

GEOCHEMICAL SURVEY MAP - WESTERN PART OF THE OCHOCO NATIONAL FOREST, CROOK AND WHEELER COUNTIES, OREGON

OCHOCO RESERVOIR QUADRANGLE
OREGON-CROOK CO.
15 MINUTE SERIES (TOPOGRAPHIC)

1983

LOOKOUT MTN. QUADRANGLE
OREGON
15 MINUTE SERIES (TOPOGRAPHIC)

OPEN-FILE REPORT O-83-4
Geochemical Survey of the
Western Part of the Ochoco National Forest
Crook and Wheeler Counties, Oregon
1983

By Mark L. Ferns and Howard C. Brooks

Funded by U.S. Department of Agriculture - Forest Service
Contract Nos. 43-04H-1-2373 and 53-04H-16591N

TABLE 3. STREAM-SEDIMENT SAMPLES -
OCHOCO RESERVOIR QUADRANGLE
(All Analyses in Parts Per Million)

#	Au	Ag	As	Cu	Hg	Pb	Mo	Zn
2.	L	.05	1	21	.010	4.2	1	34
3.	L	1	20	.020	4.0	1	24	4
4.	L	1	21	.015	3.8	2	36	
5.	L	.03	1	21	.010	5.4	3	34
6.	L	.015	.02	1	.010	3.0	1	21
7.	L	1	1	22	.010	4.0	1	34
8.	L	1	1	18	.020	3.8	1	35
9.	L	1	2	18	.030	3.6	2	34
10.	L	1	1	20	.020	4.5	1	27
11.	L	.06	1	36	.010	3.4	1	40
12.	L	.04	1	21	.015	3.7	1	33
13.	L	1	2	19	.035	4.8	2	32
14.	L	1	11	.060	7.1	2	28	
15.	L	.09	1	38	.035	4.8	1	40
16.	L	.05	1	22	.015	3.8	1	31
17.	L	1	1	18	.010	2.4	1	25
18.	L	.02	1	15	.020	4.4	1	27
19.	L	1	1	23	.030	4.2	1	35
20.	L	.04	1	18	.015	4.6	1	38
21.	L	.04	1	18	.020	4.1	1	33
22.	L	1	1	49	.015	5.5	1	50
23.	L	1	1	29	.025	3.1	1	47
24.	L	.03	1	13	.050	4.2	1	18
25.	L	.04	2	16	.155	6.1	1	27
26.	L	.04	2	23	1.600	5.1	1	52
27.	L	.04	3	23	2.350	5.5	2	50
28.	L	.04	1	13	1.700	3.4	1	14
29.	L	.03	2	12	.050	6.7	1	18
30.	L	.03	1	14	.055	5.5	2	21
31.	L	1	3	25	.190	7.3	1	35
32.	L	.04	8	20	.110	6.1	1	56
33.	L	.04	1	25	.070	5.2	1	42
34.	L	1	3	19	.060	8.8	1	17
35.	L	1	1	18	.025	3.6	1	34
36.	L	1	1	20	.020	3.9	1	26
37.	L	.06	1	16	.055	8.3	1	28
38.	L	.06	2	28	.020	4.4	2	37
39.	L	.07	3	31	.350	7.8	1	159
40.	L	.05	3	30	.125	6.6	2	45

TABLE 2. STREAM-SEDIMENT SAMPLES - LOOKOUT MTN. QUADRANGLE
(All Analyses in Parts Per Million)

#	Au	Ag	As	Cu	Hg	Pb	Mo	Zn	#	Au	Ag	As	Cu	Hg	Pb	Mo	Zn									
68.	L	.05	1	28	.030	7.3	2	135	230.	L	L	1	22	.010	3.4	1	40									
69.	L	.05	1	33	.040	5.0	1	42	231.	L	L	2	27	.085	4.9	1	38									
70.	L	L	1	21	.010	4.2	L	43	302.	L	.06	1	19	.630	4.7	1	47									
71.	L	L	1	26	.020	7.1	1	50	301.	.030	.03	18	49	.205	6.8	3	71									
72.	L	L	1	19	.030	4.4	1	39	302.	L	.03	1	23	.045	4.9	1	33									
73.	L	.04	1	21	.025	4.1	L	43	303.	L	.03	1	23	.045	4.9	1	33									
74.	L	.07	1	26	.040	5.2	1	43	304.	.015	L	2	17	.040	6.6	1	31									
75.	L	L	1	25	.015	3.5	2	42	305.	L	L	1	26	.040	4.1	1	64									
76.	L	.03	1	22	.050	2.9	2	28	306.	L	L	1	23	.040	4.9	1	39									
77.	.030	.04	1	24	.315	2.7	2	38	307.	L	.07	1	28	.040	5.3	1	48									
78.	L	.03	1	21	.030	3.5	2	33	308.	L	.03	1	34	.040	3.4	1	41									
79.	L	L	1	21	.010	3.0	1	42	309.	L	.02	1	24	.210	2.8	2	52									
80.	.030	.11	5	27	1.800	7.0	1	47	310.	L	.06	1	28	.040	3.2	1	38									
81.	L	.05	1	25	.520	4.5	1	26	311.	L	.07	1	28	.045	3.5	1	34									
82.	.005	.13	4	23	2.3	1.450	7.4	1	312.	L	.07	2	24	.060	4.5	1	48									
83.	L	.03	2	26	.050	5.0	1	41	313.	L	L	3	34	.050	4.5	2	46									
84.	.15	.28	15	32	.32	1.25	12.3	1	314.	L	.04	1	31	.045	4.1	1	39									
85.	L	L	1	30	.020	3.5	2	35	315.	L	L	1	34	.065	3.8	1	48									
87.	.165	.24	6	36	.055	8.3	1	51	316.	L	L	4	37	.050	3.3	1	48									
88.	.175	.23	15	32	1.550	22.9	1	58	317.	L	.06	1	29	.280	8.0	1	45									
89.	L	.02	2	50	.010	2.8	1	51	318.	L	.05	8	53	.050	3.8	2	56									
90.	L	.03	2	65	.085	2.2	1	66	319.	.005	.05	1	54	.050	4.8	2	55									
92.	L	.04	1	23	.300	5.4	1	37	320.	L	.06	1	67	.050	4.1	1	59									
94.	L	.04	2	33	.080	5.7	1	36	321.	L	1	29	.195	5.4	1	58										
95.	L	.02	3	19	.030	7.5	1	39	322.	L	.04	1	31	2.500	6.1	1	34									
96.	L	.04	1	22	.030	5.0	1	42	323.	L	.05	.05	35	.050	4.5	1	45									
97.	L	L	1	23	.045	5.6	2	41	324.	L	.04	1	33	.055	5.0	1	41									
98.	L	.04	1	24	.020	4.9	2	54	325.	L	L	1	30	.020	3.0	1	54									
99.	L	.05	1	29	.035	5.5	2	50	326.	L	L	1	26	.085	6.5	1	34									
142.	L	L	1	27	.030	4.5	1	37	327.	L	L	1	37	.050	4.9	1	48									
143.	L	L	1	22	.025	2.9	2	39	328.	L	.05	1	53	.045	4.6	1	37									
171.	L	.05	1	34	.025	5.4	1	47	329.	L	.05	1	41	.050	5.2	2	44									
172.	L	L	2	22	.035	5.8	1	35	350.	L	.09	2	43	.085	6.2	1	31									
173.	L	L	1	21	.050	4.5	1	51	331.	L	.06	2	16	.435	4.1	1	39									
174.	L	.06	1	27	.050	5.1	1	35	332.	L	1	20	.020	4.2	1	25										
175.	L	.04	1	31	.035	7.1	2	56	333.	L	.04	1	31	.085	5.6	1	35									
176.	L	.02	2	25	.035	5.5	1	42	334.	L	L	1	46	.035	5.0	1	44									
177.	L	L	1	26	.020	3.4	2	48	335.	L	.02	20	.30	.030	5.0	2	40									
178.	L	.08	1	24	.045	5.4	1	40	340.	L	.06	1	42	.060	6.0	2	40									
179.	.010	.02	2	27	.045	5.6	1	43	365.	L	L	1	22	.050	5.3	1	31									
181.	L	.04	13	30	.050	4.9	2	46	366.	L	.05	3	22	.065	7.0	1	39									
182.	L	.04	3	32	.050	4.9	2	40	400.	L	.03	1	29	.050	3.2	1	59									
183.	L	.03	1	27	.035	2.7	1	39	401.	L	L	1	21	.010	2.2	1	43									
184.	.040	.26	8	37	1.250	8.1	1	64	402.	L	.02	1	22	.025	4.9	1	32									
185.	L	L	1	26	.045	8.0	1	47	403.	L	L	2	33	.050	3.2	1	45									
186.	L	.05	1	24	.160	7.8	2	38	404.	L	.06	1	42	.020	3.7	1	31									
187.	L	L	1	30	.105	4.3	2	44	405.	L	L	1	48	.405	5.7	2	44									
188.	.005	.14	2	33	4.600	7.1	1	44	406.	L	L	1	30	.060	3.2	1	35									
189.	L	.14	1	26	.115	5.2	2	43	407.	L	.06	3	46	.050	3.6	2	50									
190.	L	.04	1	32	.110	3.5	1	39	408.	L	L	1	24	.030	3.2	1	35									
191.	L	.05	1	24	.125	4.6	1	30	409.	L	L	1	28	.025	3.0	1	54									
192.	L	.06	1	26	.070	3.9	2	34	410.	L	.05	1	31	.045	3.5	1	49									
193.	L	L	1	42	.045	6.3	2	38	412.	L	.07	1	26	.050	5.6	1	39									
194.	.095	.68	1	30	1.15	14.8	2	63	413.	L	.07	1	25	.050	4.8	1	59									
195.	.020	.14	7	36	.100	6.9	1	49	414.	L	.03	1	19	1.050	2.9	1	35									
196.	.040	.23	32	32	.31	.125	9.3	2	415.	L	L	1	22	.150	3.7	2	38									
197.	L	.080	.26	31	.31	.110	11.9	2	416.	L	L	1	22	.060	3.5	2	37									
215.	.005	.06	2	50	3.700	5.6	2	89	417.	L	.04	1	22	3.300	3.2	1	40									
217.	.080	.26	13	31	.110	13.9	2	59	418.	L	.04	1	21	1.200	3.1	1	30									
218.	L	.05	1	47	.045	3.0	1	41	419.	L	.05	1	37	.025	4.9	1	48									
219.	.075	1.49	53	34	.260	32.0	1	76	420.	.010	.04	1	30	.030	4.6	1	46									
220.	L	.04	1	38	.035	4.2	1	43	421.	L	.03	1	47	.020	3.4	2	50									
221.	L	.04	3	24	.040	10.8	1	49	422.	L	L	2	17	.075	7.6	1	28									
222.	L	L	2	20	.030	5.5	2	48	423.	L	.04	1	19	.025	4.1	1	48									
223.	L	.05	3	20	.040	7.6	1	42	424.	.005	.06	2	36	.040	6.7	1	47									
224.	L	.06	1	34	.055	5.2	1	39	425.	L	L	3	13	.035	6.7	1	33									
225.	L	.07	1	35	4.500	4.7	2	45	426.	L	L	2	18	.390	6.3	1	19									
226.	L	.08	1	36	.030	4.7	1	38	427.	L	.05	2	28	.045	3.7	1	40									
228.	L	.04	1	38	.035	5.1	1	46	428.	L	L	1	33	.020	4.8	2	46									
229.	L	.03	2	38	.035	4.7	1	46																		
0 = greater than detection limit																		445.	L	.05	2	21	.080	6.0	1	38
L = less than detection limit																		446.	L	L	1	30	.030	5.7	2	53

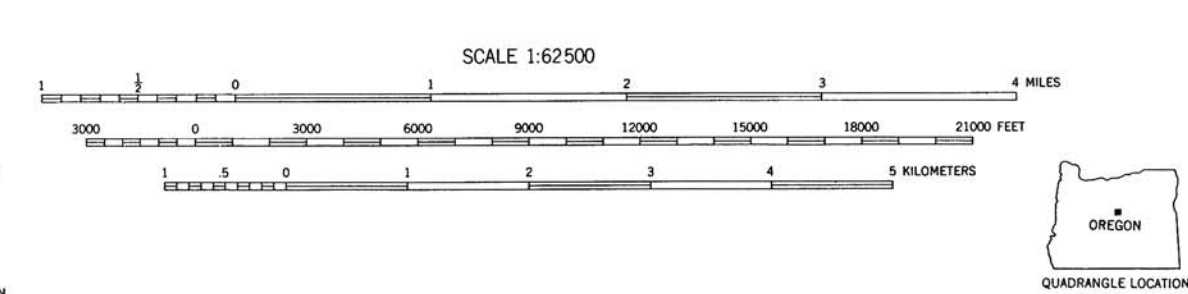
G = greater than detection limit
L = less than detection limit

G = greater than detection limit
L = less than detection limit

Control by USGS and USGS
Topography from aerial photographs by multiple methods
Aerial photographs taken 1943. Field check 1948
Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system,
south zone
Dashed land lines indicate approximate location

Map prepared by
STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

APPROXIMATE MEAN
DECLINATION, 1981

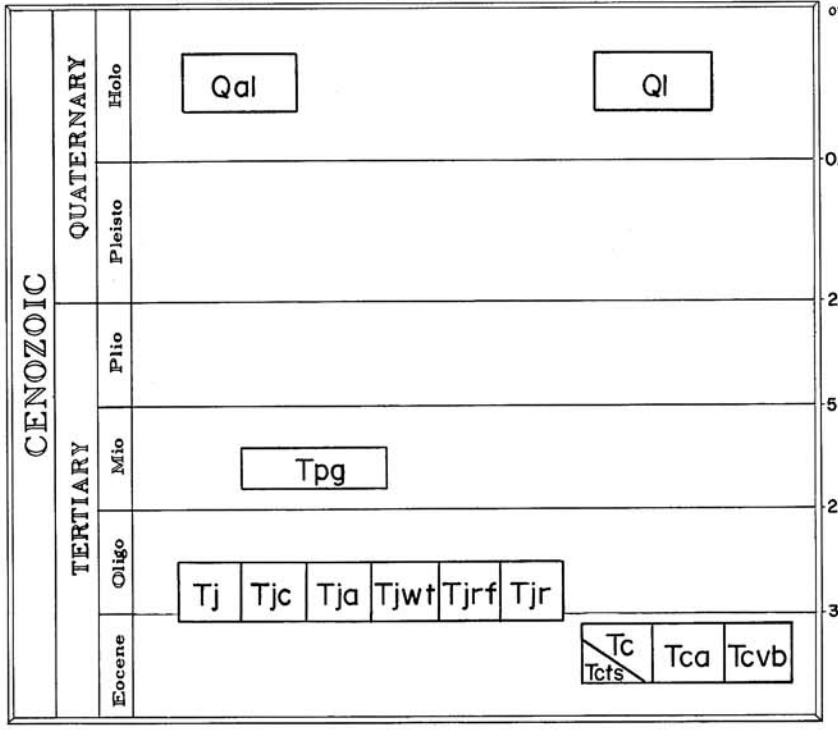


Geology by M.L. Ferns and H.C. Brooks
Field work and sampling completed in 1982

NOTICE

The Oregon Department of Geology and Mineral Industries
is publishing this map because the subject matter is
consistent with the mission of the department.
To facilitate timely distribution of information,
this map has not been edited to our usual standards.

TIME ROCK CHART



EXPLANATION

- Qal Alluvium
- Ql Landslides
- Tq Picture Gorge Basalt
- Tj John Day Formation, undifferentiated
- Tjc Clay derived from rhyolitic tuff
- Tjw Welded ash-flow tuff
- Tjrf Rhyolite flows
- Tjr Rhyolitic intrusive rocks
- Tja Feldspathic andesite flows
- Tc Clarno Formation, chiefly andesite flows
- Tca Andesitic intrusive rocks
- Tcvb Vent breccias
- Tcts Tuffaceous shale and siltstones
- Contacts - Approximately located
- o Stream-sediment sample site
- o Au, Hg Anomalous stream sediment sample site
- o Au over .005 ppm and/or Hg over .095 ppm
- x Rock-chip sample site

SOURCES OF GEOLOGIC DATA USED IN COMPILATION OF THIS MAP

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TABLE 1. ROCK-CHIP AND DUMP SAMPLES
(All Analyses in Parts Per Million)

#	Au	Ag	As	Cu	Hg	Pb	Mo	Zn
55A.	L	.08	3	26	3,000	7.6	9	27
55B.	L	.06	5	56	1,850	8.6	4	39
82.	L	.05	3	42	95,000	4.3	8	52
91.	3.280	34.00	500	113	.900	1630.0	4	4565
93.	.010	.13	12	80	.340	6.8	5	105
102.	L	.05	4	16	4,200	7.5	6	24
153.	L	.09	2	38	95,000	11.3	5	43
154.	L	.06	4	46	95,000	7.4	4	36
157.	L	.12	4	20	95,000	6.4	9	7
159.	L	.10	3	58	.380	7.1	6	31
180A.	L	.08	7	17	95,000	7.9	5	45
180B.	L	.05	12	35	95,000	4.2	10	71
198.	.075	.45	50	39	.800	5.6	3	72
199.	.020	.46	13	38	.205	8.4	4	98
235.	L	.04	5	13	.135	9.0	3	44
331.	L	.07	21	8	.210	10.5	11	42
411.	.055	.06	43	48	95,000	6.0	7	34

G = greater than detection limit
L = less than detection limit

STATE OF OREGON
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Map

Geochemical Survey Map, Western Part of the Ochoco National Forest, Crook and Wheeler Counties, Oregon....	in envelope
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Microfiche

1. Computer Printout of Raw Data.....	in envelope
2. Computer Printout of Frequency Tables, Histograms, and Scattergrams.....	in envelope
3. Quadrangle Maps Showing Sample-Location Sites.....	in envelope

Geochemical Survey of the Western Part of the Ochoco National Forest
Crook and Wheeler Counties, Oregon

by

M. L. Ferns and H. C. Brooks

Introduction

The Oregon Department of Geology and Mineral Industries acting under contract with the U. S. Forest Service conducted a stream-sediment sampling program in the western part of the Ochoco National Forest in September and October, 1982. The program was designed to evaluate the use of geochemical sampling as an aid in identifying potential mineral-resource areas for National Forest land-use planning purposes. The program concentrated on the western part of the Ochoco National Forest and encompassed most of the Prineville and Big Summit Ranger Districts. A small number of samples were also collected from an area of known mineralization near Spanish Gulch immediately to the north of a part of the Paulina Ranger District.

Topographic coverage of the project area is provided by the Lookout Mountain, Ochoco Reservoir, and Post 15-minute quadrangles and the Antone, Dutchman Creek, Mt. Pisgah, Opal Mountain, Peterson Point, and Stephenson Mountain 7 $\frac{1}{2}$ -minute quadrangles. Geologic coverage of the Ochoco Reservoir and Lookout Mountain quadrangles was adapted from maps by Waters and Vaughan (1968) and Swinney and others (1968), respectively. Geologic maps of the east half of the Bend (Swanson, 1969) and the Canyon City (Brown and Thayer, 1966) 1-degree by 2-degree quadrangles cover other parts of the project area.

A total of 352 stream-sediment and 23 rock-chip samples were collected. Thirty-four man days were spent in the field. The bulk of the sample sites (257 stream sediment and 17 rock chip) are located in the Lookout Mountain and Ochoco Reservoir 15-minute quadrangles. The two quadrangles contain most of the known mineral deposits and potential mineral resource areas within the project area.

The accompanying microfiche contain location, geologic, analytical, and statistical data generated from the samples. Sampling, assay, and data-reduction procedures followed those developed for the Oregon Department of Geology and Mineral Industries by Gray and others (1983).

Geology

Most of the project area is underlain by rocks representing several well-known Cenozoic formations of wide distribution in central and eastern Oregon. These are, from oldest to youngest, the Clarno Formation of late Eocene and early Oligocene age; the John Day Formation of middle and late Oligocene age; and the Picture Gorge Basalt of the Columbia River Basalt Group of Miocene age. Paleozoic and Mesozoic metamorphic, igneous, and sedimentary rocks are exposed in the Spanish Gulch area which is just north of the Forest boundary. There a small area of serpentine, argillite, and chlorite schists is locally intruded by porphyritic granodiorite dikes, and depositionally overlain by younger Cretaceous conglomerate and sandstone.

Andesitic volcanic rocks constitute the bulk of the Clarno Formation

in the study area. ~~Fine-grained, platy andesite flows~~ are most abundant. Andesitic breccias, agglomerates, and tuffaceous sedimentary rocks are exposed near Ochoco Summit. Small andesitic and basaltic intrusive dikes and plugs are widely scattered. They appear to be especially abundant in the Round Mountain area.

Silicic volcanic rocks including rhyolite, ash-flow tuff, and tuffaceous sedimentary rocks are correlated with the John Day Formation. One ash-flow tuff in the Hash Rock area has been dated radiometrically by the U.S. Geological Survey at 36.1 ± 1.0 million years (Walker and others, 1974). Rocks mapped as John Day Formation include small rhyolitic domes and plugs in the Kidnap Springs and Wildcat Mountain areas.

The eastern part of the study area is underlain by Miocene volcanic rocks, mainly thick, typically columnar jointed, olivine-bearing basalt flows with local lenses of tuffaceous sedimentary rocks. These rocks represent the Picture Gorge Basalt member of the Columbia River Basalt Group. The unit thickens to the east, where it rests directly on Paleozoic and Mesozoic rocks and thins to the west to about 300 feet in the Lookout Mountain area where it rests directly on andesitic rocks of the Clarno Formation.

Holocene units include unconsolidated deposits of gravel, sand, and silt in the stream valleys; terraces and alluvial fans; talus and landslide deposits; and air-fall ash deposits from recent volcanoes such as Crater Lake and Newberry Caldera.

Mineral Deposits

Many small mercury mines and prospects and a few gold deposits

TABLE 1. MINES AND PROSPECTS

Area and Name	1/4	Sec.	T.S.	R.E.	Commodity	Production
<u>JOHNSON CREEK AREA</u>						
Amity	SW	15	14	20	Hg	409 flasks (?)
Blue Ridge	SE	15	14	20	Hg	301 flasks (?)
Devils Food	SE	16	14	20	Hg	1 flasks (?)
Independent	SE	20	14	20	Hg	none
Mother Lode	SW	20	14	20	Hg	503 flasks (?)
Orion	NW	21	14	20	Hg	none
Peaslee Creek	NW	18	14	20	Hg	none
Round Mountain	NE	04	14	20	Hg	2 flasks
Wesserling	NE	14	14	20	Hg	none
<u>OCHOCO CREEK AREA</u>						
Blevins	NW	13	14	18	Hg	none
Champion	NW	03	14	20	Hg	37 flasks
Little Hay Creek	NW	27	13	19	Hg	3 flasks (?)
Ophir-Mayflower	NE	30	13	20	Au	+2500 oz
Ontko	SE	33	13	19	Hg	none
Scissors Creek Placers	SE	30	13	20	Au	+ 500 oz
Staley	SE	07	14	19	Hg	448 flasks
Taylor Ranch	SW	34	13	19	Hg	248 flasks
<u>MARKS CREEK AREA</u>						
Bear Claims	SW	32	12	20	Hg	none
Beaver Guard	SE	28	12	20	Hg	none
Mercury King	SE	31	12	20	Hg	none
Rieblin	SW	32	12	20	Hg	none

TABLE 1 - Continued

Area and Name	1/4	Sec.	T.S.	R.E.	Commodity	Production
<u>KIDNAP SPRINGS AREA</u>						
Allison	SE	23	13	17	Hg	5 flasks (?)
Beale	SW	18	14	17	Hg	none
Kidnap Spring	SE	23	13	17	Hg	3 flasks (?)
Red Warrior	NE	26	13	17	Hg	none
Strickland Butte	SE	14	13	17	Hg	10 flasks
Watson	NE	23	13	17	Hg	1 flask
<u>SPANISH GULCH AREA</u>						
Andrews	SE	07	13	25	Au	unknown
Spanish Gulch Placers	SE	12	13	24	Au	5,000 oz (?)
Waterman	SW	07	13	25	Au	unknown
<u>MISCELLANEOUS</u>						
<u>OCCURRENCES</u>						
Gray Prairie	SE	16	15	20	Hg	none
Viewpoint	SE	27	12	19	Hg	none

occur within the National Forest area covered by this project. Total output has been about 1,961 flasks of mercury and 3,000 ounces of gold. Latest mercury production was in 1960. Gold production was prior to 1940. All underground workings are caved. Location and production data are given in Table 1.

Most of the mercury production was from mines along Ochoco Creek and Johnson Creek where the deposits are associated with northeast trending zones of faulting and mineralization in andesitic to locally rhyolitic flows, agglomerates and tuffs of the Clarno Formation. Mercury mineralization consists of discontinuous fracture-fillings, coatings, and disseminations of cinnabar, associated with veinlets and impregnations of carbonate and chalcedony in clay-rich, extensively crushed, hydrothermally altered fault breccia and gouge (Brooks, 1963). The ore bodies typically were small pods, lenses and near-vertical shoots a few tens of feet in longest dimensions.

Mercury mineralization also occurs along the margins of shallow rhyolitic intrusives in the Kidnap Springs area. At Strickland Butte, cinnabar occurs as fracture fillings and fine disseminations in altered tuff near the margins of a rhyolitic plug (Brooks, 1963). A zone of silicified andesite in this area is cut by stringers of massive pyrite (site 55) but showed low mercury values (1.85-3.00 ppm) and no trace of precious-metal mineralization.

The known gold deposits are in an area of altered andesite in the Scissors Creek-Gold Hill area of the Ochoco Creek zone. At the Ophir Mayflower mine, silicified zones in andesite are impregnated with pyrite and cut by numerous small stringers and veinlets of quartz and carbonate.

A large number of premineral faults and fissures occur within the mineralized zone. Two fracture systems are represented, one striking N50-70W, the other N25-60E (Gilluly and others, 1933). High-grade gold ore shoots with arsenopyrite, sphalerite, chalcopyrite, tetrahedrite, and galena occur locally at intersections of narrow veinlets of quartz, carbonate, and pyrite.

A zone of hydrothermal alteration is associated with rhyolitic intrusive rocks near Wildcat Mountain. A gold-mercury anomaly is indicated by results of the stream-sediment sampling in the area.

Lode-gold mineralization at Spanish Gulch, outside of the Forest boundary, occurs in Paleozoic (?) chloritic schists, argillite, and serpentine adjacent to an area intruded by irregular masses and dikes of porphyritic granodiorite (Brooks and Ramp, 1968). Free gold is reported to occur with pyrite, chalcopyrite, and galena in narrow secondary quartz veins which cut highly altered and silicified chloritic schists adjacent to serpentine. Large composite quartz veins up to 20 ft. in width and composed of massive brecciated white quartz partially recemented by quartz and calcite veinlets also cut the chloritic schists but are reported to carry little or no value.

Sampling Methods

First-order streams of a mile or greater length were sampled. Second- and third-order streams were sampled at approximately 1-mile intervals above confluences with first-order streams where possible. (A first-order stream has one perennial channel; a second-order stream is one fed by two or more first-order branches; and a third-order stream is one fed by two or more second-order branches.)

Known mineral deposits in the area are confined to the Clarno and

John Day Formations, and therefore a higher density of samples was collected from areas within the Forest which are underlain by these formations. Areas of known mineralization were sampled more extensively than areas where no mineral deposits are known to exist. Calibration samples were collected at roughly one-quarter and one-half mile intervals downstream from the Mother Lode, Staley, and Kidnap Springs mercury mines.

Samples from each site consisted of two fine-sediment samples of approximately 3 pounds (1,350 grams) each and one panned concentrate from a coarse-sediment sample of approximately 10 pounds (4,530 grams) initial weight. Samples were sealed in individual 4" X 6" water-resistant paper sample envelopes.

The fines were taken in such a way as to minimize contamination from bank material and to maximize minus 80 mesh material. Where possible, at each site material for the samples was collected from several places within the active stream channel or from behind hydraulic dams within the channels. The high moisture content of the fines precluded the use of sieves in the field. A considerable amount of organic material, mainly conifer bark and needles was unavoidably collected with the fines.

Samples of coarse material were collected from gravel banks within the existing stream channels where possible. The ready availability of water permitted on-site concentration by hand panning of most of the coarse samples.

Rock samples represent composite grab samples from mine and prospect dumps and chips or small pieces of float from mineralized outcrops.

The rapid rate of sample accumulation and slow rate of sample drying during the autumn nights quickly led to a severe storage problem. It is

recommended that future sampling programs be conducted during the warmer and dryer summer months.

Analytical Methods

The fine-sediment and rock-chip samples were prepared by Department lab personnel following procedures outlined by Gray and others (1983). Each sample was analyzed for Au (gold); Ag (silver); As (arsenic); Cu (copper); Hg (mercury); Pb (lead); Mo (molybdenum); and Zn (zinc).

All element abundances other than As were determined by instrumental means. The following methods of decomposition and end-point analysis were used for the fine-sediment samples (Table 2).

TABLE 2. STREAM-SEDIMENT SAMPLE ANALYTICAL METHODS

<u>Element</u>	<u>Detection Limit*</u>	<u>Decomposition Method**</u>	<u>Analytical Method</u>
Au (gold)	.005 ppm	Fire assay	AA (atomic absorption)
Ag (silver)	.02 ppm	Hydrochloric acid and potassium chlorate with Viet's extraction	AA
Pb (lead)	0.2 ppm	Same as for Ag	AA
Cu (copper)	5 ppm	Hydrochloric and nitric acids with potassium chlorate	AA
Zn (zinc)	1 ppm	Same as for Cu	AA
As (arsenic)	1 ppm	Hydrochloric and nitric acids	Colorimetric or hydride/AA
Mo (molybdenum)	1 ppm	Same as for As	AA
Hg (mercury)	.005 ppm	Same as for As and Mo	Cold vapor/AA

* Approximate values; routine-type analyses.

** Except for gold, dissolution techniques for the rock-chip samples entailed the additional use of hydrofluoric acid. Identical end-point analytical methods were used.

Quality Control

Precision - the reproducibility of analytical results - is of primary importance in geochemical sampling. For this reason, three separate laboratories (hereafter referred to as the Department lab, the Contract lab, and the Quality Control lab) were used in analyzing the samples.

Overall responsibility for laboratory procedures was maintained by the Department. Department personnel prepared the analytical samples from the field samples. The two fine field samples from each sample site were combined and sieved. The minus 80 mesh fractions were prepared for assay and the plus 80 mesh fractions were retained for future analytical work, along with the coarse sample from each site.

The minus 80 mesh samples were split into three fractions: $\frac{1}{2} + \frac{1}{4} + \frac{1}{4}$. Thirty-five quality-control samples (one for every 10 samples) were randomly selected from the $\frac{1}{4}$ splits. Minimum weight of 20 grams was required. If the selected sample contained less than the required amount of material the numerically nearest sample of sufficient size was substituted as a quality-control sample. The remaining 317 $\frac{1}{4}$ splits are being held by the Department in reserve.

The second $\frac{1}{4}$ split of 352 samples was used by the Department lab for Ag-Pb-Cu-Zn determinations.

The $\frac{1}{2}$ split was handled in the following manner: 6 of the largest samples (excluding those samples that were numerically equivalent to the $\frac{1}{4}$ split samples previously selected as quality-control samples) were split again and one subsplit was given a new number. These were submitted to the Contract laboratory as blind samples for Au-As-Hg-Mo. The remaining 346 $\frac{1}{2}$ split and 6 subsplit samples were also submitted to the Contract lab

for Au-As-Hg-Mo determinations.

The quality-control samples were sent to the Quality Control lab for determinations of Au, Ag, As, Hg, Cu, Mo, Zn, Pb. Analytical methods followed by the Quality Control lab were virtually identical to those followed by the Contract and Department labs. Interlaboratory precision is determined by a comparison of the analytical results.

Precision within individual laboratories is measured by replicate (more than 1) analyses of Ag, As, Hg, Cu, Mo, Pb, Zn. Unfortunately, insufficient sample remained for routine replicate gold analyses. The 6 blind samples submitted to the Contract lab provided a check on the reproductibility of Au as well as As, Hg, and Mo. The results indicated high internal precision on the part of the Contract lab.

Comparisons of the quality-control, replicate, and blind sample results indicate a high precision for Ag, As, Cu, Hg, Mo, Pb, and Zn. However interlaboratory comparisons indicate a low precision for Au.

Reanalysis of 5 quality-control samples for gold by the Quality Control lab failed to duplicate the original quality-control results but closely conformed to initial results reported by the Contract lab; indicating probable error in the initial quality-control work. A third laboratory would have had to be called in to do umpire analyses had both quality-control runs been at variance with the Contract lab results. This illustrates the necessity for quality-control procedures in projects of this type. Sample-preparation and assay errors may occur in the best of labs. The reliability of the data can only be gauged by the comparison of results from two or more labs on the same samples. In this project, since the Contract lab demonstrated internal precision based on the results of the

blind samples while the Quality Control lab was unable to duplicate analyses, we feel that the Contract lab results are more reliable. However the gold data cannot be used with as great as confidence as the rest of the data.

The nugget effect, which results when all of the gold in a sample occurs in one or two discrete particles, is a problem which shows up in many sampling programs. The nugget effect may cause one or more sample splits to contain no detectable gold and indicate an apparent low inter-laboratory precision. In this study, since the Contract lab results closely conform to the mineralization observed in the field while the initial Quality Control lab results did not, we feel that the nugget effect has been minimal. It should be noted that a nil value of a single sample site within a recognized anomalous area may however be a result of the nugget effect and should be evaluated accordingly.

Computer Analyses

Sample-site and assay data were entered into the Oregon State University Computer Center system utilizing the U.S. Geological Survey's Rock Analysis Storage System (RASS) and Statistical Package (STATPAC) programs. This made it possible to analyze the data and generate the element-abundance maps which are reproduced in Appendix D of this report.

Computer-generated frequency and cumulative frequency tables and log histograms are used in evaluating the stream-sediment data and define value intervals used in computer map plots.

The computer was also used to analyze correlations between elements by a least-square analysis. Pairs of elements with R values near 1 have a high degree of correlation. For this study, arsenic-gold ($R = .6022$);

silver-gold ($R = .6145$); and lead-gold ($R = .6314$) show relatively high correlations and indicate that the gold anomalies are also identified by arsenic, lead, and silver anomalies.

The cumulative frequency tables were used to define the anomalous threshold value for mercury. The data for mercury were plotted on probability paper, and a normal (background) population was identified. The mean (.041 ppm) and standard deviation (.027 ppm) of the background population were calculated. Two standard deviations above the background mean was set as the threshold anomaly value (.095 ppm). All mercury values above .095 ppm are considered as anomalous for this project.

Results

Maximum values detected in the stream-sediment samples were: Gold, .175 ppm; mercury, greater than 5 ppm; arsenic, 53 ppm; silver, 1.49 ppm; copper, 72 ppm; lead, 33.2 ppm; molybdenum, 3 ppm; and zinc, 157 ppm. Sediment samples with 0.010 ppm gold and 0.095 ppm mercury are considered as anomalous for this study. Background levels for the other elements have not been calculated.

The analytical results should be used with caution. Individual samples can be contaminated during sampling, preparation, or analysis. Single-site, single-element anomalies are therefore suspect. Potential mineral resource areas can be defined with confidence only by multiple-site or multiple-element anomalies.

Anomalous concentrations of gold and/or mercury in stream-sediment samples outline known mineralized areas along Ochoco Creek and Johnson Creek and near Kidnap Springs and Spanish Gulch. A potential mineral resource area near Wildcat Mountain is suggested by a slight gold-mercury

anomaly in streams draining that area.

The areas with past gold production along Ochoco Creek and at Spanish Gulch are clearly identified by stream-sediment gold anomalies. However, no stream-sediment gold anomaly was detected in the Johnson Creek drainage in spite of the fact that small amounts of gold have been found locally in the mineralized zone at the Mother Lode mercury mine. One dump sample from the Mother Lode ran 0.055 ppm gold. One stream-sediment sample from the Johnson Creek drainage ran 0.005 ppm gold. All of the others were below the detection limits for gold.

Presence of the mercury deposits along Ochoco Creek and Johnson Creek and near Kidnap Spring is clearly indicated by anomalous concentrations of mercury in the stream sediments below the known deposits. No anomalous mercury values were detected in samples from drainages near the known small and low-grade cinnabar deposits in the Marks Creek and Round Mountain areas (Brooks, 1963). Mercury values are probably low due to loss by volatilization between the time the samples were taken and when they were assayed.

The copper analyses must be interpreted with regard from the types of bedrock represented in the sample. Some rock types normally contain substantially more copper than others. In the project area, the copper content of stream sediment samples from areas underlain by unaltered Picture Gorge Basalt has an approximate range of 34 to 72 ppm, while samples representing unmineralized Clarno andesite range from 7 to 40 ppm. In those areas not covered by Picture Gorge Basalt, stream-sediment samples with over 40 ppm copper generally correlate with gold or mercury anomalies.

Mineral Resource Potential

The stream-sediment sample results outline several areas of mineralization in the project area. These include the Ochoco Creek and Johnson Creek zones, and the Kidnap Springs and Wildcat Mountain areas. The occurrence of gold with mercury in the hydrothermal systems indicates a potential for gold and mercury resources in these specific areas. The probability for other types of metallic resources on this part of the Ochoco National Forest must be considered as slight.

The potential for oil and gas resources in the study area remains unknown. There is a possibility for oil and gas resources to occur in areas underlain by Cretaceous sedimentary rocks. However, it has not been demonstrated that such rocks underlie the Cenozoic volcanic rocks in the study area. Given the proximity of the study area to old volcanic centers at Round Mountain and in the Kidnap Springs and Wildcat Mountain areas, it is unlikely that significant oil and gas resources exist within the study area.

Although the Bend-Prineville-Madras area as a whole is a potential geothermal resource area, the specific potential for geothermal resources in the study area is considered low.

Conclusions

Known and potential mineral resource areas are outlined by the sampling results, indicating that stream-sediment sampling is a viable planning tool. Similarly designed sampling programs can be applied to other parts of the National Forest system provided that proper precautions are observed. Sampling techniques must be standardized and quality-control procedures adopted. The areal geology must be well enough known to both

design the proper sampling program and to interpret the resultant data. In areas of complex geology, it will be necessary to establish independent background levels for different lithologic or structural units.

It must be noted that potential mineral resource areas can be confidently defined only by multi-element or multi-site anomalies. Also, stream-sediment anomalies only identify areas of relatively high elemental abundances which can be identified as potential mineral resource areas. Site-specific evaluation of such areas will require a much more rigorous sampling and testing program.

TABLE 3. SUMMARY OF MINERAL POTENTIAL

Area	Type of Mineralization	Evidence for Resource
Ochoco Creek T14S, R19 & 20E T13S, R20E	Au - Hg	1. Past production from epithermal quartz - calcite veins in regionally extensive fault zones. 2. Silicification and clay alteration. 3. Anomalous Au, Ag, As, Hg, and Pb in stream-sediment and rock-chip samples.
Johnson Creek T14S, R20E	Au - Hg	1. Past Hg production from epithermal quartz - calcite veins. 2. Extensive vertical fault zones with areas of clay alteration. 3. Anomalous Hg and As in stream-sediment and anomalous Hg, As, and Au in rock-chip samples.
Kidnap Springs T13S, R17E	Au - Hg	1. Small Hg production from clay alteration zones adjacent to rhyolite intrusives. 2. Anomalous Hg, As, and Au in stream-sediment samples and anomalous Hg and As in rock-chip samples.
Marks Creek T12S, R20E	Au - Hg	1. Clay alteration zone with quartz and calcite veins.
Wildcat Mtn. T13S, R18E	Au - Hg	1. Anomalous Hg and Au in stream-sediment samples. 2. Hydrothermal alteration zones adjacent to rhyolite intrusives.
Spanish Gulch T13S, R23E	Au	1. Quartz veins and silicified zones in and adjacent to serpentine. 2. Anomalous Au and As in stream-sediment and rock-chip samples.

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APPENDIX A. Titles of Microfiche Accompanying This Report

Fiche 1. Computer printout of raw data.

Fiche 2. Computer printout of frequency tables, histograms, and scattergrams.

Fiche 3. Quadrangle maps showing sample-location sites. Locations sampled in the Ochoco Reservoir and Lookout Mountain 15-minute quadrangles are identified on the map printed with this study. The following quadrangle maps with other sample-location sites are reproduced on fiche 3:

1. Dutchman Creek $7\frac{1}{2}$ -minute quadrangle
2. Opal Mountain $7\frac{1}{2}$ -minute quadrangle
3. Stephenson Mountain $7\frac{1}{2}$ -minute quadrangle
4. Mt. Pisgah $7\frac{1}{2}$ -minute quadrangle
5. Peterson Point $7\frac{1}{2}$ -minute quadrangle
6. Antone $7\frac{1}{2}$ -minute quadrangle
7. Post 15-minute quadrangle

APPENDIX B. Geologic Formation Abbreviations Used in Fiche 1

TPG = Picture Gorge Basalt
TJ = John Day Formation, undifferentiated
TJC = John Day Formation, clay derived from rhyolitic tuff
TJWT = John Day Formation, welded ash-flow tuff
TJRF = John Day Formation, rhyolite flows
TJR = John Day Formation, rhyolitic intrusive rocks
TJS = John Day Formation, sediments
TCA = Clarno Formation, andesite or dacite
TCB = Clarno Formation, basalt or basaltic andesite
TCS = Clarno Formation, sediments
KS = Cretaceous sediments
UM = Ultramafic rocks
MV = Metavolcanic rocks

APPENDIX C. Quality Control Data

#	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Cu</u>	<u>Hg</u>	<u>Pb</u>	<u>Mo</u>	<u>Zn</u>
4.	L	L(.03)	1	21(20)	.015	3.8(4.1)	2	41(36)
4Q	L	.05	1.5	20	.019	5.0	1	30
8.	L	L(.03)	1	18(18)	.020	3.9(4.1)	1	39(35)
8Q	L	.05	1.5	20	.021	5.0	1	30
13.	L	L(.04)	2	19(19)	.035	4.8(5.0)	2	32(32)
13Q	.080(L)	.08	2.7	20	.078	5.5	1	30
35.	L	L(.04)	1	17(17)	.030	5.7(5.7)	2	30(27)
35Q	.035	.04	1.2	20	.027	7.0	1	30
36.	L	L(.06)	1	21(19)	.020	4.2(4.0)	1	40(28)
36Q	L	.04	1.4	20	.040	6.5	1	20
38.	L	.04(.05)	1	18(18)	.015	4.6(4.6)	1	38(34)
38Q	.018	.09	1.4	20	.029	5.5	1	30
52.	L	.03(.03)	2	12(13)	.050	6.7(6.8)	1	18(19)
52Q	.018	.26	1.7	15	.049(.049)	7.5	1	18
56.	L	.04(.05)	3	20(18)	.110	6.1(6.2)	1	56(50)
56Q	.138(.076)	.14	4	20	.157	7.5	L	50
63.	L	L(.04)	1	26(25)	.025	5.0(5.3)	1	53(42)
63Q	L	.17	2.7	25	.039	7.0	L	40
65.	L	.02(.03)	1	28(27)	.015	4.1(3.9)	1	45(41)
65Q	.012	.14	1.7	25	.020	4.0	L	40
71.	L	.02(.04)	1	26(25)	.020	7.1(7.9)	1	50(48)
71Q	L	.14(.09)	2(1.5)	25(25)	.036	9.0(8.5)	L(L)	50(50)
77.	.030	.04(.03)	1	24(25)	.315	2.7(2.8)	2	38(40)
77Q	L	.05	2	25	.055	3.5	1	40
125.	L	.03(.03)	1	27(24)	.025	4.6(4.4)	1	46(38)
125Q	.014	.14	1.8	25	.041	5.5	1	20
129.	L	.03(.07)	2	10(11)	.040	6.9(7.3)	1	18(21)
129Q	L	.18	1.7	10	.069	10.0	L	20
140.	L	.02(.03)	1	27(24)	.010	4.2(3.8)	1	42(37)
140Q	.030	.12	1.5	25	.017(.019)	4.5	L	40
154*	L	.06(.07)	4	46(50)	G 5.000	7.4(7.3)	4	36(37)
154Q	L	L	5.7	40	85.000	7.0	1	30
162	L	.04(.04)	1	19(20)	.025	4.0(4.2)	1	35(38)
162Q	.264(L)	.13	1.8	20	.044	5.5	1	40
180*	L	.05(.05)	12	35(41)	G 5.000	4.2(5.4)	10	71(68)
180Q	L	.11	17	45	504.000	6.0	5	70

#	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Cu</u>	<u>Hg</u>	<u>Pb</u>	<u>Mo</u>	<u>Zn</u>
190.	L	.04(.03)	1	32(28)	.110	3.5(3.4)	1	39(43)
190Q	.022	.14(.08)	1.6(2.5)	25(25)	.112	4.0(4.5)	3(1)	40(40)
227.	L	L(.03)	1	37(34)	.025	3.7(4.1)	1	44(39)
227Q	L	.08	1.6	40	.036	5.0	L	50
314	L	.04(.05)	1	39(35)	.050	3.5(3.8)	1	41(36)
314Q	L	.10	1.6	35	.080	5.0	1	40
316.	L	L(.03)	4	37(37)	G 5.000	3.3(3.3)	1	48(48)
316Q	L	.07	4	35	27.000	3.5	1	50
318.	L	.05(.05)	8	53(57)	G 5.000	3.8(3.5)	2	56(58)
318Q	.010	.04	8.8	55	90.000	4.5	1	60
325.	L	L(.02)	1	30(27)	.020	3.0(3.1)	1	54(47)
325Q	L	.08	2	25	.026	3.5	L	50
327.	L	L(.05)	1	37(34)	.050	4.9(5.2)	1	48(45)
327Q	L	.15	2.3	35	.072	6.0	1	50
338.	L	L(.03)	1	46(45)	.035	5.0(5.0)	1	44(41)
338Q	.024	.02	1.4	45	.049	5.5	1	40
339.	L	.02(.03)	1	20(21)	.020	3.0(3.0)	2	33(36)
339Q	L	.08	.8	20	.018	3.5	1	50
342.	L	.03(.07)	1	57(58)	.025	5.3(4.8)	2	35(34)
342Q	L	.08	2	55	.041	7.5	1	30
349.	L	.04(.03)	4	42(41)	.035	6.3(7.0)	1	73(73)
349Q	.014	.02	5	45	.046	8.	1	70
411*	.055	.06(.07)	43	48(47)	G 5.000	6.0(6.0)	7	34(32)
411Q	.084	.02	41	50	138.000	7.0	2	30
416.	L	L(.02)	1	19(20)	.010	2.5(2.7)	2	37(41)
416Q	L	.17(.25)	.8(1.4)	20(20)	.019	3.5(4.0)	1(L)	40(40)
421.	L	.03(.03)	1	47(40)	.020	3.9(4.1)	2	50(40)
421Q	L	.04	1.4	45	.049	4.5	L	50
423.	L	.04(.03)	1	19(18)	.025	4.1(3.9)	1	48(43)
423Q	.012	.03	1.5	20	.037	4.5	1	50
432.	L	L(.05)	1	51(47)	.025	3.7(4.6)	2	43(39)
432Q	.380	.14	1.8	50	.041	5.5	1	40

Q denotes Quality Control sample.

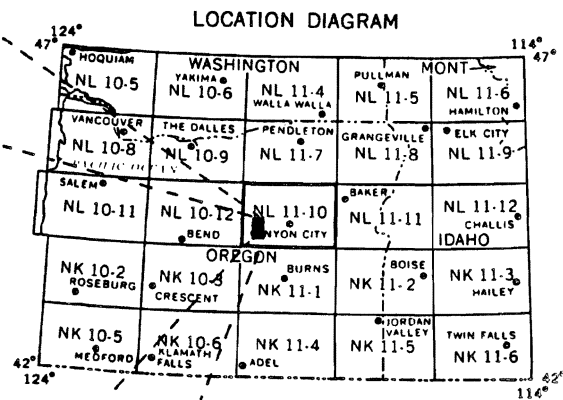
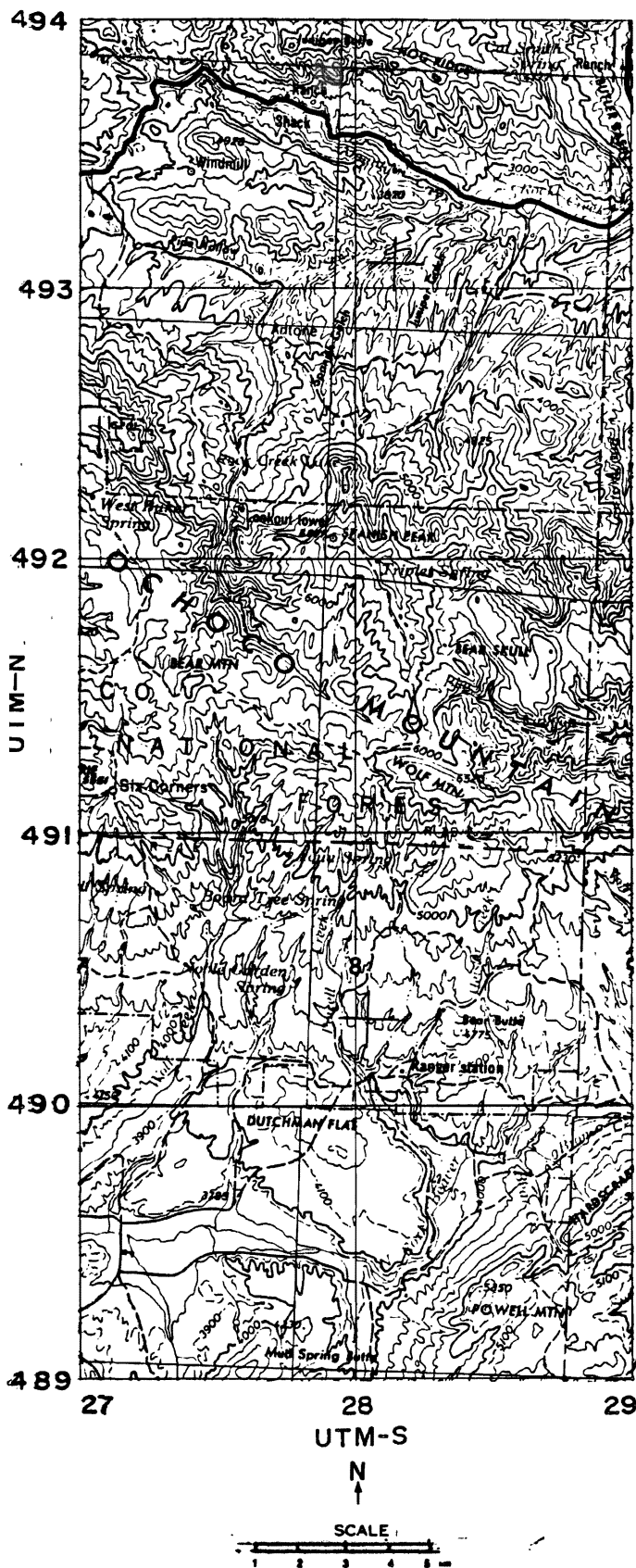
Duplicate analyses enclosed in ().

* Denotes rock chip samples.

APPENDIX D. Computer-Generated Element-Abundance Maps

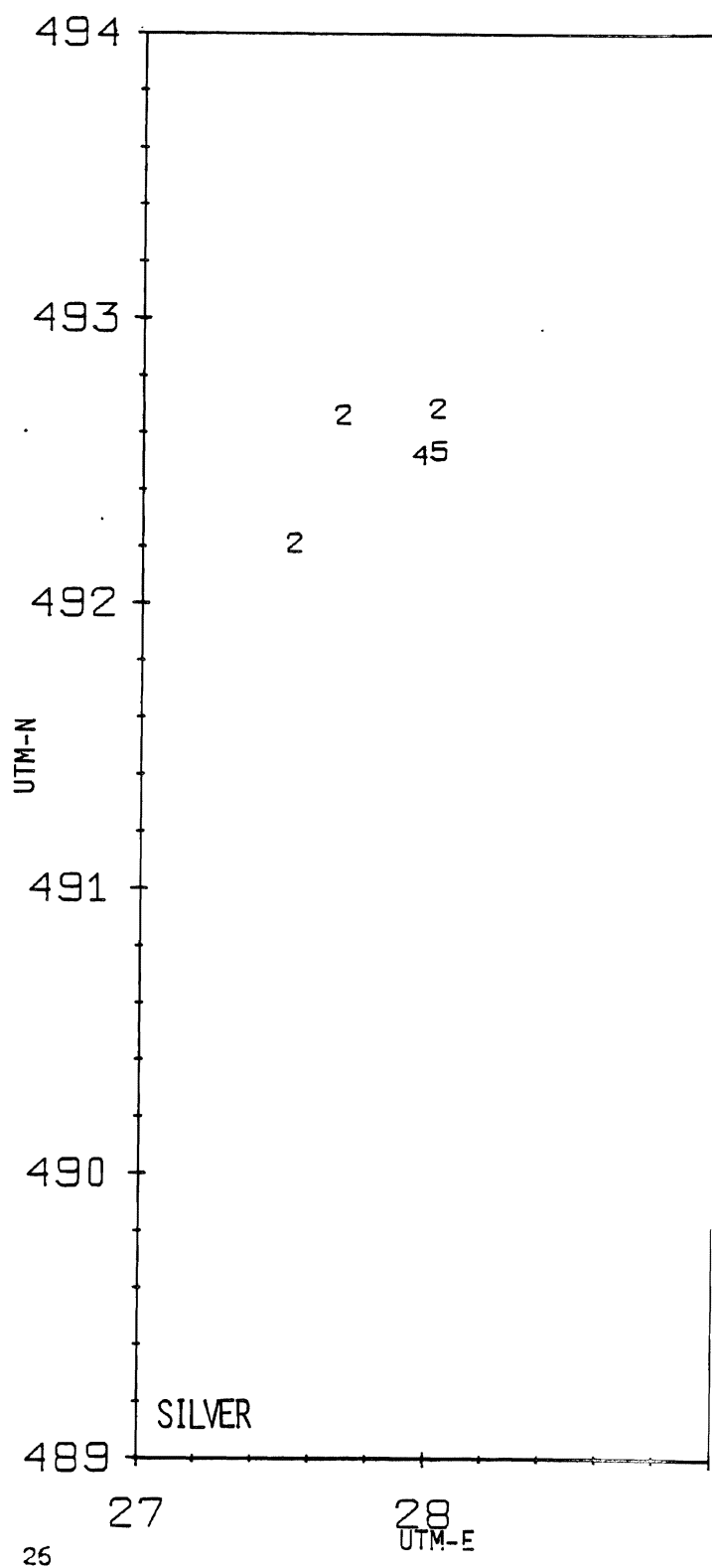
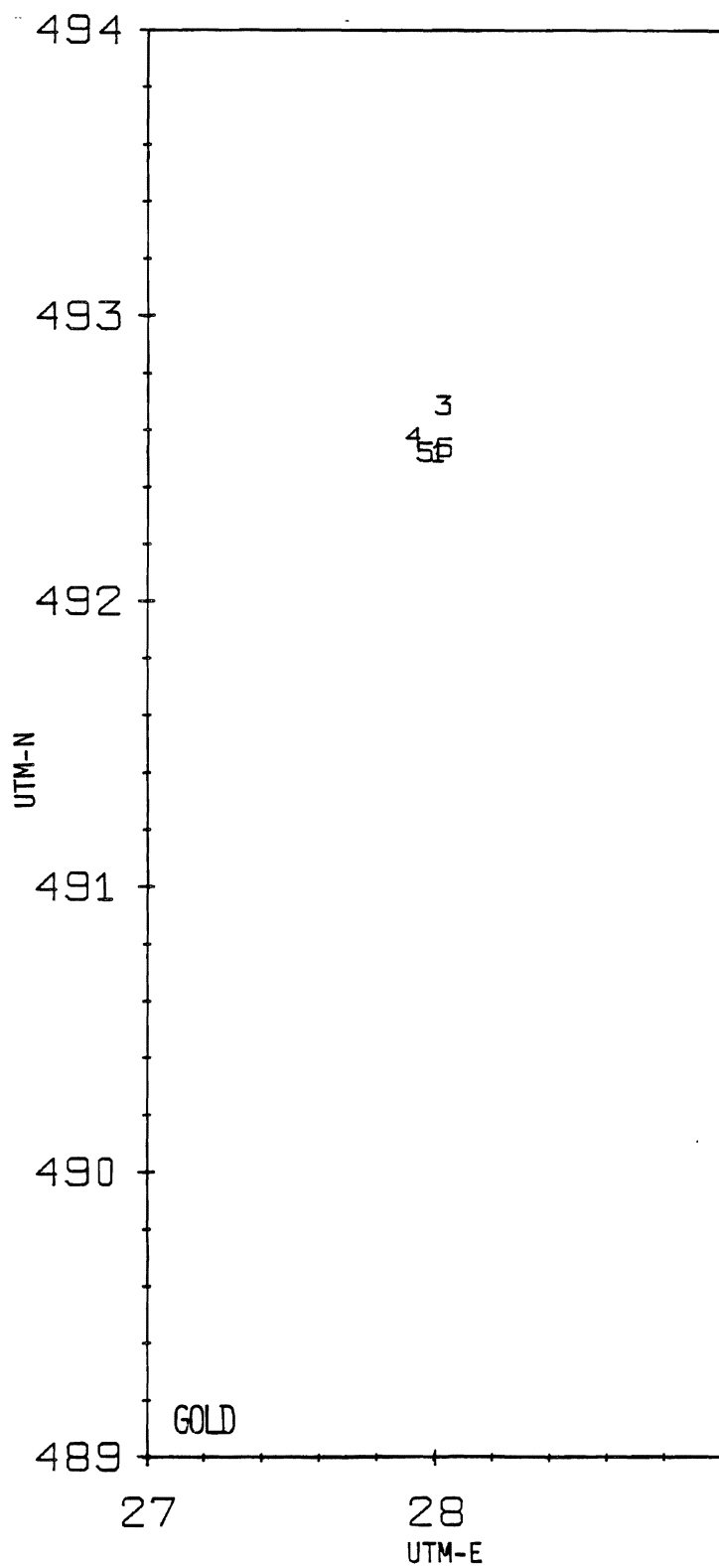
Computer-generated element-abundance maps of first the eastern and then the western portions of the study area appear on the following pages. AMS maps of the areas covered by the element-abundance maps appear on pages 25 and 30. Names of elements appear in the lower left-hand corner of each map. Explanation of symbols for each map is as follows:

Element	Map symbol	Grouping (ppm)	Element	Map symbol	Grouping (ppm)
Gold	1	0.0 -0.01	Mercury	1	0.0 -0.099
	2	0.011-0.02		2	0.100-0.50
	3	0.021-0.05		3	0.501-1.00
	4	0.051-0.10		4	1.001-5.00
	5	0.101+		5	5.001+
Silver	1	0.0 -0.090	Molybdenum	1	0 -1.0
	2	0.091-0.25		2	1.1-2.0
	3	0.251-0.50		3	2.1+
	4	0.501-1.00			
	5	1.001+			
Arsenic	1	0.0 - 2.9	Lead	1	0.0- 6.0
	2	2.91 - 5.0		2	6.1-10.0
	3	5.1 - 8.0		3	10.1-15.0
	4	8.1 - 15.0		4	15.1-30.0
	5	15.1+		5	30.1+
Copper	1	0.0 - 29.0	Zinc	1	- 40.0
	2	29.1 - 45.0		2	40.1- 60.0
	3	45.1 - 60.0		3	60.1- 80.0
	4	60.1+		4	80.1-100.0
				5	100.1+

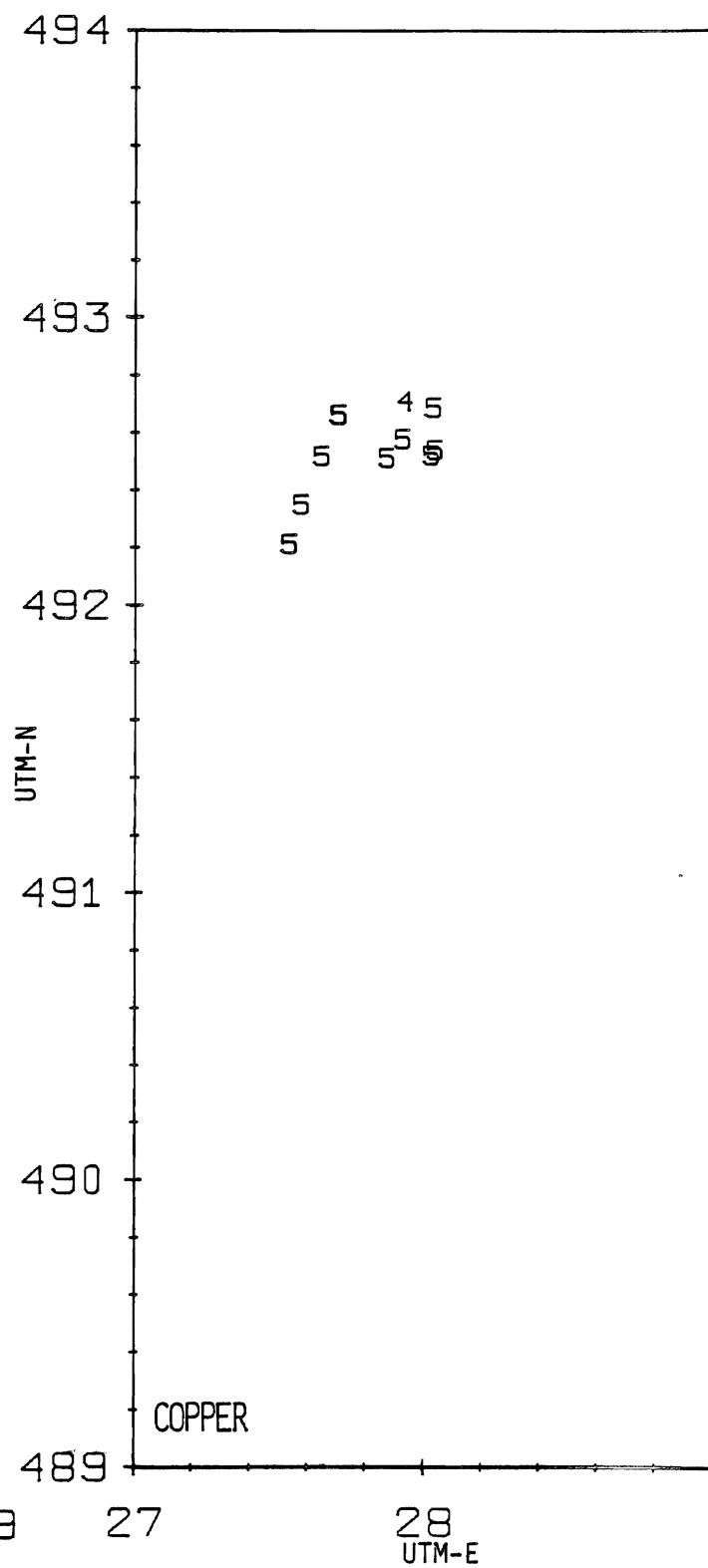
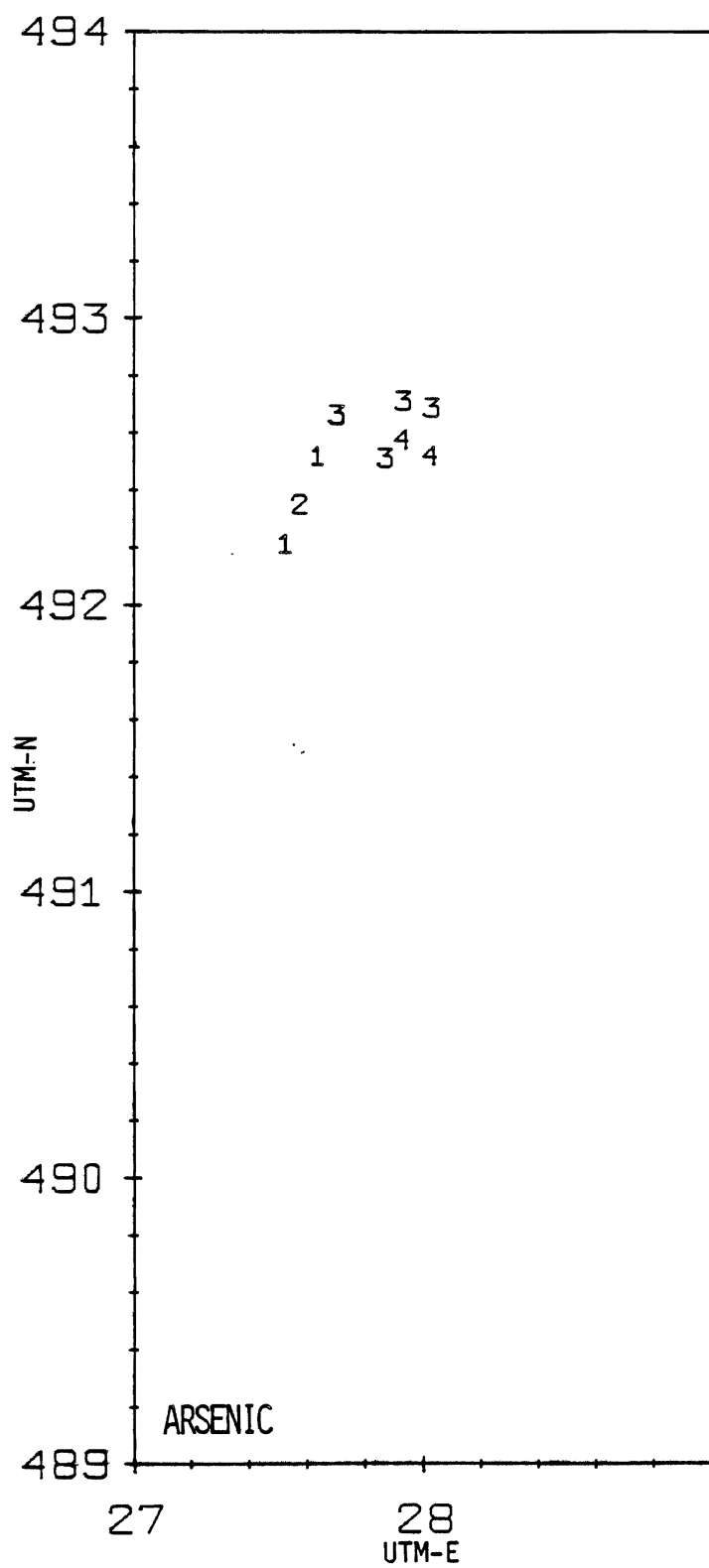


Map of eastern portion of study area showing area covered by element-abundance maps on p. 26-29.

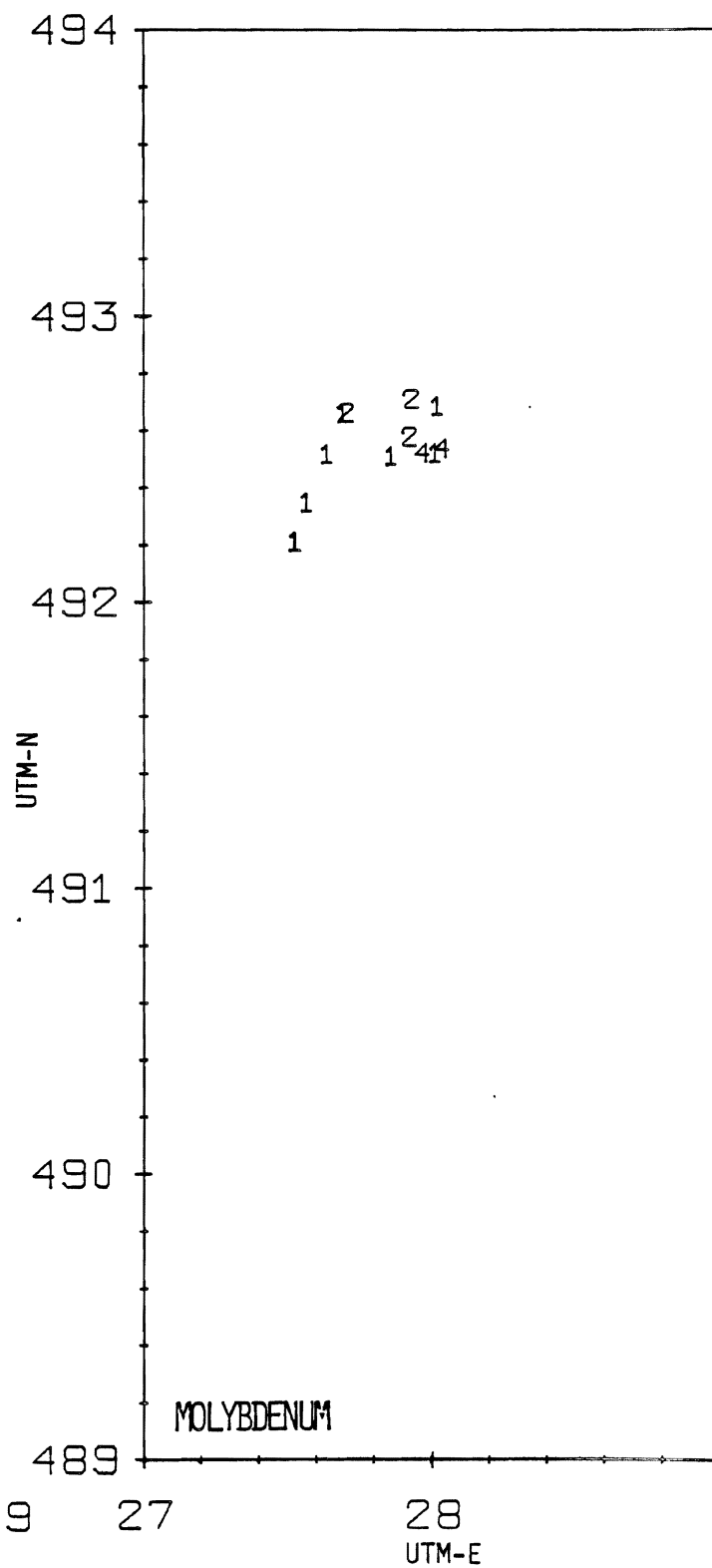
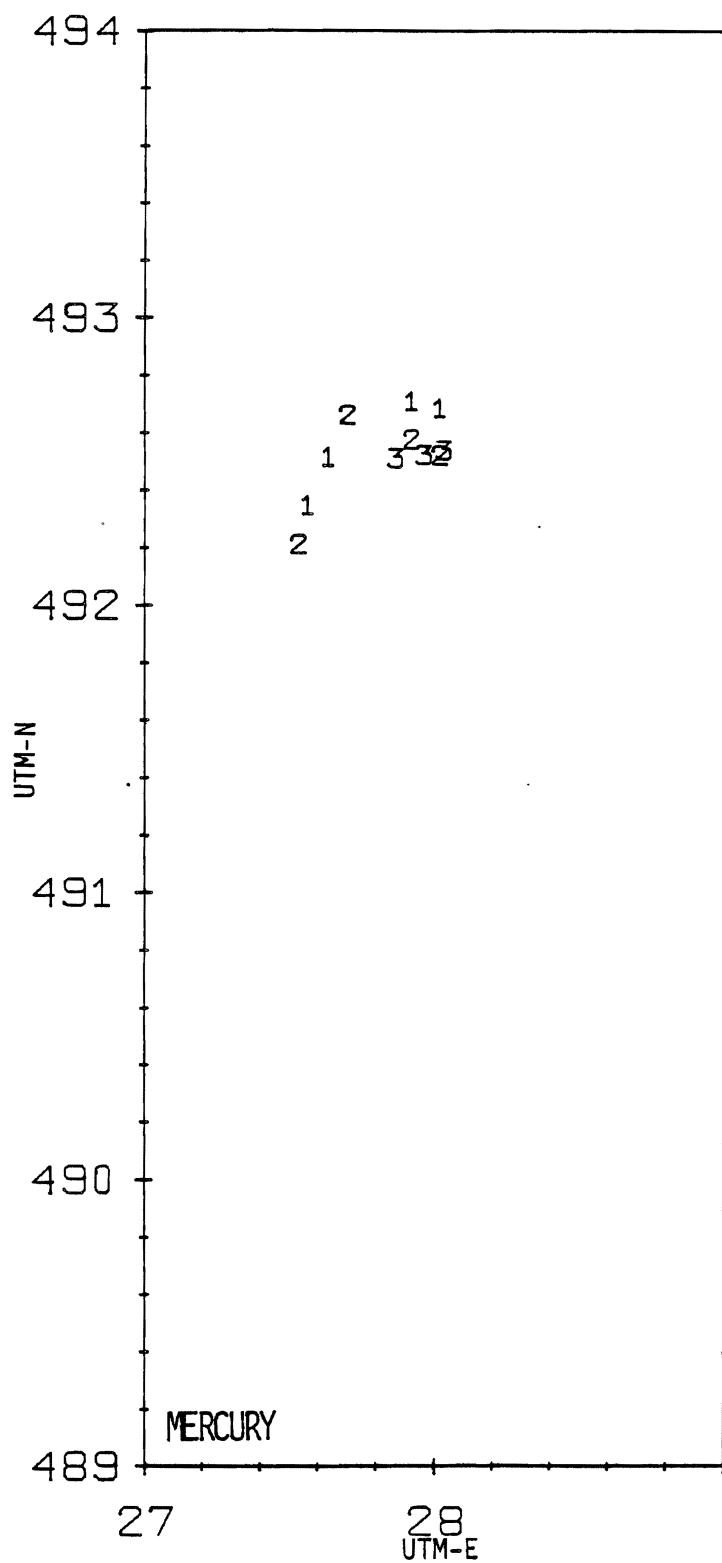
Element-abundance maps for gold (left) and silver (right).



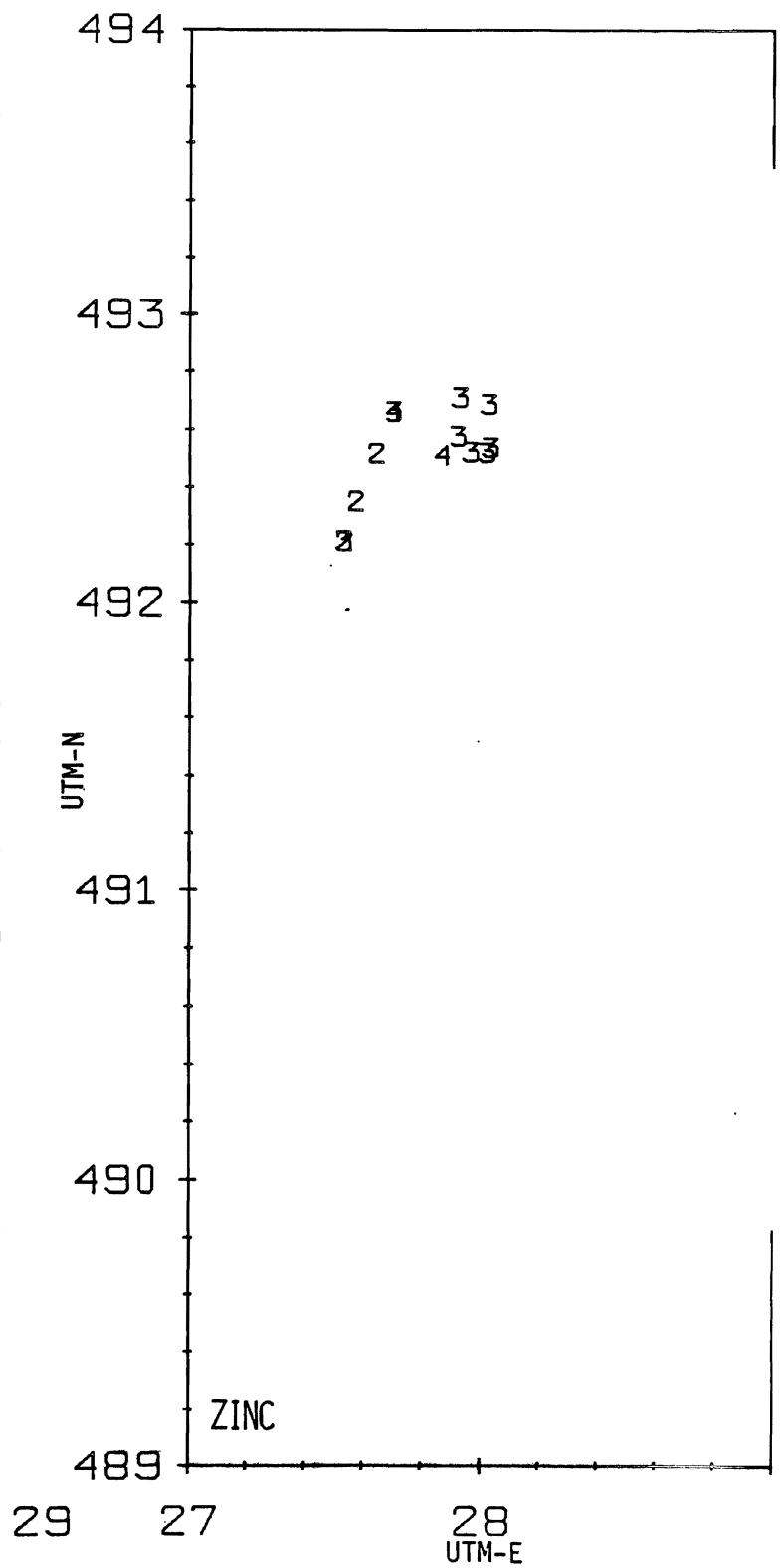
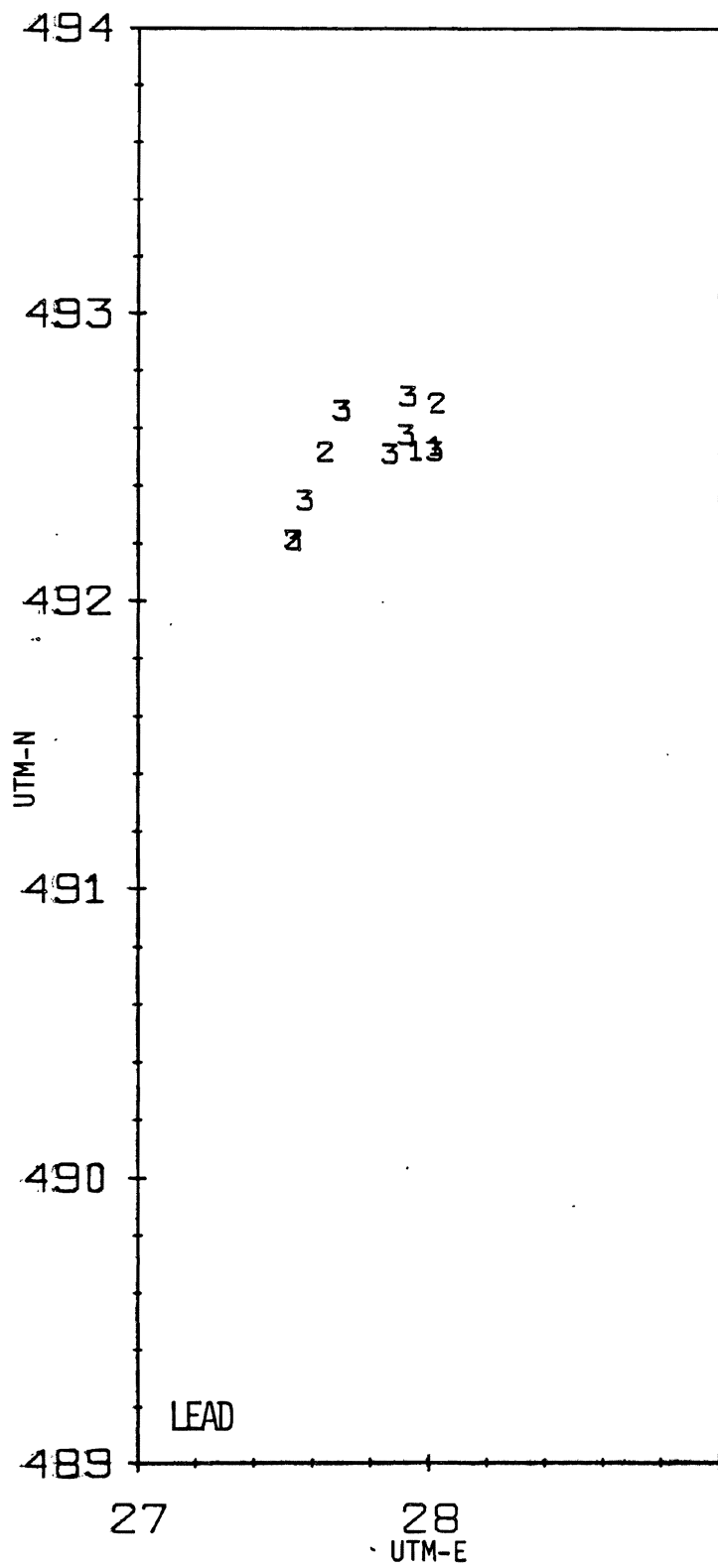
Element-abundance maps for arsenic (left) and copper (right).

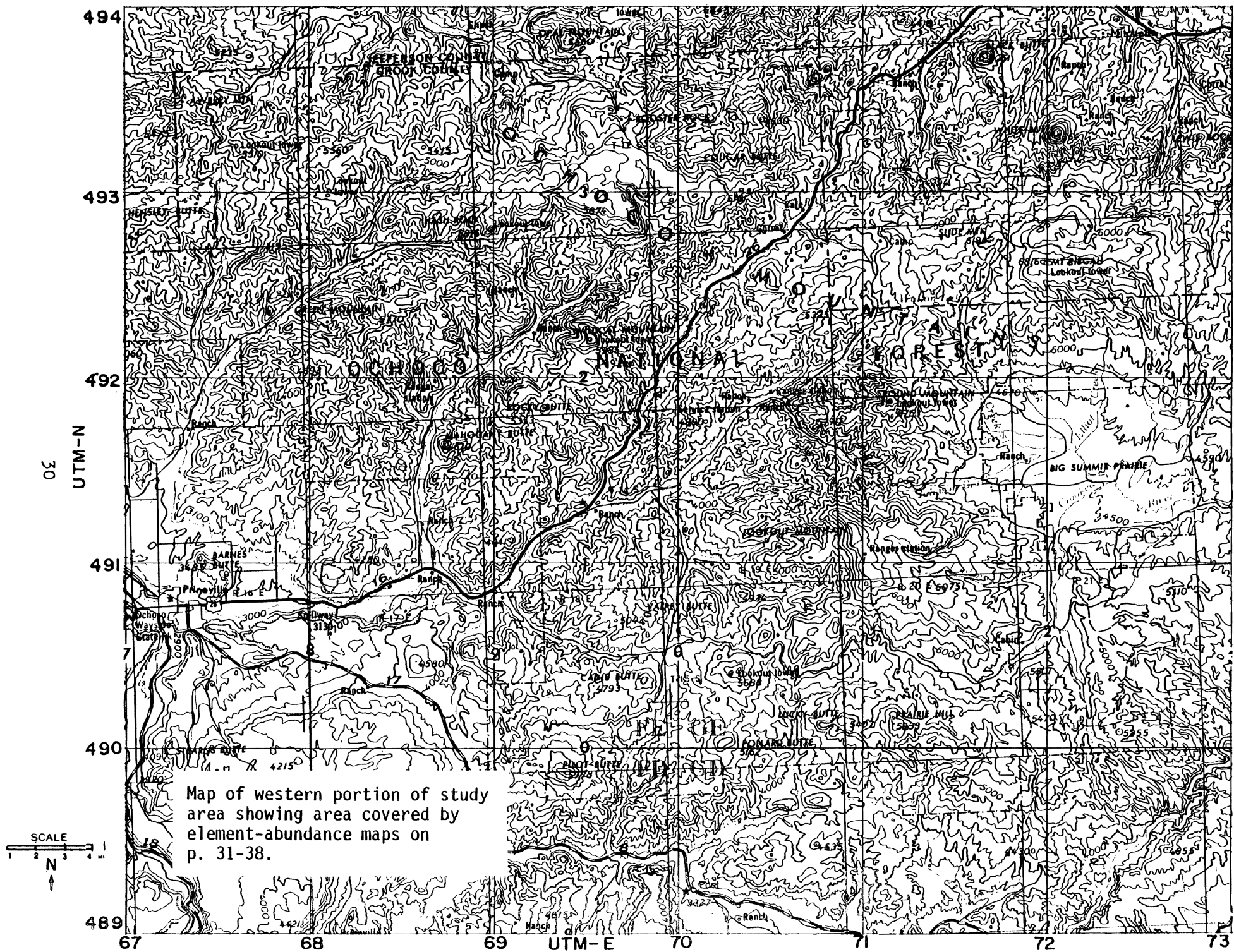


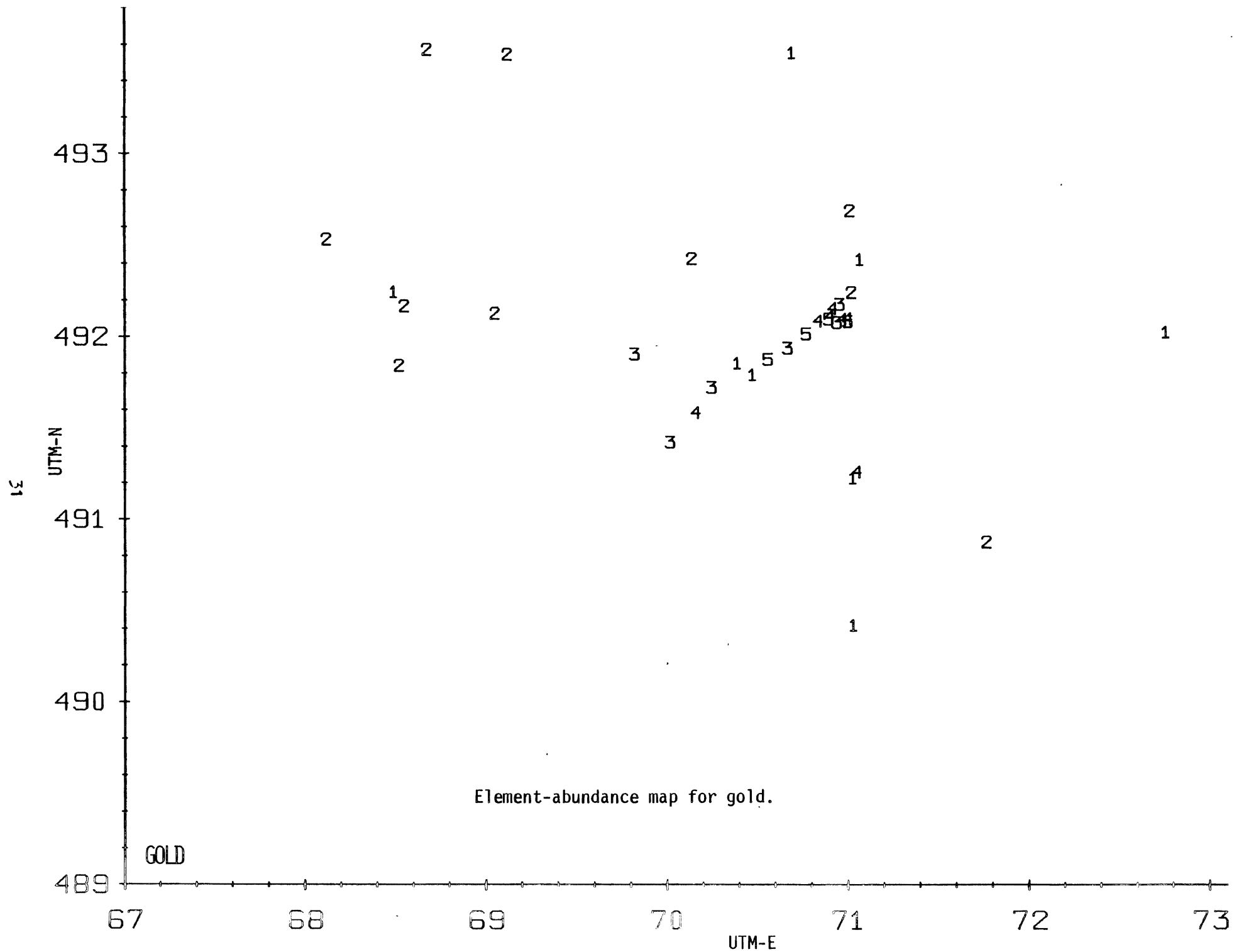
Element-abundance maps for mercury (left) and molybdenum (right).

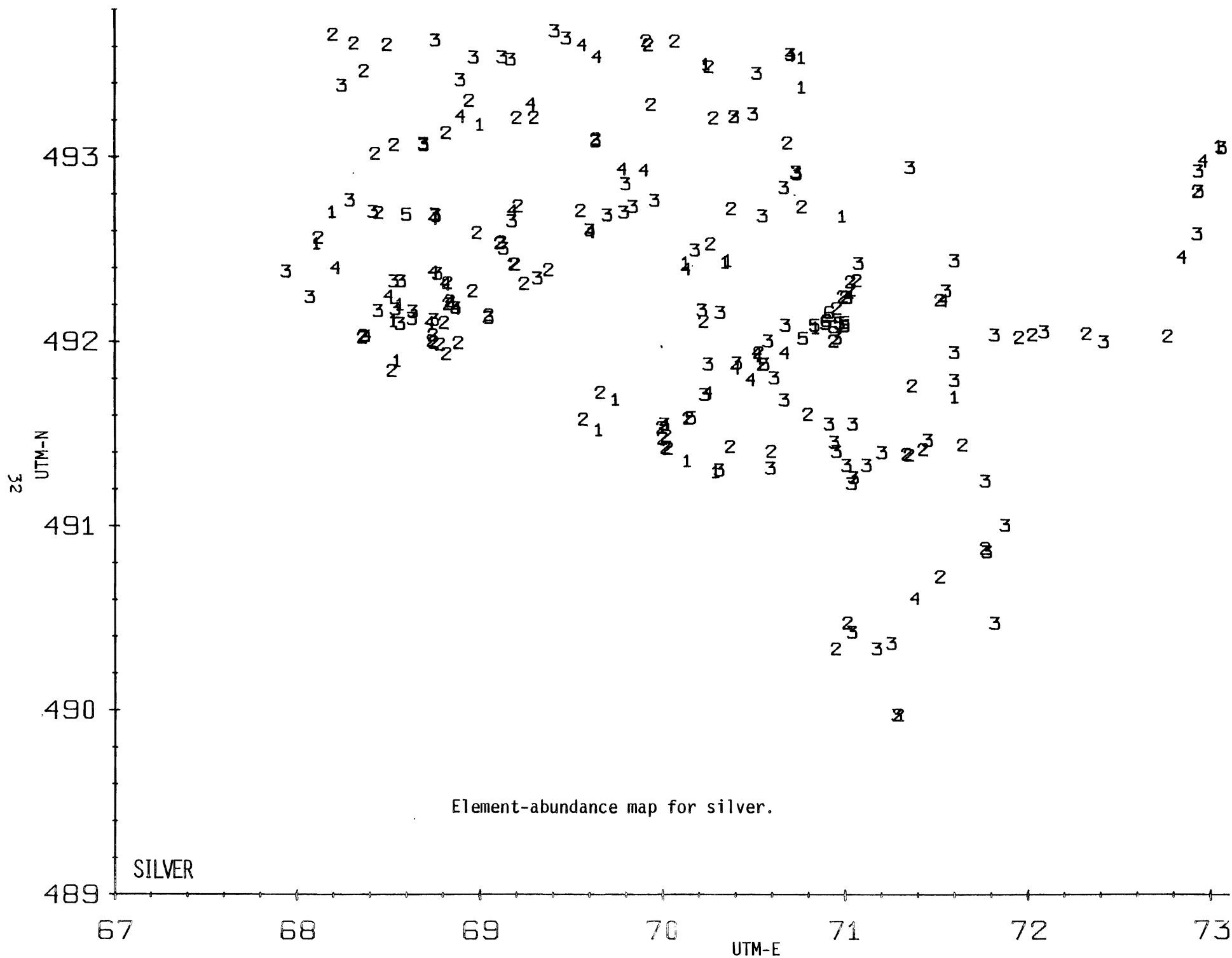


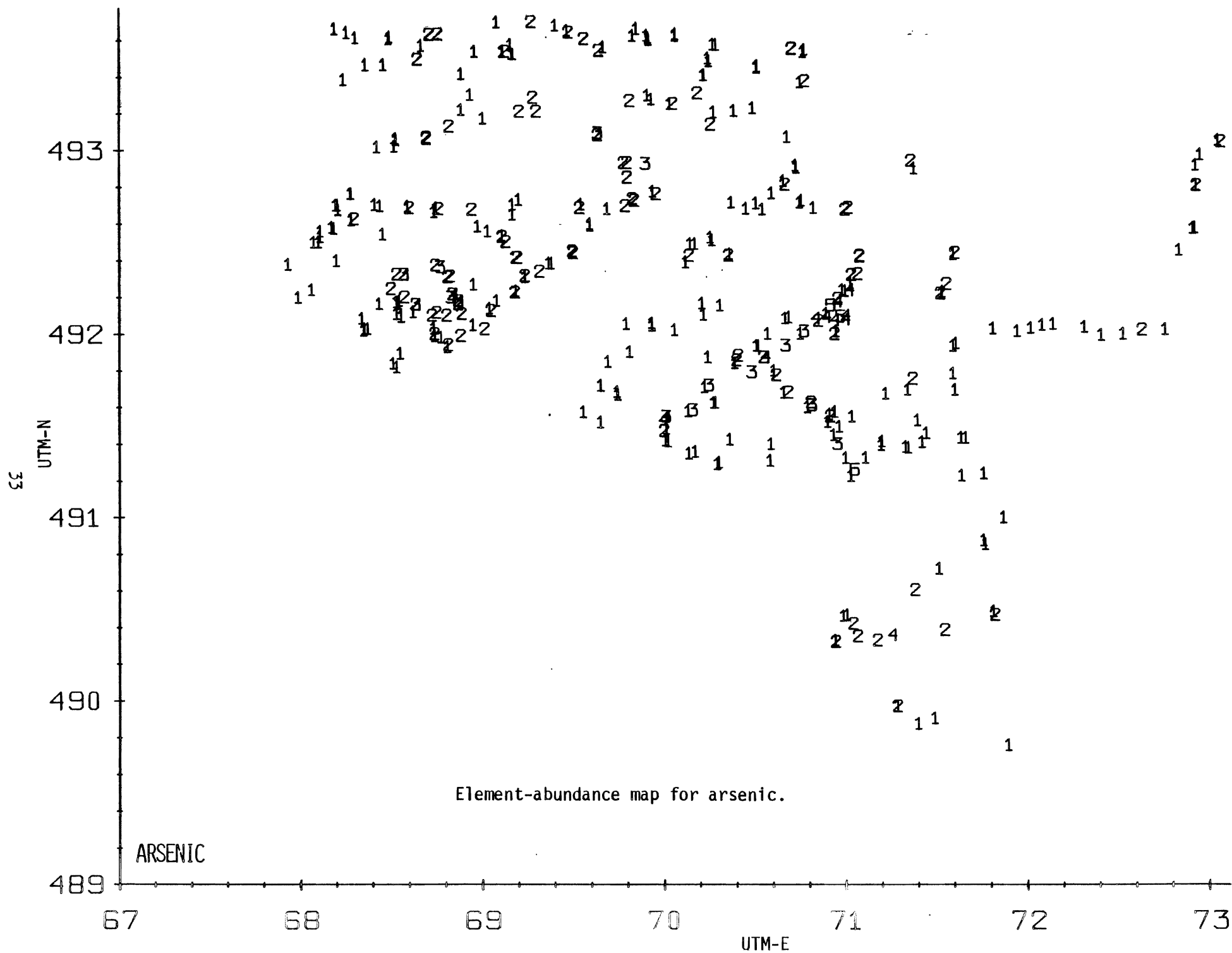
Element-abundance maps for lead (left) and zinc (right).

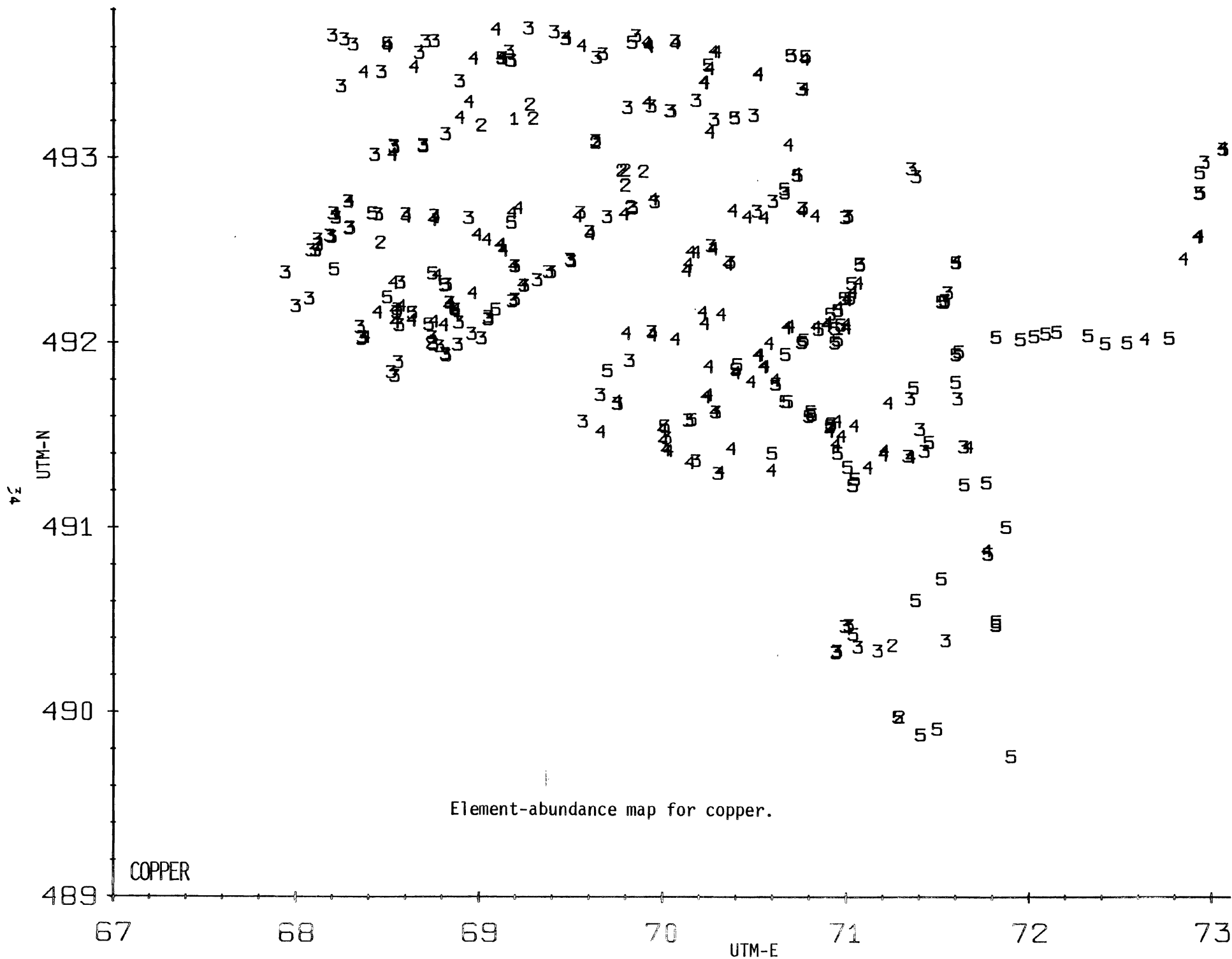


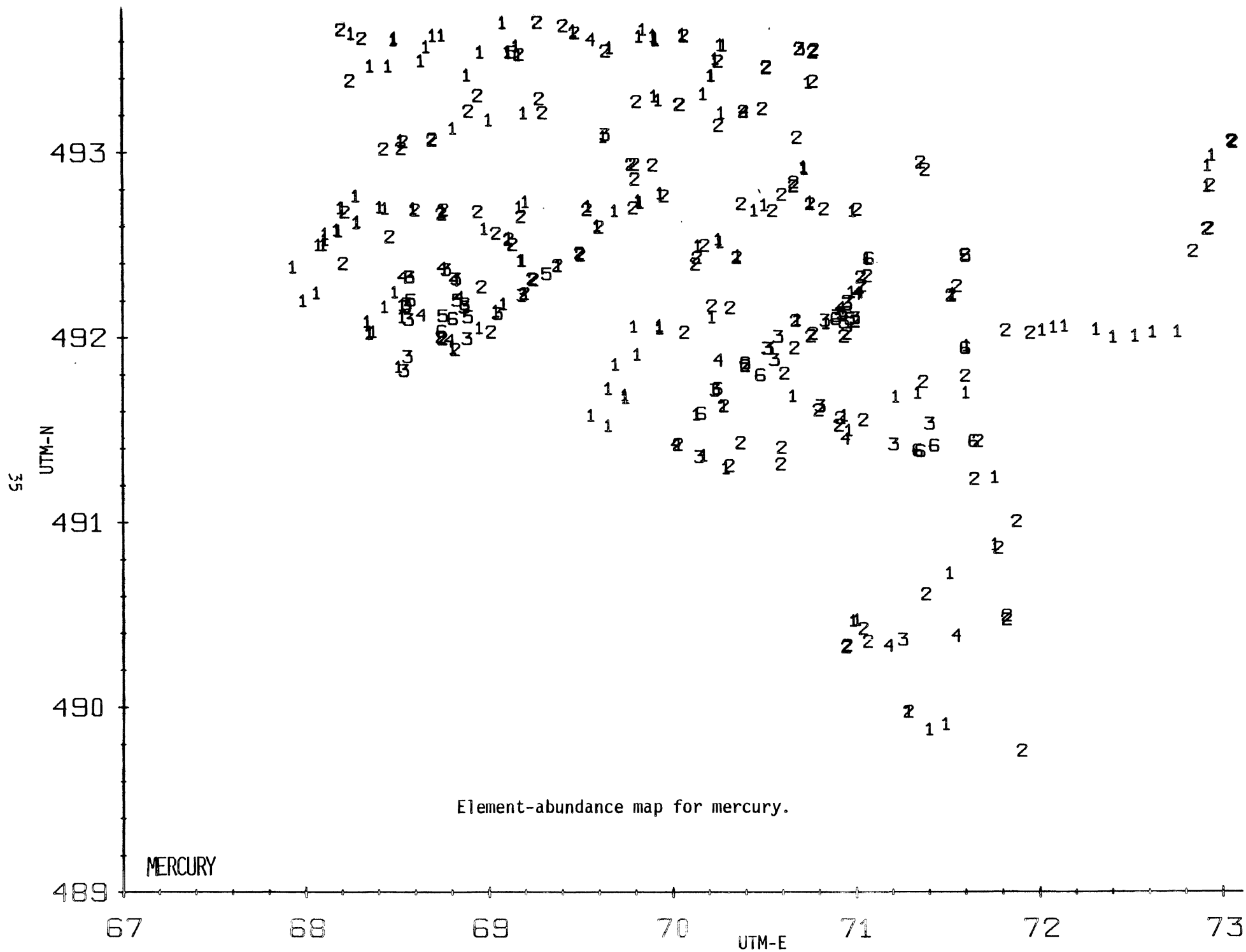


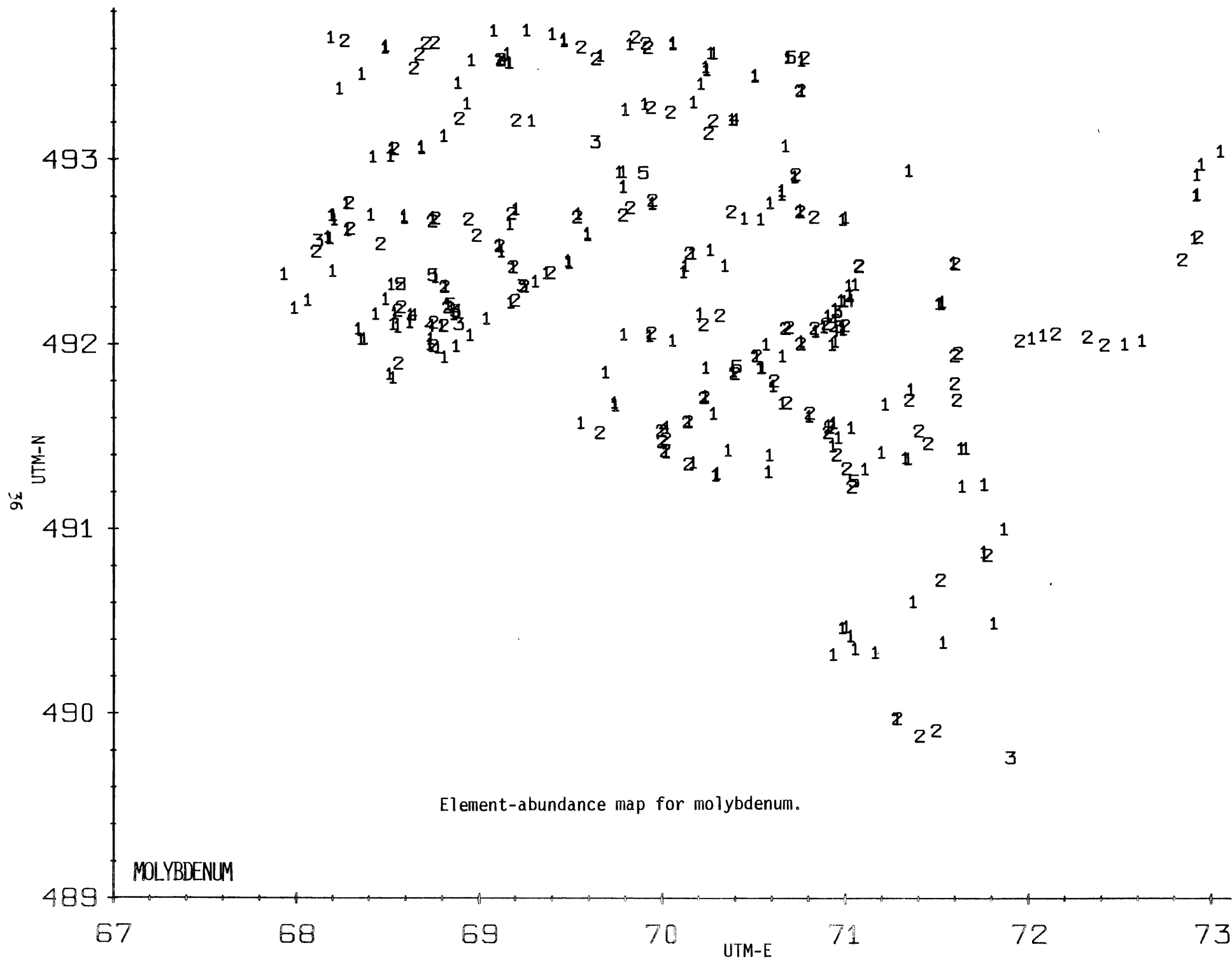


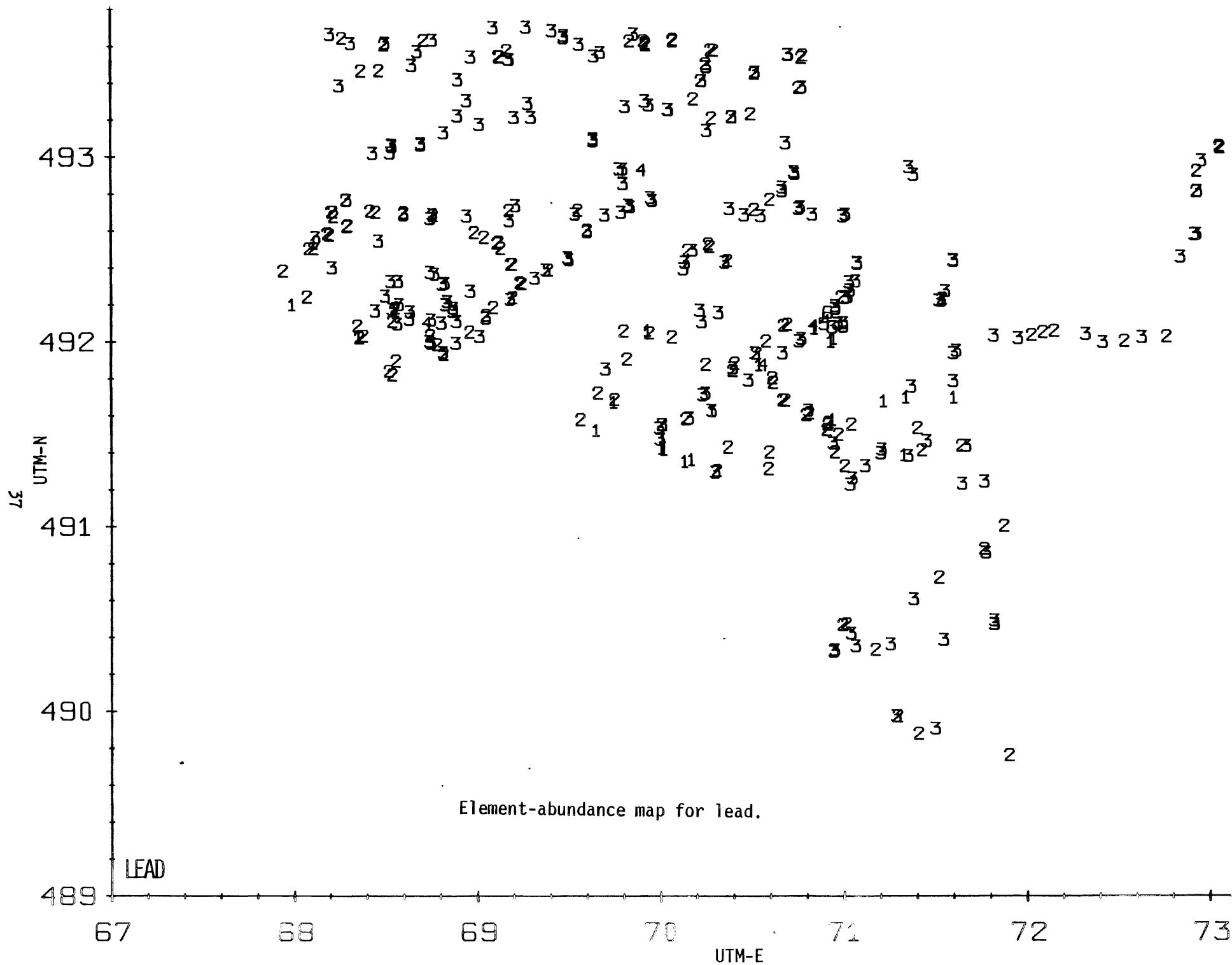


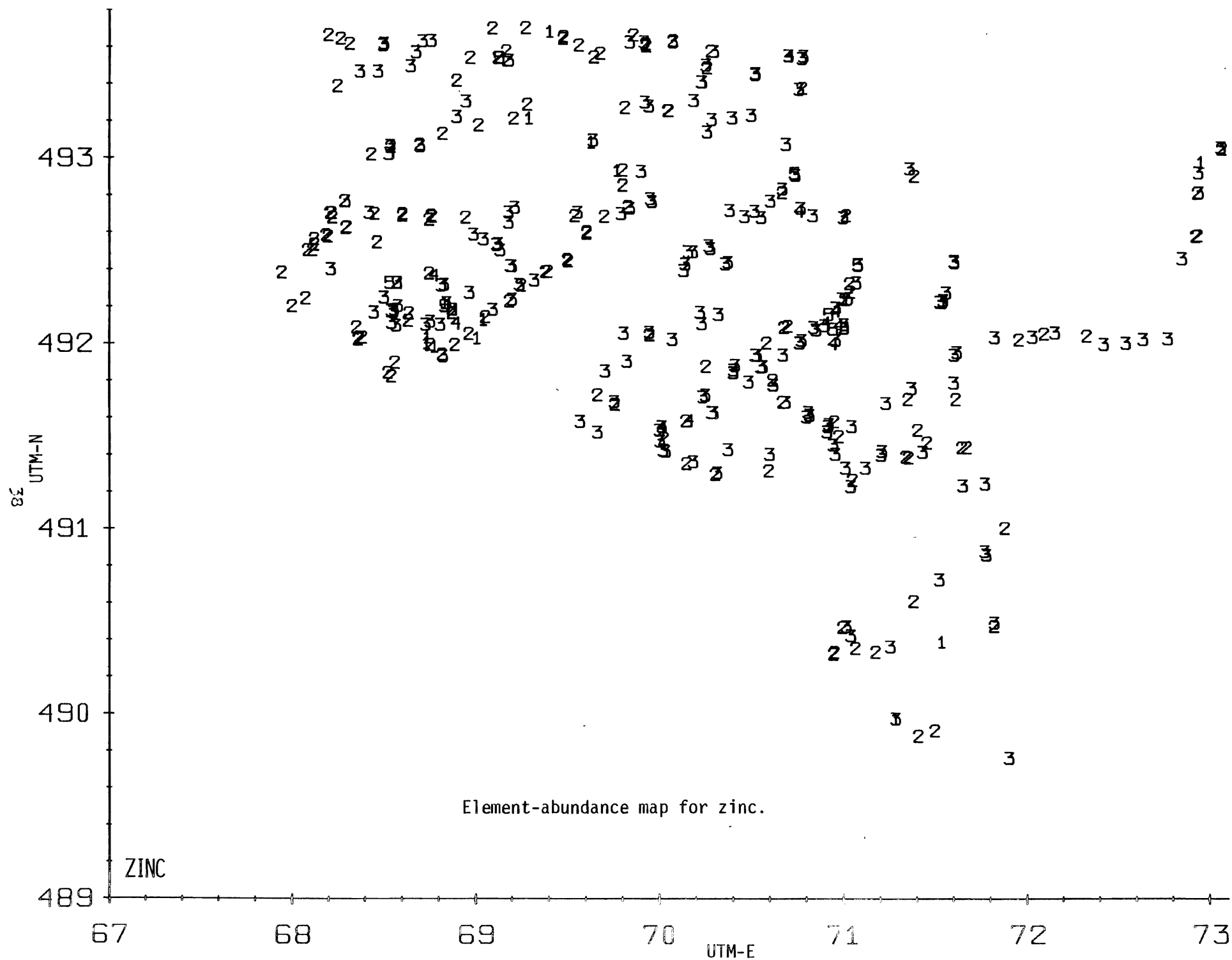












OSU 573.5

JOB ORIGIN = BATCH.

USER NUMBER = BUBQ2C

83/05/23. 18.09.39.

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0514 0514 0514 0514
0514 0514 0514 0514
0514 0514 0514 0514
0514 0514 0514 0514
0514 0514 0514 0514
0514 0514 0514 0514

RRRRRR N N BBBBBB
R R NN N B B
R R N N B B
RRRRRR N N BBBBBB
R R N N B B
R R NN NN B B
R R N N BBBBBB

Ochoco
O-83-4

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B B 0 0 B B
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B 3 R R EEEEEEE NN N NN NN NN
B B R R EEEEEEE N N N N N
BBBBBB RRRRRR EEEEEEE N N N N N
B 3 R R EEEEEEE N N NN N NN
B B R R EEEEEEE N N N N N
BBBBBB R R EEEEEEE N N N N EEEEEEE

RRRRRR 00000 00000 M M M
R R 0 0 0 0 M M M
R R 0 0 0 0 M M M
RRRRRR 0 0 0 0 M M M
R R 0 0 0 0 M M M
R R 0 0 0 0 M M
R R 00000 00000 M M

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11 44 9 9
1 1 4 4 9 9
1 1 4 4 99999
1 4444444 9 9
1 4 99999 ::
1111111 4 99999 ::


```

+VAR,100

+VLIST,Q=1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33

+VLIST,VV=2,4,6,16,18,22,24,34

+VLIST,A=2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34

+NOMINAL,3

+FTNFORM(/,2(A1,G12.4),13X,3(A1,G12.4),13X,3(A1,G12.4),/,9(A1,G12.4))

+NAME,2,GOLD,4,SILVER,6,ARSENIC,8,BARIUM,10,BERYLIUM,12,CADMIUM

+NAME,14,COBALT,16,COPPER,18,LEAD,20,MANGANESE,22,MERCURY

+NAME,24,MOLYBDNUM,26,NICKEL,28,TIN,30,TUNGSTEN,32,URANIUM

+NAME,34,ZINC,36,ZNCAD

+READ,OC4OSLT/UN=BUBQ2C,1-34

+SCALAR,J

+IF (Q(J).EQ.#L# .OR. Q(J).EQ.#B#) A(J)=MISSING $LOOP J=17

+N,A
GOLD      =      34
SILVER    =     223
ARSENIC   =     352
BARIUM     =       0
BERYLIUM  =       0
CADMIUM    =       0
COBALT     =       0
COPPER     =     352
LEAD       =     352
MANGANES  =       0
MERCURY    =     352
MOLYBDNU  =     313
NICKEL     =       0
TIN        =       0
TUNGSTEN  =       0
URANIUM    =       0
ZINC       =     352

+SET,J=1.

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

+REQ,VV(J)

```

```

LOWER BOUND FOR FIRST INTERVAL=      -.230103E+01
NUMBER OF INTERVALS=      15
INTERVAL SIZE=      .110291E+00
      FREQUENCY DISTRIBUTION
      VARIABLE GOLD
      UP TO BUT
INT      FROM      NOT INCLUDING      FREQUENCY      PERCENT
      FREQ

```

CUMULATIVE FREQUENCY DISTRIBUTION
VARIABLE GOLD

```
+SET,VV(J)=LOG10(VV(J))
```

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= -.169897E+01

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .133725E+00

FREQUENCY DISTRIBUTION

VARIABLE SILVER

INT	FROM	UP TO BUT NOT INCLUDING	FREQUENCY	PERCENT FREQ
1	-1.69897	-1.56524	20	8.969
2	-1.56524	-1.43152	43	19.283
3	-1.43152	-1.29779	75	33.632
4	-1.29779	-1.16407	37	16.592
5	-1.16407	-1.03034	29	13.004
6	-1.03034	-.896617	4	1.794
7	-.896617	-.762892	5	2.242
8	-.762892	-.629166	3	1.345
9	-.629166	-.495441	4	1.794
10	-.495441	-.361716	1	.448
11	-.361716	-.227990	0	0.000
12	-.227990	-.942646E-01	1	.448
13	-.942646E-01	.394608E-01	0	0.000
14	.394608E-01	.173186	0	0.000
15	.173186	.306912	1	.448

CUMULATIVE FREQUENCY DISTRIBUTION

VARIABLE SILVER

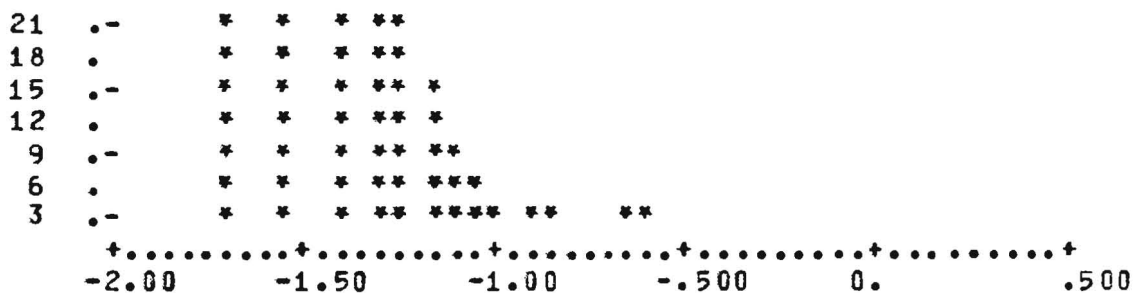
INTERVAL	VALUE	NUMBER LESS THAN VALUE	PERCENT LESS THAN VALUE
1	-1.56524	20	8.969
2	-1.43152	63	28.251
3	-1.29779	138	61.883
4	-1.16407	175	78.475
5	-1.03034	204	91.480
6	-.896617	208	93.274
7	-.762892	213	95.516
8	-.629166	216	96.861
9	-.495441	220	98.655
10	-.361716	221	99.103
11	-.227990	221	99.103
12	-.942646E-01	222	99.552
13	.394608E-01	222	99.552
14	.173186	222	99.552
15	.306912	223	100.000

+HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE SILVER

FREQUENCY

44	.----	* *
41	.	* *
38	.----	* * *
35	.	* * *
32	.----	* * **
29	.	* * **
26	.----	* * **
23	.	* * **



+15 COMMENT

+SET,J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= 0.

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .123163E+00

FREQUENCY DISTRIBUTION

		VARIABLE ARSENIC		PERCENT	
		UP TO BUT		FREQ	
INT	FROM	NOT INCLUDING	FREQUENCY		
1	0.	.123163	233	66.193	
2	.123163	.246325	0	0.000	
3	.246325	.369488	68	19.318	
4	.369488	.492650	27	7.670	
5	.492650	.615813	4	1.136	
6	.615813	.738975	3	.852	
7	.738975	.862138	4	1.136	
8	.862138	.985300	2	.568	
9	.985300	1.10846	2	.568	
10	1.10846	1.23163	4	1.136	
11	1.23163	1.35479	2	.568	
12	1.35479	1.47795	0	0.000	
13	1.47795	1.60111	2	.568	
14	1.60111	1.72428	0	0.000	
15	1.72428	1.84744	1	.284	

CUMULATIVE FREQUENCY DISTRIBUTION

VARIABLE ARSENIC

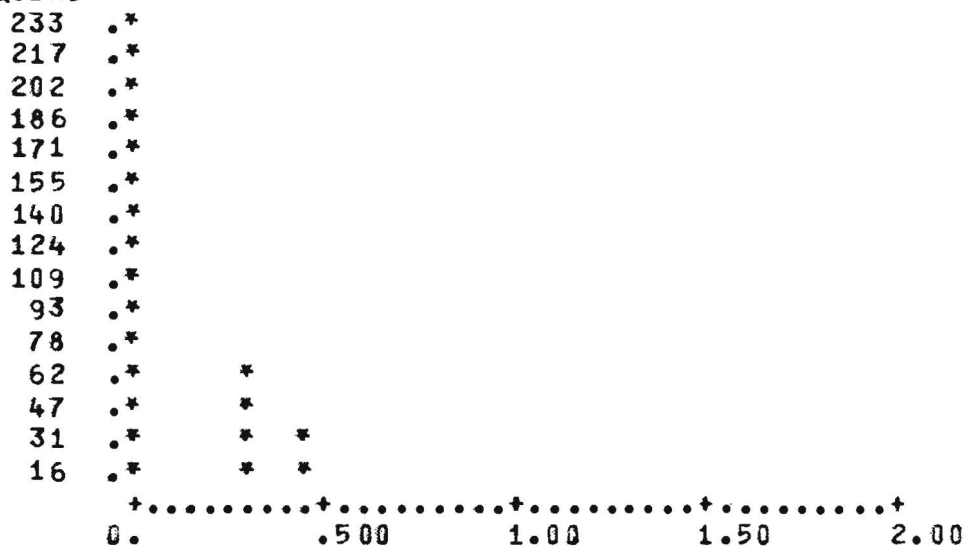
		NUMBER LESS		PERCENT LESS	
		THAN VALUE		THAN VALUE	
INTERVAL	VALUE				
1	.123163	233		66.193	
2	.246325	233		66.193	
3	.369488	301		85.511	
4	.492650	328		93.182	
5	.615813	332		94.318	
6	.738975	335		95.170	
7	.862138	339		96.307	
8	.985300	341		96.875	
9	1.10846	343		97.443	
10	1.23163	347		98.580	

11	1.35479	349	99.148
12	1.47795	349	99.148
13	1.60111	351	99.716
14	1.72428	351	99.716
15	1.84744	352	100.000

+HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE ARSENIC

FREQUENCY



+15 COMMENT

+SET, J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET, VV(J)=LOG10(VV(J))

*

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ, VV(J)

LOWER BOUND FOR FIRST INTERVAL= .845098E+00

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .723025E-01

FREQUENCY DISTRIBUTION

VARIABLE COPPER

INT	FROM	UP TO BUT NOT INCLUDING	FREQUENCY	PERCENT FREQ
1	.845098	.917401	3	.852
2	.917401	.989703	1	.284
3	.989703	1.06201	5	1.420
4	1.06201	1.13431	6	1.705
5	1.13431	1.20661	23	6.534
6	1.20661	1.27891	42	11.932
7	1.27891	1.35122	61	17.330
8	1.35122	1.42352	61	17.330
9	1.42352	1.49582	62	17.614
10	1.49582	1.56812	35	9.943
11	1.56812	1.64043	23	6.534
12	1.64043	1.71273	15	4.261

13	1.71273	1.78503	9	2.557
14	1.78503	1.85733	5	1.420
15	1.85733	1.92963	1	.284

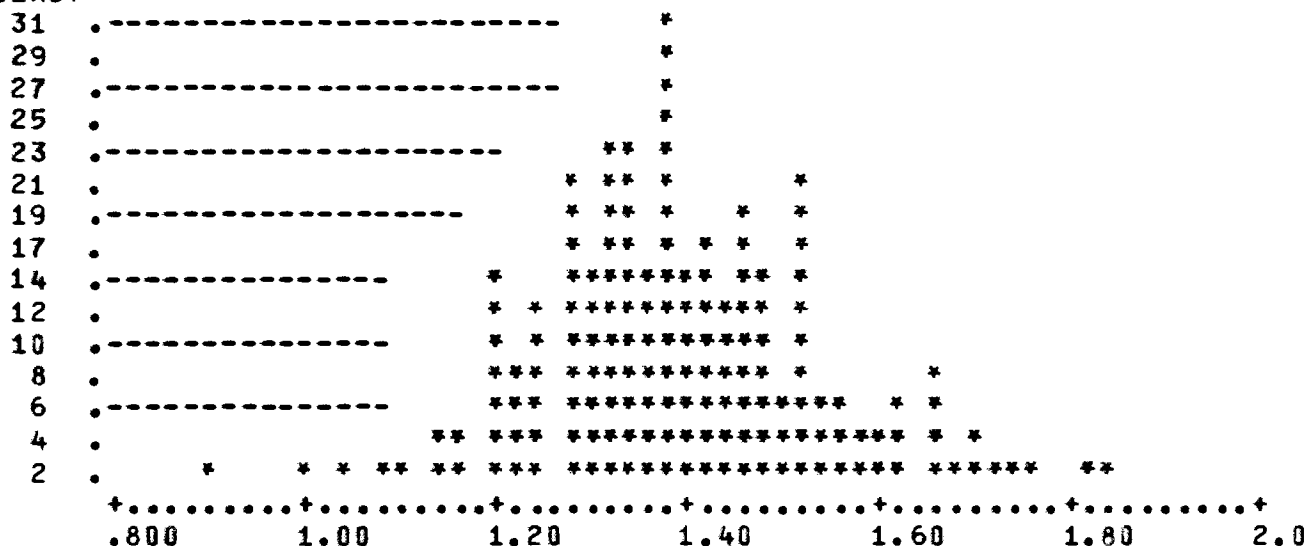
CUMULATIVE FREQUENCY DISTRIBUTION VARIABLE COPPER

INTERVAL	VALUE	NUMBER LESS THAN VALUE	PERCENT LESS THAN VALUE
1	.917401	3	.852
2	.989703	4	1.136
3	1.06201	9	2.557
4	1.13431	15	4.261
5	1.20661	38	10.795
6	1.27891	80	22.727
7	1.35122	141	40.057
8	1.42352	202	57.386
9	1.49582	264	75.000
10	1.56812	299	84.943
11	1.64043	322	91.477
12	1.71273	337	95.739
13	1.78503	346	98.295
14	1.85733	351	99.716
15	1.92963	352	100.000

+HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE COPPER

FREQUENCY



+15 COMMENT

+SET,J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= .255273E+00
 NUMBER OF INTERVALS= 15
 INTERVAL SIZE= .904190E-01

FREQUENCY DISTRIBUTION

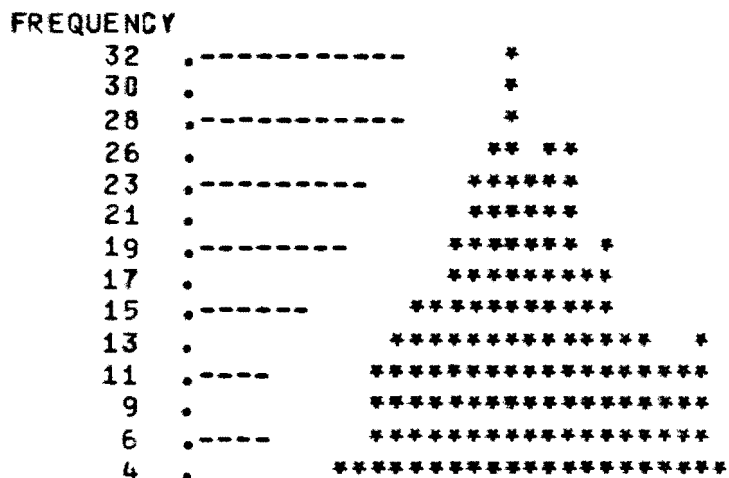
VARIABLE LEAD		UP TO BUT		PERCENT
INT	FROM	NOT INCLUDING	FREQUENCY	FREQ
1	.255273	.345691	3	.852
2	.345691	.436110	4	1.136
3	.436110	.526529	29	8.239
4	.526529	.616948	71	20.170
5	.616948	.707367	91	25.852
6	.707367	.797786	78	22.159
7	.797786	.888205	42	11.932
8	.888205	.978624	25	7.102
9	.978624	1.06904	3	.852
10	1.06904	1.15946	2	.568
11	1.15946	1.24988	1	.284
12	1.24988	1.34030	0	0.000
13	1.34030	1.43072	1	.284
14	1.43072	1.52114	1	.284
15	1.52114	1.61156	1	.284

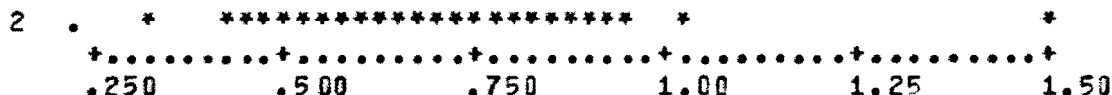
CUMULATIVE FREQUENCY DISTRIBUTION

VARIABLE LEAD		NUMBER LESS	PERCENT LESS
INTERVAL	VALUE	THAN VALUE	THAN VALUE
1	.345691	3	.852
2	.436110	7	1.989
3	.526529	36	10.227
4	.616948	107	30.398
5	.707367	198	55.250
6	.797786	276	78.409
7	.888205	318	90.341
8	.978624	343	97.443
9	1.06904	346	98.295
10	1.15946	348	98.864
11	1.24988	349	99.148
12	1.34030	349	99.148
13	1.43072	350	99.432
14	1.52114	351	99.716
15	1.61156	352	100.000

+HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE LEAD





+15 COMMENT

+SET,J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= -.230103E+01

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .214286E+00

FREQUENCY DISTRIBUTION

VARIABLE MERCURY

UP TO BUT

PERCENT

INT	FROM	NOT INCLUDING	FREQUENCY	FREQ
1	-2.30103	-2.08674	2	.568
2	-2.08674	-1.87246	18	5.114
3	-1.87246	-1.65817	54	15.341
4	-1.65817	-1.44389	92	26.136
5	-1.44389	-1.22960	67	19.034
6	-1.22960	-1.01532	43	12.216
7	-1.01532	-.801030	20	5.682
8	-.801030	-.586744	8	2.273
9	-.586744	-.372459	6	1.705
10	-.372459	-.158173	13	3.693
11	-.158173	.561129E-01	1	.284
12	.561129E-01	.270399	7	1.989
13	.270399	.484684	2	.568
14	.484684	.698970	4	1.136
15	.698970	.913256	15	4.261

CUMULATIVE FREQUENCY DISTRIBUTION

VARIABLE MERCURY

NUMBER LESS

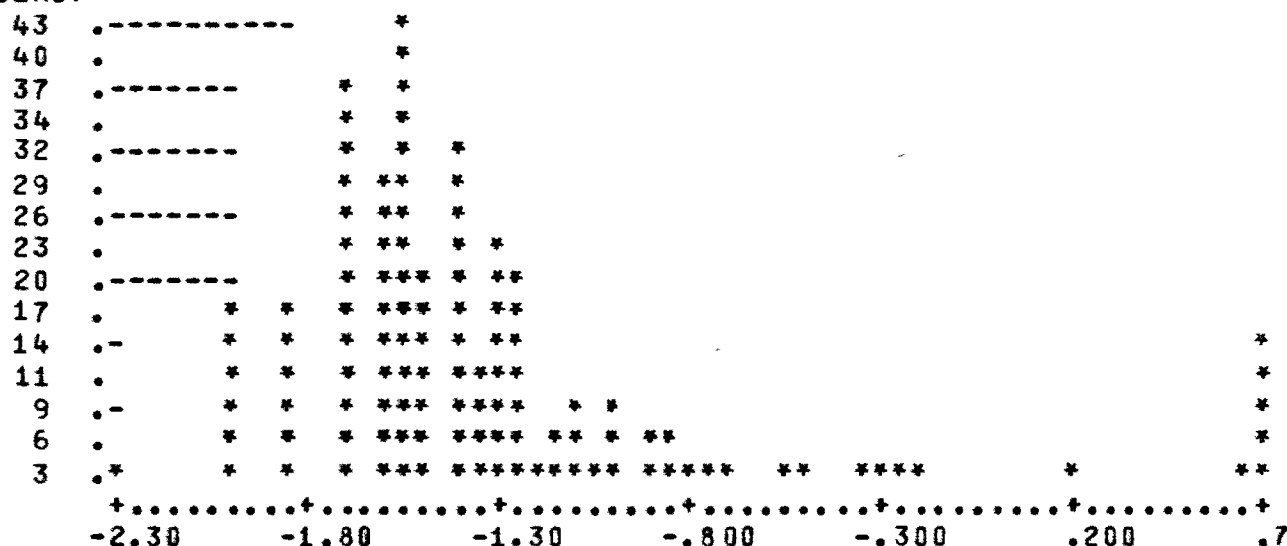
PERCENT LESS

INTERVAL	VALUE	THAN VALUE	THAN VALUE
1	-2.08674	2	.568
2	-1.87246	20	5.682
3	-1.65817	74	21.023
4	-1.44389	166	47.159
5	-1.22960	233	65.193
6	-1.01532	276	78.409
7	-.801030	296	84.091
8	-.586744	304	86.364
9	-.372459	310	88.068
10	-.158173	323	91.761
11	.561129E-01	324	92.045
12	.270399	331	94.034
13	.484684	333	94.602
14	.698970	337	95.739
15	.913256	352	100.000

+HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE MERCURY

FREQUENCY



+15 COMMENT

+SET,J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= 0.

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .340801E-01

FREQUENCY DISTRIBUTION

VARIABLE MOLYBDNU

INT	FROM	UP TO BUT NOT INCLUDING	FREQUENCY	PERCENT FREQ
1	0.	.340801E-01	205	65.495
2	.340801E-01	.681602E-01	0	0.000
3	.681602E-01	.102240	0	0.000
4	.102240	.136320	0	0.000
5	.136320	.170400	0	0.000
6	.170400	.204481	0	0.000
7	.204481	.238561	0	0.000
8	.238561	.272641	0	0.000
9	.272641	.306721	103	32.907
10	.306721	.340801	0	0.000
11	.340801	.374881	0	0.000
12	.374881	.408961	0	0.000
13	.408961	.443041	0	0.000
14	.443041	.477121	0	0.000
15	.477121	.511201	5	1.597

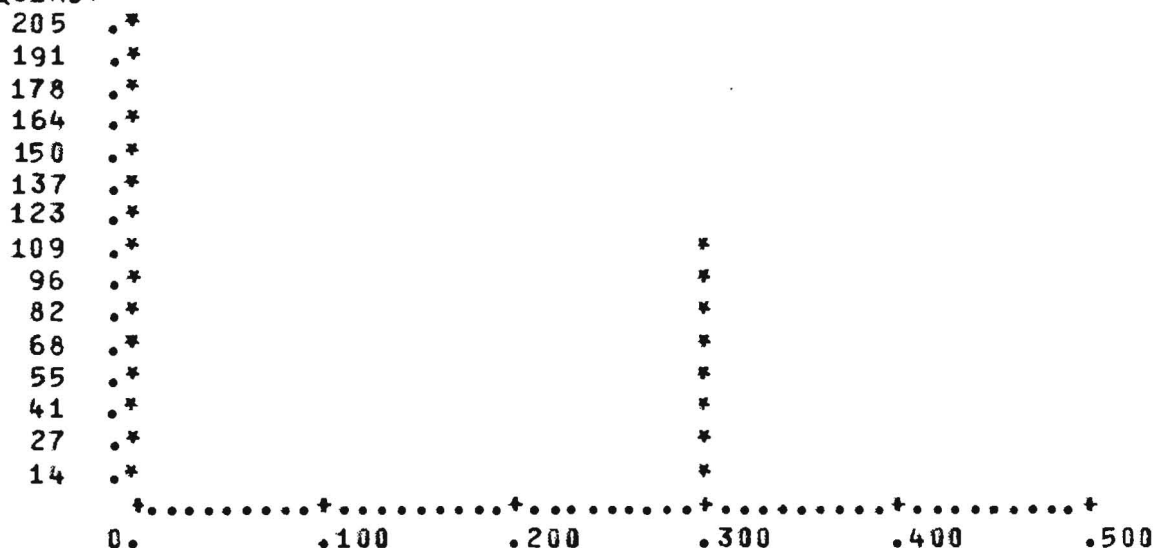
CUMULATIVE FREQUENCY DISTRIBUTION

VARIABLE MOLYBDNU			
INTERVAL	VALUE	NUMBER LESS THAN VALUE	PERCENT LESS THAN VALUE
1	.340801E-01	205	65.495
2	.681602E-01	205	65.495
3	.102240	205	65.495
4	.136320	205	65.495
5	.170400	205	65.495
6	.204481	205	65.495
7	.238561	205	65.495
8	.272641	205	65.495
9	.306721	308	98.403
10	.340801	308	98.403
11	.374881	308	98.403
12	.408961	308	98.403
13	.443041	308	98.403
14	.477121	308	98.403
15	.511201	313	100.000

+HISTOGRAM VV(J)86

HISTOGRAM OF VARIABLE MOLYBDNU

FREQUENCY



+15 COMMENT

+SET,J=J+1.

+IF (J.LE.8.) GOTO 10

+10 COMMENT

+SET,VV(J)=LOG10(VV(J))

** INFORMATIVE..MISSING DATA ENCOUNTERED.

+FREQ,VV(J)

LOWER BOUND FOR FIRST INTERVAL= .114613E+01

NUMBER OF INTERVALS= 15

INTERVAL SIZE= .749837E-01

FREQUENCY DISTRIBUTION

VARIABLE ZINC

UP TO BUT

PERCENT

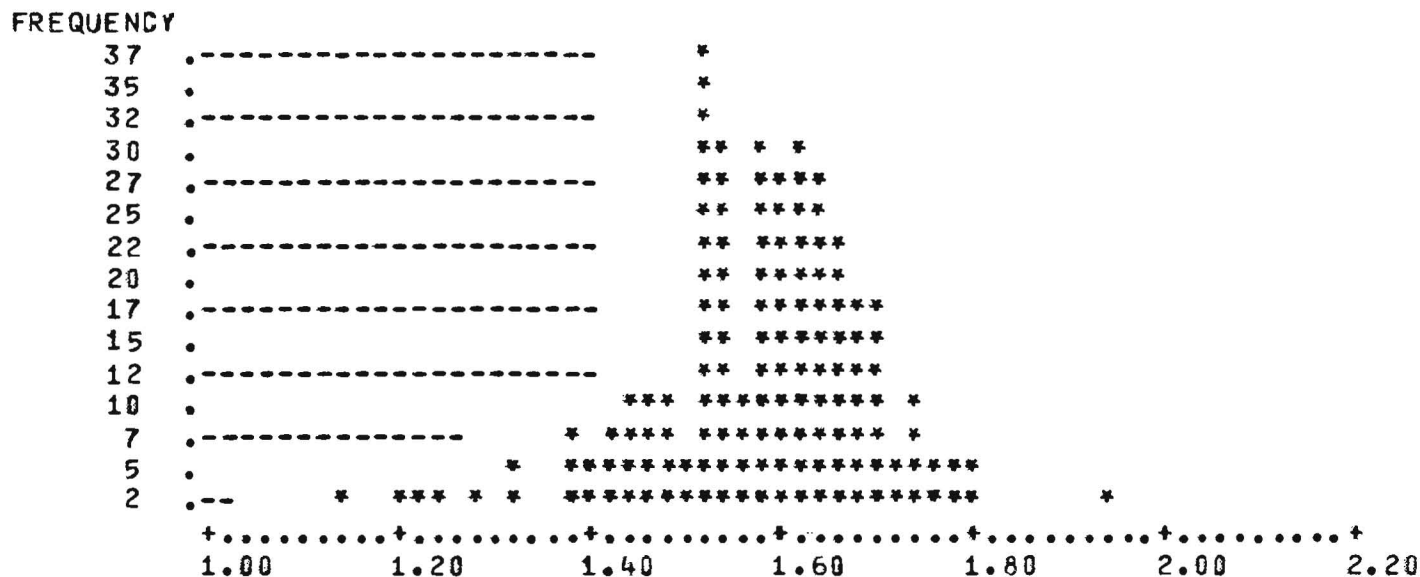
INT	FROM	NOT INCLUDING	FREQUENCY	FREQ
1	1.14613	1.22111	5	1.420
2	1.22111	1.29610	7	1.989
3	1.29610	1.37108	5	1.420
4	1.37108	1.44606	20	5.682
5	1.44606	1.52105	48	13.636
6	1.52105	1.59603	91	25.852
7	1.59603	1.67101	94	26.705
8	1.67101	1.74600	53	15.057
9	1.74600	1.82098	22	6.250
10	1.82098	1.89596	3	.852
11	1.89596	1.97095	2	.568
12	1.97095	2.04593	0	0.000
13	2.04593	2.12092	0	0.000
14	2.12092	2.19590	1	.284
15	2.19590	2.27088	1	.284

CUMULATIVE FREQUENCY DISTRIBUTION
VARIABLE ZINC

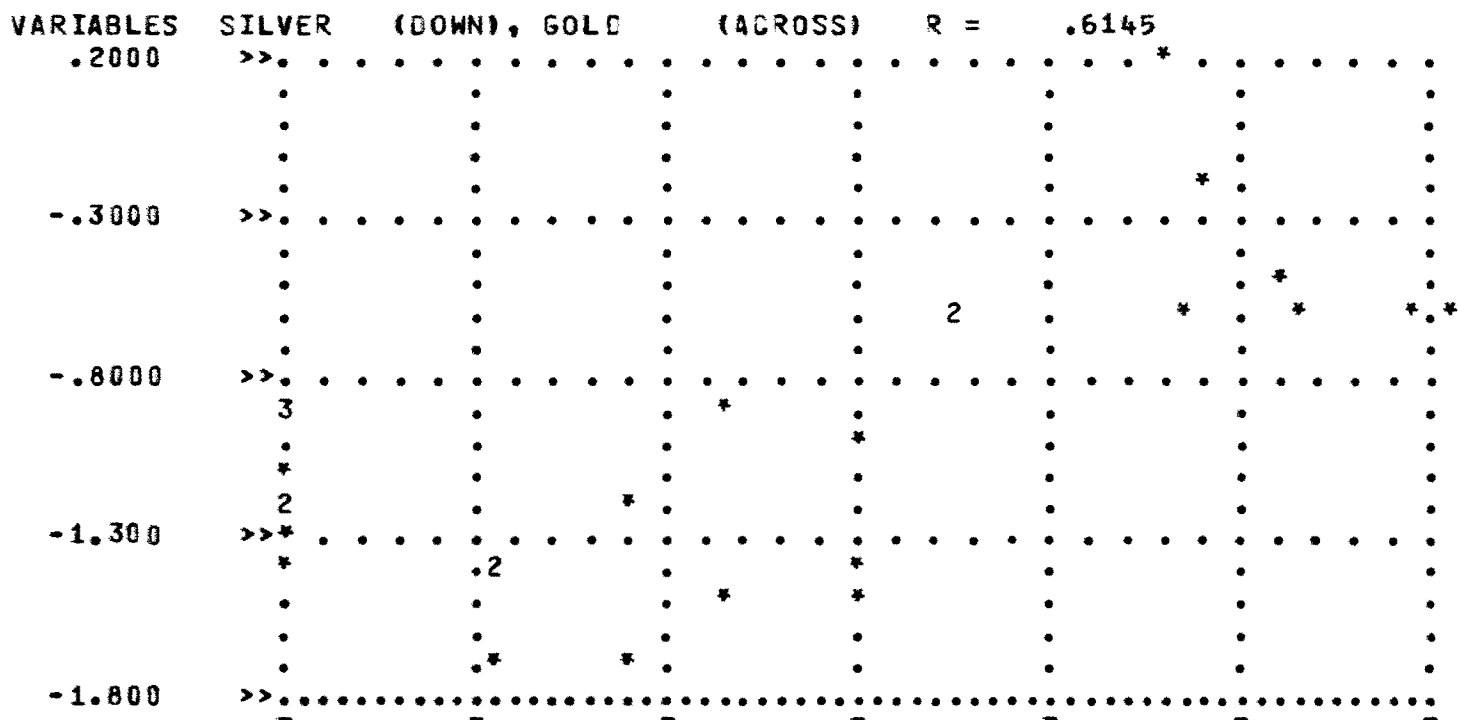
INTERVAL	VALUE	NUMBER LESS THAN VALUE	PERCENT LESS THAN VALUE
1	1.22111	5	1.420
2	1.29610	12	3.409
3	1.37108	17	4.830
4	1.44606	37	10.511
5	1.52105	85	24.148
6	1.59603	176	50.000
7	1.67101	270	76.705
8	1.74600	323	91.761
9	1.82098	345	98.011
10	1.89596	348	98.864
11	1.97095	350	99.432
12	2.04593	350	99.432
13	2.12092	350	99.432
14	2.19590	351	99.716
15	2.27088	352	100.000

*HISTOGRAM VV(J)\$G

HISTOGRAM OF VARIABLE ZINC



*15 COMMENT



-2.270 -2.020 -1.770 -1.520 -1.270 -1.020 -.7700
 NUMBER OF MISSING OBSERVATIONS= 326

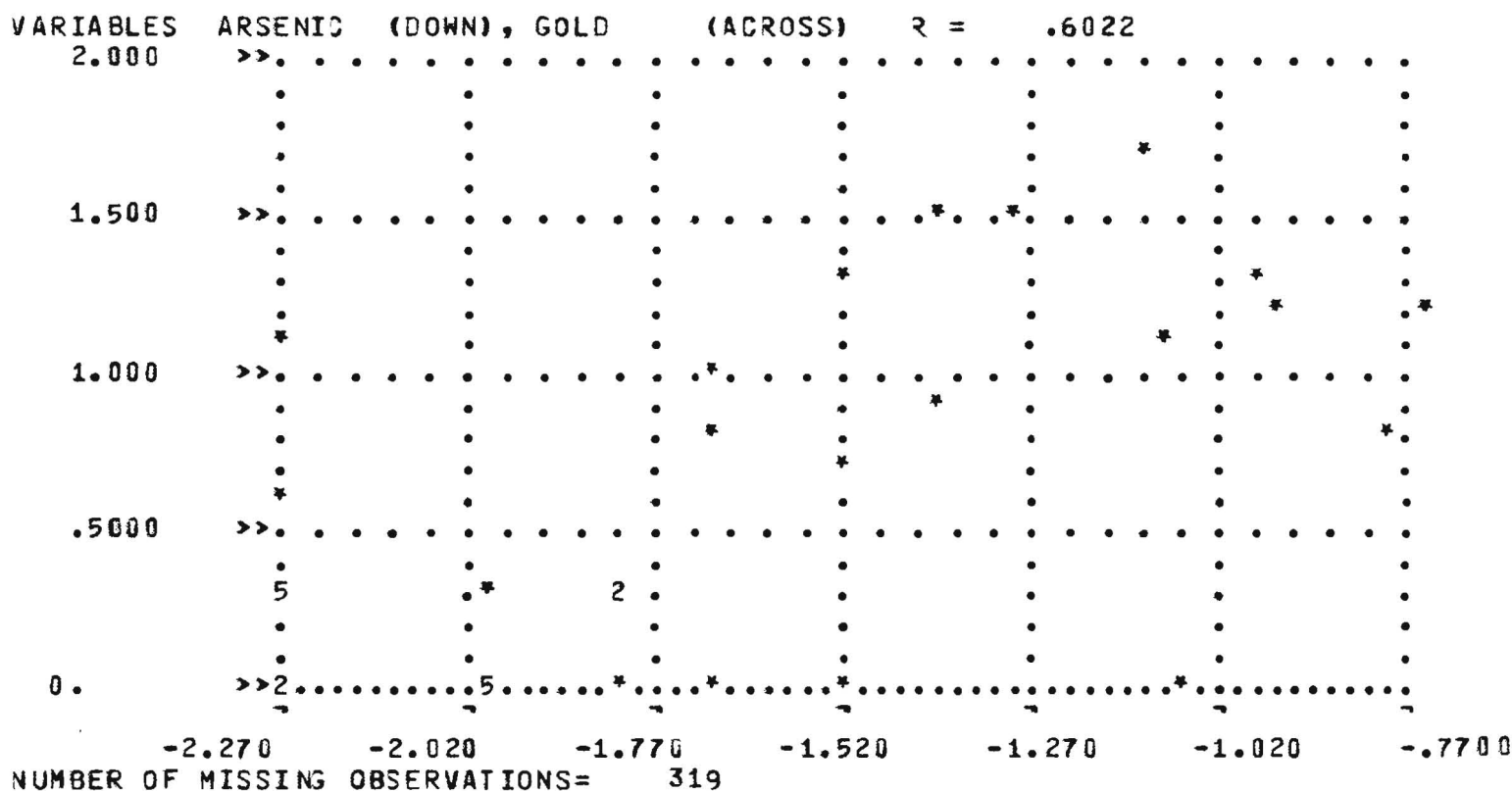
+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -2.30103 UPPER BOUND OF X= -.756962
 LOWER BOUND OF Y= 0. UPPER BOUND OF Y= 1.72428



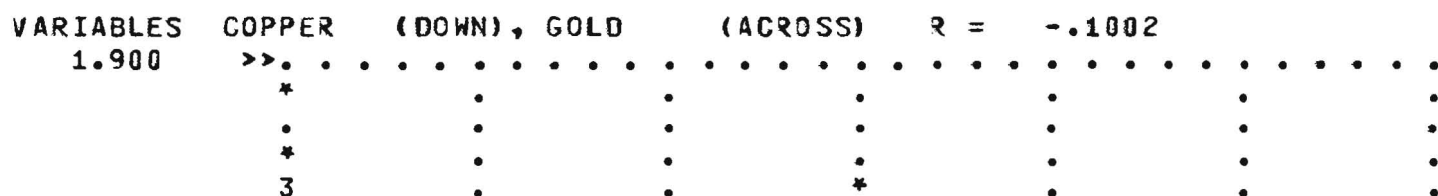
+SET,K=K+1.

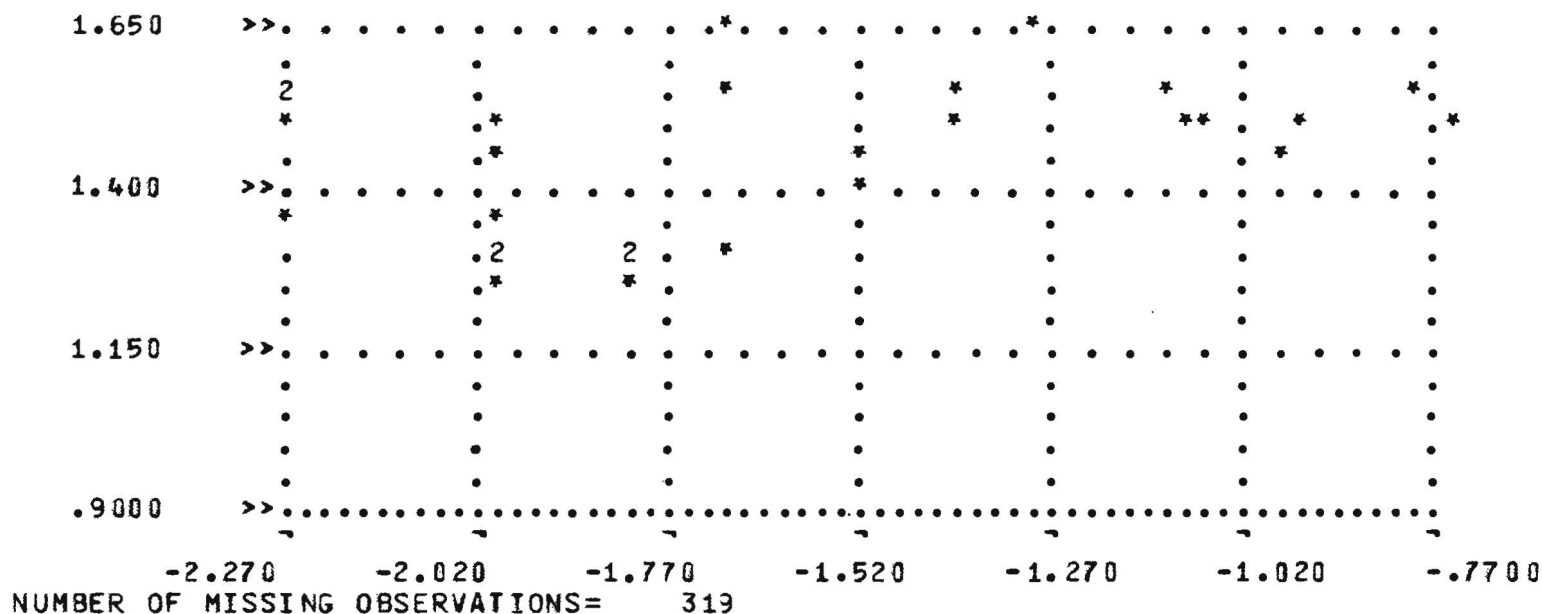
+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -2.30103 UPPER BOUND OF X= -.756962
 LOWER BOUND OF Y= .845098 UPPER BOUND OF Y= 1.85733





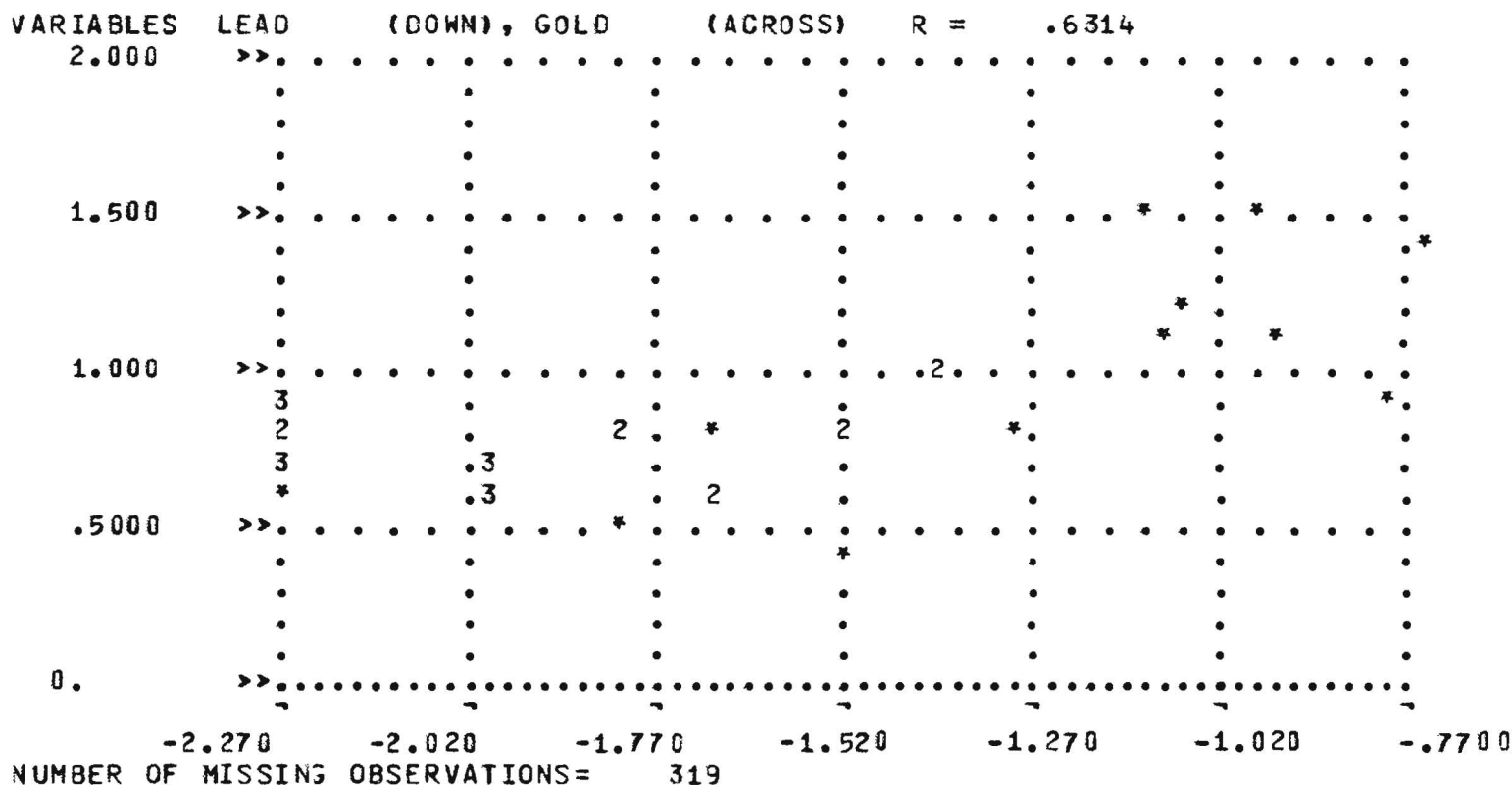
+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -2.30103 UPPER BOUND OF X= -.756962
 LOWER BOUND OF Y= .255273 UPPER BOUND OF Y= 1.52114



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

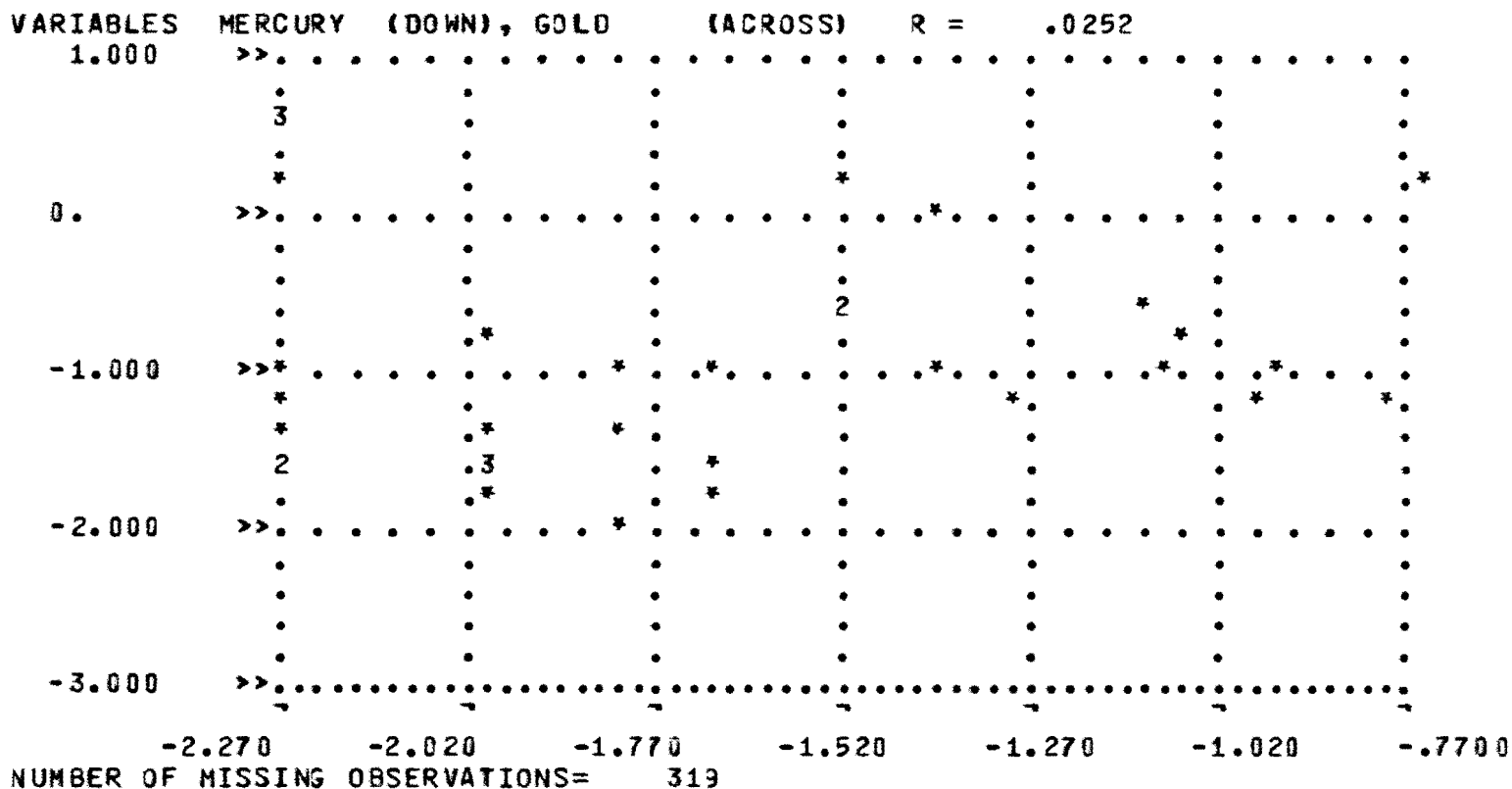
+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -2.30103

UPPER BOUND OF X= -.756962

LOWER BOUND OF Y= -2.30103

UPPER BOUND OF Y= .698970



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

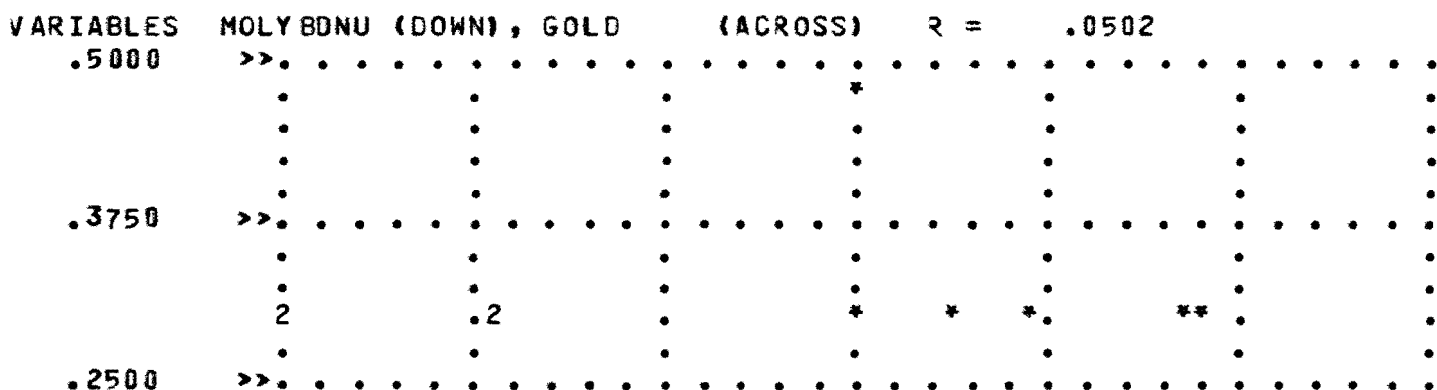
+SCATTER,VV(J),VV(K)

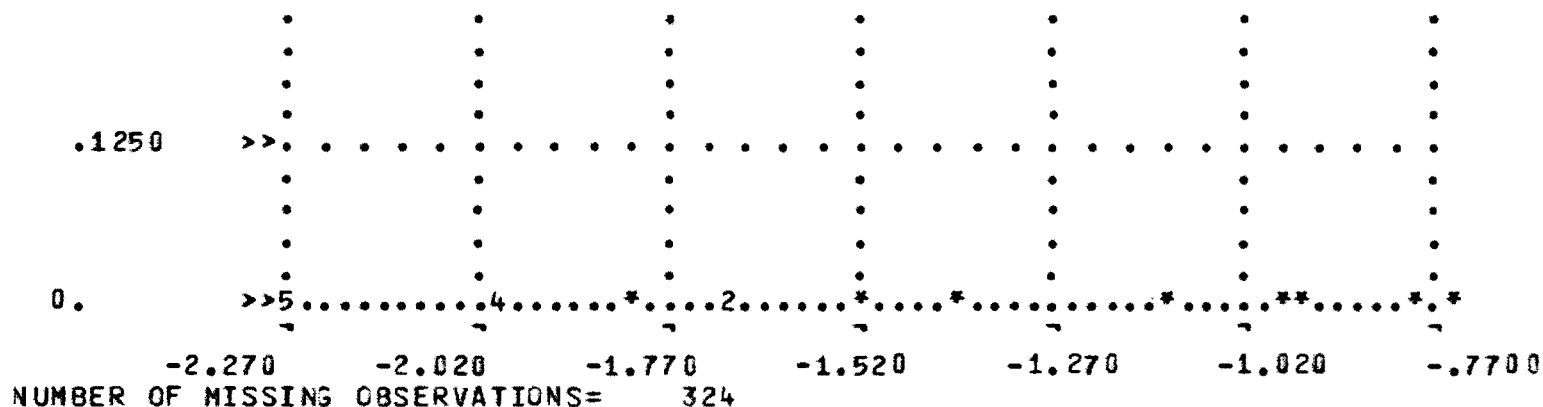
LOWER BOUND OF X= -2.30103

UPPER BOUND OF X= -.756962

LOWER BOUND OF Y= 0.

UPPER BOUND OF Y= .477121





+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -2.30103

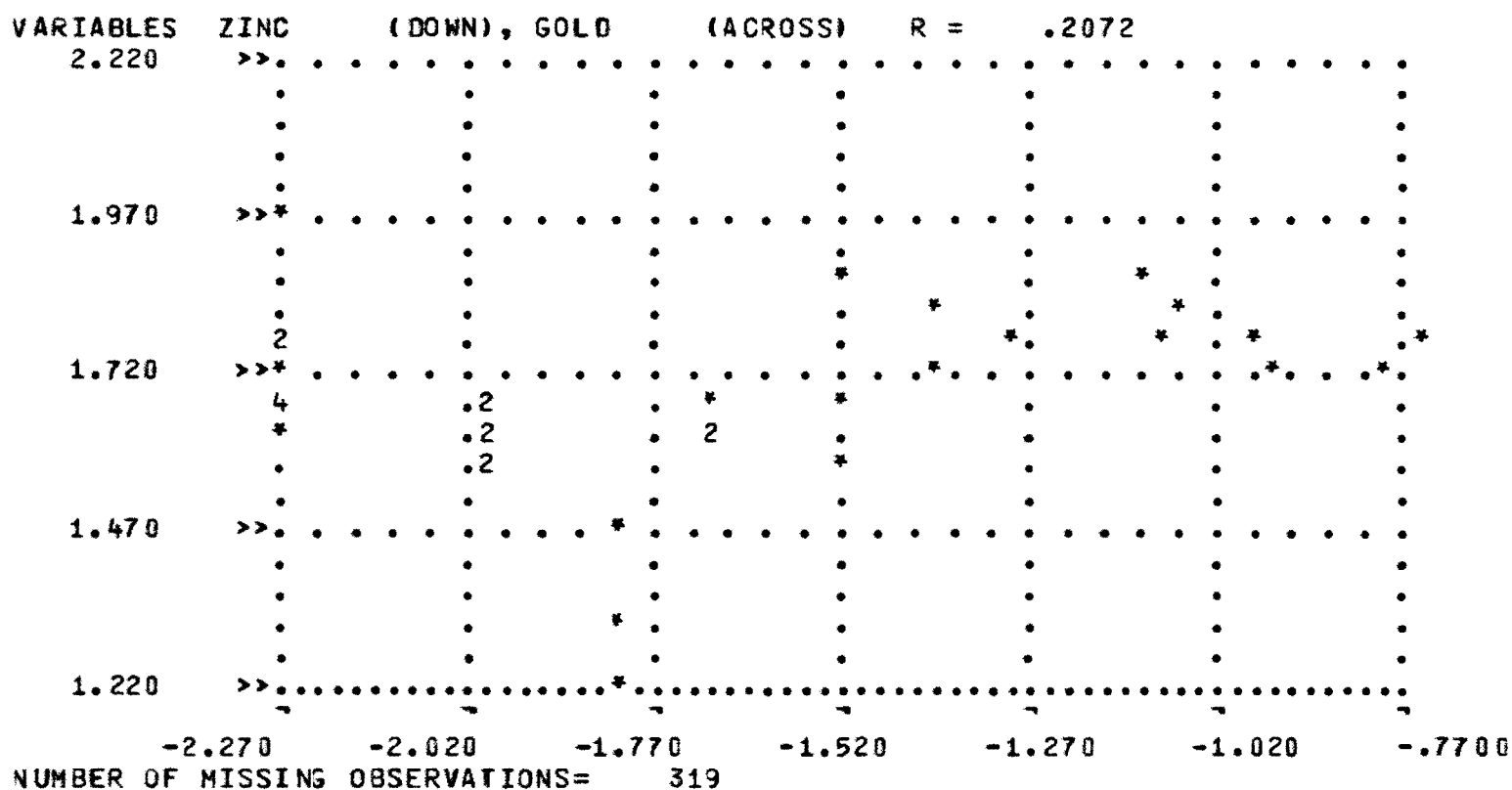
UPPER BOUND OF X=

-.756962

LOWER BOUND OF Y= 1.14613

UPPER BOUND OF Y=

2.19590

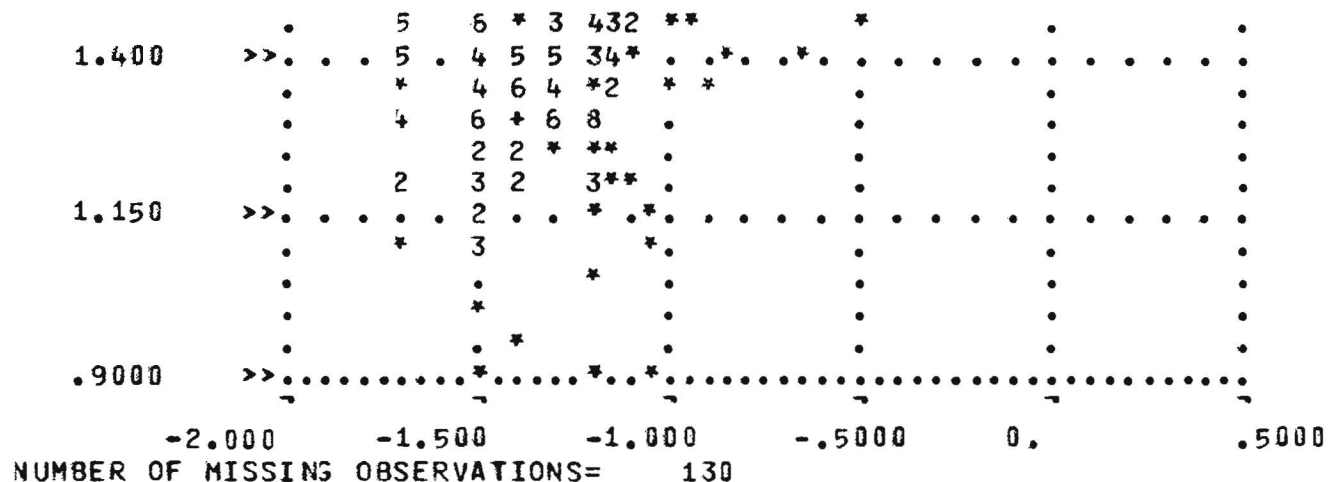


+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+SET,J=J+1.

+IF (J.LE.7.) GOTO 100



+SET,K=K+1.

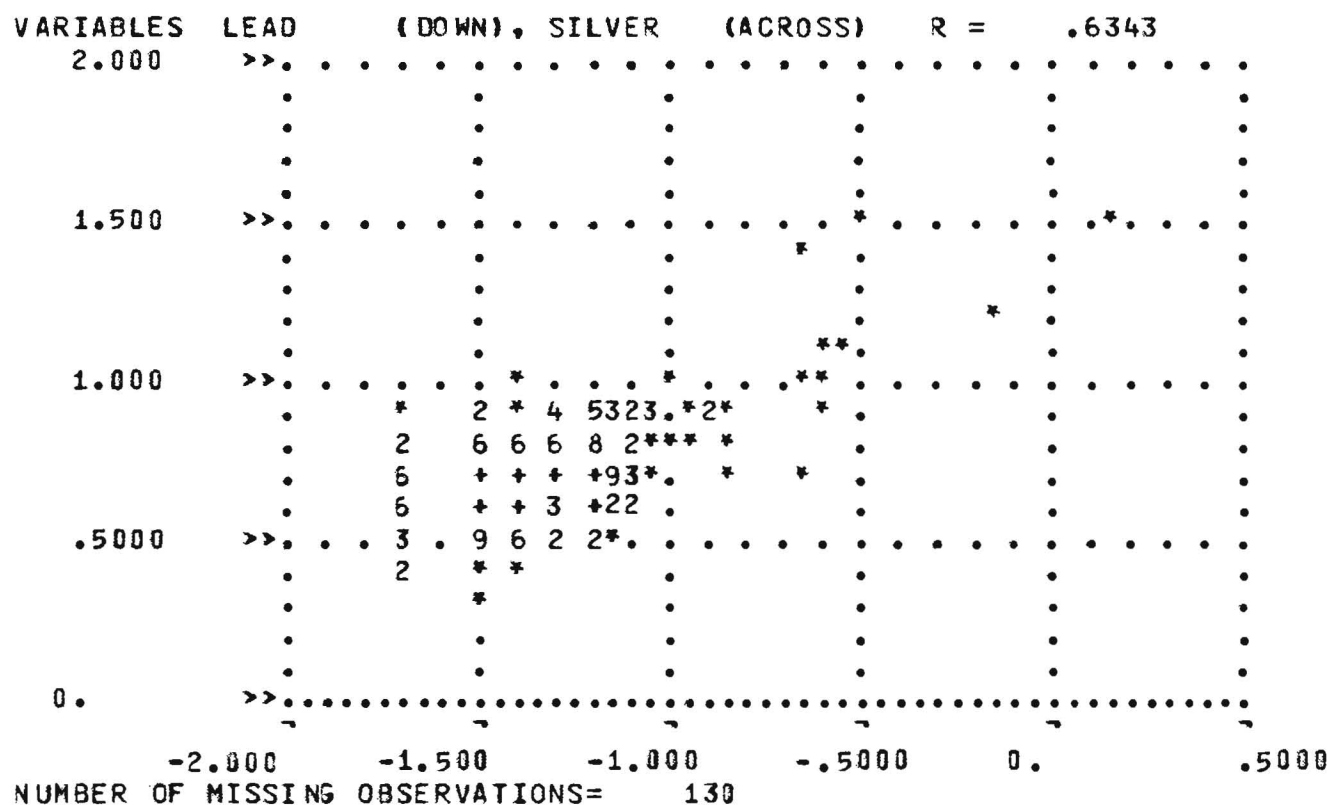
+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -1.69897 UPPER BOUND OF X= .173186

LOWER BOUND OF Y= .255273 UPPER BOUND OF Y= 1.52114



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -1.69897

UPPER BOUND OF X=

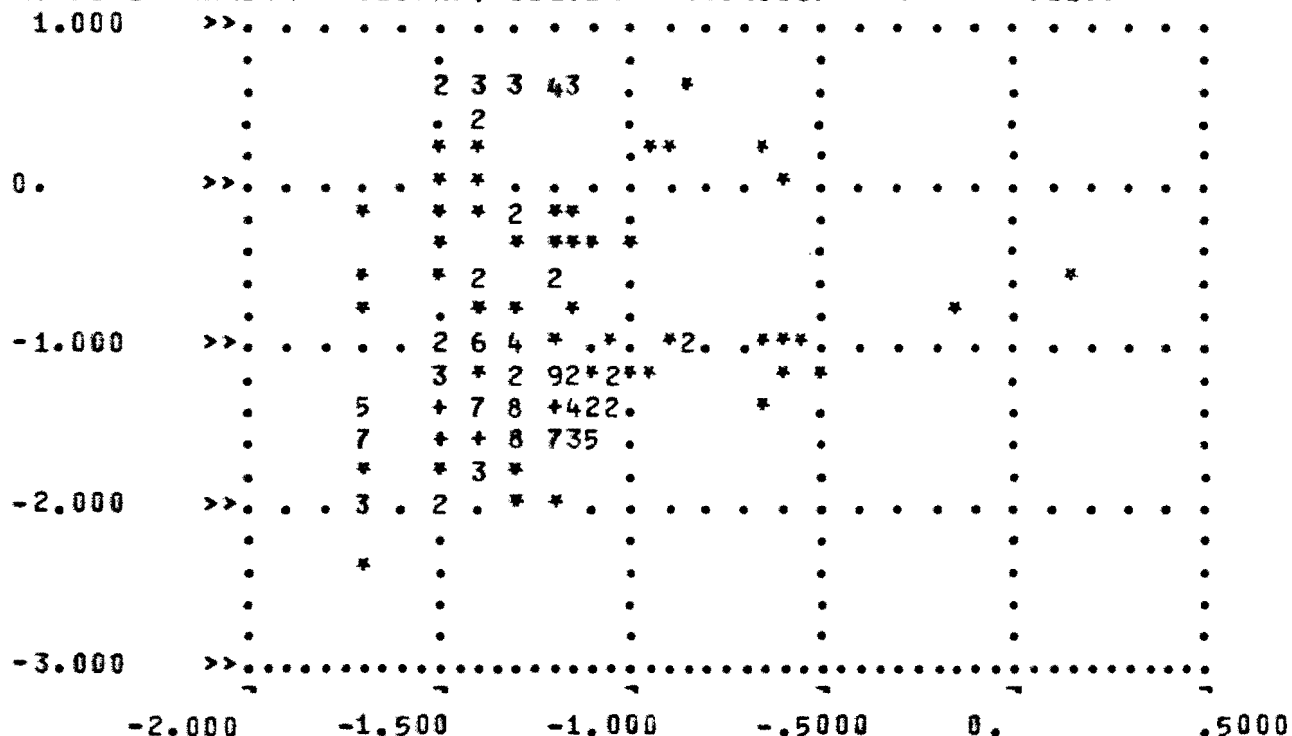
.173186

LOWER BOUND OF Y= -2.30103

UPPER BOUND OF Y=

.698970

VARIABLES MERCURY (DOWN), SILVER (ACROSS) R = .2255



NUMBER OF MISSING OBSERVATIONS= 130

+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -1.69897

UPPER BOUND OF X=

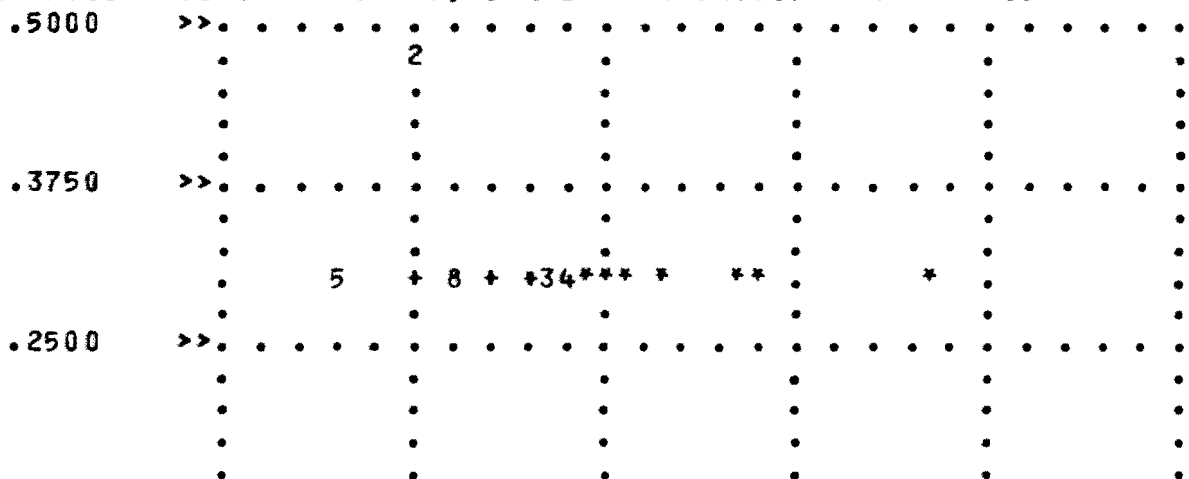
.173186

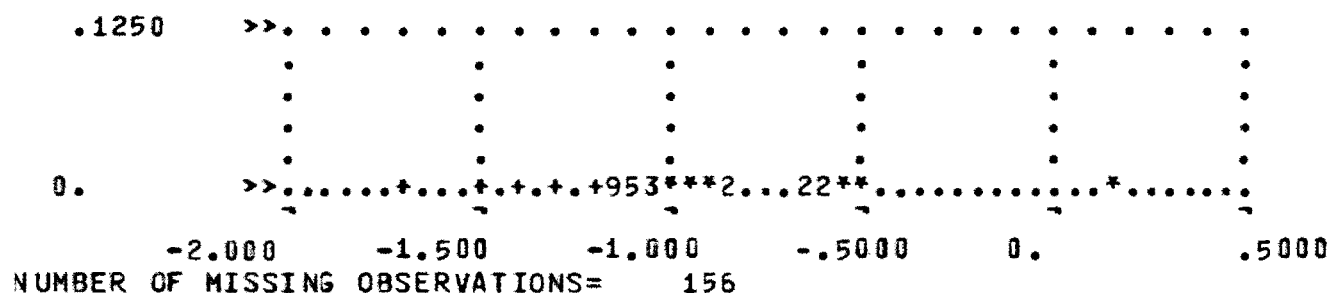
LOWER BOUND OF Y= 0.

UPPER BOUND OF Y=

.477121

VARIABLES MOLYBDENU (DOWN), SILVER (ACROSS) R = -.0187





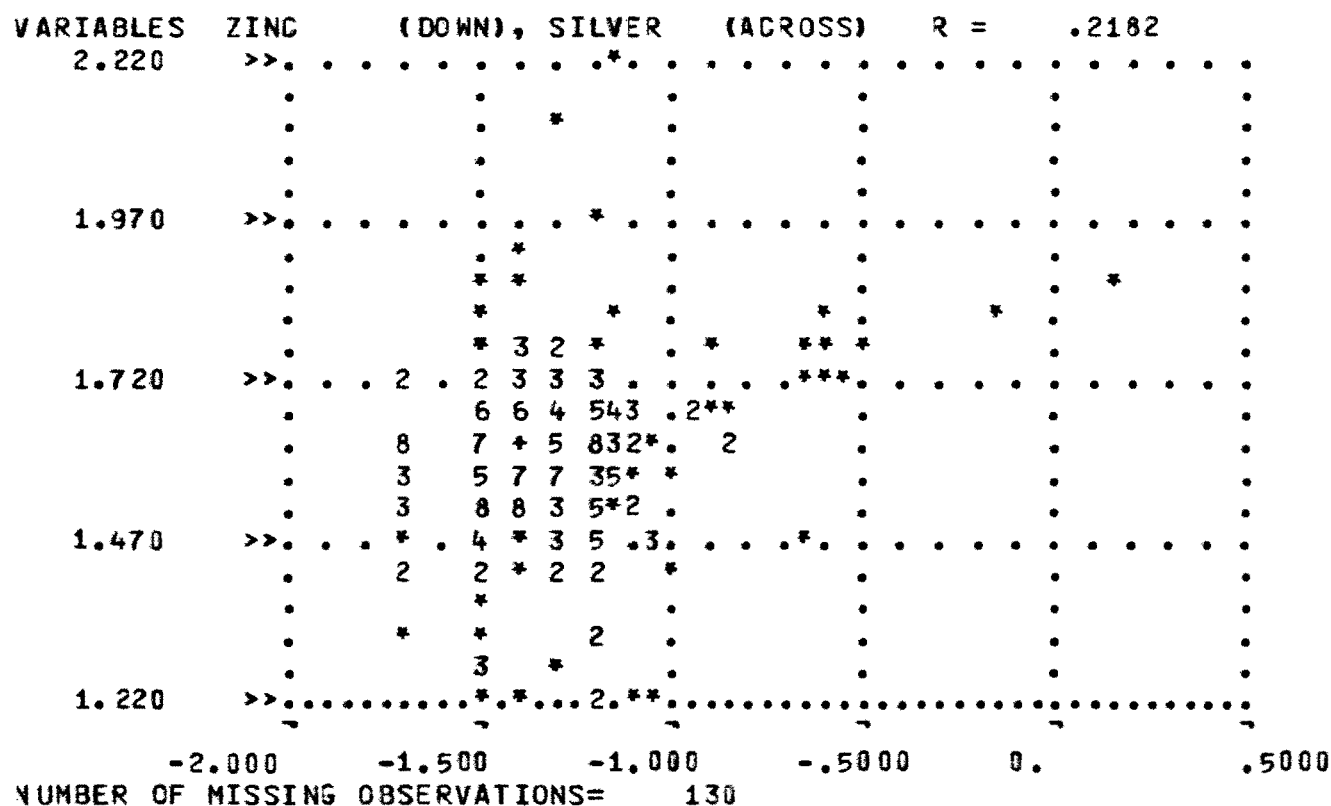
+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= -1.69897 UPPER BOUND OF X= .173186
 LOWER BOUND OF Y= 1.14613 UPPER BOUND OF Y= 2.19590



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+SET,J=J+1.

+IF (J.LE.7.) GOTO 100

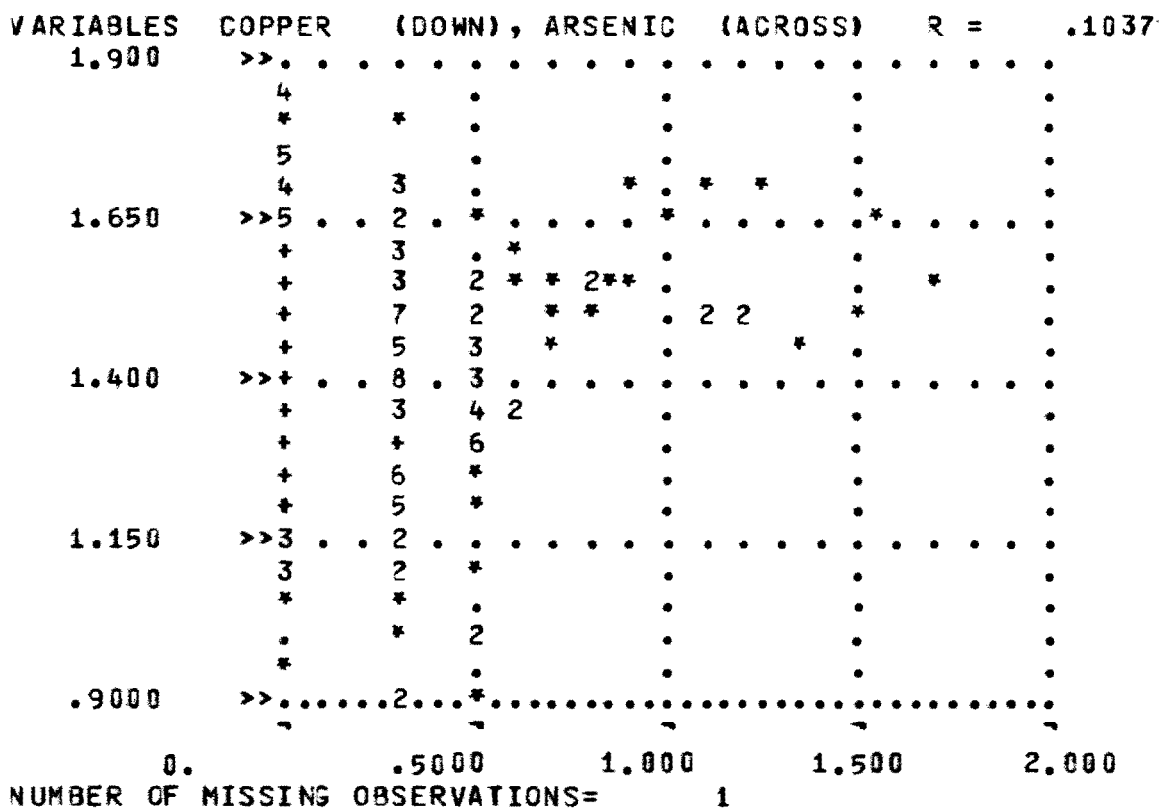
+100 COMMENT

+SET,K=J+1.

```

LOWER BOUND OF X=      0.          UPPER BOUND OF X=      1.72428
LOWER BOUND OF Y=      .845098    UPPER BOUND OF Y=      1.85733

```



+SET ,K=K+1.

```
* IF (K.LE.8.) GOTO 200
```

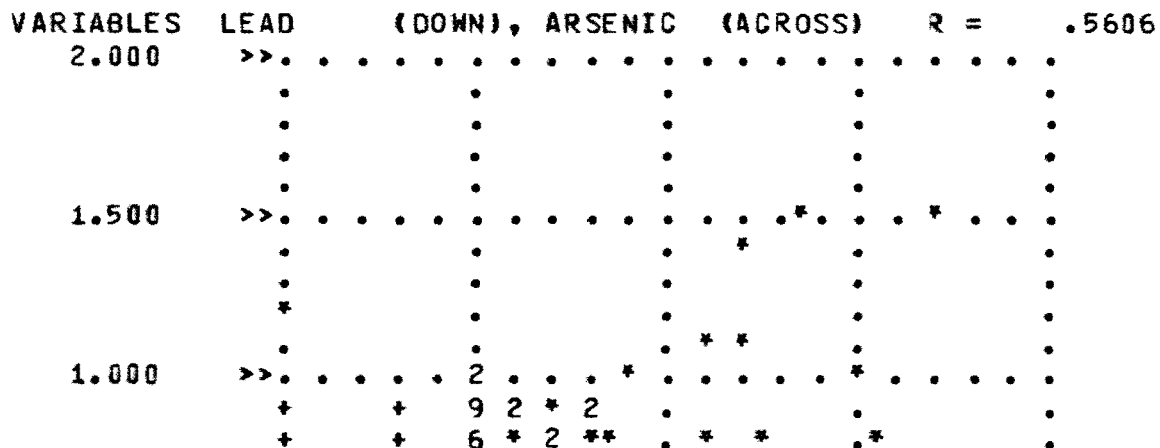
+200 COMMENT

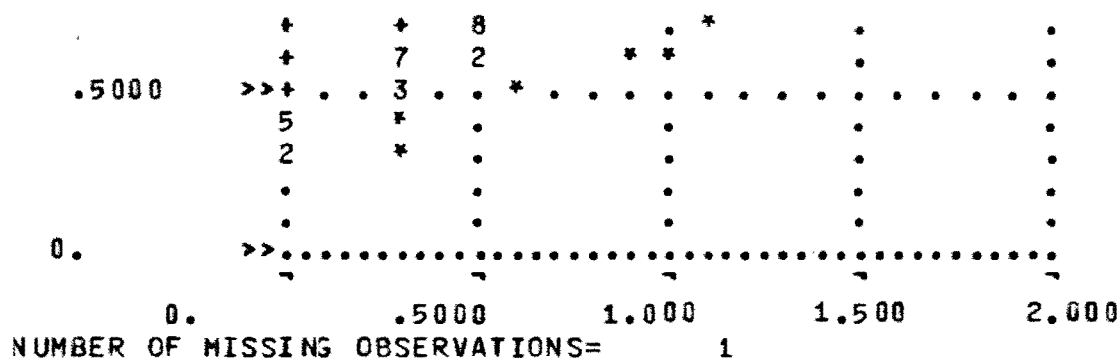
+SCATTER,VV(J),VV(K)

```

LOWER BOUND OF X=      0.          UPPER BOUND OF X=      1.72428
LOWER BOUND OF Y=     .255273     UPPER BOUND OF Y=      1.52114

```





+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

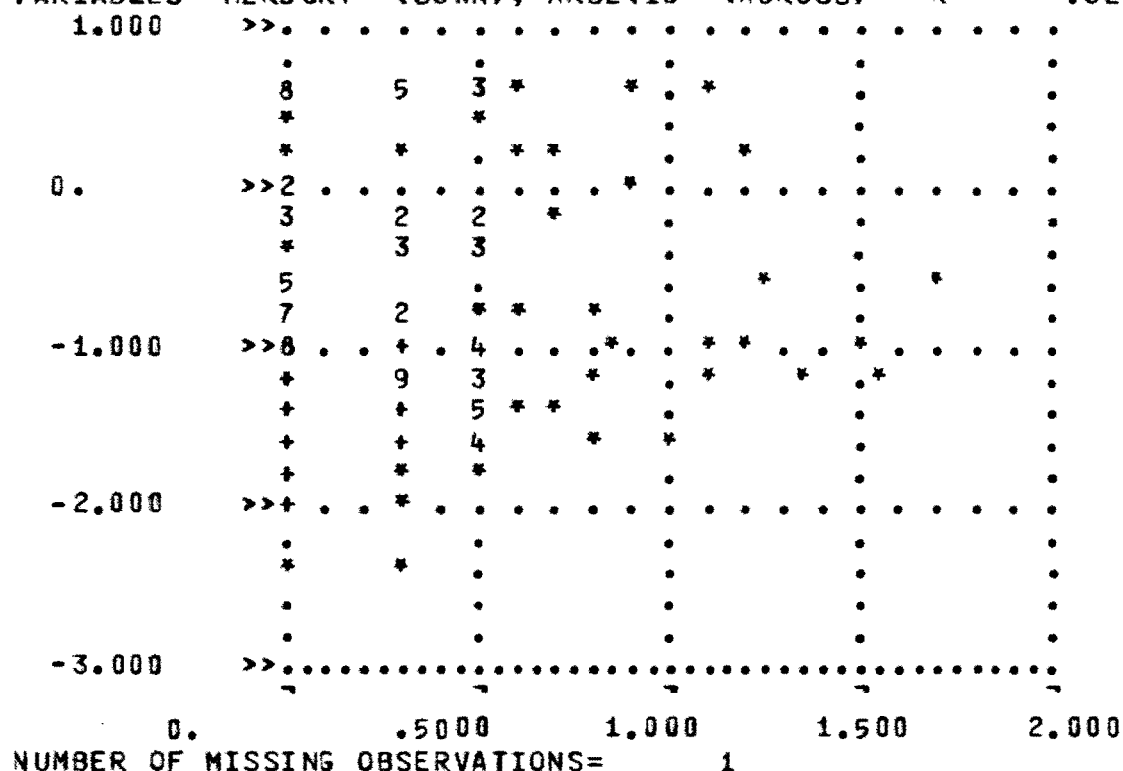
+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= 0. UPPER BOUND OF X= 1.72428

LOWER BOUND OF Y= -2.30103 UPPER BOUND OF Y= .698970

VARIABLES MERCURY (DOWN), ARSENIC (ACROSS) R = .3202



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= 0. UPPER BOUND OF X= 1.72428

LOWER BOUND OF Y= 0. UPPER BOUND OF Y= .477121

VARIABLES	MOLYBDENU (DOWN),	ARSENIC	(ACROSS)	R =	.0605
.5000	>>.	*			.
	2	* *	.	*	.
	.	.	.	.	.
	.	.	.	.	.
.3750	>>.				.
	.	.	.	.	.
	+	+	9	2 * *	2 **
	.	.	.	.	.
.2500	>>.				.
	.	.	.	.	.
	.	.	.	.	.
	.	.	.	.	.
.1250	>>.				.
	.	.	.	.	.
	.	.	.	.	.
	.	.	.	.	.
0.	>>+.....+	+	.3.*.2**.*.	*.2..*.....*	
	-	-	-	-	-
	0.	.5000	1.000	1.500	2.000
NUMBER OF MISSING OBSERVATIONS= 40					

```

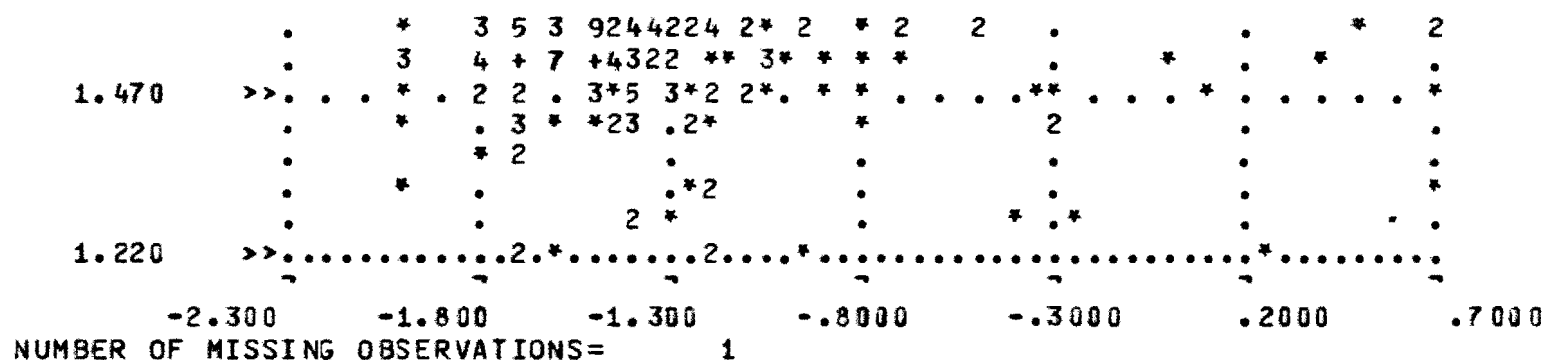
*SET,K=K+1.

*IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)
LOWER BOUND OF X=      0.          UPPER BOUND OF X=      1.72428
LOWER BOUND OF Y=     1.14613     UPPER BOUND OF Y=      2.19590
  
```

VARIABLES	ZINC	(DOWN),	ARSENIC	(ACROSS)	R =	.2546
2.220	>>.	*			.	
	.	.	.	.	.	
	*	.	.	.	.	
	.	.	.	.	.	
	.	.	.	.	.	
1.970	>>. . . *				.	
	.	.	*	.	.	
	.	.	.	*	*	
	.	.	.	.	.	
	2	*	*	*	.	
	3	3	2	* * *	2 * *	
1.720	>>+ . . 3	. 3 .	. . *	. . *	*	
	+	9	5	2 * **	*	
	+	+	3	.	.	
	+	8	2	.	.	
	+	8	2	.	.	
1.470	>>+ . . 8	. 2 .			.	
	8	6	3	.	.	
	*	*	*	.	.	
	3	2	.	.	.	



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+SET,J=J+1.

+IF (J.LE.7.) GOTO 100

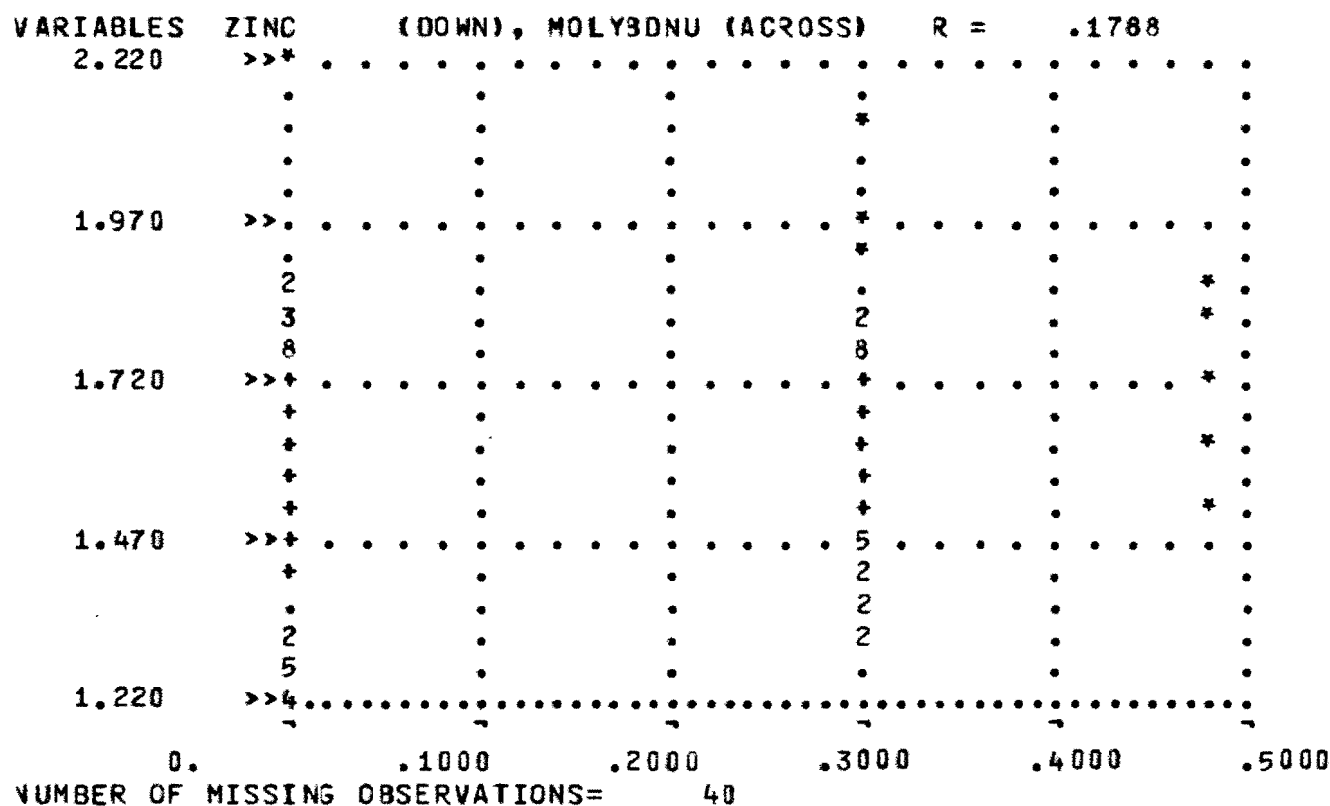
+100 COMMENT

+SET,K=J+1.

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= 0. UPPER BOUND OF X= .477121
 LOWER BOUND OF Y= 1.14613 UPPER BOUND OF Y= 2.19590



+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+SET,J=J+1.

+IF (J.LE.7.) GOTO 100

```
UPPER BOUND OF X=      .698970
UPPER BOUND OF Y=      .477121
```

VARIABLES MOLYBDNU (DOWN), MERCURY (ACROSS) R = .1251

```
.5000 >> . . . * . . . . * . * . * . . . . . . . . . .  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
.3750 >> . . . . . . . . . . . . . . . . . . . . . . . . . .  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
.2500 >> . . . . . . . . . . . . . . . . . . . . . . . . . .  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
.1250 >> . . . . . . . . . . . . . . . . . . . . . . . . . .  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
      :      :      :      :      :      :      :      :  
0. >> 2.....+.7..+...+++8+5+.45332*3.3.2*****3**...*.2.22...*....*5
```

NUMBER OF MISSING OBSERVATIONS= 40

4 SET, $K=K+1$.

```
+ IF (K.LE.8.) GOTO 200
```

+200 COMMENT

+ SCATTER, VV(J), VV(K)

```
LOWER BOUND OF X=      -2.30103
LOWER BOUND OF Y=       1.14613
```

```
UPPER BOUND OF X=      .698970
UPPER BOUND OF Y=      2.19590
```

VARIABLES ZINC (DOWN), MERCURY (ACROSS) R = .1493

```

2.220  >>. . . . . . . . . . . . . . . . . * . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
1.970  >>. . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . .
1.720  >>. . . * . * 4 2 4* . **2** . 2 . . . . . . . . . * . . . . . 2
        . . . 2 2 4 9 6*4*3*3 * 2 * . . . . . . . . . * . . . . *5
        2 8 4 3 5 97754 32 2** *. * . 2 . . . . . . . . . *2

```


+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= .255273

UPPER BOUND OF X=

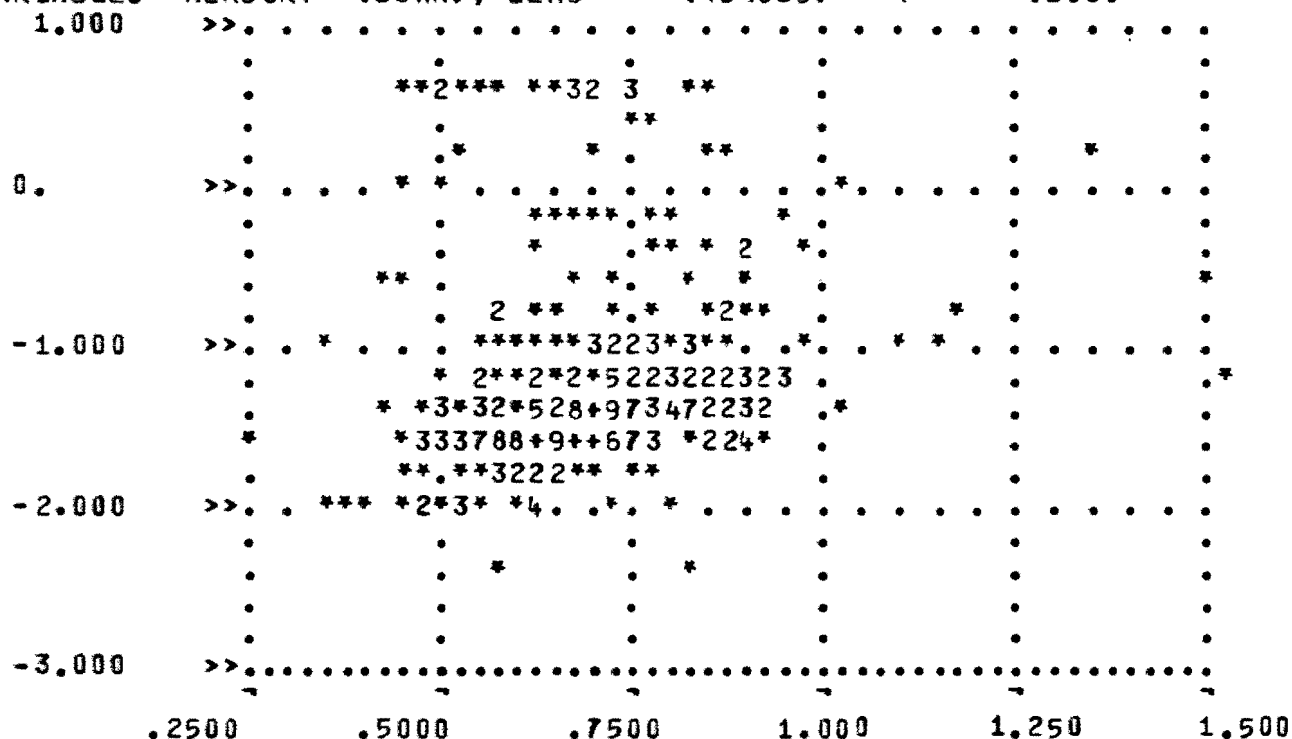
1.52114

LOWER BOUND OF Y= -2.30103

UPPER BOUND OF Y=

.698970

VARIABLES MERCURY (DOWN), LEAD (ACROSS) R = .1860



NUMBER OF MISSING OBSERVATIONS= 1

+SET,K=K+1.

+IF (K.LE.8.) GOTO 200

+200 COMMENT

+SCATTER,VV(J),VV(K)

LOWER BOUND OF X= .255273

UPPER BOUND OF X=

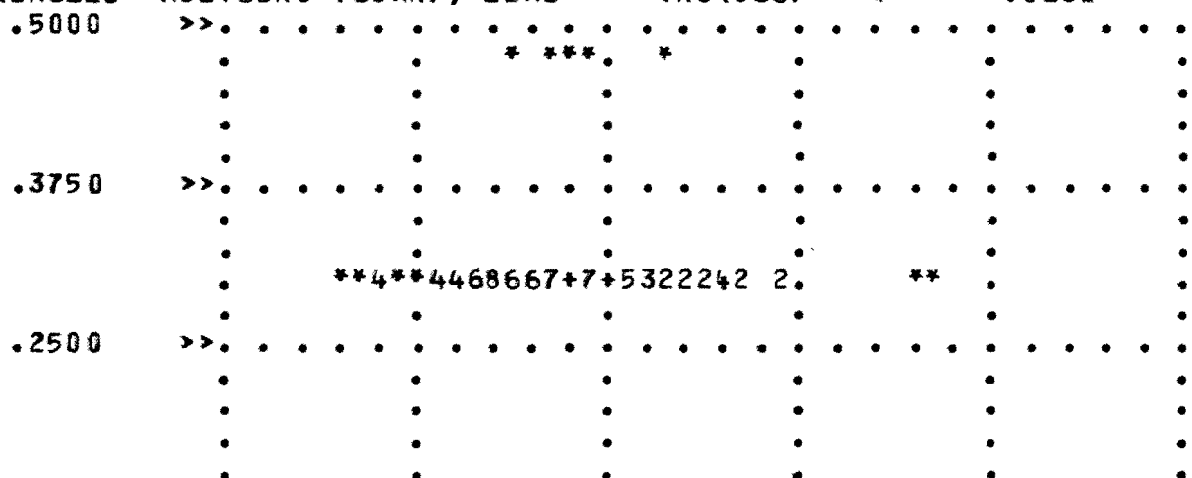
1.52114

LOWER BOUND OF Y= 0.

UPPER BOUND OF Y=

.477121

VARIABLES MOLYBDNU (DOWN), LEAD (ACROSS) R = -.0162



OSU 573.5

JOB ORIGIN = BATCH.

USER NUMBER = BUBQ2C

83/05/23. 17.54.49.

```
0507 0507 0507 0507
0507 0507 0507 0507
0507 0507 0507 0507
0507 0507 0507 0507
0507 0507 0507 0507
0507 0507 0507 0507
0507 0507 0507 0507
```

```
RRRRRR      N      N      BBBBBB
R      R      NN     N      B      B
R      R      N      N      B      B
RRRRRR      N      N      BBBBBB
R      R      N      N      B      B
R      R      NN     N      B      B
R      R      N      N      BBBBBB
```

Ochoco O-83-4

```
BBBBBB      00000      BBBBBB
B      B      0      0      B      B
B      B      0      0      B      B
BBBBBB      0      0      BBBBBB
B      B      0      0      B      B
B      B      0      0      B      B
BBBBBB      00000      BBBBBB
```

```
BBBBBB      RRRRRR      EEEEEEE      N      N      N      N      EEEEEEE
B      B      R      R      EEEEEEE      NN     N      NN     N      E
B      B      R      R      EEEEEEE      N      N      N      N      E
BBBBBB      RRRRRR      EEEEEEE      N      N      N      N      EEEEEEE
B      B      R      R      EEEEEEE      N      N      N      N      E
B      B      R      R      EEEEEEE      NN     NN     N      NN     E
BBBBBB      R      R      EEEEEEE      N      N      N      N      EEEEEEE
```

```
RRRRRR      00000      00000      M      M      M
R      R      0      0      0      0      MM     MM     M
R      R      0      0      0      0      M      M      M
RRRRRR      0      0      0      0      M      M      M
R      R      0      0      0      0      M      M      M
R      R      0      0      0      0      M      M      M
R      R      00000      00000      M      M      M
```

```
          1          4          99999
        11         44         9      9
      1 11        4 4         9      9
        1 1        4 4         99999
          1         44444444     9      9
          1         4         9 9999
        1111111         4         99999  ::
```


ASSAY DATA FOR WILDERNESS STUDY AREA, OCHOCO MOUNTAINS
WSA UNIT NUMBERS..

SILT SAMPLES

SITE	AREA	UTM-E	UTM-N	AU -PPM	AG -PPM	AS -PPM	CU -PPM	HG -PPM	MO -PPM	PB -PPM	ZN -PPM
30002F01	FS703	679475	4923800	.005L	.050	1.000	21.000	.010	1.000	4.200	34.000
30003F01	FS703	680900	4925000	.005L	.020L	1.000	20.000	.020	1.000L	4.000	24.000
30004F01	FS703	681150	4925000	.005L	.020L	1.000	21.000	.015	2.000	3.800	36.000
30005F01	FS703	681250	4925600	.005L	.030	1.000	21.000	.010	3.000	5.400	34.000
30006F01	FS703	681250	4925300	.015	.020	1.000	19.000	.010	1.000L	3.000	21.000
30007F01	FS703	681900	4925800	.005L	.020L	1.000	22.000	.010	1.000	4.000	34.000
30008F01	FS703	682000	4925750	.005L	.020L	1.000	18.000	.020	1.000	3.800	35.000
30009F01	FS703	683020	4926250	.005L	.020L	2.000	18.000	.030	2.000	3.600	34.000
30010F01	FS703	682950	4926200	.005L	.020L	1.000	20.000	.020	1.000	4.500	27.000
30011F01	FS703	684250	4927020	.005L	.060	1.000	36.000	.010	1.000	3.400	40.000
30012F01	FS703	684525	4926950	.005L	.040	1.000	21.000	.015	1.000L	3.700	33.000
30013F01	FS703	689475	4926750	.005L	.020L	2.000	19.000	.035	2.000	4.800	32.000
30014F01	FS703	684675	4925400	.005L	.020L	1.000	11.000	.060	2.000	7.100	28.000
30015F01	FS703	682150	4923975	.005L	.090	1.000	38.000	.035	1.000	4.800	40.000
30016F01	FS703	680775	4922400	.005L	.050	1.000	22.000	.015	1.000	3.800	31.000
30017F01	FS703	680050	4921975	.005L	.020L	1.000	18.000	.010	1.000	2.400	25.000
30018F01	FS703	682100	4927000	.005L	.020	1.000	15.000	.020	1.000	4.600	27.000
30019F01	FS703	682200	4927000	.005L	.020L	1.000	23.000	.030	1.000	4.200	35.000
30020F01	FS703	685300	4930180	.005L	.020L	1.000	27.000	.050	1.000	4.800	44.000
30021F01	FS703	684350	4930160	.005L	.030	1.000	18.000	.040	1.000	6.500	25.000
30022F01	FS703	688210	4931280	.005L	.030	2.000	16.000	.025	1.000	8.000	34.000
30023F01	FS703	688970	4932200	.005L	.110	1.000	31.000	.060	2.000	7.500	47.000
30024F01	FS703	688980	4934140	.005L	.060	1.000	18.000	.030	1.000	4.900	28.000
30025F01	FS703	687600	4936300	.005L	.050	2.000	21.000	.020	2.000	5.000	39.000
30026F01	FS703	687120	4936280	.005L	.020L	2.000	15.000	.015	2.000	4.500	46.000
30027F01	FS703	686770	4935680	.010	.020L	1.000	20.000	.025	2.000	4.700	48.000
30028F01	FS703	686480	4934920	.005L	.020L	2.000	25.000	.020	2.000	5.500	42.000
30029F01	FS703	684710	4934620	.005L	.020L	1.000	22.000	.020	1.000L	3.800	46.000
30030F01	FS703	691800	4935240	.005L	.020L	1.000	18.000	.020	1.000	5.400	38.000
30031F01	FS703	691730	4935260	.005L	.060	1.000	16.000	.040	1.000	5.600	31.000
30032F01	FS703	691660	4935730	.005L	.020L	1.000	16.000	.015	1.000	4.400	32.000
30033F01	FS703	694120	4936800	.005L	.050	1.000	17.000	.040	1.000	5.100	19.000
30034F01	FS703	696770	4935600	.005L	.020L	1.000	22.000	.010	1.000	6.200	31.000
30035F01	FS703	698560	4936590	.005L	.020L	1.000	17.000	.030	2.000	5.700	30.000
30036F01	FS703	700710	4936300	.005L	.020L	1.000	21.000	.020	1.000	4.200	28.000
30037F01	FS703	700690	4936220	.005L	.030	1.000	29.000	.060	1.000	4.400	38.000
30038F01	FS703	695700	4915750	.005L	.040	1.000	18.000	.015	1.000	4.600	38.000
30039F01	FS701	696650	4917200	.005L	.040	1.000	18.000	.020	1.000L	4.500	33.000
30040F01	FS701	697050	4918500	.005L	.020L	1.000	49.000	.015	1.000	5.500	50.000
30041F01	FS701	698050	4920550	.005L	.020L	1.000	29.000	.025	1.000	3.100	47.000
30042F01	FS703	707710	4933740	.005L	.020	3.000	27.000	.040	1.000	5.300	31.000
30043F01	FS703	707770	4935460	.005L	.020L	1.000	34.000	.070	2.000	3.500	55.000
30044F01	FS703	707690	4935340	.005L	.020	1.000	24.000	.040	1.000	3.800	44.000
30045F01	FS703	705180	4934540	.005L	.020L	1.000	25.000	.040	1.000	5.100	45.000
30046F01	FS703	704950	4932280	.005L	.070	1.000	22.000	.060	1.000L	4.300	43.000
30047F01	FS703	687900	4919825	.005L	.030	1.000	13.000	.550	1.000	4.200	18.000
30048F01	FS703	688900	4919900	.005L	.040	2.000	16.000	.155	1.000	6.100	27.000
30049F01	FS703	688100	4921000	.005L	.040	2.000	23.000	1.600	1.000	5.100	52.000
30050F01	FS703	688100	4921000	.005L	.040	3.000	23.000	2.350	2.000	5.500	50.000
30051F01	FS703	687500	4920300	.005L	.030	1.000	13.000	1.700	1.000	3.400	14.000
30052F01	FS703	687450	4920000	.005L	.030	2.000	12.000	.050	1.000	6.700	18.000
30053F01	FS703	687550	4919900	.005L	.030	1.000	14.000	.055	2.000	5.500	21.000
30054F01	FS703	688750	4921625	.005L	.020L	3.000	25.000	.190	1.000	7.300	35.000
30056F01	FS703	688300	4923150	.005L	.040	3.000	20.000	.110	1.000	6.100	56.000
30057F01	FS703	689675	4922700	.005L	.040	1.000	25.000	.070	1.000L	5.200	42.000
30058F01	FS703	690200	4920250	.005L	.020L	3.000	19.000	.060	1.000L	8.800	17.000
30059F01	FS703	689650	4920500	.005L	.020L	1.000	18.000	.025	1.000	3.600	34.000
30060F01	FS703	686050	4926950	.003L	.020L	1.000	20.000	.020	1.000	3.900	26.000
30061F01	FS703	687600	4926875	.005L	.060	1.000	16.000	.055	1.000	8.300	28.000

30062F01	FS703	687650	4926800	.005L	.060	2.000	28.000	.020	2.000	4.400	37.000
30063F01	FS703	699180	4932980	.005L	.020L	1.000	26.000	.025	1.000	5.000	41.000
30064F01	FS703	700410	4932520	.005L	.020L	1.000	22.000	.050	1.000L	8.100	35.000
30065F01	FS703	702230	4934080	.005L	.020L	1.000	28.000	.015	1.000	4.100	45.000
30066F01	FS703	702500	4935000	.005L	.020	1.000	33.000	.005	1.000	3.800	42.000
30067F01	FS703	702810	4932050	.005L	.030	1.000	19.000	.030	2.000	4.500	55.000
30068F01	FS701	707300	4929150	.005L	.050	1.000	28.000	.030	2.000	7.300	135.000
30069F01	FS701	706650	4928300	.005L	.050	1.000	33.000	.040	1.000	5.000	42.000
30070F01	FS701	705150	4927100	.005L	.020L	1.000	21.000	.010	1.000L	4.200	43.000
30071F01	FS701	704600	4926800	.005L	.020L	1.000	26.000	.020	1.000	7.100	50.000
30072F01	FS701	703700	4924350	.005L	.020	1.000	19.000	.030	1.000L	4.400	39.000
30073F01	FS701	702650	4925250	.005L	.040	1.000	21.000	.025	1.000L	4.100	43.000
30074F01	FS701	701800	4924900	.005L	.070	1.000	26.000	.040	1.000	5.200	43.000
30075F01	FS701	701550	4924900	.005L	.020L	1.000	25.000	.015	2.000	3.300	42.000
30076F01	FS701	700250	4914850	.005L	.030	1.000	22.000	5.000G	2.000	2.900	28.000
30077F01	FS701	700200	4914200	.030	.040	1.000	24.000	.315	2.000	2.700	38.000
30078F01	FS701	701450	4915800	.005L	.030	1.000	21.000	.030	2.000	3.500	33.000
30079F01	FS701	702950	4916250	.005L	.020L	1.000	21.000	.010	1.000	3.000	42.000
30080F01	FS701	702500	4917200	.030	.110	5.000	27.000	1.800	1.000	7.000	47.000
30081F01	FS701	702525	4918750	.005L	.050	1.000	25.000	.520	1.000	4.500	26.000
30083F01	FS701	704850	4917900	.005	.130	4.000	23.000	1.450	1.000L	7.400	46.000
30084F01	FS701	705500	4918725	.005L	.030	2.000	26.000	5.000G	1.000	3.000	41.000
30085F01	FS701	705600	4918750	.115	.280	15.000	32.000	.125	1.000	12.300	54.000
30086F01	FS701	706950	4920900	.005L	.020L	1.000	30.000	.020	2.000	3.300	35.000
30087F01	FS701	707700	4920150	.165	.240	6.000	36.000	.055	1.000	8.300	51.000
30088F01	FS701	708950	4920950	.175	.230	15.000	32.000	1.650	1.000	22.900	58.000
30089F01	FS701	708500	4920700	.005L	.020	2.000	50.000	.010	1.000	2.800	51.000
30090F01	FS701	709400	4919975	.005L	.030	2.000	65.000	.085	1.000	2.200	66.000
30092F01	FS701	710050	4922350	.005L	.040	1.000	23.000	.300	1.000	5.400	37.000
30094F01	FS701	710300	4923200	.005L	.040	2.000	33.000	.080	1.000	5.700	36.000
30095F01	FS701	709950	4926750	.005L	.020	3.000	19.000	.030	1.000	7.500	39.000
30096F01	FS701	707650	4927250	.005L	.040	1.000	22.000	.030	1.000	5.000	42.000
30097F01	FS701	708300	4926850	.005L	.020L	1.000	23.000	.045	2.000	5.600	41.000
30098F01	FS701	702300	4921050	.005L	.040	1.000	24.000	.020	2.000	4.900	54.000
30099F01	FS701	703200	4921550	.005L	.050	1.000	29.000	.035	2.000	5.500	50.000
30101F01	FS703	685350	4923250	.005L	.070	3.000	31.000	.350	1.000	7.800	157.000
30102F01	FS703	685750	4923250	.005L	.050	3.000	20.000	.125	2.000	6.600	45.000
30103F01	FS703	685050	4922450	.005	.080	2.000	36.000	.030	1.000	5.500	49.000
30104F01	FS703	685800	4922000	.005L	.020	2.000	24.000	.645	2.000	6.200	50.000
30105F01	FS703	685600	4921800	.005L	.020L	1.000	18.000	.170	2.000	4.500	42.000
30106F01	FS703	685550	4921650	.010	.020L	1.000	18.000	.140	1.000	4.200	41.000
30107F01	FS703	685700	4920950	.005L	.060	1.000	19.000	.245	1.000	4.700	46.000
30108F01	FS703	684500	4921650	.005L	.060	1.000	31.000	.030	1.000	7.200	50.000
30109F01	FS703	685450	4921750	.005L	.070	1.000	28.000	.020	1.000L	5.200	39.000
30110F01	FS703	685450	4921100	.005L	.020	1.000	28.000	.030	1.000	4.600	40.000
30111F01	FS703	685650	4918950	.005L	.020	1.000	16.000	.130	2.000	3.800	34.000
30112F01	FS703	685450	4918200	.005L	.020L	1.000	17.000	.110	1.000	3.700	36.000
30113F01	FS703	685250	4918400	.010	.040	1.000	21.000	.030	1.000	4.100	36.000
30114F01	FS703	683650	4920200	.005L	.040	1.000	21.000	.020	1.000L	3.600	33.000
30115F01	FS703	683700	4920300	.005L	.040	1.000	15.000	.015	1.000	3.000	34.000
30116F01	FS703	683880	4920300	.005L	.080	1.000	31.000	.025	1.000	3.600	33.000
30117F01	FS703	683550	4920850	.005L	.020L	1.000	17.000	.030	1.000	3.200	33.000
30118F01	FS703	682250	4926750	.005L	.020L	1.000	19.000	.040	1.000	4.600	30.000
30119F01	FS703	682950	4927650	.005L	.050	1.000	25.000	.030	2.000	4.700	40.000
30120F01	FS703	685420	4930560	.005L	.020L	1.000	22.000	.060	2.000	6.600	21.000
30121F01	FS703	685380	4930630	.005L	.030	1.000	17.000	.025	1.000	6.500	49.000
30122F01	FS703	689480	4933040	.005L	.040	1.000	23.000	.050	1.000	5.200	41.000
30123F01	FS703	684990	4936060	.005L	.040	1.000	29.000	.020	1.000	4.400	47.000
30124F01	FS703	685040	4936160	.005L	.020L	1.000	40.000	.030	1.000	5.600	38.000
30125F01	FS703	683730	4934620	.005L	.030	1.000	27.000	.025	1.000	4.600	46.000
30126F01	FS703	682520	4933840	.005L	.060	1.000	19.000	.060	1.000	5.600	34.000
30127F01	FS703	690170	4931730	.005L	.020	1.000	12.000	.030	1.000L	6.100	26.000
30128F01	FS703	692060	4932100	.005L	.030	2.000	7.000	.020	2.000	7.800	24.000

30129F01	FS703	692990	4932100	.005L	.030	2.000	10.000	.040	1.000	6.900	18.000
30130F01	FS703	692800	4932860	.005L	.090	2.000	12.000	.075	1.000L	8.000	30.000
30131F01	FS703	694750	4936420	.005L	.060	2.000	20.000	.040	1.000	6.400	27.000
30132F01	FS703	694760	4936520	.005L	.020L	1.000	28.000	.030	1.000	4.900	36.000
30133F01	FS703	695600	4936050	.005L	.100	3.000	27.000	.500	2.000	9.700	25.000
30134F01	FS703	698120	4932680	.005L	.030L	2.000	18.000	.050	1.000	6.200	36.000
30135F01	FS703	698360	4936220	.005L	.020L	1.000	34.000	.020	1.000	3.500	44.000
30136F01	FS703	702760	4935730	.005L	.020L	1.000	25.000	.030	1.000	3.600	34.000
30137F01	FS703	702920	4935720	.005L	.020L	1.000	25.000	.010	1.000	4.200	40.000
30138F01	FS701	696650	4915180	.005L	.020	1.000	26.000	.015	2.000	2.900	43.000
30139F01	FS701	697600	4916700	.005L	.020L	1.000	20.000	.020	1.000	1.800	35.000
30140F01	FS701	697550	4916850	.005L	.020	1.000	27.000	.010	1.000	4.200	42.000
30141F01	FS701	698250	4919040	.020	.020L	1.000	19.000	.015	1.000L	3.600	41.000
30142F01	FS701	699475	4920450	.005L	.020L	1.000	27.000	.030	1.000	4.500	37.000
30143F01	FS701	699450	4920600	.005L	.020L	1.000	22.000	.025	2.000	2.900	39.000
30144F01	FS701	706840	4930720	.005L	.040	1.000	32.000	.035	1.000	5.000	58.000
30145F01	FS703	707540	4933700	.005L	.020L	1.000	19.000	.025	2.000	4.000	51.000
30146F01	FS703	706960	4935500	.005	.130	2.000	49.000	.100	1.000	7.700	60.000
30147F01	FS703	705170	4934480	.005L	.060	1.000	24.000	.040	1.000	3.700	40.000
30148F01	FS703	703930	4932140	.005L	.060	1.000	19.000	.035	1.000	4.100	40.000
30149F01	FS703	688200	4919400	.005L	.020L	3.000	16.000	.025	1.000L	8.000	26.000
30150F01	FS703	688250	4919300	.005L	.040	1.000	21.000	.090	1.000	4.500	43.000
30151F01	FS703	688950	4921100	.005L	.020L	3.000	19.000	.670	3.000	4.900	65.000
30152F01	FS703	687550	4921150	.005L	.050	2.000	25.000	.580	2.000	5.400	56.000
30154F01	FS703	686400	4921600	.005L	.060	2.000	20.000	5.000G	1.000	6.500	21.000
30155F01	FS703	686350	4921200	.005L	.050	1.000	27.000	.500	1.000	6.100	30.000
30156F01	FS703	688350	4922000	.005L	.040	5.000	32.000	.640	2.000	6.000	87.000
30157F01	FS703	688450	4922150	.005L	.030	3.000	27.000	.480	1.000	6.900	59.000
30158F01	FS703	688150	4923100	.005L	.080	2.000	34.000	.460	2.000	7.800	45.000
30160F01	FS703	687750	4923650	.005L	.070	4.000	23.000	.155	1.000	7.300	64.000
30161F01	FS703	690550	4921250	.015	.060	2.000	21.000	.110	1.000L	6.800	16.000
30162F01	FS703	690550	4921400	.005L	.040	1.000	19.000	.025	1.000	4.000	35.000
30163F01	FS703	686050	4926850	.005L	.220	3.000	24.000	.050	1.000	4.700	30.000
30164F01	FS703	687500	4926650	.005L	.080	1.000	27.000	.040	2.000	5.800	32.000
30165F01	FS703	699400	4932770	.005L	.030	1.000	16.000	.015	2.000	4.900	43.000
30166F01	FS703	700480	4932520	.005L	.020L	2.000	16.000	.035	2.000	7.800	25.000
30167F01	FS703	701840	4933080	.005L	.020L	3.000	22.000	.030	1.000	4.600	51.000
30168F01	FS703	702290	4934080	.005L	.020L	1.000	30.000	.025	1.000L	4.800	44.000
30169F01	FS703	702560	4934830	.005L	.030	1.000	24.000	.050	1.000	4.700	28.000
30170F01	FS703	702560	4931380	.005L	.020L	2.000	27.000	.040	2.000	5.300	60.000
30171F01	FS701	707350	4929050	.005L	.050	1.000	34.000	.025	1.000	5.400	47.000
30172F01	FS701	706650	4928100	.005L	.020L	2.000	22.000	.035	1.000	5.800	35.000
30173F01	FS701	706000	4927650	.005L	.020L	1.000	21.000	.050	1.000	4.500	51.000
30174F01	FS701	705500	4926750	.005L	.060	1.000	27.000	.050	1.000	5.100	46.000
30175F01	FS701	703800	4927150	.005L	.040	1.000	31.000	.035	2.000	7.100	56.000
30176F01	FS701	703550	4924250	.005L	.020	2.000	25.000	.035	1.000	5.500	42.000
30177F01	FS701	702750	4925100	.005L	.020L	1.000	26.000	.010	1.000	3.400	45.000
30178F01	FS701	701300	4923900	.005L	.080	1.000	24.000	.045	1.000	5.400	40.000
30179F01	FS701	701400	4924250	.010	.020	2.000	27.000	.045	1.000	5.600	43.000
30181F01	FS701	700000	4915300	.005L	.040	13.000	30.000	5.000G	2.000	4.900	46.000
30182F01	FS701	700050	4914700	.005L	.040	3.000	32.000	5.000G	2.000	4.900	40.000
30183F01	FS701	700350	4914150	.005L	.030	1.000	27.000	.035	1.000	2.700	39.000
30184F01	FS701	701600	4915850	.040	.260	8.000	37.000	1.250	1.000	10.800	64.000
30185F01	FS701	702850	4916250	.005L	.020L	1.000	26.000	.045	1.000L	8.000	47.000
30186F01	FS701	702350	4917100	.005L	.050	1.000	24.000	.160	2.000	7.800	38.000
30187F01	FS701	704000	4918400	.005L	.020L	1.000	30.000	.090	2.000	4.300	44.000
30188F01	FS701	704000	4918550	.005	.140	2.000	33.000	4.600	1.000	7.100	44.000
30189F01	FS701	705200	4919350	.005L	.140	1.000	26.000	.115	2.000	5.500	43.000
30190F01	FS701	705300	4919350	.005L	.040	1.000	32.000	.110	1.000	3.500	39.000
30191F01	FS701	705800	4920000	.005L	.050	1.000	24.000	.125	1.000	4.600	30.000
30192F01	FS701	706750	4920850	.005L	.060	1.000	26.000	.070	2.000	3.900	34.000
30193F01	FS701	707600	4920000	.005L	.020L	1.000	42.000	.045	2.000	6.300	38.000
30194F01	FS701	709000	4921100	.085	.680	1.000	30.000	.155	2.000	14.800	63.000

30195F01	FS701	706700	4919350	.020	.140	7.000	36.000	.100	1.000	6.900	49.000
30196F01	FS701	710000	4921000	.040	.230	32.000	31.000	.125	2.000	9.300	50.000
30197F01	FS701	710000	4920800	.110	.320	22.000	29.000	.065	1.000	33.200	57.000
30200F01	FS703	682900	4927650	.005L	.020L	1.000	22.000	.015	1.000	4.000	29.000
30201F01	FS703	687000	4930620	.005L	.060	2.000	19.000	.050	1.000	6.700	47.000
30202F01	FS703	686980	4930700	.005L	.050	2.000	20.000	.055	1.000	8.000	27.000
30203F01	FS703	689720	4935380	.005L	.050	1.000	23.000	.030	1.000	5.300	33.000
30204F01	FS703	683180	4936120	.005L	.030	1.000	22.000	.040	1.000L	5.000	27.000
30205F01	FS703	682700	4936400	.005L	.020L	1.000	16.000	.015	2.000	3.900	33.000
30206F01	FS703	682040	4936600	.005L	.030	1.000	16.000	.060	1.000	5.300	28.000
30207F01	FS703	691210	4935400	.010	.020L	1.000	23.000	.015	2.000	4.100	37.000
30208F01	FS703	691260	4935360	.005L	.020L	1.000	22.000	.030	1.000	4.100	37.000
30209F01	FS703	690920	4936980	.005L	.020L	1.000	24.000	.025	1.000	4.800	36.000
30210F01	FS703	692720	4937000	.005L	.020L	2.000	21.000	.035	1.000	6.100	30.000
30211F01	FS703	696420	4935400	.005L	.090	2.000	14.000	.040	2.000	8.600	30.000
30212F01	FS703	699130	4936230	.005L	.030	1.000	30.000	.030	2.000	3.900	43.000
30213F01	FS703	699220	4936120	.005L	.020L	1.000	25.000	.020	1.000L	4.300	34.000
30214F01	FS703	699250	4936010	.005L	.030	1.000	24.000	.030	2.000	3.800	28.000
30215F01	FS701	710750	4924200	.005	.060	2.000	50.000	3.700	2.000	5.600	89.000
30216F01	FS701	710650	4924100	0.000B	0.000B	0.000B	0.000B	0.000B	0.000B	0.000B	0.000B
30217F01	FS701	708350	4920850	.080	.260	13.000	31.000	.110	2.000	13.900	59.000
30218F01	FS701	709550	4920150	.005L	.050	1.000	47.000	.045	1.000	3.000	41.000
30219F01	FS701	709150	4921550	.075	1.490	53.000	34.000	.260	1.000	32.000	76.000
30220F01	FS701	709900	4922400	.005L	.040	1.000	38.000	.030	1.000	4.200	43.000
30221F01	FS701	710650	4923250	.005L	.040	3.000	24.000	.040	1.000	10.800	49.000
30222F01	FS701	710750	4924250	.005L	.020L	2.000	20.000	.030	2.000	5.500	48.000
30223F01	FS701	715550	4922700	.005L	.050	3.000	20.000	.040	1.000L	7.600	42.000
30224F01	FS701	718200	4920300	.005L	.060	1.000	34.000	.055	1.000L	5.200	39.000
30225F01	FS701	716000	4919350	.005L	.070	1.000	35.000	4.500	2.000	4.700	45.000
30226F01	FS701	720900	4920500	.005L	.060	1.000	52.000	.020	1.000	3.800	35.000
30227F01	FS701	725340	4920020	.005L	.020L	1.000	37.000	.025	1.000	3.700	44.000
30228F01	FS701	715350	4922200	.005L	.080	1.000	36.000	.030	1.000	4.700	38.000
30229F01	FS701	715200	4922200	.005L	.030	2.000	38.000	.035	1.000	5.100	46.000
30230F01	FS701	715400	4922300	.005L	.020L	1.000	22.000	.010	1.000	3.400	40.000
30231F01	FS701	716000	4924400	.005L	.020L	2.000	27.000	.085	1.000	4.900	38.000
30232F01	FS701	716000	4924350	.005L	.060	1.000	39.000	.630	2.000	4.700	44.000
30233F01	FS703	696380	4930820	.005L	.060	3.000	8.000	.025	1.000L	8.100	15.000
30234F01	FS703	692150	4927300	.005L	.030	1.000	26.000	.020	1.000	5.300	48.000
30235F01	FS703	691800	4927050	.005L	.080	1.000	28.000	.020	2.000	4.400	41.000
30236F01	FS703	691800	4926500	.005L	.060	1.000	34.000	.075	1.000	5.200	51.000
30237F01	FS703	689900	4925850	.005L	.040	1.000	26.000	.030	2.000	3.300	40.000
30238F01	FS703	690450	4925600	.005L	.020L	1.000	27.000	.060	1.000L	3.600	49.000
30239F01	FS703	691250	4925350	.005L	.030	1.000	28.000	.030	1.000	4.100	45.000
30240F01	FS703	691150	4925300	.005L	.030	3.000	23.000	.080	2.000	3.900	45.000
30241F01	FS703	691350	4925000	.005L	.060	2.000	31.000	.060	1.000	4.600	44.000
30242F01	FS703	691900	4924150	.005L	.030	2.000	31.000	.030	2.000	3.400	44.000
30243F01	FS703	692000	4924150	.005L	.030	2.000	21.000	.020	1.000	4.100	38.000
30244F01	FS703	692400	4923150	.005L	.020L	2.000	28.000	.035	3.000	4.100	41.000
30245F01	FS703	692500	4923100	.005L	.030	1.000	14.000	.040	2.000	3.900	35.000
30246F01	FS703	691850	4922250	.005L	.020L	2.000	14.000	.150	1.000	7.100	31.000
30247F01	FS703	692000	4922350	.005L	.020L	1.000	22.000	.040	2.000	4.300	38.000
30248F01	FS703	690950	4921800	.005L	.020L	1.000	34.000	.010	1.000L	3.200	46.000
30301F01	FS701	709550	4921750	.030	.030	18.000	49.000	.205	3.000	6.800	71.000
30302F01	FS701	709550	4921900	.005L	.020L	2.000	25.000	.040	1.000	7.500	43.000
30303F01	FS701	710350	4922750	.005L	.030	1.000	23.000	.045	1.000	4.900	33.000
30304F01	FS701	710100	4926850	.015	.020L	2.000	17.000	.040	1.000	6.600	31.000
30305F01	FS701	707550	4927150	.005L	.020L	1.000	26.000	.040	2.000	4.900	64.000
30306F01	FS701	700700	4920200	.005L	.020L	1.000	23.000	.040	1.000	4.100	39.000
30307F01	FS701	702200	4921650	.005L	.070	1.000	28.000	.040	1.000	5.300	48.000
30308F01	FS701	706000	4914000	.005L	.030	1.000	34.000	.040	1.000	3.400	43.000
30309F01	FS701	701500	4913500	.005L	.020	1.000	24.000	.210	2.000	2.800	36.000
30310F01	FS701	703150	4913000	.005L	.060	1.000	28.000	.040	1.000	3.200	38.000
30311F01	FS701	705950	4913100	.005L	.070	1.000	28.000	.045	1.000	3.500	34.000

80312F01	FS701	706150	4918000	.005L	.070	1.000	24.000	.060	2.000	4.300	36.000
80313F01	FS701	706850	4916800	.005L	.020L	3.000	34.000	5.000G	2.000	4.500	48.000
80314F01	FS701	708000	4916000	.005L	.040	1.000	39.000	.050	1.000L	3.500	41.000
80315F01	FS701	709200	4915600	.005L	.020L	1.000	34.000	.065	1.000	3.800	46.000
80316F01	FS701	708150	4916100	.005L	.020L	4.000	37.000	5.000G	1.000	3.300	48.000
80317F01	FS701	709450	4914500	.005L	.060	1.000	29.000	.280	1.000	8.000	45.000
80318F01	FS701	709550	4914000	.005L	.050	8.000	53.000	5.000G	2.000	3.800	56.000
80319F01	FS701	710400	4912250	.005	.050	1.000	54.000	5.000G	2.000	4.800	55.000
80320F01	FS701	710100	4913250	.005L	.060	1.000	67.000	5.000G	2.000	4.100	59.000
80321F01	FS701	712100	4914150	.005L	.020L	1.000	29.000	.195	1.000	5.400	38.000
80322F01	FS701	713550	4913800	.005L	.040	1.000	31.000	2.500	1.000	6.100	34.000
80323F01	FS701	714550	4914600	.005L	.050	1.000	67.000	5.000G	2.000	5.600	36.000
80324F01	FS701	713700	4917550	.005L	.040	2.000	33.000	.095	1.000	5.000	41.000
80325F01	FS701	712300	4916750	.005L	.020L	1.000	30.000	.020	1.000	3.000	54.000
80326F01	FS701	716700	4914350	.005L	.020L	1.000	26.000	.085	1.000	6.500	34.000
80327F01	FS701	716500	4912300	.005L	.020L	1.000	37.000	.050	1.000	4.900	48.000
80328F01	FS701	718800	4910000	.005L	.050	1.000	53.000	.045	1.000	4.600	37.000
80329F01	FS701	717800	4908550	.005L	.050	1.000	41.000	.050	2.000	5.200	44.000
80330F01	FS701	713850	4906050	.005L	.090	2.000	43.000	.085	1.000	6.200	31.000
80332F01	FS701	711800	4903300	.005L	.060	2.000	16.000	.435	1.000	4.100	29.000
80333F01	FS701	710000	4904650	.005L	.020L	1.000	20.000	.020	1.000	4.100	35.000
80334F01	FS701	709550	4903300	.005L	.040	1.000	21.000	.085	1.000L	5.200	34.000
80335F01	FS701	712900	4899700	.005L	.060	2.000	45.000	.045	2.000	5.100	42.000
80336F01	FS701	714150	4898750	.005L	.020L	1.000	42.000	.030	2.000	4.300	34.000
80337F01	FS701	719100	4897600	.005L	.020L	1.000	61.000	.060	3.000	4.600	51.000
80338F01	FS701	718250	4904900	.005L	.020L	1.000	46.000	.035	1.000	5.000	44.000
80339F01	FS701	716100	4916950	.005L	.020	1.000	20.000	.020	2.000	3.000	33.000
80340F01	FS701	716000	4917850	.005L	.060	1.000	42.000	.060	2.000	6.000	40.000
80341F01	FS701	719530	4920170	.005L	.030	1.000	56.000	.040	2.000	5.300	33.000
80342F01	FS701	723220	4920380	.005L	.030	1.000	57.000	.025	2.000	5.300	35.000
80343F01	FS701	727640	4920260	.005	.040	1.000	72.000	.025	1.000L	4.400	48.000
80344F01	FS701	728400	4924580	.005L	.080	1.000	31.000	.055	2.000	6.400	47.000
80345F01	FS701	729140	4925780	.005L	.020L	1.000	31.000	.050	1.000	6.500	34.000
80346F01	FS703	729300	4928120	.005L	.070	1.000	33.000	.040	1.000	5.600	39.000
80347F01	FS701	729270	4929200	.005L	.050	1.000	40.000	.025	1.000	4.600	54.000
80348F01	FS701	730540	4930480	.005L	.060	2.000	21.000	.035	1.000	4.400	25.000
80349F01	FS702	277060	4926620	.005L	.040	4.000	42.000	.035	1.000	6.300	73.000
80350F01	FS702	276500	4925160	.005L	.020L	1.000	46.000	.025	1.000	4.200	37.000
80351F01	FS702	275370	4922100	.005L	.040	1.000	34.000	.035	1.000	4.800	41.000
80352F01	FS702	280350	4926850	.020	.030	10.000	47.000	.030	1.000	4.100	43.000
80354F01	FS702	280260	4925200	.005	.020L	12.000	52.000	.060	1.000	6.800	58.000
80355F01	FS702	279280	4925760	.050	.020L	35.000	47.000	.060	2.000	6.000	56.000
80356F01	FS703	698000	4929300	.005L	.020L	3.000	10.000	.055	1.000	8.100	27.000
80357F01	FS703	697800	4929300	.005L	.090	2.000	8.000	.060	1.000	8.700	17.000
80359F01	FS703	698000	4928500	.005L	.060	2.000	11.000	.060	1.000	8.700	22.000
80360F01	FS703	695550	4927850	.005L	.040	1.000	21.000	.030	1.000	4.100	40.000
80361F01	FS703	695400	4926850	.005L	.020L	2.000	25.000	.095	2.000	5.200	33.000
80362F01	FS703	695000	4924500	.005L	.020L	2.000	17.000	.060	1.000	5.100	36.000
80363F01	FS703	693800	4923850	.005L	.030	1.000	19.000	.045	1.000	4.900	36.000
80364F01	FS703	693200	4923400	.005L	.070	3.000	17.000	.600	1.000	8.900	44.000
80365F01	FS701	713800	4929000	.005L	.020L	1.000	22.000	.050	1.000L	5.300	31.000
80366F01	FS701	713550	4929400	.005L	.050	3.000	22.000	.065	1.000	7.000	39.000
80400F01	FS701	703750	4914250	.005L	.030	1.000	29.000	.050	1.000	3.200	39.000
80401F01	FS701	701850	4913600	.005L	.020L	1.000	21.000	.010	1.000	2.200	43.000
80402F01	FS701	703050	4912900	.005L	.020	1.000	22.000	.025	1.000	4.900	32.000
80403F01	FS701	706200	4917750	.005L	.020L	2.000	33.000	5.000G	1.000	3.200	45.000
80404F01	FS701	706700	4916800	.005L	.060	1.000	42.000	.020	1.000	3.700	31.000
80405F01	FS701	708100	4916250	.005L	.020L	3.000	37.000	.105	2.000	5.000	46.000
80406F01	FS701	709100	4915200	.005L	.020L	1.000	30.000	.060	2.000	3.200	54.000
80407F01	FS701	709150	4915500	.005L	.060	3.000	46.000	5.000G	2.000	3.600	50.000
80408F01	FS701	709750	4914950	.005L	.020L	1.000	24.000	.030	1.000	3.200	35.000
80409F01	FS701	709500	4915750	.005L	.020L	1.000	28.000	.025	1.000	3.000	34.000
80410F01	FS701	710450	4915500	.005L	.050	1.000	31.000	.045	1.000	3.500	39.000

80412F01	FS701	711200	4913250	.005L	.070	1.000	26.000	5.000G	1.000	5.600	49.000
80413F01	FS701	712050	4913950	.005L	.070	1.000	25.000	5.000G	1.000L	4.800	39.000
80414F01	FS701	713400	4913850	.005L	.030	1.000	19.000	1.050	1.000	2.900	35.000
80415F01	FS701	714050	4915300	.005L	.020L	1.000	22.000	.150	2.000	3.700	35.000
80416F01	FS701	713500	4916950	.005L	.020L	1.000	19.000	.010	2.000	2.500	37.000
80417F01	FS701	714300	4914100	.005L	.040	1.000	22.000	3.300	1.000L	3.200	38.000
80418F01	FS701	716450	4914350	.005L	.040	1.000	21.000	1.200	1.000	3.100	30.000
80419F01	FS701	717700	4912400	.005L	.050	1.000	37.000	.025	1.000	4.900	48.000
80420F01	FS701	717700	4908750	.010	.040	1.000	30.000	.030	1.000	4.600	46.000
80421F01	FS701	715250	4907200	.005L	.030	1.000	47.000	.020	2.000	3.900	50.000
80422F01	FS701	710700	4903500	.005L	.020L	2.000	17.000	.075	1.000	7.600	28.000
80423F01	FS701	710200	4904700	.005L	.040	1.000	19.000	.025	1.000	4.100	48.000
80424F01	FS701	710450	4904200	.005	.060	2.000	36.000	.040	1.000	6.700	47.000
80425F01	FS701	709500	4903200	.005L	.020L	3.000	13.000	.035	1.000	6.700	33.000
80426F01	FS701	713000	4899700	.005L	.040	1.000	9.000	.020	1.000	3.800	16.000
80427F01	FS701	715050	4899050	.005L	.020L	1.000	47.000	.020	2.000	4.900	34.000
80428F01	FS701	715500	4903850	.005L	.020L	2.000	18.000	.390	1.000	6.300	19.000
80429F01	FS701	718250	4904700	.005L	.050	2.000	40.000	.085	1.000L	5.900	34.000
80430F01	FS701	716150	4919500	.005L	.020L	1.000	33.000	.020	2.000	4.800	46.000
80431F01	FS701	720280	4920340	.005L	.030	1.000	59.000	.010	1.000	3.500	44.000
80432F01	FS701	721500	4920560	.005L	.020L	1.000	51.000	.025	2.000	3.700	43.000
80433F01	FS701	724160	4919950	.005L	.070	1.000	70.000	.025	2.000	5.000	49.000
80434F01	FS701	726300	4920220	.005L	.020L	2.000	31.000	.005	1.000	6.700	42.000
80435F01	FS701	729260	4925800	.005L	.060	1.000	23.000	.035	2.000	5.700	35.000
80436F01	FS701	729220	4928100	.005L	.040	2.000	19.000	.020	1.000	4.000	33.000
80437F01	FS701	729520	4929760	.005L	.080	1.000	16.000	.020	1.000	8.500	14.000
80438F01	FS701	730480	4930560	.005L	.020	1.000	29.000	.035	1.000L	4.300	44.000
80439F01	FS702	277100	4926620	.005L	.020L	5.000	34.000	.040	2.000	8.200	60.000
80440F01	FS702	275800	4923480	.005L	.020L	2.000	42.000	.020	1.000	4.700	35.000
80441F01	FS702	275400	4922100	.005L	.020L	1.000	58.000	.035	1.000	3.200	36.000
80442F01	FS702	279360	4927100	.005L	.020L	6.000	32.000	.030	2.000	5.700	47.000
80444F01	FS702	278740	4925100	.005L	.020L	6.000	37.000	.195	1.000	8.200	62.000
80445F01	FS703	699600	4927600	.005L	.050	2.000	21.000	.080	1.000	6.000	38.000
80446F01	FS703	699500	4927750	.005L	.020L	1.000	30.000	.030	2.000	5.700	53.000
80447F01	FS703	698400	4927250	.005L	.050	2.000	22.000	.030	1.000L	6.100	45.000
80448F01	FS703	698300	4927350	.005L	.020L	3.000	10.000	.015	2.000	6.000	24.000
80449F01	FS703	697900	4926950	.005L	.060	2.000	26.000	.070	2.000	5.400	40.000
80450F01	FS703	697000	4926800	.005L	.060	1.000	14.000	.030	1.000L	6.100	33.000
80451F01	FS703	696050	4925900	.005L	.100	1.000	23.000	.055	1.000	6.200	37.000
80452F01	FS703	696050	4926000	.005L	.070	1.000	16.000	.030	1.000	4.600	37.000
80453F01	FS703	695050	4924400	.005L	.020L	2.000	20.000	.065	1.000	6.200	26.000
80454F01	FS703	693950	4923850	.005L	.020L	1.000	15.000	.030	2.000	4.000	34.000

NUMBER OF SAMPLES	34.	223.	352.	352.	352.	313.	352.	352.
MEAN VALUES	.036	.066	2.159	27.142	.372	1.361	5.364	40.582
MINIMUM VALUES	.005	.020	1.000	7.000	.005	1.000	1.800	14.000
MAXIMUM VALUES	.175	1.490	53.000	72.000	5.000	3.000	33.200	157.000
RANGES	.170	1.470	52.000	65.000	4.995	2.000	31.400	143.000
STANDARD DEVIATIONS	.046	.114	4.280	10.929	1.104	.513	2.853	13.515

ROCK SAMPLES

SITE	AREA	UTM-E	UTM-N	AU -PPM	AG -PPM	AS -PPM	CU -PPM	HG -PPM	MO -PPM	PB -PPM	ZN -PPM
3 0055R01	FS703	688750	4921800	.005L	.080	3.000	26.000	3.000	9.000	7.600	27.000
3 0055R02	FS703	688750	4921800	.005L	.060	5.000	56.000	1.850	4.000	8.600	39.000
3 0082R01	FS701	704100	4918800	.005L	.050	3.000	42.000	5.000G	8.000	4.300	52.000
3 0091R01	FS701	709300	4921250	3.280	34.000	500.000	113.000	.900	4.000	1630.000	4365.000
3 0093R01	FS701	710200	4922400	.010	.130	12.000	80.000	.340	5.000	6.800	105.000
3 0102R04	FS703	685750	4923250	.005L	.050	4.000	16.000	4.200	6.000	7.500	24.000
3 0146R04	FS701	707000	4935520	.005L	.060	2.000	20.000	.150	6.000	7.100	72.000
3 0148R04	FS702	703920	4932130	.005L	.030	1.000	37.000	.295	4.000	5.300	53.000
3 0153R01	FS703	687300	4921000	.005L	.090	2.000	38.000	5.000G	5.000	11.300	43.000
3 0154R04	FS703	686400	4921600	.005L	.060	4.000	46.000	5.000G	4.000	7.400	36.000
3 0157R04	FS703	688450	4922150	.005L	.120	4.000	20.000	5.000G	9.000	6.400	7.000
3 0159R01	FS703	687500	4923750	.005L	.100	3.000	58.000	.380	6.000	7.100	31.000
3 0180R01	FS701	700150	4915500	.005L	.080	7.000	17.000	5.000G	5.000	7.900	45.000
3 0180R02	FS701	700150	4915500	.005L	.050	12.000	35.000	5.000G	10.000	4.200	71.000
3 0198R01	FS701	709700	4920950	.075	.450	50.000	39.000	.800	3.000	5.600	72.000
3 0199R01	FS701	709400	4920750	.020	.460	13.000	38.000	.205	4.000	8.400	98.000
3 0208R04	FS702	691280	4935380	.005L	.050	2.000	56.000	.560	5.000	4.200	86.000
3 0233R04	FS702	696380	4930920	.005L	.040	5.000	13.000	.135	3.000	9.000	44.000
3 0331R01	FS701	712600	4903600	.005L	.070	21.000	8.000	.210	11.000	10.500	42.000
3 0353R01	FS702	280400	4925380	.340	.220	500.000	35.000	.160	5.000	2.400	60.000
3 0358R01	FS703	699000	4929250	.005L	.090	4.000	11.000	.095	6.000	11.800	44.000
3 0411R01	FS701	710500	4912600	.055	.060	43.000	48.000	5.000G	7.000	6.000	34.000
3 0443R01	FS702	279720	4925220	.115	.180	550.000	142.000	.160	5.000	2.700	44.000
NUMBER OF SAMPLES				7.	23.	23.	23.	23.	23.	23.	23.
MEAN VALUES				.556	1.590	76.087	43.217	2.106	5.826	77.483	238.870
MINIMUM VALUES				.010	.030	1.000	8.000	.095	3.000	2.400	7.000
MAXIMUM VALUES				3.280	34.000	550.000	142.000	5.000	11.000	1630.000	4365.000
RANGES				3.270	33.970	549.000	134.000	4.905	8.000	1627.600	4358.000
STANDARD DEVIATIONS				1.206	7.066	175.136	32.191	2.188	2.208	338.446	899.777

SOIL SAMPLES

SITE	AREA	UTM-E	UTM-N	AU -PPM	AG -PPM	AS -PPM	CU -PPM	HG -PPM	MO -PPM	PB -PPM	ZN -PPM
NUMBER OF SAMPLES				0.	0.	0.	0.	0.	0.	0.	0.
MEAN VALUES				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MINIMUM VALUES				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAXIMUM VALUES				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGES				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATIONS				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTALS

NUMBER OF SAMPLES	41.	246.	375.	375.	375.	336.	375.	375.
MEAN VALUES	.125	.209	6.693	28.128	.478	1.667	9.787	52.744
MINIMUM VALUES	.005	.020	1.000	7.000	.005	1.000	1.800	7.000
MAXIMUM VALUES	3.280	34.000	550.000	142.000	5.000	11.000	1630.000	4365.000
RANGES	3.275	33.980	549.000	135.000	4.995	10.000	1628.200	4358.000
STANDARD DEVIATIONS	.509	2.166	46.227	13.710	1.264	1.357	83.940	223.751

GEOLOGICAL DATA FOR WILDERNESS STUDY AREAS

SITE DESCRIPTIONS FOR

SILT SAMPLES

SAMPLE ID	SUBMITTER LAB NUMBER MATERIAL MATRIX GEOLOGIC AGE	DATE SUBMITTED UTM-E SAMPLE TYPE OXIDATION STATE ROCKNAME	TOWNSHIP/RANGE UTM-N SAMPLE SOURCE ORE MINERALS MODIFIER	SECTION/SUBSECTION STATE/COUNTY ROCK TYPE ALTERATION QUADRANGLE	WSA GEOLOGICAL FORMATION IGNEOUS FORM MINERAL DEPOSIT	STRUCTURAL SETTING
B0002F01	FERNS 00000261 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 679475 SINGLE (GRAB) * SILT	13S 17E 4923800 OTHER * *	7 999 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0003F01	FERNS 00000331 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 680900 SINGLE (GRAB) * SILT	13S 17E 4925000 OTHER * *	7 666 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA TJR * *	*
B0004F01	FERNS 00000113 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 681150 SINGLE (GRAB) * SILT	13S 17E 4925000 OTHER * *	7 666 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0005F01	BROOKS 00000260 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 681250 SINGLE (GRAB) * SILT	13S 17E 4925600 OTHER * *	5 998 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0006F01	FERNS 00000156 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 681250 SINGLE (GRAB) * SILT	13S 17E 4925300 OTHER * *	8 766 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0007F01	BROOKS 00000319 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 681900 SINGLE (GRAB) * SILT	13S 17E 4925800 OTHER * *	5 877 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0008F01	FERNS 00000122 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 682000 SINGLE (GRAB) * SILT	13S 17E 4925750 OTHER * *	5 866 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*
B0009F01	FERNS 00000330 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 683020 SINGLE (GRAB) * SILT	13S 17E 4926250 OTHER * *	4 768 OREGON/ CROOK UNCONSOL. SEDIMENT * 004000 RES	FS703 TCA * *	*

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B0010F01	BROOKS 00000096 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 682950 SINGLE (GRAB) * SILT	13S 17E 4926200 OTHER * *	4 976 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0011F01	DEEN 00000272 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 684250 SINGLE (GRAB) * SILT	12S 17E 4927020 OTHER * *	34 999 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0012F01	FERNS 00000333 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 684525 SINGLE (GRAB) * SILT	13S 17E 4926950 OTHER * *	3 677 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0013F01	FERNS 00000179 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 689475 SINGLE (GRAB) * SILT	13S 17E 4926750 OTHER * *	3 767 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0014F01	FERNS 00000292 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 684675 SINGLE (GRAB) * SILT	13S 17E 4925400 OTHER * *	10 767 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0015F01	FERNS 00000124 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 682150 SINGLE (GRAB) * SILT	13S 17E 4923975 OTHER * *	8 889 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJ * *	*
B0016F01	FERNS 00000067 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 680775 SINGLE (GRAB) * SILT	13S 17E 4922400 OTHER * *	18 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0017F01	FERNS 00000316 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 680050 SINGLE (GRAB) * SILT	13S 17E 4921975 OTHER * *	18 998 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*

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B0018F01	FERNS 00000250 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 682100 SINGLE (GRAB) * SILT	12S 17E 4927000 OTHER * *	32 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TCA * *	*
B0019F01	FERNS 00000310 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 682200 SINGLE (GRAB) * SILT	12S 17E 4927000 OTHER * *	32 889 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TCA * *	*
B0020F01	FERNS 00000106 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 685300 SINGLE (GRAB) * SILT	12S 17E 4930180 OTHER * *	27 776 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0021F01	FERNS 00000193 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 684350 SINGLE (GRAB) * SILT	12S 17E 4930160 OTHER * *	27 776 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0022F01	FERNS 00000302 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 688210 SINGLE (GRAB) * SILT	12S 17E 4931280 OTHER * *	24 877 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CK	FS703 TCA * *	*
B0023F01	FERNS 00000218 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 688970 SINGLE (GRAB) * SILT	12S 18E 4932200 OTHER * *	7 978 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0024F01	FERNS 00000191 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 688980 SINGLE (GRAB) * SILT	12S 18E 4934140 OTHER * *	7 978 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0025F01	FERNS 00000068 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 687600 SINGLE (GRAB) * SILT	12S 17E 4936300 OTHER * *	2 686 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*

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B0034F01	FERNS 00000295 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 696770 SINGLE (GRAB) * SILT	12S 18E 4935600 OTHER * *	1 999 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA TJR * *	*
B0035F01	FERNS 00000210 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 698560 SINGLE (GRAB) * SILT	12S 19E 4936590 OTHER * *	5 798 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0036F01	FERNS 00000102 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700710 SINGLE (GRAB) * SILT	12S 19E 4936300 OTHER * *	5 878 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TJW TCA * *	*
B0037F01	FERNS 00000242 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700690 SINGLE (GRAB) * SILT	12S 19E 4936220 OTHER * *	5 878 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0038F01	FERNS 00000232 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 695700 SINGLE (GRAB) * SILT	14S 18E 4915750 OTHER * *	11 696 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0039F01	FERNS 00000336 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 696650 SINGLE (GRAB) * SILT	14S 19E 4917200 OTHER * *	1 976 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0040F01	FERNS 00000158 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 697050 SINGLE (GRAB) * SILT	13S 19E 4918500 OTHER * *	36 879 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0041F01	FERNS 00000173 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 698050 SINGLE (GRAB) * SILT	13S 19E 4920550 OTHER * *	24 798 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*

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80042F01	FERNS 00000133 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 707710 SINGLE (GRAB) * SILT	12S 19E 4933740 OTHER * *	13 686 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJWT * *	*
80043F01	FERNS 00000323 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 707770 SINGLE (GRAB) * SILT	12S 20E 4935460 OTHER * *	7 779 OREGON/ WHEELER UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
80044F01	FERNS 00000192 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 707690 SINGLE (GRAB) * SILT	12S 19E 4935340 OTHER * *	12 686 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
80045F01	FERNS 00000114 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 705180 SINGLE (GRAB) * SILT	12S 19E 4934540 OTHER * *	11 987 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
80046F01	FERNS 00000337 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 704950 SINGLE (GRAB) * SILT	12S 19E 4932280 OTHER * *	22 679 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
80047F01	FERNS 00000008 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687900 SINGLE (GRAB) * SILT	13S 17E 4919825 OTHER * *	25 976 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
80048F01	FERNS 00000022 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688900 SINGLE (GRAB) * SILT	13S 17E 4919900 OTHER * *	25 967 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
80049F01	FERNS 00000028 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688100 SINGLE (GRAB) * SILT	13S 17E 4921000 OTHER * *	24 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*

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B0050F01	FERNS 00000032 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688100 SINGLE (GRAB) * SILT	13S 17E 4921000 OTHER * *	24 988 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0051F01	FERNS 00000015 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687500 SINGLE (GRAB) * SILT	13S 17E 4920300 OTHER * *	26 686 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0052F01	FERNS 00000031 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687450 SINGLE (GRAB) * SILT	13S 17E 4920000 OTHER * *	26 689 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0053F01	FERNS 00000012 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687550 SINGLE (GRAB) * SILT	13S 17E 4919900 OTHER * *	25 979 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0054F01	FERNS 00000088 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688750 SINGLE (GRAB) * SILT	13S 17E 4921625 OTHER * *	24 689 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0056F01	FERNS 00000248 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688300 SINGLE (GRAB) * SILT	13S 17E 4923150 OTHER * *	13 877 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0057F01	FERNS 00000334 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 689675 SINGLE (GRAB) * SILT	13S 18E 4922700 OTHER * *	18 987 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0058F01	FERNS 00000083 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 690200 SINGLE (GRAB) * SILT	13S 18E 4920250 OTHER * *	30 786 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*

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B0059F01	FERNS 00000194 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 689650 SINGLE (GRAB) * SILT	13S 18E 4920500 OTHER * *	30 776 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJ * *	*
B0060F01	FERNS 00000073 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 686050 SINGLE (GRAB) * SILT	13S 17E 4926950 OTHER * *	2 776 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJRF TCB * *	*
B0061F01	FERNS 00000050 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 687600 SINGLE (GRAB) * SILT	13S 17E 4926875 OTHER * *	1 778 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TCB TJRF * *	*
B0062F01	FERNS 00000254 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 687650 SINGLE (GRAB) * SILT	13S 17E 4926800 OTHER * *	1 769 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TCB * *	*
B0063F01	FERNS 00000328 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 699180 SINGLE (GRAB) * SILT	12S 19E 4932980 OTHER * *	18 878 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TJR TCA * *	*
B0064F01	FERNS 00000276 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 700410 SINGLE (GRAB) * SILT	12S 19E 4932520 OTHER * *	17 988 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TJR TCA * *	*
B0065F01	FERNS 00000094 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702230 SINGLE (GRAB) * SILT	12S 19E 4934080 OTHER * *	15 766 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0066F01	FERNS 00000266 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702500 SINGLE (GRAB) * SILT	12S 19E 4935000 OTHER * *	9 697 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*

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B0067F01	FERNS 00000277 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702810 SINGLE (GRAB) * SILT	12S 19E 4932050 OTHER * *	21 688 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0068F01	FERNS 00000265 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 707300 SINGLE (GRAB) * SILT	12S 19E 4929150 OTHER * *	36 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0069F01	FERNS 00000170 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 706650 SINGLE (GRAB) * SILT	12S 19E 4928300 OTHER * *	35 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0070F01	FERNS 00000307 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 705150 SINGLE (GRAB) * SILT	13S 19E 4927100 OTHER * *	2 979 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0071F01	FERNS 00000290 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 704600 SINGLE (GRAB) * SILT	13S 19E 4926800 OTHER * *	3 869 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0072F01	FERNS 00000155 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 703700 SINGLE (GRAB) * SILT	13S 19E 4924350 OTHER * *	15 778 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0073F01	FERNS 00000230 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702650 SINGLE (GRAB) * SILT	13S 19E 4925250 OTHER * *	9 878 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJRF * *	*
B0074F01	FERNS 00000154 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 701800 SINGLE (GRAB) * SILT	13S 19E 4924900 OTHER * *	9 997 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0075F01	FERNS 00000144 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 701550 SINGLE (GRAB) * SILT	13S 19E 4924900 OTHER * *	17 688 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJRF * *	*
B0076F01	FERNS 00000023 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700250 SINGLE (GRAB) * SILT	14S 19E 4914850 OTHER * *	7 888 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJR TJC * *	*
B0077F01	FERNS 00000041 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700200 SINGLE (GRAB) * SILT	14S 19E 4914200 OTHER * *	18 689 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0078F01	FERNS 00000001 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 701450 SINGLE (GRAB) * SILT	14S 19E 4915800 OTHER * *	8 696 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC * *	*
B0079F01	FERNS 00000294 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 702950 SINGLE (GRAB) * SILT	14S 19E 4916250 OTHER * *	9 677 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0080F01	FERNS 00000030 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 702500 SINGLE (GRAB) * SILT	14S 19E 4917200 OTHER * *	4 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0081F01	FERNS 00000011 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 702525 SINGLE (GRAB) * SILT	13S 19E 4918750 OTHER * *	34 979 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0083F01	FERNS 00000029 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 704850 SINGLE (GRAB) * SILT	13S 19E 4917900 OTHER * *	34 866 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0084F01	FERNS 00000033 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 705500 SINGLE (GRAB) * SILT	13S 19E 4918725 OTHER * *	35 979 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0085F01	FERNS 00000034 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 705600 SINGLE (GRAB) * SILT	13S 19E 4918750 OTHER * *	35 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0086F01	FERNS 00000187 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 706950 SINGLE (GRAB) * SILT	13S 19E 4920900 OTHER * *	25 976 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA TJR * *	*
B0087F01	FERNS 00000042 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 707700 SINGLE (GRAB) * SILT	13S 19E 4920150 OTHER * *	25 988 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0088F01	FERNS 00000044 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 708950 SINGLE (GRAB) * SILT	13S 20E 4920950 OTHER * *	20 966 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0089F01	FERNS 00000240 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 708500 SINGLE (GRAB) * SILT	13S 20E 4920700 OTHER * *	30 976 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0090F01	FERNS 00000234 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709400 SINGLE (GRAB) * SILT	13S 20E 4919975 OTHER * *	31 679 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*
B0092F01	FERNS 00000004 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710050 SINGLE (GRAB) * SILT	13S 20E 4922350 OTHER * *	20 978 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TCA * *	*

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B0094F01	FERNS 00000048 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710300 SINGLE (GRAB) * SILT	13S 20E 4923200 OTHER * *	20 697 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC TPG * *	*
B0095F01	FERNS 00000112 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709950 SINGLE (GRAB) * SILT	13S 20E 4926750 OTHER * *	8 767 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC TPG * *	*
B0096F01	FERNS 00000338 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 707650 SINGLE (GRAB) * SILT	13S 19E 4927250 OTHER * *	1 687 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC * *	*
B0097F01	FERNS 00000327 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 708300 SINGLE (GRAB) * SILT	13S 20E 4926850 OTHER * *	6 997 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC * *	*
B0098F01	FERNS 00000257 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 702300 SINGLE (GRAB) * SILT	13S 19E 4921050 OTHER * *	21 889 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0099F01	FERNS 00000211 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 703200 SINGLE (GRAB) * SILT	13S 19E 4921550 OTHER * *	21 889 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0101F01	BROOKS 00000063 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685350 SINGLE (GRAB) * SILT	13S 17E 4923250 OTHER * *	15 687 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0102F01	BROOKS 00000243 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685750 SINGLE (GRAB) * SILT	13S 17E 4923250 OTHER * *	15 686 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*

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80103F01	BROOKS 00000128 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685050 SINGLE (GRAB) * SILT	13S 17E 4922450 OTHER * *	15 899 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80104F01	BROOKS 00000118 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685800 SINGLE (GRAB) * SILT	13S 17E 4922000 OTHER * *	22 668 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80105F01	BROOKS 00000314 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685600 SINGLE (GRAB) * SILT	13S 17E 4921800 OTHER * *	22 669 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80106F01	DEEN 00000109 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685550 SINGLE (GRAB) * SILT	13S 17E 4921650 OTHER * *	22 669 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80107F01	BROOKS 00000039 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685700 SINGLE (GRAB) * SILT	13S 17E 4920950 OTHER * *	22 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80108F01	BROOKS 00000335 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 684500 SINGLE (GRAB) * SILT	13S 17E 4921650 OTHER * *	22 779 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80109F01	BROOKS 00000352 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685450 SINGLE (GRAB) * SILT	13S 17E 4921750 OTHER * *	22 678 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
80110F01	BROOKS 00000317 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685450 SINGLE (GRAB) * SILT	13S 17E 4921100 OTHER * *	22 867 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*

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B0111F01	BROOKS 00000321 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685650 SINGLE (GRAB) * SILT	13S 17E 4918950 OTHER * *	34 667 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0112F01	BROOKS 00000105 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685450 SINGLE (GRAB) * SILT	13S 17E 4918200 OTHER * *	34 698 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0113F01	BROOKS 00000269 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 685250 SINGLE (GRAB) * SILT	13S 17E 4918400 OTHER * *	34 699 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0114F01	BROOKS 00000349 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 683650 SINGLE (GRAB) * SILT	13S 17E 4920200 OTHER * *	28 697 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0115F01	BROOKS 00000345 UNCONSOL. SEDIMENT * HOLOCENE	82-09-20 683700 SINGLE (GRAB) * SILT	13S 17E 4920300 OTHER * *	28 669 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0116F01	BROOKS 00000164 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 683880 SINGLE (GRAB) * SILT	13S 17E 4920300 OTHER * *	28 697 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0117F01	BROOKS 00000287 UNCONSOL. SEDIMENT * HOLOCENE	82-09-21 683550 SINGLE (GRAB) * SILT	13S 17E 4920850 OTHER * *	21 897 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0118F01	BROOKS 00000099 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 682250 SINGLE (GRAB) * SILT	12S 17E 4926750 OTHER * *	5 776 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*

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B0119F01	BROOKS 00000220 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 682950 SINGLE (GRAB) * SILT	12S 17E 4927650 OTHER * *	33 788 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0120F01	BROOKS 00000322 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 685420 SINGLE (GRAB) * SILT	12S 17E 4930560 OTHER * *	22 888 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA TCB * *	*
B0121F01	BROOKS 00000303 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 685380 SINGLE (GRAB) * SILT	12S 17E 4930630 OTHER * *	22 888 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA TCB * *	*
B0122F01	BROOKS 00000125 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 689480 SINGLE (GRAB) * SILT	12S 18E 4933040 OTHER * *	18 788 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA TCB * *	*
B0123F01	BROOKS 00000223 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 684990 SINGLE (GRAB) * SILT	12S 17E 4936060 OTHER * *	3 698 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCB TCA * *	*
B0124F01	BROOKS 00000207 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 685040 SINGLE (GRAB) * SILT	12S 17E 4936160 OTHER * *	3 698 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCB TCA * *	*
B0125F01	BROOKS 00000239 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 683730 SINGLE (GRAB) * SILT	12S 17E 4934620 OTHER * *	10 697 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA TCB * *	*
B0126F01	BROOKS 00000107 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 682520 SINGLE (GRAB) * SILT	12S 17E 4933840 OTHER * *	9 997 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA TCB * *	*

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B0127F01	BROOKS 00000306 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 690170 SINGLE (GRAB) * SILT	12S 18E 4931730 OTHER * *	19 687 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR TCA * *	*
B0128F01	BROOKS 00000143 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 692060 SINGLE (GRAB) * SILT	12S 18E 4932100 OTHER * *	21 777 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR TCA * *	*
B0129F01	BROOKS 00000150 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 692990 SINGLE (GRAB) * SILT	12S 18E 4932100 OTHER * *	21 777 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR TCA * *	*
B0130F01	BROOKS 00000198 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 692800 SINGLE (GRAB) * SILT	12S 18E 4932860 OTHER * *	16 879 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR TCA * *	*
B0131F01	BROOKS 00000228 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 694750 SINGLE (GRAB) * SILT	12S 18E 4936420 OTHER * *	3 689 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA TJR * *	*
B0132F01	BROOKS 00000132 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 694760 SINGLE (GRAB) * SILT	12S 18E 4936520 OTHER * *	3 687 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA TJR * *	*
B0133F01	BROOKS 00000055 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 695600 SINGLE (GRAB) * SILT	12S 18E 4936050 OTHER * *	2 969 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR * *	*
B0134F01	BROOKS 00000093 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 698120 SINGLE (GRAB) * SILT	12S 18E 4932680 OTHER * *	13 966 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR * *	*

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B0135F01	BROOKS 00000119 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 698360 SINGLE (GRAB) * SILT	12S 18E 4936220 OTHER * *	6 979 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0136F01	BROOKS 00000085 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 702760 SINGLE (GRAB) * SILT	12S 19E 4935730 OTHER * *	9 666 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0137F01	BROOKS 00000315 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 702920 SINGLE (GRAB) * SILT	12S 19E 4935720 OTHER * *	9 999 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0138F01	BROOKS 00000259 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 696650 SINGLE (GRAB) * SILT	14S 18E 4915180 OTHER * *	11 697 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0139F01	BROOKS 00000206 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 697600 SINGLE (GRAB) * SILT	14S 18E 4916700 OTHER * *	1 996 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0140F01	BROOKS 00000262 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 697550 SINGLE (GRAB) * SILT	14S 18E 4916850 OTHER * *	1 978 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0141F01	BROOKS 00000080 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 698250 SINGLE (GRAB) * SILT	13S 19E 4919040 OTHER * *	36 696 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS701 TCA * *	*
B0142F01	BROOKS 00000186 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 699475 SINGLE (GRAB) * SILT	13S 19E 4920450 OTHER * *	30 699 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0143F01	BROOKS 00000280 UNCONSOL. SEDIMENT * HOLOCENE	82-09-24 699450 SINGLE (GRAB) * SILT	13S 19E 4920600 OTHER * *	30 699 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0144F01	BROOKS 00000251 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 706840 SINGLE (GRAB) * SILT	12S 19E 4930720 OTHER * *	25 768 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS701 TCA * *	*
B0145F01	BROOKS 00000137 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 707540 SINGLE (GRAB) * SILT	12S 20E 4933700 OTHER * *	13 689 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0146F01	BROOKS 00000108 UNCONSOL. SEDIMENT * TERTIARY UNDIFF.	82-09-27 706960 SINGLE (GRAB) * SILT	12S 20E 4935500 OTHER * *	12 697 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0147F01	BROOKS 00000238 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 705170 SINGLE (GRAB) * SILT	12S 20E 4934480 OTHER * *	11 987 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0148F01	BROOKS 00000340 UNCONSOL. SEDIMENT * HOLOCENE	82-09-27 703930 SINGLE (GRAB) * SILT	12S 20E 4932140 OTHER * *	22 697 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0149F01	BROOKS 00000077 UNCONSOL. SEDIMENT * *	82-09-28 688200 SINGLE (GRAB) * SILT	13S 17E 4919400 OTHER * *	25 986 OREGON/ CROOK UNCONSOL. SEDIMENT * OC40C0 RES	FS703 TCA TCB TJ * *	*
B0150F01	BROOKS 00000256 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688250 SINGLE (GRAB) * SILT	13S 17E 4919300 OTHER * *	25 986 OREGON/ CROOK UNCONSOL. SEDIMENT * OC40C0 RES	FS703 TCA TCB TJ * *	*

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B0151F01	BROOKS 00000098 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688950 SINGLE (GRAB) * SILT	13S 17E 4921100 OTHER * *	24 886 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0152F01	BROOKS 00000013 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687550 SINGLE (GRAB) * SILT	13S 17E 4921150 OTHER * *	24 997 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES.	FS703 TJR TCA * *	*
B0154F01	BROOKS 00000037 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 686400 SINGLE (GRAB) * SILT	13S 17E 4921600 OTHER * *	23 788 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0155F01	BROOKS 00000332 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 686350 SINGLE (GRAB) * SILT	13S 17E 4921200 OTHER * *	23 969 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0156F01	BROOKS 00000147 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688350 SINGLE (GRAB) * SILT	13S 17E 4922000 OTHER * *	24 697 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR * *	*
B0157F01	BROOKS 00000104 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688450 SINGLE (GRAB) * SILT	13S 17E 4922150 OTHER * *	24 673 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0158F01	BROOKS 00000100 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 688150 SINGLE (GRAB) * SILT	13S 17E 4923100 OTHER * *	13 966 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0160F01	BROOKS 00000225 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 687750 SINGLE (GRAB) * SILT	13S 17E 4923650 OTHER * *	13 778 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*

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B0161F01	BROOKS 00000058 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 690550 SINGLE (GRAB) * SILT	13S 18E 4921250 OTHER * *	19 886 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TJR TCA TJ * *	*
B0162F01	BROOKS 00000159 UNCONSOL. SEDIMENT * HOLOCENE	82-09-28 690550 SINGLE (GRAB) * SILT	13S 18E 4921400 OTHER * *	19 861 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TCA TJR TCB TJ * *	*
B0163F01	BROOKS 00000148 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 686050 SINGLE (GRAB) * SILT	13S 17E 4926850 OTHER * *	2 767 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TCA TCB TJR * *	*
B0164F01	BROOKS 00000060 UNCONSOL. SEDIMENT * *	82-09-29 687500 SINGLE (GRAB) * SILT	13S 17E 4926650 OTHER * *	2 779 OREGON/ CROOK UNCONSOL. SEDIMENT * OGHOCO RES	FS703 TCA TCB TJR * *	*
B0165F01	BROOKS 00000161 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 699400 SINGLE (GRAB) * SILT	12S 19E 4932770 OTHER * *	18 887 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TJR * *	*
B0166F01	BROOKS 00000140 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 700480 SINGLE (GRAB) * SILT	12S 19E 4932520 OTHER * *	17 998 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TJR * *	*
B0167F01	BROOKS 00000110 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 701840 SINGLE (GRAB) * SILT	12S 19E 4933080 OTHER * *	15 976 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA TCB * *	*
B0168F01	BROOKS 00000131 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702290 SINGLE (GRAB) * SILT	12S 19E 4934080 OTHER * *	16 677 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*

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B0169F01	BROOKS 00000202 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702560 SINGLE (GRAB) * SILT	12S 19E 4934830 OTHER * *	9 876 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0170F01	BROOKS 00000127 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702560 SINGLE (GRAB) * SILT	12S 19E 4931380 OTHER * *	21 869 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0171F01	BROOKS 00000309 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 707350 SINGLE (GRAB) * SILT	12S 19E 4929050 OTHER * *	36 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0172F01	BROOKS 00000201 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 706650 SINGLE (GRAB) * SILT	12S 19E 4928100 OTHER * *	36 997 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJC * *	*
B0173F01	BROOKS 00000089 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 706000 SINGLE (GRAB) * SILT	13S 19E 4927650 OTHER * *	2 676 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0174F01	BROOKS 00000051 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 705500 SINGLE (GRAB) * SILT	13S 19E 4926750 OTHER * *	2 968 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0175F01	BROOKS 00000263 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 703800 SINGLE (GRAB) * SILT	13S 19E 4927150 OTHER * *	3 787 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB TJRF * *	*
B0176F01	BROOKS 00000072 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 703550 SINGLE (GRAB) * SILT	13S 19E 4924250 OTHER * *	15 797 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TC3 * *	*

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B0177F01	BROOKS 00000311 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 702750 SINGLE (GRAB) * SILT	13S 19E 4925100 OTHER * *	9 878 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB TJRF * *	*
B0178F01	BROOKS 00000061 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 701300 SINGLE (GRAB) * SILT	13S 19E 4923900 OTHER * *	17 689 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB TJRF * *	*
B0179F01	BROOKS 00000074 UNCONSOL. SEDIMENT * HOLOCENE	82-09-29 701400 SINGLE (GRAB) * SILT	13S 19E 4924250 OTHER * *	17 668 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0181F01	BROOKS 00000046 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700000 SINGLE (GRAB) * SILT	14S 19E 4915300 OTHER * *	7 878 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0182F01	BROOKS 00000014 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700050 SINGLE (GRAB) * SILT	14S 19E 4914700 OTHER * *	18 667 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJR TJC * *	*
B0183F01	BROOKS 00000026 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 700350 SINGLE (GRAB) * SILT	14S 19E 4914150 OTHER * *	18 681 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0184F01	BROOKS 00000123 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 701600 SINGLE (GRAB) * SILT	14S 19E 4915850 OTHER * *	8 687 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB * *	*
B0185F01	BROOKS 00000101 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 702850 SINGLE (GRAB) * SILT	14S 19E 4916250 OTHER * *	9 677 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB * *	*

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B0186F01	BROOKS 00000040 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 702350 SINGLE (GRAB) * SILT	14S 19E 4917100 OTHER * *	4 978 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0187F01	BROOKS 00000082 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 704000 SINGLE (GRAB) * SILT	13S 19E 4918400 OTHER * *	34 998 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0188F01	BROOKS 00000002 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 704000 SINGLE (GRAB) * SILT	13S 19E 4918550 OTHER * *	34 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0189F01	BROOKS 00000045 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 705200 SINGLE (GRAB) * SILT	13S 19E 4919350 OTHER * *	35 797 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0190F01	BROOKS 00000009 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 705300 SINGLE (GRAB) * SILT	13S 19E 4919350 OTHER * *	35 787 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0191F01	BROOKS 00000016 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 705800 SINGLE (GRAB) * SILT	13S 19E 4920000 OTHER * *	26 988 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0192F01	BROOKS 00000019 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 706750 SINGLE (GRAB) * SILT	13S 19E 4920850 OTHER * *	25 976 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0193F01	BROOKS 00000298 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 707600 SINGLE (GRAB) * SILT	13S 19E 4920000 OTHER * *	36 677 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB * *	*

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B0194F01	BROOKS 00000006 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 709000 SINGLE (GRAB) * SILT	13S 20E 4921100 OTHER * *	30 788 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0195F01	BROOKS 00000047 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 706700 SINGLE (GRAB) * SILT	13S 19E 4919350 OTHER * *	36 799 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB * *	*
B0196F01	BROOKS 00000024 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710000 SINGLE (GRAB) * SILT	13S 19E 4921000 OTHER * *	29 979 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0197F01	BROOKS 00000056 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710000 SINGLE (GRAB) * SILT	13S 19E 4920800 OTHER * *	29 979 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0200F01	DEEN 00000162 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 682900 SINGLE (GRAB) * SILT	12S 17E 4927650 OTHER * *	33 976 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0201F01	DEEN 00000237 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 687000 SINGLE (GRAB) * SILT	12S 17E 4930620 OTHER * *	23 888 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0202F01	DEEN 00000168 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 686980 SINGLE (GRAB) * SILT	12S 17E 4930700 OTHER * *	23 887 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0203F01	DEEN 00000241 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 689720 SINGLE (GRAB) * SILT	12S 18E 4935380 OTHER * *	7 676 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*

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B0204F01	DEEN 00000160 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 683180 SINGLE (GRAB) * SILT	12S 17E 4936120 OTHER * *	4 699 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA TCB * *	*
B0205F01	DEEN 00000274 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 682700 SINGLE (GRAB) * SILT	12S 17E 4936400 OTHER * *	4 987 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0206F01	DEEN 00000167 UNCONSOL. SEDIMENT * HOLOCENE	82-09-22 682040 SINGLE (GRAB) * SILT	12S 17E 4936600 OTHER * *	5 666 OREGON/ CROOK UNCONSOL. SEDIMENT * DUTCHMAN CREEK	FS703 TCA * *	*
B0207F01	DEEN 00000111 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 691210 SINGLE (GRAB) * SILT	12S 18E 4935400 OTHER * *	8 677 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0208F01	DEEN 00000130 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 691260 SINGLE (GRAB) * SILT	12S 18E 4935360 OTHER * *	8 677 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0209F01	DEEN 00000120 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 690920 SINGLE (GRAB) * SILT	12S 18E 4936980 OTHER * *	5 766 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA * *	*
B0210F01	DEEN 00000166 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 692720 SINGLE (GRAB) * SILT	12S 18E 4937000 OTHER * *	4 677 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TCA TJR * *	*
B0211F01	FERNS 00000253 UNCONSOL. SEDIMENT * HOLOCENE	82-09-30 696420 SINGLE (GRAB) * SILT	12S 18E 4935400 OTHER * *	11 667 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS703 TJR * *	*

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B0212F01	DEEN 00000236 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 699130 SINGLE (GRAB) * SILT	12S 19E 4936230 OTHER * *	5 878 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0213F01	DEEN 00000165 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 699220 SINGLE (GRAB) * SILT	12S 19E 4936120 OTHER * *	5 878 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0214F01	DEEN 00000197 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 699250 SINGLE (GRAB) * SILT	12S 19E 4936010 OTHER * *	5 896 OREGON/ CROOK UNCONSOL. SEDIMENT * STEPHENSON MTN	FS703 TCA * *	*
B0215F01	DEEN 00000126 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 710750 SINGLE (GRAB) * SILT	13S 20E 4924200 OTHER * *	17 878 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0216F01	DEEN 00000135 UNCONSOL. SEDIMENT * HOLOCENE	82-09-23 710650 SINGLE (GRAB) * SILT	13S 20E 4924100 OTHER * *	17 879 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0217F01	DEEN 00000043 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 708350 SINGLE (GRAB) * SILT	13S 20E 4920850 OTHER * *	30 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0218F01	DEEN 00000010 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709550 SINGLE (GRAB) * SILT	13S 20E 4920150 OTHER * *	31 676 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0219F01	DEEN 00000057 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709150 SINGLE (GRAB) * SILT	13S 20E 4921550 OTHER * *	30 679 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0228F01	DEEN 00000153 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 715350 SINGLE (GRAB) * SILT	13S 20E 4922200 OTHER * *	23 968 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TPG * *	*
B0229F01	DEEN 00000078 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 715200 SINGLE (GRAB) * SILT	13S 20E 4922200 OTHER * *	23 989 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TPG * *	*
B0230F01	DEEN 00000285 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 715400 SINGLE (GRAB) * SILT	13S 20E 4922300 OTHER * *	23 899 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TPG * *	*
B0231F01	DEEN 00000174 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 716000 SINGLE (GRAB) * SILT	12S 20E 4924400 OTHER * *	14 866 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TPG * *	*
B0232F01	DEEN 00000053 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 716000 SINGLE (GRAB) * SILT	12S 20E 4924350 OTHER * *	14 688 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS7 01 TPG * *	*
B0233F01	DEEN 00000244 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 696380 SINGLE (GRAB) * SILT	12S 18E 4930820 OTHER * *	23 889 OREGON/ CROOK UNCONSOL. SEDIMENT * OPAL MOUNTAIN	FS7 03 TCA * *	*
B0234F01	DEEN 00000246 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 692150 SINGLE (GRAB) * SILT	12S 18E 4927300 OTHER * *	33 999 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS7 03 TCA TJRF * *	*
B0235F01	DEEN 00000145 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 691800 SINGLE (GRAB) * SILT	13S 18E 4927050 OTHER * *	5 666 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS7 03 TCA TJRF * *	*

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B0236F01	DEEN 00000177 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 591800 SINGLE (GRAB) * SILT	12S 18E 4926500 OTHER * *	5 867 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0237F01	DEEN 00000175 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 689900 SINGLE (GRAB) * SILT	12S 18E 4925850 OTHER * *	5 896 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TCB * *	*
B0238F01	DEEN 00000308 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 690450 SINGLE (GRAB) * SILT	12S 18E 4925600 OTHER * *	7 666 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0239F01	DEEN 00000344 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 691250 SINGLE (GRAB) * SILT	12S 18E 4925350 OTHER * *	8 768 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0240F01	DEEN 00000267 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 691150 SINGLE (GRAB) * SILT	12S 18E 4925300 OTHER * *	8 787 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0241F01	DEEN 00000136 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 691350 SINGLE (GRAB) * SILT	12S 18E 4925000 OTHER * *	8 788 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0242F01	DEEN 00000069 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 691900 SINGLE (GRAB) * SILT	12S 18E 4924150 OTHER * *	8 896 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0243F01	DEEN 00000245 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 692000 SINGLE (GRAB) * SILT	12S 18E 4924150 OTHER * *	8 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*

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B0244F01	DEEN 00000185 UNCONSOL. SEDIMENT * HOLOCENE	82-10-14 692400 SINGLE (GRAB) * SILT	12S 18E 4923150 OTHER * *	15 977 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0245F01	DEEN 00000268 UNCONSOL. SEDIMENT * HOLOCENE	82-10-14 692500 SINGLE (GRAB) * SILT	12S 18E 4923100 OTHER * *	15 977 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0246F01	DEEN 00000184 UNCONSOL. SEDIMENT * HOLOCENE	82-10-14 691850 SINGLE (GRAB) * SILT	12S 18E 4922250 OTHER * *	20 667 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR TJ * *	*
B0247F01	DEEN 00000297 UNCONSOL. SEDIMENT * HOLOCENE	82-10-14 692000 SINGLE (GRAB) * SILT	12S 18E 4922350 OTHER * *	20 667 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR TJ * *	*
B0248F01	DEEN 00000081 UNCONSOL. SEDIMENT * HOLOCENE	82-10-14 690950 SINGLE (GRAB) * SILT	12S 18E 4921800 OTHER * *	20 798 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*
B0301F01	BROOKS 00000313 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709550 SINGLE (GRAB) * SILT	13S 20E 4921750 OTHER * *	30 667 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0302F01	BROOKS 00000289 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 709550 SINGLE (GRAB) * SILT	13S 20E 4921900 OTHER * *	30 667 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0303F01	BROOKS 00000208 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710350 SINGLE (GRAB) * SILT	13S 20E 4922750 OTHER * *	20 689 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0304F01	BROOKS 00000087 UNCONSOL. SEDIMENT * HOLOCENE	82-10-01 710100 SINGLE (GRAB) * SILT	13S 20E 4926850 OTHER * *	5 998 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TJC TPG * *	*
B0305F01	BROOKS 00000282 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 707550 SINGLE (GRAB) * SILT	13S 19E 4927150 OTHER * *	1 699 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCB * *	*
B0306F01	BROOKS 00000121 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 700700 SINGLE (GRAB) * SILT	13S 19E 4920200 OTHER * *	29 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0307F01	BROOKS 00000214 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 702200 SINGLE (GRAB) * SILT	13S 19E 4921650 OTHER * *	21 881 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0308F01	BROOKS 00000247 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 706000 SINGLE (GRAB) * SILT	14S 19E 4914000 OTHER * *	14 868 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0309F01	BROOKS 00000049 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 701500 SINGLE (GRAB) * SILT	14S 19E 4913500 OTHER * *	17 887 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0310F01	BROOKS 00000059 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 703150 SINGLE (GRAB) * SILT	14S 19E 4913000 OTHER * *	21 679 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0311F01	BROOKS 00000157 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 705950 SINGLE (GRAB) * SILT	14S 19E 4913100 OTHER * *	23 768 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0312F01	BROOKS 00000052 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 706150 SINGLE (GRAB) * SILT	14S 19E 4918000 OTHER * *	2 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0313F01	BROOKS 00000325 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 706850 SINGLE (GRAB) * SILT	14S 19E 4916800 OTHER * *	1 999 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0314F01	BROOKS 00000342 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 708000 SINGLE (GRAB) * SILT	14S 19E 4916000 OTHER * *	12 687 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0315F01	BROOKS 00000326 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 709200 SINGLE (GRAB) * SILT	14S 19E 4915600 OTHER * *	7 877 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0316F01	BROOKS 00000172 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 708150 SINGLE (GRAB) * SILT	14S 19E 4916100 OTHER * *	12 687 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0317F01	BROOKS 00000343 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 709450 SINGLE (GRAB) * SILT	14S 20E 4914500 OTHER * *	18 698 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0318F01	BROOKS 00000020 UNCONSOL. SEDIMENT * *	82-10-06 709550 SINGLE (GRAB) * SILT	14S 20E 4914000 OTHER * *	18 876 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0319F01	BROOKS 00000003 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 710400 SINGLE (GRAB) * SILT	14S 20E 4912250 OTHER * *	20 978 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0320F01	BROOKS 00000007 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 710100 SINGLE (GRAB) * SILT	14S 20E 4913250 OTHER * *	19 686 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0321F01	BROOKS 00000203 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 712100 SINGLE (GRAB) * SILT	14S 20E 4914150 OTHER * *	16 996 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0322F01	BROOKS 00000076 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 713550 SINGLE (GRAB) * SILT	14S 20E 4913800 OTHER * *	15 998 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0323F01	BROOKS 00000017 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 714550 SINGLE (GRAB) * SILT	14S 20E 4914600 OTHER * *	15 869 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0324F01	BROOKS 00000183 UNCONSOL. SEDIMENT * *	82-10-06 713700 SINGLE (GRAB) * SILT	14S 20E 4917550 OTHER * *	3 969 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0325F01	BROOKS 00000129 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 712300 SINGLE (GRAB) * SILT	14S 20E 4916750 OTHER * *	9 769 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0326F01	BROOKS 00000296 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 716700 SINGLE (GRAB) * SILT	14S 20E 4914350 OTHER * *	13 999 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TPG * *	*
B0327F01	BROOKS 00000301 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 716500 SINGLE (GRAB) * SILT	14S 20E 4912300 OTHER * *	26 666 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*

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B0328F01	BROOKS 00000151 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 718800 SINGLE (GRAB) * SILT	14S 21E 4910000 OTHER * *	30 976 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*
B0329F01	BROOKS 00000258 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 717800 SINGLE (GRAB) * SILT	15S 20E 4908550 OTHER * *	1 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*
B0330F01	BROOKS 00000204 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 713850 SINGLE (GRAB) * SILT	15S 20E 4906050 OTHER * *	9 897 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG TCA * *	*
B0332F01	BROOKS 00000347 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 711800 SINGLE (GRAB) * SILT	15S 20E 4903300 OTHER * *	20 796 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TJWT TPG * *	*
B0333F01	BROOKS 00000169 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 710000 SINGLE (GRAB) * SILT	15S 20E 4904650 OTHER * *	18 876 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0334F01	BROOKS 00000354 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 709550 SINGLE (GRAB) * SILT	15S 20E 4903300 OTHER * *	19 699 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG TJWT * *	*
B0335F01	BROOKS 00000264 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 712900 SINGLE (GRAB) * SILT	15S 20E 4899700 OTHER * *	33 968 OREGON/ CROOK UNCONSOL. SEDIMENT * POST	FS701 TPG TJWT * *	*
B0336F01	BROOKS 00000182 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 714150 SINGLE (GRAB) * SILT	16S 20E 4898750 OTHER * *	3 686 OREGON/ CROOK UNCONSOL. SEDIMENT * POST	FS701 TPG * *	*

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B0337F01	BROOKS 00000275 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 719100 SINGLE (GRAB) * SILT	16S 21E 4897600 OTHER * *	7 787 OREGON/ CROOK UNCONSOL. SEDIMENT * POST	FS701 TPG * *	*
B0338F01	BROOKS 00000071 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 718250 SINGLE (GRAB) * SILT	15S 20E 4904900 OTHER * *	13 868 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG TJC * *	*
B0339F01	BROOKS 00000189 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 716100 SINGLE (GRAB) * SILT	14S 20E 4916950 OTHER * *	11 881 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TPG * *	*
B0340F01	BROOKS 00000196 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 716000 SINGLE (GRAB) * SILT	14S 20E 4917850 OTHER * *	2 869 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*
B0341F01	BROOKS 00000286 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 719530 SINGLE (GRAB) * SILT	13S 21E 4920170 OTHER * *	32 799 OREGON/ CROOK UNCONSOL. SEDIMENT * MT. PISGAH	FS701 TPG * *	*
B0342F01	BROOKS 00000079 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 723220 SINGLE (GRAB) * SILT	13S 21E 4920380 OTHER * *	34 787 OREGON/ CROOK UNCONSOL. SEDIMENT * MT. PISGAH	FS701 TPG * *	*
B0343F01	BROOKS 00000348 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 727640 SINGLE (GRAB) * SILT	13S 22E 4920260 OTHER * *	31 977 OREGON/ CROOK UNCONSOL. SEDIMENT * MT. PISGAH	FS701 TPG * *	*
B0344F01	BROOKS 00000190 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 728400 SINGLE (GRAB) * SILT	13S 22E 4924580 OTHER * *	18 896 OREGON/ WHEELER UNCONSOL. SEDIMENT * MT. PISGAH	FS701 TPG * *	*

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B0345F01	BROOKS 00000092 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729140 SINGLE (GRAB) * SILT	13S 22E 4925780 OTHER * *	17 777 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON POINT	FS7 01 TPG TJWT * *	*
B0346F01	BROOKS 00000229 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729300 SINGLE (GRAB) * SILT	13S 22E 4928120 OTHER * *	5 976 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON PT.	FS7 03 TCA TJWT TPG * *	*
B0347F01	BROOKS 00000346 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729270 SINGLE (GRAB) * SILT	12S 22E 4929200 OTHER * *	32 996 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON PT.	FS7 01 TCA TJWT TCS * *	*
B0348F01	BROOKS 00000064 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 730540 SINGLE (GRAB) * SILT	12S 22E 4930480 OTHER * *	28 999 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON PT	FS7 01 TCS TCA * *	*
B0349F01	BROOKS 00000062 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 277060 SINGLE (GRAB) * SILT	13S 24E 4926620 OTHER * *	11 676 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS7 02 KS * *	*
B0350F01	BROOKS 00000117 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 276500 SINGLE (GRAB) * SILT	13S 24E 4925160 OTHER * *	14 766 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS7 02 TPG * *	*
B0351F01	BROOKS 00000216 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 275370 SINGLE (GRAB) * SILT	13S 24E 4922100 OTHER * *	22 898 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS7 02 TPG * *	*
B0352F01	BROOKS 00000222 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 280350 SINGLE (GRAB) * SILT	13S 25E 4926850 OTHER * *	5 898 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS7 02 KS UM MV * *	*

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B0354F01	BROOKS 00000134 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 280260 SINGLE (GRAB) * SILT	13S 25E 4925200 OTHER * *	7 878 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 KS UM MV TPG * *	*
B0355F01	BROOKS 00000279 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 279280 SINGLE (GRAB) * SILT	13S 25E 4925760 OTHER * *	7 896 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 KS UM MV TPG * *	*
B0356F01	BROOKS 00000115 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 698000 SINGLE (GRAB) * SILT	12S 18E 4929300 OTHER * *	25 886 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA TJRF * *	*
B0357F01	BROOKS 00000070 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 697800 SINGLE (GRAB) * SILT	12S 18E 4929300 OTHER * *	25 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TJRF * *	*
B0359F01	BROOKS 00000219 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 698000 SINGLE (GRAB) * SILT	12S 18E 4928500 OTHER * *	35 687 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR TJRF * *	*
B0360F01	FERNS 00000318 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 695550 SINGLE (GRAB) * SILT	13S 18E 4927050 OTHER * *	2 778 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJRF * *	*
B0361F01	BROOKS 00000293 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 695400 SINGLE (GRAB) * SILT	13S 18E 4926850 OTHER * *	2 797 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TJR TCA * *	*
B0362F01	BROOKS 00000091 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 695000 SINGLE (GRAB) * SILT	13S 18E 4924500 OTHER * *	10 889 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*

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B0363F01	BROOKS 00000233 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 693800 SINGLE (GRAB) * SILT	13S 18E 4923850 OTHER * *	15 779 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0364F01	BROOKS 00000324 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 693200 SINGLE (GRAB) * SILT	13S 18E 4923400 OTHER * *	16 699 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJ * *	*
B0365F01	BROOKS 00000305 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 713800 SINGLE (GRAB) * SILT	12S 20E 4929000 OTHER * *	34 679 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TCR TCS * *	*
B0366F01	BROOKS 00000217 UNCONSOL. SEDIMENT * HOLOCENE	82-10-13 713550 SINGLE (GRAB) * SILT	12S 20E 4929400 OTHER * *	34 869 OREGON/ WHEELER UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJ TCS * *	*
B0400F01	FERNS 00000195 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 703750 SINGLE (GRAB) * SILT	14S 19E 4914250 OTHER * *	15 799 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0401F01	FERNS 00000095 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 701850 SINGLE (GRAB) * SILT	14S 19E 4913600 OTHER * *	17 886 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0402F01	FERNS 00000231 UNCONSOL. SEDIMENT * HOLOCENE	82-10-05 703050 SINGLE (GRAB) * SILT	14S 19E 4912900 OTHER * *	21 696 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0403F01	FERNS 00000200 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 706200 SINGLE (GRAB) * SILT	14S 19E 4917750 OTHER * *	2 678 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*

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B0413F01	FERNS 00000038 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 712050 SINGLE (GRAB) * SILT	14S 20E 4913950 OTHER * *	15 996 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0414F01	FERNS 00000005 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 713400 SINGLE (GRAB) * SILT	14S 20E 4913850 OTHER * *	22 999 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0415F01	FERNS 00000329 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 714050 SINGLE (GRAB) * SILT	14S 20E 4915300 OTHER * *	15 766 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0416F01	FERNS 00000141 UNCONSOL. SEDIMENT * HOLOCENE	82-10-06 713500 SINGLE (GRAB) * SILT	14S 20E 4916950 OTHER * *	10 776 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0417F01	FERNS 00000035 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 714300 SINGLE (GRAB) * SILT	14S 20E 4914100 OTHER * *	15 899 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0418F01	FERNS 00000021 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 716450 SINGLE (GRAB) * SILT	14S 20E 4914350 OTHER * *	13 996 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TPG TJC * *	*
B0419F01	FERNS 00000227 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 717700 SINGLE (GRAB) * SILT	14S 20E 4912400 OTHER * *	25 776 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG TCA * *	*
B0420F01	FERNS 00000215 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 717700 SINGLE (GRAB) * SILT	15S 20E 4908750 OTHER * *	1 696 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*

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B0421F01	FERNS 00000271 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 715250 SINGLE (GRAB) * SILT	15S 20E 4907200 OTHER * *	10 766 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*
B0422F01	FERNS 00000291 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 710700 SINGLE (GRAB) * SILT	15S 20E 4903500 OTHER * *	20 796 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJWT TPG * *	*
B0423F01	FERNS 00000221 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 710200 SINGLE (GRAB) * SILT	15S 20E 4904700 OTHER * *	18 867 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA * *	*
B0424F01	FERNS 00000235 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 710450 SINGLE (GRAB) * SILT	15S 20E 4904200 OTHER * *	17 999 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TPG * *	*
B0425F01	FERNS 00000176 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 709500 SINGLE (GRAB) * SILT	15S 20E 4903200 OTHER * *	19 966 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TCA TJWT * *	*
B0426F01	FERNS 00000054 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 713000 SINGLE (GRAB) * SILT	15S 20E 4899700 OTHER * *	33 879 OREGON/ CROOK UNCONSOL. SEDIMENT * POST	FS701 TPG TJWT * *	*
B0427F01	FERNS 00000180 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 715050 SINGLE (GRAB) * SILT	16S 20E 4899050 OTHER * *	3 668 OREGON/ CROOK UNCONSOL. SEDIMENT * POST	FS701 TJWT TCA TPG * *	*
B0428F01	FERNS 00000149 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 715500 SINGLE (GRAB) * SILT	15S 20E 4903850 OTHER * *	23 666 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TJC TPG * *	*

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B0429F01	FERNS 00000273 UNCONSOL. SEDIMENT * HOLOCENE	82-10-07 718250 SINGLE (GRAB) * SILT	15S 20E 4904700 OTHER * *	13 886 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG TJC * *	*
B0430F01	FERNS 00000178 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 716150 SINGLE (GRAB) * SILT	13S 20E 4919500 OTHER * *	35 866 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MTN	FS701 TPG * *	*
B0431F01	FERNS 00000351 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 720280 SINGLE (GRAB) * SILT	13S 21E 4920340 OTHER * *	32 697 OREGON/ CROOK UNCONSOL. SEDIMENT * MT PISGAH	FS701 TPG * *	*
B0432F01	FERNS 00000320 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 721500 SINGLE (GRAB) * SILT	13S 21E 4920560 OTHER * *	33 769 OREGON/ CROOK UNCONSOL. SEDIMENT * MT PISGAH	FS701 TPG * *	*
B0433F01	FERNS 00000226 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 724160 SINGLE (GRAB) * SILT	13S 21E 4919950 OTHER * *	34 867 OREGON/ CROOK UNCONSOL. SEDIMENT * MT PISGAH	FS701 TPG * *	*
B0434F01	FERNS 00000300 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 726300 SINGLE (GRAB) * SILT	13S 21E 4920220 OTHER * *	36 976 OREGON/ CROOK UNCONSOL. SEDIMENT * MT PISGAH	FS701 TPG * *	*
B0435F01	FERNS 00000224 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729260 SINGLE (GRAB) * SILT	13S 22E 4925800 OTHER * *	17 777 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON POINT	FS701 TCA TJWT TPG * *	*
B0436F01	FERNS 00000146 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729220 SINGLE (GRAB) * SILT	13S 22E 4928100 OTHER * *	5 976 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON POINT	FS701 TCA TJWT TPG * *	*

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B0437F01	FERNS 00000255 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 729520 SINGLE (GRAB) * SILT	13S 22E 4929760 OTHER * *	5 766 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON POINT	FS701 TCA TCS * *	*
B0438F01	FERNS 00000304 UNCONSOL. SEDIMENT * HOLOCENE	82-10-08 730480 SINGLE (GRAB) * SILT	12S 22E 4930560 OTHER * *	28 999 OREGON/ WHEELER UNCONSOL. SEDIMENT * PETERSON POINT	FS701 TCA TCS * *	*
B0439F01	FERNS 00000142 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 277100 SINGLE (GRAB) * SILT	13S 24E 4926620 OTHER * *	14 677 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 KS * *	*
B0440F01	FERNS 00000075 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 275800 SINGLE (GRAB) * SILT	13S 24E 4923480 OTHER * *	15 688 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 TJS TPG * *	*
B0441F01	FERNS 00000199 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 275400 SINGLE (GRAB) * SILT	13S 24E 4922100 OTHER * *	22 898 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 TPG * *	*
B0442F01	FERNS 00000181 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 279360 SINGLE (GRAB) * SILT	13S 25E 4927100 OTHER * *	5 977 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 MV UM KS * *	*
B0444F01	FERNS 00000090 UNCONSOL. SEDIMENT * HOLOCENE	82-10-11 278740 SINGLE (GRAB) * SILT	13S 24E 4925100 OTHER * *	13 876 OREGON/ WHEELER UNCONSOL. SEDIMENT * ANTONE	FS702 KS * *	*
B0445F01	FERNS 00000152 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 699600 SINGLE (GRAB) * SILT	12S 19E 4927600 OTHER * *	31 889 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MT	FS703 TCA * *	*

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B0446F01	FERNS 00000139 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 699500 SINGLE (GRAB) * SILT	12S 19E 4927750 OTHER * *	31 887 OREGON/ CROOK UNCONSOL. SEDIMENT * LOOKOUT MT	FS703 TCA TJR TJRF * *	*
B0447F01	FERNS 00000339 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 698400 SINGLE (GRAB) * SILT	13S 18E 4927250 OTHER * *	1 666 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0448F01	FERNS 00000084 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 698300 SINGLE (GRAB) * SILT	13S 18E 4927350 OTHER * *	1 666 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR TJRF * *	*
B0449F01	FERNS 00000252 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 697900 SINGLE (GRAB) * SILT	13S 18E 4926950 OTHER * *	1 696 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0450F01	FERNS 00000353 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 697000 SINGLE (GRAB) * SILT	13S 18E 4926800 OTHER * *	1 699 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0451F01	FERNS 00000066 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 696050 SINGLE (GRAB) * SILT	13S 18E 4925900 OTHER * *	11 769 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0452F01	FERNS 00000350 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 696050 SINGLE (GRAB) * SILT	13S 18E 4926000 OTHER * *	11 767 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*
B0453F01	FERNS 00000284 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 695050 SINGLE (GRAB) * SILT	13S 18E 4924400 OTHER * *	10 887 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA * *	*

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B0454F01	FERNS 00000281 UNCONSOL. SEDIMENT * HOLOCENE	82-10-12 693950 SINGLE (GRAB) * SILT	13S 18E 4923850 OTHER * *	15 779 OREGON/ CROOK UNCONSOL. SEDIMENT * OCHOCO RES	FS703 TCA TJR * *	*

GEOLOGICAL DATA FOR WILDERNESS STUDY AREAS

SITE DESCRIPTIONS FOR

ROCK SAMPLES

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B0055R01	FERNS 00000357 ROCK SILICA TERTIARY UNDIFF.	82-09-28 688750 COMPOSITE PARTIALLY OXIDIZED ANDESITE	13S 17E 4921800 OUTCROP * *	24 689 OREGON/ CROOK IGNEOUS ROCK SILICEOUS OCHOCO RES	FS703 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0055R02	FERNS 00000367 ROCK SILICA TERTIARY UNDIFF.	82-09-28 688750 COMPOSITE UNOXIDIZED ANDESITE	13S 17E 4921800 OUTCROP * *	24 689 OREGON/ CROOK IGNEOUS ROCK SILICEOUS OCHOCO RES	FS703 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0082R01	FERNS 00000372 ROCK CLAY TERTIARY UNDIFF.	82-09-30 704100 * PARTIALLY OXIDIZED ANDESITE	13S 19E 4918800 DUMP/PROSPECT PIT OTHER *	34 969 OREGON/ CROOK INTERMEDIATE IGNEOUS ARGILLITIC LOOKOUT MTN	FS701 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0091R01	FERNS 00000377 ROCK CLAY TERTIARY UNDIFF.	82-10-01 709300 SINGLE (GRAB) PARTIALLY OXIDIZED ANDESITE	13S 20E 4921250 DUMP/PROSPECT PIT MIX BASE/PRECIOUS *	30 698 OREGON/ CROOK IGNEOUS ROCK * LOOKOUT MTN	FS701 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0093R01	FERNS 00000378 ROCK CLAY TERTIARY UNDIFF.	82-10-01 710200 COMPOSITE OXIDIZED ANDESITE	13S 20E 4922400 DUMP/PROSPECT PIT * *	20 997 OREGON/ CROOK IGNEOUS ROCK * LOOKOUT MTN	FS701 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0102R04	BROOKS 00000374 ROCK SILICA TERTIARY UNDIFF.	82-09-21 685750 COMPOSITE UNOXIDIZED RHYOLITE	13S 17E 4923250 OUTCROP * *	15 686 OREGON/ CROOK FELSIC IGNEOUS SILICEOUS OCHOCO RES	FS703 TCR EXTRUSIVE *	*
B0146R04	BROOKS 00000368 ROCK * *	82-09-27 707000 SINGLE (GRAB) * ANDESITE	12S 19E 4935520 OUTCROP * *	12 697 OREGON/ CROOK IGNEOUS ROCK * STEPHENSON MTN	FS701 TCA EXTRUSIVE *	*
B0148R04	BROOKS 00000376 ROCK CLAY OLIGOCENE	82-09-27 703920 SINGLE (GRAB) PARTIALLY OXIDIZED ANDESITE	12S 19E 4932130 FLOAT * *	22 697 OREGON/ CROOK IGNEOUS ROCK * STEPHENSON MTN	FS702 TCA EXTRUSIVE *	*

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B0153R01	BROOKS 00000356 ROCK * EOCENE	82-09-28 687300 COMPOSITE OXIDIZED ANDESITE	13S 17E 4921000 OUTCROP OTHER *	23 886 OREGON/ CROOK FELSIC IGNEOUS ARGILLITIC OCHOCO RES	FS703 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0154R04	BROOKS 00000375 ROCK CLAY TERTIARY UNDIFF.	82-09-28 686400 COMPOSITE * ANDESITE	13S 17E 4921600 DUMP/PROSPECT PIT * *	23 788 OREGON/ CROOK IGNEOUS ROCK * 034000 RES	FS703 TCA TJR EXTRUSIVE *	*
B0157R04	BROOKS 00000358 ROCK * EOCENE	82-09-28 688450 COMPOSITE PARTIALLY OXIDIZED RHYODACITE	13S 17E 4922150 FLOAT * *	24 673 OREGON/ CROOK FELSIC IGNEOUS SILICEOUS OCHOCO RES	FS703 TJR EXTRUSIVE *	*
B0159R01	BROOKS 00000359 ROCK * EOCENE	82-09-28 687500 COMPOSITE PARTIALLY OXIDIZED RHYODACITE	13S 17E 4923750 OUTCROP * *	13 777 OREGON/ CROOK FELSIC IGNEOUS * OCHOCO RES	FS703 TCA EXTRUSIVE OTHER	*
B0180R01	BROOKS 00000369 ROCK * EOCENE	82-09-30 700150 CHANNEL PARTIALLY OXIDIZED ANDESITE	14S 19E 4915500 OUTCROP OTHER *	7 867 OREGON/ CROOK IGNEOUS ROCK SILICEOUS LOOKOUT MTN	FS701 TCA EXTRUSIVE VEIN	SHEAR OR FAULT
B0180R02	BROOKS 00000370 ROCK CLAY EOCENE	82-09-30 700150 COMPOSITE OXIDIZED ANDESITE	14S 19E 4915500 DUMP/PROSPECT PIT OTHER *	7 864 OREGON/ CROOK IGNEOUS ROCK ARGILLITIC LOOKOUT MTN	FS701 TCA EXTRUSIVE VEIN	*
B0198R01	BROOKS 00000371 ROCK CARBONATE TERTIARY UNDIFF.	82-10-01 709700 COMPOSITE * ANDESITE	13S 19E 4920950 DUMP/PROSPECT PIT * *	30 868 OREGON/ CROOK IGNEOUS ROCK * LOOKOUT MTN	FS701 TCA EXTRUSIVE *	*
B0199R01	BROOKS 00000364 ROCK SILICA TERTIARY UNDIFF.	82-10-01 709400 COMPOSITE UNOXIDIZED ANDESITE	13S 19E 4920750 DUMP/PROSPECT PIT * *	30 878 OREGON/ CROOK IGNEOUS ROCK * LOOKOUT MTN	FS701 TCA EXTRUSIVE *	*

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80208R04	DEEN 00000362 ROCK * OLIGOCENE	82-09-24 691280 SINGLE (GRAB) OXIDIZED ANDESITE	12S 18E 4935380 FLOAT * *	8 677 OREGON/ CROOK INTERMEDIATE IGNEOUS * OPAL MOUNTAIN	FS702 TCA EXTRUSIVE *	*
80233R04	DEEN 00000360 ROCK SILICA OLIGOCENE	82-10-12 696380 SINGLE (GRAB) * TUFF	12S 18E 4930920 FLOAT * *	23 889 OREGON/ CROOK FELSIC IGNEOUS * OPAL MOUNTAIN	FS702 TJ EXTRUSIVE *	*
80331R01	BROOKS 00000366 ROCK * OLIGOCENE	82-10-07 712600 COMPOSITE * WELDED TUFF	15S 20E 4903600 OUTCROP * *	20 669 OREGON/ CROOK FELSIC IGNEOUS * LOOKOUT MTN	FS701 TJMT EXTRUSIVE *	OTHER
80353R01	BROOKS 00000363 ROCK * MESOZOIC UNDIF.	82-10-11 280400 COMPOSITE PARTIALLY OXIDIZED GREENSTONE	13S 25E 4925380 DUMP/PROSPECT PIT * *	7 899 OREGON/ WHEELER METAMORPHIC ROCK * ANTONE	FS702 UM MV * VEIN	*
80358R01	BROOKS 00000365 ROCK * TERTIARY UNDIF.	82-10-12 699000 COMPOSITE * RHYOLITE	12S 18E 4929250 OUTCROP * *	25 886 OREGON/ CROOK FELSIC IGNEOUS * OCHOCO RES	FS703 TJR * *	*
80411R01	FERNS 00000361 ROCK CLAY TERTIARY UNDIF.	82-10-06 710500 COMPOSITE OXIDIZED ANDESITE	14S 20E 4912600 DUMP/PROSPECT PIT OTHER *	20 969 OREGON/ CROOK IGNEOUS ROCK * LOOKOUT MTN	FS701 TCA EXTRUSIVE *	SHEAR OR FAULT
80443R01	FERNS 00000373 ROCK SILICA MESOZOIC UNDIF.	82-10-11 279720 COMPOSITE * GREENSTONE	13S 25E 4925220 DUMP/PROSPECT PIT * *	7 988 OREGON/ WHEELER METAMORPHIC ROCK * ANTONE	FS702 MV UM * VEIN	SHEAR OR FAULT

GEOLOGICAL DATA FOR WILDERNESS STUDY AREAS

SITE DESCRIPTIONS FOR

SOIL SAMPLES

17.57.32.UCLP, AA, 22,
17.57.32.UCLP, AA, 22,

3.173KLNS.
0.062KPGS.