

VICTORIA

87-680-16510



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) GEOCHEMICAL	TOTAL COST \$3,681.50
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AUTHOR(S) J.A. Fleming SIGNATURE(S) *J.A. Fleming*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED July 20, 1987 YEAR OF WORK 1987

PROPERTY NAME(S) RUPERT

COMMODITIES PRESENT

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION NANAIMO NTS 92L / 11W

LATITUDE 50° 35' 48" LONGITUDE 127° 24' 42"

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

Spam 28 Fr, Car 12, Expo 30-32, Expo 51, Expo 1 Fr, Expo 53-56, Rupert 1,2,4, Rupert 6 Fr, Rupert 9, Rupert 10 Fr, Rupert 11-13, Rupert 15, Rupert 18, Jim 10, Jim 12, Jim 14, Jim 16, Sun (20 units) Mary (16 units) Moon (16 units) Val (4 units) Snafu (12 units); R2-5; Dog #1; #2.

OWNER(S) (1) UTAH MINES LTD. (2) Gordon Milbourne

MAILING ADDRESS Box 370 Port Hardy, B.C. V0N 2P0 c/o Ladner Downs 2100 - 700 W. Georgia Street Vancouver, B.C.

OPERATOR(S) (that is, Company paying for the work) (1) Utah Mines Ltd. GEOLOGICAL BRANCH ASSESSMENT REPORT

MAILING ADDRESS Box 370 Port Hardy, B.C. V0N 2P0

16,510

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): The Upper Triassic and Lower Jurassic volcanic and sedimentary succession of the Vancouver and Bonanza Groups underlie the area. The Jurassic porphyritic granodioritic Rupert Stock underlies the southern half of the survey area with the contact south of hole R-17 which intersected Parson Bay sediments. Two main anomaly groupings resulted from the survey with predominately base metal, multielement anomalies the west side around hole R-17 and single element base metal and gold anomalies on the east side of the survey area. A nearby source of the anomalies associated with the Rupert Stock boundary is suggested.

REFERENCES TO PREVIOUS WORK

FILMED

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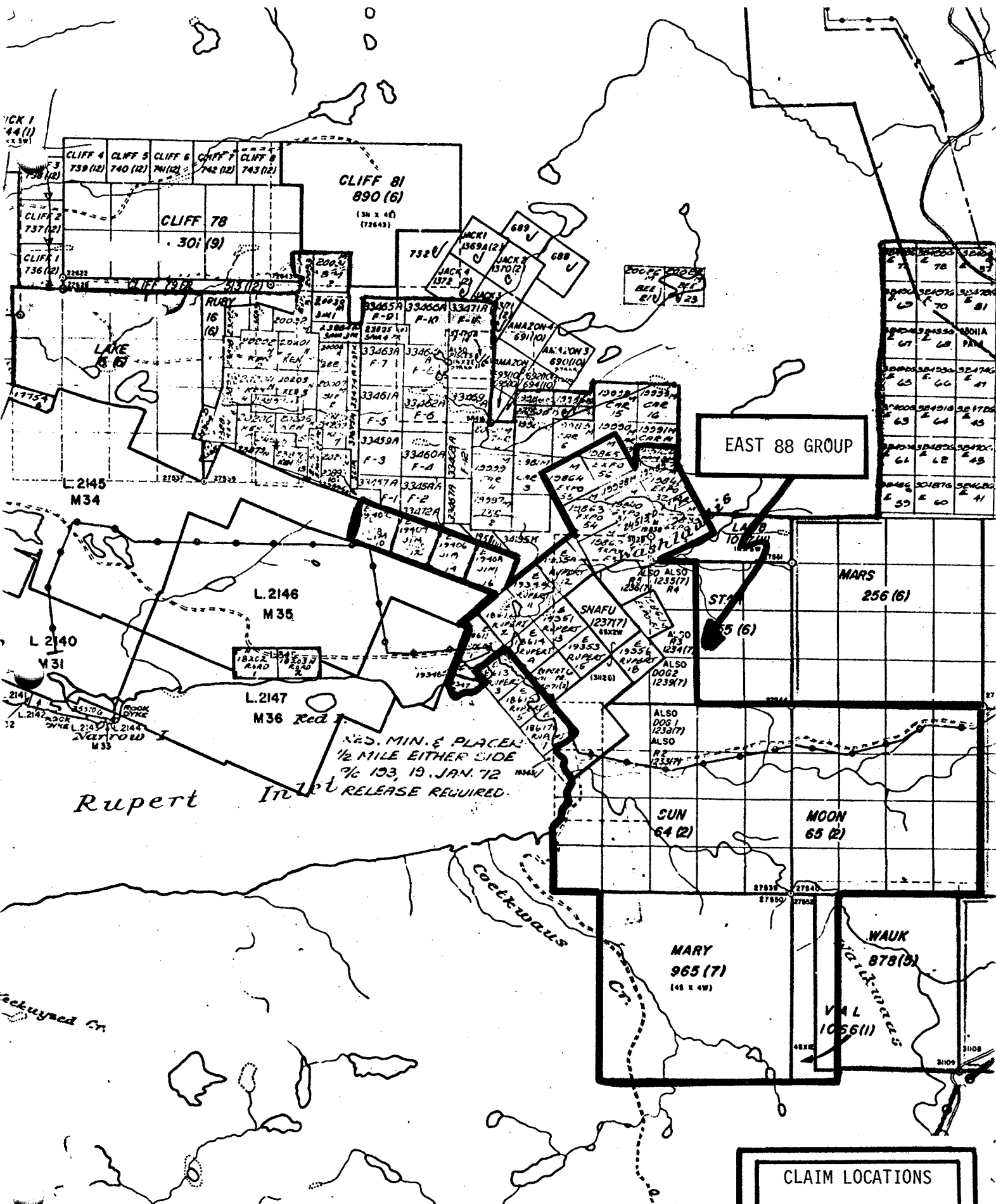
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ACTION:

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EAST 88 GROUP

RED. MIN. & PLACER
 1/2 MILE EITHER SIDE
 OF 193, 19 JAN. 72
 RELEASE REQUIRED

CLAIM LOCATIONS
 EAST 88 GROUP
 BASE MAP: 92L11W

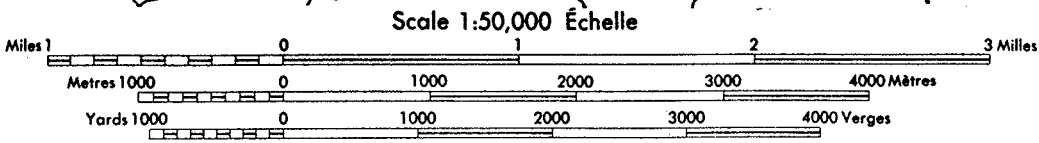


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1.0 INTRODUCTION

Between July 25 and May 5, 1987, a two-person sampling crew spent four crew-days collecting soil samples from flag lines and a cat trail in the East 88 group of claims, east of Rupert Inlet. This was a soil sampling program to follow up moly, zinc and gold anomalies from previous sampling in the area. The reddish-brown soil underlying the organic cover was sampled where possible. A sample was also collected if that horizon could not be reached or was absent. Samples were collected at stations set 30.5 meters apart. A total of 124 samples were collected and given a 30 Element ICP analysis and geochem (AA) analysis for gold. In addition samples from line 13W which were collected in 1985 and which were not assayed at that time (only alternate 100 foot station samples had been routinely assayed) were submitted for analysis. The objective of the survey was to refine the base metal geochemical anomalies on which drill hole R-17 was based (Assessment Report #1125-14393) and try to evaluate some unreplicated anomalous gold assays from several rock samples collected previously in the area east of the R-17 hole site.

2.0 LOCATION AND ACCESS

The survey area is located in the Nanaimo Mining Division with co-ordinates 50 35'N and 127 24'W. It is located on the NTS map sheet 92L/11W and borders on claims contiguous with the Utah Mines Ltd. mineral leases some 8 km south of Port Hardy. Access is provided part way by paved highway from Port Hardy and the remainder by logging roads suitable for two wheel drive vehicles.

3.0 CLIMATE

Precipitation at the Port Hardy airport is normally about 160 cm per year including 42 cm of snow. Minimum and maximum temperatures are usually in the range of -12 and 27 C.

4.0 GEOLOGY

The Upper Triassic and Lower Jurassic sedimentary and volcanic succession of the Vancouver and Bonanza Groups respectively, and the Jurassic "Rupert" Stock underlie the area east of Rupert Inlet. The succession strikes

4.0 GEOLOGY (cont'd)

approximately west-northwest and dips gently southward becoming younger to the south. From south to north the formations are: (1) Bonanza Volcanics andesitic tuffs and flows underlain by (2) Parson Bay calcareous siltstone with interbedded shales and andesitic and cherty tuffs, and limestone with shaley interbeds underlain by (3) Quatsino limestone and (4) Karmutsen amygdaloidal basalt flows. The Rupert Stock underlies the northwest corner of Rupert Inlet and the uplands cutting the Bonanza Volcanics. It is a porphyritic granodiorite.

5.0 PHYSIOGRAPHY AND VEGETATION

a) Topography and Landscape

The area is in the coastal lowland of the Suquash Basin forming part of the Nahwitti Lowlands of the Central Trough physiographic subdivision. The area is characterized by rounded, gently rolling hills with a maximum relief of about 125 meters. Washlawlis Hill, to the northeast of the survey area, has an elevation of 173 meters.

b) Drainage

i) Stream Drainage

No major streams cross the survey area. Washlawlis Creek and tributaries drain west to the north of the survey area with a low gradient, into Rupert Inlet.

ii) Lakes

No lakes occur in the area. Rupert Inlet lies immediately to the west of the area.

iii) Bogs

Little marshy ground occurs in the survey area, as indicated on the field notes.

c) Overburden, Soils and Vegetation

i) Overburden

The area has a variable cover of glacial till, peat and moss. Outcrop exposure in the area is sparse. Overburden thickness over the survey area is unknown, but probably exceeds 15 meters. Drill holes R -17 and hole C - 314 have 6.1 meters and 0.3 meters of overburden respectively. The overburden is very thin along most of the line of ORB samples)

5.0 PHYSIOGRAPHY AND VEGETATION (cont'd)

c) Overburden, Soils and Vegetation (cont'd)

ii) Soil Development

The B horizon is well developed on the North Island, but it is not always possible to observe because of the accumulation of organic waste which varies from forest litter to well fermented material.

iii) Vegetation

The vegetation consists mainly of coniferous, virgin forest.

6.0 SAMPLE COLLECTION AND PREPARATION

a) Collection

i) Sampling Plan

Samples were collected using a narrow trenching shovel at stations spaced at 30.5 or 61 meter intervals along the flagged lines and roads.

ii) Sample Medium Collected

The objective was to sample, whenever possible, the reddish-brown soil underlying the organic cover. Roots, twigs and leaves were avoided, as much as possible. If the sought horizon could not be reached, or was not present, a sample of the available material was taken and the horizon recorded.

iii) Sample Collection

About 50 to 60 grams of soil were collected at each station and placed in kraft paper envelopes.

iv) Sample Handling

Samples were dried in a drying oven at a temperature of 80 C for about 12 hours for drying prior to shipping to lab.

6.0 SAMPLE COLLECTIONS AND PREPARATION (cont'd)

b) Laboratories

The samples were sent to either Chemex or Acme labs in Vancouver as indicated on the assay sheets for 30 element ICP analysis and ppb geochem gold analysis. Assay sheets are included in Appendix A.

c) Sample Analysis

Methods of sample analysis are provided in Appendix A with the assay sheets.

d) Data Handling

Cumulative probability plots were computer generated for Cu, Mo, Pb, Zn, Ag, Au, As and Mn which were deemed to be the most useful for interpretation. Assays below detection limits were not included in the statistical analysis. These assays probably constitute a separate population. Assays are included in Appendix A. The probability curves for copper, moly, lead, zinc arsenic and manganese (Appendix C) suggest the presence of more than one data population, but do not allow partitioning. The curves for silver and gold suggest single populations. In all cases, the threshold and high anomaly levels were selected at the 95% and 98% cumulative probability levels, respectively. The thresholds selected are all higher than those selected on previous surveys around this area with some appreciably higher. However, they appear to be part of a higher background population. This makes the area anomalous with respect to the surrounding area, but limits the number of credited anomalies within the area.

TABLE 1: STATISTICAL PARAMETERS

NAME	# OF VALUES	ARITHMETIC (ppm)		THRESHOLDS (ppm)	
		MEAN	RANGE	LOW	HIGH
Cu	143	45.0	5 - 159	90	130
Mo	45	6.8	1 - 43	10	30
Pb	135	13.9	2 - 79	30	50
Zn	143	83.3	7 - 1695	270	570
Ag	40	0.5	.1 - 1.5	1.0	1.4
Au	31	(ppb) 17.9	5 - 75	50	70
As	72	25.2	2 - 192	90	150
Mn	143	751.7	8 - 7010	2000	3500

The assay values for the above elements are plotted on the 1:2400 scale maps. The station symbols are sized according to the threshold levels the assays fall in.

7.0 RESULTS

The east and west sides of the survey area produced different anomaly patterns. The east lines had scattered, single element (Pb, Zn, Au, Mn) anomalies while the west side is characterized by a grouping of multiple element anomalies. The assays are generally higher (except for gold) in the west area. The lead and manganese assays are the only ones to define an east-west bridge between the east and west groupings.

In the east area the gold anomaly of 75 ppb at 17W43N, with the highest zinc assay in the survey of 1695 ppm, is bounded by single station above background gold assays of 35 ppb on lines 13W and 21W. A series of gold assays of 20 to 55 ppb gold occur on line 17W 31N - 35N but without anomalies on the adjacent lines. The east area contains no copper or moly anomalies.

Two main groupings of anomalies occur in the west area. One group of strongest anomalies occurs around and at the R-17 drill hole site on which basis the hole was drilled. It is distinguished from the second group by having silver and arsenic anomalies. The second group occurs to the south of R-17. It is characterized by a series of moly - zinc anomalies along the old road (ORB #'s 6, 7 & 8). Copper, moly, lead, zinc, arsenic and manganese anomalies occur in the two areas with sub-anomaly level assays between the two areas. The west area has no gold anomalies with only one assay above detection level.

8.0 DISCUSSION

The higher assay values in the west area may in part reflect a thinner overburden cover. However, the number of multi element anomalies detected in the west area suggest that a nearby mineral source exists even though hole R-17, which was drilled previously in the center of the strongest anomalies from the initial survey, encountered unaltered Parson Bay sedimentary rocks. The gold anomalies in the east area may be zoned around the same source that causes the west area anomalies.

9.0 RECOMMENDATIONS

Additional drilling is required to intersect the Rupert Stock south of R-17 to determine if economic mineralization is present. However, some detailed sampling of the soil profile in the west area should be done to help determine direction to the source. Additional sampling for gold east of line 13W is recommended to determine if the gold anomalies can be extended.

10.0 COST STATEMENT

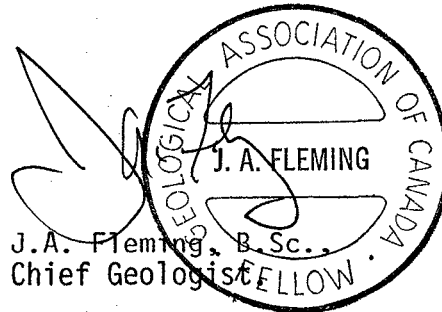
ASSAYS	(Chemex) 23 samples @ \$14.82	\$ 340.86
	(Chemex) 67 samples @ \$14.61	\$ 1008.00
	(Acme) 32 samples @ \$ 6.75	\$ 216.00
	(Chemex) 19 samples (13W) @ \$14.82	\$ 281.58
COLLECTION	4 days (2 person crew) @ \$216/day	\$ 864.00
SUPERVISION		\$ 100.00
OVERHEAD	25% supervision & labour	\$ 241.00
VEHICLE	4 days @ \$20.00	\$ 80.00
SUPPLIES	Flagging, tags, bags	\$ 50.06
REPORT WRITING		\$ <u>500.00</u>
TOTAL		\$ 3,681.50

Note: The 19 samples from line 13W were assayed but not collected in the reporting period. Therefore the assay costs are submitted for the PAC account rather than for assessment credit.

STATEMENT OF QUALIFICATIONS

I submit that I am qualified to prepare and present this report for assessment credit. My qualifications are as follows:

- 1) I have a B.Sc., (Major Geology) 1971 from McGill University.
- 2) I have been employed as a geologist continuously since June, 1968, and am presently Chief Geologist, Island Copper Mine, Utah Mines Ltd.
- 3) I have been a Fellow of the Geological Association of Canada since 1974.



Island Copper Mine,
Utah Mines Ltd.



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A871098

To: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2PO

Page No. 1-A
 Tot. Pages: 2
 Date: 05-MAY-87
 Invoice #: I-8713998
 P.O. #: NONE

Project: ICM #52791 ACCT#57
 Comments:

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
L13W 40N	214 238	3.04	< 0.2	< 5	30	< 0.5	< 2	0.32	< 0.5	2	64	28	7.94	30	< 1	< 0.01	< 10	0.15	151	< 1
L13W 42N	214 238	4.74	< 0.2	< 5	30	< 0.5	< 2	0.43	< 0.5	6	74	24	6.98	20	< 1	< 0.01	10	0.16	366	< 1
L13W 44N	214 238	4.77	< 0.2	< 5	20	< 0.5	< 2	0.58	< 0.5	12	73	37	5.49	10	< 1	< 0.01	10	0.23	395	< 1
L13W 46N	214 238	5.23	< 0.2	< 5	20	< 0.5	< 2	0.67	< 0.5	12	77	50	5.38	10	< 1	< 0.01	10	0.31	420	< 1
L13W 48N	214 238	2.51	0.2	< 5	40	< 0.5	< 2	0.89	< 0.5	34	49	37	1.43	10	< 1	< 0.01	10	0.26	1110	1
L13W 50N	214 238	3.99	< 0.2	< 5	10	< 0.5	< 2	0.32	< 0.5	3	81	37	7.80	20	< 1	< 0.01	< 10	0.13	156	< 1
L13W 52N	214 238	5.44	< 0.2	< 5	20	< 0.5	< 2	0.53	< 0.5	12	74	41	6.11	10	< 1	< 0.01	10	0.23	190	< 1
L13W 54N	214 238	4.72	< 0.2	< 5	20	< 0.5	< 2	0.55	< 0.5	11	76	43	5.53	10	< 1	< 0.01	10	0.24	260	< 1
L13W 56N	214 238	3.66	< 0.2	< 5	20	< 0.5	2	0.50	< 0.5	10	71	35	2.89	20	< 1	< 0.01	10	0.28	519	< 1
L13W 58N	214 238	4.59	< 0.2	< 5	20	< 0.5	4	0.47	< 0.5	9	69	31	5.16	20	< 1	< 0.01	10	0.23	227	< 1
L13W 60N	214 238	2.13	< 0.2	< 5	10	< 0.5	< 2	0.43	< 0.5	2	76	19	1.60	20	< 1	< 0.02	< 10	0.22	130	< 1
L13W 62N	214 238	0.89	< 0.2	< 5	20	< 0.5	< 2	0.45	< 0.5	< 1	32	12	4.40	20	< 1	< 0.01	< 10	0.11	127	< 1
L13W 64N	214 238	3.89	< 0.2	< 5	10	< 0.5	< 2	0.45	< 0.5	7	61	36	5.20	10	< 1	< 0.01	10	0.18	170	< 1
L13W 66N	214 238	5.22	< 0.2	< 5	10	< 0.5	< 2	0.53	0.5	6	84	37	6.10	10	< 1	< 0.01	10	0.26	194	< 1
L13W 68N	214 238	5.27	< 0.2	< 5	20	< 0.5	< 2	0.60	0.5	11	85	41	6.69	< 10	< 1	< 0.01	10	0.27	227	< 1
L13W 70N	214 238	4.36	< 0.2	< 5	20	< 0.5	< 2	0.51	< 0.5	11	78	31	6.20	10	< 1	< 0.01	10	0.20	411	< 1
L13W 72N	214 238	2.84	0.4	< 5	30	< 0.5	2	0.54	< 0.5	15	51	32	4.52	10	< 1	< 0.01	10	0.25	2460	< 1
L13W 74N	214 238	1.34	< 0.2	< 5	40	< 0.5	2	0.63	< 0.5	10	34	22	2.70	20	< 1	< 0.01	10	0.17	408	< 1
L13W 76N	214 238	5.17	< 0.2	< 5	10	< 0.5	2	0.51	< 0.5	6	75	39	4.38	10	< 1	< 0.01	10	0.26	223	< 1
L17W 46N	214 238	3.24	< 0.2	< 5	10	< 0.5	2	0.53	< 0.5	5	54	24	4.69	20	< 1	< 0.01	< 10	0.14	195	< 1
L17W 47N	214 238	0.27	< 0.2	< 5	30	< 0.5	< 2	0.13	< 0.5	< 1	6	5	0.23	< 10	< 1	< 0.01	< 10	0.07	13	< 1
L17W 48N	214 238	2.94	< 0.2	< 5	30	< 0.5	< 2	0.79	< 0.5	13	69	35	2.77	10	< 1	< 0.01	10	0.32	368	< 1
L17W 49N	214 238	3.72	< 0.2	< 5	10	< 0.5	2	0.53	0.5	7	58	31	4.67	20	< 1	< 0.01	10	0.23	262	< 1
L17W 50N	214 238	5.93	< 0.2	< 5	20	< 0.5	< 2	0.52	< 0.5	11	83	48	4.82	10	< 1	< 0.01	10	0.24	332	< 1
L17W 51N	214 238	2.21	< 0.2	< 5	10	< 0.5	< 2	0.31	< 0.5	< 1	61	20	3.23	30	1	< 0.01	< 10	0.09	82	< 1
L17W 52N	214 238	2.58	< 0.2	< 5	50	< 0.5	< 2	0.36	< 0.5	47	53	30	6.65	10	< 1	< 0.01	10	0.16	4510	< 1
L17W 53N	214 238	4.65	< 0.2	< 5	30	< 0.5	< 2	0.53	< 0.5	13	75	127	3.71	10	< 1	< 0.01	10	0.25	513	< 1
L17W 54N	214 238	2.96	< 0.2	< 5	30	< 0.5	< 2	0.41	< 0.5	19	53	29	5.81	20	< 1	< 0.01	< 10	0.12	871	< 1
L21W 43N	214 238	4.44	< 0.2	< 5	20	< 0.5	< 2	0.40	< 0.5	9	62	41	5.09	20	< 1	< 0.01	10	0.19	310	< 1
L21W 44N	214 238	1.21	0.2	< 5	20	< 0.5	2	0.25	< 0.5	4	35	26	2.88	10	< 1	< 0.02	< 10	0.14	134	< 1
L21W 45N	214 238	4.76	< 0.2	< 5	40	< 0.5	< 2	0.25	0.5	5	62	47	6.03	20	< 1	< 0.01	10	0.17	204	< 1
L21W 46N	214 238	2.54	< 0.2	< 5	100	< 0.5	< 2	0.70	< 0.5	19	45	34	3.40	10	< 1	< 0.03	10	0.52	5240	2
L21W 47N	214 238	5.93	0.2	< 5	30	< 0.5	2	0.38	0.5	11	70	68	5.76	10	< 1	< 0.01	10	0.24	408	< 1
L21W 48N	214 238	2.62	< 0.2	< 5	30	< 0.5	2	0.25	0.5	3	54	33	6.29	20	< 1	< 0.01	< 10	0.15	200	< 1
L21W 49N	214 238	3.81	< 0.2	< 5	20	< 0.5	< 2	0.35	< 0.5	8	58	34	4.95	20	< 1	< 0.01	10	0.18	196	< 1
L21W 50N	214 238	0.35	< 0.2	< 5	100	< 0.5	< 2	0.27	< 0.5	3	8	6	0.76	< 10	< 1	< 0.02	< 10	0.13	43	< 1
L21W 51N	214 238	0.20	< 0.2	< 5	30	< 0.5	< 2	1.67	< 0.5	< 1	4	10	0.32	< 10	< 1	< 0.01	< 10	0.11	383	1
L25W 42N	214 238	2.88	< 0.2	15	40	< 0.5	< 2	0.31	< 0.5	16	155	86	9.40	20	< 1	< 0.01	< 10	0.41	595	< 1
L25W 43N	214 238	5.19	< 0.2	< 5	30	< 0.5	< 2	0.39	0.5	10	69	54	5.65	10	< 1	< 0.01	10	0.19	367	< 1
L25W 44N	214 238	2.02	0.2	< 5	110	< 0.5	2	1.13	< 0.5	18	40	32	3.03	10	< 1	< 0.02	10	0.54	924	< 1

CERTIFICATION :



Chemex Labs Ltd.

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CERTIFICATE OF ANALYSIS A871098

To: UTAH MINES LIMITED
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 PORT HARDY, B.C.
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Page No. : 1-B
 Tot. Pages: 2
 Date : 05-MAY-87
 Invoice # : I-8713998
 P.O. # : NONE

Project : ICM #52791 ACCT#57
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm					
L13W 40N	214 238	0.01	11	350	24	< 5	< 10	19	0.66	< 10	< 10	265	< 5	18					
L13W 42N	214 238	0.01	9	380	26	< 5	< 10	22	0.44	< 10	< 10	179	< 5	20					
L13W 44N	214 238	0.02	14	380	24	< 5	< 10	28	0.42	< 10	< 10	187	< 5	28					
L13W 46N	214 238	0.02	17	420	24	< 5	< 10	30	0.43	< 10	< 10	173	< 5	32					
L13W 48N	214 238	0.01	13	810	12	< 5	< 10	36	0.29	< 10	< 10	94	5	22					
L13W 50N	214 238	0.01	5	300	16	< 5	< 10	16	0.53	< 10	< 10	217	< 5	16					
L13W 52N	214 238	0.02	16	240	24	< 5	< 10	25	0.35	< 10	< 10	169	< 5	26					
L13W 54N	214 238	0.02	13	330	18	< 5	< 10	30	0.39	< 10	< 10	178	< 5	24					
L13W 56N	214 238	0.01	11	420	24	< 5	< 10	31	0.46	< 10	< 10	128	< 5	20					
L13W 58N	214 238	0.01	10	180	18	< 5	< 10	25	0.41	< 10	< 10	160	< 5	18					
L13W 60N	214 238	0.01	6	160	14	< 5	< 10	35	0.42	< 10	< 10	115	< 5	18					
L13W 62N	214 238	0.01	5	130	16	< 5	< 10	24	0.46	< 10	< 10	228	< 5	8					
L13W 64N	214 238	0.01	13	180	14	< 5	< 10	21	0.29	< 10	< 10	160	< 5	22					
L13W 66N	214 238	0.01	12	260	16	< 5	< 10	24	0.35	< 10	< 10	165	< 5	16					
L13W 68N	214 238	0.02	16	190	24	< 5	< 10	25	0.37	< 10	< 10	205	5	28					
L13W 70N	214 238	0.01	10	400	18	< 5	< 10	26	0.53	< 10	< 10	196	< 5	30					
L13W 72N	214 238	0.01	16	460	22	< 5	< 10	23	0.34	< 10	< 10	139	< 5	36					
L13W 74N	214 238	0.01	11	450	10	< 5	< 10	30	0.32	< 10	< 10	115	< 5	18					
L13W 76N	214 238	0.01	12	310	20	< 5	< 10	19	0.45	< 10	< 10	170	< 5	28					
L17W 46N	214 238	0.01	8	360	18	< 5	< 10	21	0.42	< 10	< 10	170	< 5	20					
L17W 47N	214 238	0.02	3	400	4	< 5	< 10	40	0.02	< 10	< 10	7	< 5	10					
L17W 48N	214 238	0.02	15	660	18	< 5	< 10	35	0.35	< 10	< 10	105	< 5	36					
L17W 49N	214 238	0.02	9	460	12	< 5	< 10	24	0.45	< 10	< 10	168	< 5	24					
L17W 50N	214 238	0.02	16	380	26	< 5	< 10	20	0.48	< 10	< 10	178	< 5	30					
L17W 51N	214 238	0.01	5	210	14	< 5	< 10	14	0.57	< 10	< 10	162	< 5	10					
L17W 52N	214 238	0.01	10	600	18	< 5	< 10	18	0.37	< 10	< 10	174	< 5	34					
L17W 53N	214 238	0.01	24	810	16	< 5	< 10	20	0.39	< 10	< 10	129	< 5	46					
L17W 54N	214 238	0.01	9	260	22	< 5	< 10	20	0.49	< 10	< 10	202	< 5	22					
L21W 43N	214 238	0.01	11	510	10	< 5	< 10	17	0.46	< 10	< 10	172	< 5	32					
L21W 44N	214 238	0.01	6	570	6	< 5	< 10	14	0.25	< 10	< 10	100	< 5	28					
L21W 45N	214 238	0.01	10	460	18	< 5	< 10	15	0.47	< 10	< 10	190	< 5	36					
L21W 46N	214 238	0.03	26	630	14	< 5	< 10	33	0.23	< 10	< 10	115	< 5	58					
L21W 47N	214 238	0.01	14	630	24	< 5	< 10	16	0.44	< 10	< 10	180	< 5	50					
L21W 48N	214 238	0.01	8	340	22	< 5	< 10	15	0.48	< 10	< 10	259	< 5	30					
L21W 49N	214 238	0.01	12	510	16	< 5	< 10	21	0.43	< 10	< 10	166	< 5	32					
L21W 50N	214 238	0.01	2	380	4	< 5	< 10	29	0.05	< 10	< 10	43	< 5	18					
L21W 51N	214 238	0.01	2	450	2	< 5	< 10	93	< 0.01	< 10	< 10	9	< 5	24					
L25W 42N	214 238	0.01	15	940	34	< 5	< 10	15	0.57	< 10	< 10	456	< 5	38					
L25W 43N	214 238	0.01	10	530	24	< 5	< 10	18	0.47	< 10	< 10	191	< 5	34					
L25W 44N	214 238	0.03	17	650	6	< 5	< 10	60	0.24	< 10	< 10	96	< 5	46					

CERTIFICATION : B. C. J.



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CERTIFICATE OF ANALYSIS A871097

To: UTAH MINES LIMITED
ISLAND COPPER MINES
BOX 370
PORT HARDY, B.C.
VON 2P0

Page No. : 1
Tot. Pages: 2
Date : 05-MAY-87
Invoice # : I-8713997
P.O. # : NONE

Project : ICM #52791 ACCT#57
Comments:

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA											
L13W 40N	201	---	<	5									
L13W 42N	201	---	<	5									
L13W 44N	201	---	<	5									
L13W 46N	201	---	<	5									
L13W 48N	201	---	<	20									
L13W 50N	201	---	<	5									
L13W 52N	201	---	<	5									
L13W 54N	201	---	<	5									
L13W 56N	201	---	<	5									
L13W 58N	201	---	<	5									
L13W 60N	201	---	<	35									
L13W 62N	201	---	<	5									
L13W 64N	201	---	<	5									
L13W 66N	201	---	<	5									
L13W 68N	201	---	<	5									
L13W 70N	201	---	<	5									
L13W 72N	201	---	<	5									
L13W 74N	201	---	<	10									
L13W 76N	201	---	<	5									
L17W 46N	201	---	<	5									
L17W 47N	201	---	<	5									
L17W 48N	201	---	<	5									
L17W 49N	201	---	<	5									
L17W 50N	201	---	<	5									
L17W 51N	201	---	<	5									
L17W 52N	201	---	<	5									
L17W 53N	201	---	<	5									
L17W 54N	201	---	<	5									
L21W 43N	201	---	<	5									
L21W 44N	201	---	<	35									
L21W 45N	201	---	<	5									
L21W 46N	201	---	<	5									
L21W 47N	201	---	<	5									
L21W 48N	201	---	<	5									
L21W 49N	201	---	<	5									
L21W 50N	201	---	<	5									
L21W 51N	201	---	<	5									
L25W 42N	201	---	<	5									
L25W 43N	201	---	<	5									
L25W 44N	201	---	<	5									

CERTIFICATION : Hart Buchler



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CERTIFICATE OF ANALYSIS A871098

To: UTAH MINES LIMITED
ISLAND COPPER MINES
BOX 370
PORT HARDY, B.C.
VON 2P0

Page No. : 2-A
Tot. Pages: 2
Date : 05-MAY-87
Invoice # : I-8713998
P.O. # : NONE

Project : ICM #52791 ACCT#57
Comments :

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
L25W 45N	214 238	0.33	< 0.2	< 5	30	< 0.5	2	0.66	< 0.5	10	11	26	1.82	< 10	< 1	0.07	< 10	0.10	566	1
L25W 46N	214 238	0.12	< 0.2	< 5	20	< 0.5	2	0.66	< 0.5	< 1	2	5	0.08	< 10	< 1	0.02	< 10	0.07	49	< 1

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CERTIFICATE OF ANALYSIS A871 98

To: UTAH MINES LIMITED
ISLAND COPPER MINES
BOX 370
PORT HARDY, B.C.
VON 2P0

Page No. : 2-B
Tot. Pages: 2
Date : 05-MAY-87
Invoice # : I-8713998
P.O. # : NONE

Project : ICM #52791 ACCT#57
Comments:

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm						
L2SW 45N	214 238	0.01	3	580	6	< 5	< 10	44	0.04	< 10	< 10	20	< 5	64						
L2SW 46N	214 238	0.01	1	420	< 2	< 5	10	26	< 0.01	< 10	< 10	2	< 5	18						

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CERTIFICATE OF ANALYSIS A871097

To: UTAH MINES LIMITED
ISLAND COPPER MINES
BOX 370
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Page No. : 2
Tot. Pages: 2
Date : 05-MAY-87
Invoice # : I-8713997
P.O. # : NONE

Project : ICM #52791 ACCT#57
Comments:

SAMPLE DESCRIPTION	PREP CODE		Au ppb									
			FA+AA									
L25W 45N	201	--	< 5									
L25W 46N	201	--	< 5									

CERTIFICATION : Hart Buchler



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CERTIFICATE OF ANALYSIS A871 22

To: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2P0

Page No. : 1-A
 Tot. Pages: 2
 Date : 16-APR-87
 Invoice #: I-8713322
 P.O. #: 13132

Project :
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
L17W 24N	214 238	5.07	< 0.2	< 5	20	< 0.5	< 2	0.51	0.5	19	71	89	4.98	< 10	1	< 0.01	10	0.27	511	< 1
L17W 25N	214 238	5.87	< 0.2	10	20	< 0.5	< 2	0.43	< 0.5	16	83	81	6.16	< 10	2	< 0.01	< 10	0.23	426	< 1
L17W 26N	214 238	2.76	< 0.2	< 5	30	< 0.5	< 2	0.56	< 0.5	4	56	41	4.82	< 10	2	< 0.01	< 10	0.24	181	< 1
L17W 27N	214 238	2.58	< 0.2	< 5	20	< 0.5	< 2	0.25	< 0.5	5	58	41	6.68	< 10	1	< 0.01	< 10	0.09	162	< 1
L17W 28N	214 238	2.04	< 0.2	< 5	40	< 0.5	< 2	0.73	< 0.5	13	35	38	1.16	< 10	1	< 0.01	10	0.28	188	< 1
L17W 29N	214 238	4.02	< 0.2	< 5	10	< 0.5	< 2	0.48	0.5	8	63	54	4.11	< 10	2	< 0.01	10	0.23	151	< 1
L17W 30N	214 238	5.30	< 0.2	< 5	10	< 0.5	< 2	0.54	< 0.5	15	60	71	4.50	< 10	< 1	< 0.01	10	0.27	283	< 1
L17W 31N	214 238	0.14	< 0.2	5	10	< 0.5	< 2	0.43	< 0.5	1	2	15	0.10	< 10	< 1	< 0.01	< 10	0.08	15	< 1
L17W 32N	214 238	3.51	< 0.2	< 5	20	< 0.5	< 2	0.43	< 0.5	11	64	63	5.64	< 10	1	< 0.01	10	0.16	163	< 1
L17W 33N	214 238	0.31	< 0.2	5	10	< 0.5	< 2	0.21	< 0.5	3	10	2	0.25	< 10	1	0.03	< 10	0.05	22	< 1
L17W 34N	214 238	0.10	< 0.2	5	10	< 0.5	< 2	0.64	< 0.5	< 1	1	10	0.04	< 10	< 1	0.02	< 10	0.05	8	< 1
L17W 35N	214 238	4.03	< 0.2	10	20	< 0.5	< 2	0.46	< 0.5	8	63	41	5.05	< 10	2	< 0.01	10	0.16	358	< 1
L17W 36N	214 238	0.13	< 0.2	10	20	< 0.5	< 2	0.43	< 0.5	1	10	12	0.09	< 10	< 1	0.02	< 10	0.06	13	1
L17W 37N	214 238	1.79	< 0.2	< 5	40	< 0.5	< 2	0.39	< 0.5	5	43	46	0.51	< 10	1	< 0.01	10	0.08	63	< 1
L17W 38N	214 238	5.61	< 0.2	< 5	20	< 0.5	< 2	0.52	0.5	10	84	54	5.63	< 10	< 1	< 0.01	10	0.28	191	< 1
L17W 39N	214 238	2.21	< 0.2	< 5	10	< 0.5	< 2	0.35	< 0.5	1	52	30	4.96	< 10	< 1	< 0.01	< 10	0.12	124	< 1
L17W 40N	214 238	1.23	< 0.2	< 5	60	< 0.5	< 2	0.41	< 0.5	4	28	22	0.31	< 10	1	0.01	< 10	0.07	109	< 1
L17W 41N	214 238	1.01	< 0.2	< 5	30	< 0.5	< 2	0.31	< 0.5	3	43	22	1.11	< 10	1	< 0.01	< 10	0.10	98	< 1
L17W 42N	214 238	0.06	< 0.2	5	10	< 0.5	< 2	0.23	< 0.5	< 1	1	17	0.05	< 10	< 1	0.03	< 10	0.04	169	< 1
L17W 43N	214 238	0.66	< 0.2	80	30	< 0.5	< 2	0.36	7.0	< 1	12	69	0.33	< 10	< 1	0.01	< 10	0.04	99	< 1
L17W 44N	214 238	3.81	< 0.2	5	20	< 0.5	< 2	0.34	< 0.5	5	59	29	5.36	< 10	2	< 0.01	< 10	0.16	123	< 1
L17W 45N	214 238	0.22	< 0.2	5	20	< 0.5	< 2	0.22	< 0.5	1	4	14	0.46	< 10	< 1	0.02	< 10	0.08	28	< 1
L21W 25N	214 238	5.15	< 0.2	< 5	10	< 0.5	< 2	0.42	1.0	17	71	52	6.27	< 10	< 1	< 0.01	10	0.18	498	< 1
L21W 26N	214 238	0.19	< 0.2	5	10	< 0.5	< 2	0.24	< 0.5	< 1	< 1	12	0.10	< 10	1	0.02	< 10	0.15	178	< 1
L21W 27N	214 238	1.76	< 0.2	25	50	< 0.5	< 2	1.08	1.5	45	91	39	2.75	< 10	1	0.02	10	0.49	1780	< 1
L21W 28N	214 238	3.15	< 0.2	< 5	10	< 0.5	< 2	0.68	< 0.5	7	41	39	2.95	< 10	< 1	< 0.01	10	0.40	186	< 1
L21W 29N	214 238	3.88	< 0.2	< 5	10	< 0.5	< 2	0.40	< 0.5	4	75	44	6.22	< 10	< 1	0.01	10	0.17	152	< 1
L21W 30N	214 238	5.96	< 0.2	25	10	< 0.5	< 2	0.37	< 0.5	8	73	64	6.49	< 10	< 1	0.01	10	0.22	179	< 1
L21W 31N	214 238	0.23	< 0.2	10	40	< 0.5	< 2	0.39	< 0.5	3	10	16	0.21	< 10	< 1	0.03	< 10	0.14	72	< 1
L21W 32N	214 238	3.24	< 0.2	< 5	30	< 0.5	< 2	0.50	0.5	4	45	82	3.36	< 10	2	< 0.01	10	0.22	164	< 1
L21W 33N	214 238	1.81	< 0.2	< 5	20	< 0.5	< 2	0.20	< 0.5	7	31	32	3.43	< 10	< 1	0.02	< 10	0.12	205	< 1
L21W 34N	214 238	2.44	< 0.2	< 5	40	< 0.5	< 2	0.57	0.5	18	51	36	5.99	< 10	< 1	0.01	10	0.19	925	< 1
L21W 35N	214 238	4.08	< 0.2	< 5	10	< 0.5	< 2	0.35	0.5	2	68	37	5.56	< 10	2	< 0.01	< 10	0.13	153	< 1
L21W 36N	214 238	2.63	< 0.2	15	40	< 0.5	< 2	0.83	0.5	30	98	30	7.05	< 10	< 1	0.01	10	0.35	2220	< 1
L21W 37N	214 238	2.15	< 0.2	< 5	40	< 0.5	< 2	1.00	0.5	114	96	21	5.90	< 10	< 1	0.02	10	0.49	7010	< 1
L21W 38N	214 238	2.28	< 0.2	< 5	20	< 0.5	< 2	0.20	0.5	< 1	51	13	5.27	< 10	< 1	< 0.01	< 10	0.08	146	< 1
L21W 39N	214 238	1.92	< 0.2	< 5	110	< 0.5	< 2	0.97	1.0	23	46	30	5.51	< 10	< 1	0.01	10	0.29	2240	< 1
L21W 40N	214 238	4.65	< 0.2	< 5	50	< 0.5	< 2	0.37	0.5	9	40	39	4.01	< 10	< 1	0.01	< 10	0.20	431	< 1
L21W 41N	214 238	2.96	< 0.2	< 5	50	< 0.5	< 2	0.38	0.5	9	36	33	3.75	< 10	< 1	0.01	< 10	0.17	863	< 1
L25W 25N	214 238	3.27	< 0.2	< 5	20	< 0.5	< 2	0.42	< 0.5	12	53	47	4.79	< 10	1	0.01	< 10	0.20	409	< 1

CERTIFICATION :

B. Cough

R-17 AREA



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CERTIFICATE OF ANALYSIS A871 12

To: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2P0

Page No. : 1-B
 Tot. Pages: 2
 Date : 16-APR-87
 Invoice # : I-8713322
 P.O. # : 13132

Project :
 Comments:

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm						
L17W 24N	214 238	0.01	17	540	< 2	< 5	20	19	0.46	< 10	< 10	179	5	36						
L17W 25N	214 238	0.01	12	550	2	< 5	40	17	0.48	< 10	< 10	205	10	36						
L17W 26N	214 238	0.01	12	290	10	< 5	50	25	0.44	< 10	< 10	163	10	24						
L17W 27N	214 238	0.01	9	290	6	< 5	20	13	0.61	< 10	< 10	278	10	24						
L17W 28N	214 238	0.01	13	590	2	< 5	< 10	26	0.23	< 10	< 10	88	5	40						
L17W 29N	214 238	0.01	12	200	6	< 5	10	17	0.45	< 10	< 10	167	5	20						
L17W 30N	214 238	0.01	14	520	4	< 5	< 10	17	0.42	< 10	< 10	134	5	24						
L17W 31N	214 238	0.01	2	370	2	< 5	< 10	22	< 0.01	< 10	< 10	3	5	44						
L17W 32N	214 238	0.01	9	230	6	< 5	20	21	0.50	< 10	< 10	210	10	24						
L17W 33N	214 238	0.01	4	540	10	< 5	< 10	14	0.02	< 10	< 10	8	< 5	40						
L17W 34N	214 238	0.01	1	420	4	< 5	< 10	17	< 0.01	< 10	< 10	1	< 5	42						
L17W 35N	214 238	0.01	10	340	2	< 5	60	25	0.43	< 10	< 10	186	5	28						
L17W 36N	214 238	0.01	6	440	10	< 5	< 10	18	< 0.01	< 10	< 10	2	< 5	34						
L17W 37N	214 238	0.01	6	1430	10	< 5	< 10	23	0.09	< 10	< 10	41	< 5	24						
L17W 38N	214 238	0.01	13	280	4	< 5	20	26	0.46	< 10	< 10	181	10	24						
L17W 39N	214 238	0.01	9	290	18	< 5	20	20	0.47	< 10	< 10	205	10	32						
L17W 40N	214 238	0.01	6	820	4	< 5	< 10	25	0.19	< 10	< 10	35	< 5	42						
L17W 41N	214 238	0.01	6	360	12	< 5	< 10	20	0.21	< 10	< 10	44	< 5	20						
L17W 42N	214 238	0.01	3	380	8	< 5	< 10	14	< 0.01	< 10	< 10	2	< 5	16						
L17W 43N	214 238	0.01	4	850	14	< 5	< 10	25	0.01	< 10	< 10	8	< 5	1695						
L17W 44N	214 238	0.01	8	180	10	< 5	10	20	0.51	< 10	< 10	216	10	24						
L17W 45N	214 238	0.01	2	360	4	< 5	< 10	24	0.05	< 10	< 10	21	5	40						
L21W 25N	214 238	0.01	7	600	2	< 5	30	15	0.54	< 10	< 10	207	10	24						
L21W 26N	214 238	0.01	1	460	8	< 5	< 10	21	< 0.01	< 10	< 10	3	< 5	46						
L21W 27N	214 238	0.04	20	420	12	< 5	10	36	0.27	< 10	< 10	103	10	370						
L21W 28N	214 238	0.01	11	270	8	< 5	30	17	0.34	< 10	< 10	118	5	20						
L21W 29N	214 238	0.01	7	260	6	< 5	20	18	0.48	< 10	< 10	214	10	20						
L21W 30N	214 238	0.01	10	400	2	< 5	20	15	0.44	< 10	< 10	182	10	24						
L21W 31N	214 238	0.02	3	530	2	< 5	< 10	40	0.01	< 10	< 10	7	< 5	102						
L21W 32N	214 238	0.01	13	540	8	< 5	10	26	0.43	< 10	< 10	142	5	28						
L21W 33N	214 238	0.01	7	660	8	< 5	< 10	12	0.29	< 10	< 10	103	5	34						
L21W 34N	214 238	0.01	13	460	8	< 5	< 10	30	0.53	< 10	< 10	203	5	36						
L21W 35N	214 238	0.01	5	290	2	< 5	10	15	0.47	< 10	< 10	197	5	18						
L21W 36N	214 238	0.02	19	780	12	< 5	< 10	39	0.25	< 10	< 10	195	15	120						
L21W 37N	214 238	0.03	19	650	6	< 5	< 10	45	0.29	< 10	< 10	197	10	72						
L21W 38N	214 238	0.01	5	300	10	< 5	50	18	0.50	< 10	< 10	216	5	24						
L21W 39N	214 238	0.01	14	380	38	< 5	10	72	0.40	< 10	< 10	167	10	70						
L21W 40N	214 238	0.01	7	950	12	< 5	30	33	0.28	< 10	< 10	110	5	36						
L21W 41N	214 238	0.01	7	880	18	< 5	20	29	0.28	< 10	< 10	120	5	42						
L21W 25N	214 238	0.01	14	470	14	< 5	10	16	0.44	< 10	< 10	173	5	34						

CERTIFICATION :

R-17 AREA



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A871 21

To: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2P0

Page No. : 1
 Tot. Pages: 2
 Date : 13-APR-87
 Invoice # : I-8713321
 P.O. # : 13132

Project :
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA											
L1 7W 24N	201 ---	< 20											
L1 7W 25N	201 ---	< 5											
L1 7W 26N	201 ---	10											
L1 7W 27N	201 ---	10											
L1 7W 28N	201 ---	5											
L1 7W 29N	201 ---	10											
L1 7W 30N	201 ---	15											
L1 7W 31N	201 ---	10											
L1 7W 32N	201 ---	45											
L1 7W 33N	201 ---	35											
L1 7W 34N	201 ---	20											
L1 7W 35N	201 ---	55											
L1 7W 36N	201 ---	15											
L1 7W 37N	201 ---	20											
L1 7W 38N	201 ---	< 5											
L1 7W 39N	201 ---	< 5											
L1 7W 40N	201 ---	5											
L1 7W 41N	201 ---	5											
L1 7W 42N	201 ---	20											
L1 7W 43N	201 ---	75											
L1 7W 44N	201 ---	< 15											
L1 7W 45N	201 ---	< 5											
L2 IW 25N	201 ---	5											
L2 IW 26N	201 ---	5											
L2 IW 27N	201 ---	5											
L2 IW 28N	201 ---	>> 5											
L2 IW 29N	201 ---	>> 5											
L2 IW 30N	201 ---	>>> 5											
L2 IW 31N	201 ---	>> 5											
L2 IW 32N	201 ---	>> 5											
L2 IW 33N	201 ---	>> 5											
L2 IW 34N	201 ---	>> 5											
L2 IW 35N	201 ---	>>> 5											
L2 IW 36N	201 ---	>> 5											
L2 IW 37N	201 ---	10											
L2 IW 38N	201 ---	>> 5											
L2 IW 39N	201 ---	>> 5											
L2 IW 40N	201 ---	>> 5											
L2 IW 41N	201 ---	> 10											
L2 5W 25N	201 ---	< 5											

CERTIFICATION : Haut-Bieder

R-17 AREA



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A871 22

TO: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2P0

Page No. : 2-A
 Tot. Pages: 2
 Date : 16-APR-87
 Invoice #: I-8713322
 P.O. #: 13132

Project :
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
L2.5W 26N	214 238	5.77	< 0.2	5	20	< 0.5	< 2	0.34	< 0.5	13	78	69	6.50	< 10	< 1	< 0.01	10	0.21	331	< 1
L2.5W 27N	214 238	2.76	< 0.2	5	90	< 0.5	< 2	1.17	< 0.5	48	37	42	3.53	< 10	< 1	0.02	10	0.43	2780	< 1
L2.5W 28N	214 238	2.87	< 0.2	< 5	40	< 0.5	< 2	0.41	0.5	3	68	38	6.55	< 10	2	0.01	10	0.16	630	< 1
L2.5W 29N	214 238	5.05	< 0.2	< 5	50	< 0.5	< 2	0.24	0.5	10	62	41	7.97	< 10	< 1	0.02	10	0.19	273	< 1
L2.5W 30N	214 238	2.43	< 0.2	< 5	40	< 0.5	< 2	0.61	0.5	6	39	33	3.80	< 10	< 1	0.01	10	0.29	201	< 1
L2.5W 31N	214 238	3.90	< 0.2	5	50	< 0.5	< 2	0.40	< 0.5	13	63	41	6.31	< 10	1	< 0.01	10	0.17	325	< 1
L2.5W 32N	214 238	2.21	< 0.2	5	60	< 0.5	< 2	0.93	< 0.5	8	32	44	2.72	< 10	1	0.01	10	0.48	383	< 1
L2.5W 33N	214 238	1.48	< 0.2	5	20	< 0.5	< 2	0.29	< 0.5	3	31	21	2.92	< 10	1	0.02	< 10	0.08	98	< 1
L2.5W 34N	214 238	4.81	< 0.2	< 5	20	< 0.5	< 2	0.24	0.5	4	78	33	5.00	< 10	< 1	< 0.01	< 10	0.13	116	< 1
L2.5W 35N	214 238	0.13	< 0.2	5	10	< 0.5	< 2	0.51	< 0.5	< 1	3	8	0.23	< 10	< 1	0.02	< 10	0.04	14	< 1
L2.5W 36N	214 238	0.71	< 0.2	< 5	30	< 0.5	< 2	0.29	< 0.5	2	24	11	2.12	< 10	< 1	0.01	< 10	0.04	69	< 1
L2.5W 37N	214 238	6.36	< 0.2	20	70	1.0	2	1.18	0.5	33	74	58	6.50	< 10	1	0.01	10	0.23	1890	< 1
L2.5W 38N	214 238	5.03	< 0.2	10	170	1.0	< 2	0.36	0.5	24	30	58	5.46	< 10	< 1	0.01	20	0.31	752	< 1
L2.5W 39N	214 238	4.52	< 0.2	< 5	30	< 0.5	< 2	0.52	0.5	4	66	53	1.66	< 10	< 1	0.01	10	0.20	238	< 1
L2.5W 40N	214 238	4.91	0.2	35	40	< 0.5	2	0.35	0.5	8	66	51	6.65	< 10	< 1	0.01	10	0.27	212	< 1
L2.5W 41N	214 238	0.55	< 0.2	< 5	20	< 0.5	2	0.11	< 0.5	3	36	20	2.15	< 10	< 1	0.01	< 10	0.14	108	< 1
ORB - 100	214 238	4.65	< 0.2	140	240	0.5	6	0.27	0.5	30	68	95	10.65	< 10	< 1	0.05	10	0.70	1175	< 1
ORB - 200	214 238	6.26	< 0.2	5	120	0.5	< 2	0.36	2.5	23	105	101	8.11	< 10	< 1	0.01	20	0.78	1730	< 1
ORB - 300	214 238	5.86	< 0.2	15	140	< 0.5	< 2	0.63	3.0	31	76	74	8.69	< 10	< 1	0.02	10	0.42	2940	< 1
ORB - 400	214 238	4.53	< 0.2	90	90	< 0.5	< 2	0.54	2.0	26	52	69	6.05	< 10	< 1	0.04	20	0.65	1315	3
ORB - 500A	214 238	4.76	< 0.2	55	70	< 0.5	< 2	0.30	0.5	17	43	61	5.75	< 10	< 1	0.02	10	0.23	1380	< 1
ORB - 500B	214 238	5.35	< 0.2	45	70	< 0.5	< 2	0.24	0.5	15	54	40	7.72	< 10	< 1	0.01	10	0.14	843	< 1
ORB - 0600	214 238	5.93	< 0.2	65	70	< 0.5	2	0.22	1.5	20	41	51	7.77	< 10	< 1	0.03	10	0.18	1370	33
ORB - 0700	214 238	6.36	< 0.2	15	150	0.5	2	0.09	1.5	40	24	70	7.80	< 10	< 1	0.08	10	0.74	1630	22
ORB - 0800	214 238	6.19	< 0.2	65	140	< 0.5	2	0.06	1.5	43	91	143	9.41	< 10	< 1	0.06	< 10	1.08	884	14
ORB - 0900	214 238	5.02	< 0.2	15	60	< 0.5	< 2	0.63	2.5	23	68	65	5.35	< 10	< 1	0.03	20	0.47	787	1
ORB - 1000	214 238	5.98	< 0.2	30	70	< 0.5	< 2	0.42	1.5	17	76	44	6.83	< 10	< 1	0.02	10	0.27	563	< 1
ORB - 1100	214 238	5.02	< 0.2	20	50	< 0.5	< 2	0.46	3.0	19	70	29	5.49	< 10	< 1	0.01	10	0.28	473	2
ORB - 1200	214 238	5.33	< 0.2	10	60	0.5	< 2	0.42	2.5	10	82	56	6.35	< 10	< 1	0.02	10	0.26	576	7

CERTIFICATION :

B. C. [Signature]

R17 AREA



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A87122

To: UTAH MINES LIMITED
ISLAND COPPER MINES
BOX 370
PORT HARDY, B.C.
VON 2P0

Page No. : 2-B
Tot. Pages: 2
Date : 16-APR-87
Invoice #: I-8713322
P.O. #: 13132

Project :
Comments :

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm						
L2.5W 26N	214 238	0.01	11	490	12	< 5	30	14	0.53	< 10	< 10	225	10	30						
L2.5W 27N	214 238	0.02	24	490	4	< 5	< 10	43	0.30	< 10	< 10	128	5	78						
L2.5W 28N	214 238	0.01	11	340	6	< 5	< 10	24	0.53	< 10	< 10	260	5	36						
L2.5W 29N	214 238	0.01	10	480	16	< 5	< 10	20	0.50	< 10	< 10	284	5	58						
L2.5W 30N	214 238	0.01	10	370	12	< 5	< 10	51	0.32	< 10	< 10	123	5	34						
L2.5W 31N	214 238	0.01	10	340	16	< 5	10	26	0.58	< 10	< 10	275	5	32						
L2.5W 32N	214 238	0.02	15	290	2	< 5	< 10	41	0.34	< 10	< 10	108	5	58						
L2.5W 33N	214 238	0.01	5	460	14	< 5	10	18	0.26	< 10	< 10	104	< 5	30						
L2.5W 34N	214 238	0.01	8	380	< 2	< 5	20	15	0.37	< 10	< 10	161	5	28						
L2.5W 35N	214 238	0.01	1	490	16	< 5	< 10	15	0.02	< 10	< 10	12	5	30						
L2.5W 36N	214 238	0.01	4	290	8	< 5	< 10	25	0.23	< 10	< 10	123	5	22						
L2.5W 37N	214 238	0.01	14	1120	16	< 5	< 10	51	0.47	< 10	< 10	187	5	126						
L2.5W 38N	214 238	0.01	17	630	40	< 5	< 10	36	0.07	< 10	< 10	155	< 5	126						
L2.5W 39N	214 238	0.01	7	560	6	< 5	< 10	31	0.37	< 10	< 10	115	< 5	38						
L2.5W 40N	214 238	0.01	21	420	< 2	< 5	< 10	18	0.31	< 10	< 10	188	< 5	70						
L2.5W 41N	214 238	< 0.01	3	360	12	< 5	10	8	0.46	< 10	< 10	228	< 5	18						
ORB - 100	214 238	0.01	19	1210	20	< 5	20	12	< 0.01	< 10	< 10	364	< 5	140						
ORB - 200	214 238	0.01	17	1800	4	< 5	< 10	29	0.25	< 10	< 10	302	< 5	84						
ORB - 300	214 238	0.01	13	2070	18	< 5	< 10	41	0.31	< 10	< 10	271	5	108						
ORB - 400	214 238	0.02	35	670	18	< 5	< 10	42	0.19	< 10	< 10	235	< 5	246						
ORB - 500A	214 238	0.01	18	1600	14	< 5	< 10	26	0.21	< 10	< 10	189	5	114						
ORB - 500B	214 238	0.01	10	2050	< 2	< 5	< 10	23	0.29	< 10	< 10	252	< 5	68						
ORB - 0600	214 238	0.01	30	1570	18	< 5	40	23	0.11	< 10	< 10	325	< 5	326						
ORB - 0700	214 238	0.01	57	980	2	< 5	< 10	11	< 0.01	< 10	< 10	239	< 5	432						
ORB - 0800	214 238	< 0.01	46	740	< 2	< 5	< 10	10	< 0.01	< 10	< 10	332	< 5	574						
ORB - 0900	214 238	0.02	25	780	14	< 5	< 10	43	0.31	< 10	< 10	202	< 5	158						
ORB - 1000	214 238	0.01	21	900	8	< 5	< 10	27	0.34	< 10	< 10	248	< 5	166						
ORB - 1100	214 238	0.01	24	810	2	< 5	< 10	27	0.35	< 10	< 10	207	5	166						
ORB - 1200	214 238	0.01	26	860	8	< 5	< 10	26	0.26	< 10	< 10	298	< 5	170						

R-17 AREA

CERTIFICATION :

B. Carl



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A871021

To: UTAH MINES LIMITED
 ISLAND COPPER MINES
 BOX 370
 PORT HARDY, B.C.
 VON 2P0

Page No. : 2
 Tot. Pages: 2
 Date : 13-APR-87
 Invoice # : I-8713321
 P.O. # : 13132

Project :
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA											
L25W 26N	201	---	^^	5									
L25W 27N	201	---	^^	5									
L25W 28N	201	---	^^	5									
L25W 29N	201	---	^^	5									
L25W 30N	201	---	^^	5									
L25W 31N	201	---	^^	5									
L25W 32N	201	---	^^	5									
L25W 33N	201	---	^^	5									
L25W 34N	201	---	^^	5									
L25W 35N	201	---	^^	5									
L25W 36N	201	---	^^	5									
L25W 37N	201	---	^^	5									
L25W 38N	201	---	^^	5									
L25W 39N	201	---	^^	5									
L25W 40N	201	---	^^	5									
L25W 41N	201	---	^^	5									
ORB - 100	201	---	^^	5									
ORB - 200	201	---	^^	5									
ORB - 300	201	---	^^	5									
ORB - 400	201	---	^^	5									
ORB - 500A	201	---	^^	5									
ORB - 500B	201	---	^^	5									
ORB - 0600	201	---	^^	5									
ORB - 0700	201	---	^^	5									
ORB - 0800	201	---	^^	5									
ORB - 0900	201	---	^^	5									
ORB - 1000	201	---	^^	5									
ORB - 1100	201	---	^^	5									
ORB - 1200	201	---	^^	5									

CERTIFICATION : Hart Bickler

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MM.FE.CA.P.CR.HG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOILS -BOMESH HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: AUG 26 1986 DATE REPORT MAILED: *Aug 30/86* 101 *etc* 10086
ASSAYER: *J. Dep.* DEAN TOYE. CERTIFIED B.C. ASSAYER.

UTAH MINES PROJECT - IC-86-10 FILE # 86-2267

PAGE 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB	Loi %
L37W 47N	4	53	12	87	.5	14	19	690	7.14	15	5	ND	1	10	1	2	2	198	.24	.114	14	67	.39	59	.10	6	4.66	.01	.01	1	180	24.0
L37W 45N	5	60	6	41	.7	16	15	919	6.77	17	6	ND	1	8	1	2	2	194	.23	.200	6	70	.15	27	.29	3	4.94	.01	.01	1	240	35.8
L37W 43N	3	58	3	69	.6	23	14	807	5.31	25	5	ND	1	11	1	3	2	160	.34	.168	4	63	.27	35	.29	4	4.31	.01	.01	1	220	30.0
L37W 41N	3	54	14	54	.4	14	16	1185	7.23	5	5	ND	1	9	1	2	2	223	.23	.101	6	79	.19	37	.36	3	3.90	.01	.02	1	230	30.2
L37W 38N	16	48	13	230	1.3	24	19	2842	6.28	70	5	ND	1	20	6	3	2	195	.48	.140	7	44	.23	139	.08	4	2.43	.01	.03	1	160	22.7
L37W 36N	11	144	22	173	.7	24	39	2300	9.70	112	5	ND	1	17	1	2	2	274	.29	.273	12	62	1.06	356	.01	5	4.00	.01	.04	1	140	30.9
L37W 35N	2	62	11	68	.3	15	14	683	6.73	5	5	ND	1	21	1	2	2	213	.41	.112	6	75	.36	61	.34	4	4.46	.01	.01	1	150	27.5
L37W 34N	2	57	11	69	.3	40	17	599	4.13	4	5	ND	1	34	1	2	2	102	.90	.087	5	64	.80	84	.24	4	3.72	.02	.02	1	80	16.0
L37W 32N	1	57	11	63	.4	22	16	569	7.46	13	6	ND	1	15	1	2	2	221	.28	.083	9	75	.30	48	.43	4	4.37	.01	.02	1	120	23.6
L35W 42N	1	72	3	51	.5	10	20	1172	6.84	4	5	ND	1	11	1	2	2	194	.30	.160	5	95	.19	29	.43	3	5.69	.01	.01	1	240	42.0
L35W 41N	4	61	8	109	.8	21	16	847	6.20	25	6	ND	1	13	1	2	2	198	.38	.100	7	75	.22	50	.32	6	4.14	.02	.01	1	170	23.8
L35W 40N	13	159	14	259	1.5	51	43	1762	8.56	152	5	ND	1	49	2	2	3	249	.08	.153	7	158	.30	382	.03	10	4.59	.01	.02	1	190	32.3
L35W 39N	43	68	19	570	1.0	50	16	986	6.40	191	8	ND	1	6	2	8	2	265	.14	.127	6	49	.07	44	.03	5	2.05	.01	.02	1	160	29.2
L35W 38N	23	56	14	312	1.1	36	16	996	5.85	78	9	ND	2	9	3	5	2	181	.22	.107	7	50	.14	47	.15	8	2.50	.01	.02	1	120	18.4
L35W 37N	40	114	48	271	.8	24	31	2063	8.37	36	5	ND	1	5	1	2	2	232	.08	.213	4	64	.49	146	.01	2	3.92	.01	.02	1	140	29.1
L35W 36N	1	51	32	82	.4	8	17	1551	5.84	7	5	ND	1	38	1	2	2	144	.34	.176	5	30	.32	71	.10	5	4.21	.02	.01	1	200	28.6
L35W 35N	2	58	17	60	.5	12	18	1568	6.02	5	5	ND	1	18	1	2	2	155	.22	.164	7	39	.24	64	.23	4	5.63	.01	.01	1	250	37.0
L35W 34N	2	49	8	70	.3	21	14	820	5.81	13	5	ND	1	16	1	2	2	161	.31	.112	4	58	.33	48	.28	5	4.13	.01	.01	1	170	24.4
L33W 48N	1	34	2	40	.1	21	10	398	3.85	2	5	ND	1	9	1	2	2	96	.25	.034	2	34	.48	26	.16	2	2.93	.01	.02	1	160	31.8
L33W 46N	1	64	2	28	.1	13	16	434	4.03	2	5	ND	1	12	1	2	2	128	.44	.056	5	60	.26	17	.41	6	4.67	.02	.01	1	150	22.4
L33W 44N	1	37	2	41	.2	9	12	250	7.25	2	5	ND	1	8	1	2	2	199	.17	.054	3	58	.13	44	.14	4	3.88	.01	.01	1	240	29.0
L33W 42N	1	5	2	7	.1	1	1	182	.14	2	5	ND	1	53	1	2	2	3	1.15	.028	2	3	.09	53	.01	4	.10	.01	.01	2	180	95.8
L33W 41N	2	12	2	28	.2	3	2	483	.34	2	5	ND	1	78	1	2	2	9	1.42	.050	2	3	.14	86	.01	9	.27	.01	.02	2	200	94.0
L33W 40N	1	61	16	68	.3	15	15	1510	4.42	10	5	ND	1	31	1	2	2	130	.86	.111	8	44	.42	102	.27	9	3.41	.02	.02	1	1300	26.0
L33W 39N	2	65	79	126	.4	11	24	1517	5.66	3	5	ND	1	25	1	2	2	114	.38	.113	5	33	.39	41	.10	4	4.72	.01	.02	1	240	34.2
L33W 38N	1	41	18	61	.3	13	16	1652	5.27	5	5	ND	1	17	1	2	2	148	.32	.144	7	46	.19	38	.28	7	3.57	.01	.02	1	250	43.2
L33W 37N	1	46	21	63	.4	11	15	1185	5.27	18	5	ND	1	21	1	2	2	152	.39	.127	5	51	.21	44	.32	3	3.89	.01	.02	1	190	27.5
L33W 36N	3	54	28	74	.4	14	15	1653	5.08	15	5	ND	1	21	2	2	2	147	.40	.136	7	41	.25	51	.27	4	3.57	.01	.02	1	220	40.8
L33W 35N	2	24	13	48	.4	8	10	573	5.84	8	5	ND	1	15	1	2	4	177	.19	.158	3	32	.09	32	.36	7	3.22	.01	.02	1	160	38.9
L33W 34N	19	72	15	204	.8	32	20	1468	7.06	44	5	ND	2	14	1	2	2	201	.30	.211	11	56	.38	50	.19	4	5.24	.01	.02	1	200	20.7
L33W 33N	4	54	51	206	.5	15	20	1849	6.89	6	5	ND	1	14	1	2	2	162	.28	.229	7	47	.36	57	.23	3	6.29	.01	.02	1	180	27.2
L33W 32N	2	43	34	97	.7	5	17	1704	10.32	10	5	ND	2	21	1	2	2	186	.13	.293	10	20	.20	111	.01	2	4.42	.02	.03	1	200	30.2
STD C	20	59	43	135	7.1	67	29	1086	3.93	41	21	8	31	46	17	17	21	61	.48	.109	35	59	.88	172	.08	36	1.72	.06	.13	15	1300	11.4

APPENDIX B
FIELD NOTES

Ed GARY (2)

JULY 5 L13W (85)

STN	HDR	DEP	TOP	COL	ORG	CLAY	REMARKS
75	B	6	L	OB	L	L	
76	B	6	L	OB	L	L	
77	B	8	W	GB	L	L	rocky creek beside
78	B	20	W	OB	L	L	
79	B	24	L	OB	L	L	
80	B	12	L	O	L	L	
81	B	8	L	Br	L	L	
82	B	6	NW	LB	L	L	
83	B	8	L	OB	M	L	
84	B	8	L	Br	L	L	
85	B	12	L	OB	L	L	
86	B	12	L	Br	L	L	
87	B	8	N	OB	L	L	
88	B	14	N	OB	L	L	
89	B	24	N	Br	L	L	
90	B	10	L	GY	L	H	
							L5W
76	B	8	N	Br	L	L	
75	B	8	N	OB	L	L	
79	B	10	N	RB	L	L	
73	B	12	NW	Br	L	L	
72	B	10	N	Br	L	L	
71	B	10	N	Br	L	L	rocky
70	B	20	TL	O	L	L	

MIKE (2)

L13W July 8

STN	HDR	DEP	TOP	COL	ORG	CLAY	REMARKS
74	B	10	L	GBK	L	M	
73	B	24	L	OB	L	L	
72	B	16	L	Br	L	L	
71	B	10	L	OB	L	L	
70	B	24	L	Br	L	L	
69	B	24	L	Br	L	L	
68	B	24	L	Br	L	L	
67	B	18	L	Br	L	L	
66	B	10	L	OB	L	L	
65	B	20	L	Br	L	L	
64	B	24	L	OB	L	L	
63	B	24	L	LB	L	L	
62	B	30	L	DB	L	L	
61	B	20	L	OB	L	L	
60	B?	24	L	NHGY	M	L	
59	B	24	L	OB	L	L	
58	B	20	L	LB	L	L	
57	B	12	L	OB	L	L	
56	B	30	L	Br	L	L	
55	B	16	L	OB	L	L	
54	B	26	L	OB	L	L	
53	B	14	L	Br	L	L	
52	B	26	L	LB	L	L	rocky
51	B	14	L	OB	L	L	
50	B	14	L	Br	L	L	

(2)

L13W July 8

STN	HDR	DEP	TOP	COL	ORG	CLAY	REMARKS
49	B	14	L	OB	L	M	
48	B	12	L	Br	L	M	beside little creek
47	B	12	L	OB	L	L	
46	B	28	L	OB	L	L	
45	B	20	L	Br	L	L	
44	B	14	L	Br	L	L	
43	B	10	L	Br	L	L	
42	B	14	L	Br	L	L	
41	B	12	L	OB	L	L	
40	B	14	L	OB	L	L	Tree line
39	A	8	L	DB	M	M	
38	A	10	L	DB	H	M	
37	A	12	By	DB	H	M	
36	B	24	L	Br	L	C	
35	B	16	L	DB	L	M	
34	A	4	L	DB	H	M	
33	A	8	L	RB	H	L	
32	A	10	L	RB	H	L	
31	B	10	L	OB	L	L	N side power lines
30	B	24	L	OB	L	L	S side power lines
29							
28							
27							
26							
25							
24							
23							
22							
21							
20							
19							
18							
17							
16							
15							
14							
13							
12	A	20	Sy	BK	H	M	
11	A	10	Sy	DB	H	L	
10	A	10	Sy	DB	H	L	
9	A	10	Sy	BK	M	M	

R17 Soil GCHM		ATR/RJC	
03 APR 87		LINE 17 W	
45	A	16"	BRN RED ORG LEVEL
44	B	16"	ORG BRN SANDY LEVEL
43N	AB	12"	BLK MUD SWAMPY
42	A	2"	REP BLK ORG LEVEL
41	B	12"	GR BLK CLAY CEDAR SWAMP
40	B	14"	GR ORG SILT CEDAR SWAMP
39	B	12"	ORG BRN SANDY LEVEL
38	B	3' TR	ORG RED SANDY LEVEL
37	B	10"	BLK MUD LEVEL
36	A	16"	REP BRN ORG LEVEL
35	B	12"	ORG BRN SANDY LEVEL
34	A	16"	REP BRN ORG SOUTH SLOPE
33	A	14"	REP BLK ORG GENTLE STH. SLOPE
32	B	6' TR	ORG BRN GRAVEL LEVEL
31	A	18"	REP BRN ORG LEVEL
30	B	3' TR	ORG BRN SANDY LEVEL
29	B	16"	BRONZE BRN LOMY LEVEL
28	SRM SED.	L BRN	BLK SILT LEVEL
27	B	3' TR	ORG BRN SANDY LEVEL
26	B	16"	BRN BLK SANDY CLAY LEVEL
25	B	2' TR	ORG BRN SANDY LEVEL
24	B	2' TR	ORG BRN SANDY LEVEL

22 APR 87		L17W					
STN	H	D	T	C	O	clay	Remarks
46N	B	24"	L	RBr	L	M	fox hole under tree
47N	A	16"	L	Blk	H	L	blaze-line @ 3230
48N	B	20"	N	Gray	L	L	gravelly - old drainage?
49N	B	28"	NW	Br	M	L	sandy
50N	B	30"	NW	Br	L	L	sandy loam (tree root)
51N	B	30"	W	GyBr	M	M	
52N	B	10"	W	GyBr	L	LM	
53N	B	12"	W	Br	L	M	sandy-silty - old drainage?
54N	B	12"	W	Br	L	L	sandy

DATE: 22 APR 87

LINE 8 L21W

CREW: ATR / MS

STN	Hor	Dep.	Topo	Col	Org	Clay	Remarks
51N	A	14"	L	Bk	H	L	end of OR = 32
50N	A	14"	L	Br	A	L	slightly swampy
49N	B	6"	L	Sepa	L	M	
48N	B	12"	N	R-Br	L	M	under tree-root
47N	B	12"	W	R-Br	L	L	(loamy) tree-root
46N	AB	16"	L	Br	M	M	mixed A+B horizons
45N	B	12"	W	Br	L	M	loamy tree-root
44N	B	12"	L	Bk/G	L	H	old drainage?
43N	B	12"	N	Or	L	L	loamy tree-base

Notes:

41N

(previously sampled)

15

220 ft @

220 ft

430'

dvc E

is

L17W 44N

April 11/87

ATR/RJC

LINE 21 W

41N	AB	24"	ROSEN	nitrogen	W	
40	B	12"	RD/BRN	sandy	S	
39	B	16"	BRN/Gry	clayey	S	
38	B	20"	BRN/og	loamy	SW	
37			stream gravel		SW	
(R19) 36	B	12"	BLACK	silt/sand	SW	
35	B	12"	OR/BRN	loamy	SW	
34	B	16"	OR/BRN	"	S	
33	AB	16"	Bin/bite	org/large cobbles left		
32	B	12"	ORG	Clayey	level	
31	A	12"	RD/BRN	organic	S	
30	B	20"	tree root	orange	gravelly	SW
29	B	35"	tree root	orange	sandy	SW level
28	B	20"	tree root	sandy	loamy sand	SW
27	A	edge of creek	black	org/silt	left bank drains SW	
26	A2	18"	black	org/silt	level	
25	P	tree root	orange	loamy sd	level	

22 APR 87

L25W

STN	H	D	T	C	O	Cy	Remarks
466@ rd.							
46N A	10"	W	Rbk	H	L		tree roots/cobars etc
45N A	12"	NW	R/B	H	L		abdt rootlets.
44N A	14"	L	R/B	H	L		silty - above swamp
43N B	18"	NW	Br	L	L		sandy
42N B	12"	L	Br	L	L		sandy gravel

NEVILLE CROSSBY INC
VANCOUVER B.C.

April 1/87		ATR/RJC	
R-17 area		soil geochem	
LINE 25W			
STA	Hor	DEPTH	COLOUR TYPE SLOPE
46N	AB	(tree root) ^{36"}	ora/red rocky S/W
39	B	12"	brn green swampy Level
38	B	12"	Or br Rocky S/treed
37	B	12"	Red/Br Sl/Gr S
36	O+B	>26"	Red color ^{+ 1/2" brown clay} Org. S
35	A	12"	Brown Black organic S
34	A-B	18"	Red/or. sandy West
33	A/B	16"	brn/blk. clay/clay S
32	B	tree root	grey/born clayey
31	B	tree root ^{12"}	Orange sandy
30	B	tree root ^{12"}	Brn/br clayey/loam
29	B	tree root	orange loamy
28	B	10"	Orange clayey
27	Creek	gravel	- right bank
26	B	10"	Org/born silty loam SW
25	B	10"	Gr/born loam L
41	AB	(tree root) ^{20"}	BRN/gray clayey og Level near Knolly's hole
(140) misclosure to 34N)			

NEVILLE CROSSBY INC
VANCOUVER B.C.

700
ORB-~~800~~ - E horizon? ~ 3 feet.
yellowish red, sl. lighter than
red brown above. ~ 30% clay
20% gravel. @ D1163

ORB 800 1.5' 'A' rocky yellow brown
~ 30% rock, 20% clay 30% sd.

ORB 900 2-3' deep as for #800
although may be E horizon
~ 30' E of D1164

ORB 1000 - B horizon ~ 16" 20% rock
30% silt - 10-20% clay

ORB 1100 - rusty brown, clayey B
30-40% clay, 20% Gravel

ORB 1200 - brown, clayey B A
-16" 20-30% gravel 10% clay
± L29N 29N

NOV 14/86 R-17 Road.

ORB-0 = OLD ROAD #9

ORB-100 - Rusty brown 'B', 30% clay
~ 50' down to
from #211? } 40% rock, 20% sd, st
~ 48" below 'O' litter

150' = L37W 35.5N

#200 - brown rock B, similar to above
~ 20" very rocky below

#300 very similar to #200 ~ 18"

#400 = L35W 34.5N ~ 12"? rocky B
yellow brown? rocky + clayey

#500A = ~~E~~ ^{med.} ~ 1.4' - brown, sl. organic
~ 20% org, 20% st, 30% rock
20% sd.

40' N of D1162

#500B - B or E horizon. → 1.6' deep?
leached lighter red brown. Very
lumpy ~ 50% st, 20% sd,

#600 - Red brown, ^{sl.} rocky soil 30% Rock
30% clay, 40% st + sd. 10"

L 33W July 25/86							
STN	HOR	REP	TOP	COL	ORG	CLY	REMARKS
48 N	B	20	N	OB	MM		
46 N	B	20	T	OB	L	L	
44 N	B	18	L	OR	L	L	

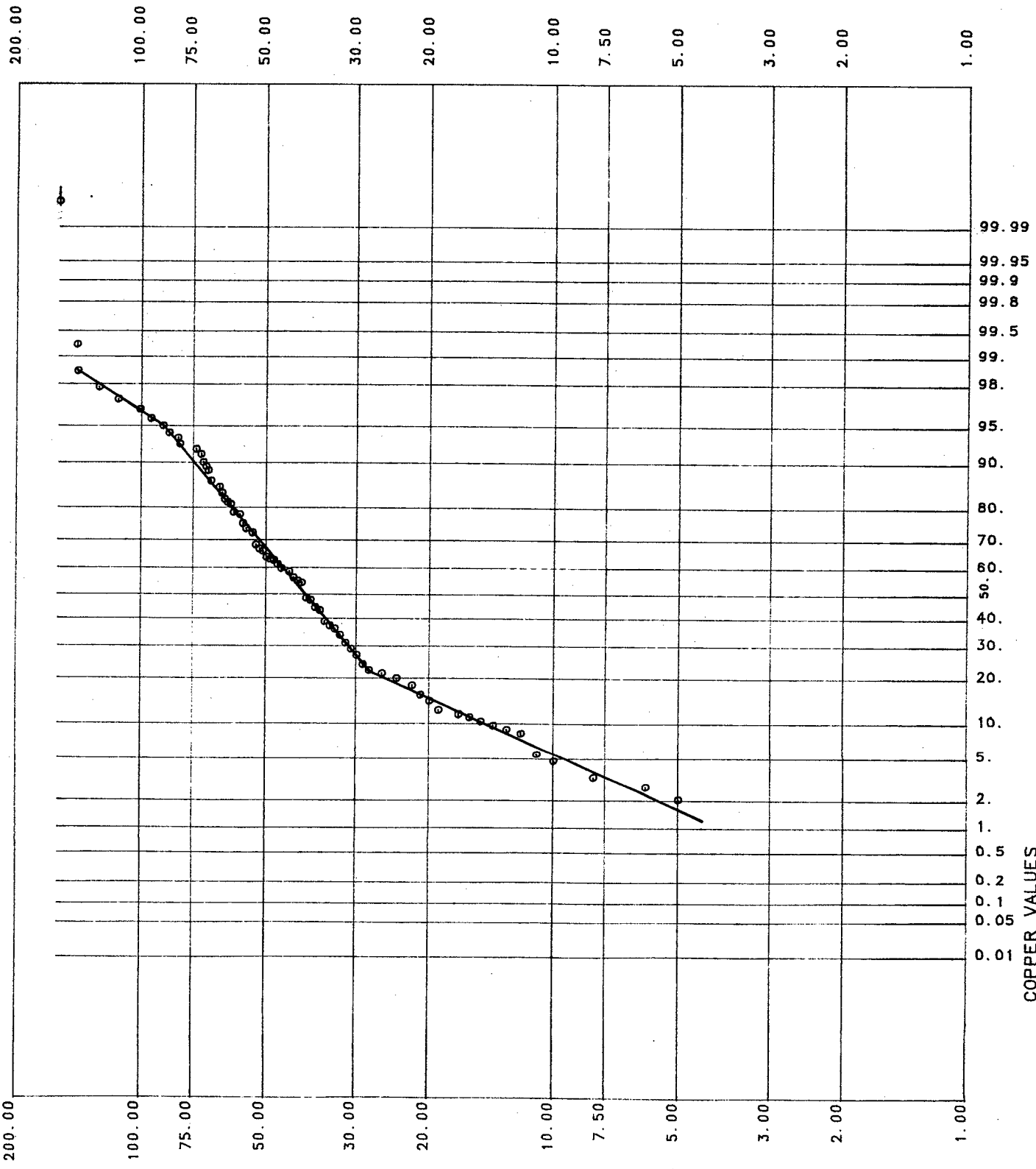
L 35 W July 25/86							
STN	HOR	REP	TOP	COL	ORG	CLY	REMARKS
42 B	18	L		OB	M	L	
41 B	18	L		OB	M	L	
40 B	18	L		OB	L	L	
39 AB	20	L		GB	L	L	
38 B	20	N		BR	L	L	
37 B	20	L		BR	L	L	
36 B	18	T		OB	M	L	
35 B	10	S		BO	L	L	
34 B	14	W		OR	M	L	

L 37W July 25/86							
STN	HOR	REP	TOP	COL	ORG	CLY	REMARKS
41 N	B	20	N	OB	L	L	
40 B	20	L		OB	L	L	
39 B	20	N		OB	L	L	
47 B	18	N		OR	L	L	

L 37W STAKES							GAS DETECTORS
STN	HOR	REP	TOP	COL	ORG	CLY	
38 N	AB	24	L	BR	M	L	
35 B	18	S		OB	L	L	
35 B	16	S		OB	L	L	
34 B	18	S		YG	L	L	
32 N	B	20	L	ROB	L	L	

L 33 W							
(STN)	HOR	REP	TOP	COL	ORG	CLY	
32 N	B	18	S	OB	M	L	
33 B	16	S		OR	L	L	
34 B	18	S		OR	L	L	
35 B	14	S		OB	L	L	
36 N	AB	20	N	BR	M	L	
37 B	16	N		OB	M	L	
38 B	18	N		BR	M	L	
39 B	16	W		OB	L	L	
40 B	20	L		BR	M	L	
41 A	16	SY		BR	H	L	
42	A	20	SY	BR	H	L	

APPENDIX C
STATISTICS



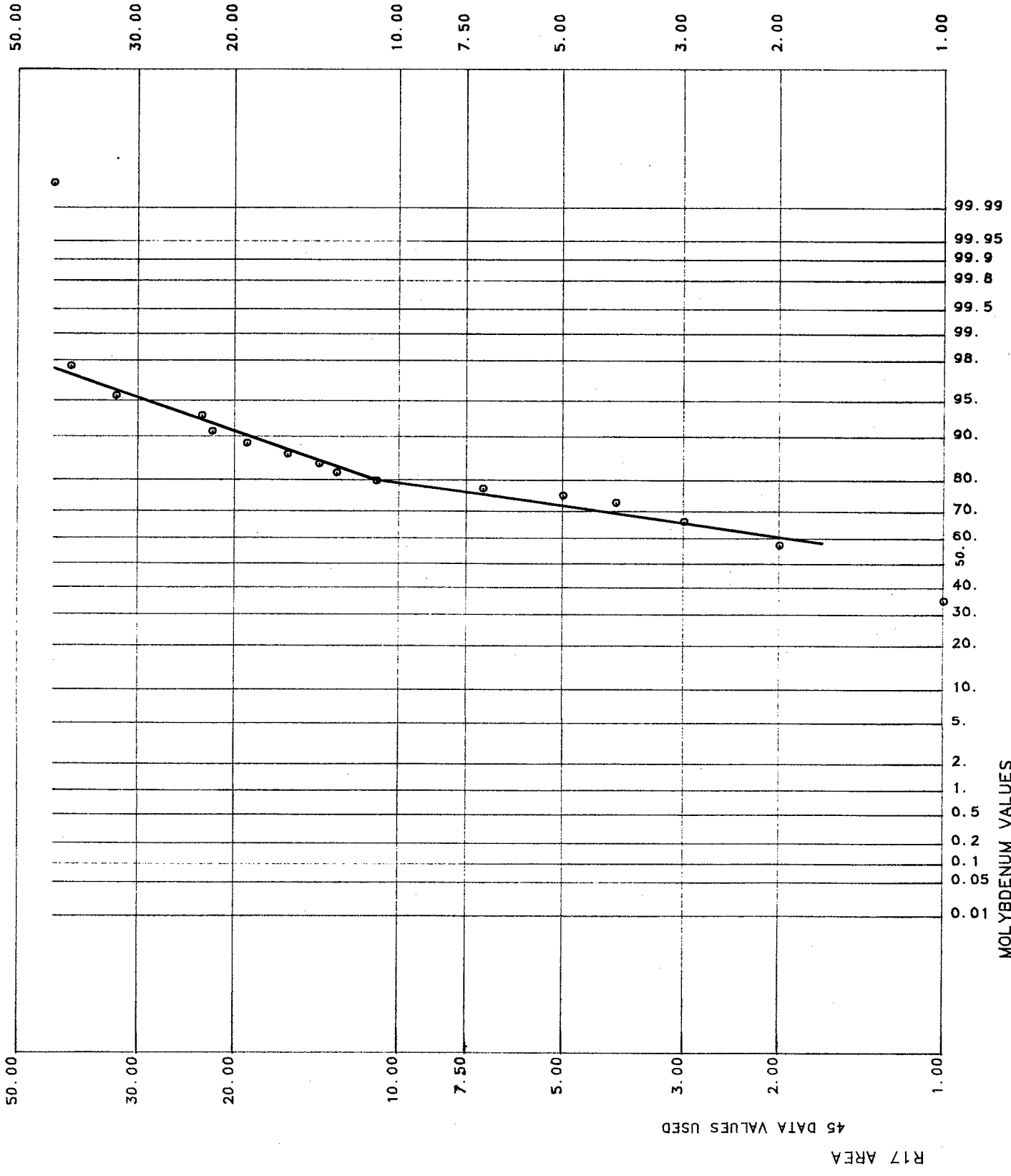
COPPER VALUES
(CUM. % DISTRIBUTION)

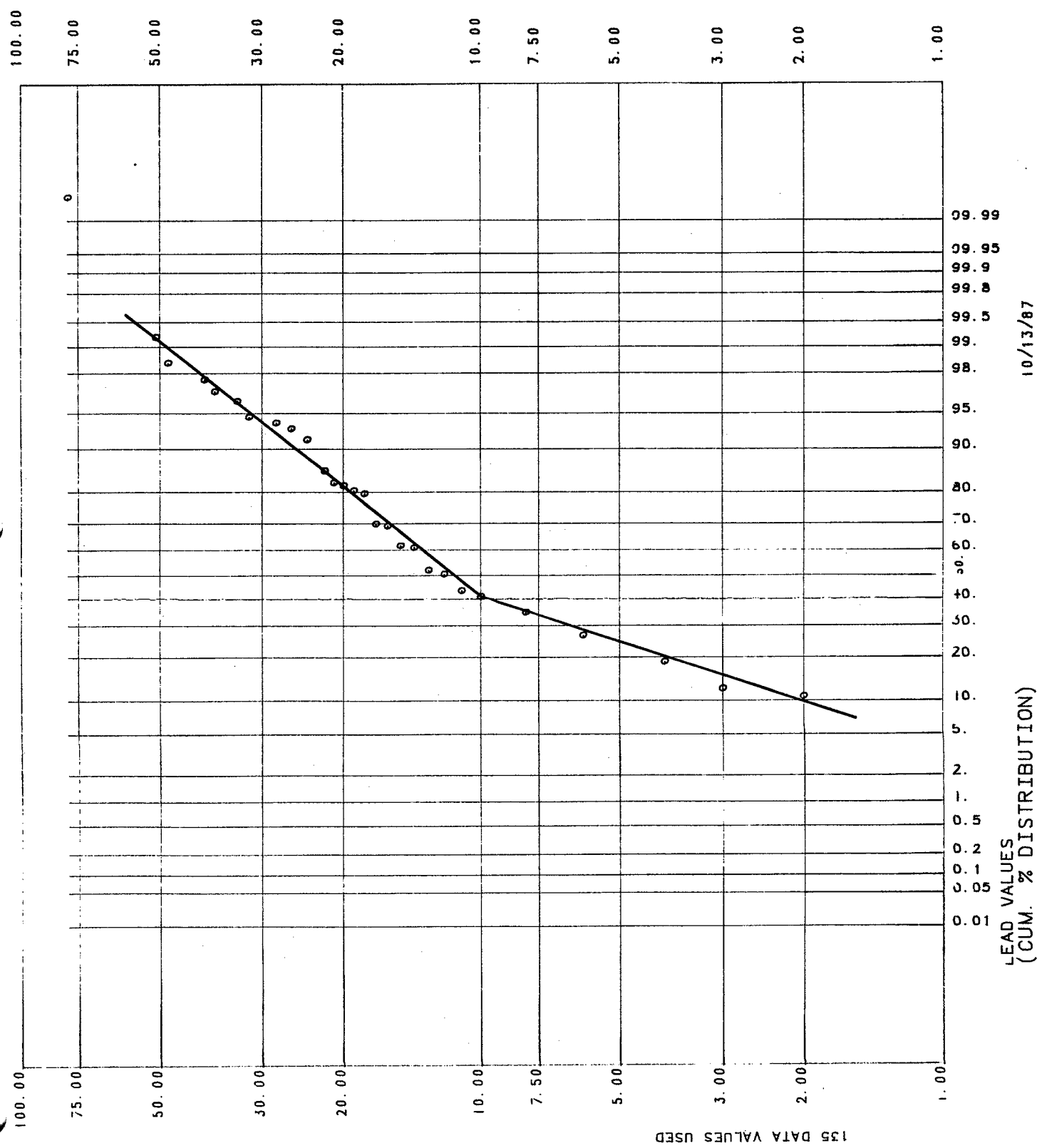
10/14/87

R17 AREA
 COPPER VALUES
 Bucket= 1.00 Factor= 1.00 (T90, F6.0)

Count/mean: 143 45.03
 Data range: 5.00 159.00
 Variance/St.dev: .424 .651

Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %
0.	0	.0	0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0
0.	0	.0	0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0
0.	0	.0	0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0
0.	0	.0	0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0
5.	3	2.1	0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0
6.	1	2.8	81.	1	93.0	0.	0	99.3	0.	0	100.0	0.	0	100.0
0.	0	2.8	82.	1	93.7	0.	0	99.3	0.	0	100.0	0.	0	100.0
8.	1	3.5	0.	0	93.7	0.	0	99.3	0.	0	100.0	0.	0	100.0
0.	0	3.5	0.	0	93.7	159.	1	100.0	0.	0	100.0	0.	0	100.0
10.	2	4.9	0.	0	93.7	0.	0	100.0	0.	0	100.0	0.	0	100.0
11.	1	5.6	86.	1	94.4	0.	0	100.0	0.	0	100.0	0.	0	100.0
12.	4	8.4	0.	0	94.4	0.	0	100.0	0.	0	100.0	0.	0	100.0
13.	1	9.1	0.	0	94.4	0.	0	100.0	0.	0	100.0	0.	0	100.0
14.	1	9.8	89.	1	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
15.	1	10.5	0.	0	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
16.	1	11.2	0.	0	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
17.	1	11.9	0.	0	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	11.9	0.	0	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
19.	1	12.6	0.	0	95.1	0.	0	100.0	0.	0	100.0	0.	0	100.0
20.	3	14.7	95.	1	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
21.	2	16.1	0.	0	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
22.	3	18.2	0.	0	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	18.2	0.	0	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
24.	3	20.3	0.	0	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	20.3	0.	0	95.8	0.	0	100.0	0.	0	100.0	0.	0	100.0
26.	2	21.7	101.	1	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	21.7	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
28.	1	22.4	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
29.	3	24.5	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
30.	4	27.3	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
31.	3	29.4	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
32.	3	31.5	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
33.	4	34.3	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
34.	3	36.4	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
35.	2	37.8	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
36.	2	39.2	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
37.	6	43.4	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
38.	2	44.8	0.	0	96.5	0.	0	100.0	0.	0	100.0	0.	0	100.0
39.	4	47.6	114.	1	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
40.	1	48.3	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
41.	9	54.5	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
42.	1	55.2	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
43.	2	56.6	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
44.	3	58.7	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	58.7	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
46.	2	60.1	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
47.	2	61.5	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
48.	2	62.9	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
49.	1	63.6	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
50.	1	64.3	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
51.	3	66.4	0.	0	97.2	0.	0	100.0	0.	0	100.0	0.	0	100.0
52.	1	67.1	127.	1	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
53.	2	68.5	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
54.	6	72.7	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	72.7	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
56.	2	74.1	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
57.	2	75.5	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
58.	4	78.3	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	78.3	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
60.	1	79.0	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
61.	3	81.1	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
62.	1	81.8	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
63.	1	82.5	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
64.	2	83.9	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
65.	2	85.3	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	85.3	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	85.3	0.	0	97.9	0.	0	100.0	0.	0	100.0	0.	0	100.0
68.	2	86.7	143.	1	98.6	0.	0	100.0	0.	0	100.0	0.	0	100.0
69.	3	88.8	144.	1	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
70.	1	89.5	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
71.	1	90.2	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
72.	2	91.6	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	91.6	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
74.	1	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0
0.	0	92.3	0.	0	99.3	0.	0	100.0	0.	0	100.0	0.	0	100.0



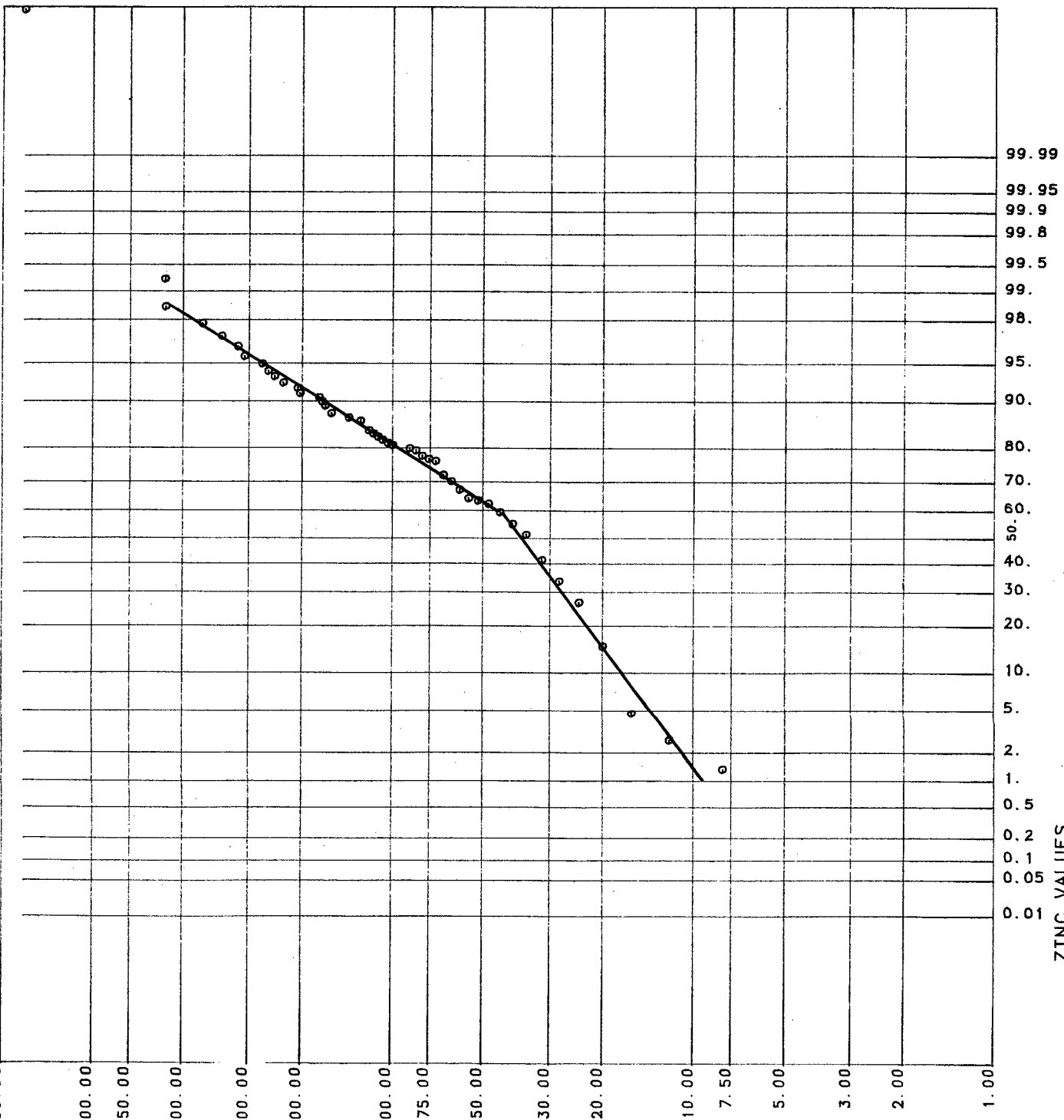


2000.00
1000.00
750.00
500.00
300.00
200.00
100.00
75.00
50.00
30.00
20.00
10.00
7.50
5.00
3.00
2.00
1.00

2000.00
1000.00
750.00
500.00
300.00
200.00
100.00
75.00
50.00
30.00
20.00
10.00
7.50
5.00
3.00
2.00
1.00

143 DATA VALUES USED

R17 AREA



ZINC VALUES
(CUM. % DISTRIBUTION)

10/14/87

R17 AREA
ZINC VALUES

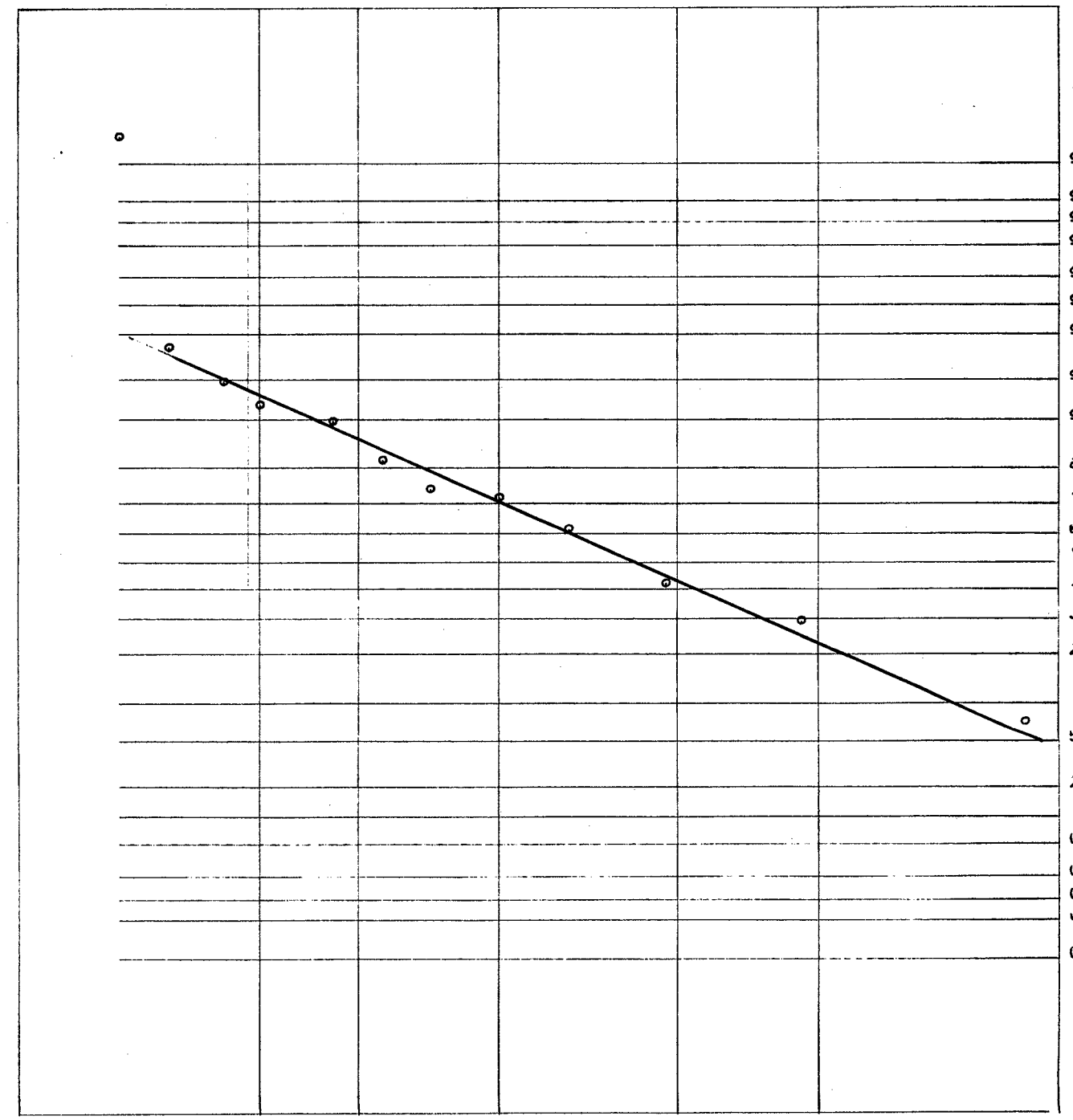
Bucket= 4.00 Factor= 1.00 (T216, F6.0)

Count/mean: 143 83.33
Data range: 7.00 1695.00
Variance/St.dev: .838 .916

Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %
0.	0	.0	0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3
8.	2	1.4	0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3
12.	2	2.8	312.	1	95.8	0.	0	99.3	0.	0	99.3	0.	0	99.3
16.	3	4.9	0.	0	95.8	0.	0	99.3	0.	0	99.3	0.	0	99.3
20.	15	15.4	0.	0	95.8	0.	0	99.3	0.	0	99.3	0.	0	99.3
24.	17	27.3	0.	0	95.8	0.	0	99.3	0.	0	99.3	0.	0	99.3
28.	10	34.3	328.	1	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
32.	11	42.0	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
36.	14	51.7	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
40.	6	55.9	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
44.	6	60.1	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
48.	4	62.9	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
52.	2	64.3	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
56.	1	65.0	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
60.	4	67.8	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
64.	4	70.6	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
68.	3	72.7	0.	0	96.5	0.	0	99.3	0.	0	99.3	0.	0	99.3
72.	6	76.9	372.	1	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
76.	1	77.6	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
80.	1	78.3	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
84.	2	79.7	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
88.	1	80.4	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	80.4	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	80.4	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
100.	1	81.1	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
104.	1	81.8	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
108.	1	82.5	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
112.	1	83.2	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
116.	1	83.9	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
120.	1	84.6	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	84.6	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
128.	3	86.7	0.	0	97.2	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	86.7	432.	1	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	86.7	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
140.	1	87.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	87.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	87.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	87.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	87.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
160.	1	88.1	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	88.1	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
168.	2	89.5	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
172.	1	90.2	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
176.	1	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	90.9	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
204.	1	91.6	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
208.	1	92.3	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	92.3	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	92.3	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	92.3	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	92.3	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
232.	1	93.0	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	93.0	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	93.0	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	93.0	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
248.	1	93.7	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	93.7	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	93.7	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
260.	1	94.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	94.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	94.4	0.	0	97.9	0.	0	99.3	0.	0	99.3	0.	0	99.3
272.	1	95.1	572.	1	98.6	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	576.	1	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3
0.	0	95.1	0.	0	99.3	0.	0	99.3	0.	0	99.3	0.	0	99.3

1696. 1 100.0

2.00 1.00 0.75 0.50 0.30 0.20 0.10



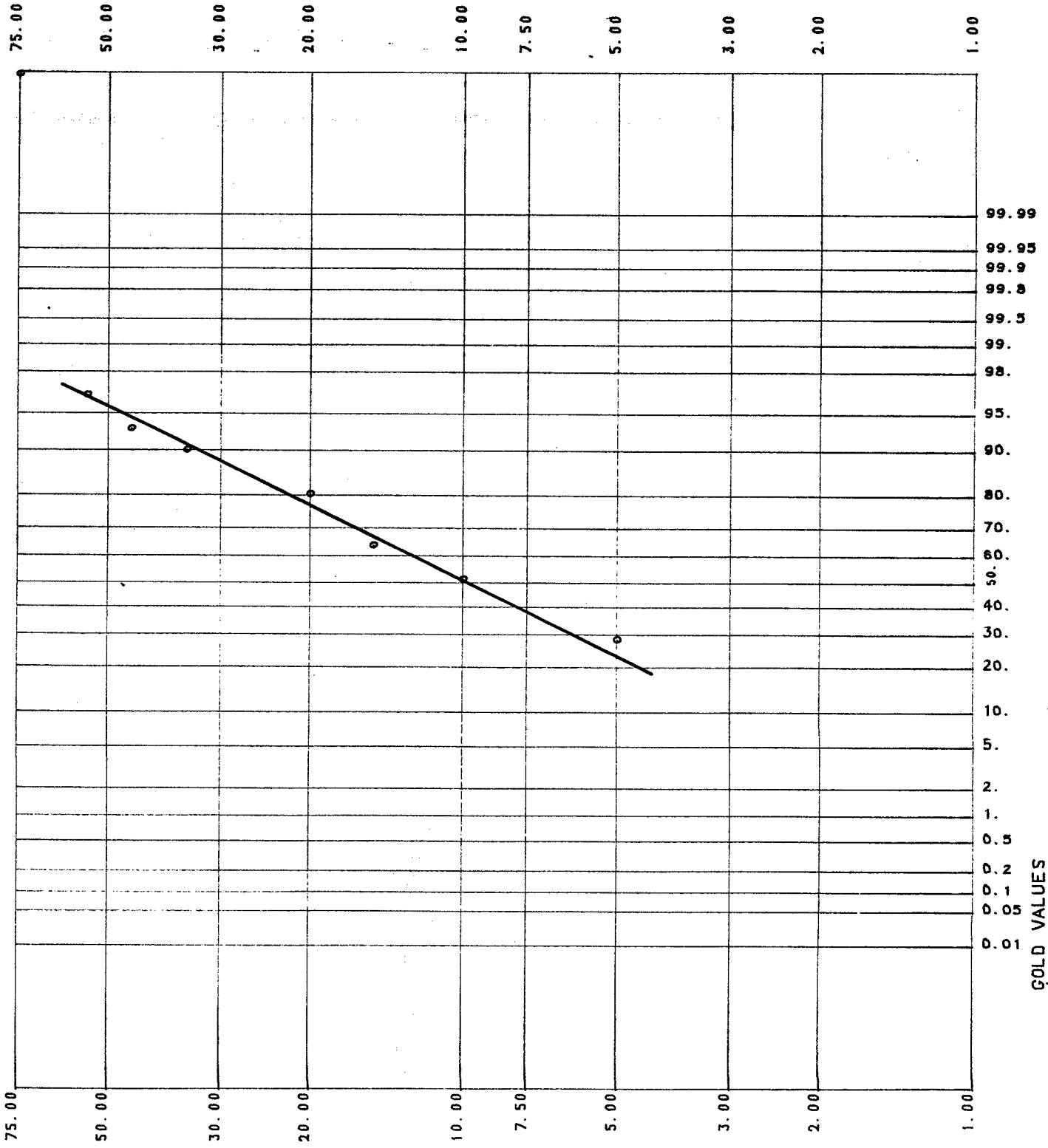
10/13/87

SILVER VALUES
(CUM. % DISTRIBUTION)

2.00 1.00 0.75 0.50 0.30 0.20 0.10

40 DATA VALUES USED

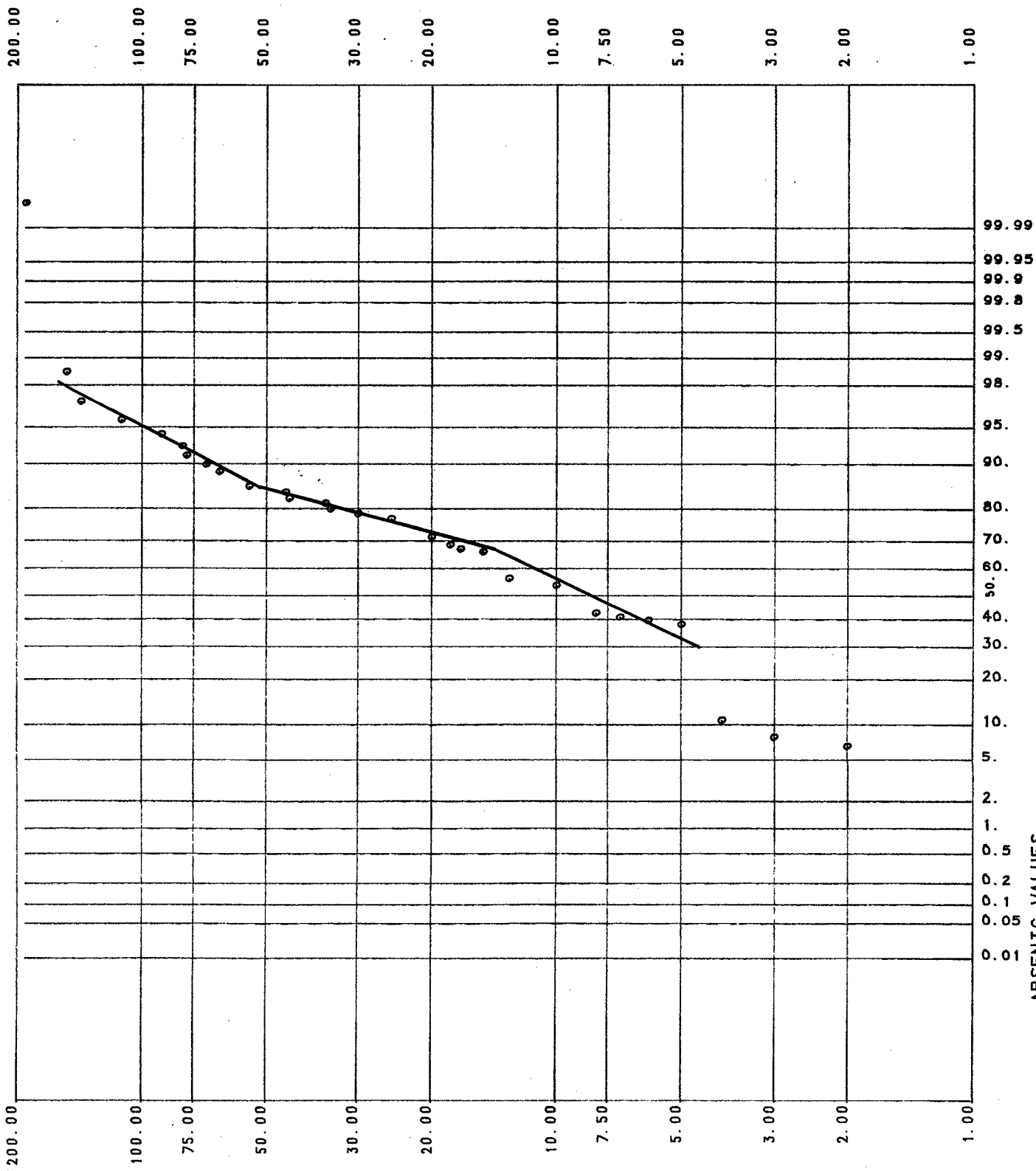
R17 AREA



GOLD VALUES
(CUM. % DISTRIBUTION)

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R17 AREA
31 DATA VALUES USED

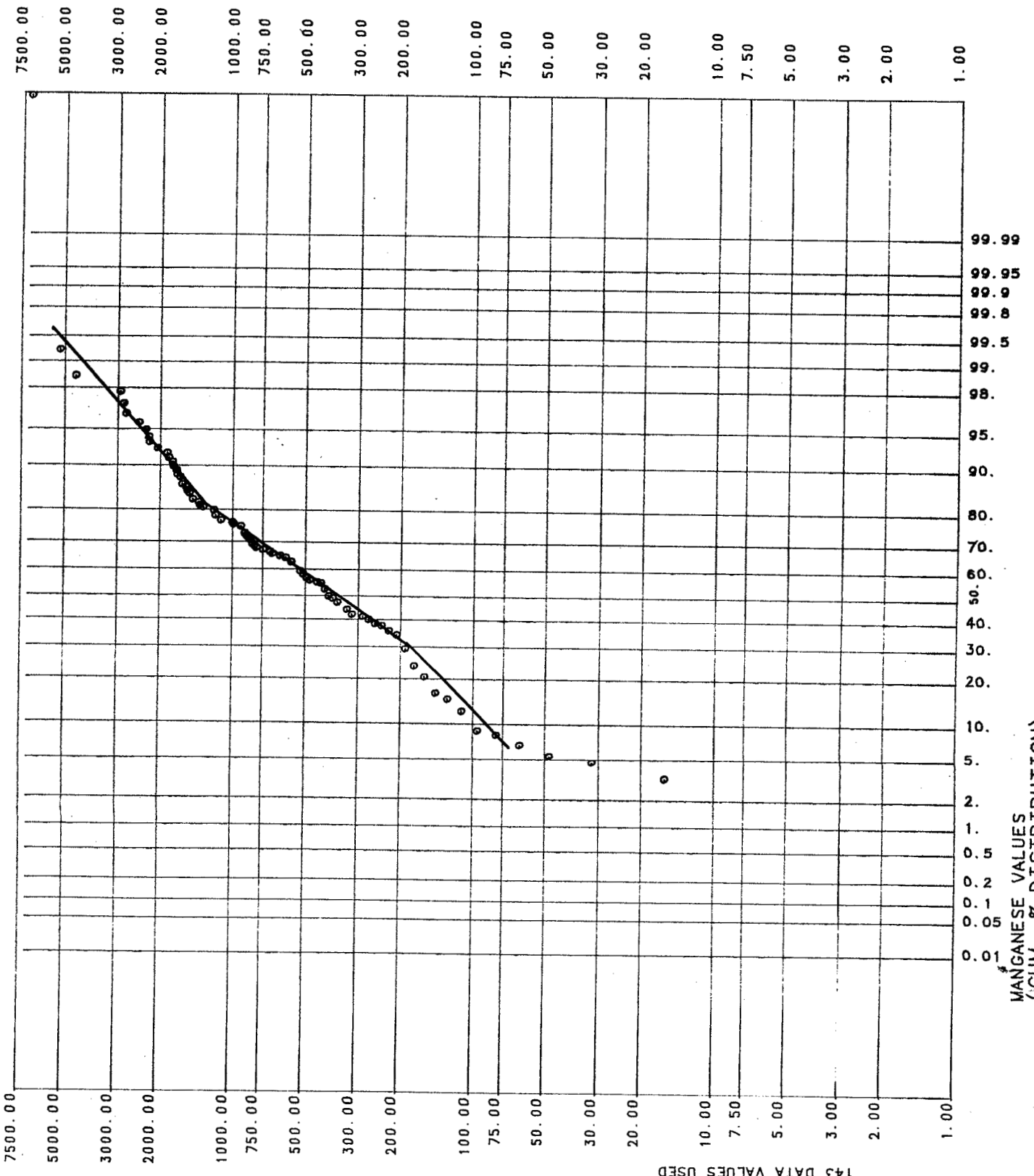


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R17 AREA

R17 AREA

143 DATA VALUES USED



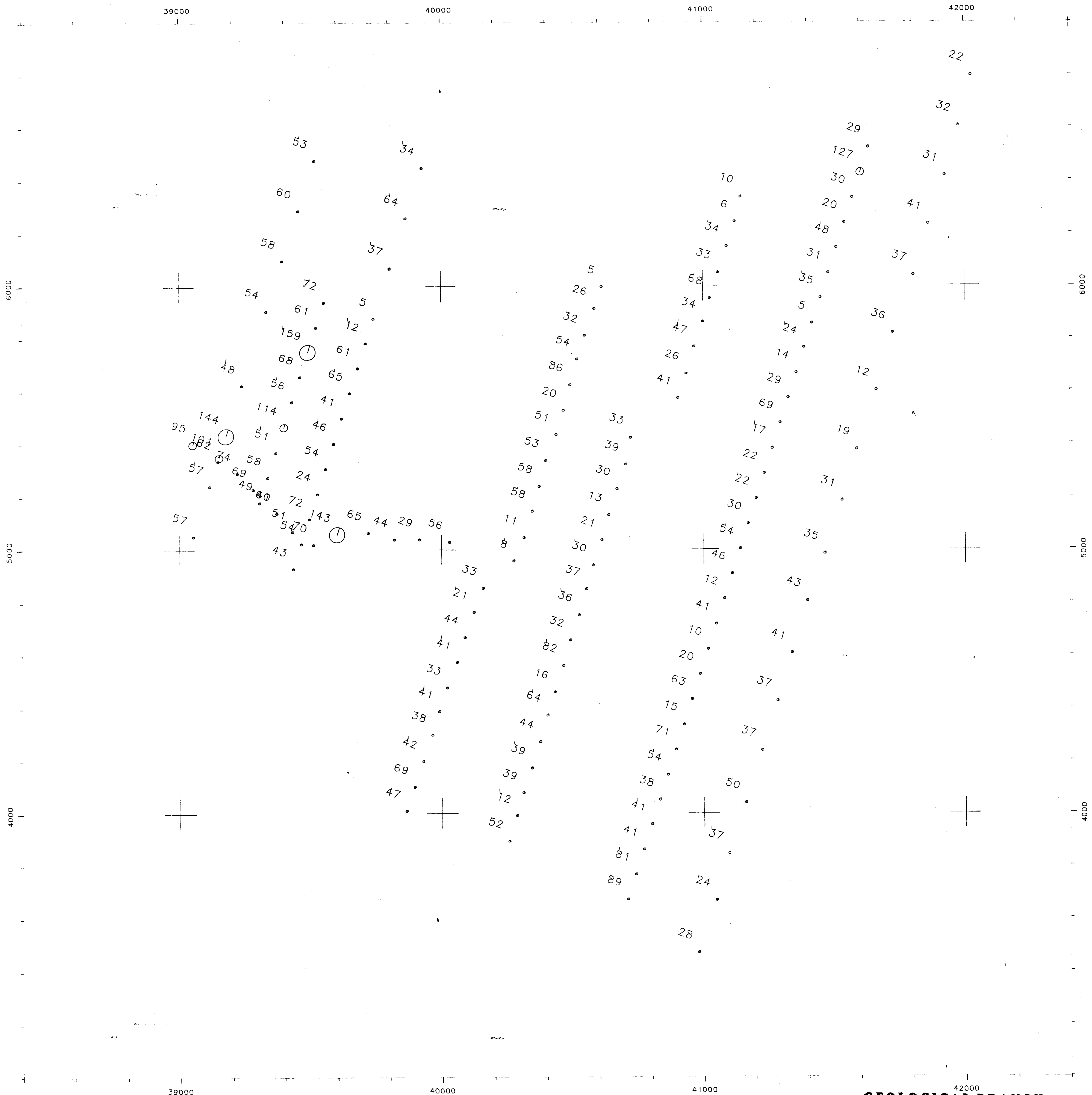
MANGANESE VALUES (CUM. % DISTRIBUTION)

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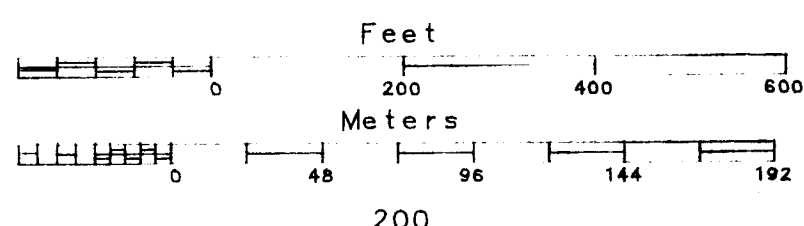
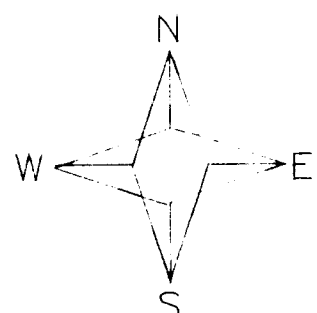
R17 AREA
MANGANESE VALUES
Bucket= 16.00 Factor= 1.00 (T132, F6.0)

Count/mean: 143 751.76
Data range: 8.00 7010.00
Variance/St.dev: 1.630 1.277

Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %	Value	Count	Cum %
16.	5	3.5	0.	0	80.4	0.	0	95.1	0.	0	97.9	0.	0	98.6
32.	2	4.9	0.	0	80.4	0.	0	95.1	0.	0	97.9	0.	0	98.6
48.	1	5.6	0.	0	80.4	0.	0	95.1	0.	0	97.9	0.	0	98.6
64.	2	7.0	0.	0	80.4	2464.	1	95.8	0.	0	97.9	0.	0	98.6
80.	2	8.4	0.	0	80.4	0.	0	95.8	0.	0	97.9	0.	0	98.6
96.	1	9.1	0.	0	80.4	0.	0	95.8	0.	0	97.9	0.	0	98.6
112.	5	12.6	0.	0	80.4	0.	0	95.8	0.	0	97.9	0.	0	98.6
128.	4	15.4	1328.	1	81.1	0.	0	95.8	0.	0	97.9	0.	0	98.6
144.	2	16.8	0.	0	81.1	0.	0	95.8	0.	0	97.9	0.	0	98.6
160.	6	21.0	0.	0	81.1	0.	0	95.8	0.	0	97.9	0.	0	98.6
176.	5	24.5	1376.	1	81.8	0.	0	95.8	0.	0	97.9	0.	0	98.6
192.	8	30.1	1392.	1	82.5	0.	0	95.8	0.	0	97.9	0.	0	98.6
208.	7	35.0	0.	0	82.5	0.	0	95.8	0.	0	97.9	0.	0	98.6
224.	2	36.4	0.	0	82.5	0.	0	95.8	0.	0	97.9	0.	0	98.6
240.	3	38.5	0.	0	82.5	0.	0	95.8	0.	0	97.9	0.	0	98.6
256.	1	39.2	0.	0	82.5	0.	0	95.8	0.	0	97.9	0.	0	98.6
272.	2	40.6	1472.	1	83.2	0.	0	95.8	0.	0	97.9	0.	0	98.6
288.	2	42.0	0.	0	83.2	0.	0	95.8	0.	0	97.9	0.	0	98.6
0.	0	42.0	0.	0	83.2	0.	0	95.8	0.	0	97.9	0.	0	98.6
320.	1	42.7	1520.	2	84.6	0.	0	95.8	0.	0	97.9	0.	0	98.6
336.	3	44.8	0.	0	84.6	0.	0	95.8	0.	0	97.9	0.	0	98.6
0.	0	44.8	1552.	1	85.3	0.	0	95.8	0.	0	97.9	0.	0	98.6
368.	4	47.6	1568.	1	86.0	0.	0	95.8	0.	0	97.9	0.	0	98.6
384.	2	49.0	0.	0	86.0	2784.	1	96.5	0.	0	97.9	0.	0	98.6
400.	2	50.3	0.	0	86.0	0.	0	96.5	0.	0	97.9	0.	0	98.6
416.	4	53.1	0.	0	86.0	0.	0	96.5	0.	0	97.9	0.	0	98.6
432.	3	55.2	1632.	1	86.7	0.	0	96.5	0.	0	97.9	0.	0	98.6
448.	1	55.9	0.	0	86.7	2848.	1	97.2	0.	0	97.9	5248.	1	99.3
0.	0	55.9	1664.	2	88.1	0.	0	97.2	0.	0	97.9	0.	0	99.3
480.	1	56.6	0.	0	88.1	0.	0	97.2	0.	0	97.9	0.	0	99.3
496.	1	57.3	0.	0	88.1	0.	0	97.2	0.	0	97.9	0.	0	99.3
512.	2	58.7	1712.	1	88.8	0.	0	97.2	0.	0	97.9	0.	0	99.3
528.	2	60.1	1728.	1	89.5	0.	0	97.2	0.	0	97.9	0.	0	99.3
0.	0	60.1	0.	0	89.5	2944.	1	97.9	0.	0	97.9	0.	0	99.3
0.	0	60.1	0.	0	89.5	0.	0	97.9	0.	0	97.9	0.	0	99.3
576.	5	63.6	1776.	1	90.2	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	63.6	1792.	1	90.9	0.	0	97.9	0.	0	97.9	0.	0	99.3
608.	2	65.0	0.	0	90.9	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	65.0	0.	0	90.9	0.	0	97.9	0.	0	97.9	0.	0	99.3
640.	1	65.7	0.	0	90.9	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	65.7	1856.	1	91.6	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	65.7	0.	0	91.6	0.	0	97.9	0.	0	97.9	0.	0	99.3
688.	1	66.4	1888.	1	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
704.	1	67.1	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	67.1	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	67.1	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
752.	1	67.8	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	67.8	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	67.8	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
800.	1	68.5	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
816.	1	69.2	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
832.	1	69.9	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
848.	2	71.3	0.	0	92.3	0.	0	97.9	0.	0	97.9	0.	0	99.3
864.	1	72.0	2064.	1	93.0	0.	0	97.9	0.	0	97.9	0.	0	99.3
880.	1	72.7	0.	0	93.0	0.	0	97.9	0.	0	97.9	0.	0	99.3
896.	1	73.4	0.	0	93.0	0.	0	97.9	0.	0	97.9	0.	0	99.3
0.	0	73.4	0.	0	93.0	0.	0	97.9	4512.	1	98.6	0.	0	99.3
928.	3	75.5	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	75.5	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	75.5	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	75.5	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
992.	1	76.2	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
1008.	1	76.9	0.	0	93.0	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	2224.	1	93.7	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	2240.	1	94.4	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	0.	0	94.4	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	0.	0	94.4	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	0.	0	94.4	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	76.9	2304.	1	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
1120.	1	77.6	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	77.6	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	77.6	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
0.	0	77.6	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
1184.	2	79.0	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3
1200.	2	80.4	0.	0	95.1	0.	0	97.9	0.	0	98.6	0.	0	99.3



• ○ ⊙
 Value #1 > -9999 > 90 > 130
 Points plotted: 142



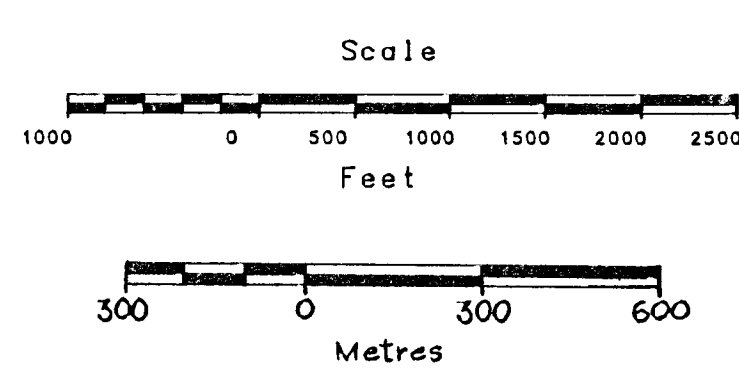
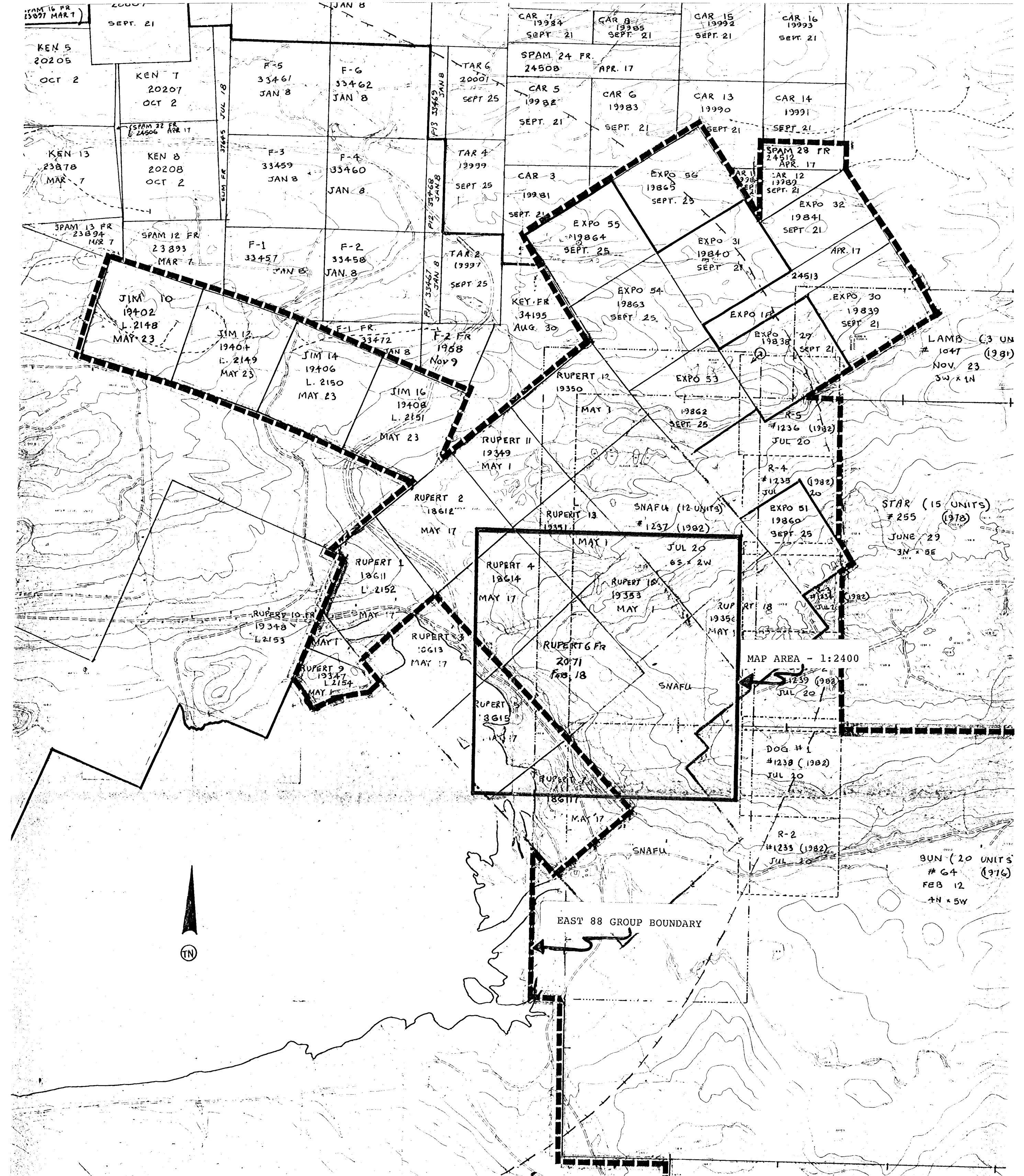
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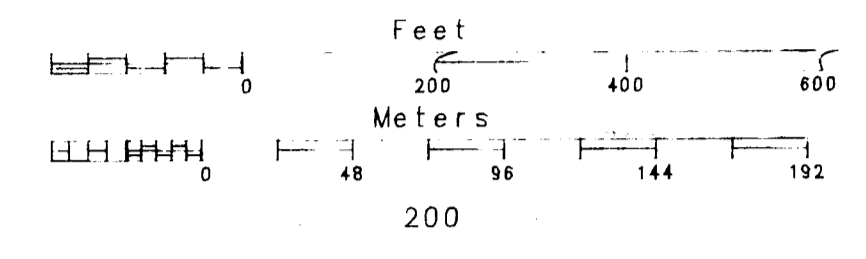
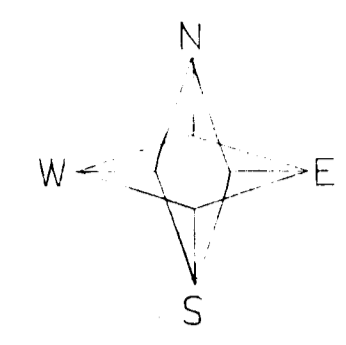
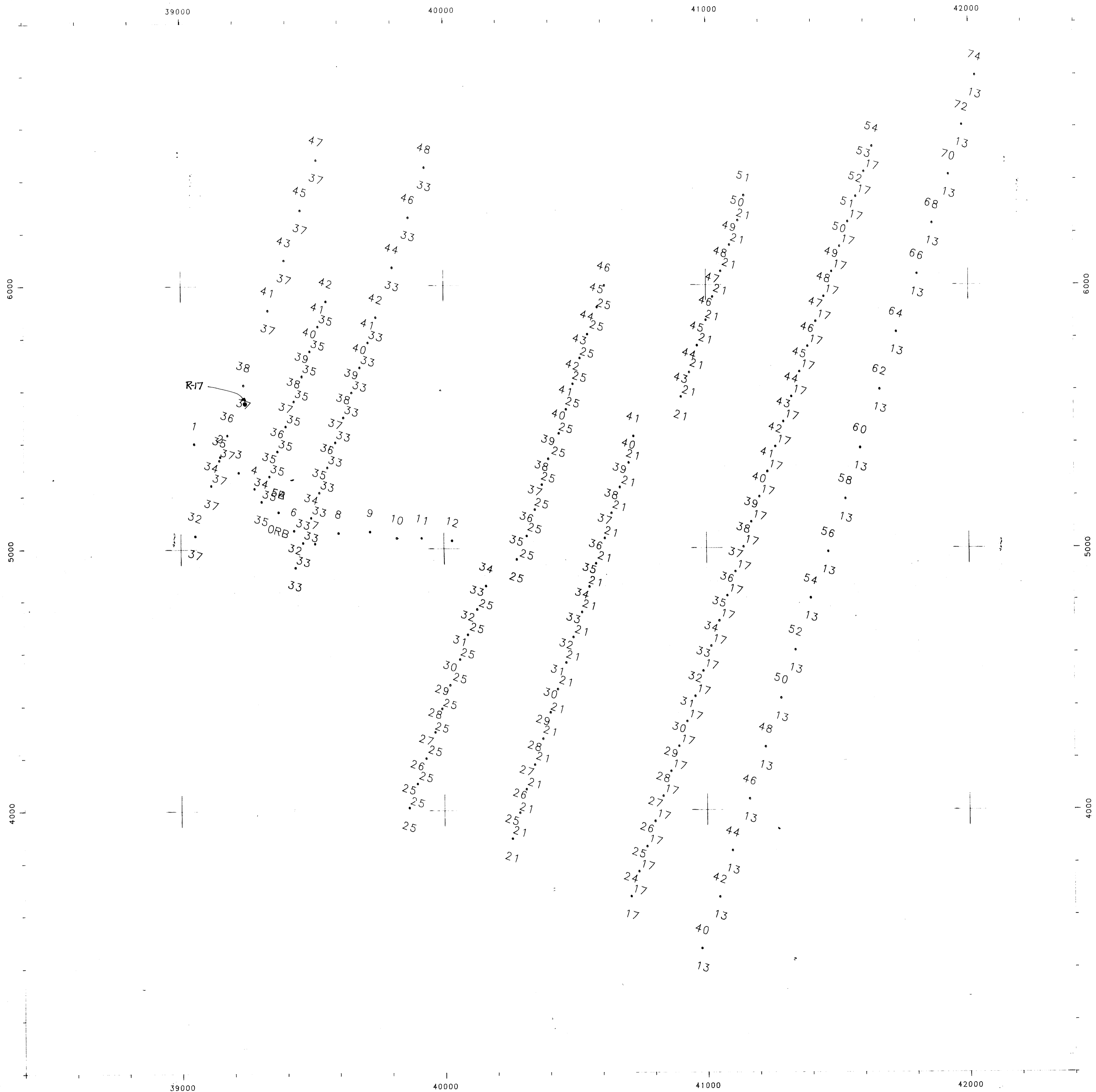
Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 Copper Values (in PPM)

Scale: 1:2400
 Date: OCT. 16, 1987
 Project: ILC1
 Drawn by:
 Checked:
 Approved:
 Drawing No. 4
 R17NEW.CUN



GEOLOGICAL BRANCH
 ASSESSMENT REPORT
16,510

MARY (16 UNITS)
 # 965 (1981)
 JUL 22
 4S x 4W
 CLAIM LOCATION MAP
 EAST 88 GROUP
 SCALE - 1:12000



Points plotted: 142

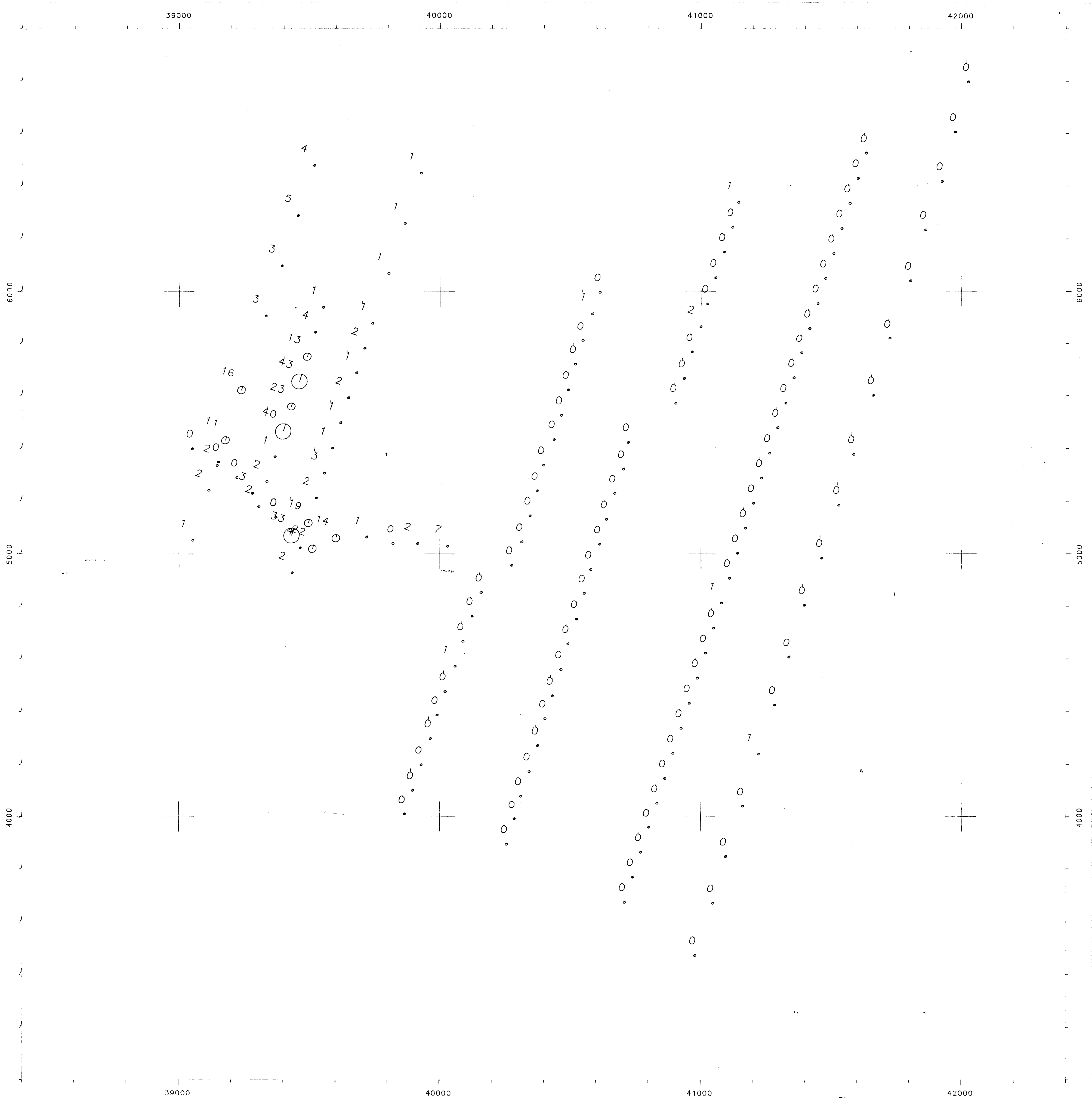
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**


16,510

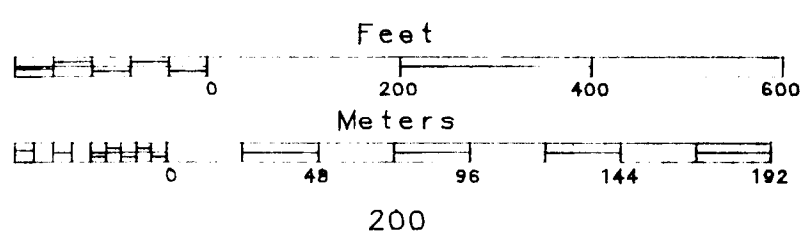
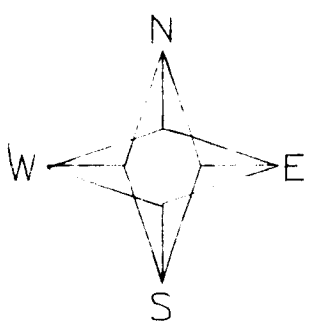
UTAH MINES LIMITED

Island Copper Mine
EAST-88 GROUP GEOCHEM SURVEY
R-17 AREA
Sample Locations

Scale:	1:2400
Date:	OCT. 17, 1987
Project:	ILC1
Drawn by:	
Checked:	
Approved:	J. A. F.
Drawing No.:	3
	R17NEW.LCN




 Value #1 > -9999 > 10 > 30
 Points plotted: 142



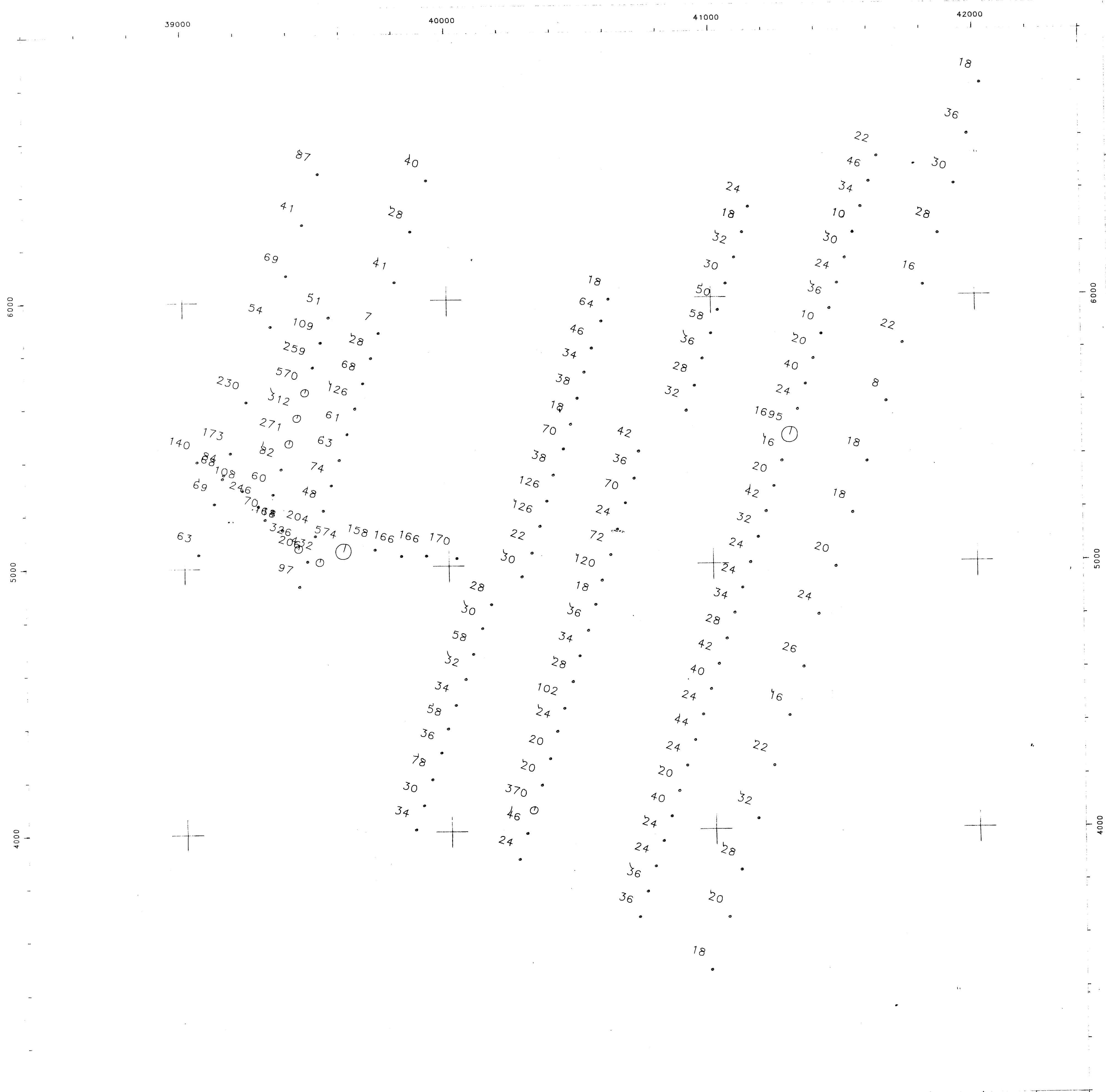
**GEOLOGICAL BRANCH
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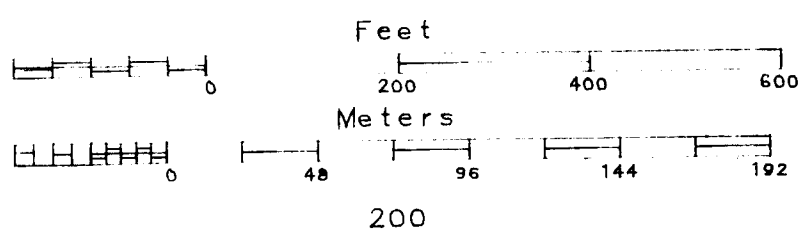
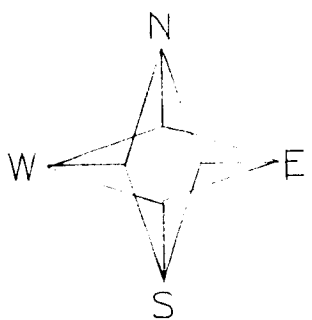
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 MOLY Values (in PPM)

Scale: 1:2400
 Date: OCT. 16, 1987
 Project: ILC1
 Drawn by:
 Checked:
 Approved: J. A. F.
 Drawing No. 5
 R17NEW.MON



• ○ ⊙
 Value #1 > -9999 > 270 > 570
 Points plotted: 142



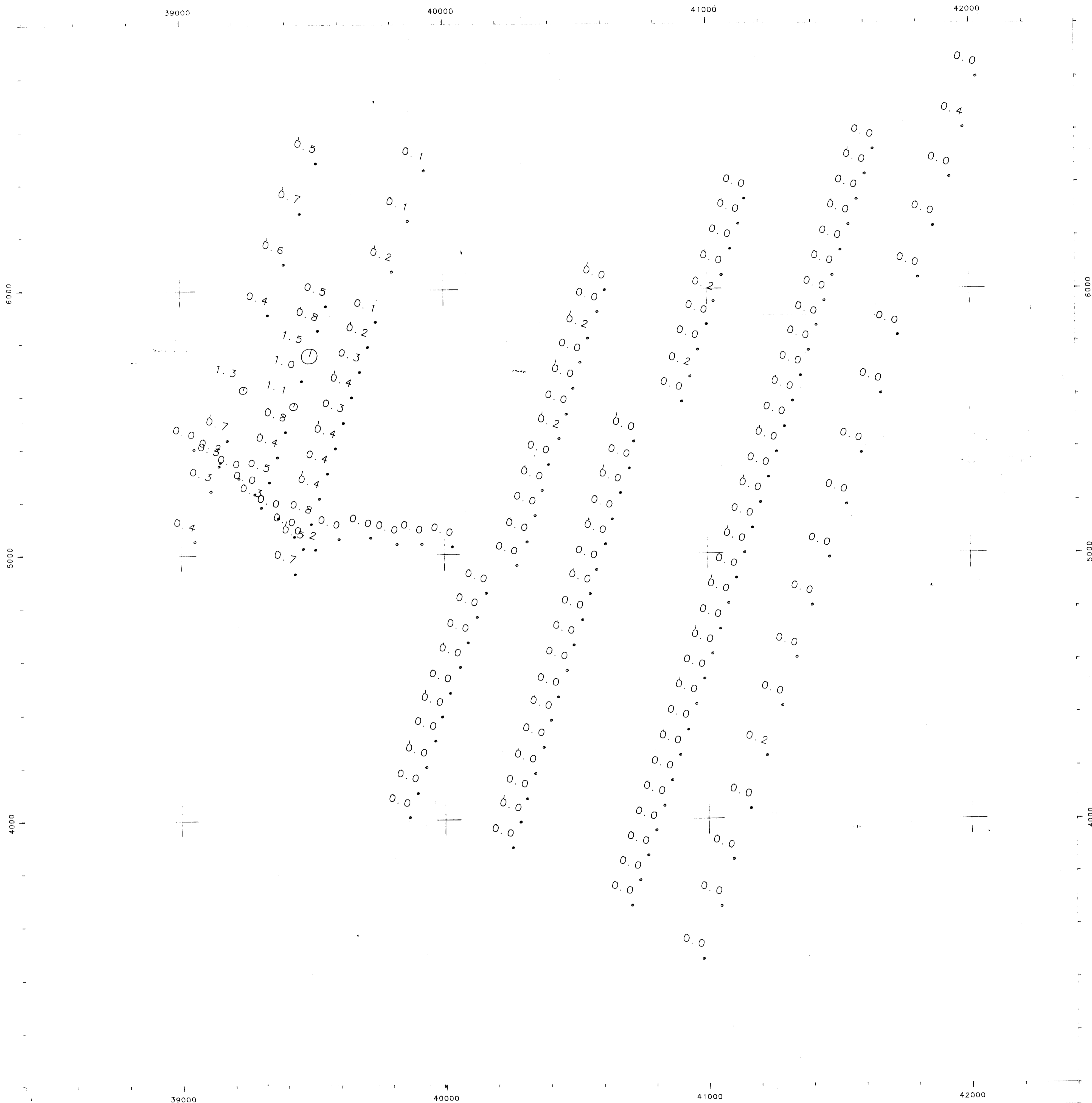
**GEOLOGICAL BRANCH
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16,510

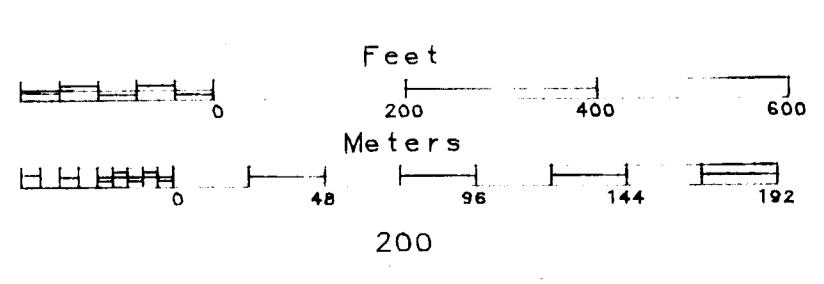
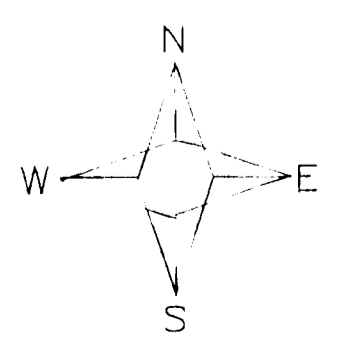
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 ZINC Values (in PPM)

Scale: 1:2400
 Date: OCT. 16, 1987
 Project: ILC1
 Drawn by:
 Checked:
 Approved: JAF
 Drawing No. 7
 R17NEW.ZNN




 Value #1 > -9999.0 > 1.0 > 1.4
 Points plotted: 142

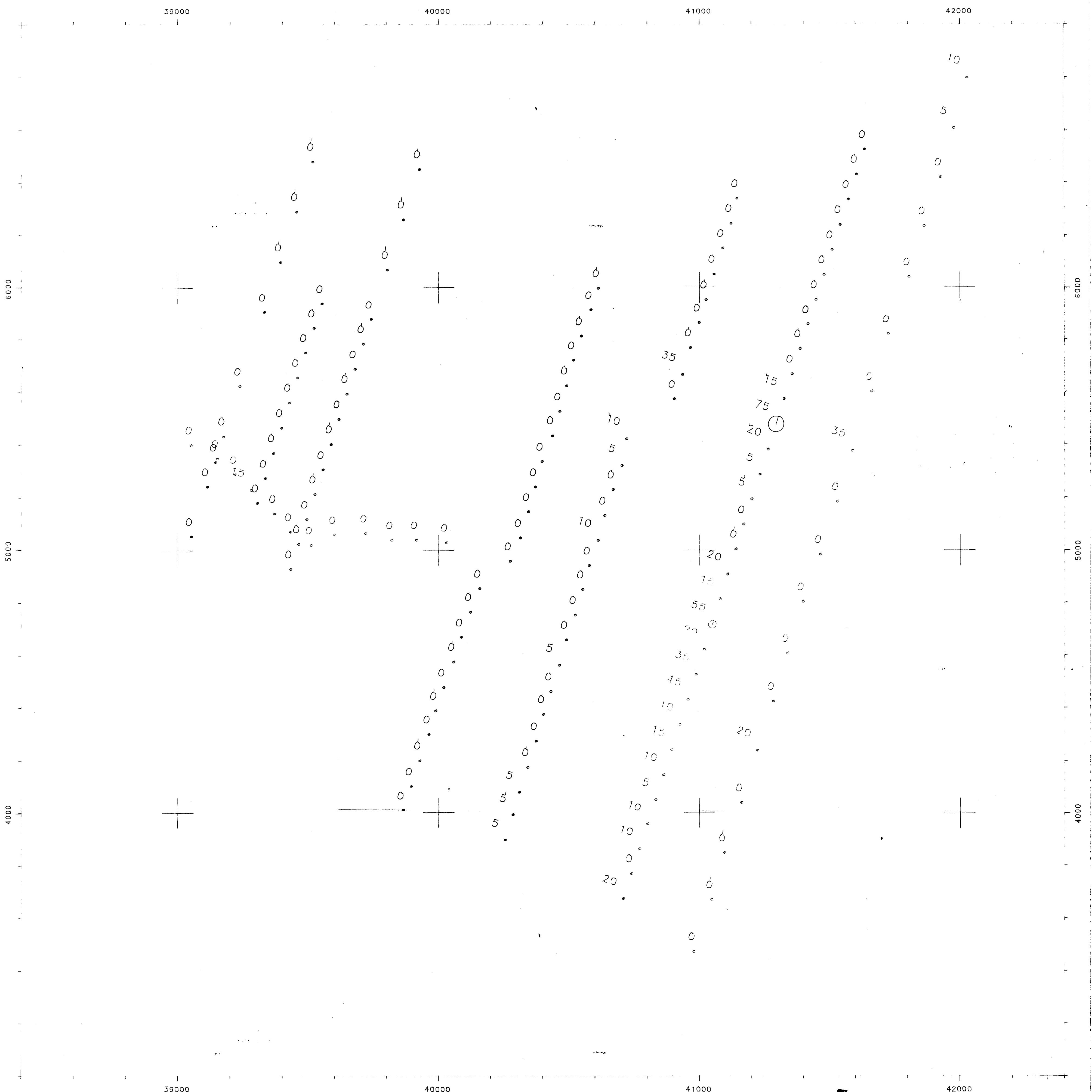


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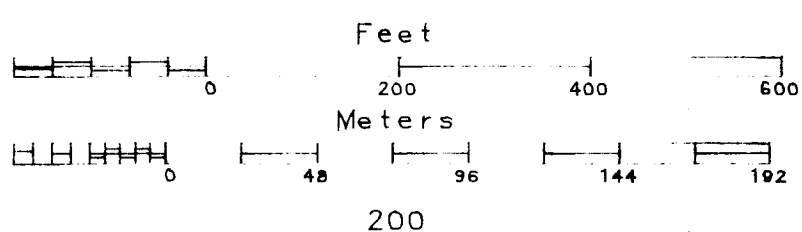
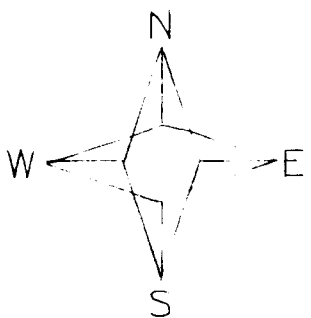
16,510
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 SILVER Values (in PPM)

Scale: 1:2400
 Date: OCT. 16, 1987
 Project: ILC1
 Drawn by:
 Checked:
 Approved: J. A. F.
 Drawing No. 8
 R17NEW.AGN



Value #1 > -9999 > 50 > 70
 Points plotted: 142



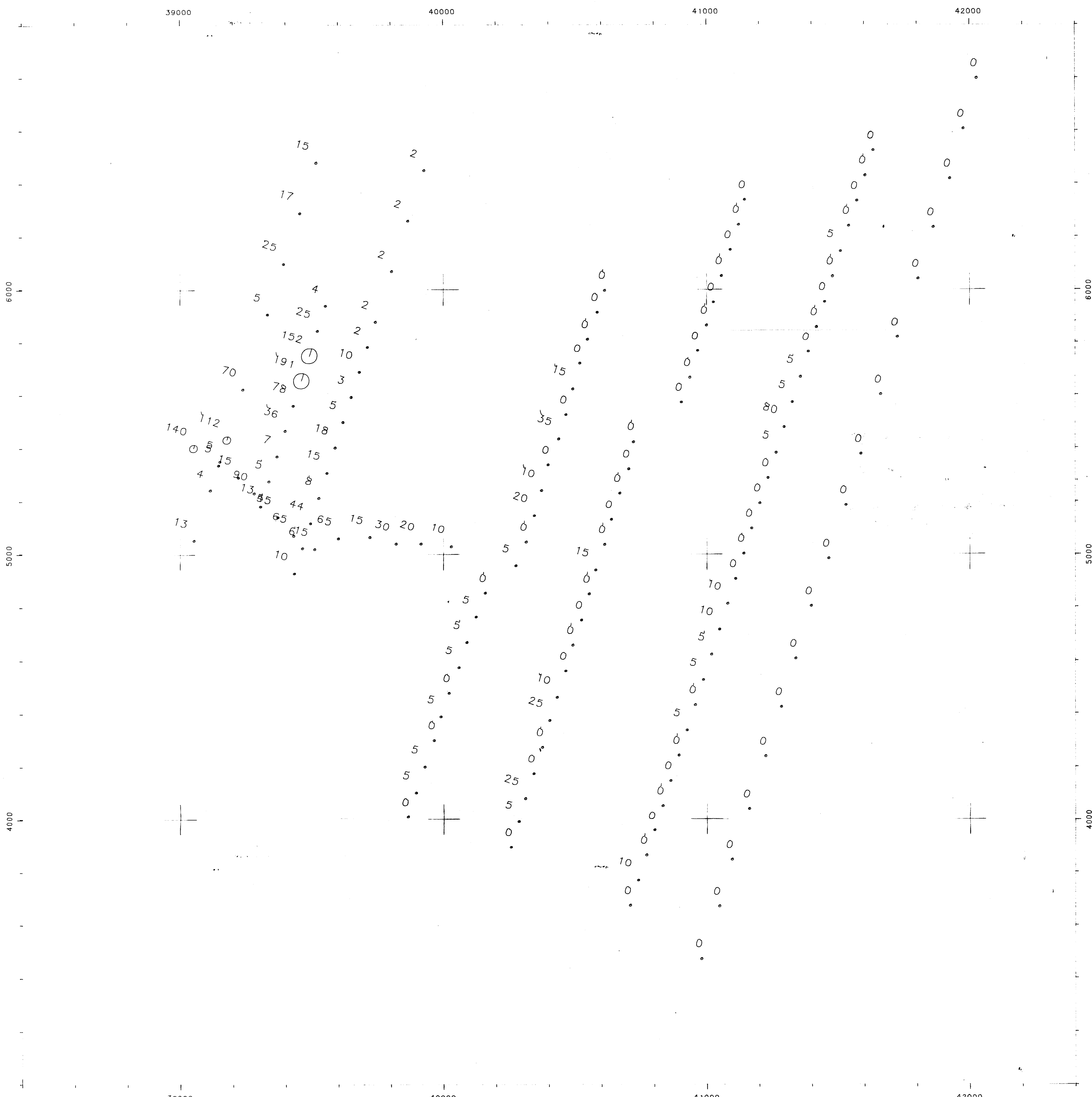
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 ASSESSMENT REPORT**

16,510

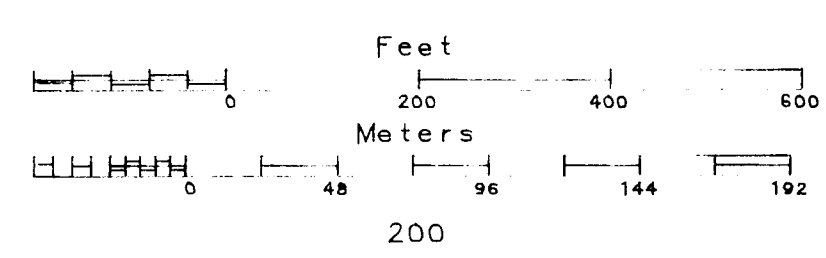
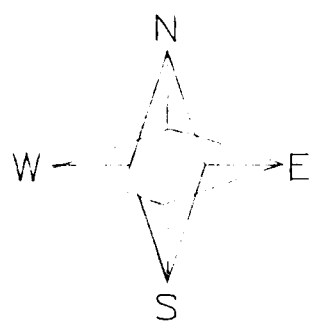
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 GOLD Values (in PPB)

Scale: 1:2400
Date: OCT. 16, 1987
Project: ILC1
Drawn by:
Checked:
Approved: J. A. F.
Drawing No. 9
R17NEW.PBN



○ ○ ⊙
 Value #1 > -9999 > 90 > 150
 Points plotted: 142

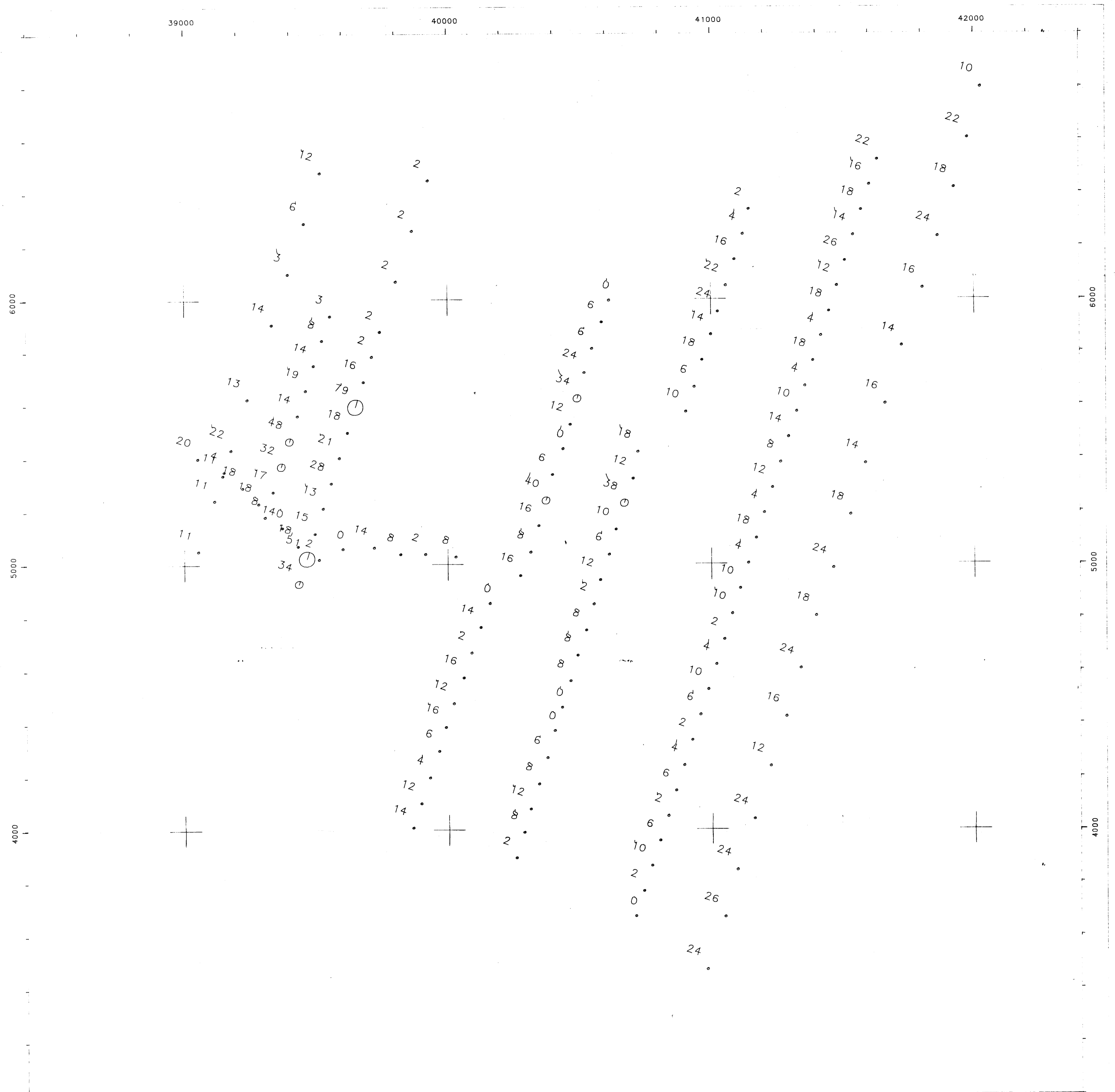


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ASSESSMENT REPORT**

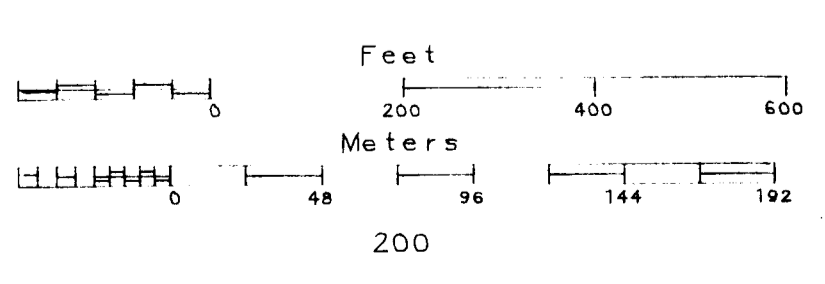
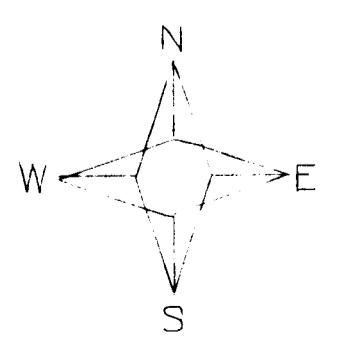
16,510
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 ARSENIC Values (in PPM)

Scale: 1:2400
 Date: OCT. 16, 1987
 Project: ILC1
 Drawn by:
 Checked:
 Approved: J. A. F.
 Drawing No. 10
 R17NEW.ASN



○ ⊙ ⊕
 Value #1 > 9999 > 30 > 50
 Points plotted: 142



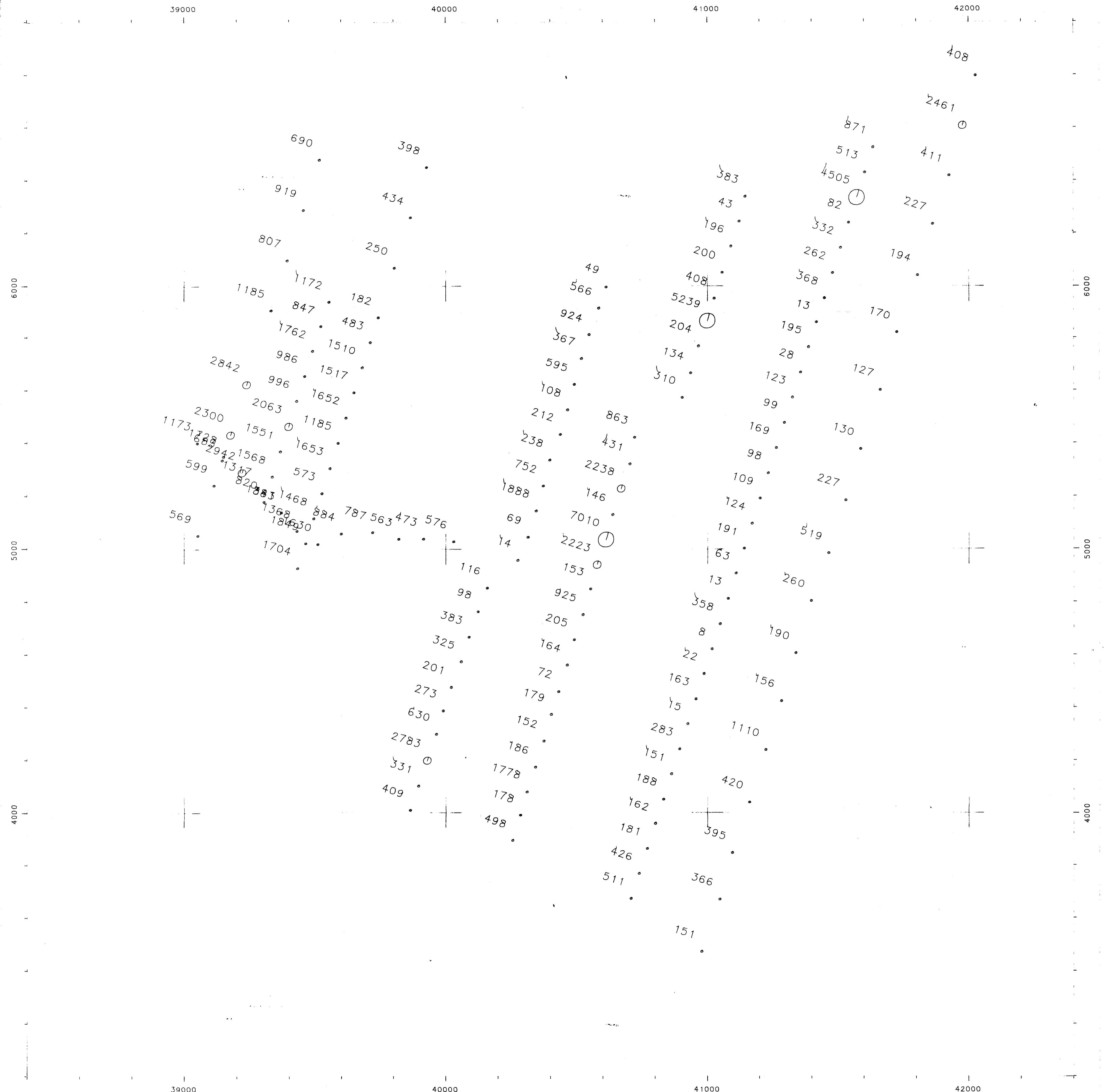
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**GEOLOGICAL BRANCH
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16,510

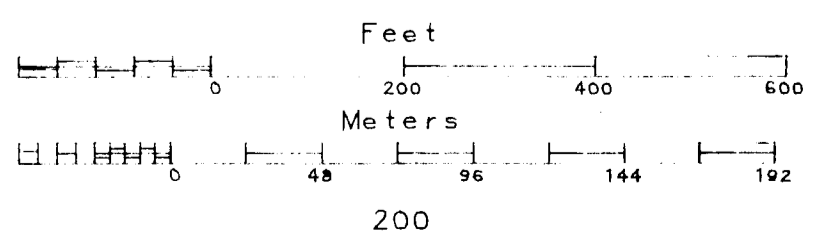
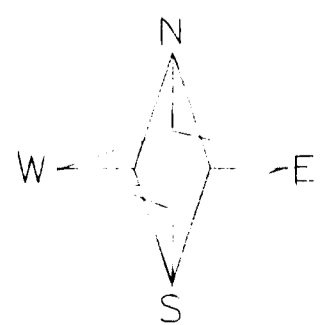
UTAH MINES LIMITED

Island Copper Mine
 EAST-88 GROUP GEOCHEM SURVEY
 R-17 AREA
 LEAD Values (in PPM)

Scale: 1:2400
Date: OCT. 16, 1987
Project: ILC1
Drawn by:
Checked:
Approved: J. A. P.
Drawing No. 6
R17NEW.PBN



• ○ ⊙
 Value #1 > -9999 > 2000 > 3000
 Points plotted: 142



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,510
UTAH MINES LIMITED

Island Copper Mine	Scale: 1:2400
EAST-88 GROUP GEOCHEM SURVEY	Date: 1-4800
R-17 AREA	Project: TLC1
MANGANESE Values (in PPM)	Drawn by:
	Checked:
	Approved: J. A. F.
	Drawing No. 11
	R17NEW.MNN