STANDARD DEVIATION:	0.116
COEFFICIENT OF VARIATION:	5.663
SKEWNESS:	0.599
KURTOSIS:	2.328

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.897	16	22.5	-6.5	1.878
1.897	TO	1.948	22	22.5	-0.5	0.011
1.948	TO	1.984	20	22.5	-2.5	0.278
1.984	TO	2.016	35	22.5	12.5	5.944
2.016	TO	2.045	27	22.5	4.5	0.900
2.045	TO	2.075	21	22.5	-1.5	0.100
2.075	TO	2.106	17	22.5	-5.5	1.344
2.106	TO	2.143	33	22.5	10.5	4.900
2.143	TO	2.194	19	22.5	-3.5	0.544
2.194	TO	+INFINITY	15	22.5	-7.5	2.500

CHI-SQUARED VALUE IS 19.40. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

APPENDIX IX

REED LAKE GRID SOIL SAMPLING STATISTICAL ANALYSES

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 ****    *****  *****     *     *****  *****          01-NOV-90
*    *   *        *      * *      *    *
*    *   *****    *     *   *     *    *****
*    *       *    *     *****     *        *
****    *****    *     *   *     *    *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

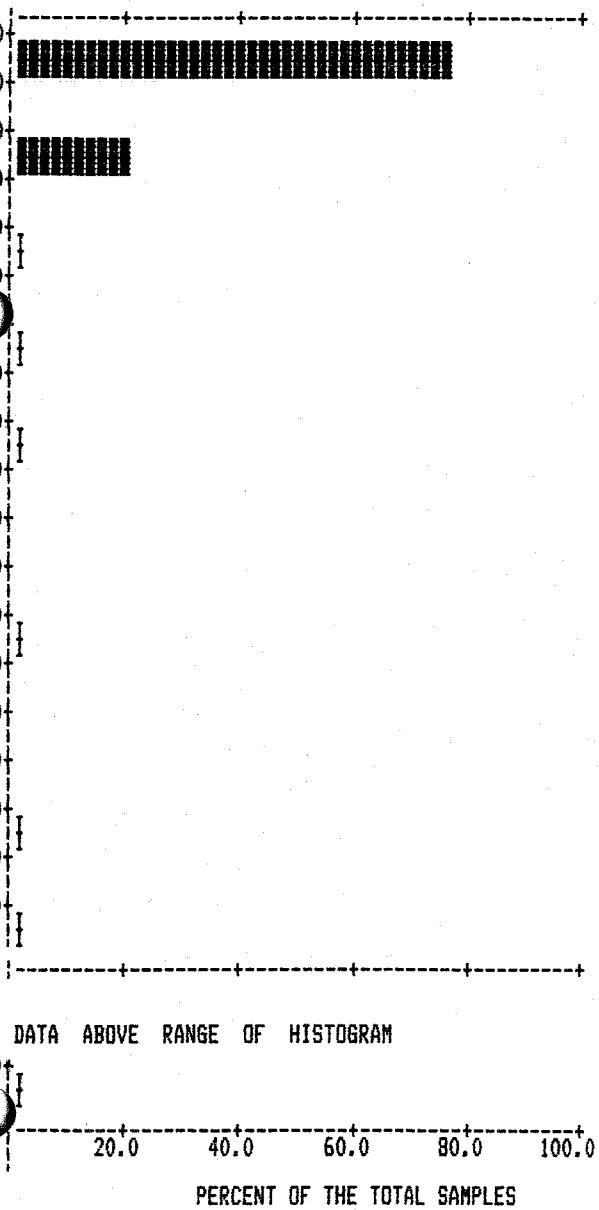
DATA TITLE: REED LAKE 1989 GRID SOILS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG AS BA CU PB SB ZN AU

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : AU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	5.000
5.000	477	76.20	76.20	7.400
7.400	0	0.00	76.20	9.800
9.800	120	19.17	95.37	12.200
12.200	0	0.00	95.37	14.600
14.600	12	1.92	97.28	17.000
17.000	0	0.00	97.28	19.400
19.400	10	1.60	98.88	21.800
21.800	0	0.00	98.88	24.200
24.200	2	0.32	99.20	26.600
26.600	0	0.00	99.20	29.000
29.000	0	0.00	99.20	31.400
31.400	0	0.00	99.20	33.800
33.800	1	0.16	99.36	36.200
36.200	0	0.00	99.36	38.600
38.600	0	0.00	99.36	41.000
41.000	0	0.00	99.36	43.400
43.400	2	0.32	99.68	45.800
45.800	0	0.00	99.68	48.200
48.200	1	0.16		
DATA ABOVE RANGE OF HISTOGRAM				
65.000	1	0.16	99.84	65.000

Threshold

12 - 22 0
23 - 47 0
47 & 0

VARIABLE: AU

NUMBER OF OBSERVATIONS: 626

MINIMUM:	5.000
MAXIMUM:	65.000
MEAN:	6.797
STANDARD ERROR OF MEAN:	0.195
STANDARD DEVIATION:	4.891
COEFFICIENT OF VARIATION:	71.962
SKEWNESS:	6.206
KURTOSIS:	54.063

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.528	0	62.6	-62.6	62.600
0.528	TO	2.681	0	62.6	-62.6	62.600
2.681	TO	4.232	0	62.6	-62.6	62.600
4.232	TO	5.558	477	62.6	414.4	2743.249
5.558	TO	6.797	0	62.6	-62.6	62.600
6.797	TO	8.036	0	62.6	-62.6	62.600
8.036	TO	9.362	0	62.6	-62.6	62.600
9.362	TO	10.914	120	62.6	57.4	52.632
10.914	TO	13.066	0	62.6	-62.6	62.600
13.066	TO	+INFINITY	29	62.6	-33.6	18.035

CHI-SQUARED VALUE IS 3252.12. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

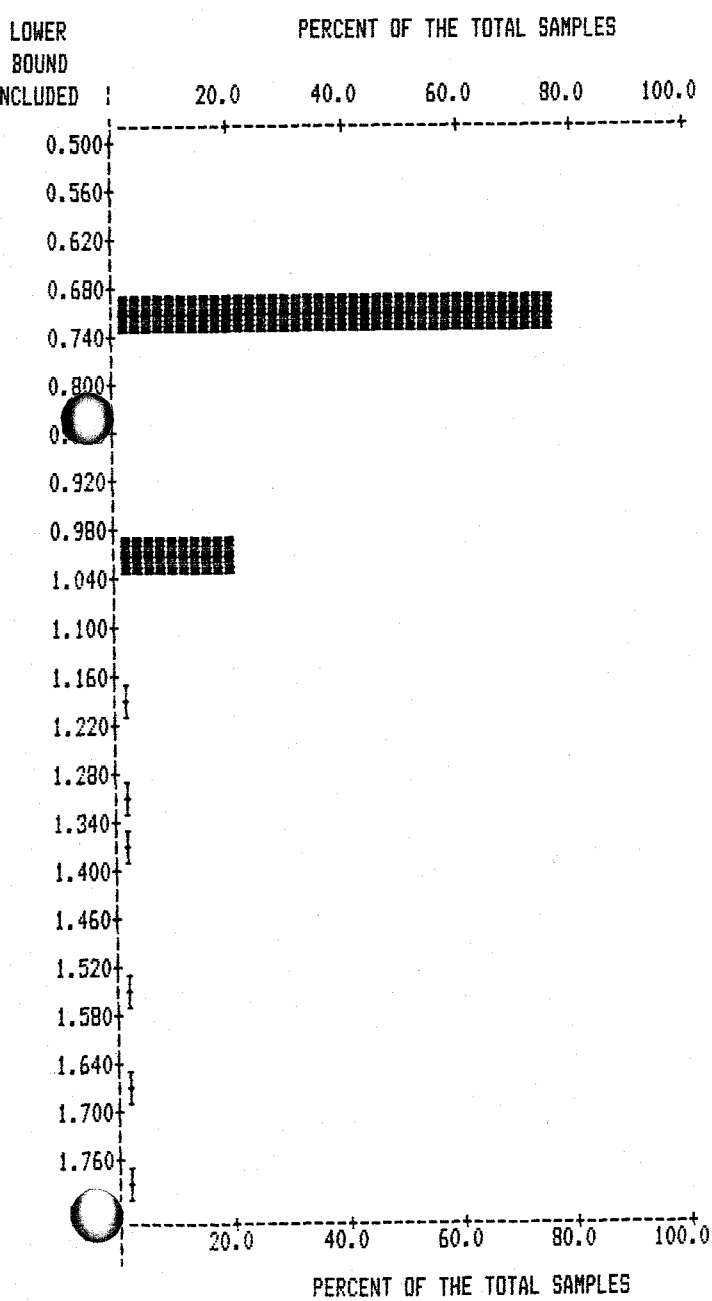
A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGAU = LOG(10) AU

ATA TITLE : REED LAKE 1989 GRID SOILS

ARIABLE : LOGAU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.500
0.500	0	0.00	0.00	0.560
0.560	0	0.00	0.00	0.620
0.620	0	0.00	0.00	0.680
0.680	477	76.20	76.20	0.740
0.740	0	0.00	76.20	0.800
0.800	0	0.00	76.20	0.860
0.860	0	0.00	76.20	0.920
0.920	0	0.00	76.20	0.980
0.980	120	19.17	95.37	1.040
1.040	0	0.00	95.37	1.100
1.100	0	0.00	95.37	1.160
1.160	12	1.92	97.28	1.220
1.220	0	0.00	97.28	1.280
1.280	10	1.60	98.88	1.340
1.340	2	0.32	99.20	1.400
1.400	0	0.00	99.20	1.460
1.460	0	0.00	99.20	1.520
1.520	1	0.16	99.36	1.580
1.580	0	0.00	99.36	1.640
1.640	3	0.48	99.84	1.700
1.700	0	0.00	99.84	1.760
1.760	1	0.16		

VARIABLE: LOGAU

NUMBER OF OBSERVATIONS: 626

MAXIMUM:	1.813
MEAN:	0.785
STANDARD ERROR OF MEAN:	0.007
STANDARD DEVIATION:	0.171
COEFFICIENT OF VARIATION:	21.787
SKEWNESS:	2.235
KURTOSIS:	5.987

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.566	0	62.6	-62.6	62.600
0.566	TO	0.641	0	62.6	-62.6	62.600
0.641	TO	0.696	0	62.6	-62.6	62.600
0.696	TO	0.742	477	62.6	414.4	2743.249
0.742	TO	0.785	0	62.6	-62.6	62.600
0.785	TO	0.829	0	62.6	-62.6	62.600
0.829	TO	0.875	0	62.6	-62.6	62.600
0.875	TO	0.929	0	62.6	-62.6	62.600
0.929	TO	1.005	120	62.6	57.4	52.632
1.005	TO	+INFINITY	29	62.6	-33.6	18.035

CHI-SQUARED VALUE IS 3252.12. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGAU

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES (20.0 40.0 60.0 80.0 100.0)	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.500				0.00	0.500
0.533		0	0.00	0.00	0.533
0.567		0	0.00	0.00	0.567
0.600		0	0.00	0.00	0.600
0.633		0	0.00	0.00	0.633
0.667		0	0.00	0.00	0.667
0.700	▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓	477	76.20	76.20	0.700
0.733		0	0.00	76.20	0.733
0.767		0	0.00	76.20	0.767
0.800		0	0.00	76.20	0.800
0.833		0	0.00	76.20	0.833
0.867		0	0.00	76.20	0.867
0.900		0	0.00	76.20	0.900
0.933		0	0.00	76.20	0.933
0.967		0	0.00	76.20	0.967
1.000	▓▓▓▓▓▓▓▓▓▓	120	19.17	95.37	1.000
1.033		0	0.00	95.37	1.033
1.067		0	0.00	95.37	1.067
1.100		0	0.00	95.37	1.100
1.133		0	0.00	95.37	1.133
1.167		0	0.00	95.37	1.167
1.200	I	12	1.92	97.28	1.200
1.233		0	0.00	97.28	1.233
1.267		0	0.00	97.28	1.267
1.300		0	0.00	97.28	1.300
1.333	I	10	1.60	98.88	1.333
1.367		0	0.00	98.88	1.367
	I	2	0.32		

```
1.433+                                                  0     0.00     99.20   1.433
1.467+                                                  0     0.00     99.20   1.467
1.500+                                                  0     0.00     99.20   1.500
1.533+                                                  0     0.00     99.20   1.533
     |I                                                 1     0.16     99.36   1.567
1.567+                                                  0     0.00     99.36   1.600
1.600+                                                  0     0.00     99.36   1.633
1.633+
     |I                                                 2     0.32     99.68   1.667
1.667+
     |I                                                 1     0.16     99.84   1.700
1.700+                                                  0     0.00     99.84   1.733
1.733+                                                  0     0.00     99.84   1.767
1.767+                                                  0     0.00     99.84   1.800
1.800+
     |I                                                 1     0.16
     |---------+---------+---------+---------+---------+
             20.0      40.0      60.0      80.0     100.0

                PERCENT OF THE TOTAL SAMPLES
```

```
VARIABLE:                   LOGAU
NUMBER OF OBSERVATIONS:       626
MINIMUM:                    0.699
MAXIMUM:                    1.813
MEAN:                       0.785
STANDARD ERROR OF MEAN:     0.007
STANDARD DEVIATION:         0.171
COEFFICIENT OF VARIATION:  21.787
SKEWNESS:                   2.235
KURTOSIS:                   5.987
```

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

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HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

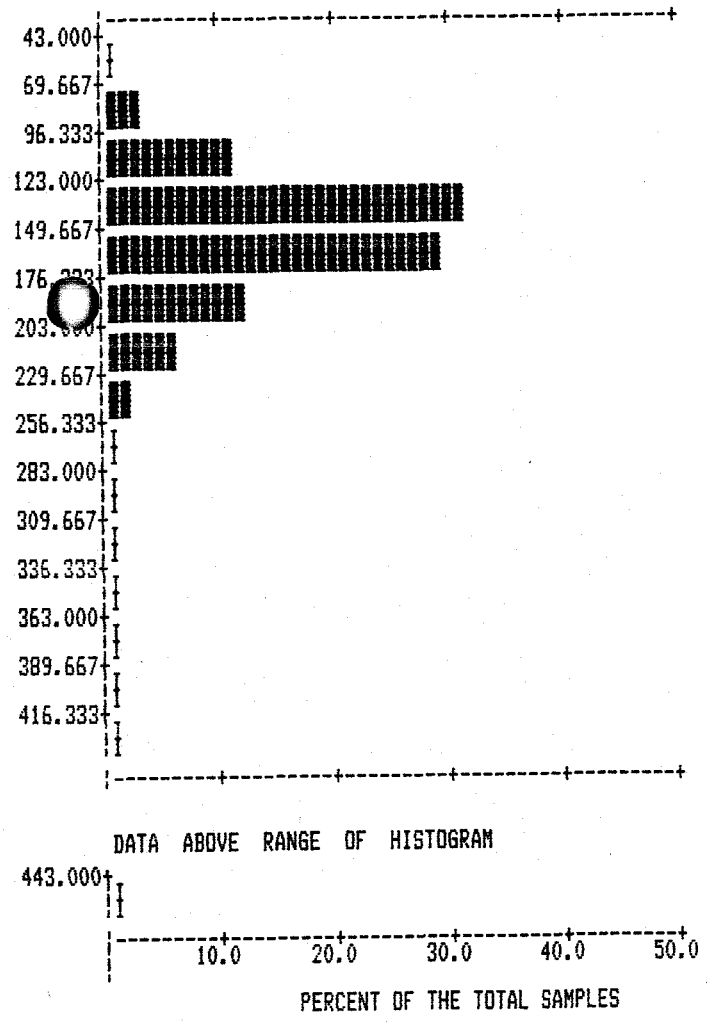
****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : BA



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	43.000
43.000	6	0.96	0.96	69.667
69.667	16	2.56	3.51	96.333
96.333	66	10.54	14.06	123.000
123.000	196	31.31	45.37	149.667
149.667	183	29.23	74.60	176.333
176.333	74	11.82	86.42	203.000
203.000	38	6.07	92.49	229.667
229.667	14	2.24	94.73	256.333
256.333	6	0.96	95.69	283.000
283.000	6	0.96	96.65	309.667
309.667	6	0.96	97.60	336.333
336.333	5	0.80	98.40	363.000
363.000	4	0.64	99.04	389.667
389.667	3	0.48	99.52	416.333
416.333	2	0.32		
443.000	1	0.16	99.84	443.000

VARIABLE:	BA
NUMBER OF OBSERVATIONS:	626
MINIMUM:	43.000
MAXIMUM:	443.000
MEAN:	163.201
STANDARD ERROR OF MEAN:	2.137
STANDARD DEVIATION:	53.468

SKEWNESS: 2.103
KURTOSIS: 6.625

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : BA

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	94.677	21	62.6	-41.6	27.645
94.677	TO	118.203	42	62.6	-20.6	6.779
118.203	TO	135.163	116	62.6	53.4	45.552
135.163	TO	149.658	105	62.6	42.4	28.718
149.658	TO	163.201	100	62.6	37.4	22.344
163.201	TO	176.745	83	62.6	20.4	6.648
176.745	TO	191.240	51	62.6	-11.6	2.150
191.240	TO	208.200	37	62.6	-25.6	10.469
208.200	TO	231.726	24	62.6	-38.6	23.801
231.726	TO	+INFINITY	47	62.6	-15.6	3.888

CHI-SQUARED VALUE IS 177.99. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

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THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

```
 ****    *****  *****     *     *****  *****          01-NOV-90
 *   *   *        *      * *      *    *
 *   *   *****    *     *   *     *    *****
 *   *       *    *     *****     *        *
 ****    *****    *     *   *     *    *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

DATA TITLE: REED LAKE 1989 GRID SOILS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG AS BA CU PB SB ZN AU

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGBA = LOG(10) BA

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

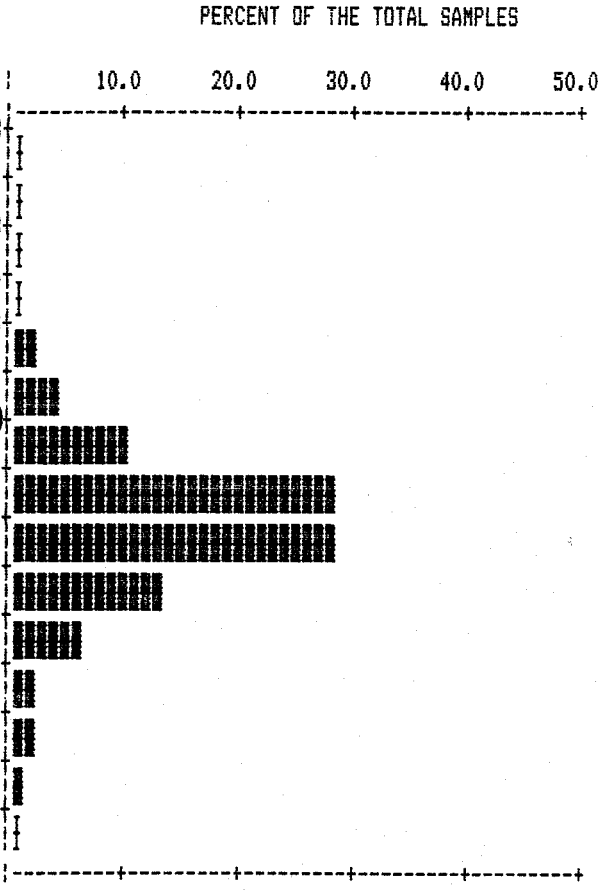
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGBA



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.633
1.633	1	0.16	0.16	1.701
1.701	2	0.32	0.48	1.768
1.768	2	0.32	0.80	1.836
1.836	5	0.80	1.60	1.903
1.903	10	1.60	3.19	1.971
1.971	22	3.51	6.71	2.038
2.038	65	10.38	17.09	2.106
2.106	177	28.27	45.37	2.173
2.173	176	28.12	73.48	2.241
2.241	83	13.26	86.74	2.308
2.308	40	6.39	93.13	2.376
2.376	14	2.24	95.37	2.443
2.443	13	2.08	97.44	2.511
2.511	9	1.44	98.88	2.578
2.578	6	0.96		
DATA ABOVE RANGE OF HISTOGRAM				
2.646	1	0.16	99.84	2.646

PERCENT OF THE TOTAL SAMPLES

VARIABLE	LOGBA
NUMBER OF OBSERVATIONS:	626
MINIMUM:	1.633
MAXIMUM:	2.646
MEAN:	2.194
STANDARD ERROR OF MEAN:	0.005
STANDARD DEVIATION:	0.126
COEFFICIENT OF VARIATION:	5.734

SKEWNESS: 0.345
KURTOSIS: 2.608

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGBA

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	2.032	36	62.6	-26.6	11.303
2.032	TO	2.088	52	62.6	-10.6	1.795
2.088	TO	2.128	81	62.6	18.4	5.408
2.128	TO	2.162	83	62.6	20.4	6.648
2.162	TO	2.194	74	62.6	11.4	2.076
2.194	TO	2.225	88	62.6	25.4	10.306
2.225	TO	2.260	76	62.6	13.4	2.868
2.260	TO	2.299	48	62.6	-14.6	3.405
2.299	TO	2.355	40	62.6	-22.6	8.159
2.355	TO	+INFINITY	48	62.6	-14.6	3.405

CHI-SQUARED VALUE IS 55.37. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGSB = LOG(10) SB

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

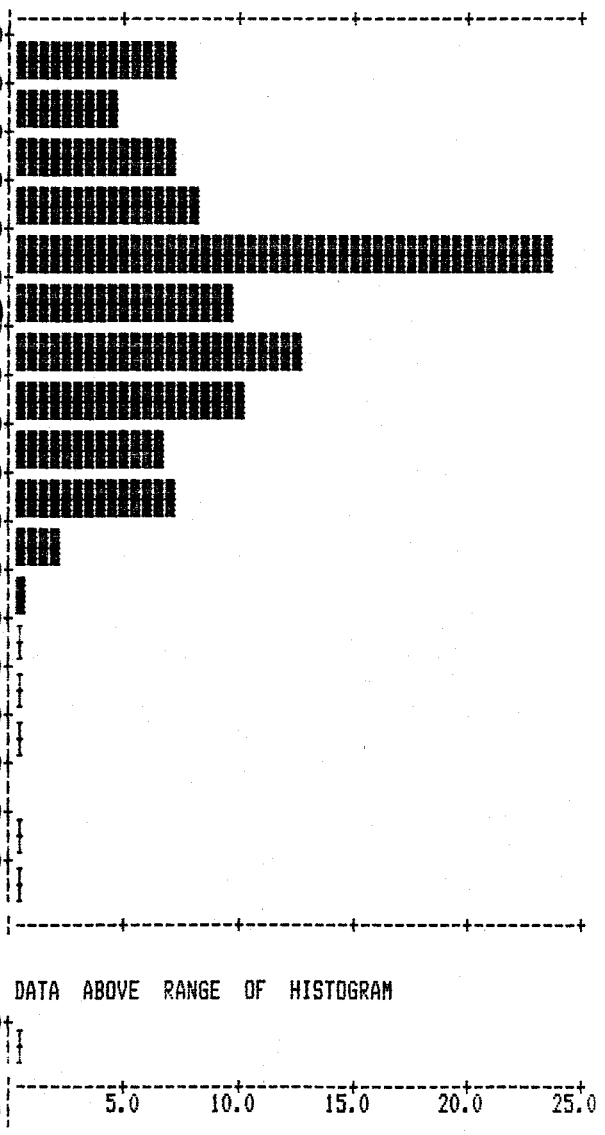
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

ATA TITLE : REED LAKE 1989 GRID SOILS

ARIABLE : AG



LOWER BOUND NCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.100			0.00	0.100
0.220	43	6.87	6.87	0.220
0.340	27	4.31	11.18	0.340
0.460	45	7.19	18.37	0.460
0.580	51	8.15	26.52	0.580
0.700	146	23.32	49.84	0.700
0.820	59	9.42	59.27	0.820
0.940	79	12.62	71.88	0.940
1.060	62	9.90	81.79	1.060
1.180	41	6.55	88.34	1.180
1.300	45	7.19	95.53	1.300
1.420	14	2.24	97.76	1.420
1.540	4	0.64	98.40	1.540
1.660	1	0.16	98.56	1.660
1.780	3	0.48	99.04	1.780
1.900	2	0.32	99.36	1.900
2.020	0	0.00	99.36	2.020
2.140	1	0.16	99.52	2.140
	2	0.32		
2.500	1	0.16	99.84	2.500

VARIABLE: AG
UMBER OF OBSERVATIONS: 626
INIMUM: 0.100

MEAN:	0.769
STANDARD ERROR OF MEAN:	0.014
STANDARD DEVIATION:	0.346
COEFFICIENT OF VARIATION:	45.050
SKEWNESS:	0.572
KURTOSIS:	1.485

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.325	70	62.6	7.4	0.875
0.325	TO	0.477	45	62.6	-17.6	4.948
0.477	TO	0.587	51	62.6	-11.6	2.150
0.587	TO	0.681	56	62.6	-6.6	0.696
0.681	TO	0.769	90	62.6	27.4	11.993
0.769	TO	0.857	59	62.6	-3.6	0.207
0.857	TO	0.950	79	62.6	16.4	4.296
0.950	TO	1.060	62	62.6	-0.6	0.006
1.060	TO	1.213	68	62.6	5.4	0.466
1.213	TO	+INFINITY	46	62.6	-16.6	4.402

CHI-SQUARED VALUE IS 30.04. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGAG = LOG(10) AG

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGAS = LOG(10) AS

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

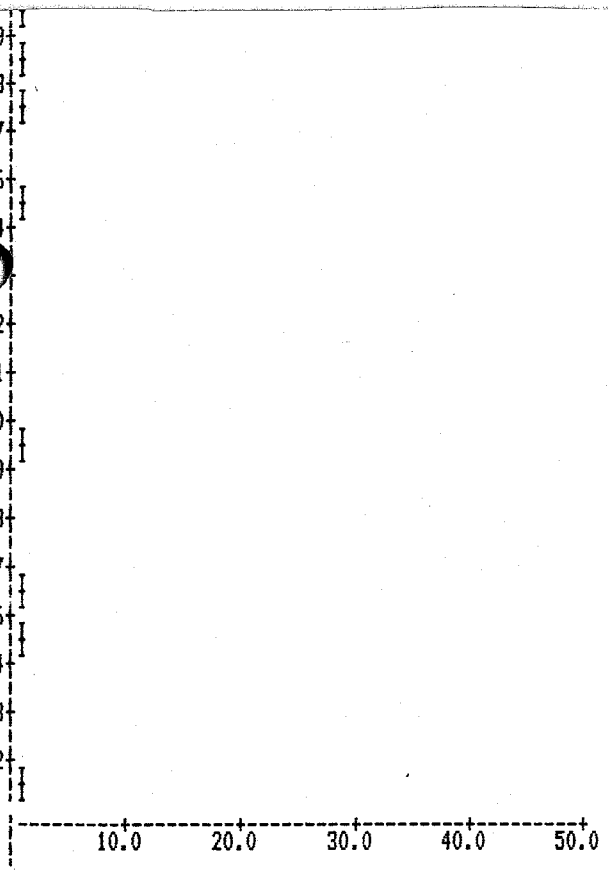
WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : AS

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES (10.0 20.0 30.0 40.0 50.0)	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000	##################################	213	34.03	0.00	0.000
1.889	#####	29	4.63	34.03	1.889
3.778	#####	32	5.11	38.66	3.778
5.667	####	26	4.15	43.77	5.667
7.556	#####	32	5.11	47.92	7.556
9.444	#####	32	5.11	53.04	9.444
11.333	######	37	5.91	58.15	11.333
13.222	######	36	5.75	64.06	13.222
15.111	##	10	1.60	69.81	15.111
17.000	####	22	3.51	71.41	17.000
18.889	#####	31	4.95	74.92	18.889
20.778	###	18	2.88	79.87	20.778
22.667	####	23	3.67	82.75	22.667
24.556	##	13	2.08	86.42	24.556
26.444	#	8	1.28	88.50	26.444
28.333	#	9	1.44	89.78	28.333
30.222	#	9	1.44	91.21	30.222
32.111		4	0.64	92.65	32.111
34.000	#	9	1.44	93.29	34.000
35.889		5	0.80	94.73	35.889
37.778		4	0.64	95.53	37.778
39.667	#	7	1.12	96.17	39.667
41.556		2	0.32	97.28	41.556
43.444		1	0.16	97.60	43.444
45.333		1	0.16	97.76	45.333
47.222		3	0.48	97.92	47.222
49.111			0.00	98.40	49.111



1	0.16	98.56	52.889
2	0.32	98.88	54.778
1	0.16	99.04	56.667
0	0.00	99.04	58.556
2	0.32	99.36	60.444
0	0.00	99.36	62.333
0	0.00	99.36	64.222
0	0.00	99.36	66.111
0	0.00	99.36	68.000
1	0.16	99.52	69.889
0	0.00	99.52	71.778
0	0.00	99.52	73.667
1	0.16	99.68	75.556
1	0.16	99.84	77.444
0	0.00	99.84	79.333
0	0.00	99.84	81.222
1	0.16		

VARIABLE:	AS
NUMBER OF OBSERVATIONS:	626
MINIMUM:	1.000
MAXIMUM:	82.000
MEAN:	11.800
STANDARD ERROR OF MEAN:	0.512
STANDARD DEVIATION:	12.818
COEFFICIENT OF VARIATION:	108.622
SKEWNESS:	1.697
KURTOSIS:	4.004

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : AS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-4.627	0	62.6	-62.6	62.600
-4.627	TO	1.013	213	62.6	150.4	361.344
1.013	TO	5.079	61	62.6	-1.6	0.041
5.079	TO	8.554	37	62.6	-25.6	10.469
8.554	TO	11.800	53	62.6	-9.6	1.472
11.800	TO	15.047	73	62.6	10.4	1.728
15.047	TO	18.522	32	62.6	-30.6	14.958
18.522	TO	22.588	49	62.6	-13.6	2.955
22.588	TO	28.228	44	62.6	-18.6	5.527
28.228	TO	+INFINITY	64	62.6	1.4	0.031

CHI-SQUARED VALUE IS 461.12. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00

0.975	16.00
0.990	18.50
0.995	20.30

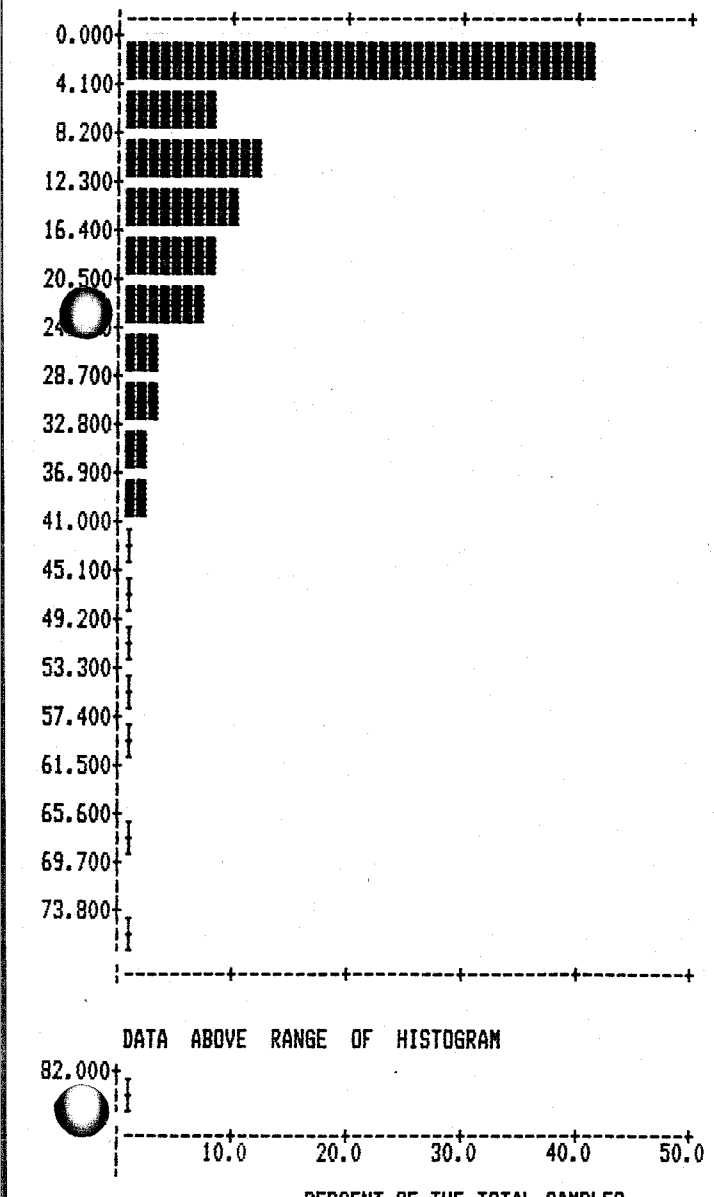
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : AS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000			0.00	0.000
4.100	258	41.21	41.21	4.100
8.200	53	8.47	49.68	8.200
12.300	72	11.50	61.18	12.300
16.400	64	10.22	71.41	16.400
20.500	53	8.47	79.87	20.500
24.600	41	6.55	86.42	24.600
28.700	21	3.35	89.78	28.700
32.800	18	2.88	92.65	32.800
36.900	15	2.40	95.05	36.900
41.000	11	1.76	96.81	41.000
45.100	6	0.96	97.76	45.100
49.200	4	0.64	98.40	49.200
53.300	2	0.32	98.72	53.300
57.400	2	0.32	99.04	57.400
61.500	2	0.32	99.36	61.500
65.600	0	0.00	99.36	65.600
69.700	1	0.16	99.52	69.700
73.800	0	0.00	99.52	73.800
	2	0.32		
82.000	1	0.16	99.84	82.000

VARIABLE: AS

NUMBER OF OBSERVATIONS: 625

MINIMUM:	1.000
MAXIMUM:	82.000
MEAN:	11.800
STANDARD ERROR OF MEAN:	0.512
STANDARD DEVIATION:	12.818
COEFFICIENT OF VARIATION:	108.622
SKEWNESS:	1.697
KURTOSIS:	4.004

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-4.627	0	62.6	-62.6	62.600
-4.627	TO	1.013	213	62.6	150.4	361.344
1.013	TO	5.079	61	62.6	-1.6	0.041
5.079	TO	8.554	37	62.6	-25.6	10.469
8.554	TO	11.800	53	62.6	-9.6	1.472
11.800	TO	15.047	73	62.6	10.4	1.728
15.047	TO	18.522	32	62.6	-30.6	14.958
18.522	TO	22.588	49	62.6	-13.6	2.955
22.588	TO	28.228	44	62.6	-18.6	5.527
28.228	TO	+INFINITY	64	62.6	1.4	0.031

CHI-SQUARED VALUE IS 461.12. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

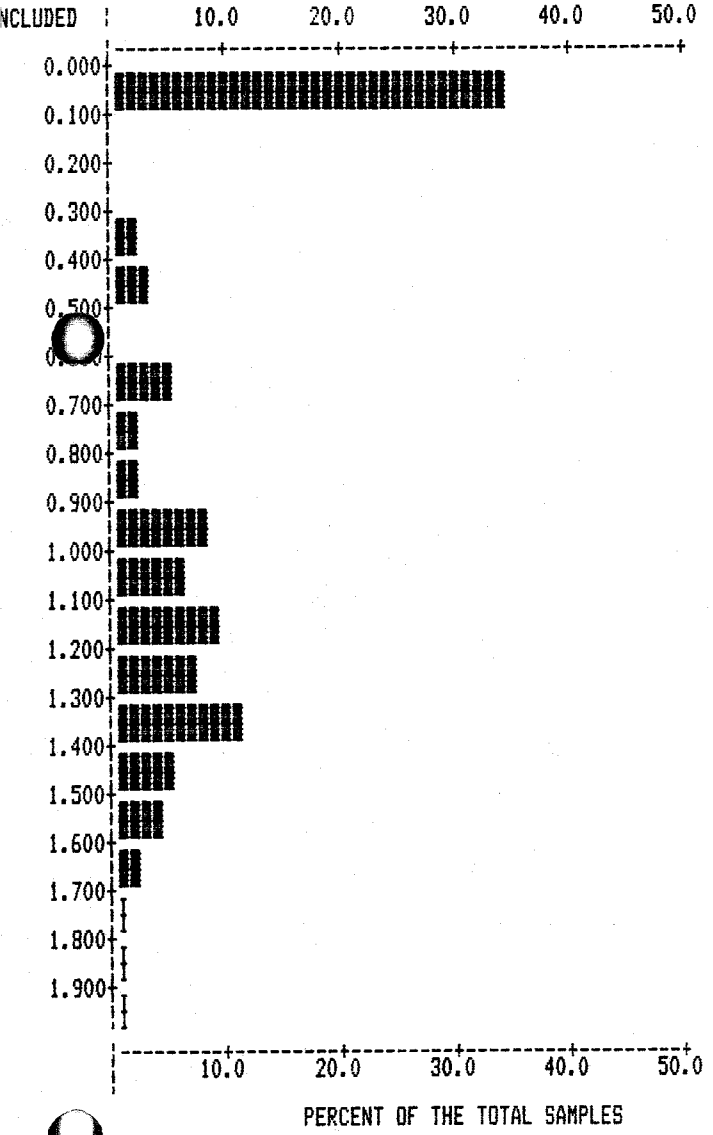
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

ATA TITLE : REED LAKE 1989 GRID SOILS

ARIABLE : LOGAS

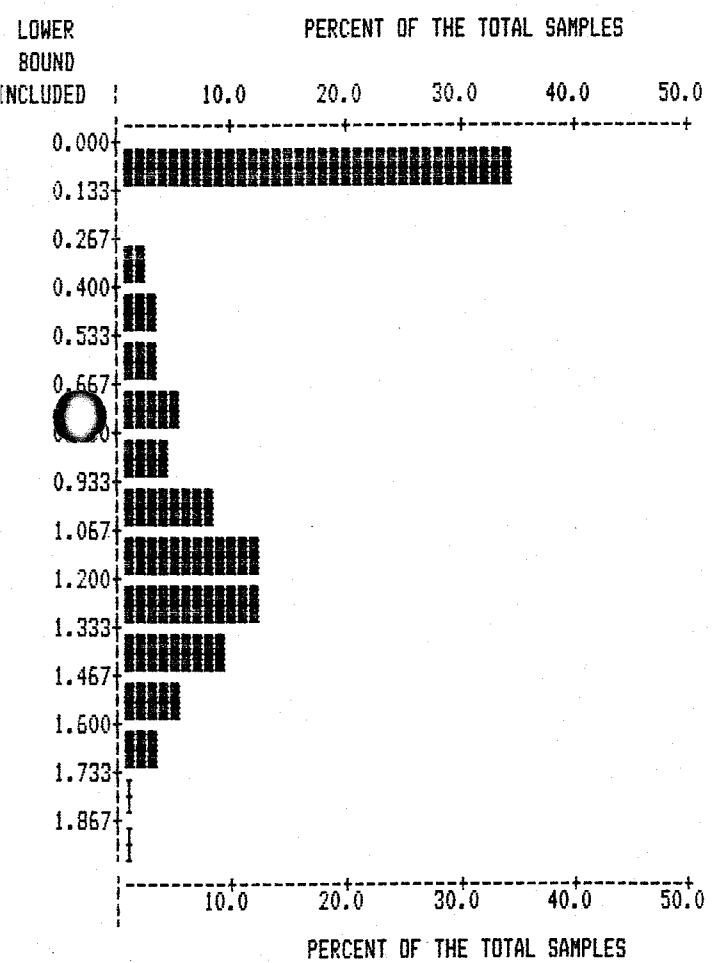


LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	213	34.03	34.03	0.100
0.100	0	0.00	34.03	0.200
0.200	0	0.00	34.03	0.300
0.300	11	1.76	35.78	0.400
0.400	18	2.88	38.66	0.500
0.500	0	0.00	38.66	0.600
0.600	32	5.11	43.77	0.700
0.700	14	2.24	46.01	0.800
0.800	12	1.92	47.92	0.900
0.900	48	7.67	55.59	1.000
1.000	35	5.59	61.18	1.100
1.100	54	8.63	69.81	1.200
1.200	42	6.71	76.52	1.300
1.300	68	10.86	87.38	1.400
1.400	30	4.79	92.17	1.500
1.500	25	3.99	96.17	1.600
1.600	14	2.24	98.40	1.700
1.700	6	0.96	99.36	1.800
1.800	3	0.48	99.84	1.900
1.900	1	0.16		

VARIABLE:	LOGAS
NUMBER OF OBSERVATIONS:	626
MINIMUM:	0.000
MAXIMUM:	1.914
MEAN:	0.743

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGAS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	213	34.03	34.03	0.133
0.133	0	0.00	34.03	0.267
0.267	11	1.76	35.78	0.400
0.400	18	2.88	38.66	0.533
0.533	16	2.56	41.21	0.667
0.667	30	4.79	46.01	0.800
0.800	23	3.67	49.68	0.933
0.933	53	8.47	58.15	1.067
1.067	73	11.66	69.81	1.200
1.200	75	11.98	81.79	1.333
1.333	56	8.95	90.73	1.467
1.467	34	5.43	96.17	1.600
1.600	17	2.72	98.88	1.733
1.733	4	0.64	99.52	1.867
1.867	3	0.48		

VARIABLE:	LOGAS
NUMBER OF OBSERVATIONS:	626
MINIMUM:	0.000
MAXIMUM:	1.914
MEAN:	0.743
STANDARD ERROR OF MEAN:	0.024
STANDARD DEVIATION:	0.599
COEFFICIENT OF VARIATION:	80.661
SKEWNESS:	-0.134
KURTOSIS:	-1.532

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.025	0	62.6	-62.6	62.600
-0.025	TO	0.239	213	62.6	150.4	361.344
0.239	TO	0.429	11	62.6	-51.6	42.533
0.429	TO	0.591	18	62.6	-44.6	31.776
0.[illegible]	TO	0.743	32	62.6	-30.6	14.958
0.[illegible]	TO	0.894	26	62.6	-36.6	21.399
0.894	TO	1.057	64	62.6	1.4	0.031
1.057	TO	1.247	95	62.6	32.4	16.769
1.247	TO	1.510	121	62.6	58.4	54.482
1.510	TO	+INFINITY	46	62.6	-16.6	4.402

CHI-SQUARED VALUE IS 610.29. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGBA = LOG(10) BA

23.222	TO	26.984	56	62.6	-6.6	0.696
26.984	TO	30.746	85	62.6	22.4	8.015
30.746	TO	34.773	51	62.6	-11.6	2.150
34.773	TO	39.484	52	62.6	-10.6	1.795
39.484	TO	46.019	55	62.6	-7.6	0.923
46.019	TO	+INFINITY	44	62.6	-18.6	5.527

CHI-[illegible]ED VALUE IS 62.40. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGPB = LOG(10) PB

****

[illegible] WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

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WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

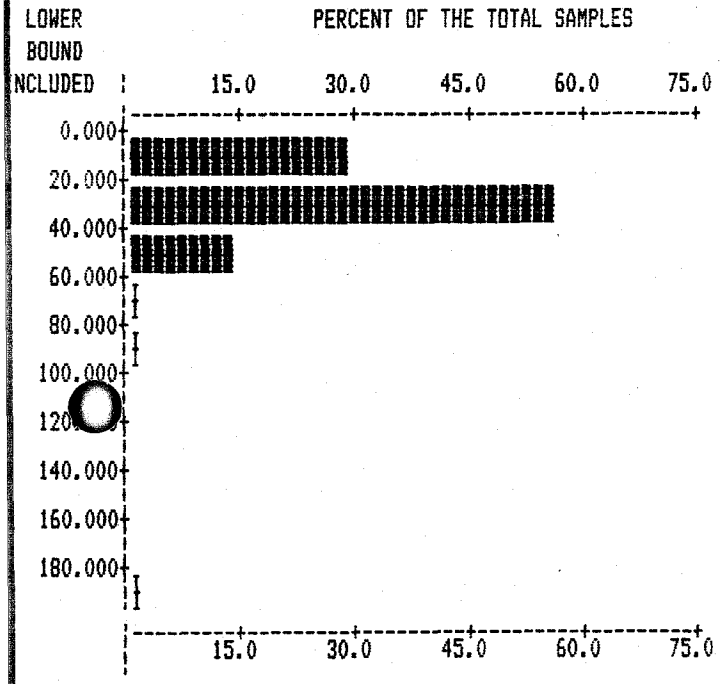
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : PB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	179	28.59	28.59	20.000
20.000	348	55.59	84.19	40.000
40.000	87	13.90	98.08	60.000
60.000	6	0.96	99.04	80.000
80.000	5	0.80	99.84	100.000
100.000	0	0.00	99.84	120.000
120.000	0	0.00	99.84	140.000
140.000	0	0.00	99.84	160.000
160.000	0	0.00	99.84	180.000
180.000	1	0.16		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	626
MINIMUM:	1.000
MAXIMUM:	183.000
MEAN:	26.984
STANDARD ERROR OF MEAN:	0.594
STANDARD DEVIATION:	14.852
COEFFICIENT OF VARIATION:	55.041
SKEWNESS:	2.636
KURTOSIS:	20.635

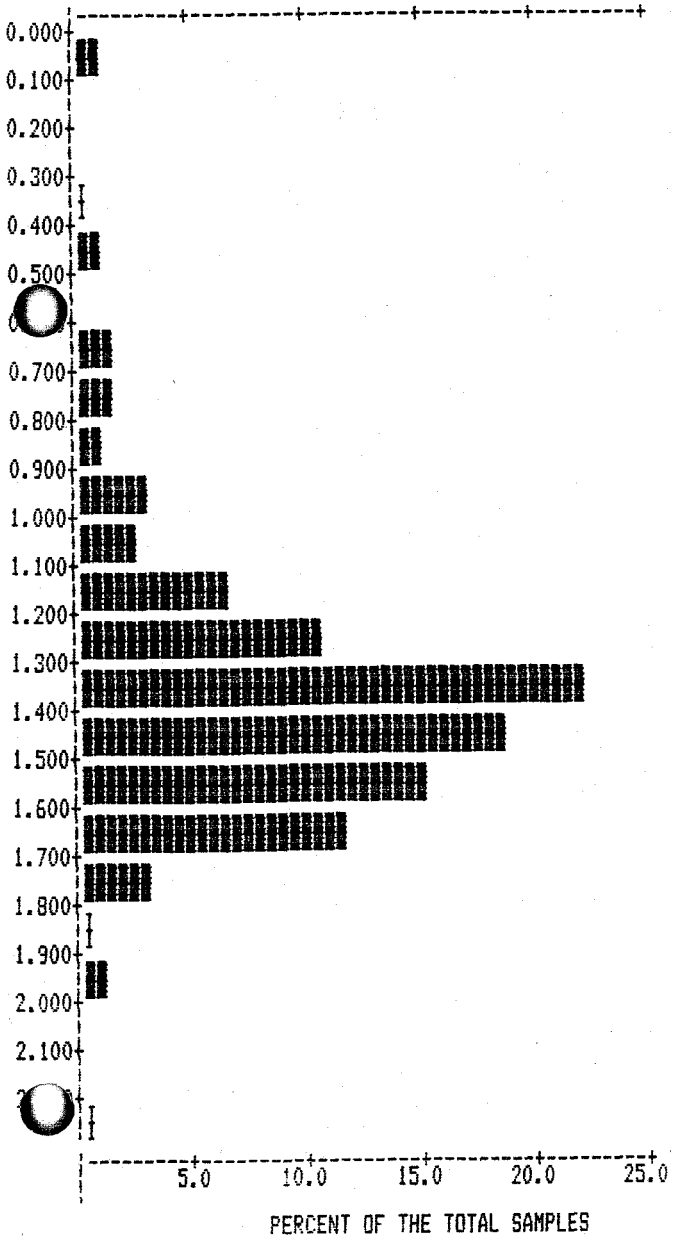
CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : PB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	7.949	37	62.6	-25.6	10.469
7.949	TO	14.484	61	62.6	-1.6	0.041
14.484	TO	19.196	81	62.6	18.4	5.408
19.196	TO	23.907	104	62.6	41.4	27.570

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGPB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	6	0.96	0.96	0.100
0.100	0	0.00	0.96	0.200
0.200	0	0.00	0.96	0.300
0.300	1	0.16	1.12	0.400
0.400	6	0.96	2.08	0.500
0.500	0	0.00	2.08	0.600
0.600	10	1.60	3.67	0.700
0.700	8	1.28	4.95	0.800
0.800	6	0.96	5.91	0.900
0.900	20	3.19	9.11	1.000
1.000	17	2.72	11.82	1.100
1.100	40	6.39	18.21	1.200
1.200	65	10.38	28.59	1.300
1.300	139	22.20	50.80	1.400
1.400	116	18.53	69.33	1.500
1.500	93	14.86	84.19	1.600
1.600	71	11.34	95.53	1.700
1.700	19	3.04	98.56	1.800
1.800	3	0.48	99.04	1.900
1.900	5	0.80	99.84	2.000
2.000	0	0.00	99.84	2.100
2.100	0	0.00	99.84	2.200
	1	0.16		

NUMBER OF OBSERVATIONS:	626
MINIMUM:	0.000
MAXIMUM:	2.262
MEAN:	1.360
STANDARD ERROR OF MEAN:	0.011
STANDARD DEVIATION:	0.282
COEFFICIENT OF VARIATION:	20.723
SKEWNESS:	-1.649
KURTOSIS:	5.229

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGPB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.999	50	62.6	-12.6	2.536
0.999	TO	1.123	34	62.6	-28.6	13.066
1.123	TO	1.212	47	62.6	-15.6	3.888
1.212	TO	1.289	48	62.6	-14.6	3.405
1.289	TO	1.360	75	62.6	12.4	2.456
1.360	TO	1.432	106	62.6	43.4	30.089
1.432	TO	1.508	91	62.6	28.4	12.884
1.508	TO	1.597	76	62.6	13.4	2.868
1.597	TO	1.721	76	62.6	13.4	2.868
1.721	TO	+INFINITY	23	62.6	-39.6	25.050

CHI-SQUARED VALUE IS 99.11. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGPB = LOG(10) PB

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

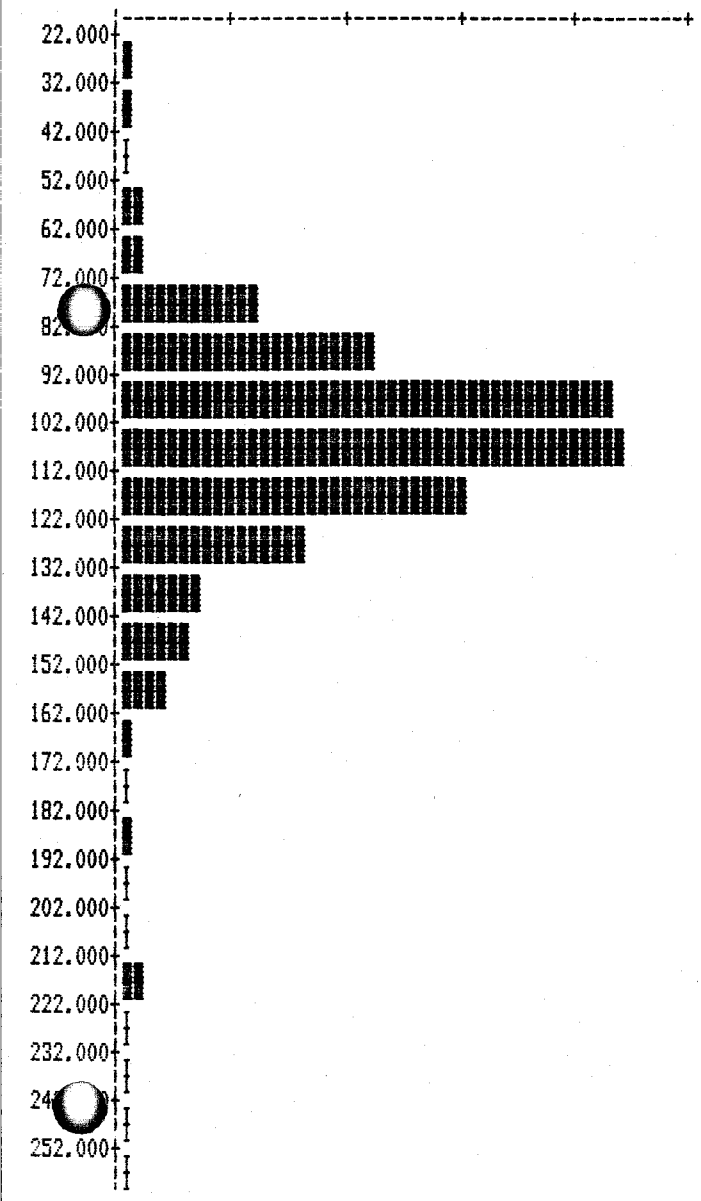
LOGZN = LOG(10) ZN

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : ZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	22.000
22.000	4	0.64	0.64	32.000
32.000	4	0.64	1.28	42.000
42.000	1	0.16	1.44	52.000
52.000	7	1.12	2.56	62.000
62.000	6	0.96	3.51	72.000
72.000	37	5.91	9.42	82.000
82.000	70	11.18	20.61	92.000
92.000	135	21.57	42.17	102.000
102.000	137	21.88	64.06	112.000
112.000	93	14.86	78.91	122.000
122.000	49	7.83	86.74	132.000
132.000	22	3.51	90.26	142.000
142.000	19	3.04	93.29	152.000
152.000	12	1.92	95.21	162.000
162.000	4	0.64	95.85	172.000
172.000	3	0.48	96.33	182.000
182.000	4	0.64	96.96	192.000
192.000	2	0.32	97.28	202.000
202.000	2	0.32	97.60	212.000
212.000	5	0.80	98.40	222.000
222.000	2	0.32	98.72	232.000
232.000	3	0.48	99.20	242.000
242.000	3	0.48	99.68	252.000
252.000	1	0.16		
DATA ABOVE RANGE OF HISTOGRAM				
255.000			99.84	255.000

```
        |---------+---------+---------+---------+---------+
              5.0       10.0      15.0      20.0      25.0
                        PERCENT OF THE TOTAL SAMPLES
```

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	626
MINIMUM:	22.000
MAXIMUM:	255.000
MEAN:	109.518
STANDARD ERROR OF MEAN:	1.215
STANDARD DEVIATION:	30.389
COEFFICIENT OF VARIATION:	27.748
SKEWNESS:	1.721
KURTOSIS:	6.030

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : ZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	70.571	22	62.6	-40.6	26.332
70.571	TO	83.942	48	62.6	-14.6	3.405
83.942	TO	93.581	79	62.6	16.4	4.296
93.581	TO	101.820	115	62.6	52.4	43.862
101.820	TO	109.518	111	62.6	48.4	37.421
109.518	TO	117.215	87	62.6	24.4	9.511
117.215	TO	125.454	56	62.6	-6.6	0.696
125.454	TO	135.093	37	62.6	-25.6	10.469
135.093	TO	148.465	24	62.6	-38.6	23.801
148.465	TO	+INFINITY	47	62.6	-15.6	3.888

CHI-SQUARED VALUE IS 163.68. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

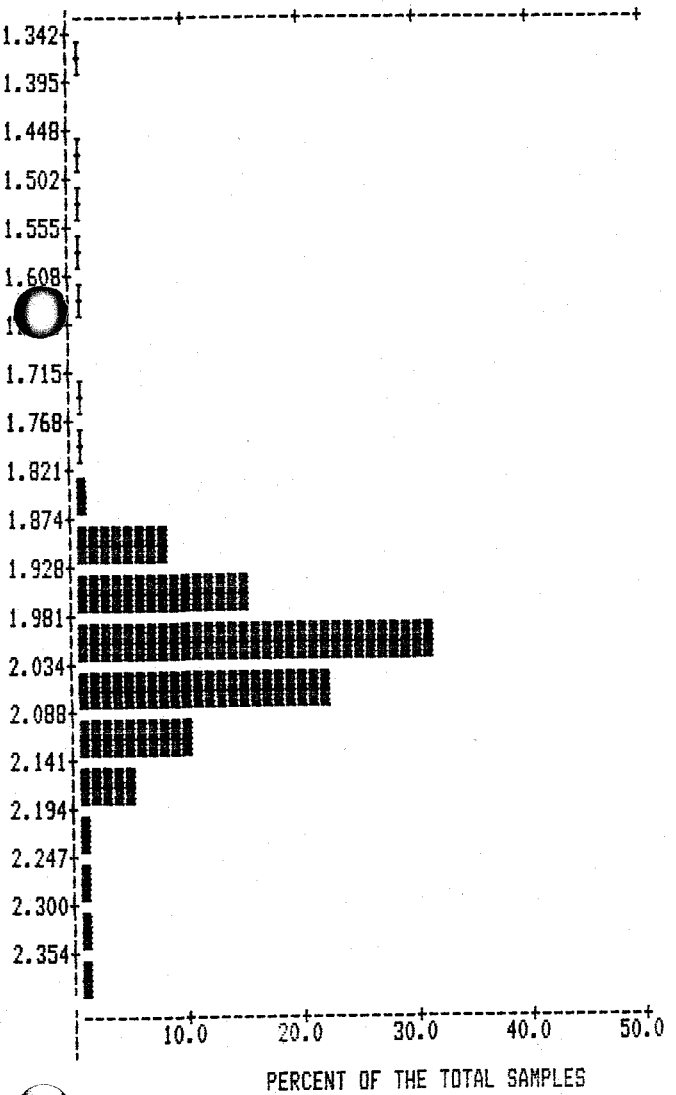
A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
LOGZN    = LOG(10) ZN
```

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.342
1.342	3	0.48	0.48	1.395
1.395	0	0.00	0.48	1.448
1.448	1	0.16	0.64	1.502
1.502	1	0.16	0.80	1.555
1.555	2	0.32	1.12	1.608
1.608	2	0.32	1.44	1.661
1.661	0	0.00	1.44	1.715
1.715	4	0.64	2.08	1.768
1.768	4	0.64	2.72	1.821
1.821	8	1.28	3.99	1.874
1.874	49	7.83	11.82	1.928
1.928	93	14.86	26.68	1.981
1.981	196	31.31	57.99	2.034
2.034	136	21.73	79.71	2.088
2.088	64	10.22	89.94	2.141
2.141	31	4.95	94.89	2.194
2.194	8	1.28	96.17	2.247
2.247	7	1.12	97.28	2.300
2.300	8	1.28	98.56	2.354
2.354	9	1.44		

VARIABLE:	LOGZN
NUMBER OF OBSERVATIONS:	626
MINIMUM:	1.342
MAXIMUM:	2.407
MEAN:	2.024

STANDARD DEVIATION:	0.118
COEFFICIENT OF VARIATION:	5.848
SKEWNESS:	-0.800
KURTOSIS:	7.001

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.872	25	62.6	-37.6	22.584
1.872	TO	1.924	49	62.6	-13.6	2.955
1.924	TO	1.962	55	62.6	-7.6	0.923
1.962	TO	1.994	90	62.6	27.4	11.993
1.994	TO	2.024	99	62.6	36.4	21.165
2.024	TO	2.054	105	62.6	42.4	28.718
2.054	TO	2.086	71	62.6	8.4	1.127
2.086	TO	2.124	49	62.6	-13.6	2.955
2.124	TO	2.176	38	62.6	-24.6	9.667
2.176	TO	+INFINITY	45	62.6	-17.6	4.948

CHI-SQUARED VALUE IS 107.04. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
LOGAU    = LOG(10) AU
LOGLOGAU = LOG(10) LOGAU
```

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

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WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

****** THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
LOGCU    = LOG(10) CU
```

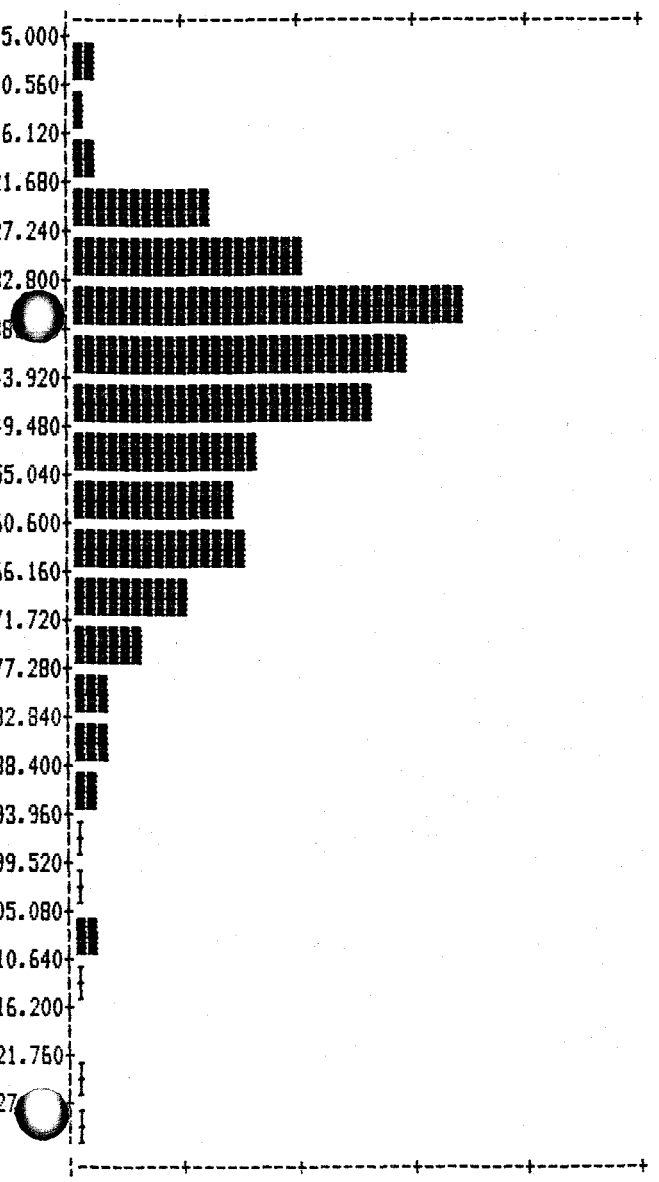
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : CU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
5.000			0.00	5.000
10.560	6	0.96	0.96	10.560
16.120	4	0.64	1.60	16.120
21.680	6	0.96	2.56	21.680
27.240	39	6.23	8.79	27.240
32.800	62	9.90	18.69	32.800
38	107	17.09	35.78	38.360
43.920	91	14.54	50.32	43.920
49.480	81	12.94	63.26	49.480
55.040	50	7.99	71.25	55.040
60.600	45	7.19	78.43	60.600
66.160	46	7.35	85.78	66.160
71.720	31	4.95	90.73	71.720
77.280	18	2.88	93.61	77.280
82.840	9	1.44	95.05	82.840
88.400	9	1.44	96.49	88.400
93.960	6	0.96	97.44	93.960
99.520	3	0.48	97.92	99.520
105.080	2	0.32	98.24	105.080
110.640	5	0.80	99.04	110.640
116.200	3	0.48	99.52	116.200
121.760	0	0.00	99.52	121.760
127	1	0.16	99.68	127.320
	1	0.16		

DATA ABOVE RANGE OF HISTOGRAM

144.000			99.84	144.000
	1	0.16		

PERCENT OF THE TOTAL SAMPLES

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	626
MINIMUM:	5.000
MAXIMUM:	144.000
MEAN:	47.505
STANDARD ERROR OF MEAN:	0.752
STANDARD DEVIATION:	18.807
COEFFICIENT OF VARIATION:	39.590
SKEWNESS:	1.192
KURTOSIS:	2.538

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : CU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	23.402	26	62.6	-36.6	21.399
23.402	TO	31.677	79	62.6	16.4	4.296
31.677	TO	37.642	97	62.6	34.4	18.904
37.642	TO	42.741	100	62.6	37.4	22.344
42.741	TO	47.505	75	62.6	12.4	2.456
47.505	TO	52.269	47	62.6	-15.6	3.888
52.269	TO	57.367	39	62.6	-23.6	8.897
57.367	TO	63.333	57	62.6	-5.6	0.501
63.333	TO	71.608	48	62.6	-14.6	3.405
71.608	TO	+INFINITY	58	62.6	-4.6	0.338

CHI-SQUARED VALUE IS 86.43. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

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WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

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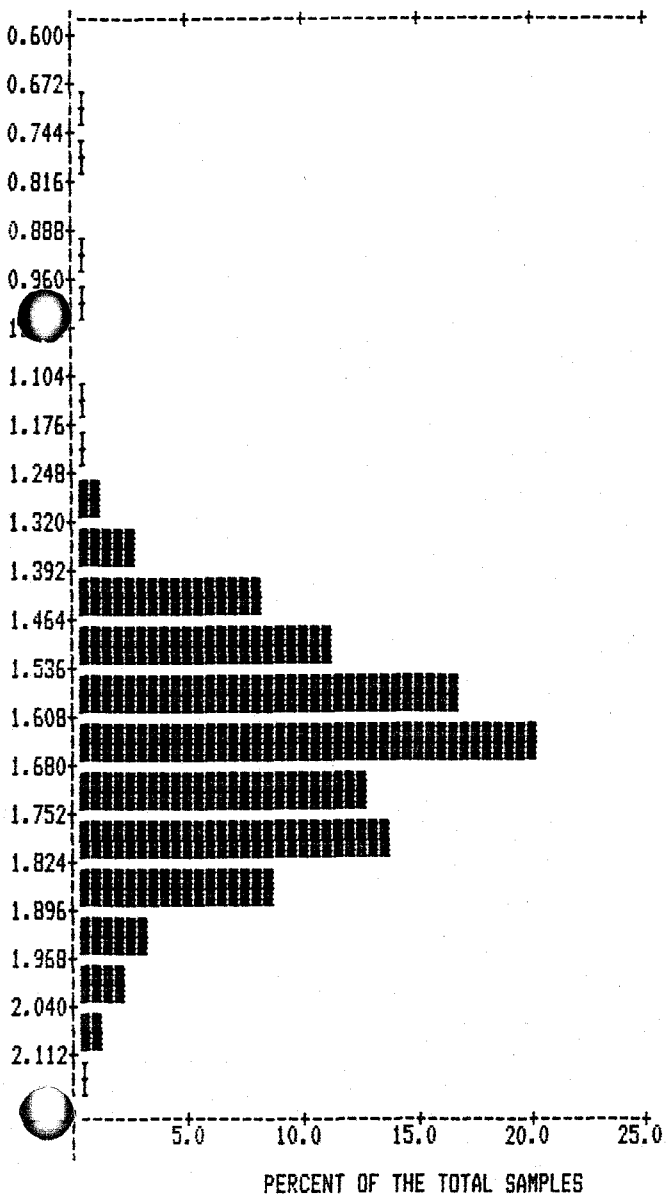
DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGCU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.600
0.600	0	0.00	0.00	0.672
0.672	1	0.16	0.16	0.744
0.744	2	0.32	0.48	0.816
0.816	0	0.00	0.48	0.888
0.888	1	0.16	0.64	0.960
0.960	2	0.32	0.96	1.032
1.032	0	0.00	0.96	1.104
1.104	2	0.32	1.28	1.176
1.176	2	0.32	1.60	1.248
1.248	6	0.96	2.56	1.320
1.320	15	2.40	4.95	1.392
1.392	50	7.99	12.94	1.464
1.464	68	10.86	23.80	1.536
1.536	103	16.45	40.26	1.608
1.608	125	19.97	60.22	1.680
1.680	77	12.30	72.52	1.752
1.752	83	13.26	85.78	1.824
1.824	52	8.31	94.09	1.896
1.896	19	3.04	97.12	1.968
1.968	11	1.76	98.88	2.040
2.040	6	0.96	99.84	2.112
2.112	1	0.16		

VARIABLE: LOGCU

NUMBER OF OBSERVATIONS: 626

MAXIMUM:	2.158
MEAN:	1.643
STANDARD ERROR OF MEAN:	0.007
STANDARD DEVIATION:	0.176
COEFFICIENT OF VARIATION:	10.726
SKEWNESS:	-0.726
KURTOSIS:	3.262

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGCU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.417	45	62.6	-17.6	4.948
1.417	TO	1.495	60	62.6	-2.6	0.108
1.495	TO	1.551	62	62.6	-0.6	0.006
1.551	TO	1.599	69	62.6	6.4	0.654
1.599	TO	1.643	79	62.6	16.4	4.296
1.643	TO	1.688	73	62.6	10.4	1.728
1.688	TO	1.736	49	62.6	-13.6	2.955
1.736	TO	1.792	63	62.6	0.4	0.003
1.792	TO	1.869	78	62.6	15.4	3.788
1.869	TO	+INFINITY	48	62.6	-14.6	3.405

CHI-SQUARED VALUE IS 21.89. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

```
STANDARD DEVIATION:            0.599
COEFFICIENT OF VARIATION:     80.661
SKEWNESS:                     -0.134
KURTOSIS:                     -1.532
```

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIAB[illegible]LOGAS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.025	0	62.6	-62.6	62.600
-0.025	TO	0.239	213	62.6	150.4	361.344
0.239	TO	0.429	11	62.6	-51.6	42.533
0.429	TO	0.591	18	62.6	-44.6	31.776
0.591	TO	0.743	32	62.6	-30.6	14.958
0.743	TO	0.894	26	62.6	-36.6	21.399
0.894	TO	1.057	64	62.6	1.4	0.031
1.057	TO	1.247	95	62.6	32.4	16.769
1.247	TO	1.510	121	62.6	58.4	54.482
1.510	TO	+INFINITY	46	62.6	-16.6	4.402

CHI-SQUARED VALUE IS   610.29. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

```
*****************************************************************************
       WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN  WILL BE USED IN THIS RUN.
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       WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN  WILL BE USED IN THIS RUN.
```

STANDARD ERROR OF MEAN: 0.024
STANDARD DEVIATION: 0.599
COEFFICIENT OF VARIATION: 80.661
SKEWNESS: -0.134
KURTOSIS: -1.532

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAS

CLASS BOUNDS	OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY TO -0.025	0	62.6	-62.6	62.600
-0.025 TO 0.239	213	62.6	150.4	361.344
0.239 TO 0.429	11	62.6	-51.6	42.533
0.429 TO 0.591	18	62.6	-44.6	31.776
0.591 TO 0.743	32	62.6	-30.6	14.958
0.743 TO 0.894	26	62.6	-36.6	21.399
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SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
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0.995	20.30

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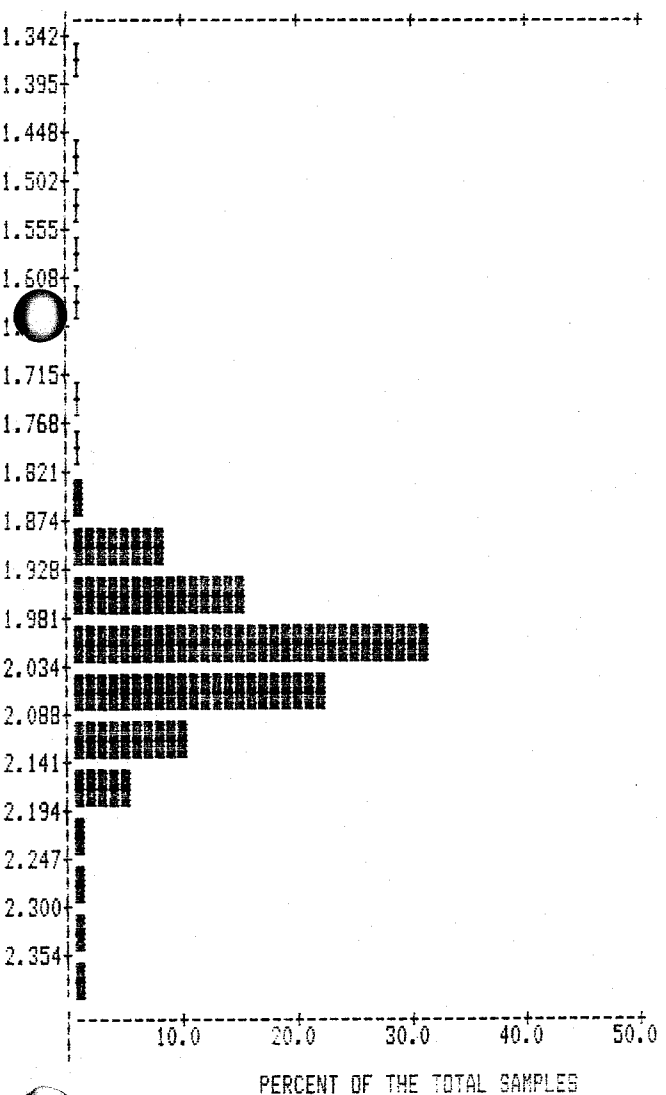
DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.342
1.342	3	0.48	0.48	1.395
1.395	0	0.00	0.48	1.448
1.448	1	0.16	0.64	1.502
1.502	1	0.16	0.80	1.555
1.555	2	0.32	1.12	1.608
1.608	2	0.32	1.44	1.661
1.661	0	0.00	1.44	1.715
1.715	4	0.64	2.08	1.768
1.768	4	0.64	2.72	1.821
1.821	8	1.28	3.99	1.874
1.874	49	7.83	11.82	1.928
1.928	93	14.86	26.68	1.981
1.981	196	31.31	57.99	2.034
2.034	136	21.73	79.71	2.088
2.088	64	10.22	89.94	2.141
2.141	31	4.95	94.89	2.194
2.194	9	1.28	96.17	2.247
2.247	7	1.12	97.28	2.300
2.300	8	1.28	98.56	2.354
2.354	9	1.44		

VARIABLE:	LOGZN
NUMBER OF OBSERVATIONS:	626
MINIMUM:	1.342
MAXIMUM:	2.407
MEAN:	1.824

STANDARD DEVIATION: 0.118
COEFFICIENT OF VARIATION: 5.848
SKEWNESS: -0.800
KURTOSIS: 7.001

****

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CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
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1.872	TO	1.924	49	62.6	-13.6	2.955
1.924	TO	1.962	55	62.6	-7.6	0.923
1.962	TO	1.994	90	62.6	27.4	11.993
1.994	TO	2.024	99	62.6	36.4	21.165
2.024	TO	2.054	105	62.6	42.4	28.718
2.054	TO	2.086	71	62.6	8.4	1.127
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CHI-SQUARED VALUE IS 107.04. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
        LOGAU    =  LOG(10) AU
        LOGLOGAU =  LOG(10) LOGAU
```

****

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```
        LOGCU    =  LOG(10) CU
```

****

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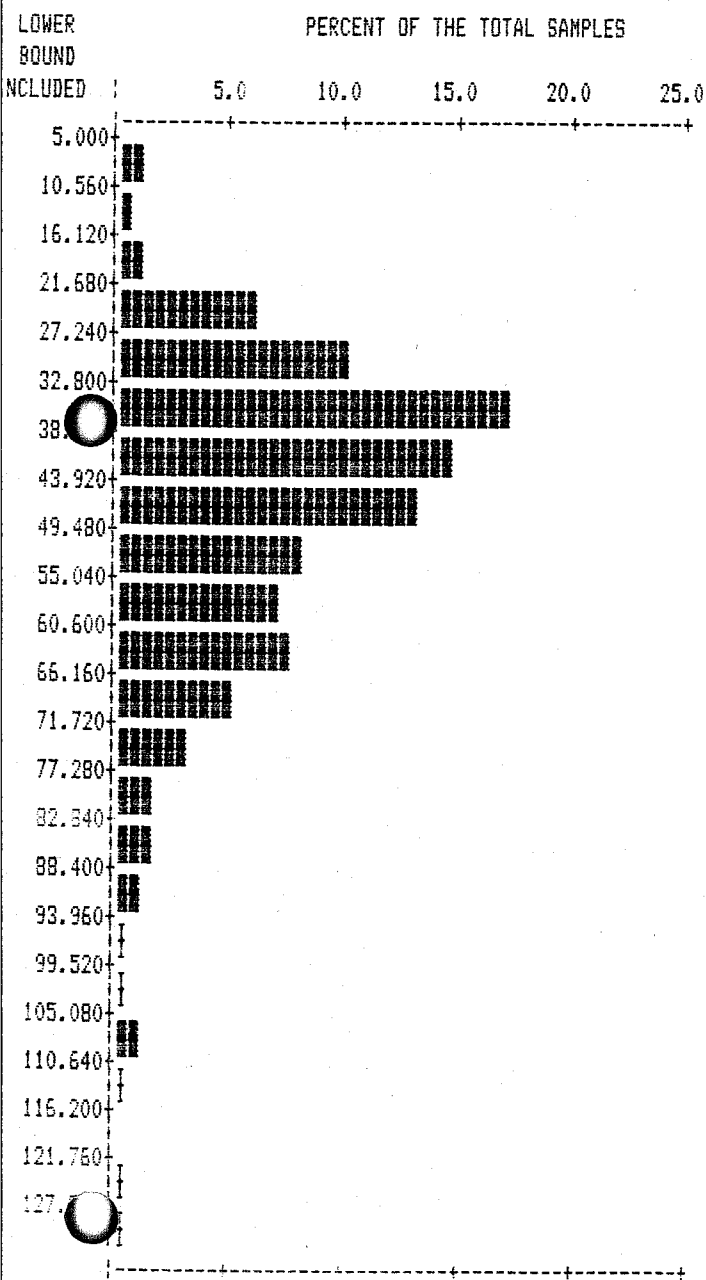
DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : CU



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99.520	3	0.48	97.92	99.520
105.080	2	0.32	98.24	105.080
110.640	5	0.80	99.04	110.640
116.200	3	0.48	99.52	116.200
121.760	0	0.00	99.52	121.760
127.	1	0.16	99.68	127.320
	1	0.16		
DATA ABOVE RANGE OF HISTOGRAM				
144.000			99.84	144.000
	1	0.16		

PERCENT OF THE TOTAL SAMPLES

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	626
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CHI-SQUARED VALUE IS 86.43. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
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0.975	16.00
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HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

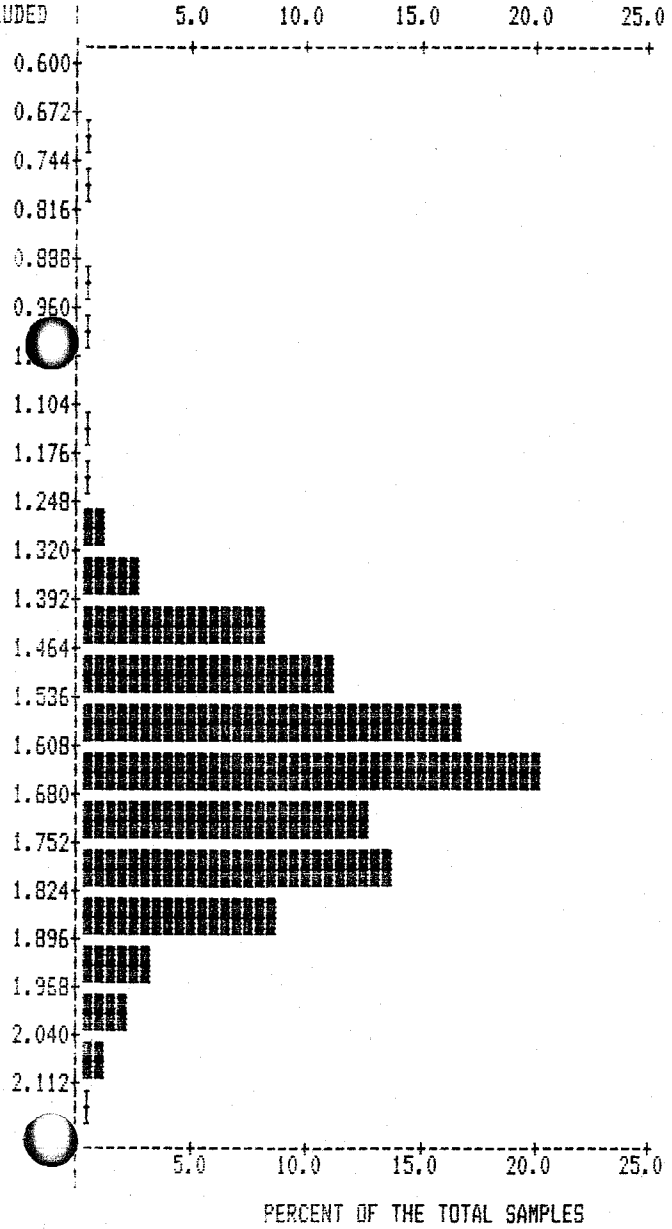
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : REED LAKE 1989 GRID SOILS

VARIABLE : LOGCU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.600			0.00	0.600
0.672	0	0.00	0.00	0.672
0.744	1	0.16	0.16	0.744
0.816	2	0.32	0.48	0.816
0.888	0	0.00	0.48	0.888
0.960	1	0.16	0.64	0.960
1.032	2	0.32	0.96	1.032
1.104	0	0.00	0.96	1.104
1.176	2	0.32	1.28	1.176
1.248	2	0.32	1.60	1.248
1.320	6	0.96	2.56	1.320
1.392	15	2.40	4.95	1.392
1.464	50	7.99	12.94	1.464
1.536	68	10.86	23.80	1.536
1.608	103	16.45	40.26	1.608
1.680	125	19.97	60.22	1.680
1.752	77	12.30	72.52	1.752
1.824	83	13.26	85.78	1.824
1.896	52	8.31	94.09	1.896
1.968	19	3.04	97.12	1.968
2.040	11	1.76	98.88	2.040
2.112	6	0.96	99.84	2.112
	1	0.16		

PERCENT OF THE TOTAL SAMPLES

VARIABLE: LOGCU

NUMBER OF OBSERVATIONS: 626

MAXIMUM:	2.158
MEAN:	1.643
STANDARD ERROR OF MEAN:	0.007
STANDARD DEVIATION:	0.176
COEFFICIENT OF VARIATION:	10.726
SKEWNESS:	-0.726
KURTOSIS:	3.262

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGCU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.417	45	62.6	-17.6	4.948
1.417	TO	1.495	60	62.6	-2.6	0.108
1.495	TO	1.551	62	62.6	-0.6	0.006
1.551	TO	1.599	69	62.6	6.4	0.654
1.599	TO	1.643	79	62.6	16.4	4.296
1.643	TO	1.688	73	62.6	10.4	1.728
1.688	TO	1.736	49	62.6	-13.6	2.955
1.736	TO	1.792	63	62.6	0.4	0.003
1.792	TO	1.869	78	62.6	15.4	3.788
1.869	TO	+INFINITY	48	62.6	-14.6	3.405

CHI-SQUARED VALUE IS 21.89. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

APPENDIX X

RIDGE GRID SOIL SAMPLING STATISTICAL ANALYSES

```
*****  *****  *     *  *    *  *****  *    *          01-NOV-90
*      *   *  *     *  **   *  *      *    *
*      *****  *     *  * *  *  *      *****
*      * *    *     *  *  ** *  *      *    *
*****  *  **  ******  *    *  *****  *    *
```

A PROGRAM IN THE Q'GAS SYSTEM TO PREPARE
DATA FOR USE WITH OTHER Q'GAS PROGRAMS

Version 5.0.3 March 1986

INPUT DATA TITLE: RIDGE GRID 1989 SOILS

THE FOLLOWING VARIABLES HAVE BEEN RECOGNIZED ON THE INPUT DATA SET.

AG AS CU PB SB ZN AU

** THE FOLLOWING SPECIAL VALUES WERE RECODED TO EQUAL -1234.567 **

VARIABLE NAME	SPECIAL VALUE
AG	-999.000
AS	-999.000
CU	-999.000
PB	-999.000
SB	-999.000
ZN	-999.000
AU	-999.000

THE FOLLOWING VARIABLES WERE TRANSFERRED TO THE OUTPUT DATA SET.

AG AS CU PB SB ZN AU

NUMBER OF OUTPUT SAMPLES = 585
NUMBER OF OUTPUT VARIABLES = 7

6

```
****   *****  *****    *    *****  *****          01-NOV-90
*   *  *        *     * *     *    *
*   *  *****    *    *   *    *    *****
*   *      *    *    *****    *        *
****   *****    *    *   *    *    *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

DATA TITLE: RIDGE GRID 1989 SOILS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG AS CU PB SB ZN AU

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

LOGAG = LOG(10) AG
LOGAS = LOG(10) AS
LOGCU = LOG(10) CU
LOGPB = LOG(10) PB
LOGSB = LOG(10) SB
LOGZN = LOG(10) ZN
LOGAU = LOG(10) AU

```
 ****    *****  *****     *     *****  *****          01-NOV-90
 *   *   *          *     * *      *    *
 *   *   *****      *    *   *     *    *****
 *   *       *      *    *****     *        *
 ****    *****      *    *   *     *    *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

DATA TITLE: RIDGE GRID 1989 SOILS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG AS CU PB SB ZN AU

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
LOGAS   =  LOG(10) AS
LOGCU   =  LOG(10) CU
LOGPB   =  LOG(10) PB
LOGZN   =  LOG(10) ZN
LOGSB   =  LOG(10) SB
```

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

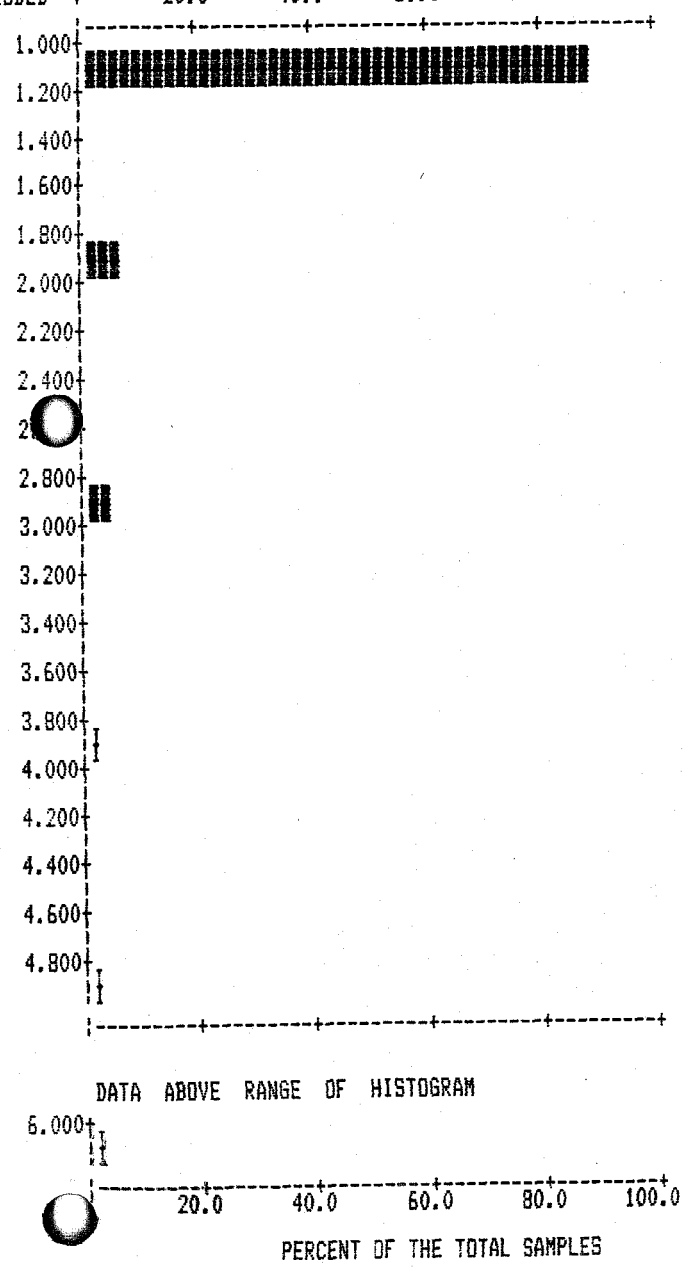
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : SB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	518	88.55	88.55	1.200
1.200	0	0.00	88.55	1.400
1.400	0	0.00	88.55	1.600
1.600	0	0.00	88.55	1.800
1.800	37	6.32	94.87	2.000
2.000	0	0.00	94.87	2.200
2.200	0	0.00	94.87	2.400
2.400	0	0.00	94.87	2.600
2	0	0.00	94.87	2.800
2.800	21	3.59	98.46	3.000
3.000	0	0.00	98.46	3.200
3.200	0	0.00	98.46	3.400
3.400	0	0.00	98.46	3.600
3.600	0	0.00	98.46	3.800
3.800	6	1.03	99.49	4.000
4.000	0	0.00	99.49	4.200
4.200	0	0.00	99.49	4.400
4.400	0	0.00	99.49	4.600
4.600	0	0.00	99.49	4.800
4.800	1	0.17		
			99.66	6.000
6.000	2	0.34		

2.8-3.8

3.

VARIABLE: SB
NUMBER OF OBSERVATIONS: 585
MINIMUM: 1.000

MEAN:	1.190
STANDARD ERROR OF MEAN:	0.025
STANDARD DEVIATION:	0.614
COEFFICIENT OF VARIATION:	51.581
SKEWNESS:	4.081
KURTOSIS:	19.874

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : S8

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.403	0	58.5	-58.5	58.500
0.403	TO	0.673	0	58.5	-58.5	58.500
0.673	TO	0.868	0	58.5	-58.5	58.500
0.868	TO	1.034	518	58.5	459.5	3609.235
1.034	TO	1.190	0	58.5	-58.5	58.500
1.190	TO	1.345	0	58.5	-58.5	58.500
1.345	TO	1.512	0	58.5	-58.5	58.500
1.512	TO	1.706	0	58.5	-58.5	58.500
1.706	TO	1.976	0	58.5	-58.5	58.500
1.976	TO	+INFINITY	67	58.5	8.5	1.235

CHI-SQUARED VALUE IS 4078.47. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

IE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

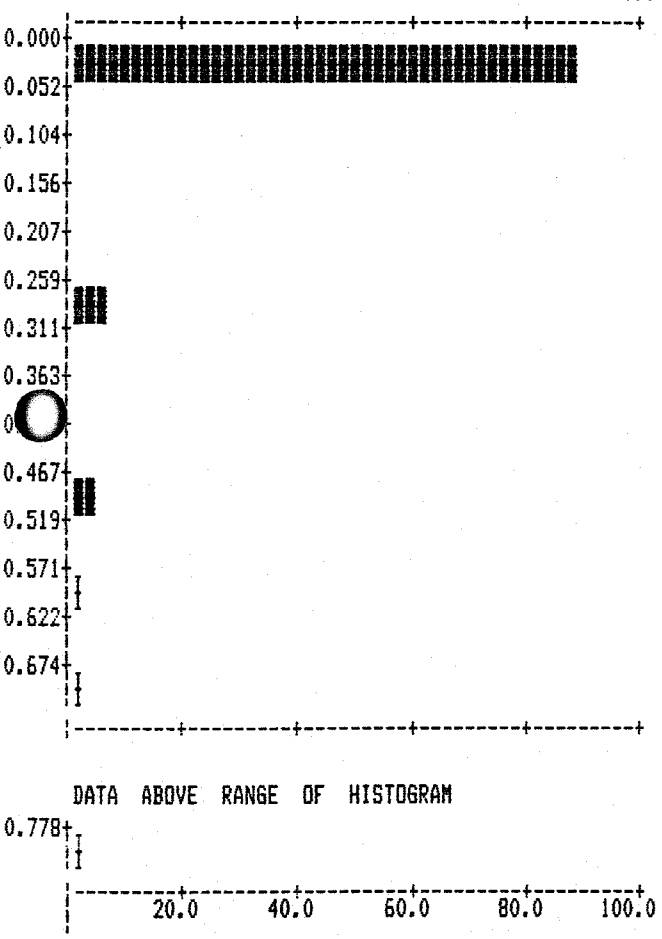
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

IE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGSB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	518	88.55	88.55	0.052
0.052	0	0.00	88.55	0.104
0.104	0	0.00	88.55	0.156
0.156	0	0.00	88.55	0.207
0.207	0	0.00	88.55	0.259
0.259	37	6.32	94.87	0.311
0.311	0	0.00	94.87	0.363
0.363	0	0.00	94.87	0.415
0.415	0	0.00	94.87	0.467
0.467	21	3.59	98.46	0.519
0.519	0	0.00	98.46	0.571
0.571	6	1.03	99.49	0.622
0.622	0	0.00	99.49	0.674
0.674	1	0.17		
DATA ABOVE RANGE OF HISTOGRAM				
			99.66	0.778
0.778	2	0.34		

VARIABLE:	LOGSB
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.000
MAXIMUM:	0.778
MEAN:	0.046
STANDARD ERROR OF MEAN:	0.006
STANDARD DEVIATION:	0.136
COEFFICIENT OF VARIATION:	293.815
SKEWNESS:	2.963
KURTOSIS:	8.135

CHI-SQUARE TEST FOR GOODNESS OF FIT WITH A NORMAL DISTRIBUTION

ARIABLE : LOGS8

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.128	0	58.5	-58.5	58.500
-0.128	TO	-0.068	0	58.5	-58.5	58.500
-0.068	TO	-0.025	0	58.5	-58.5	58.500
-0.025	TO	0.012	518	58.5	459.5	3609.235
0.012	TO	0.046	0	58.5	-58.5	58.500
0.046	TO	0.081	0	58.5	-58.5	58.500
0.081	TO	0.117	0	58.5	-58.5	58.500
0.117	TO	0.160	0	58.5	-58.5	58.500
0.160	TO	0.220	0	58.5	-58.5	58.500
0.220	TO	+INFINITY	67	58.5	8.5	1.235

CHI-SQUARED VALUE IS 4078.47. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

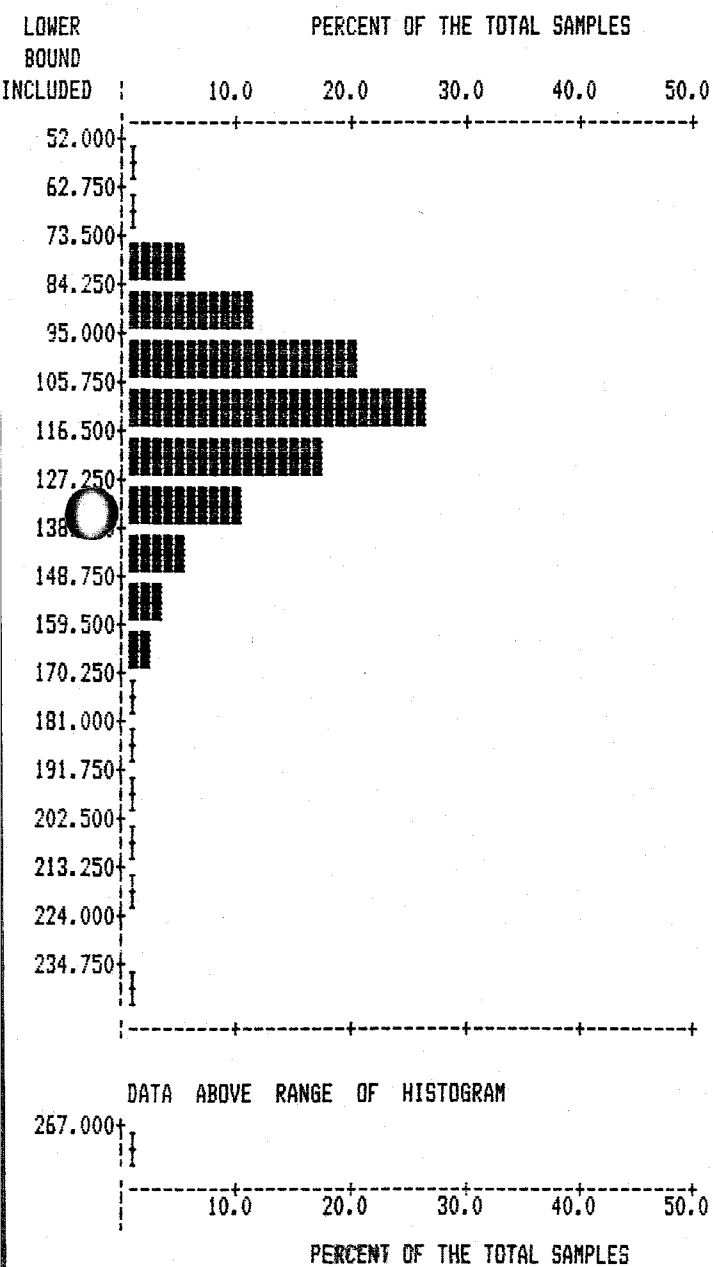
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

NO TRANSFORMATIONS OR SELECTIONS IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : ZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	52.000
52.000	1	0.17	0.17	62.750
62.750	3	0.51	0.68	73.500
73.500	28	4.79	5.47	84.250
84.250	65	11.11	16.58	95.000
95.000	115	19.66	36.24	105.750
105.750	151	25.81	62.05	116.500
116.500	99	16.92	78.97	127.250
127.250	59	10.09	89.06	138.000
138.000	30	5.13	94.19	148.750
148.750	16	2.74	96.92	159.500
159.500	9	1.54	98.46	170.250
170.250	2	0.34	98.80	181.000
181.000	1	0.17	98.97	191.750
191.750	1	0.17	99.15	202.500
202.500	2	0.34	99.49	213.250
213.250	1	0.17	99.66	224.000
224.000	0	0.00	99.66	234.750
234.750	1	0.17		
DATA ABOVE RANGE OF HISTOGRAM				
267.000	1	0.17	99.83	267.000

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	585
MINIMUM:	52.000
MAXIMUM:	267.000
MEAN:	113.974
STANDARD ERROR OF MEAN:	0.919

STANDARD DEVIATION: 11.282
COEFFICIENT OF VARIATION: 19.506
SKEWNESS: 1.595
KURTOSIS: 6.710

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE = ZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	85.482	35	58.5	-23.5	9.440
85.482	TO	95.264	66	58.5	7.5	0.962
95.264	TO	102.316	79	58.5	20.5	7.184
102.316	TO	108.343	73	58.5	14.5	3.594
108.343	TO	113.974	69	58.5	10.5	1.885
113.974	TO	119.606	62	58.5	3.5	0.209
119.606	TO	125.633	68	58.5	9.5	1.543
125.633	TO	132.685	43	58.5	-15.5	4.107
132.685	TO	142.467	43	58.5	-15.5	4.107
142.467	TO	+INFINITY	47	58.5	-11.5	2.261

CHI-SQUARED VALUE IS 35.29. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

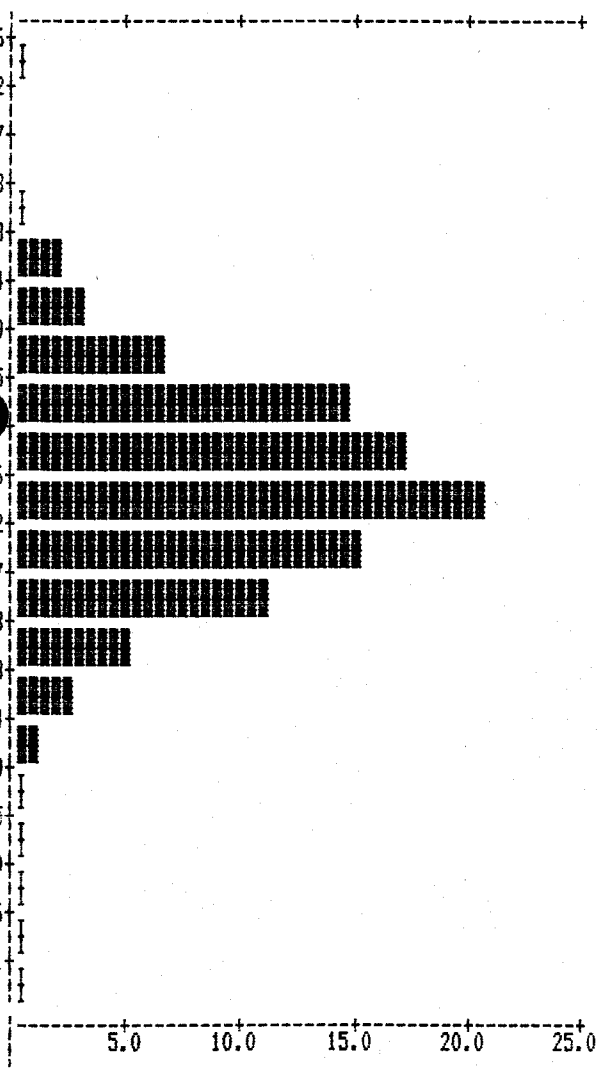
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.716
1.716	1	0.17	0.17	1.752
1.752	0	0.00	0.17	1.787
1.787	0	0.00	0.17	1.823
1.823	2	0.34	0.51	1.858
1.858	12	2.05	2.56	1.894
1.894	17	2.91	5.47	1.929
1.929	37	6.32	11.79	1.965
1.965	86	14.70	26.50	2.000
2.000	98	16.75	43.25	2.036
2.036	121	20.68	63.93	2.072
2.072	88	15.04	78.97	2.107
2.107	63	10.77	89.74	2.143
2.143	30	5.13	94.87	2.178
2.178	16	2.74	97.61	2.214
2.214	7	1.20	98.80	2.249
2.249	1	0.17	98.97	2.285
2.285	2	0.34	99.32	2.320
2.320	2	0.34	99.66	2.356
2.356	1	0.17	99.83	2.391
2.391	1	0.17		

15%

VARIABLE:	LOGZN
NUMBER OF OBSERVATIONS:	585
MINIMUM:	1.716
MAXIMUM:	2.427
MEAN:	2.049
STANDARD ERROR OF MEAN:	0.003
STANDARD DEVIATION:	0.079
COEFFICIENT OF VARIATION:	3.877

KURTOSIS: 1.864

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFI	TO	1.948	48	58.5	-10.5	1.885
1.948	TO	1.982	62	58.5	3.5	0.209
1.982	TO	2.008	55	58.5	-3.5	0.209
2.008	TO	2.029	61	58.5	2.5	0.107
2.029	TO	2.049	77	58.5	18.5	5.850
2.049	TO	2.069	71	58.5	12.5	2.671
2.069	TO	2.091	58	58.5	-0.5	0.004
2.091	TO	2.116	47	58.5	-11.5	2.261
2.116	TO	2.151	57	58.5	-1.5	0.038
2.151	TO	+INFINITY	49	58.5	-9.5	1.543

CHI-SQUARED VALUE IS 14.78. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

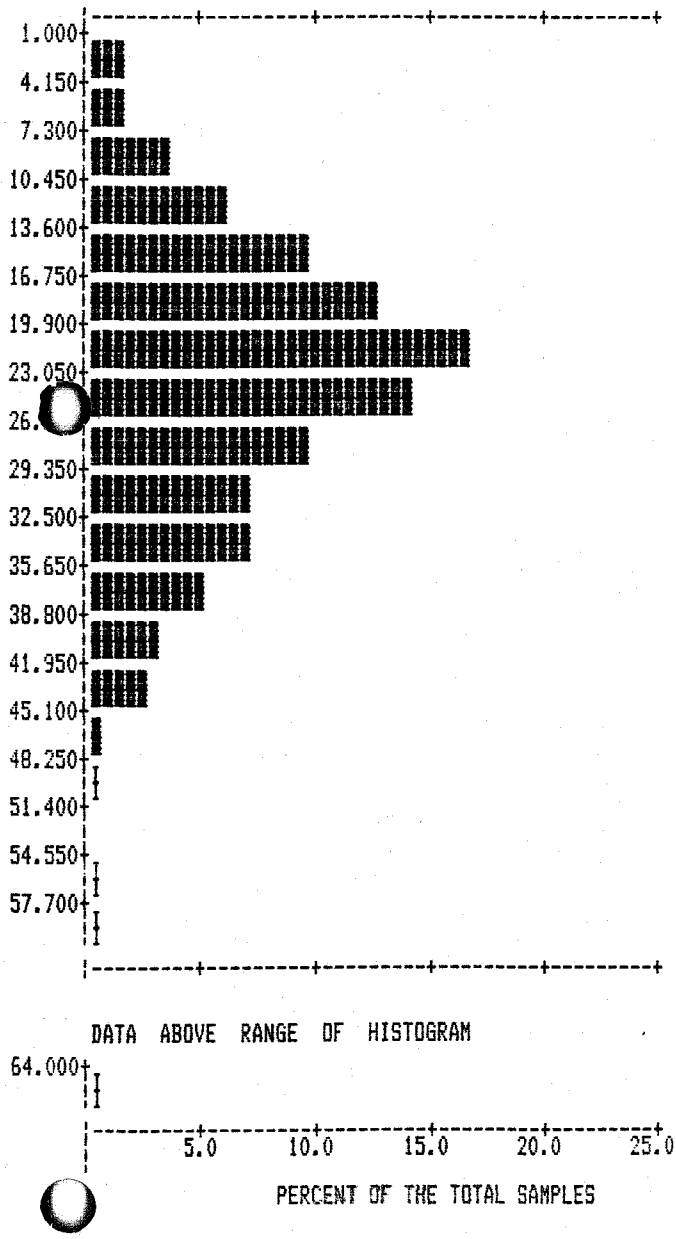
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SA TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

ATA TITLE : RIDGE GRID 1989 SOILS

RIABLE : PB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	9	1.54	1.54	4.150
4.150	9	1.54	3.08	7.300
7.300	20	3.42	6.50	10.450
10.450	35	5.98	12.48	13.600
13.600	55	9.40	21.88	16.750
16.750	72	12.31	34.19	19.900
19.900	97	16.58	50.77	23.050
23.050	81	13.85	64.62	26.200
26.200	55	9.40	74.02	29.350
29.350	40	6.84	80.85	32.500
32.500	41	7.01	87.86	35.650
35.650	28	4.79	92.65	38.800
38.800	19	3.25	95.90	41.950
41.950	15	2.56	98.46	45.100
45.100	3	0.51	98.97	48.250
48.250	2	0.34	99.32	51.400
51.400	0	0.00	99.32	54.550
54.550	1	0.17	99.49	57.700
57.700	2	0.34		
DATA ABOVE RANGE OF HISTOGRAM				
64.000	1	0.17	99.83	64.000

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	585
MINIMUM:	1.000
MAXIMUM:	64.000
MEAN:	23.691

STANDARD ERROR OF MEAN:	0.398
STANDARD DEVIATION:	9.633
COEFFICIENT OF VARIATION:	40.319
SKEWNESS:	0.460
KURTOSIS:	0.597

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : PB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	11.546	47	58.5	-11.5	2.261
11.546	TO	15.784	61	58.5	2.5	0.107
15.784	TO	18.839	70	58.5	11.5	2.261
18.839	TO	21.451	75	58.5	16.5	4.654
21.451	TO	23.891	44	58.5	-14.5	3.594
23.891	TO	26.331	81	58.5	22.5	8.654
26.331	TO	28.942	38	58.5	-20.5	7.184
28.942	TO	31.997	47	58.5	-11.5	2.261
31.997	TO	36.236	64	58.5	5.5	0.517
36.236	TO	+INFINITY	58	58.5	-0.5	0.004

CHI-SQUARED VALUE IS 31.50. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

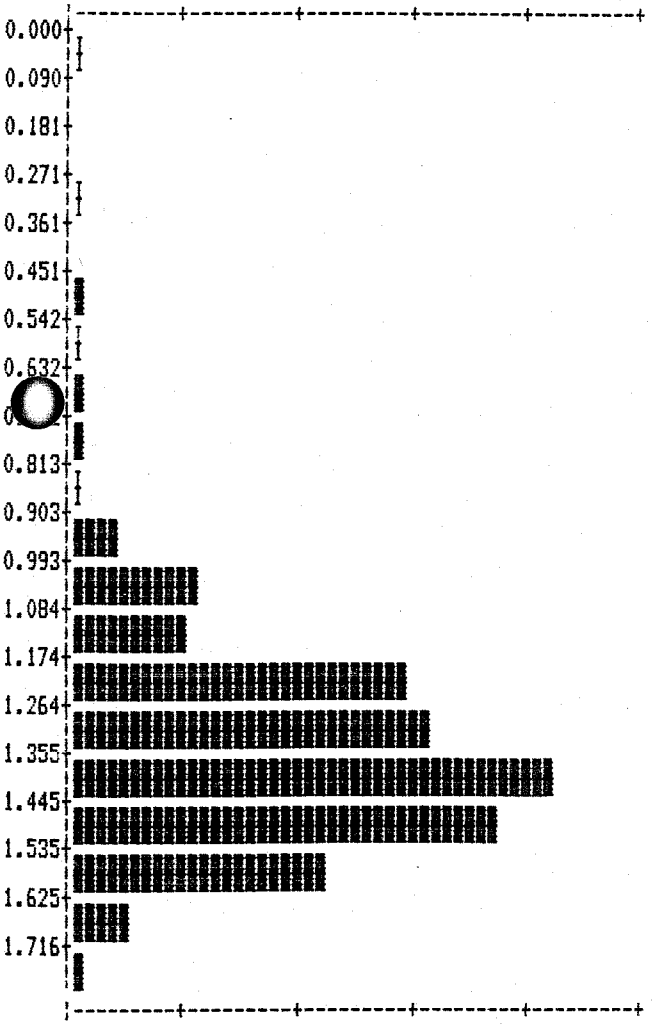
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGPB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000			0.00	0.000
0.090	1	0.17	0.17	0.090
0.181	0	0.00	0.17	0.181
0.271	0	0.00	0.17	0.271
0.361	2	0.34	0.51	0.361
0.451	0	0.00	0.51	0.451
0.542	4	0.68	1.20	0.542
0.632	2	0.34	1.54	0.632
0.722	4	0.68	2.22	0.722
0.813	3	0.51	2.74	0.813
0.903	2	0.34	3.08	0.903
0.993	12	2.05	5.13	0.993
1.084	33	5.64	10.77	1.084
1.174	29	4.96	15.73	1.174
1.264	86	14.70	30.43	1.264
1.355	92	15.73	46.15	1.355
1.445	124	21.20	67.35	1.445
1.535	107	18.29	85.64	1.535
1.625	65	11.11	96.75	1.625
1.716	15	2.56	99.32	1.716
	3	0.51		
DATA ABOVE RANGE OF HISTOGRAM				
1.806	1	0.17	99.83	1.806

PERCENT OF THE TOTAL SAMPLES

VARIABLE: LOGPB
NUMBER OF OBSERVATIONS: 585
MINIMUM: 0.000

MEAN:	1.335
STANDARD ERROR OF MEAN:	0.009
STANDARD DEVIATION:	0.216
COEFFICIENT OF VARIATION:	16.175
SKEWNESS:	-1.607
KURTOSIS:	5.266

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGPB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.058	47	58.5	-11.5	2.261
1.058	TO	1.153	45	58.5	-13.5	3.115
1.153	TO	1.221	36	58.5	-22.5	8.654
1.221	TO	1.280	72	58.5	13.5	3.115
1.280	TO	1.335	53	58.5	-5.5	0.517
1.335	TO	1.389	74	58.5	15.5	4.107
1.389	TO	1.448	89	58.5	30.5	15.902
1.448	TO	1.516	57	58.5	-1.5	0.038
1.516	TO	1.611	86	58.5	27.5	12.927
1.611	TO	+INFINITY	26	58.5	-32.5	18.056

CHI-SQUARED VALUE IS 68.69. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

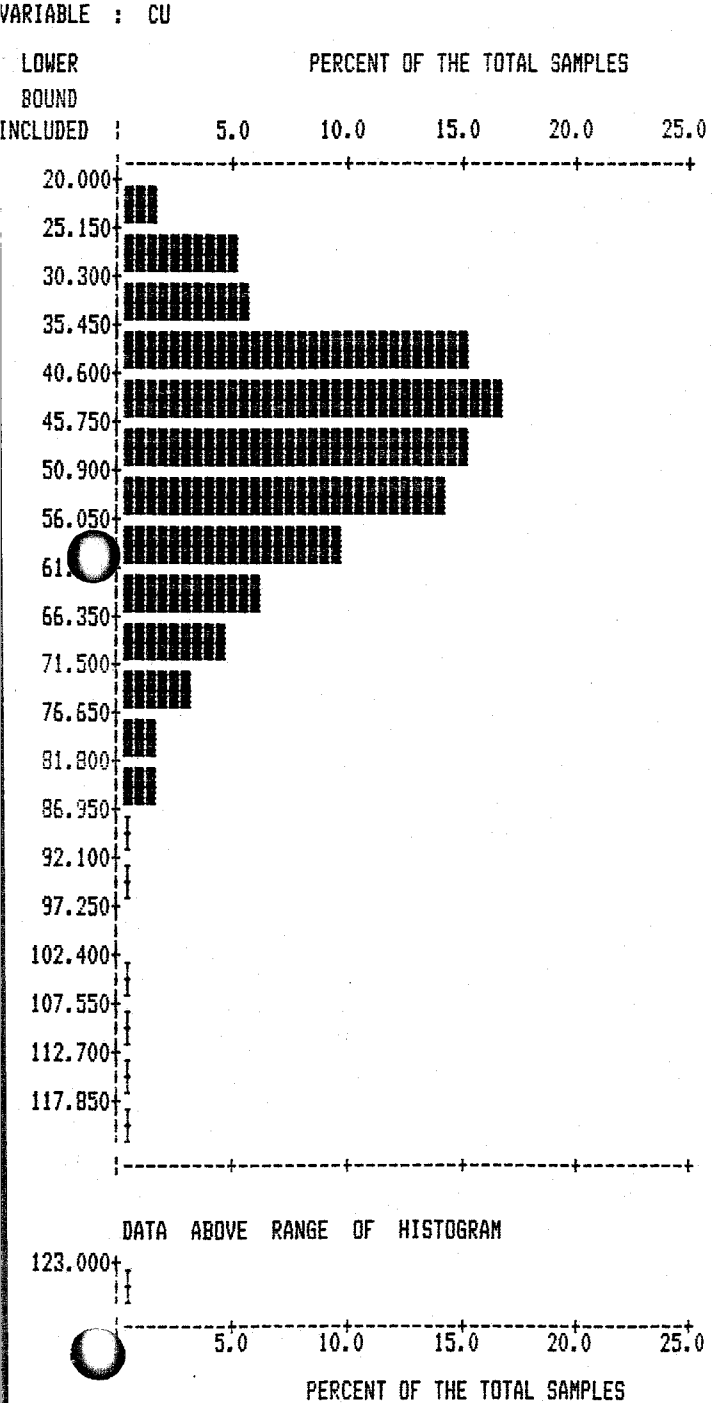
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : CU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	20.000
20.000	10	1.71	1.71	25.150
25.150	28	4.79	6.50	30.300
30.300	32	5.47	11.97	35.450
35.450	89	15.21	27.18	40.600
40.600	97	16.58	43.76	45.750
45.750	88	15.04	58.80	50.900
50.900	82	14.02	72.82	56.050
56.050	55	9.40	82.22	61.200
61.200	36	6.15	88.38	66.350
66.350	25	4.27	92.65	71.500
71.500	17	2.91	95.56	76.650
76.650	9	1.54	97.09	81.800
81.800	8	1.37	98.46	86.950
86.950	2	0.34	98.80	92.100
92.100	2	0.34	99.15	97.250
97.250	0	0.00	99.15	102.400
102.400	1	0.17	99.32	107.550
107.550	1	0.17	99.49	112.700
112.700	1	0.17	99.66	117.850
117.850	1	0.17		
DATA ABOVE RANGE OF HISTOGRAM				
123.000	1	0.17	99.83	123.000

VARIABLE: CU
NUMBER OF OBSERVATIONS: 595
MINIMUM: 20.000

MEAN:	49.812
STANDARD ERROR OF MEAN:	0.599
STANDARD DEVIATION:	14.496
COEFFICIENT OF VARIATION:	29.102
SKEWNESS:	1.112
KURTOSIS:	2.712

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : CU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	31.234	42	58.5	-16.5	4.654
31.234	TO	37.612	67	58.5	8.5	1.235
37.612	TO	42.210	82	58.5	23.5	9.440
42.210	TO	46.140	82	58.5	23.5	9.440
46.140	TO	49.812	54	58.5	-4.5	0.346
49.812	TO	53.484	51	58.5	-7.5	0.962
53.484	TO	57.414	62	58.5	3.5	0.209
57.414	TO	62.012	45	58.5	-13.5	3.115
62.012	TO	68.390	46	58.5	-12.5	2.671
68.390	TO	+INFINITY	54	58.5	-4.5	0.346

CHI-SQUARED VALUE IS 32.42. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

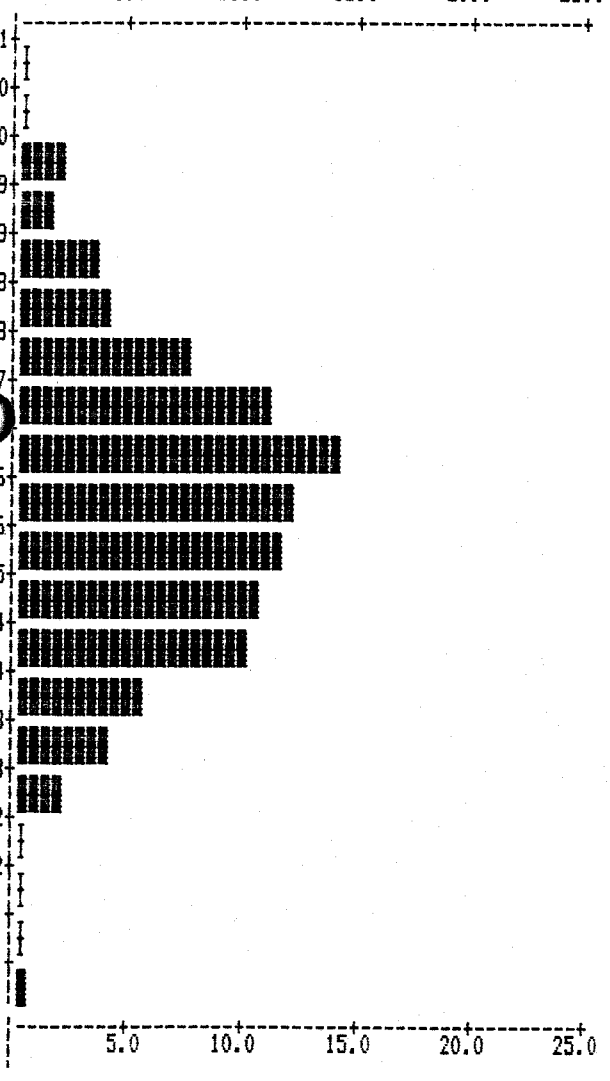
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGCU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.301
1.301	2	0.34	0.34	1.340
1.340	1	0.17	0.51	1.380
1.380	11	1.88	2.39	1.419
1.419	8	1.37	3.76	1.459
1.459	20	3.42	7.18	1.498
1.498	22	3.76	10.94	1.538
1.538	45	7.69	18.63	1.577
1.577	64	10.94	29.57	1.617
1.617	83	14.19	43.76	1.656
1.656	71	12.14	55.90	1.696
1.696	66	11.28	67.18	1.735
1.735	60	10.26	77.44	1.774
1.774	58	9.91	87.35	1.814
1.814	31	5.30	92.65	1.853
1.853	23	3.93	96.58	1.893
1.893	11	1.88	98.46	1.932
1.932	2	0.34	98.80	1.972
1.972	2	0.34	99.15	2.011
2.011	2	0.34	99.49	2.051
2.051	3	0.51		

VARIABLE	LOGCU
NUMBER OF OBSERVATIONS:	585
MINIMUM:	1.301
MAXIMUM:	2.090
MEAN:	1.680
STANDARD ERROR OF MEAN:	0.005
STANDARD DEVIATION:	0.122
COEFFICIENT OF VARIATION:	7.279

SKEWNESS: 0.030

KURTOSIS: 0.309

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGCU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFI	TO	1.523	53	58.5	-5.5	0.517
1.523	TO	1.577	56	58.5	-2.5	0.107
1.577	TO	1.616	64	58.5	5.5	0.517
1.616	TO	1.649	63	58.5	4.5	0.346
1.649	TO	1.680	58	58.5	-0.5	0.004
1.680	TO	1.711	62	58.5	3.5	0.209
1.711	TO	1.744	53	58.5	-5.5	0.517
1.744	TO	1.783	57	58.5	-1.5	0.038
1.783	TO	1.837	65	58.5	6.5	0.722
1.837	TO	+INFINITY	54	58.5	-4.5	0.346

CHI-SQUARED VALUE IS 3.32. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

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WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SA TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

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WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

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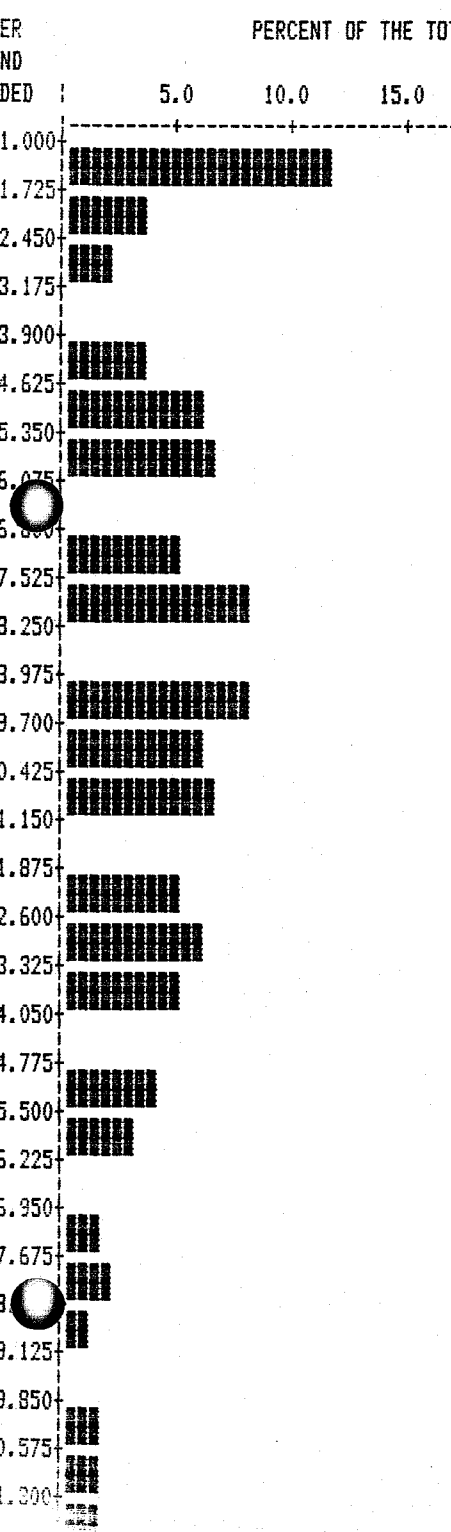
WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

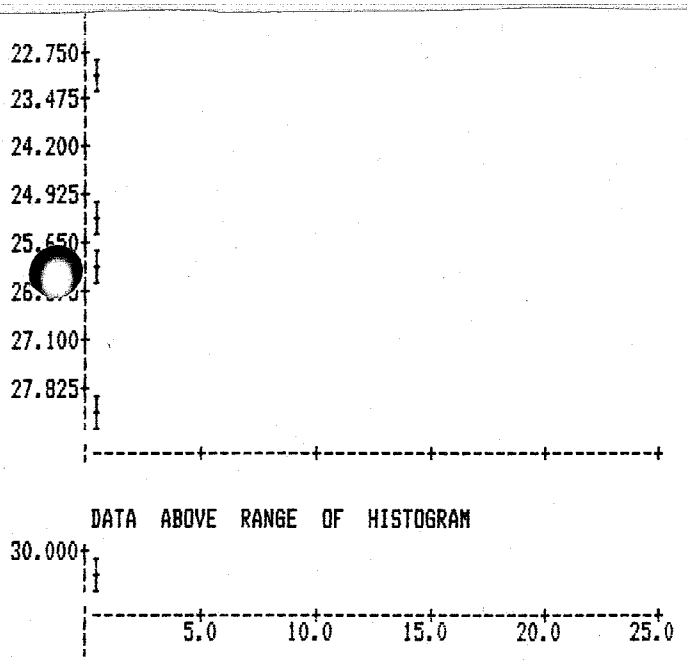
THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : AS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
1.000			0.00	1.000
1.725	68	11.62	11.62	1.725
2.450	20	3.42	15.04	2.450
3.175	13	2.22	17.26	3.175
3.900	0	0.00	17.26	3.900
4.625	20	3.42	20.68	4.625
5.350	34	5.81	26.50	5.350
6.075	38	6.50	32.99	6.075
6.800	0	0.00	32.99	6.800
7.525	28	4.79	37.78	7.525
8.250	47	8.03	45.81	8.250
8.975	0	0.00	45.81	8.975
9.700	47	8.03	53.85	9.700
10.425	36	6.15	60.00	10.425
11.150	38	6.50	66.50	11.150
11.875	0	0.00	66.50	11.875
12.600	28	4.79	71.28	12.600
13.325	36	6.15	77.44	13.325
14.050	29	4.96	82.39	14.050
14.775	0	0.00	82.39	14.775
15.500	24	4.10	86.50	15.500
16.225	19	3.25	89.74	16.225
16.950	0	0.00	89.74	16.950
17.675	10	1.71	91.45	17.675
18.400	12	2.05	93.50	18.400
19.125	7	1.20	94.70	19.125
19.850	0	0.00	94.70	19.850
20.575	8	1.37	96.07	20.575
21.300	8	1.37	97.44	21.300



0	0.00	98.80	22.750
2	0.34	99.15	23.475
0	0.00	99.15	24.200
0	0.00	99.15	24.925
2	0.34	99.49	25.650
1	0.17	99.66	26.375
0	0.00	99.66	27.100
0	0.00	99.66	27.825
1	0.17		

DATA ABOVE RANGE OF HISTOGRAM

1	0.17	99.83	30.000

VARIABLE: AS

NUMBER OF OBSERVATIONS:	585
MINIMUM:	1.000
MAXIMUM:	30.000
MEAN:	9.359
STANDARD ERROR OF MEAN:	0.233
STANDARD DEVIATION:	5.641
COEFFICIENT OF VARIATION:	60.276
SKEWNESS:	0.437
KURTOSIS:	-0.110

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	2.129	88	58.5	29.5	14.876
2.129	TO	4.611	33	58.5	-25.5	11.115
4.611	TO	6.401	72	58.5	13.5	3.115
6.401	TO	7.930	28	58.5	-30.5	15.902
7.930	TO	9.359	94	58.5	35.5	21.543
9.359	TO	10.788	36	58.5	-22.5	8.654
10.788	TO	12.317	66	58.5	7.5	0.962
12.317	TO	14.107	65	58.5	6.5	0.722
14.107	TO	16.589	43	58.5	-15.5	4.107
16.589	TO	+INFINITY	60	58.5	1.5	0.038

CHI-SQUARED VALUE IS 81.03. DEGREES OF FREEDOM ARE 7.

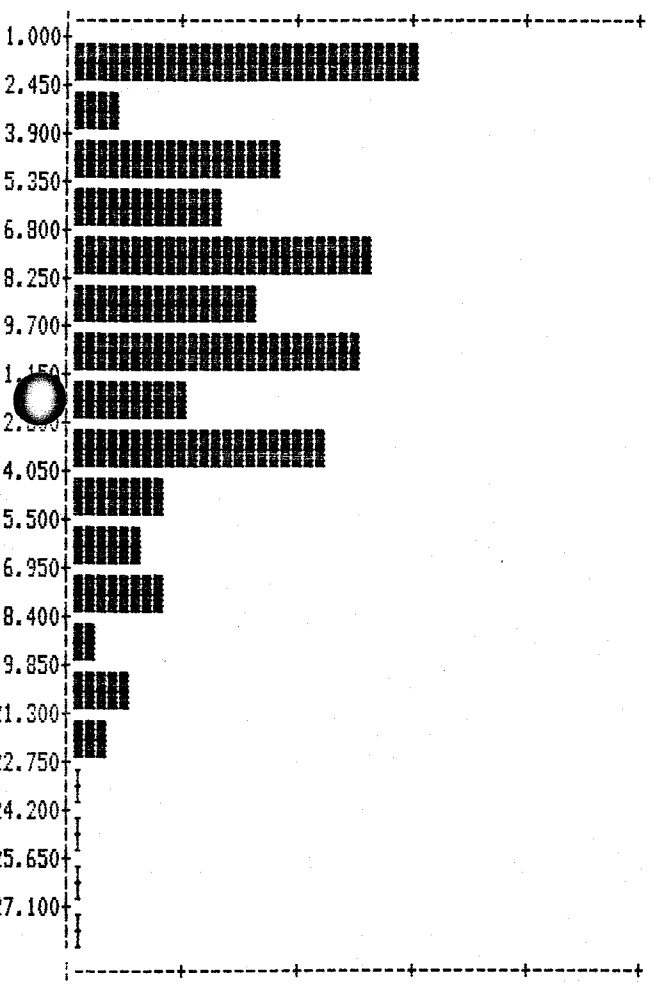
SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : AS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1.000	88	15.04	15.04	2.450
2.450	13	2.22	17.26	3.900
3.900	54	9.23	26.50	5.350
5.350	38	6.50	32.99	6.800
6.800	75	12.82	45.81	8.250
8.250	47	8.03	53.85	9.700
9.700	74	12.65	66.50	11.150
11.150	28	4.79	71.28	12.600
12.600	65	11.11	82.39	14.050
14.050	24	4.10	86.50	15.500
15.500	19	3.25	89.74	16.950
16.950	22	3.76	93.50	18.400
18.400	7	1.20	94.70	19.850
19.850	16	2.74	97.44	21.300
21.300	8	1.37	98.80	22.750
22.750	2	0.34	99.15	24.200
24.200	2	0.34	99.49	25.650
25.650	1	0.17	99.66	27.100
27.100	1	0.17		
DATA ABOVE RANGE OF HISTOGRAM				
30.000	1	0.17	99.83	30.000

VARIABLE: AS
NUMBER OF OBSERVATIONS: 585
MINIMUM: 1.000
MAXIMUM: 30.000

STANDARD ERROR OF MEAN:	0.233
STANDARD DEVIATION:	5.641
COEFFICIENT OF VARIATION:	60.276
SKEWNESS:	0.437
KURTOSIS:	-0.110

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AS

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	2.129	88	58.5	29.5	14.876
2.129	TO	4.611	33	58.5	-25.5	11.115
4.611	TO	6.401	72	58.5	13.5	3.115
6.401	TO	7.930	28	58.5	-30.5	15.902
7.930	TO	9.359	94	58.5	35.5	21.543
9.359	TO	10.788	36	58.5	-22.5	8.654
10.788	TO	12.317	66	58.5	7.5	0.962
12.317	TO	14.107	65	58.5	6.5	0.722
14.107	TO	16.589	43	58.5	-15.5	4.107
16.589	TO	+INFINITY	60	58.5	1.5	0.038

CHI-SQUARED VALUE IS 81.03. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

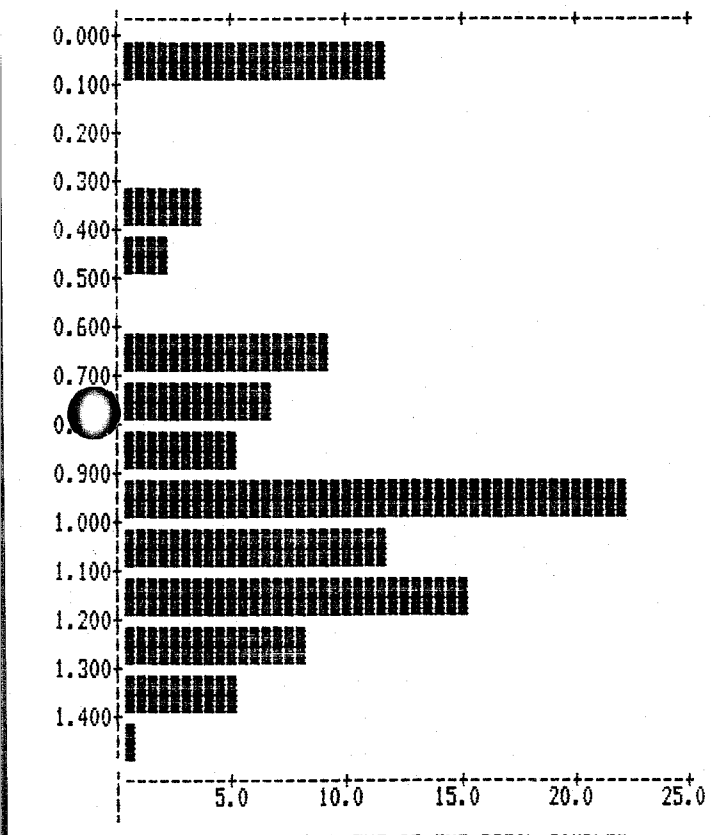
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGAS



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.000	68	11.62	11.62	0.100
0.100	0	0.00	11.62	0.200
0.200	0	0.00	11.62	0.300
0.300	20	3.42	15.04	0.400
0.400	13	2.22	17.26	0.500
0.500	0	0.00	17.26	0.600
0.600	54	9.23	26.50	0.700
0.700	38	6.50	32.99	0.800
0.800	28	4.79	37.78	0.900
0.900	130	22.22	60.00	1.000
1.000	66	11.28	71.28	1.100
1.100	89	15.21	86.50	1.200
1.200	48	8.21	94.70	1.300
1.300	28	4.79	99.49	1.400
1.400	3	0.51		

VARIABLE:	LOGAS
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.000
MAXIMUM:	1.477
MEAN:	0.849
STANDARD ERROR OF MEAN:	0.016
STANDARD DEVIATION:	0.383
COEFFICIENT OF VARIATION:	45.123
SKEWNESS:	-1.106
KURTOSIS:	0.278

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAS

-INFINITY	TO	0.358	88	58.5	29.5	14.876
0.358	TO	0.527	13	58.5	-45.5	35.389
0.527	TO	0.648	20	58.5	-38.5	25.338
0.648	TO	0.752	34	58.5	-24.5	10.261
0.752	TO	0.849	66	58.5	7.5	0.962
0.849	TO	0.946	47	58.5	-11.5	2.261
0.946	TO	1.050	121	58.5	62.5	66.774
1.[illegible]	TO	1.171	93	58.5	34.5	20.346
1.[illegible]	TO	1.340	88	58.5	29.5	14.876
1.340	TO	+INFINITY	15	58.5	-43.5	32.346

CHI-SQUARED VALUE IS 223.43. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

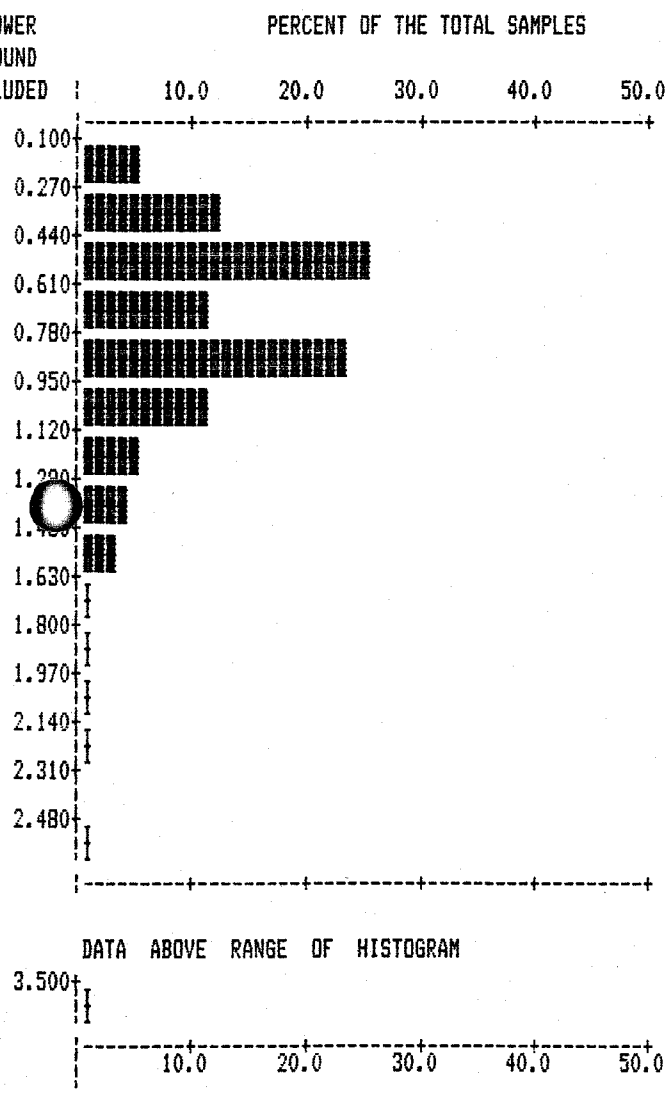
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : AG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.100
0.100	29	4.96	4.96	0.270
0.270	71	12.14	17.09	0.440
0.440	148	25.30	42.39	0.610
0.610	62	10.60	52.99	0.780
0.780	134	22.91	75.90	0.950
0.950	63	10.77	86.67	1.120
1.120	27	4.62	91.28	1.290
1.290	24	4.10	95.38	1.460
1.460	15	2.56	97.95	1.630
1.630	5	0.85	98.80	1.800
1.800	1	0.17	98.97	1.970
1.970	1	0.17	99.15	2.140
2.140	3	0.51	99.66	2.310
2.310	0	0.00	99.66	2.480
2.480	1	0.17		
3.500	1	0.17	99.83	3.500

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.100
MAXIMUM:	3.500
MEAN:	0.766
STANDARD ERROR OF MEAN:	0.016
STANDARD DEVIATION:	0.378
COEFFICIENT OF VARIATION:	49.321
SKEWNESS:	1.460
KURTOSIS:	5.744

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.282	29	58.5	-29.5	14.876
0.282	TO	0.448	71	58.5	12.5	2.671
0.448	TO	0.568	62	58.5	3.5	0.209
0.568	TO	0.671	86	58.5	27.5	12.927
0.671	TO	0.766	62	58.5	3.5	0.209
0.766	TO	0.862	80	58.5	21.5	7.902
0.862	TO	0.965	54	58.5	-4.5	0.346
0.965	TO	1.085	29	58.5	-29.5	14.876
1.085	TO	1.251	61	58.5	2.5	0.107
1.251	TO	+INFINITY	51	58.5	-7.5	0.962

CHI-SQUARED VALUE IS 55.09. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

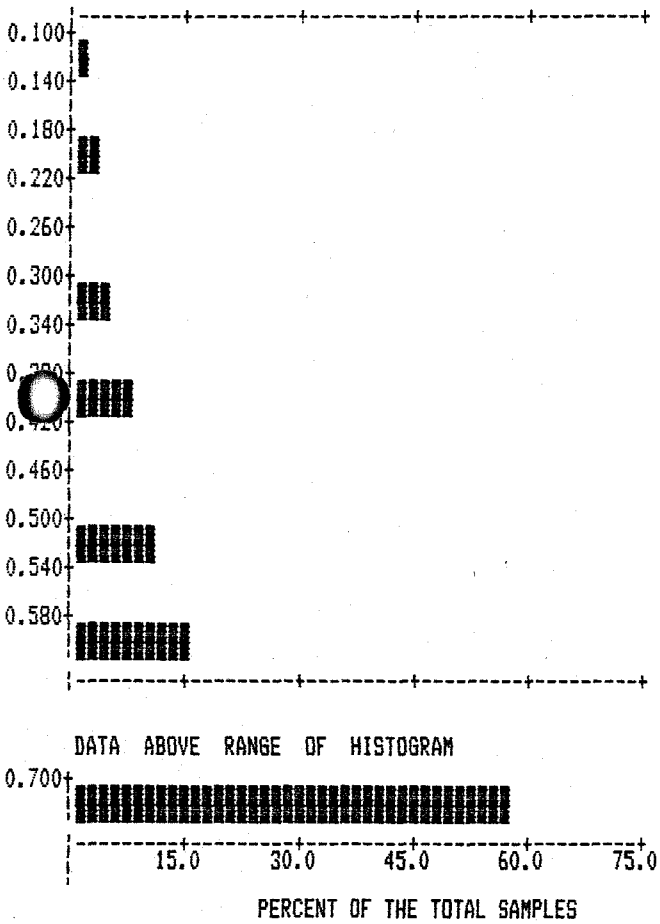
****

WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : AG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.100			0.00	0.100
0.140	12	2.05	2.05	0.140
0.180	0	0.00	2.05	0.180
0.220	17	2.91	4.96	0.220
0.260	0	0.00	4.96	0.260
0.300	0	0.00	4.96	0.300
0.340	30	5.13	10.09	0.340
0.380	0	0.00	10.09	0.380
0.420	41	7.01	17.09	0.420
0.460	0	0.00	17.09	0.460
0.500	0	0.00	17.09	0.500
0.540	62	10.60	27.69	0.540
0.580	0	0.00	27.69	0.580
	86	14.70		
0.700	337	57.61	42.39	0.700

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.100
MAXIMUM:	3.500
MEAN:	0.766
STANDARD ERROR OF MEAN:	0.016
STANDARD DEVIATION:	0.378
COEFFICIENT OF VARIATION:	49.321
SKEWNESS:	1.460
KURTOSIS:	5.744

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.282	29	58.5	-29.5	14.876
0.282	TO	0.448	71	58.5	12.5	2.671
0.448	TO	0.568	62	58.5	3.5	0.209
0.568	TO	0.671	86	58.5	27.5	12.927
0.671	TO	0.766	62	58.5	3.5	0.209
[illegible]	TO	0.862	80	58.5	21.5	7.902
0.862	TO	0.965	54	58.5	-4.5	0.346
0.965	TO	1.085	29	58.5	-29.5	14.876
1.085	TO	1.251	61	58.5	2.5	0.107
1.251	TO	+INFINITY	51	58.5	-7.5	0.962

CHI-SQUARED VALUE IS 55.09. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

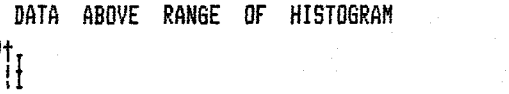
VARIABLE : AG

DATA BELOW RANGE OF HISTOGRAM

0.580	248	42.39	0.00	0.580

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.700		142	24.27	42.39	0.700
0.840		54	9.23	66.67	0.840
0.980		63	10.77	75.90	0.980
1.120		27	4.62	86.67	1.120
1.260		24	4.10	91.28	1.260
1.400		8	1.37	95.38	1.400
1.540		7	1.20	96.75	1.540
1.680		5	0.85	97.95	1.680
1.820		1	0.17	98.80	1.820
1.960		1	0.17	98.97	1.960
2.100		2	0.34	99.15	2.100
2.240		1	0.17	99.49	2.240
2.380		1	0.17	99.66	2.380

DATA ABOVE RANGE OF HISTOGRAM



3.500	1	0.17	99.83	3.500

10.0 20.0 30.0 40.0 50.0

PERCENT OF THE TOTAL SAMPLES

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.100
MAXIMUM:	3.500
MEAN:	0.766
STANDARD ERROR OF MEAN:	0.016
STANDARD DEVIATION:	0.378
COEFFICIENT OF VARIATION:	49.321
SKEWNESS:	1.460

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.282	29	58.5	-29.5	14.876
0	TO	0.448	71	58.5	12.5	2.671
0.448	TO	0.568	62	58.5	3.5	0.209
0.568	TO	0.671	86	58.5	27.5	12.927
0.671	TO	0.766	62	58.5	3.5	0.209
0.766	TO	0.862	80	58.5	21.5	7.902
0.862	TO	0.965	54	58.5	-4.5	0.346
0.965	TO	1.085	29	58.5	-29.5	14.876
1.085	TO	1.251	61	58.5	2.5	0.107
1.251	TO	+INFINITY	51	58.5	-7.5	0.962

CHI-SQUARED VALUE IS 55.09. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

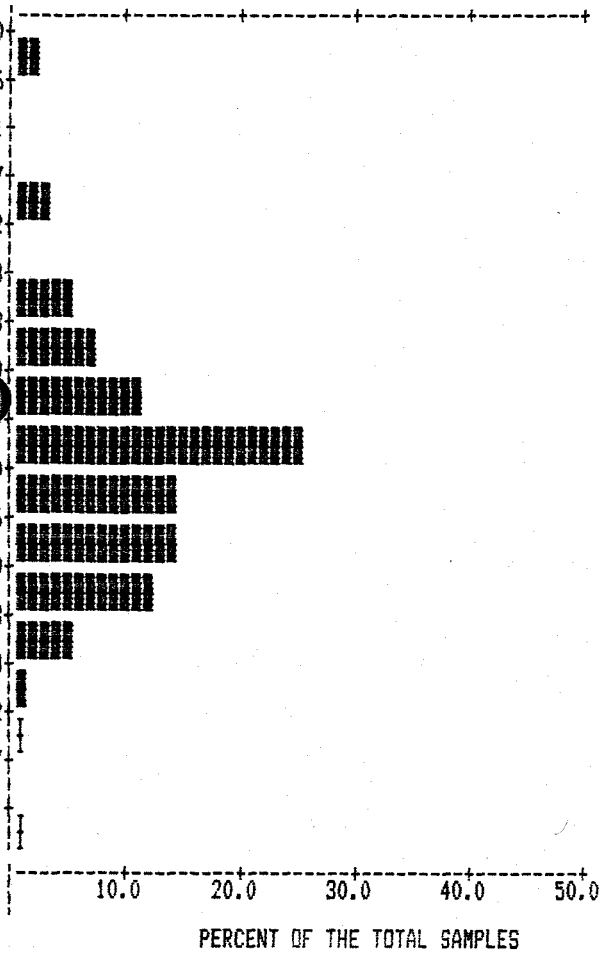
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGAG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	-1.000
-1.000	12	2.05	2.05	-0.906
-0.906	0	0.00	2.05	-0.811
-0.811	0	0.00	2.05	-0.717
-0.717	17	2.91	4.96	-0.622
-0.622	0	0.00	4.96	-0.528
-0.528	30	5.13	10.09	-0.433
-0.433	41	7.01	17.09	-0.339
-0.339	62	10.60	27.69	-0.244
-0.244	148	25.30	52.99	-0.150
-0.150	80	13.68	66.67	-0.056
-0.056	83	14.19	80.85	0.039
0.039	73	12.48	93.33	0.133
0.133	27	4.62	97.95	0.228
0.228	7	1.20	99.15	0.322
0.322	4	0.68	99.83	0.417
0.417	0	0.00	99.83	0.511
0.511	1	0.17		

VARIABLE:	LOGAG
NUMBER OF OBSERVATIONS:	585
MINIMUM:	-1.000
MAXIMUM:	0.544
MEAN:	-0.171
STANDARD ERROR OF MEAN:	0.010
STANDARD DEVIATION:	0.236
COEFFICIENT OF VARIATION:	-137.841
SKEWNESS:	-0.953
KURTOSIS:	1.997

CHI-SQUARE TEST FOR GOODNESS OF FIT WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.474	59	58.5	0.5	0.004
-0.474	TO	-0.370	41	58.5	-17.5	5.235
-0.370	TO	-0.295	62	58.5	3.5	0.209
-0.295	TO	-0.231	0	58.5	-58.5	58.500
-0	TO	-0.171	86	58.5	27.5	12.927
-0.171	TO	-0.111	62	58.5	3.5	0.209
-0.111	TO	-0.047	80	58.5	21.5	7.902
-0.047	TO	0.027	83	58.5	24.5	10.261
0.027	TO	0.131	73	58.5	14.5	3.594
0.131	TO	+INFINITY	39	58.5	-19.5	6.500

CHI-SQUARED VALUE IS 105.34. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

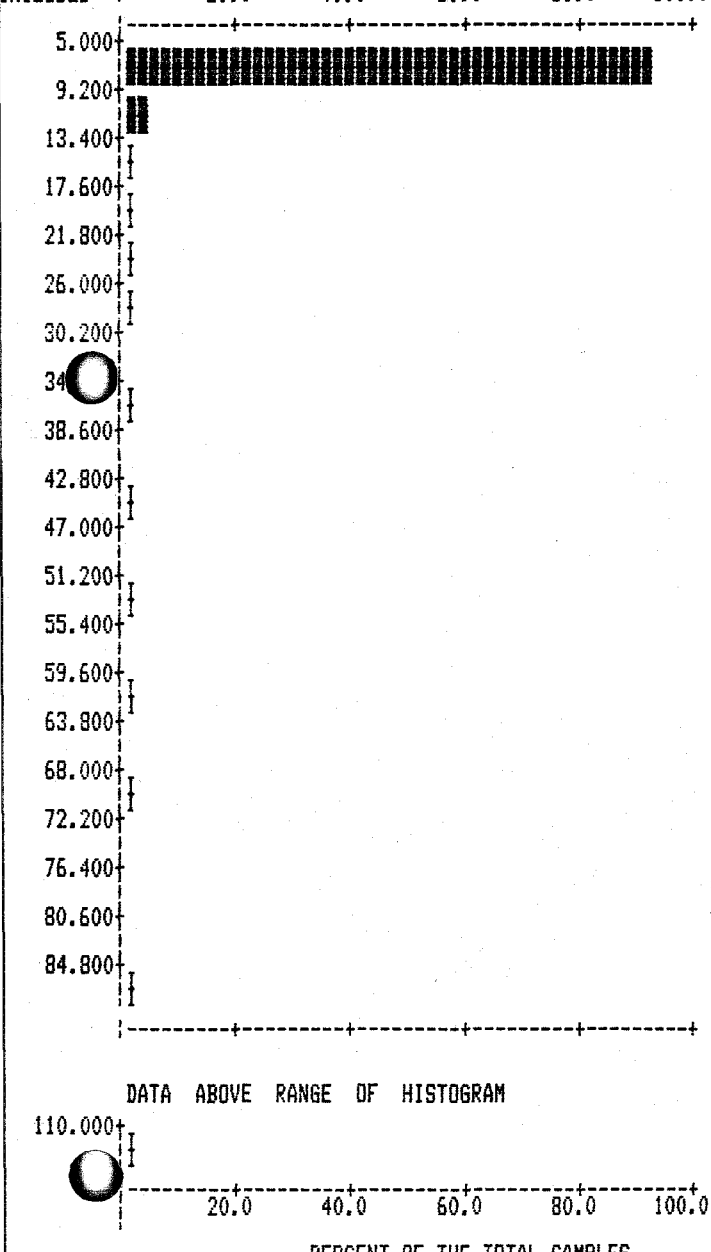
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : AU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
5.000			0.00	5.000
9.200	540	92.31	92.31	9.200
13.400	29	4.96	97.26	13.400
17.600	2	0.34	97.61	17.600
21.800	2	0.34	97.95	21.800
26.000	2	0.34	98.29	26.000
30.200	2	0.34	98.63	30.200
34.400	0	0.00	98.63	34.400
38.600	1	0.17	98.80	38.600
42.800	0	0.00	98.80	42.800
47.000	1	0.17	98.97	47.000
51.200	0	0.00	98.97	51.200
55.400	1	0.17	99.15	55.400
59.600	0	0.00	99.15	59.600
63.800	2	0.34	99.49	63.800
68.000	0	0.00	99.49	68.000
72.200	1	0.17	99.66	72.200
76.400	0	0.00	99.66	76.400
80.600	0	0.00	99.66	80.600
84.800	0	0.00	99.66	84.800
	1	0.17		
DATA ABOVE RANGE OF HISTOGRAM				
110.000	1	0.17	99.83	110.000

VARIABLE: AU

NUMBER OF OBSERVATIONS: 585

MINIMUM:	5.000
MAXIMUM:	110.000
MEAN:	6.308
STANDARD ERROR OF MEAN:	0.321
STANDARD DEVIATION:	7.755
COEFFICIENT OF VARIATION:	122.950
SKEWNESS:	8.845
KURTOSIS:	89.873

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : AU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-3.632	0	58.5	-58.5	58.500
-3.632	TO	-0.219	0	58.5	-58.5	58.500
-0.219	TO	2.241	0	58.5	-58.5	58.500
2.241	TO	4.343	0	58.5	-58.5	58.500
4.343	TO	6.308	540	58.5	481.5	3963.115
6.308	TO	8.272	0	58.5	-58.5	58.500
8.272	TO	10.375	29	58.5	-29.5	14.876
10.375	TO	12.835	0	58.5	-58.5	58.500
12.835	TO	16.247	2	58.5	-56.5	54.568
16.247	TO	+INFINITY	14	58.5	-44.5	33.850

CHI-SQUARED VALUE IS 4417.41. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

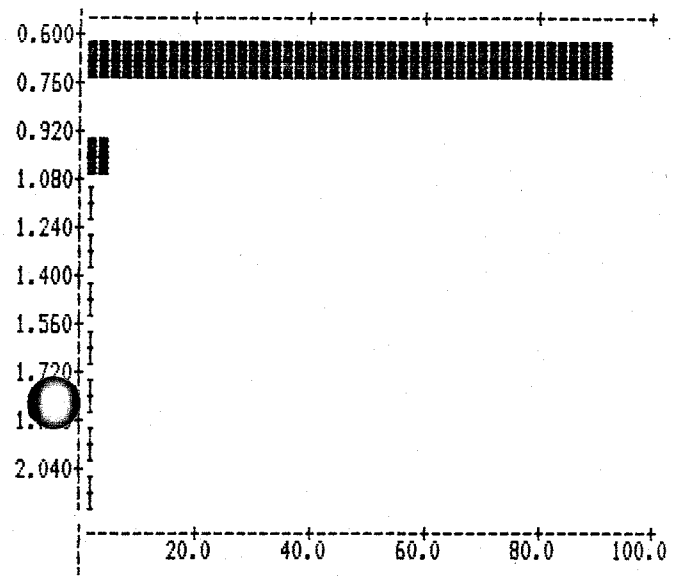
HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 SOILS

VARIABLE : LOGAU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.600
0.600	540	92.31	92.31	0.760
0.760	0	0.00	92.31	0.920
0.920	29	4.96	97.26	1.080
1.080	2	0.34	97.61	1.240
1.240	4	0.68	98.29	1.400
1.400	3	0.51	98.80	1.560
1.560	1	0.17	98.97	1.720
1.720	4	0.68	99.66	1.880
1.880	1	0.17	99.83	2.040
2.040	1	0.17		

VARIABLE:	LOGAU
NUMBER OF OBSERVATIONS:	585
MINIMUM:	0.699
MAXIMUM:	2.041
MEAN:	0.738
STANDARD ERROR OF MEAN:	0.007
STANDARD DEVIATION:	0.159
COEFFICIENT OF VARIATION:	21.581
SKEWNESS:	5.184
KURTOSIS:	29.733

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

ARIABLE : LOGAU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.534	0	58.5	-58.5	58.500
0.534	TO	0.604	0	58.5	-58.5	58.500
0.604	TO	0.654	0	58.5	-58.5	58.500
0.654	TO	0.697	0	58.5	-58.5	58.500
0.697	TO	0.738	540	58.5	481.5	3963.115
0.738	TO	0.778	0	58.5	-58.5	58.500

0.821	TO	0.871	0	58.5	-58.5	58.500
0.871	TO	0.942	0	58.5	-58.5	58.500
0.942	TO	+INFINITY	45	58.5	-13.5	3.115

CHI-SQUARED VALUE IS 4434.23. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

******* THE FOLLOWING TRANSFORMATIONS WILL BE USED IN THIS RUN. *******

```
LOGAU    = LOG(10) AU
LOGLOGAU = LOG(10) LOGAU
LOGAS    = LOG(10) AS
LOGAG    = LOG(10) AG
LOGSB    = LOG(10) SB
LOGCU    = LOG(10) CU
LOGPB    = LOG(10) PB
LOGZN    = LOG(10) ZN
```

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

APPENDIX XI

RIDGE GRID ROCK SAMPLE STATISTICAL ANALYSES

```
 *****  *****  *     *  *    *  *****  *    *          07-NOV-90
 *      *    *  *     *  **   *  *      *    *
 *      *****  *     *  * *  *  *      *****
 *      * *    *     *  *  ** *  *      *    *
 *****  *  **  ******  *    *  *****  *    *
```

A PROGRAM IN THE Q'GAS SYSTEM TO PREPARE
DATA FOR USE WITH OTHER Q'GAS PROGRAMS

Version 5.0.3 March 1986

INPUT DATA TITLE: RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

THE FOLLOWING VARIABLES HAVE BEEN RECOGNIZED ON THE INPUT DATA SET.

AG CU PB ZN AU

** THE FOLLOWING SPECIAL VALUES WERE RECODED TO EQUAL -1234.567 **

VARIABLE NAME	SPECIAL VALUE
AG	-999.000
CU	-999.000
PB	-999.000
ZN	-999.000
AU	-999.000

***** THE FOLLOWING TRANSFORMATIONS WERE USED IN CREATING THIS DATA SET. *****

```
LOGAG  =  LOG(10) AG
LOGAU  =  LOG(10) AU
LOGCU  =  LOG(10) CU
LOGPB  =  LOG(10) PB
LOGZN  =  LOG(10) ZN
```

THE FOLLOWING VARIABLES WERE TRANSFERRED TO THE OUTPUT DATA SET.

AG CU PB ZN AU LOGAG LOGAU
LOGCU LOGPB LOGZN

NUMBER OF OUTPUT SAMPLES = 82
NUMBER OF OUTPUT VARIABLES = 10

```
 ****    *****   *****     *     *****   *****          07-NOV-90
 *   *   *           *      * *      *     *
 *   *   *****       *     *   *     *     *****
 *   *       *       *     *****     *         *
 ****    *****       *     *   *     *     *****
```

A PROGRAM IN THE Q'GAS SYSTEM TO CALCULATE
UNIVARIATE STATISTICS AND DISPLAY HISTOGRAMS

Version 5.0.3 March 1986

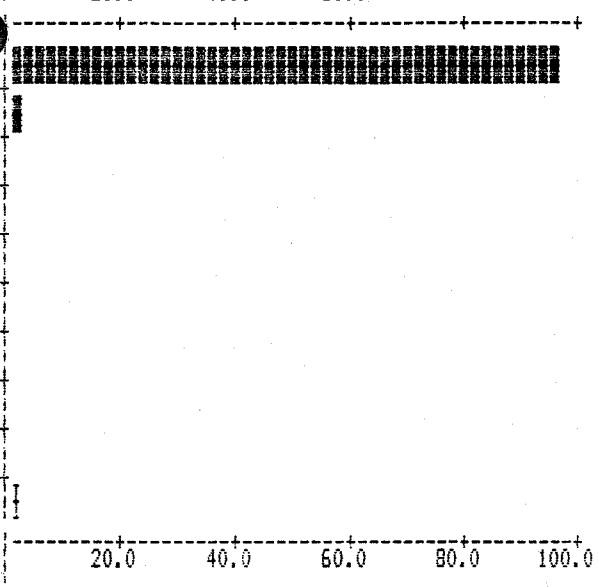
DATA TITLE: RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

AG CU PB ZN AU LOGAG LOGAU LOGCU
LOGPB LOGZN

TA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

RIABLE : AU



LOWER BOUND EXCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
1	79	96.34	96.34	25.900
25.900	2	2.44	98.78	50.800
50.800	0	0.00	98.78	75.700
75.700	0	0.00	98.78	100.600
100.600	0	0.00	98.78	125.500
125.500	0	0.00	98.78	150.400
150.400	0	0.00	98.78	175.300
175.300	0	0.00	98.78	200.200
200.200	0	0.00	98.78	225.100
225.100	1	1.22		

ARIABLE:	AU
UMBER OF OBSERVATIONS:	82
INIMUM:	1.000
AXIMUM:	230.000
EAN:	8.317
TANDARD ERROR OF MEAN:	2.831
TANDARD DEVIATION:	25.635
OEFFICIENT OF VARIATION:	308.217
KEWNESS:	7.926
URTOSIS:	65.263

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

RIABLE : AU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-24.536	0	8.2	-8.2	8.200
-24.536	TO	-13.257	0	8.2	-8.2	8.200
-13.257	TO	-5.126	0	8.2	-8.2	8.200
-5.126	TO	1.824	13	8.2	4.8	2.810
1.824	TO	8.317	54	8.2	45.8	255.810
8.317	TO	14.810	9	8.2	0.8	0.078
14.810	TO	21.760	3	8.2	-5.2	3.298
21.760	TO	29.891	0	8.2	-8.2	8.200
29.891	TO	41.170	2	8.2	-6.2	4.688
41.170	TO	+INFINITY	1	8.2	-7.2	6.322

CHI-SQUARED VALUE IS 305.80. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

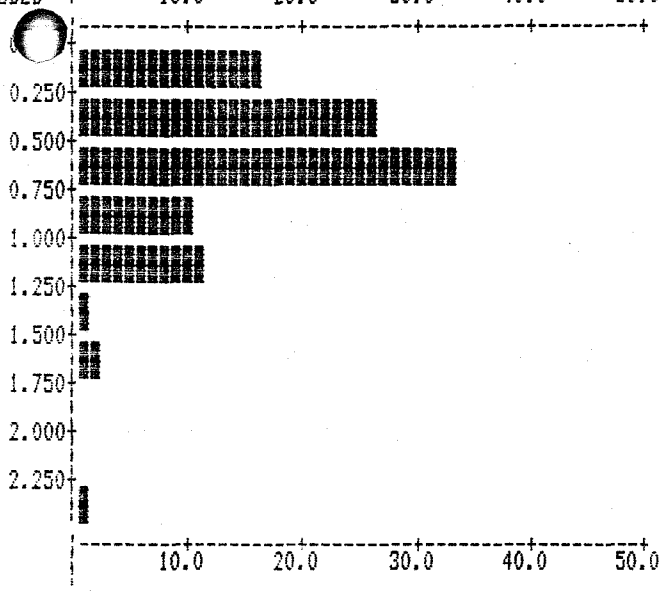
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : LOGAU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.250	13	15.85	15.85	0.250
0.500	21	25.61	41.46	0.500
0.750	27	32.93	74.39	0.750
1.000	8	9.76	84.15	1.000
1.250	9	10.98	95.12	1.250
1.500	1	1.22	96.34	1.500
1.750	2	2.44	98.78	1.750
2.000	0	0.00	98.78	2.000
2.250	0	0.00	98.78	2.250
	1	1.22		

VARIABLE:	LOGAU
NUMBER OF OBSERVATIONS:	82
MINIMUM:	0.000
MAXIMUM:	2.362
MEAN:	0.595
STANDARD ERROR OF MEAN:	0.047
STANDARD DEVIATION:	0.424
COEFFICIENT OF VARIATION:	71.301
SKEWNESS:	0.936
KURTOSIS:	2.390

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.051	13	8.2	4.8	2.810
0.051	TO	0.238	0	8.2	-8.2	8.200
0.238	TO	0.372	17	8.2	8.8	9.444
0.372	TO	0.487	4	8.2	-4.2	2.151
0.487	TO	0.595	0	8.2	-8.2	8.200
0.595	TO	0.702	27	8.2	18.8	43.102
0.702	TO	0.817	1	8.2	-7.2	6.322
0.817	TO	0.952	5	8.2	-3.2	1.249
0.952	TO	1.138	9	8.2	0.8	0.078
1.138	TO	+INFINITY	6	8.2	-2.2	0.590

CHI-SQUARED VALUE IS 82.15. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

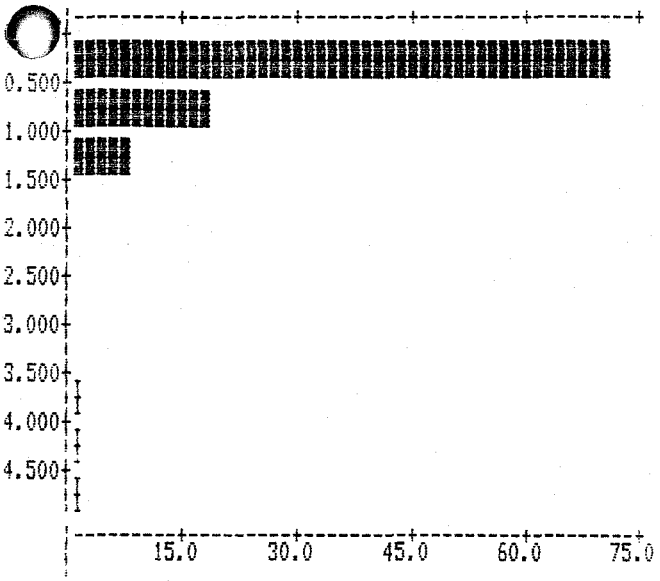
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : AG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.500	58	70.73	70.73	0.500
1.000	15	18.29	89.02	1.000
1.500	6	7.32	96.34	1.500
2.000	0	0.00	96.34	2.000
2.500	0	0.00	96.34	2.500
3.000	0	0.00	96.34	3.000
3.500	0	0.00	96.34	3.500
4.000	1	1.22	97.56	4.000
4.500	1	1.22	98.78	4.500
	1	1.22		

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	82
MINIMUM:	0.100
MAXIMUM:	4.500
MEAN:	0.518
STANDARD ERROR OF MEAN:	0.087
STANDARD DEVIATION:	0.785
COEFFICIENT OF VARIATION:	151.502
SKEWNESS:	3.811
KURTOSIS:	15.433

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : AG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-0.488	0	8.2	-8.2	8.200
-0.488	TO	-0.143	0	8.2	-8.2	8.200
-0.143	TO	0.107	24	8.2	15.8	30.444
0.107	TO	0.319	20	8.2	11.8	16.980
0.319	TO	0.518	18	8.2	9.8	11.712
0.518	TO	0.717	6	8.2	-2.2	0.590
0.717	TO	0.930	5	8.2	-3.2	1.249
0.930	TO	1.179	2	8.2	-6.2	4.688
1.179	TO	1.525	4	8.2	-4.2	2.151
1.525	TO	+INFINITY	3	8.2	-5.2	3.298

CHI-SQUARED VALUE IS 87.51. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

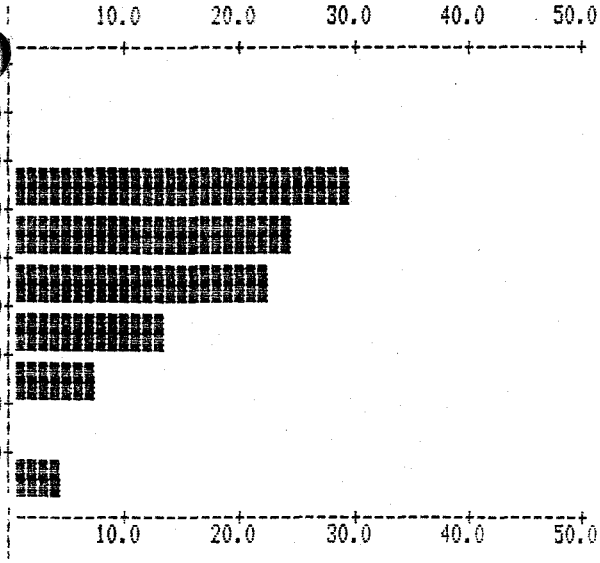
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

E SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : LOGAG



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	-1.500
-1.250	0	0.00	0.00	-1.250
-1.000	0	0.00	0.00	-1.000
-0.750	24	29.27	29.27	-0.750
-0.500	20	24.39	53.66	-0.500
-0.250	18	21.95	75.61	-0.250
0.000	11	13.41	89.02	0.000
0.250	6	7.32	96.34	0.250
0.500	0	0.00	96.34	0.500
	3	3.66		

VARIABLE:	LOGAG
NUMBER OF OBSERVATIONS:	82
MINIMUM:	-1.000
MAXIMUM:	0.663
MEAN:	-0.520
STANDARD ERROR OF MEAN:	0.046
STANDARD DEVIATION:	0.415
COEFFICIENT OF VARIATION:	-79.884
SKEWNESS:	0.634
KURTOSIS:	0.043

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGAG

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-1.052	0	8.2	-8.2	8.200
-1.052	TO	-0.869	24	8.2	15.8	30.444
-0.869	TO	-0.738	0	8.2	-8.2	8.200
-0.738	TO	-0.625	12	8.2	3.8	1.761
-0.625	TO	-0.520	8	8.2	-0.2	0.005
-0.520	TO	-0.415	0	8.2	-8.2	8.200
-0.415	TO	-0.302	14	8.2	5.8	4.102
-0.302	TO	-0.170	10	8.2	1.8	0.395
-0.170	TO	0.012	6	8.2	-2.2	0.590
0.012	TO	+INFINITY	8	8.2	-0.2	0.005

CHI-SQUARED VALUE IS 61.90. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50

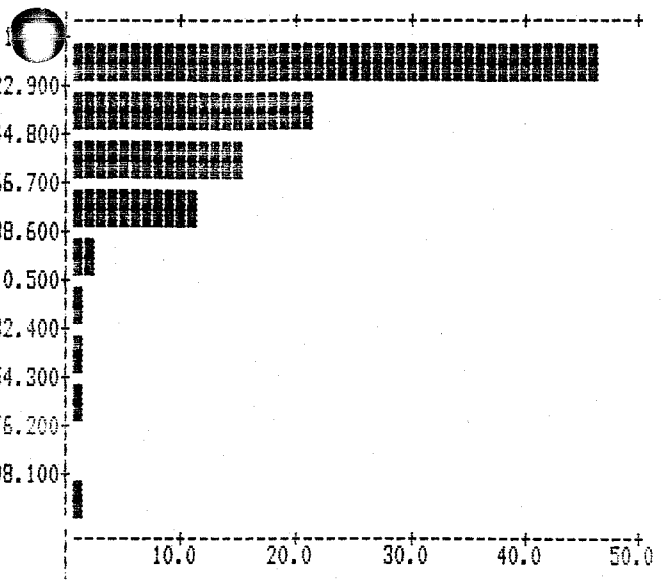
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : CU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	1.000
22.900	38	46.34	46.34	22.900
44.800	17	20.73	67.07	44.800
66.700	12	14.63	81.71	66.700
88.600	9	10.98	92.68	88.600
110.500	2	2.44	95.12	110.500
132.400	1	1.22	96.34	132.400
154.300	1	1.22	97.56	154.300
176.200	1	1.22	98.78	176.200
198.100	0	0.00	98.78	198.100
	1	1.22		

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	82
MINIMUM:	2.000
MAXIMUM:	216.000
MEAN:	39.549
STANDARD ERROR OF MEAN:	4.264
STANDARD DEVIATION:	38.610
COEFFICIENT OF VARIATION:	97.626
SKEWNESS:	2.057
KURTOSIS:	5.368

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : CU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	-9.934	0	8.2	-8.2	8.200
-9.934	TO	7.055	10	8.2	1.8	0.395
7.055	TO	19.302	24	8.2	15.8	30.444
19.302	TO	29.769	9	8.2	0.8	0.078
29.769	TO	39.549	11	8.2	2.8	0.956
39.549	TO	49.329	3	8.2	-5.2	3.298
49.329	TO	59.796	5	8.2	-3.2	1.249
59.795	TO	72.043	8	8.2	-0.2	0.005
72.043	TO	89.031	6	8.2	-2.2	0.590
89.031	TO	+INFINITY	6	8.2	-2.2	0.590

CHI-SQUARED VALUE IS 45.80. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

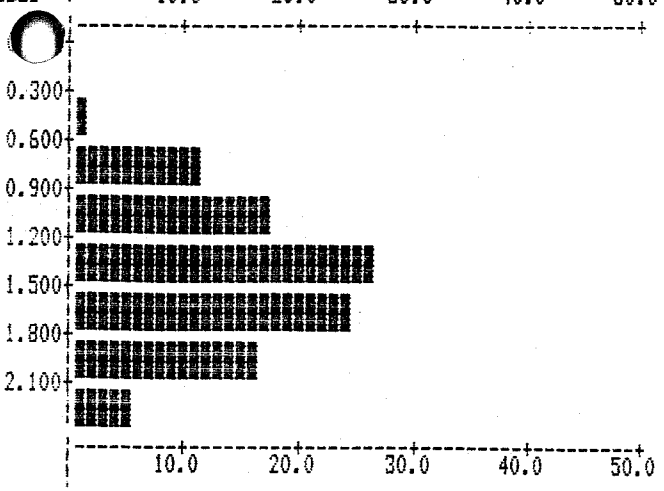
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : LOGCU



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.300	0	0.00	0.00	0.300
0.600	1	1.22	1.22	0.600
0.900	9	10.98	12.20	0.900
1.200	14	17.07	29.27	1.200
1.500	21	25.61	54.88	1.500
1.800	20	24.39	79.27	1.800
2.100	13	15.85	95.12	2.100
	4	4.88		

VARIABLE:	LOGCU
NUMBER OF OBSERVATIONS:	82
MINIMUM:	0.301
MAXIMUM:	2.334
MEAN:	1.411
STANDARD ERROR OF MEAN:	0.047
STANDARD DEVIATION:	0.425
COEFFICIENT OF VARIATION:	30.150
SKEWNESS:	-0.212
KURTOSIS:	-0.481

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGCU

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.865	10	8.2	1.8	0.395
0.865	TO	1.053	7	8.2	-1.2	0.176
1.053	TO	1.187	7	8.2	-1.2	0.176
1.187	TO	1.303	10	8.2	1.8	0.395
1.303	TO	1.411	6	8.2	-2.2	0.590
1.411	TO	1.518	7	8.2	-1.2	0.176
1.518	TO	1.634	7	8.2	-1.2	0.176
1.634	TO	1.768	8	8.2	-0.2	0.005
1.768	TO	1.956	14	8.2	5.8	4.102
1.956	TO	+INFINITY	6	8.2	-2.2	0.590

CHI-SQUARED VALUE IS 6.78. DEGREES OF FREEDOM ARE 7.

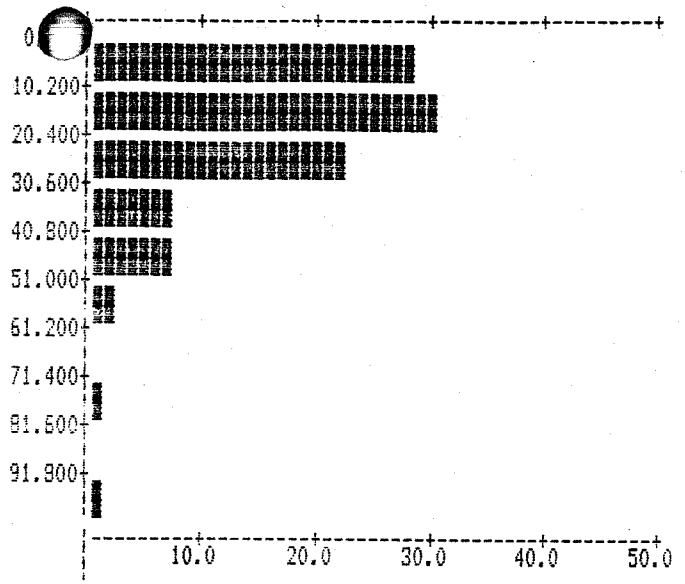
SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : PB



LOWER BOUND NCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
	23	28.05	28.05	10.200
	25	30.49	58.54	20.400
	18	21.95	80.49	30.600
	6	7.32	87.80	40.800
	6	7.32	95.12	51.000
	2	2.44	97.56	61.200
	0	0.00	97.56	71.400
	1	1.22	98.78	81.600
	0	0.00	98.78	91.800
	1	1.22		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	82
MINIMUM:	3.000
MAXIMUM:	101.000
MEAN:	21.232
STANDARD ERROR OF MEAN:	1.823
STANDARD DEVIATION:	16.511
COEFFICIENT OF VARIATION:	77.757
SKEWNESS:	2.142
KURTOSIS:	6.404

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : PB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.071	0	8.2	-8.2	8.200
0.071	TO	7.336	9	8.2	0.8	0.078
7.336	TO	12.573	23	8.2	14.8	26.712
12.573	TO	17.049	10	8.2	1.8	0.395
17.049	TO	21.232	8	8.2	-0.2	0.005
21.232	TO	25.414	10	8.2	1.8	0.395
25.414	TO	29.890	5	8.2	-3.2	1.249
29.890	TO	35.128	4	8.2	-4.2	2.151
35.128	TO	42.393	6	8.2	-2.2	0.590
42.393	TO	+INFINITY	7	8.2	-1.2	0.176

CHI-SQUARED VALUE IS 39.95. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

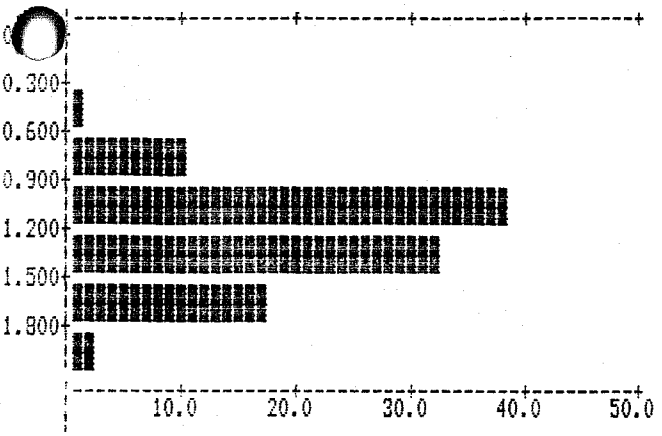
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : LOGPB



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
0.300	0	0.00	0.00	0.300
0.600	1	1.22	1.22	0.600
0.900	8	9.76	10.98	0.900
1.200	31	37.80	48.78	1.200
1.500	26	31.71	80.49	1.500
1.800	14	17.07	97.56	1.800
	2	2.44		

VARIABLE:	LOGPB
NUMBER OF OBSERVATIONS:	82
MINIMUM:	0.477
MAXIMUM:	2.004
MEAN:	1.222
STANDARD ERROR OF MEAN:	0.033
STANDARD DEVIATION:	0.303
COEFFICIENT OF VARIATION:	24.798
SKEWNESS	0.093
KURTOSIS	-0.379

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGPB

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	0.833	7	8.2	-1.2	0.176
0.833	TO	0.967	12	8.2	3.8	1.761
0.967	TO	1.063	7	8.2	-1.2	0.176
1.063	TO	1.145	8	8.2	-0.2	0.005
1.145	TO	1.222	7	8.2	-1.2	0.176
1.222	TO	1.298	5	8.2	-3.2	1.249
1.299	TO	1.381	14	8.2	5.8	4.102
1.381	TO	1.477	5	8.2	-3.2	1.249
1.477	TO	1.610	7	8.2	-1.2	0.176
1.610	TO	+INFINITY	10	8.2	1.8	0.395

CHI-SQUARED VALUE IS 9.46. DEGREES OF FREEDOM ARE 7.

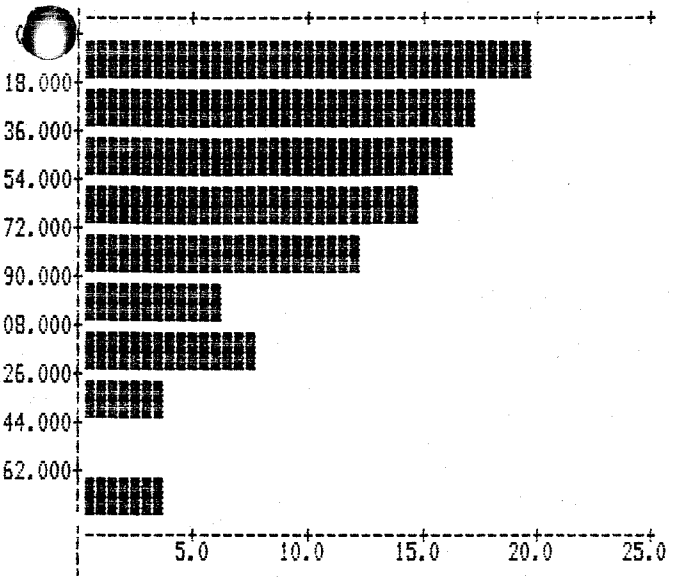
SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : ZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.000
18.000	16	19.51	19.51	18.000
36.000	14	17.07	36.59	36.000
54.000	13	15.85	52.44	54.000
72.000	12	14.63	67.07	72.000
90.000	10	12.20	79.27	90.000
108.000	5	6.10	85.37	108.000
126.000	6	7.32	92.68	126.000
144.000	3	3.66	96.34	144.000
162.000	0	0.00	96.34	162.000
	3	3.66		

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	82
MINIMUM:	5.000
MAXIMUM:	176.000
MEAN:	57.890
STANDARD ERROR OF MEAN:	4.657
STANDARD DEVIATION:	42.170
COEFFICIENT OF VARIATION:	72.844
SKEWNESS:	0.765
KURTOSIS:	-0.125

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : ZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	3.846	0	8.2	-8.2	8.200
3.846	TO	22.400	21	8.2	12.8	19.980
22.400	TO	35.777	9	8.2	0.8	0.078
35.777	TO	47.209	8	8.2	-0.2	0.005
47.209	TO	57.890	6	8.2	-2.2	0.590
57.890	TO	68.572	9	8.2	0.8	0.078
68.572	TO	80.004	7	8.2	-1.2	0.176
80.004	TO	93.380	6	8.2	-2.2	0.590
93.380	TO	111.935	5	8.2	-3.2	1.249
111.935	TO	+INFINITY	11	8.2	2.8	0.956

CHI-SQUARED VALUE IS 31.90. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10

0.990	18.50
0.995	20.30

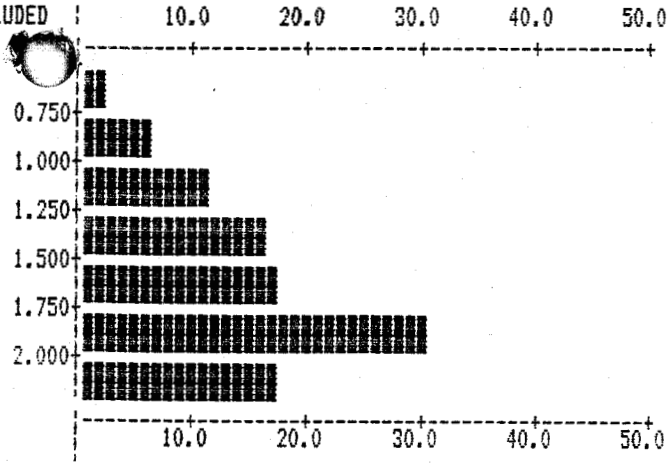
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : RIDGE GRID 1989 ROCK SAMPLE TRACE RESULTS

VARIABLE : LOGZN



LOWER BOUND INCLUDED	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
			0.00	0.500
0.750	2	2.44	2.44	0.750
1.000	5	6.10	8.54	1.000
1.250	9	10.98	19.51	1.250
1.500	13	15.85	35.37	1.500
1.750	14	17.07	52.44	1.750
2.000	25	30.49	82.93	2.000
	14	17.07		

VARIABLE:	LOGZN
NUMBER OF OBSERVATIONS:	82
MINIMUM:	0.699
MAXIMUM:	2.246
MEAN:	1.615
STANDARD ERROR OF MEAN:	0.044
STANDARD DEVIATION:	0.401
COEFFICIENT OF VARIATION:	24.837
SKEWNESS	-0.582
KURTOSIS	-0.646

CHI-SQUARE TEST FOR "GOODNESS OF FIT" WITH A NORMAL DISTRIBUTION

VARIABLE : LOGZN

CLASS BOUNDS			OBSERVED	EXPECTED	(OBS-EXP)	[(OBS-EXP)**2 / EXP]
-INFINITY	TO	1.101	13	8.2	4.8	2.810
1.101	TO	1.277	3	8.2	-5.2	3.298
1.277	TO	1.404	6	8.2	-2.2	0.590
1.404	TO	1.513	7	8.2	-1.2	0.176
1.513	TO	1.615	6	8.2	-2.2	0.590
1.615	TO	1.716	8	8.2	-0.2	0.005
1.716	TO	1.825	8	8.2	-0.2	0.005
1.825	TO	1.952	14	8.2	5.8	4.102
1.952	TO	2.129	12	8.2	3.8	1.761
2.129	TO	+INFINITY	5	8.2	-3.2	1.249

CHI-SQUARED VALUE IS 14.59. DEGREES OF FREEDOM ARE 7.

SIGNIFICANCE LEVEL	CHI-SQUARE VALUE
0.500	6.35
0.750	9.04
0.900	12.00
0.950	14.10
0.975	16.00
0.990	18.50
0.995	20.30

****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.