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ACTION:

FILE NO:

**ASSESSMENT REPORT**  
**FOR THE**  
**GEOLOGY, GEOCHEMISTRY & GEOPHYSICS**  
**ON THE**  
**LEFTY PROPERTY**  
**MINERAL CLAIMS**

OMINECA MINING DIVISION

NTS 93L / 5 & 6

LATITUDE 54 24' N

LONGITUDE 127 30' W

OWNED BY: ATNA RESOURCES LTD.

WORK BY: EQUITY SILVER MINES LIMITED

REPORT BY: D. J. HANSON

DECEMBER 1990

VOLUME I

**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

20,741

Part 1  
of 2

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## SUMMARY

The Lefty mineral claim group is located 60 kilometres west of Houston in west central British Columbia.

Previous work on the property resulted in the discovery of an auriferous epithermal quartz vein in the centre of the Lefty 1 claim. The current work program follows-up multi-element "heavy mineral" anomalies in drainages from the Ant 1 claim.

Between July and September 1990 Equity Silver Mines Ltd. conducted geological mapping; collected 472 soil samples for copper, lead, zinc, silver, gold, arsenic, and antimony geochemistry; and contracted 10 km of induced polarization geophysics over portions of the Lefty mineral property. A sulfide bearing shear zone with coincident soil geochemistry and resistivity anomalies warrants further exploration by diamond drilling.

This report documents expenditures by Equity Silver Mines Ltd. of \$49,045.00 between July 30 and September 21, 1990 on the Ant1 and Lefty 1 mineral claims.

## INTRODUCTION

### i) LOCATION, ACCESS and PHYSIOGRAPHY

The Lefty mineral claim group is situated 60 km west of the town of Houston, British Columbia at latitude 54 24' North and longitude 127 30' West in NTS map-area 93L / 5&6 (Figure 1).

Access to the property is currently by helicopter from Houston or Smithers to the east and north respectively. A staging point for camp moves is available approximately 10 km south-southeast at the end of the new logging road on the west side of the Thautil River.

Most of the area worked occupies a gently rolling upland plateau with elevations ranging from 1250 metres to 1615 metres at the top of a small knoll. Below treeline at about 1580 metres vegetation consists of balsam fir and spruce forest. Bedrock is generally poorly exposed with the exception of local cliffs and gullies.



Figure 1 - Property Location Map

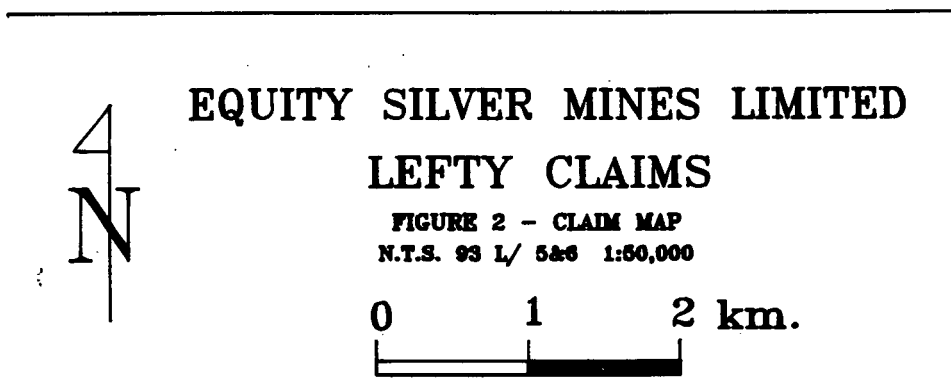
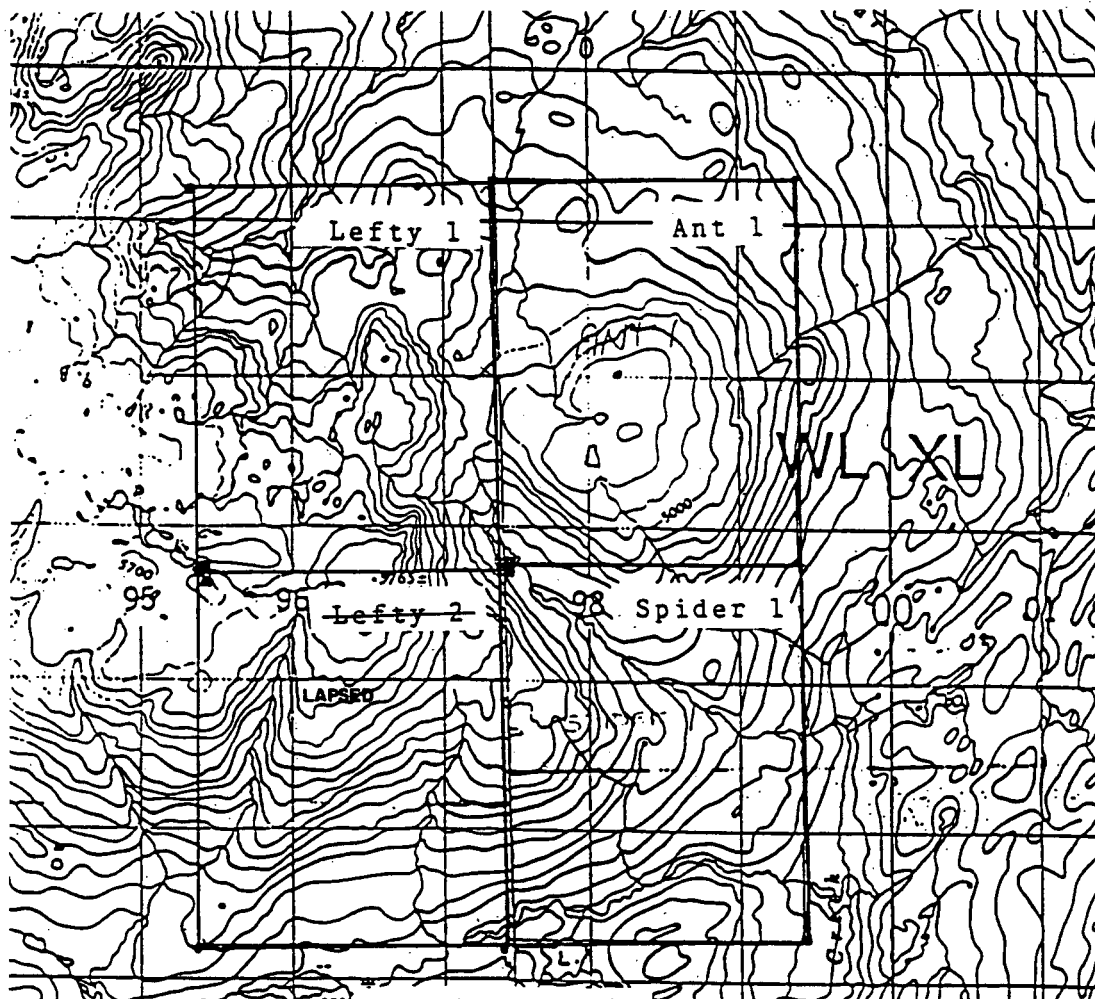


Figure 2 - Claim Location Map

ii) CLAIM OWNERSHIP and STATUS

The Lefty claim group as defined for the purpose of recording this assessment work is composed of the following modified grid mineral claims:

TABLE 1

CLAIM STATUS - LEFTY PROPERTY

| <u>CLAIM</u> | <u>RECORD #</u> | <u>UNITS</u> | <u>EXPIRY DATE *</u> |
|--------------|-----------------|--------------|----------------------|
| Lefty 1      | 11106           | 20           | Sept. 28, 1993       |
| Spider 1     | 11107           | 20           | Sept. 28, 1993       |
| Ant 1        | 11108           | 20           | Sept. 28, 1993       |

\* pending acceptance of this report

The recorded owner of the claims is Colin Harivel who holds them in trust for Atna Resources Ltd. The current work was carried out under an option agreement between Atna and Equity Silver Mines Ltd. dated December 1, 1989.

iii) CLAIM HISTORY

Mineral claims in the area were previously held by Joe L'Orsa and Lefty Gardiner of Smithers. No assessment was recorded.

In 1987 the area was staked by Atna Resources Ltd. in the course of regional exploration. Prospecting work that year discovered a gold-bearing epithermal system approximately 3 km long and 600 metres wide with gold values up to 4110 ppb over 0.6 metres on the Lefty 1 claim.

In 1988 Atna conducted geological mapping, VLF-EM and magnetometer surveys, and excavator trenching on the main showings.



iv) PURPOSE

The current programs of geological mapping, soil geochemistry, and induced polarization geophysics on the Ant 1 and Lefty 1 claims were used to follow-up multi-element "heavy mineral" stream sediment anomalies discovered during regional reconnaissance. The objective of the programs was to evaluate the potential for bulk tonnage or bonanza style epithermal mineralization.

## REGIONAL GEOLOGY

The regional geology in this part of the Stikine Terrane is comprised of an incomplete succession of volcanic and sedimentary rocks ranging in age from Lower Jurassic to Miocene.

The region is dominated by a marine and non-marine arc assemblage of the Lower and Middle Jurassic Hazelton Group. Lower Jurassic strata are mainly rhyolitic to andesitic air fall tuffs and breccias with minor intercalated lava flows (Tipper, 1972). Middle Jurassic rocks comprise a mainly marine sequence of tuffs, volcanoclastic sediments, shales, and greywackes.

The stratigraphic interval between Upper Jurassic and Early Upper Cretaceous is occupied regionally by Bowser Lake Group and Skeena Group sediments.

The Kasalka and Ootsa Lake Groups of continental volcanics were deposited in late Upper Cretaceous to Eocene time into down-drop basins typical of this portion of Stikinia.

The layered succession has been intruded by Upper Jurassic to middle Miocene age plugs and stocks.

## GEOLOGICAL MAPPING

### i) PROCEDURE

As control for the mapping, geochemistry and geophysics, a grid was established using a compass and chain. A 2.2 kilometre, north-south baseline was established. East-west lines at 200 metre intervals were flagged and stations were picketed at 25 metre intervals. Below treeline lines were cut with a chainsaw. A magnetic declination of 25 degrees east was used. A total of 32.2 kilometres of line was established.

The geology of the gridded area was mapped at 1:5000 scale. Notes were kept for each outcrop including location, rock type, structure (bedding, quartz veins, shear planes, fracture sets, etc.), alteration and mineralization.

Thirty rock samples were collected from mineralized or altered outcrops and assayed at the Equity minesite laboratory for copper, silver, gold, antimony, arsenic, iron, lead and zinc (for analytical procedure see Appendix IV).

ii) LITHOLOGY

A 1:5000 scale geologic map is presented as Figure 4.

This portion of the Lefty property is underlain dominantly by a northeasterly striking interleaved sequence of andesitic to rhyolitic volcanic rocks of the Lower Jurassic Telkwa Formation of the Hazelton Group.

The Telkwa Formation has been subdivided locally into andesitic ash tuff and rhyolite flow units. Rock types in the ash tuff unit are brick red or dark green in colour, lithic - crystal ash tuffs of intermediate composition that are typical of Lower Jurassic strata regionally. The rocks are generally weakly fractured and propylitically altered. Quartz veinlets and patches occur locally.

The rhyolite flow unit is comprised dominantly of a pale orange coloured, K-spar and quartz porphyritic rhyolite with minor interleaved felsic ash - lapilli tuff. Outcrops are massive or weakly to moderately flow banded with 2-3 mm thick randomly oriented laminations. Spherulitic textures occur locally. Up to two percent pyrite was observed locally as disseminations.

In the central portion of the grid the volcanic strata are intruded by a fine to medium grained, grey - pink, plagioclase feldspar porphyry sill approximately 1400 metres long by 400 metres wide. Outcrops are a distinctive orange weathering colour and are weakly to moderately fractured. Pyrite occurs rarely as disseminations up to 2%.

iii) MINERALIZATION and ALTERATION

In the eastern half of the Ant 1 claim, a northeasterly trending zone of weak to strong quartz-sericite alteration crosscuts rocks of the andesitic ash tuff and rhyolite flow units. The zone is exposed in scattered outcrops over an area approximately 1000 metres by 200 metres. Outcrops are strongly fractured to weakly brecciated locally and contain numerous gouge zones. Malachite, azurite, tetrahedrite, chalcopyrite, sphalerite, and bornite mineralization occur as fracture fillings, in quartz veins, as disseminations and in quartz breccia over an undetermined width within the alteration zone. Assay values up to 1.79% copper, 182 grams per tonne silver, 1.67 % zinc and .82 grams per tonne gold were reported from chip samples taken parallel to the zone. Locations of samples are shown on Figure 4 and assay results are listed in Table 2.

TABLE 2 - ASSAY RESULTS

| SAMP# | LEN<br>m | ROCK DESCRIPTION       | Cu<br>% | Ag<br>g/t | Au<br>g/t | Sb<br>% | As<br>% | Fe<br>% | Pb<br>% | Zn<br>% |
|-------|----------|------------------------|---------|-----------|-----------|---------|---------|---------|---------|---------|
| 8082  | grab     | rhyolite flow          | tr      | nd        | .04       | tr      | nd      | 1.50    | tr      | .01     |
| 8083  | 1.0      | QZ-MS altered volcanic | .09     | 3         | .03       | .01     | .01     | 2.61    | .06     | .27     |
| 8084  | grab     | hematitic ash tuff     | .01     | 3         | .04       | .01     | tr      | 4.06    | tr      | .03     |
| 8085  | 2.0      | QZ-MS altered volcanic | .32     | 103       | .77       | .01     | tr      | 3.12    | .10     | .55     |
| 8086  | 3.0      | QZ-MS altered volcanic | .40     | 86        | .82       | nd      | .01     | 3.28    | .16     | .49     |
| 8087  | 3.0      | QZ-MS altered volcanic | .55     | 122       | .12       | .01     | tr      | 2.79    | .16     | .67     |
| 8088  | 3.0      | QZ-MS altered volcanic | .56     | 182       | .28       | .01     | .01     | 2.69    | .38     | 1.67    |
| 8089  | 2.5      | QZ-MS altered volcanic | .18     | 10        | .14       | .01     | .02     | 2.01    | .06     | .15     |
| 8090  | 2.0      | QZ-MS altered volcanic | 1.79    | 11        | .21       | .01     | tr      | 5.64    | .02     | .14     |
| 8091  | 2.0      | QZ-MS altered volcanic | .13     | 4         | .06       | .01     | .02     | 2.60    | tr      | .06     |
| 8092  | 1.5      | QZ-MS altered volcanic | .44     | 7         | .05       | .02     | .03     | 2.86    | tr      | .06     |
| 8093  | 2.0      | QZ-MS altered volcanic | .02     | 27        | .12       | .01     | .02     | 2.33    | .02     | 1.16    |
| 8094  | 1.5      | chloritic ash tuff     | .14     | 3         | .04       | .01     | tr      | 4.75    | .05     | .27     |
| 8095  | 1.0      | hematitic ash tuff     | 1.41    | 5         | .03       | .01     | .06     | 2.84    | tr      | .07     |
| 8096  | 1.5      | QZ-MS altered volcanic | .08     | 2         | .04       | .01     | nd      | 4.10    | .01     | nd      |
| 8097  | 2.5      | QZ-MS altered volcanic | .12     | 6         | .04       | .01     | .01     | 6.23    | .01     | .01     |
| 8098  | 2.0      | QZ-MS altered volcanic | .01     | 9         | .73       | .01     | .01     | 4.09    | .13     | .46     |
| 8099  | 2.0      | QZ-MS altered volcanic | .01     | 7         | .04       | tr      | tr      | 1.92    | .01     | .07     |
| 8100  | grab     | pyritic qtz. vein      | .04     | 1         | .05       | tr      | .01     | 1.19    | .01     | .07     |
| 8101  | 2.5      | QZ-MS altered volcanic | .03     | 11        | .08       | tr      | .01     | 1.00    | .01     | .16     |
| 8102  | 1.5      | QZ-MS altered volcanic | .08     | 6         | .05       | .01     | .01     | 2.66    | .03     | .35     |
| 8103  | 2.0      | QZ-MS altered volcanic | .01     | 513       | .07       | .01     | .02     | 1.32    | .02     | .05     |
| 8104  | 2.0      | QZ-MS altered volcanic | .21     | 86        | .76       | .01     | .02     | 1.93    | .18     | .09     |
| 8105  | 1.5      | QZ-MS altered volcanic | .02     | 5         | .07       | .01     | .01     | 2.08    | .04     | .44     |
| 8106  | grab     | chloritic ash tuff     | .02     | 4         | .05       | .01     | .01     | 6.55    | .01     | .04     |
| 8107  | grab     | feldspar porphyry      | .07     | 10        | .16       | .01     | tr      | 3.10    | .19     | .80     |
| 8112  | 2.0      | QZ-MS altered volcanic | .02     | 6         | .07       | tr      | tr      | 2.10    | tr      | .05     |
| 8113  | 3.0      | QZ-MS altered volcanic | .34     | 61        | 1.08      | .01     | .03     | 3.90    | .03     | .49     |
| 8114  | 2.0      | QZ-MS altered volcanic | .23     | 48        | 2.90      | .01     | .08     | 1.90    | .18     | 1.64    |
| 8115  | 3.0      | QZ-MS altered volcanic | .19     | 41        | 1.97      | tr      | .06     | 2.30    | .10     | .83     |

**GEOPHYSICS**

For a description of the procedure and results of the induced polarization survey by Peter E. Walcott & Assoc. Ltd. see Appendix I.

## SOIL GEOCHEMISTRY

### i) PROCEDURE

Soil samples were collected from the reddish brown "B" soil horizon at a depth of 5 - 20 cm using a mattock. East-west lines were run at 200 m intervals from a north-south baseline using a compass and a chain for control. Soil sample locations were marked with flagging tape and labelled with their grid locations. A total of 472 samples were collected at 50 metre spacing (Figure 3).

Notes were kept for each sample including sample location, horizon sampled, depth of sample, soil composition, colour, ground slope, slope-direction, and sample location drainage. Samples were placed in brown Kraft envelopes and were sent to Placer-Dome in Vancouver, B.C. for preparation and geochemical analysis of copper, lead, zinc, silver, gold, arsenic and antimony (for analytical procedure see Appendix II).



ii) RESULTS and DISCUSSION

Geochemical results for the 1990 soil survey on the Lefty 1 and Ant 1 mineral claims are plotted on Figures 5 - 11 (in Volume II map pockets). Statistical analysis of the soil data is found in Appendix III and includes histograms, probability plots, and a correlation matrix.

The following threshold anomalous values were determined from the soil data statistics:

| Ag  | As  | Au  | Cu  | Pb  | Sb  | Zn   |
|-----|-----|-----|-----|-----|-----|------|
| ppm | ppm | ppb | ppm | ppm | ppm | ppm  |
| 2.5 | 15  | --  | 100 | 40  | -   | 1000 |

These values for Ag, Cu, and Zn are considered to be higher than average by a factor of two for residual soils developed over normal volcanic rocks of the Hazelton Group. The values for As, Au, Pb, and Sb are considered to be about average.

Five geochemically anomalous zones were revealed by the soil values exceeding the threshold levels. Anomaly I (Figure 3) is underlain by quartz-sericite altered volcanic rocks and is characterized by anomalous zinc with spot high silver and lead values. The zone is open to both the east and south.

ii) RESULTS and DISCUSSION (cont'd)

Zones II and V are relatively small, circular features directly related to the main area of quartz-sericite alteration and are characterized by anomalous lead, zinc, copper, +/- spot high silver and gold values.

Zone III is a northeasterly elongated, irregularly shaped feature with weakly anomalous zinc and spot high copper values. It is underlain dominantly by quartz-sericite altered volcanics.

Zone IV is another northeasterly elongated anomaly. It is characterized by higher than normal lead and spot high copper values. It is underlain by the feldspar porphyry intrusive.

Zones I, II, and V are roughly coincident with the west side of a linear, weak I.P. chargeability anomaly.

### INTERPRETATION and RECOMMENDATIONS

The large, northeasterly trending zone of quartz-sericite alteration and associated copper-silver-gold-zinc mineralization is interpreted as being related to a major fault structure.

Soil geochemical anomalies I, II, and V are directly related to bedrock "showings" within this alteration zone. Anomalies III and IV are thought to be due to geochemical enrichment in an alteration zone and the feldspar porphyry intrusive respectively.

The northwest margin of a weak, linear chargeability anomaly defines the location of the fault.

The main alteration zone with coincident I.P. and soil geochemistry anomalies has some potential for bulk tonnage epithermal style Cu-Ag-Au mineralization. An exploratory program of diamond drilling should be conducted to test the width and continuity of the mineralization at depth.

## STATEMENT OF EXPENDITURES

|   |          |
|---|----------|
| 1. Grid and Soil Sampling               |          |
| Don Makowichuk                          |          |
| July 30-31, Aug. 1-12                   |          |
| 14 days @ \$100 / day                   | 1400.00  |
| Colin Joudrie                           |          |
| July 30-31, Aug. 1-12                   |          |
| 14 days @ \$120 / day                   | 1680.00  |
| Doug Axani                              |          |
| July 30-31, Aug. 1-12                   |          |
| 14 days @ \$100 / day                   | 1400.00  |
| 2. Soil Geochemical Analyses            |          |
| for Cu, Pb, Zn, Ag, Au, Sb, As          |          |
| 472 samples @ \$13.50 ea.               | 6372.00  |
| 3. Rock Assay Analyses                  |          |
| for Cu, Pb, Zn, Ag, Au, As, Sb, Fe      |          |
| 30 samples @ \$25.00 ea.                | 750.00   |
| 4. Line-cutting                         |          |
| Bruce Hobson Contracting                |          |
| 15 km @ \$285 / km                      | 4275.00  |
| 5. Geology                              |          |
| Mike Aziz                               |          |
| July 30-31, Aug. 1-12                   |          |
| 14 days @ \$150 / day                   | 2100.00  |
| 6. Camp                                 |          |
| 56 man days @ \$40 / day                | 2240.00  |
| 7. Transportation                       |          |
| Helicopter charter                      |          |
| 12.1 hrs @ \$550 / hr                   | 6655.00  |
| 8. Induced Polarization Survey          |          |
| Peter E. Walcott & Assoc. Ltd.          |          |
| Sept. 8 - 21                            |          |
| 10.0 km                                 |          |
| (includes mobilization and report)      | 20423.00 |
| 9. Report                               | 1750.00  |
| (includes computer, photocopying, etc.) |          |

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TOTAL \$ 49,045.00

### AUTHOR'S QUALIFICATIONS

I, Daryl J. Hanson, do hereby certify that:

1. I am a geologist residing at R.R.#1, Quick East Road, Telkwa, British Columbia, V0J 2X0.
2. I am a 1971 graduate of the University of British Columbia, Vancouver, B. C. with a Bachelor of Applied Science degree in Geological Engineering.
3. I was employed as a geologist in mining, exploration, and development capacities with Cyprus Anvil Mining Corporation in Faro, Yukon from September 1973 to April 1981.
4. Between May 1982 and October 1987, I was employed as a contract exploration geologist in northwestern British Columbia, principally with Equity Silver Mines Limited.
5. Since February 1988, I have been employed as an exploration geologist with Equity Silver Mines Limited.
6. I am a Fellow of the Geological Association of Canada.
7. I personally supervised the work programme as described in this report.

Respectfully submitted,  
Equity Silver Mines Ltd.

*Daryl Hanson*

Daryl J. Hanson, B.A.Sc., F.G.A.C.  
Exploration Geologist

**APPENDIX I**

**PETER E. WALCOTT & ASSOC. LTD.**

**GEOPHYSICAL REPORT ON THE LEFTY PROPERTY**

PETER E. WALCOTT & ASSOC. LTD.

A GEOPHYSICAL REPORT

ON

AN INDUCED POLARIZATION SURVEY  
Houston Lake Area, British Columbia  
N.T.S 93 L/6

FOR

EQUITY SILVER MINES LIMITED

Houston, British Columbia

BY

PETER E. WALCOTT & ASSOCIATES LIMITED  
Vancouver, British Columbia

DECEMBER 1990

GEOPHYSICAL SERVICES

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APPENDIX

|                                   |    |
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| COST OF SURVEY.....               | i  |
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ACCOMPANYING MAPS Scale 1:5000

MAP POCKET

|  |       |          |
|--|-------|----------|
| 1ST SEPARATION CHARGEABILITY CONTOURS          | a=25m | W-475L-1 |
| 10 POINT MOVING AVERAGE CHARGEABILITY CONTOURS | "     | W-475L-2 |
| 1ST SEPARATION RESISTIVITY CONTOURS            | "     | W-475L-3 |
| 10 POINT MOVING AVERAGE                        | "     | W-475L-4 |
| 1ST SEPARATION METAL FACTOR                    | "     | W-475L-5 |
| 10 POINT MOVING AVERAGE METAL FACTOR           | "     | W-475L-6 |



INTRODUCTION

Between September 8th and 21st, 1990, Peter E. Walcott & Associates Limited carried out an induced polarization survey over part of the Lefty property, located in the Houston-Smithers area of British Columbia, for Equity Silver Mines Limited.

The survey was carried out over east-west lines that were established by personnel from Equity Silver.

Measurements (first to fourth separation) of apparent chargeability (the I.P. response parameter) and resistivity were made every 25 metres along the lines using the dipole-dipole method of surveying with a twenty five metre dipole.

The I.P. data are presented in contour form on individual pseudosections found in this report. In addition the first separation and the ten point moving average (filter) chargeability, resistivity and metal factor results are shown in contour form on Maps W-475L-1 to 6 that accompany this report.

GEOLOGY

The reader is referred to reports held and/or written by the Staff of Equity Silver Mines Limited.

Basically the claims are underlain by a thick succession of volcanic rocks of the Lower Hazelton Group that strike northeasterly through the grid area. Rock types mapped include andesitic ash tuff, siliceous (rhyolitic) ash tuff, spherulitic and flow banded rhyolite and orange weathered monzonite sills.

Mineralization on the property consists of a poorly exposed zone of copper - silver - gold minerals with a possible strike length of some 800 metres that strike northeasterly across the 1990 established line grid. Malachite, azurite, tetrahedite, chalcopyrite, sphalerite and bornite occur as fracture fillings, along quartz veins, as disseminations, and in quartz breccias with accompanying moderate quartz-sericite alteration in sporadic exposures.

PURPOSE

The purpose of the survey was to establish the I.P. signature of the previously described mineralization, and to use this signature - if any - to (a) establish the continuity of the mineralized zone, and (b) search for additional similar mineralization on the property.

### SURVEY SPECIFICATIONS

The induced polarization (I.P.) survey was carried out using a pulse type system, the principal components of which are manufactured by Hunttec Limited and EDA Instruments Ltd. of Metropolitan Toronto, Ontario.

The system consists basically of three units, a receiver (EDA), a transmitter and a motor generator (Hunttec). The transmitter, which provided a maximum of 2.5 kw d.c. to the ground, obtains its power from a 2.5 kw 400 c.p.s. three phase alternator driven by a gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes  $C_1$  and  $C_2$ , the primary voltage (V) appearing between the two potential electrodes,  $P_1$  and  $P_2$ , during the "current-on" part of the cycle, and the apparent chargeability (M.) presented as a direct readout in millivolts per volt using a 160 millisecond delay and a 1580 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor.

The apparent resistivity (P.) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and the resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using a "dipole-dipole" electrode array. This electrode configuration and the methods of presenting the results are illustrated in the appendix. Depth penetration with this array is increased or decreased by increasing or decreasing "a" and/or "n".

In practice, the equipment is set up at a particular station of the line to be surveyed; three transmitting dipoles are laid out to the rear, measurements are made for all possible

SURVEY SPECIFICATIONS cont'd.

combinations of transmitting and receiving dipoles, up to the fourth separation, i.e.  $n=4$ : the equipment is then moved 3 "a" feet along the line to the next set-up.

A 25 metre dipole was employed on this survey, and first to fourth separation measurements made every 25 metres along the survey lines. In all some 10 kilometres of surveying were completed using this procedure.

DISCUSSION OF RESULTS

The results of the I.P. survey showed the property to exhibit a low chargeability background above which several anomalous zones trending north northeasterly across the grid are discernible on Map W 475L-1, the contoured plan of the first separation chargeability measurements, associated for the most with higher resistivity areas - Map W475L-3.

On studying the individual pseudosections it can be seen that some of the above have sometimes narrow and/or sometimes limited depth extent causative sources with the net effect that only the anomalous zone of any extent is centred around 1300E on L's 800, 1000 and 1200N respectively, as illustrated on the ten point moving average (filter) contoured plot - Map W475L-2.

A long linear resistivity low possibly indicative of a fault is seen stretching across the grid from 800E on Line 200N to the eastern extremity of L2000N - Maps W475L- 3 & 4 - on the west flank of the largest anomalous chargeability zone - Map W-475L-2.

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

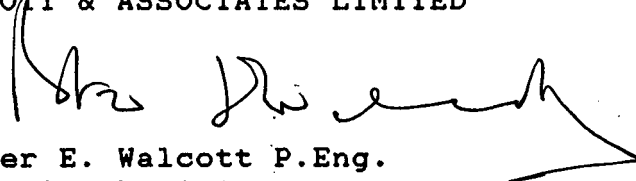
Between September 8th and 21st, 1990, Peter E. Walcott & Associates Limited carried out an induced polarization (I.P.) survey in the Houston-Smithers area of British Columbia for Equity Silver Mines Limited.

The chargeability results were on the whole disappointing showing the property to exhibit a low background above which several small zones of limited depth and/or strike extent were discernible.

Based on these results the writer would not recommend that further investigation be carried out on the grid. However they should be compared with those from the geological and geochemical surveys to see if further work could be warranted on the rest of the property.

Respectfully Submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED



Peter E. Walcott P.Eng.  
Geophysicist

Vancouver, B.C.

December 1990

PETER E. WALCOTT & ASSOC. LTD.

A P P E N D I X

GEOPHYSICAL SERVICES



COST OF SURVEY

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization and reporting costs were extra so that the total cost of the service provided was \$20423.00.

PERSONNEL EMPLOYED ON SURVEY

| <u>Name</u>      | <u>Occupation</u>       | <u>Address</u>  | <u>Date</u>                                 |
|------------------|-------------------------|---|---|
| Peter E. Walcott | Geophysicist            | Peter E. Walcott &<br>Associates Limited<br>605 Rutland Court<br>Coquitlam, B.C.<br>V3J 3T8 | Dec.19th-<br>20th 1990                      |
| G. MacMillan     | Geophysical<br>Operator | "   | Sept.8th-<br>21st, Oct<br>1st - 7th<br>1990 |
| I. Franey        | " "                     | "   | Sept 8th-<br>21st, 1990                     |
| M. Passchier     | " "                     | "   | " "   |
| J. Ottie         | " "                     | "   | Sept 8th-<br>13th, 1990                     |
| R. Mathe         | " "                     | "   | Sept 15th-<br>Sept 20th,<br>1990            |
| K. Walcott       | Typing                  | "   | Dec. 21st,<br>1990                          |

INSERT

LARGE

FORMAT

20741

1 OF 2

16 LF

**APPENDIX II**

**PLACER DOME RESEARCH CENTRE**

**SAMPLE PREPARATION AND ANALYTICAL PROCEDURE**

i) SAMPLE PREPARATION

- samples are hot air dried at 50 degrees centigrade
- minus 80 mesh fraction is sieved out for analysis

ii) ANALYTICAL PROCEDURE

- Cu, Pb, Zn, Ag : 0.5 g of sieved material dissolved in HCL04 / HNO3 for four hours and analyzed by atomic absorption
- Au : 10.0 g of sieved material dissolved in aqua regia for three hours and analyzed by atomic absorption
- As : 0.5 g of sieved material dissolved in aqua regia for three hours and analyzed by DC plasma
- Sb : 0.5 g of sieved material dissolved in HCL / HNO3 for three hours and analyzed by DC plasma

**APPENDIX III**

**SOIL SAMPLE GEOCHEMISTRY**

**HISTOGRAMS AND PROBABILITY PLOTS**



HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: AG

LOG = 0 REPRVAL = 0.00100

487 SAMPLES WITH AG

MINIMUM: 0.100000

MAXIMUM: 9.00000

484 VALUES PLOTTED:

3 NOT IN RANGE 0.100000

to 5.00000

MEAN: 0.654959

STD. DEV.: 0.740877

Median 0.400000

SCALE OF HISTOGRAM IS

4.00 COUNTS /PRINT POSITION

E = 5,50,95%

| N   | MIDPOINT | PERCENT | 0       | 40      | 80      | 120     | 160     |
|-----|----------|---------|---------|---------|---------|---------|---------|
| 69  | 0.10000  | E 14.26 | I*****I | I*****I | I*****I | I*****I | I*****I |
| 68  | 0.22250  | 14.05   | I*****I | I*****I | I*****I | I*****I | I*****I |
| 121 | 0.34500  | E 25.00 | I*****I | I*****I | I*****I | I*****I | I*****I |
| 38  | 0.46750  | 7.85    | I*****I | I*****I | I*****I | I*****I | I*****I |
| 50  | 0.59000  | 10.33   | I*****I | I*****I | I*****I | I*****I | I*****I |
| 22  | 0.71250  | 4.55    | I*****I | I*****I | I*****I | I*****I | I*****I |
| 25  | 0.83500  | 5.17    | I*****I | I*****I | I*****I | I*****I | I*****I |
| 19  | 0.95750  | 3.93    | I*****I | I*****I | I*****I | I*****I | I*****I |
| 8   | 1.08000  | 1.65    | I**     | I**     | I**     | I**     | I**     |
| 8   | 1.20250  | 1.65    | I**     | I**     | I**     | I**     | I**     |
| 4   | 1.32500  | 0.83    | I*      | I*      | I*      | I*      | I*      |
| 3   | 1.44750  | 0.62    | I*      | I*      | I*      | I*      | I*      |
| 3   | 1.57000  | 0.62    | I*      | I*      | I*      | I*      | I*      |
| 4   | 1.69250  | 0.83    | I*      | I*      | I*      | I*      | I*      |
| 1   | 1.81500  | 0.21    | I       | I       | I       | I       | I       |
| 5   | 1.93750  | 1.03    | I*      | I*      | I*      | I*      | I*      |
| 10  | 2.06000  | 2.07    | I***    | I***    | I***    | I***    | I***    |
| 5   | 2.18250  | E 1.03  | I*      | I*      | I*      | I*      | I*      |
| 1   | 2.30500  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 2.42750  | 0.21    | I       | I       | I       | I       | I       |
| 3   | 2.55000  | 0.62    | I*      | I*      | I*      | I*      | I*      |
| 0   | 2.67250  | 0.00    | I       | I       | I       | I       | I       |
| 1   | 2.79500  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 2.91750  | 0.21    | I       | I       | I       | I       | I       |
| 3   | 3.04000  | 0.62    | I*      | I*      | I*      | I*      | I*      |
| 1   | 3.16250  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 3.28500  | 0.21    | I       | I       | I       | I       | I       |
| 2   | 3.40750  | 0.41    | I*      | I*      | I*      | I*      | I*      |
| 1   | 3.53000  | 0.21    | I       | I       | I       | I       | I       |
| 2   | 3.65250  | 0.41    | I*      | I*      | I*      | I*      | I*      |
| 0   | 3.77500  | 0.00    | I       | I       | I       | I       | I       |
| 0   | 3.89750  | 0.00    | I       | I       | I       | I       | I       |
| 0   | 4.02000  | 0.00    | I       | I       | I       | I       | I       |
| 0   | 4.14250  | 0.00    | I       | I       | I       | I       | I       |
| 0   | 4.26500  | 0.00    | I       | I       | I       | I       | I       |
| 1   | 4.38750  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 4.51000  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 4.63250  | 0.21    | I       | I       | I       | I       | I       |
| 1   | 4.75500  | 0.21    | I       | I       | I       | I       | I       |
| 0   | 4.87750  | 0.00    | I       | I       | I       | I       | I       |
| 0   | 5.00000  | 0.00    | I       | I       | I       | I       | I       |



HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: AS

LOG = 0 REPVAL = 0.00100

488 SAMPLES WITH AS

MINIMUM: 1.00000

MAXIMUM: 97.0000

486 VALUES PLOTTED:

2 NOT IN RANGE 1.00000

to 50.0000

MEAN: 4.95679

STD. DEV.: 4.28425

Median 4.00000

SCALE OF HISTOGRAM IS 4.00 COUNTS /PRINT POSITION  $\epsilon = 5,50,95\%$

| N   | MIDPOINT | PERCENT | 0      | 40     | 80     | 120    | 160    |
|-----|----------|---------|--------|--------|--------|--------|--------|
| 109 | 1.0000   | £ 22.43 | I***** | I***** | I***** | I***** | I***** |
| 46  | 2.2250   | 9.47    | I***** | I***** | I***** | I***** | I***** |
| 105 | 3.4500   | £ 21.60 | I***** | I***** | I***** | I***** | I***** |
| 44  | 4.6750   | 9.05    | I***** | I***** | I***** | I***** | I***** |
| 51  | 5.9000   | 10.49   | I***** | I***** | I***** | I***** | I***** |
| 34  | 7.1250   | 7.00    | I***** | I***** | I***** | I***** | I***** |
| 29  | 8.3500   | 5.97    | I***** | I***** | I***** | I***** | I***** |
| 38  | 9.5750   | 7.82    | I***** | I***** | I***** | I***** | I***** |
| 7   | 10.800   | £ 1.44  | I**    | I**    | I**    | I**    | I**    |
| 6   | 12.025   | 1.23    | I**    | I**    | I**    | I**    | I**    |
| 2   | 13.250   | 0.41    | I*     | I*     | I*     | I*     | I*     |
| 5   | 14.475   | 1.03    | I*     | I*     | I*     | I*     | I*     |
| 2   | 15.700   | 0.41    | I*     | I*     | I*     | I*     | I*     |
| 4   | 16.925   | 0.82    | I*     | I*     | I*     | I*     | I*     |
| 0   | 18.150   | 0.00    | I      | I      | I      | I      | I      |
| 1   | 19.375   | 0.21    | I      | I      | I      | I      | I      |
| 0   | 20.600   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 21.825   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 23.050   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 24.275   | 0.00    | I      | I      | I      | I      | I      |
| 1   | 25.500   | 0.21    | I      | I      | I      | I      | I      |
| 0   | 26.725   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 27.950   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 29.175   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 30.400   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 31.625   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 32.850   | 0.00    | I      | I      | I      | I      | I      |
| 1   | 34.075   | 0.21    | I      | I      | I      | I      | I      |
| 0   | 35.300   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 36.525   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 37.750   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 38.975   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 40.200   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 41.425   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 42.650   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 43.875   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 45.100   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 46.325   | 0.00    | I      | I      | I      | I      | I      |
| 1   | 47.550   | 0.21    | I      | I      | I      | I      | I      |
| 0   | 48.775   | 0.00    | I      | I      | I      | I      | I      |
| 0   | 50.000   | 0.00    | I      | I      | I      | I      | I      |

486

HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: AU

LOG = 0 REPVAL = 0.00100

482 SAMPLES WITH AU

MINIMUM: 2.50000

MAXIMUM: 75.0000

481 VALUES PLOTTED:

1 NOT IN RANGE 2.50000 to 50.0000

MEAN: 2.94699

STD. DEV.: 2.67761

Median 2.50000

SCALE OF HISTOGRAM IS 20.00 COUNTS /PRINT POSITION  $\epsilon = 5,50,95\%$

| N   | MIDPOINT | PERCENT          | 0       | 200 | 400 | 600 | 800 |
|-----|----------|------------------|---------|-----|-----|-----|-----|
| 459 | 2.5000   | $\epsilon$ 95.43 | I*****I |     |     |     | I   |
| 0   | 3.6875   | 0.00             | I       |     |     |     | I   |
| 7   | 4.8750   | 1.46             | I       |     |     |     | I   |
| 0   | 6.0625   | 0.00             | I       |     |     |     | I   |
| 0   | 7.2500   | 0.00             | I       |     |     |     | I   |
| 0   | 8.4375   | 0.00             | I       |     |     |     | I   |
| 7   | 9.6250   | 1.46             | I       |     |     |     | I   |
| 0   | 10.813   | 0.00             | I       |     |     |     | I   |
| 0   | 12.000   | 0.00             | I       |     |     |     | I   |
| 0   | 13.188   | 0.00             | I       |     |     |     | I   |
| 0   | 14.375   | 0.00             | I       |     |     |     | I   |
| 5   | 15.563   | 1.04             | I       |     |     |     | I   |
| 0   | 16.750   | 0.00             | I       |     |     |     | I   |
| 0   | 17.938   | 0.00             | I       |     |     |     | I   |
| 0   | 19.125   | 0.00             | I       |     |     |     | I   |
| 0   | 20.313   | 0.00             | I       |     |     |     | I   |
| 0   | 21.500   | 0.00             | I       |     |     |     | I   |
| 0   | 22.688   | 0.00             | I       |     |     |     | I   |
| 0   | 23.875   | 0.00             | I       |     |     |     | I   |
| 1   | 25.063   | 0.21             | I       |     |     |     | I   |
| 0   | 26.250   | 0.00             | I       |     |     |     | I   |
| 0   | 27.438   | 0.00             | I       |     |     |     | I   |
| 0   | 28.625   | 0.00             | I       |     |     |     | I   |
| 1   | 29.813   | 0.21             | I       |     |     |     | I   |
| 0   | 31.000   | 0.00             | I       |     |     |     | I   |
| 0   | 32.188   | 0.00             | I       |     |     |     | I   |
| 0   | 33.375   | 0.00             | I       |     |     |     | I   |
| 1   | 34.563   | 0.21             | I       |     |     |     | I   |
| 0   | 35.750   | 0.00             | I       |     |     |     | I   |
| 0   | 36.938   | 0.00             | I       |     |     |     | I   |
| 0   | 38.125   | 0.00             | I       |     |     |     | I   |
| 0   | 39.313   | 0.00             | I       |     |     |     | I   |
| 0   | 40.500   | 0.00             | I       |     |     |     | I   |
| 0   | 41.688   | 0.00             | I       |     |     |     | I   |
| 0   | 42.875   | 0.00             | I       |     |     |     | I   |
| 0   | 44.063   | 0.00             | I       |     |     |     | I   |
| 0   | 45.250   | 0.00             | I       |     |     |     | I   |
| 0   | 46.438   | 0.00             | I       |     |     |     | I   |
| 0   | 47.625   | 0.00             | I       |     |     |     | I   |
| 0   | 48.813   | 0.00             | I       |     |     |     | I   |
| 0   | 50.000   | 0.00             | I       |     |     |     | I   |

481

HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: CU

LOG = 0 REPVAL = 0.00100

487 SAMPLES WITH CU

MINIMUM: 1.00000

MAXIMUM: 920.000

486 VALUES PLOTTED:

1 NOT IN RANGE 1.00000

to 400.000

MEAN: 23.8025

STD. DEV.: 37.4956

Median 13.0000

SCALE OF HISTOGRAM IS 10.00 COUNTS /PRINT POSITION £ = 5,50,95%

| N   | MIDPOINT | PERCENT | 0      | 100 | 200 | 300 | 400 |
|-----|----------|---------|--------|-----|-----|-----|-----|
| 64  | 1.0000   | £ 13.17 | I***** |     |     |     | I   |
| 219 | 10.975   | £ 45.06 | I***** |     |     |     | I   |
| 92  | 20.950   | 18.93   | I***** |     |     |     | I   |
| 38  | 30.925   | 7.82    | I****  |     |     |     | I   |
| 26  | 40.900   | 5.35    | I***   |     |     |     | I   |
| 11  | 50.875   | 2.26    | I*     |     |     |     | I   |
| 10  | 60.850   | 2.06    | I*     |     |     |     | I   |
| 2   | 70.825   | £ 0.41  | I      |     |     |     | I   |
| 3   | 80.800   | 0.62    | I      |     |     |     | I   |
| 3   | 90.775   | 0.62    | I      |     |     |     | I   |
| 2   | 100.75   | 0.41    | I      |     |     |     | I   |
| 1   | 110.73   | 0.21    | I      |     |     |     | I   |
| 1   | 120.70   | 0.21    | I      |     |     |     | I   |
| 3   | 130.68   | 0.62    | I      |     |     |     | I   |
| 1   | 140.65   | 0.21    | I      |     |     |     | I   |
| 0   | 150.63   | 0.00    | I      |     |     |     | I   |
| 1   | 160.60   | 0.21    | I      |     |     |     | I   |
| 0   | 170.58   | 0.00    | I      |     |     |     | I   |
| 1   | 180.55   | 0.21    | I      |     |     |     | I   |
| 3   | 190.53   | 0.62    | I      |     |     |     | I   |
| 1   | 200.50   | 0.21    | I      |     |     |     | I   |
| 0   | 210.48   | 0.00    | I      |     |     |     | I   |
| 0   | 220.45   | 0.00    | I      |     |     |     | I   |
| 0   | 230.43   | 0.00    | I      |     |     |     | I   |
| 0   | 240.40   | 0.00    | I      |     |     |     | I   |
| 1   | 250.38   | 0.21    | I      |     |     |     | I   |
| 0   | 260.35   | 0.00    | I      |     |     |     | I   |
| 0   | 270.33   | 0.00    | I      |     |     |     | I   |
| 0   | 280.30   | 0.00    | I      |     |     |     | I   |
| 0   | 290.28   | 0.00    | I      |     |     |     | I   |
| 2   | 300.25   | 0.41    | I      |     |     |     | I   |
| 0   | 310.23   | 0.00    | I      |     |     |     | I   |
| 0   | 320.20   | 0.00    | I      |     |     |     | I   |
| 0   | 330.18   | 0.00    | I      |     |     |     | I   |
| 0   | 340.15   | 0.00    | I      |     |     |     | I   |
| 0   | 350.13   | 0.00    | I      |     |     |     | I   |
| 1   | 360.10   | 0.21    | I      |     |     |     | I   |
| 0   | 370.08   | 0.00    | I      |     |     |     | I   |
| 0   | 380.05   | 0.00    | I      |     |     |     | I   |
| 0   | 390.03   | 0.00    | I      |     |     |     | I   |
| 0   | 400.00   | 0.00    | I      |     |     |     | I   |

HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: PB

LOG = 0 REPVAL = 0.00100

487 SAMPLES WITH PB

MINIMUM: 2.00000

MAXIMUM: 127.000

487 VALUES PLOTTED:

0 NOT IN RANGE

2.00000

to 127.000

MEAN: 17.1109

STD. DEV.: 11.8693

Median 14.0000

SCALE OF HISTOGRAM IS

5.00 COUNTS /PRINT POSITION

E = 5,50,95%

| N   | MIDPOINT | PERCENT | 0      | 50 | 100 | 150 | 200 |
|-----|----------|---------|--------|----|-----|-----|-----|
| 0   | 0.       | 0.00    | I      |    |     |     | I   |
| 3   | 4.0000   | 0.62    | I*     |    |     |     | I   |
| 58  | 8.0000   | 11.91   | I***** |    |     |     | I   |
| 175 | 12.000   | 35.93   | I***** |    |     |     | I   |
| 110 | 16.000   | 22.59   | I***** |    |     |     | I   |
| 42  | 20.000   | 8.62    | I***** |    |     |     | I   |
| 26  | 24.000   | 5.34    | I***** |    |     |     | I   |
| 20  | 28.000   | 4.11    | I****  |    |     |     | I   |
| 16  | 32.000   | 3.29    | I***   |    |     |     | I   |
| 9   | 36.000   | 1.85    | I**    |    |     |     | I   |
| 10  | 40.000   | 2.05    | I**    |    |     |     | I   |
| 7   | 44.000   | 1.44    | I*     |    |     |     | I   |
| 1   | 48.000   | 0.21    | I      |    |     |     | I   |
| 4   | 52.000   | 0.82    | I*     |    |     |     | I   |
| 2   | 56.000   | 0.41    | I      |    |     |     | I   |
| 1   | 60.000   | 0.21    | I      |    |     |     | I   |
| 0   | 64.000   | 0.00    | I      |    |     |     | I   |
| 0   | 68.000   | 0.00    | I      |    |     |     | I   |
| 0   | 72.000   | 0.00    | I      |    |     |     | I   |
| 0   | 76.000   | 0.00    | I      |    |     |     | I   |
| 1   | 80.000   | 0.21    | I      |    |     |     | I   |
| 0   | 84.000   | 0.00    | I      |    |     |     | I   |
| 0   | 88.000   | 0.00    | I      |    |     |     | I   |
| 0   | 92.000   | 0.00    | I      |    |     |     | I   |
| 0   | 96.000   | 0.00    | I      |    |     |     | I   |
| 0   | 100.00   | 0.00    | I      |    |     |     | I   |
| 0   | 104.00   | 0.00    | I      |    |     |     | I   |
| 0   | 108.00   | 0.00    | I      |    |     |     | I   |
| 0   | 112.00   | 0.00    | I      |    |     |     | I   |
| 1   | 116.00   | 0.21    | I      |    |     |     | I   |
| 0   | 120.00   | 0.00    | I      |    |     |     | I   |
| 0   | 124.00   | 0.00    | I      |    |     |     | I   |
| 1   | 128.00   | 0.21    | I      |    |     |     | I   |
| 0   | 132.00   | 0.00    | I      |    |     |     | I   |
| 0   | 136.00   | 0.00    | I      |    |     |     | I   |
| 0   | 140.00   | 0.00    | I      |    |     |     | I   |
| 0   | 144.00   | 0.00    | I      |    |     |     | I   |
| 0   | 148.00   | 0.00    | I      |    |     |     | I   |
| 0   | 152.00   | 0.00    | I      |    |     |     | I   |
| 0   | 156.00   | 0.00    | I      |    |     |     | I   |
| 0   | 160.00   | 0.00    | I      |    |     |     | I   |

487

HISTO:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

File: lefty.90soil

Field name: SB

LOG = 0 REPRAL = 0.00100

488 SAMPLES WITH SB MINIMUM: 1.00000 MAXIMUM: 3.00000

487 VALUES PLOTTED: 1 NOT IN RANGE 1.00000 to 2.00000

MEAN: 1.01232 STD. DEV.: 0.110425 Median 1.00000

SCALE OF HISTOGRAM IS 20.00 COUNTS /PRINT POSITION E = 5,50,95%

| N   | MIDPOINT | PERCENT | 0                               | 200 | 400 | 600 | 800 |   |
|-----|----------|---------|---------------------------------|-----|-----|-----|-----|---|
| 487 | 1.0000   | E 98.77 | I*****I-----I-----I-----I-----I |     |     |     |     | I |
| 0   | 1.0250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.0500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.0750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.1000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.1250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.1500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.1750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.2000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.2250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.2500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.2750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.3000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.3250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.3500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.3750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.4000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.4250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.4500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.4750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.5000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.5250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.5500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.5750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.6000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.6250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.6500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.6750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.7000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.7250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.7500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.7750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.8000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.8250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.8500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.8750   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.9000   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.9250   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.9500   | 0.00    | I                               |     |     |     | I   |   |
| 0   | 1.9750   | 0.00    | I                               |     |     |     | I   |   |
| 6   | 2.0000   | 1.23    | I                               |     |     |     | I   |   |

487 0 200 400 600 800

File: lefty.90soil

Field name: ZN

LOG = 0 REPVAL = 0.00100

487 SAMPLES WITH ZN

MINIMUM: 40.0000

MAXIMUM: 3700.00

486 VALUES PLOTTED:

1 NOT IN RANGE 40.0000

to 2800.00

MEAN: 255.893

STD. DEV.: 325.473

Median 150.000

SCALE OF HISTOGRAM IS 5.00 COUNTS /PRINT POSITION E = 5,50,95%

| N   | MIDPOINT | PERCENT | 0      | 50 | 100 | 150 | 200 |
|-----|----------|---------|--------|----|-----|-----|-----|
| 51  | 40.000   | E 10.49 | I***** |    |     |     | I   |
| 183 | 109.00   | 37.65   | I***** |    |     |     | I   |
| 99  | 178.00   | E 20.37 | I***** |    |     |     | I   |
| 50  | 247.00   | 10.29   | I***** |    |     |     | I   |
| 28  | 316.00   | 5.76    | I***** |    |     |     | I   |
| 14  | 385.00   | 2.88    | I***   |    |     |     | I   |
| 5   | 454.00   | 1.03    | I*     |    |     |     | I   |
| 11  | 523.00   | 2.26    | I**    |    |     |     | I   |
| 6   | 592.00   | 1.23    | I*     |    |     |     | I   |
| 3   | 661.00   | 0.62    | I*     |    |     |     | I   |
| 4   | 730.00   | 0.82    | I*     |    |     |     | I   |
| 2   | 799.00   | 0.41    | I      |    |     |     | I   |
| 3   | 868.00   | 0.62    | I*     |    |     |     | I   |
| 1   | 937.00   | 0.21    | I      |    |     |     | I   |
| 3   | 1006.0   | E 0.62  | I*     |    |     |     | I   |
| 5   | 1075.0   | 1.03    | I*     |    |     |     | I   |
| 3   | 1144.0   | 0.62    | I*     |    |     |     | I   |
| 4   | 1213.0   | 0.82    | I*     |    |     |     | I   |
| 1   | 1282.0   | 0.21    | I      |    |     |     | I   |
| 4   | 1351.0   | 0.82    | I*     |    |     |     | I   |
| 0   | 1420.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1489.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1558.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1627.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1696.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1765.0   | 0.00    | I      |    |     |     | I   |
| 3   | 1834.0   | 0.62    | I*     |    |     |     | I   |
| 0   | 1903.0   | 0.00    | I      |    |     |     | I   |
| 0   | 1972.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2041.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2110.0   | 0.00    | I      |    |     |     | I   |
| 1   | 2179.0   | 0.21    | I      |    |     |     | I   |
| 0   | 2248.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2317.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2386.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2455.0   | 0.00    | I      |    |     |     | I   |
| 1   | 2524.0   | 0.21    | I      |    |     |     | I   |
| 0   | 2593.0   | 0.00    | I      |    |     |     | I   |
| 0   | 2662.0   | 0.00    | I      |    |     |     | I   |
| 1   | 2731.0   | 0.21    | I      |    |     |     | I   |
| 0   | 2800.0   | 0.00    | I      |    |     |     | I   |

PRRPT:

1990 LEFTY SOIL DATA

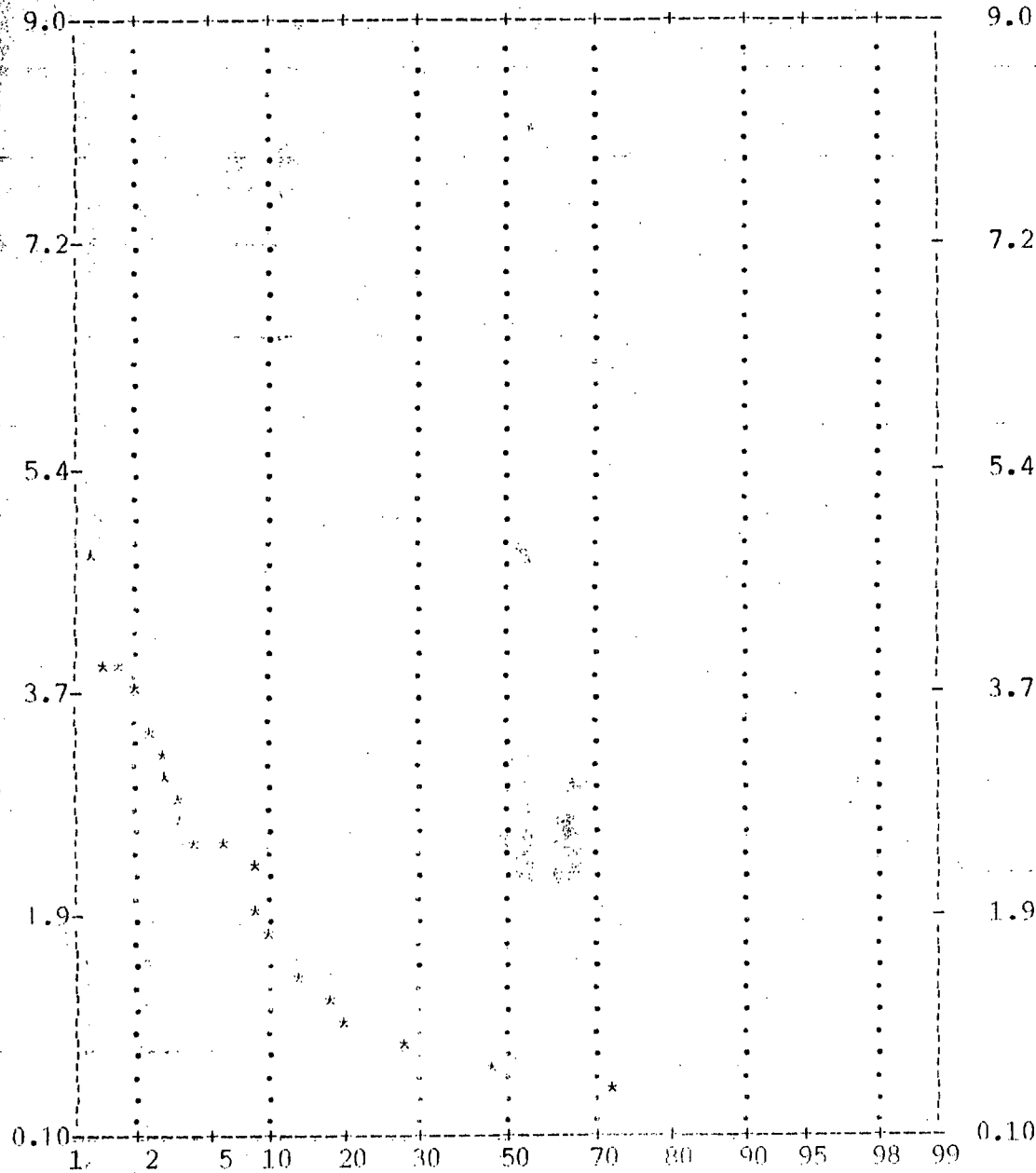
RUN ON 90:12:20 AT 7:59:45

file: lefty.90soil

Field name: AG

LOG =0 REPVAL = 0.00100

MIN = .10000 MAX = 9.0000 MEAN = .65496 STD DEV = .74088  
NUMBER OF DATA PLOTTED = 487 ( 1 NULLS 0 < YMIN 0 > YMAX)



CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 9.0000  | 1    | 0.002 | 0.002    |
| 8.8220  | 0    | 0.000 | 0.002    |
| 8.6440  | 0    | 0.000 | 0.002    |
| 8.4660  | 0    | 0.000 | 0.002    |
| 8.2880  | 0    | 0.000 | 0.002    |
| 8.1100  | 2    | 0.004 | 0.006    |
| 7.9320  | 0    | 0.000 | 0.006    |
| 7.7540  | 0    | 0.000 | 0.006    |
| 7.5760  | 0    | 0.000 | 0.006    |
| 7.3980  | 0    | 0.000 | 0.006    |
| 7.2200  | 0    | 0.000 | 0.006    |
| 7.0420  | 0    | 0.000 | 0.006    |
| 6.8640  | 0    | 0.000 | 0.006    |
| 6.6860  | 0    | 0.000 | 0.006    |
| 6.5080  | 0    | 0.000 | 0.006    |
| 6.3300  | 0    | 0.000 | 0.006    |
| 6.1520  | 0    | 0.000 | 0.006    |
| 5.9740  | 0    | 0.000 | 0.006    |
| 5.7960  | 0    | 0.000 | 0.006    |
| 5.6180  | 0    | 0.000 | 0.006    |
| 5.4400  | 0    | 0.000 | 0.006    |
| 5.2620  | 0    | 0.000 | 0.006    |
| 5.0840  | 0    | 0.000 | 0.006    |
| 4.9060  | 1    | 0.002 | 0.008    |
| 4.7280  | 1    | 0.002 | 0.010    |
| 4.5500  | 2    | 0.004 | 0.014    |
| 4.3720  | 0    | 0.000 | 0.014    |
| 4.1940  | 0    | 0.000 | 0.014    |
| 4.0160  | 0    | 0.000 | 0.014    |
| 3.8380  | 1    | 0.002 | 0.016    |
| 3.6600  | 2    | 0.004 | 0.021    |
| 3.4820  | 2    | 0.004 | 0.025    |
| 3.3040  | 2    | 0.004 | 0.029    |
| 3.1260  | 3    | 0.006 | 0.035    |
| 2.9480  | 2    | 0.004 | 0.039    |
| 2.7700  | 2    | 0.004 | 0.043    |
| 2.5920  | 1    | 0.002 | 0.045    |
| 2.4140  | 2    | 0.004 | 0.049    |
| 2.2360  | 8    | 0.016 | 0.066    |
| 2.0580  | 12   | 0.025 | 0.090    |
| 1.8800  | 1    | 0.002 | 0.092    |
| 1.7020  | 7    | 0.014 | 0.107    |
| 1.5240  | 3    | 0.006 | 0.113    |
| 1.3460  | 12   | 0.025 | 0.138    |
| 1.1680  | 24   | 0.049 | 0.187    |
| 0.99000 | 3    | 0.006 | 0.193    |
| 0.81200 | 47   | 0.097 | 0.290    |
| 0.63400 | 88   | 0.181 | 0.470    |
| 0.45600 | 121  | 0.248 | 0.719    |
| 0.27800 | 137  | 0.281 | 1.000    |
| 0.10000 | 0    | 0.000 | 1.000    |

CUMULATIVE FREQUENCY (PROBABILITY SCALE)

PRBPLT:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

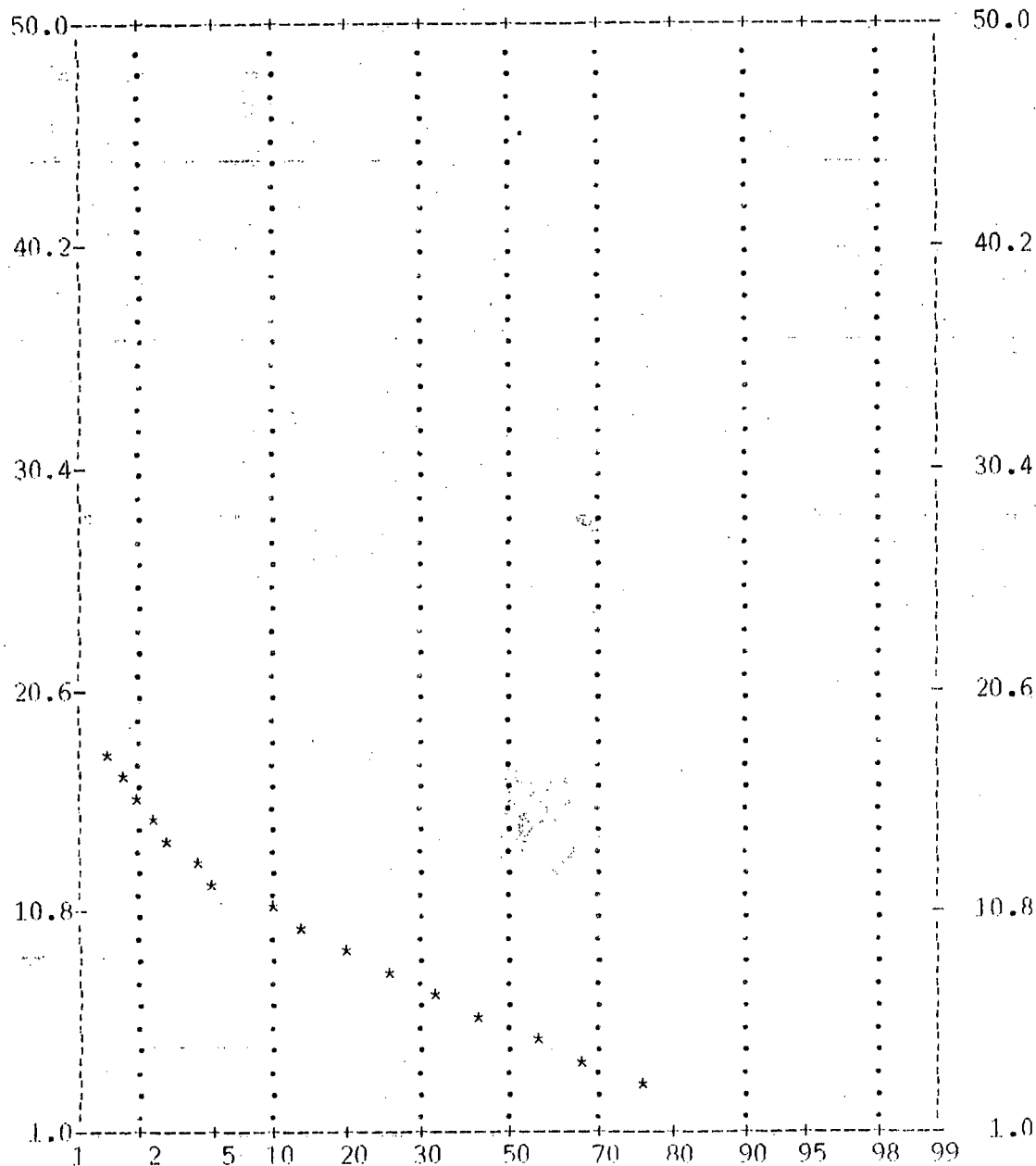
file: lefty.90soil

Field name: AS

LOG = 0

REPVAL = 0.00100

MIN = 1.0000 MAX = 97.000 MEAN = 4.9568 STD DEV = 4.2843  
NUMBER OF DATA PLOTTED = 486 ( 0 NULLS 0 < YMIN 2 > YMAX)



CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 50.000  | 0    | 0.000 | 0.000    |
| 49.020  | 0    | 0.000 | 0.000    |
| 48.040  | 1    | 0.002 | 0.002    |
| 47.060  | 0    | 0.000 | 0.002    |
| 46.080  | 0    | 0.000 | 0.002    |
| 45.100  | 0    | 0.000 | 0.002    |
| 44.120  | 0    | 0.000 | 0.002    |
| 43.140  | 0    | 0.000 | 0.002    |
| 42.160  | 0    | 0.000 | 0.002    |
| 41.180  | 0    | 0.000 | 0.002    |
| 40.200  | 0    | 0.000 | 0.002    |
| 39.220  | 0    | 0.000 | 0.002    |
| 38.240  | 0    | 0.000 | 0.002    |
| 37.260  | 0    | 0.000 | 0.002    |
| 36.280  | 0    | 0.000 | 0.002    |
| 35.300  | 0    | 0.000 | 0.002    |
| 34.320  | 1    | 0.002 | 0.004    |
| 33.340  | 0    | 0.000 | 0.004    |
| 32.360  | 0    | 0.000 | 0.004    |
| 31.380  | 0    | 0.000 | 0.004    |
| 30.400  | 0    | 0.000 | 0.004    |
| 29.420  | 0    | 0.000 | 0.004    |
| 28.440  | 0    | 0.000 | 0.004    |
| 27.460  | 0    | 0.000 | 0.004    |
| 26.480  | 1    | 0.002 | 0.006    |
| 25.500  | 0    | 0.000 | 0.006    |
| 24.520  | 0    | 0.000 | 0.006    |
| 23.540  | 0    | 0.000 | 0.006    |
| 22.560  | 0    | 0.000 | 0.006    |
| 21.580  | 0    | 0.000 | 0.006    |
| 20.600  | 0    | 0.000 | 0.006    |
| 19.620  | 1    | 0.002 | 0.008    |
| 18.640  | 0    | 0.000 | 0.008    |
| 17.660  | 4    | 0.008 | 0.017    |
| 16.680  | 2    | 0.004 | 0.021    |
| 15.700  | 3    | 0.006 | 0.027    |
| 14.720  | 2    | 0.004 | 0.031    |
| 13.740  | 2    | 0.004 | 0.035    |
| 12.760  | 6    | 0.012 | 0.047    |
| 11.780  | 7    | 0.014 | 0.062    |
| 10.800  | 19   | 0.039 | 0.101    |
| 9.8200  | 19   | 0.039 | 0.140    |
| 8.8400  | 29   | 0.060 | 0.200    |
| 7.8600  | 34   | 0.070 | 0.270    |
| 6.8800  | 51   | 0.105 | 0.374    |
| 5.9000  | 44   | 0.091 | 0.465    |
| 4.9200  | 61   | 0.126 | 0.591    |
| 3.9400  | 44   | 0.091 | 0.681    |
| 2.9600  | 46   | 0.095 | 0.776    |
| 1.9800  | 109  | 0.224 | 1.000    |
| 1.0000  | 0    | 0.000 | 1.000    |

CUMULATIVE FREQUENCY (PROBABILITY SCALE)



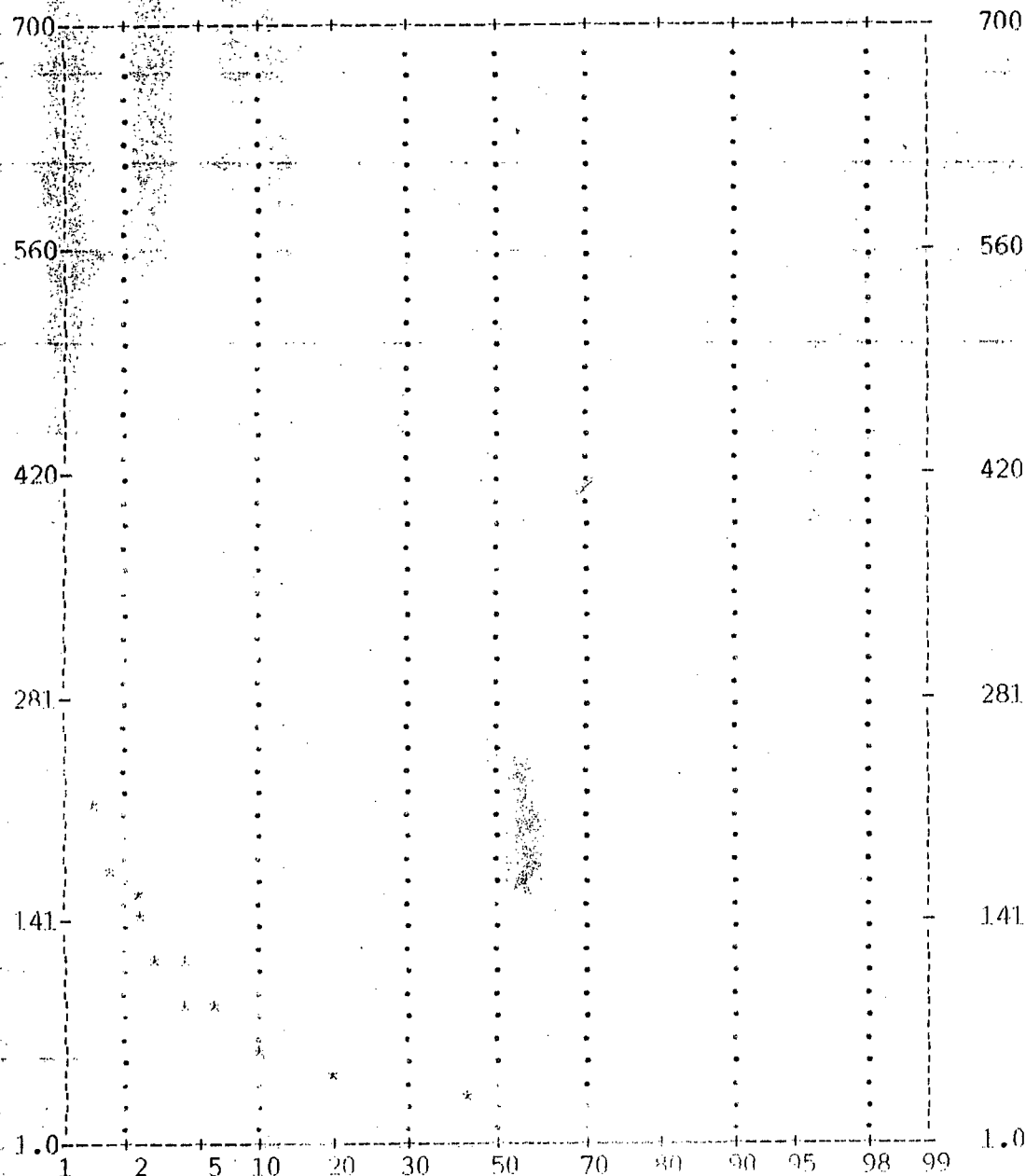
PRBLT:  
file: lefty.90soil

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

Field name: CU LOG = 0 REEVAL = 0.00100

MIN = 1.0000 MAX = 920.00 MEAN = 23.802 STD DEV = 37.496  
 NUMBER OF DATA PLOTTED = 486 ( 1 NULLS 0 < YMIN 1 > YMAX)



CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 700.00  | 0    | 0.000 | 0.000    |
| 686.02  | 0    | 0.000 | 0.000    |
| 672.04  | 0    | 0.000 | 0.000    |
| 658.06  | 0    | 0.000 | 0.000    |
| 644.08  | 0    | 0.000 | 0.000    |
| 630.10  | 0    | 0.000 | 0.000    |
| 616.12  | 0    | 0.000 | 0.000    |
| 602.14  | 0    | 0.000 | 0.000    |
| 588.16  | 0    | 0.000 | 0.000    |
| 574.18  | 0    | 0.000 | 0.000    |
| 560.20  | 0    | 0.000 | 0.000    |
| 546.22  | 0    | 0.000 | 0.000    |
| 532.24  | 0    | 0.000 | 0.000    |
| 518.26  | 0    | 0.000 | 0.000    |
| 504.28  | 0    | 0.000 | 0.000    |
| 490.30  | 0    | 0.000 | 0.000    |
| 476.32  | 0    | 0.000 | 0.000    |
| 462.34  | 0    | 0.000 | 0.000    |
| 448.36  | 0    | 0.000 | 0.000    |
| 434.38  | 0    | 0.000 | 0.000    |
| 420.40  | 0    | 0.000 | 0.000    |
| 406.42  | 0    | 0.000 | 0.000    |
| 392.44  | 0    | 0.000 | 0.000    |
| 378.46  | 0    | 0.000 | 0.000    |
| 364.48  | 1    | 0.002 | 0.002    |
| 350.50  | 0    | 0.000 | 0.002    |
| 336.52  | 0    | 0.000 | 0.002    |
| 322.54  | 0    | 0.000 | 0.002    |
| 308.56  | 2    | 0.004 | 0.006    |
| 294.58  | 0    | 0.000 | 0.006    |
| 280.60  | 0    | 0.000 | 0.006    |
| 266.62  | 0    | 0.000 | 0.006    |
| 252.64  | 1    | 0.002 | 0.008    |
| 238.66  | 0    | 0.000 | 0.008    |
| 224.68  | 0    | 0.000 | 0.008    |
| 210.70  | 1    | 0.002 | 0.010    |
| 196.72  | 4    | 0.008 | 0.019    |
| 182.74  | 0    | 0.000 | 0.019    |
| 168.76  | 1    | 0.002 | 0.021    |
| 154.78  | 0    | 0.000 | 0.021    |
| 140.80  | 4    | 0.008 | 0.029    |
| 126.82  | 1    | 0.002 | 0.031    |
| 112.84  | 2    | 0.004 | 0.035    |
| 98.860  | 6    | 0.012 | 0.047    |
| 84.880  | 2    | 0.004 | 0.051    |
| 70.900  | 10   | 0.021 | 0.072    |
| 56.920  | 20   | 0.041 | 0.113    |
| 42.940  | 44   | 0.091 | 0.204    |
| 28.960  | 123  | 0.253 | 0.457    |
| 14.980  | 264  | 0.543 | 1.000    |
| 1.0000  | 0    | 0.000 | 1.000    |

CUMULATIVE FREQUENCY (PROBABILITY SCALE)

PRBLM: file: lefty.90soil

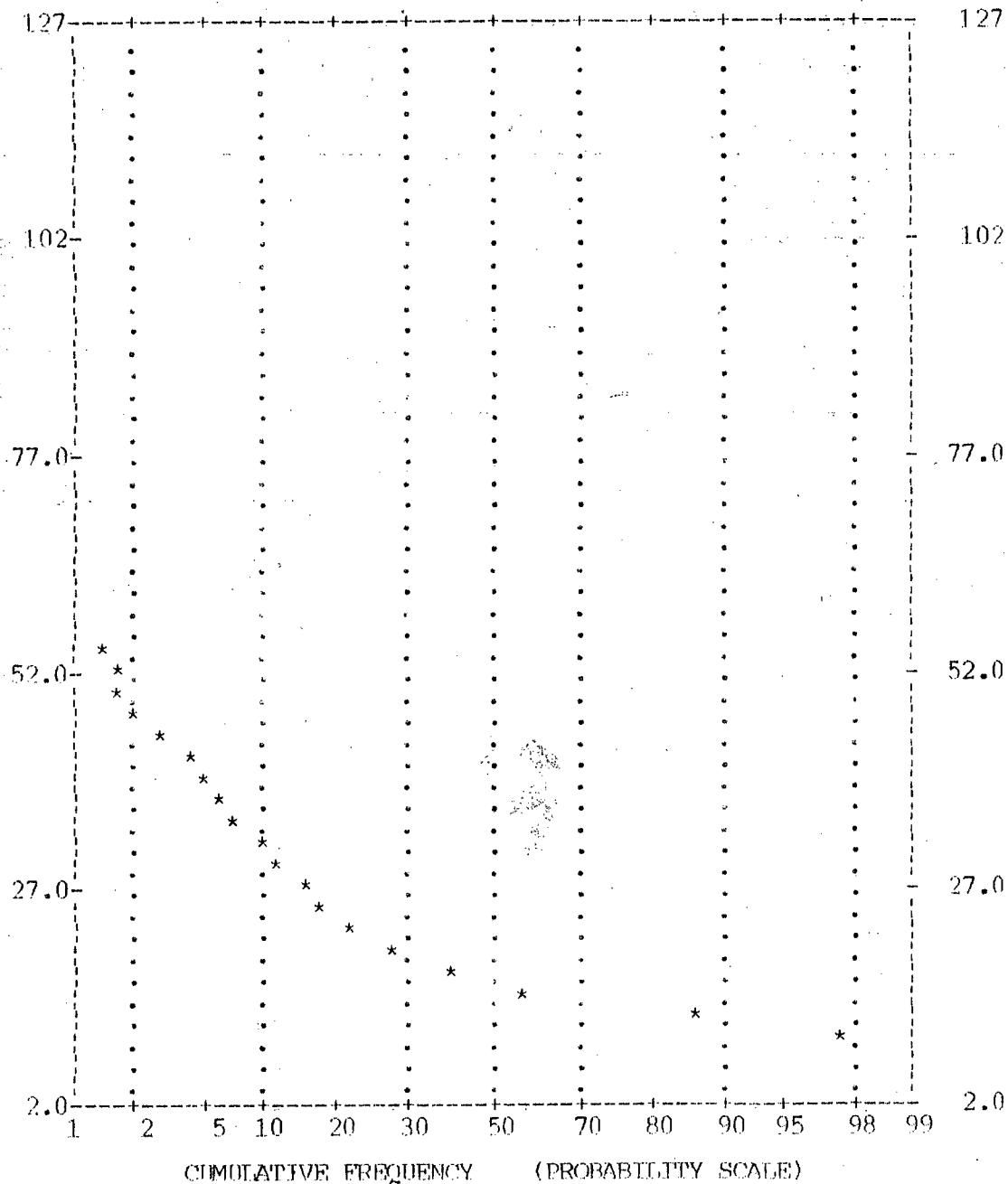
1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

Field name: PB

LOG =0 REPVAL = 0.00100

MIN = 2.0000 MAX = 127.00 MEAN = 17.111 STD DEV = 11.869  
 NUMBER OF DATA PLOTTED = 487 ( 1 NULLS 0 < YMIN 0 > YMAX)



CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 127.00  | 1    | 0.002 | 0.002    |
| 124.50  | 0    | 0.000 | 0.002    |
| 122.00  | 0    | 0.000 | 0.002    |
| 119.50  | 0    | 0.000 | 0.002    |
| 117.00  | 1    | 0.002 | 0.004    |
| 114.50  | 0    | 0.000 | 0.004    |
| 112.00  | 0    | 0.000 | 0.004    |
| 109.50  | 0    | 0.000 | 0.004    |
| 107.00  | 0    | 0.000 | 0.004    |
| 104.50  | 0    | 0.000 | 0.004    |
| 102.00  | 0    | 0.000 | 0.004    |
| 99.500  | 0    | 0.000 | 0.004    |
| 97.000  | 0    | 0.000 | 0.004    |
| 94.500  | 0    | 0.000 | 0.004    |
| 92.000  | 0    | 0.000 | 0.004    |
| 89.500  | 0    | 0.000 | 0.004    |
| 87.000  | 0    | 0.000 | 0.004    |
| 84.500  | 0    | 0.000 | 0.004    |
| 82.000  | 1    | 0.002 | 0.006    |
| 79.500  | 0    | 0.000 | 0.006    |
| 77.000  | 0    | 0.000 | 0.006    |
| 74.500  | 0    | 0.000 | 0.006    |
| 72.000  | 0    | 0.000 | 0.006    |
| 69.500  | 0    | 0.000 | 0.006    |
| 67.000  | 0    | 0.000 | 0.006    |
| 64.500  | 0    | 0.000 | 0.006    |
| 62.000  | 1    | 0.002 | 0.008    |
| 59.500  | 0    | 0.000 | 0.008    |
| 57.000  | 1    | 0.002 | 0.010    |
| 54.500  | 4    | 0.008 | 0.019    |
| 52.000  | 1    | 0.002 | 0.021    |
| 49.500  | 1    | 0.002 | 0.023    |
| 47.000  | 2    | 0.004 | 0.027    |
| 44.500  | 4    | 0.008 | 0.035    |
| 42.000  | 9    | 0.019 | 0.053    |
| 39.500  | 2    | 0.004 | 0.058    |
| 37.000  | 7    | 0.014 | 0.072    |
| 34.500  | 6    | 0.012 | 0.084    |
| 32.000  | 12   | 0.025 | 0.109    |
| 29.500  | 8    | 0.016 | 0.125    |
| 27.000  | 16   | 0.033 | 0.158    |
| 24.500  | 10   | 0.021 | 0.179    |
| 22.000  | 26   | 0.053 | 0.232    |
| 19.500  | 28   | 0.058 | 0.290    |
| 17.000  | 66   | 0.136 | 0.425    |
| 14.500  | 77   | 0.158 | 0.583    |
| 12.000  | 142  | 0.292 | 0.875    |
| 9.5000  | 48   | 0.099 | 0.973    |
| 7.0000  | 10   | 0.021 | 0.994    |
| 4.5000  | 3    | 0.006 | 1.000    |
| 2.0000  | 0    | 0.000 | 1.000    |

PRBFLP:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

file: lefty.90soil

Field name: SB

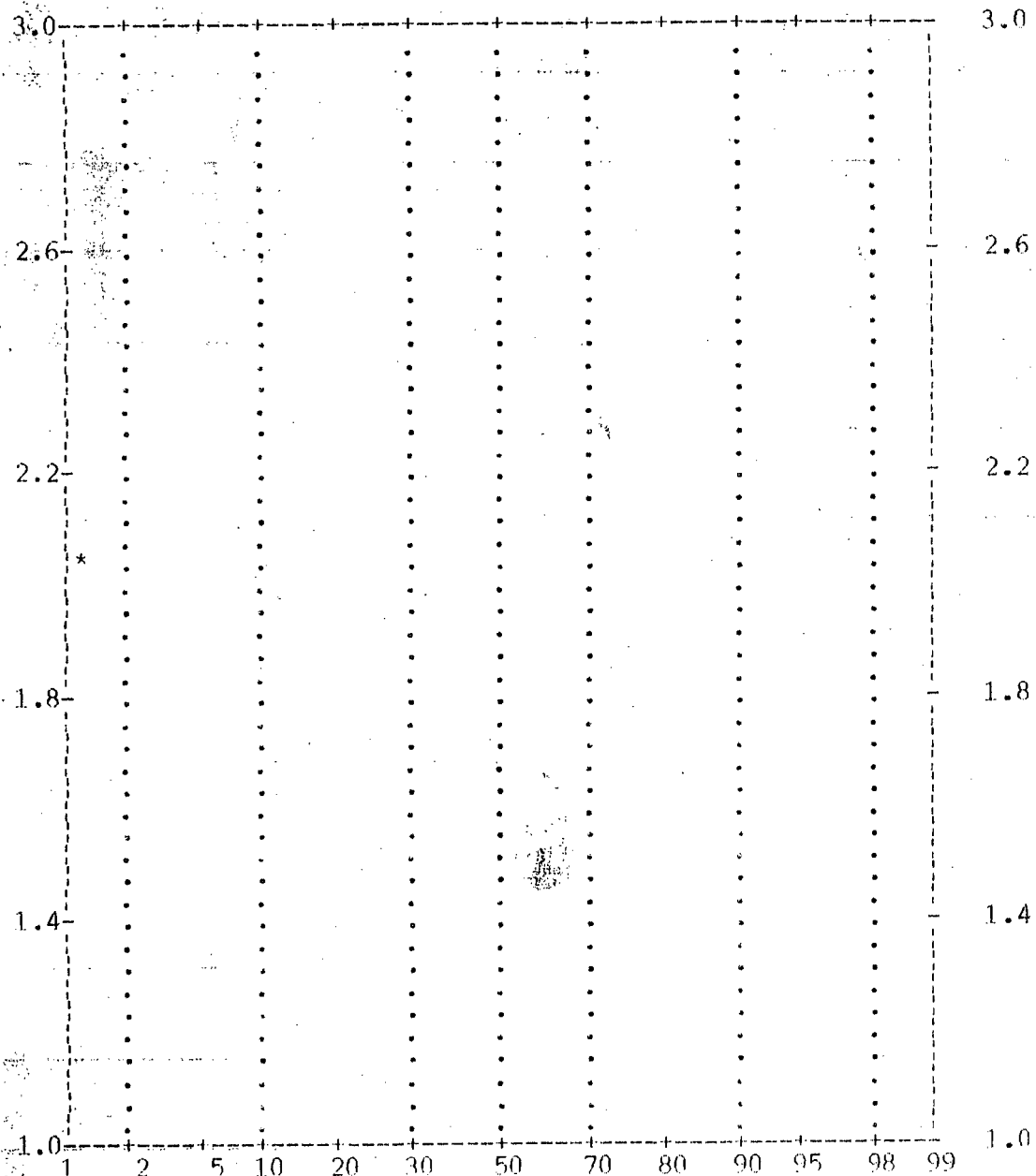
LOG = 0

REFVAL = 0.00100

MIN = 1.0000    MAX = 3.0000    MEAN = 1.0123    STD DEV = .11042  
 NUMBER OF DATA PLOTTED = 488 ( 0 NULLS    0 < YMIN    0 > YMAX)

CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 3.0000  | 1    | 0.002 | 0.002    |
| 2.9600  | 0    | 0.000 | 0.002    |
| 2.9200  | 0    | 0.000 | 0.002    |
| 2.8800  | 0    | 0.000 | 0.002    |
| 2.8400  | 0    | 0.000 | 0.002    |
| 2.8000  | 0    | 0.000 | 0.002    |
| 2.7600  | 0    | 0.000 | 0.002    |
| 2.7200  | 0    | 0.000 | 0.002    |
| 2.6800  | 0    | 0.000 | 0.002    |
| 2.6400  | 0    | 0.000 | 0.002    |
| 2.6000  | 0    | 0.000 | 0.002    |
| 2.5600  | 0    | 0.000 | 0.002    |
| 2.5200  | 0    | 0.000 | 0.002    |
| 2.4800  | 0    | 0.000 | 0.002    |
| 2.4400  | 0    | 0.000 | 0.002    |
| 2.4000  | 0    | 0.000 | 0.002    |
| 2.3600  | 0    | 0.000 | 0.002    |
| 2.3200  | 0    | 0.000 | 0.002    |
| 2.2800  | 0    | 0.000 | 0.002    |
| 2.2400  | 0    | 0.000 | 0.002    |
| 2.2000  | 0    | 0.000 | 0.002    |
| 2.1600  | 0    | 0.000 | 0.002    |
| 2.1200  | 0    | 0.000 | 0.002    |
| 2.0800  | 0    | 0.000 | 0.002    |
| 2.0400  | 0    | 0.000 | 0.002    |
| 2.0000  | 6    | 0.012 | 0.014    |
| 1.9600  | 0    | 0.000 | 0.014    |
| 1.9200  | 0    | 0.000 | 0.014    |
| 1.8800  | 0    | 0.000 | 0.014    |
| 1.8400  | 0    | 0.000 | 0.014    |
| 1.8000  | 0    | 0.000 | 0.014    |
| 1.7600  | 0    | 0.000 | 0.014    |
| 1.7200  | 0    | 0.000 | 0.014    |
| 1.6800  | 0    | 0.000 | 0.014    |
| 1.6400  | 0    | 0.000 | 0.014    |
| 1.6000  | 0    | 0.000 | 0.014    |
| 1.5600  | 0    | 0.000 | 0.014    |
| 1.5200  | 0    | 0.000 | 0.014    |
| 1.4800  | 0    | 0.000 | 0.014    |
| 1.4400  | 0    | 0.000 | 0.014    |
| 1.4000  | 0    | 0.000 | 0.014    |
| 1.3600  | 0    | 0.000 | 0.014    |
| 1.3200  | 0    | 0.000 | 0.014    |
| 1.2800  | 0    | 0.000 | 0.014    |
| 1.2400  | 0    | 0.000 | 0.014    |
| 1.2000  | 0    | 0.000 | 0.014    |
| 1.1600  | 0    | 0.000 | 0.014    |
| 1.1200  | 0    | 0.000 | 0.014    |
| 1.0800  | 0    | 0.000 | 0.014    |
| 1.0400  | 481  | 0.986 | 1.000    |
| 1.0000  | 0    | 0.000 | 1.000    |



CUMULATIVE FREQUENCY (PROBABILITY SCALE)

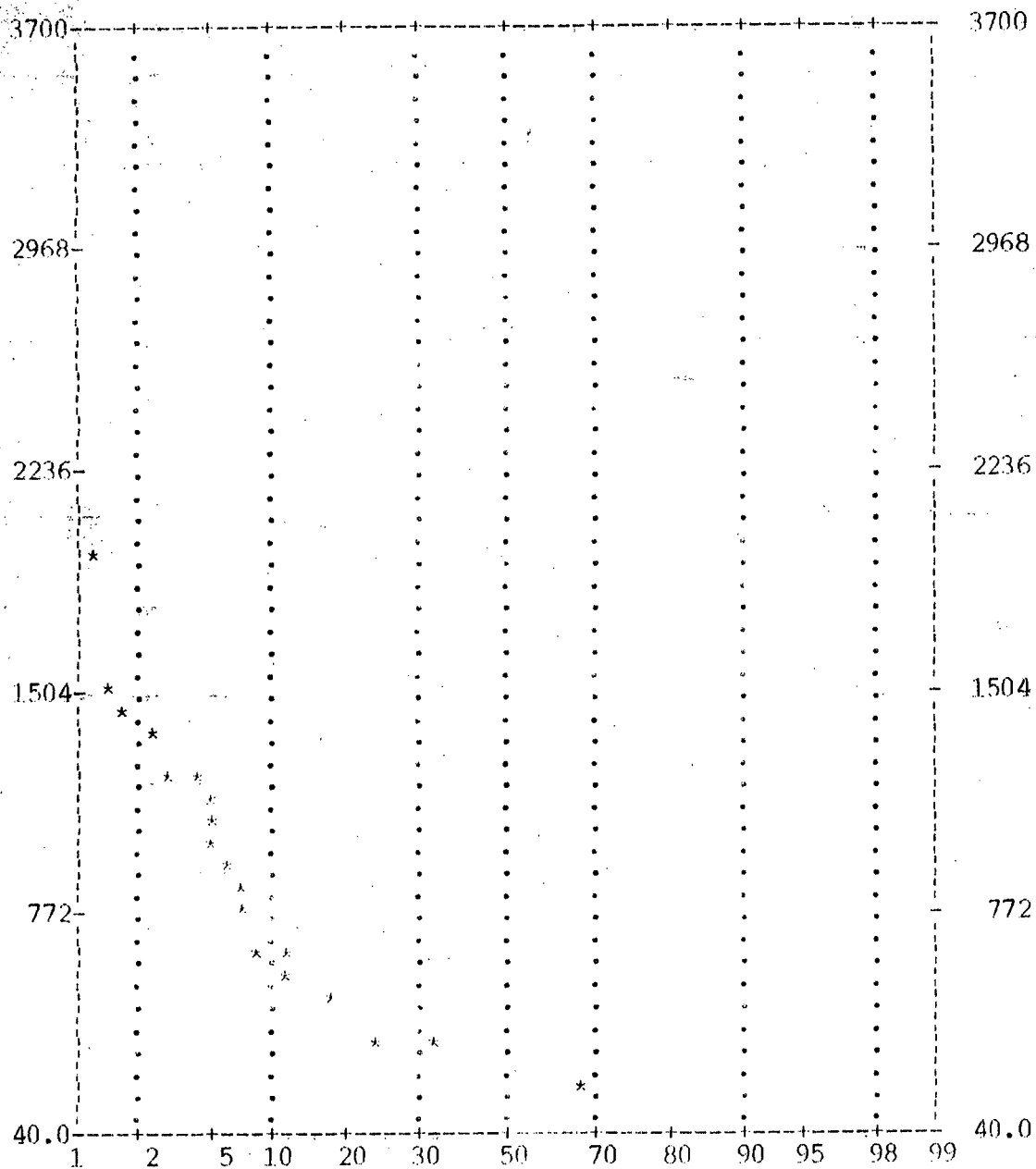
PRBPLT:  
file: lefty.90soil

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

Field name: ZN LOG =0 REPVAL = 0.00100

MIN = 40.000 MAX = 3700.0 MEAN = 255.89 STD DEV = 325.47  
 NUMBER OF DATA PLOTTED = 487 ( 1 NULLS 0 < YMIN 0 > YMAX)



CUMULATIVE FREQUENCY (PROBABILITY SCALE)

CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 3700.0  | 1    | 0.002 | 0.002    |
| 3626.8  | 0    | 0.000 | 0.002    |
| 3553.6  | 0    | 0.000 | 0.002    |
| 3480.4  | 0    | 0.000 | 0.002    |
| 3407.2  | 0    | 0.000 | 0.002    |
| 3334.0  | 0    | 0.000 | 0.002    |
| 3260.8  | 0    | 0.000 | 0.002    |
| 3187.6  | 0    | 0.000 | 0.002    |
| 3114.4  | 0    | 0.000 | 0.002    |
| 3041.2  | 0    | 0.000 | 0.002    |
| 2968.0  | 0    | 0.000 | 0.002    |
| 2894.8  | 0    | 0.000 | 0.002    |
| 2821.6  | 0    | 0.000 | 0.002    |
| 2748.4  | 1    | 0.002 | 0.004    |
| 2675.2  | 0    | 0.000 | 0.004    |
| 2602.0  | 0    | 0.000 | 0.004    |
| 2528.8  | 1    | 0.002 | 0.006    |
| 2455.6  | 0    | 0.000 | 0.006    |
| 2382.4  | 0    | 0.000 | 0.006    |
| 2309.2  | 0    | 0.000 | 0.006    |
| 2236.0  | 1    | 0.002 | 0.008    |
| 2162.8  | 0    | 0.000 | 0.008    |
| 2089.6  | 0    | 0.000 | 0.008    |
| 2016.4  | 0    | 0.000 | 0.008    |
| 1943.2  | 0    | 0.000 | 0.008    |
| 1870.0  | 3    | 0.006 | 0.014    |
| 1796.8  | 0    | 0.000 | 0.014    |
| 1723.6  | 0    | 0.000 | 0.014    |
| 1650.4  | 0    | 0.000 | 0.014    |
| 1577.2  | 0    | 0.000 | 0.014    |
| 1504.0  | 0    | 0.000 | 0.014    |
| 1430.8  | 1    | 0.002 | 0.016    |
| 1357.6  | 3    | 0.006 | 0.023    |
| 1284.4  | 3    | 0.006 | 0.029    |
| 1211.2  | 5    | 0.010 | 0.039    |
| 1138.0  | 4    | 0.008 | 0.047    |
| 1064.8  | 4    | 0.008 | 0.055    |
| 991.60  | 1    | 0.002 | 0.058    |
| 918.40  | 3    | 0.006 | 0.064    |
| 845.20  | 1    | 0.002 | 0.066    |
| 772.00  | 5    | 0.010 | 0.076    |
| 698.80  | 3    | 0.006 | 0.082    |
| 625.60  | 6    | 0.012 | 0.095    |
| 552.40  | 11   | 0.023 | 0.117    |
| 479.20  | 5    | 0.010 | 0.127    |
| 406.00  | 24   | 0.049 | 0.177    |
| 332.80  | 32   | 0.066 | 0.242    |
| 259.60  | 63   | 0.129 | 0.372    |
| 186.40  | 149  | 0.306 | 0.678    |
| 113.20  | 157  | 0.322 | 1.000    |
| 40.000  | 0    | 0.000 | 1.000    |

PRINT:

1990 LEFTY SOIL DATA

RUN ON 90:12:20 AT 7:59:45

file: lefty.90soil

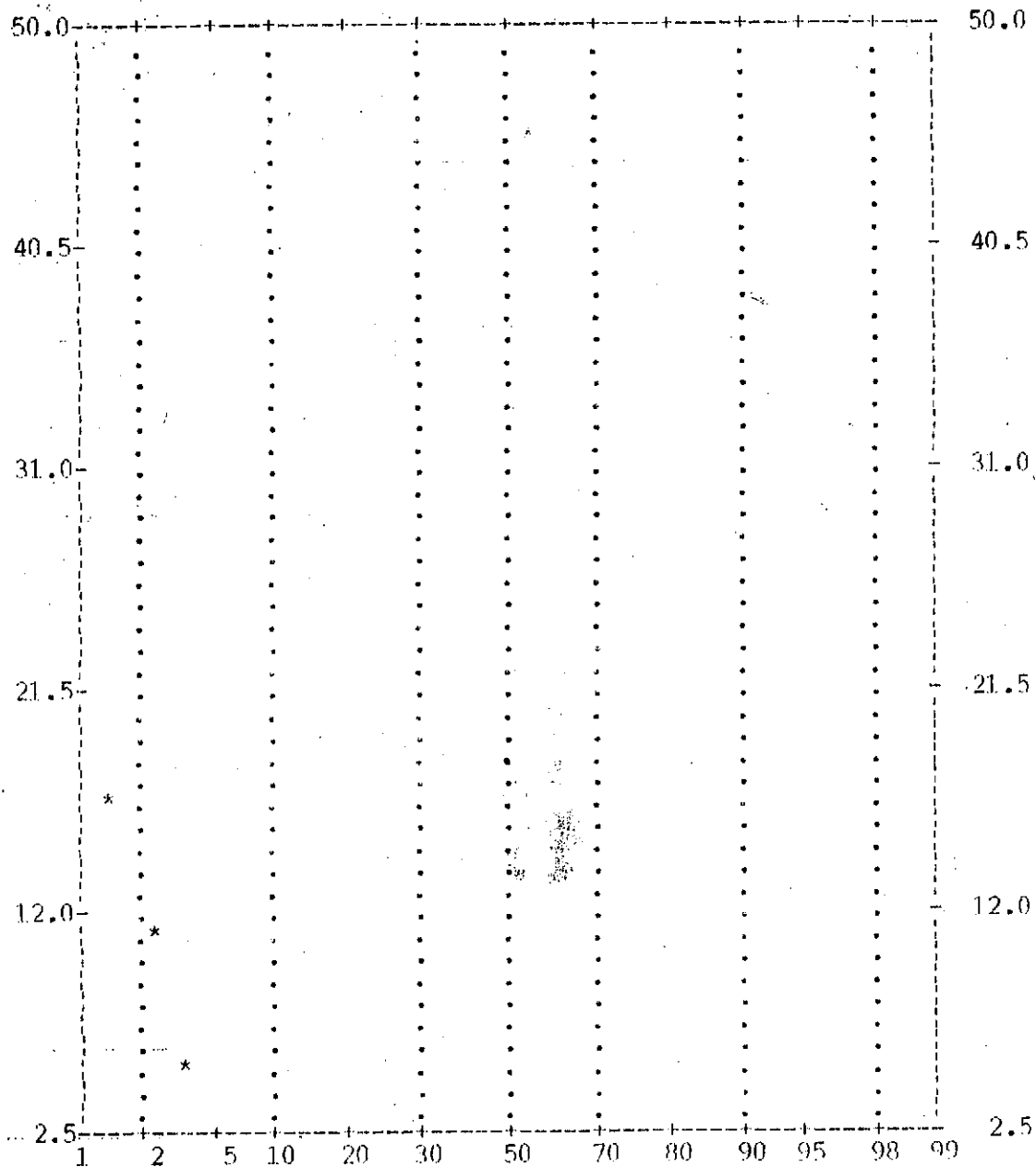
Field name: AU

LOG = 0 REPVAL = 0.00100

MIN = 2.5000 MAX = 75.000 MEAN = 2.9470 STD DEV = 2.6776  
NUMBER OF DATA PLOTTED = 481 ( 6 NULLS 0 < YMIN 1 > YMAX)

CLASSIFICATION TABLE

| Max Val | Nval | Freq  | Cum Freq |
|---------|------|-------|----------|
| 50.000  | 0    | 0.000 | 0.000    |
| 49.050  | 0    | 0.000 | 0.000    |
| 48.100  | 0    | 0.000 | 0.000    |
| 47.150  | 0    | 0.000 | 0.000    |
| 46.200  | 0    | 0.000 | 0.000    |
| 45.250  | 0    | 0.000 | 0.000    |
| 44.300  | 0    | 0.000 | 0.000    |
| 43.350  | 0    | 0.000 | 0.000    |
| 42.400  | 0    | 0.000 | 0.000    |
| 41.450  | 0    | 0.000 | 0.000    |
| 40.500  | 0    | 0.000 | 0.000    |
| 39.550  | 0    | 0.000 | 0.000    |
| 38.600  | 0    | 0.000 | 0.000    |
| 37.650  | 0    | 0.000 | 0.000    |
| 36.700  | 0    | 0.000 | 0.000    |
| 35.750  | 1    | 0.002 | 0.002    |
| 34.800  | 0    | 0.000 | 0.002    |
| 33.850  | 0    | 0.000 | 0.002    |
| 32.900  | 0    | 0.000 | 0.002    |
| 31.950  | 0    | 0.000 | 0.002    |
| 31.000  | 0    | 0.000 | 0.002    |
| 30.050  | 1    | 0.002 | 0.004    |
| 29.100  | 0    | 0.000 | 0.004    |
| 28.150  | 0    | 0.000 | 0.004    |
| 27.200  | 0    | 0.000 | 0.004    |
| 26.250  | 0    | 0.000 | 0.004    |
| 25.300  | 1    | 0.002 | 0.006    |
| 24.350  | 0    | 0.000 | 0.006    |
| 23.400  | 0    | 0.000 | 0.006    |
| 22.450  | 0    | 0.000 | 0.006    |
| 21.500  | 0    | 0.000 | 0.006    |
| 20.550  | 0    | 0.000 | 0.006    |
| 19.600  | 0    | 0.000 | 0.006    |
| 18.650  | 0    | 0.000 | 0.006    |
| 17.700  | 0    | 0.000 | 0.006    |
| 16.750  | 0    | 0.000 | 0.006    |
| 15.800  | 5    | 0.010 | 0.017    |
| 14.850  | 0    | 0.000 | 0.017    |
| 13.900  | 0    | 0.000 | 0.017    |
| 12.950  | 0    | 0.000 | 0.017    |
| 12.000  | 0    | 0.000 | 0.017    |
| 11.050  | 0    | 0.000 | 0.017    |
| 10.100  | 7    | 0.015 | 0.031    |
| 9.1500  | 0    | 0.000 | 0.031    |
| 8.2000  | 0    | 0.000 | 0.031    |
| 7.2500  | 0    | 0.000 | 0.031    |
| 6.3000  | 0    | 0.000 | 0.031    |
| 5.3500  | 7    | 0.015 | 0.046    |
| 4.4000  | 0    | 0.000 | 0.046    |
| 3.4500  | 459  | 0.954 | 1.000    |
| 2.5000  | 0    | 0.000 | 1.000    |



CUMULATIVE FREQUENCY (PROBABILITY SCALE)

FORMAT: RMON 90:12:20 AT 8:13:26

Data from file: lefty.90soil

1990 LEFTY SOIL DATA

Correlation matrix for 488 records with 7 variables

| LOG: | AG     | AS     | AU     | CU    | PB     | SB     | ZN     |
|------|--------|--------|--------|-------|--------|--------|--------|
|      | 1      | 1      | 1      | 1     | 1      | 1      | 1      |
| AG   | 1.000  | 0.022  | 0.041  | 0.348 | 0.266  | -0.019 | 0.223  |
| AS   | 0.022  | 1.000  | -0.006 | 0.171 | 0.138  | 0.232  | 0.163  |
| AU   | 0.041  | -0.006 | 1.000  | 0.008 | -0.014 | -0.024 | -0.027 |
| CU   | 0.348  | 0.171  | 0.008  | 1.000 | 0.511  | 0.019  | 0.686  |
| PB   | 0.266  | 0.138  | -0.014 | 0.511 | 1.000  | -0.058 | 0.485  |
| SB   | -0.019 | 0.232  | -0.024 | 0.019 | -0.058 | 1.000  | -0.024 |
| ZN   | 0.223  | 0.163  | -0.027 | 0.686 | 0.485  | -0.024 | 1.000  |

Number of data pairs contributing to correlation

|    | AG  | AS  | AU  | CU  | PB  | SB  | ZN  |
|----|-----|-----|-----|-----|-----|-----|-----|
| AG | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| AS | 487 | 488 | 482 | 487 | 487 | 488 | 487 |
| AU | 481 | 482 | 482 | 481 | 481 | 482 | 481 |
| CU | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| PB | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| SB | 487 | 488 | 482 | 487 | 487 | 488 | 487 |
| ZN | 487 | 487 | 481 | 487 | 487 | 487 | 487 |

COMBAT: R... ON 90:12:20 AT 8:13:26

Data from file: lefty.90soil

1990 LEFTY SOIL DATA

Correlation matrix for 488 records with 7 variables

| LOG: | AG    | AS     | AU     | CU     | PB     | SB     | ZN     |
|------|-------|--------|--------|--------|--------|--------|--------|
|      | 0     | 0      | 0      | 0      | 0      | 0      | 0      |
| AG   | 1.000 | 0.103  | 0.027  | 0.141  | 0.149  | 0.015  | 0.168  |
| AS   | 0.103 | 1.000  | -0.010 | 0.062  | 0.031  | 0.635  | 0.055  |
| AU   | 0.027 | -0.010 | 1.000  | -0.017 | -0.015 | -0.016 | -0.031 |
| CU   | 0.141 | 0.062  | -0.017 | 1.000  | 0.256  | -0.010 | 0.378  |
| PB   | 0.149 | 0.031  | -0.015 | 0.256  | 1.000  | -0.049 | 0.299  |
| SB   | 0.015 | 0.635  | -0.016 | -0.010 | -0.049 | 1.000  | -0.031 |
| ZN   | 0.168 | 0.055  | -0.031 | 0.378  | 0.299  | -0.031 | 1.000  |

Number of data pairs contributing to correlation

|    | AG  | AS  | AU  | CU  | PB  | SB  | ZN  |
|----|-----|-----|-----|-----|-----|-----|-----|
| AG | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| AS | 487 | 488 | 482 | 487 | 487 | 488 | 487 |
| AU | 481 | 482 | 482 | 481 | 481 | 482 | 481 |
| CU | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| PB | 487 | 487 | 481 | 487 | 487 | 487 | 487 |
| SB | 487 | 488 | 482 | 487 | 487 | 488 | 487 |
| ZN | 487 | 487 | 481 | 487 | 487 | 487 | 487 |