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2004

**SOILS SURVEY
FOR THE
TOSHINGERMANN LAKE PROJECT 115G13/14**

Latitude 61°47' N

Longitude 139°25' W

Whitehorse Mining District

Yukon Territory

For work performed between June 24–27 and August 23–27, 2004

**By: R. S. Berdahl
Box 11250
Whitehorse, YT
Y1A 6N4**

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January 2005

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SUMMARY

The Toshingermann Lake Project area covers the thrust fault contact between accreted Windy-McKinley Terrane and displaced ancestral North America continental Nisling Terrane. The earliest work on the property was follow-up prospecting of a 1986 regional geochem release.

Several styles of gold mineralization were discovered. Placer gold is not uncommon in the general area. Gold is also found associated with liwistenite alteration in shears and with arsonopyrite/pyrite in schist. Cu and Ag have been found in pyrrhotite skarn. High Zn values have also been found in skarn in the area.

The 2004 work was directed at a 4-kilometre-square area of limited outcrop between two of the main gold showings. A flagged GPS grid was established with lines every 100 m and stations at 50 m intervals. Four hundred and ninety-nine soil samples were collected; 10% of the samples were anomalous for gold (greater than 10 ppb). The highest soil value was 1.932 g Au.

LOCATION AND ACCESS

The project area is located in the Ruby Range, 265 km northwest of Whitehorse in the southwest Yukon (figure 1). It is located on NTS map sheets 115G13/14 and is within the Whitehorse Mining District. The property is adjacent to the Kluane River and about 18 miles north of the Alaska Highway at Milepost 1118.

The project area can be accessed with canoe or riverboat from Mile 1118 (Kluane Wilderness Lodge) on the Alaska Highway. Alternatively, float-equipped airplanes (Cessna 206 or Beaver) have landed on the river near the claims, or on Toshingermann Lake. Helicopter, currently only available from Haines Junction, was employed during the 2004 season. A "tote road" is mapped (DIAND Tote Road Map) down the east side of the Kluane River and passes through the area. The trail is now overgrown and impassable.

PHYSIOGRAPHY, CLIMATE & VEGETATION

The area is located in the Ruby Range, part of the Kluane Plateau (Geological Survey of Canada, map 1701A). Elevations in the area range from 670 to 1950 m above sea level and topography is rugged to steep. Hills, local cliffs and tallus are cut by glaciated valleys up to two kilometres wide. The northerly flowing Kluane River forms a broad braided river valley. Toshingermann and Tincup Lakes occupy similar glacial valleys.

The climate in the area is variable: summers are warm and dry with common afternoon rainstorms, and the winters are cold. Precipitation amounts to 30 cm annually.

Vegetation at this latitude is stunted except along stream valleys. White spruce is the common variety of coniferous trees; black spruce, poplar and balsam are also widespread. Tree line is generally below 1200 m (4000 ft.) elevation. Scrub willow, alder and dwarf birch grow above the tree line to about 1675 m (5000 ft.) elevation and, above this, only mosses, lichens and alpine flowers are found.

REGIONAL GEOLOGY

The project area is located within the accreted Windy McKinley Terrane (Wheeler and McFeely, 1987) part of the intermontane super terranes amalgamated by latest Triassic time and accreted to ancestral North America in the Jurassic. The terrane is composed of mixed Devonian to Cretaceous oceanic sedimentary and volcanic rocks cut by late Cretaceous to Tertiary intrusions. The Windy McKinley Terrane is thrust over Cambrian-Devonian rocks of the Nisling Terrane. The Nisling Terrane is displaced ancestral North America continental margin. To the southwest, the Windy McKinley Terrane is bounded by the Shawkak Fault, a major fault believed to have at least 300 km of relative dextral movement. (Hulstein, 1991.)

PROJECT AREA GEOLOGY

The oldest rocks exposed in the project area are Cambrian - Devonian quartz-biotite schists, in places carrying garnet, quartz-feldspar-biotite gneiss, amphibolite and minor recrystallized limestone (map unit CDN). Rocks of this unit are exposed in a northwest trending belt approximately three kilometres wide between Tincup and Toshingermann Lakes and underlie the JIB JSB claims, and all but the south corner of the MPS claims. Fault contacts have been mapped by Ron Berdahl (Hulstein, 1991) along the southern contact of this unit on the MPS claims.

The most common rock unit found underlying the properties are Devonian - Cretaceous White River Group (map unit DKWR) quartz-chlorite-cerussite schists, epidote-actinolite greenschist and limestone. According to Muller (1965), quartzite, slate, quartz-mica schists are found within the White River Group.

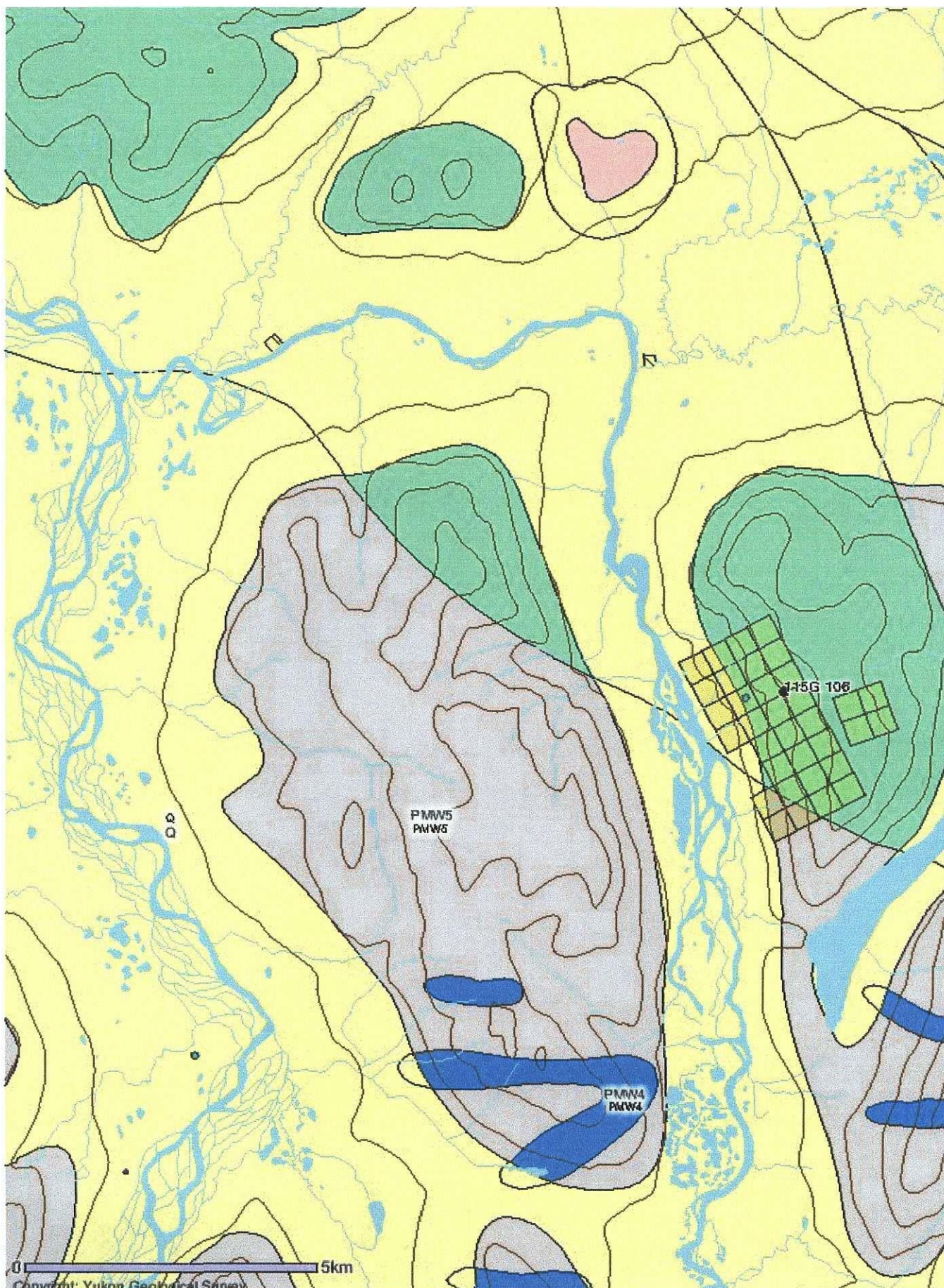
Recrystallized limestone bands and bodies of the White River Group (map unit DKWRc) are exposed within the White River schists and associated rocks. This unit is exposed in the central portion of the MPS claims and south of a tertiary alaskite body located east of Tincup Lake.

The above units are intruded by small bodies of diorite-granodiorite (map unit Tgd) that are probably part of the Ruby Range batholith exposed approximately 20 km to the east.

The youngest rocks found in the area belong to a Tertiary high level alaskite body (map unit ETqB) exposed east of Tincup Lake. The alaskite is yellowish-orange and contains smoky quartz.

The dominant structural fabric parallels the northwest trend of the cordillera. The deformation history of the metamorphic rocks is complex. Limestone beds serve as local marker units and sometimes display bedding features.

Northwest trending fault structures or shear zones, up to 15 m wide or wider, have been traced by Ron Berdahl for over distances of 3000 to 5000 m. These zones are commonly graphitic, and may include mariposite and argillic altered rocks, plus siderite and/or quartz-carbonate veining. Exposures of these recessive zones are generally restricted to steep slopes and stream cuts.



PAST WORK RESULTS

No records of mineral occurrences prior to Ron Berdahl's (RSB) 1990 discoveries (Hulstein, 1991) and no sign of exploration work have been found to date in the area. The mineral potential of the area came to the attention of RSB when he noted anomalous stream sediment geochemical data reported in Geological Survey of Canada Open File 1362. Follow-up ground work by RSB located mineralized fault structures and skarns, the most important of which being a NNW trending, commonly graphitic fault/shear zone that may be related to the trust fault contact between the Windy McKinley - Nisling terranes.

Prospecting, mapping and geochemical sampling carried out in 1990 by RSB (Hulstein, 1991) returned encouraging values: geochemical results include a chip sample of quartz - carbonate stockwork in sheared schist that returned up to 5347 ppm gold over a one meter width. Au-anomalous samples of all types (rock, soil, stream sediment) also returned anomalous values for silver, arsenic, lead, zinc and cadmium. Highly anomalous stream sediment samples from streams draining the former JIB, JSB and MPS claim blocks returned up to 302 ppb Au. Soil sampling returned anomalous values from samples collected in and over northwest trending shear zones on the MPS claims.

In an attempt to better understand property geology and geochemical anomaly patterns and showing locations, a VLF survey was conducted by RSB in 1994 over 19 km of grid lines across known mineralized shear zones. Six and possibly seven conductors attributed to breaks in slope were delineated by data interpretation, the largest of which corresponded to Malachite Creek; until further investigation, however, it is unknown if these particular breaks in slope are related to shears or other structures. Rock and soil samples collected that same year during grid preparation and consisting mostly of quartz and pyritic schists were all subanomalous in gold.

Westman ran a contour soil program at a low elevation paralleling the river. Results were disappointing.

A two-phase program was designed for 1999, concentrating on the southern and northwestern sides of Lake Toshingermann.

South of Lake Toshingermann, general prospecting was carried out to determine if placer Au in creeks, swamps and moss-mats was glacially derived or locally sourced. Glacial float-mapping, moss-mat panning, and rock, silt and soil sampling were conducted near often mineralized NW-striking structures.

Northwest of the lake, general prospecting and stream sediment sampling were aimed at locating extensions to structurally controlled Tosh Claims shear zone mineralizations.

Gold in moss mats, especially in lower regions, was very fine grained, with one colour per pan on average. Many areas did not have water for panning; thus, coverage was not systematic. Glacial relics were present at all elevations where gold was panned. Moss was not present above treeline (4,800 ft.), an area missed during the most recent glaciation.

In the second area, north and west of the lake, three new showings were identified. Two rock samples were anomalous in Au: R-91 (350ppb) and R-93 (505ppb). One soil sample returned 95ppb Au. Several samples #'s 95,96,99,100, were pyrrhotite rich, and anomalous in Cu and Ag.

All claims were allowed to lapse. The central block of 32 claims was restaked for Berdahl in the spring of 2004.

CURRENT PROGRAM

A 32-km soils grid was flagged using hand-held GPS equipment. The grid consisted of sixteen 2-km-long lines spaced at 100 m over 2 km north to south. Stations were at 50-m intervals. Picks, shovels and one soil auger were used to sample the 'B' horizon material.

The Tosh field program started on June 24, 2004 with crew mobilization from Whitehorse to Mile 1118 on the Alaska Highway (Kluane Wilderness Lodge). A Trans North Bell 206 helicopter with work in the area was employed to ferry the four-man crew to the top of 'Tosh Mountain' and pick up the crew on the Kluane River at the end of the day. The very large 'Grace Lake Fire' was burning 10 km to the northwest and intermittently filled the valley with thick smoke. After the first day of grid work and soil collecting, the helicopter was unable to fly into the area due to the heavy smoke. After waiting several days for an expected wind shift, the program was called off until later in the season. The same crew was remobilized on August 23. A 32-km soils grid was established and sampled using hand-held GPS equipment. The crew was demobilized to Whitehorse on August 27.

The grid consisted of 16 – 2-km-long lines spaced at 100 m over 2 km, with stations at 50-m intervals. Lines at the north end of the grid were more widely spaced. Picks, shovels and one soil auger were used to sample the 'B' horizon material. This was complicated at times by several feet of frozen ash and permafrost. (The Mt. Churchill volcanic eruption of 1200 years ago is well represented in this portion of the Southwest Yukon.) The grid covered a little explored area between a series of three showings to the south and schist-hosted gold occurrences at the north extreme of the grid. The three showings 500 m to the south of the grid are exposed in distinct east/west striking faults that expose quartz carbonate/mariposite alteration and graphite-rich north/south (?) striking shears. The best chip sample, from the most easterly showing, is 3.073 g over 2 m.

Weather in the Yukon was unseasonably warm. Other than the previously mentioned smoke from fires, it was ideal, if somewhat warm, for field work. Despite the heat and the late August program, permafrost was still common on all north-facing slopes and on some steep west-facing slopes and lower areas.

RESULTS

A total of 499 soil and 11 rock samples were sent for assay at ACME Labs in Vancouver using their multi-element IDX package with a 15-g sample. Rocks were run with a 30-g sample and total metallics. Of the 499 samples sent for assay, 10.29% were anomalous (greater than 10 ppb Au). The highest soil value was 1932.1 ppb Au. Due to permafrost, extensive volcanic ash and budget considerations, only 499 of the 902 potential sites within the grid area were sent for analysis, leaving 44% of the area untested. The grid is oriented with 0 at the east (uphill) side. With a goal of 41 quality samples per man per day, little time was spent prospecting.

The cluster of soil anomalies near the midpoint of line 13 (most northerly line) is in the general area of an auriferous pyrite-rich schist showing, which runs up to 3.14 g Au in a grab sample. (A second, off-grid gold showing is a couple of hundred metres to the north and consists of 1 to 2 mm quartz stringers in rusty grey, siliceous pyritic shales, and assays 1.56 g.) This correlation confirms the usefulness of soils at Tosh. Sb numbers and As numbers both correlate with Au values. The anomaly is 150 m long, with the highest gold value at 70.6 ppb (38.9 Sb and 310.5 As).

Line 14 has a 150-m Au anomaly that is enveloped within a 250-m Sb anomaly (TL14 1100 – 1350). Au values range from 10.5 to 26.9 ppb with corresponding weighty anomalous Sb (2.7 – 2 ppm) and As (14.5 – 84 ppm) values.

Line 16 has three 100-m weak anomalies. The lower anomaly at 1950 – 2000 (38.8 and 23.8 Au) may be related to an Sb anomaly of 1.3 Sb at Station 1700. There were no samples collected between 1700 and 1950. Between Stations 500 and 1000 only 6 samples were collected; four were anomalous (500, 550, 850, 950).

Line 11 has a 250-m long spot anomaly in its lower reaches (1700 – 1950) with poor correlation of pathfinder elements.

Line 12 has three weak anomalies with one gold value of 148.2 at Station 2000 with weak Sb (0.6) and As (14.4).

Line 9 has only two anomalies but again strength is shown near the end of the line. Station 1800 has a gold value of 65.6 with no samples taken below that point (Stations 1850 – 2000) due to permafrost.

Line 7 has two mildly anomalous clusters of 150-m anomalies between 1600 and 1750 and 1200 and 1350. These may underestimate the size of the anomalies as no samples were taken below 1750 or at 1250 due to permafrost.

One new showing was discovered along line 16 at 960 metres. The showing consists of a 1-inch north northeast striking, vertically dipping, massive pyrite vein enveloped in 1 m of 'rusty' horizontal schists. Two soil anomalies mark the location (TL 16850 – 950) with 19.3 ppb and 14 ppb respectively. The massive pyrite was sub-anomalous in gold.

Four new claims were staked along the ridge top contiguous and east of the main block.

CONCLUSION

Anomalous gold values are widespread on the claim block. However, most gold soil anomalies are unexplained by known showings. No easily defined trends emerge from the greater than 10 ppb kicks.

Given the persistence of permafrost in the lower reaches (west) of the grid and, thus, few samples taken, there seems to be a preponderance of anomalous values there.

While no statistical analysis was done, there seems to be a positive correlation between Sb and Au. The As/Au correlation is less consistent.

Previous to the 1999 prospecting, it was ascertained that a series of parallel north/south striking graphite sheers might be present on the property and genetically related to at least some of the mineralization.

In 1999 'pyrrhotite-rich sediment' with anomalous Ag and Cu values was discovered. It extended potential mineralization by 1 km to the south. This showing strikes perpendicular to the regular north/south strike of most showings. It also represents another style of mineralization on the property.

Gold soil anomalies indicated the presence of the known north showing with three consecutive values of 19.0, 70.6, and 28.3 (line 13950 – 1050). One rock that ran 1.4 g showed no corresponding soil signature (line 4 – 0).

Possible deposit types at Tosh, based on current known showings, include orogenic (motherlode), skarn, "shear-hosted", VMS (Windy McKinley Terrane hosts VMS deposits in Alaska), and a schist-hosted morentow type.

RECOMMENDATIONS

- The current results warrant more work on the property. Work should proceed in order that a series of drill targets may be chosen.
- In order to better understand the smattering of showings and anomalies, detailed (1:5000?) mapping should be done. Current 'off-claim' showings should be staked and incorporated into the property. Mapping should also include these showings. Special attention needs to be applied to known (by prospector) but unmapped intrusives and dykes.
- A detailed mag survey may help the mapping in areas of heavy cover as well as locate mineralization.
- The Tosh area is large enough to warrant an airborne mag/EM survey if a budget is available.
- Prospecting should continue to follow up soil anomalies and any geophysics anomaly found.
- The soil program should be expanded to the north and south for at least 1 km either way.
- Statistical analysis of soil results should be done to determine potential pathfinder elements to Au, specifically for Sb, As, Hg, and Bi.

REFERENCES

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Soils Survey for the
Toshingermann Lake Project 115G13/14
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APPENDIX A

TOSHINGERMANN LAKE PROJECT SAMPLE DESCRIPTION

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139071	L20 – 150: greyish limonitic rich quartz float (in schist)
139072	L20 – 750: greyish vein quartz
139073	L20 – 1500: glossy orange to clear quartz with minor vugs of limonite
139074	Line 16: 500± float of Mg-stained quartz breccia with limonite. Tourmaline and 'grophit shear' float at same location (creek crossing)
139075	Line 4 – 0: orange-stained quartz in limonitic schist
139095	Line 16 – 1050: Fe stained grey quartz
139096	Line 12 – 887: grey to clear, yellow-stained glossy quartz with trace Mg
139097	Line 16 – 1000: grey to white quartz in 2" veins
139098	Line 16 – 800: sheared material, mildly graphitic sediment with minor yellow limonitic limonite and quartz pieces
139099	Tosh WP109: non-glacial, orange-stained quartz float
139100	Line 16 – 960: 1" pyrite vein, strikes N, dips vertical cross cutting meter and of rusty schist

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APPENDIX B

ASSAYS

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6
 To Berdahl, Ron

Acme file # A406682 Received: OCT 25 2004 * 33 samples in this disk file.

ELEMENT	S.Wt	NAu	#NAME?	DupAu	TotAu
SAMPLES	gm	mg	gm/mt	gm/mt	gm/mt
SI	<1	<.01	<.01		<.01
A139051	86	<.01		0.1 -	0.1
A139052	351	<.01	<.01	-	<.01
A139053	176	<.01		0.04 -	0.04
A139054	773	<.01		0.01 -	0.01
A139055	182	<.01	<.01	-	<.01
A139056	414	<.01	<.01	-	<.01
A139057	1657	<.01		0.5 -	0.5
A139058	446	<.01		0.02 -	0.02
A139059	586	<.01	<.01	-	<.01
A139060	1099	<.01		0.01 -	0.01
A139061	1712	<.01		0.01 -	0.01
A139062	1867	<.01	<.01	-	<.01
A139063	598	<.01		0.07 -	0.07
A139064	1411	<.01		0.01 <.01	0.01
A139065	798	<.01	<.01	-	<.01
A139066	909		0.75	2.15 -	2.98
A139067	253		1.12	23.14 -	27.57
A139068	145	<.01		0.13 -	0.13
A139069	259	<.01		0.03 -	0.03
A139071	442	<.01		0.01 -	0.01
A139072	279	<.01		0.02 -	0.02
A139073	173	<.01		0.01 -	0.01
A139074	485	<.01	<.01	-	<.01
A139075	715	<.01		1.44 -	1.44
A139076	581	<.01		0.86 -	0.86
A139095	381	<.01		0.02 -	0.02
A139096	817	<.01		0.11 -	0.11
A139097	336	<.01		1 -	1
A139098	267	<.01		0.11 -	0.11
A139099	67	<.01		0.02 -	0.02
A139100	288	<.01		0.02 -	0.02
STANDAR	<1	<.01		3.35 -	3.35

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R1
 To Berdahl, Ron

Acme file # A406682 Received: OCT 25 2004 * 33 samples in this disk file.

Analysis: GROUP 1DX - 30.0 GM

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SI	0.4	0.7	0.5	1	<.1		0.9	0.1	18
A139051	0.1	807.6	51.5	120	16.4		9.3	1.7	31
A139052	3.2	19.3	6.8	14	0.1		4.6	1.2	83
A139053	0.6	668.5	233	15	6.2		8	34.3	719
A139054	0.5	29.5	4.4	13	0.1		5.1	1.1	52
A139055	1.6	5.8	15.5	20	<.1		4.5	1	204
A139056	1.3	34.5	6.4	307	0.3		35.8	4	1905
A139057	0.4	1355.9	>10000	>10000	81		0.4	0.1	10856
A139058	0.7	58.2	114	125	0.5		18.4	6.3	345
A139059	24.3	51.7	20.4	839	0.5		59.7	7.8	587
A139060	2.7	47.3	10.9	3413	0.2		187.6	40.2	1449
A139061	20	608	137	499	4.2		17.6	23.2	533
A139062	0.7	67.3	25.2	137	0.3		7	1.8	149
A139063	0.5	108.5	12.6	46	0.5		6.2	35.8	878
A139064	0.6	91.9	95.1	60	0.3		11.3	7	703
RE A13906	0.7	90.2	93	62	0.3		11.2	6.9	717
A139065	0.3	18.1	7.9	34	0.1		18.1	8.1	433
A139066	0.7	696.4	>10000	875	24.6		2.1	0.7	99
A139067	1	782.3	3221	1134	18.6		2.7	1.8	149
A139068	0.7	247.5	110	103	1		9.1	21.5	1306
A139069	1.6	12.3	35.9	44	0.1		26.2	6.1	614
A139071	2.2	9.8	23.1	6	0.1		1.5	0.4	87
A139072	0.2	2.8	9.9	4	<.1		1.6	0.4	98
A139073	0.4	25.5	7.8	5	<.1		2.9	0.7	106
A139074	0.6	3.9	5.9	19	<.1		7.1	4.2	382
A139075	0.4	17.3	9.1	30	0.1		23.4	7	259
A139076	0.3	7.3	4	3	0.1		3.6	1.8	95
A139095	0.7	27.3	2.4	22	0.1		7.1	3.2	436
A139096	0.2	3.4	2.3	3	0.1		1.8	0.6	102
A139097	0.3	2.5	1.9	6	<.1		2.8	0.8	121
A139098	10.9	37.6	111	80	1.8		4.1	1.3	210
A139099	1.4	121.5	3.9	16	0.1		20	17.7	165
A139100	9.1	92.4	5.6	81	0.3		64.3	13.4	2262
STANDAR	13	142.6	24.2	138	0.2		25.1	12	761

6 PHONE(604)253-3158 FAX(604)253-1716 @ CSV TEXT FORMAT

Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm
0.07	<.5		0.1	2.9	0.1	3 <.1		15.1 <.1
0.17		0.5	0.1	82 <.1		148	9.3 >2000	0.6
1.02		3	0.2	0.6	0.9	3	0.1 1458.9	0.1
18.45	>10000		0.2	12.6	0.9	285	0.6 >2000	206
0.88	51.5		0.2	4.2	1	11 <.1	146.4	1.7
1.36	5.6		0.1	1.1	0.3	104	0.2 42.9	0.1
19.7	6.1		1.3	0.5	0.5	398	3.8 12.1	0.1
2.32	>10000		0.7	329.5	0.6	177	226.9 398.9 <.1	
3.29	97.2		0.1	16.8	0.1	77	1.1 14.5 <.1	
6.35	63.4		4.9	0.6	1.6	421	3.8 14.1 <.1	
36.76	17.6		8.9	0.7	1	104	1 2.7	0.1
7.81	36.8		0.4	2.9	0.8	47	6.6 8.9	12.3
1.55	7.1		0.2 <.5		0.9	8	1 2.3	0.4
5.13	1705.7 <.1			60.3	0.2	172	0.3 2.9	0.1
3.17	13.3		0.1	4.7	0.1	181	0.3 1.2	0.4
3.18	12.4		0.1	1.6	0.1	178	0.2 1.3	0.4
2.34	3.4		0.1	1.9	1.3	7	0.1 1 <.1	
1.64	30.4		0.1	2420.3 <.1		4	5.6 16.5	3
2.28	14.3		0.2	24997.8	0.2	6	3 4.7	0.4
6.42	371.9		0.1	83.7	0.2	116	0.2 2 <.1	
1.82	7.7		1.1	21.4	4.7	14	0.1 0.9 <.1	
0.83	7.6		0.1	6	0.2	2	0.1 1.9 <.1	
0.72	1.1 <.1			5.2 <.1		2 <.1		0.7 <.1
0.97	1.5 <.1			8.3	0.1	2 <.1		1.2 <.1
2.19	4.3	0.3		3.1	0.4	2	0.2 1.4 <.1	
1.92	1.5	1		3.3	8.9	6	0.1 0.7	0.4
0.71	4.2 <.1			2 <.1		1 <.1		0.4 0.3
0.96	1.1	0.3		5.1	0.6	4	0.1 0.5	0.1
0.63	2 <.1			4.6	0.1	1	0.1 0.4	0.1
0.75	0.8	0.1		1.4	0.2	4	0.1 0.4 <.1	
4.86	424.3	3.3		19.1	4.2	57	2.2 9.2	1.5
2.28	21.3	0.8		3.3	1.3	5 <.1		3.6 0.1
35.11 <.5		5.7		9.6	0.9	6	0.9 60.8	0.2
2.99	18	6.1		45.1	2.9	50	5.7 4	6.1

Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	
0.01	0.519		0.01 <.1		0.01 <.1	<.1	<.05	<1	
0.04	0.193		0.02 <.1		5.3 <.1		0.1	0.11 <1	
0.07	0.011	<.01		0.2	0.05	0.6 <.1	<.05	<1	
0.09	0.004		0.02 <.1		0.06	2.6 <.1	>10		1
0.28	0.003		0.04	0.1	0.14	0.7 <.1	<.05		1
0.05	0.006		0.02 <.1		0.04	0.7 <.1	<.05	<1	
0.83	0.003	<.01		0.1	0.1	5.1	0.1	2.17	3
0.06	0.006		0.06 <.1		3 <.1	<.1		3.15	2
0.23	0.005		0.02	0.1	0.08	1 <.1		2.98 <1	
0.57	0.01		0.1	0.1	0.25	1.4	0.5	0.13	2
0.34	0.008		0.06 <.1		0.05	4.5	0.1 <.05		1
0.11	0.003		0.04	0.1	0.97	2	0.2	5.41 <1	
0.05	0.001		0.01	0.1	0.2	0.7 <.1		0.07 <1	
0.42	0.024		0.17	0.5 <.01		10.5	0.1	2.98	2
0.33	0.009		0.08	0.1 <.01		6.1 <.1	<.05		1
0.34	0.009		0.09	0.1	0.01	6 <.1	<.05		1
1.23	0.003		0.12 <.1	<.01		4.1 <.1	<.05		3
0.04	0.003		0.01	0.1	0.03	0.1 <.1		0.22 <1	
0.15	0.003		0.02	0.5	0.05	2.1 <.1	<.05		1
1.17	0.068		0.24	1	0.01	13.9	0.1	1.8	4
0.71	0.025		0.31	0.1 <.01		2.9	0.2 <.05		2
0.03	0.002		0.01 <.1	<.01		0.2 <.1	<.05	<1	
0.01	0.004	<.01	<.1		0.01	0.1 <.1	<.05	<1	
0.04	0.002		0.02 <.1	<.01		0.1 <.1	<.05	<1	
0.5	0.001		0.08 <.1	<.01		2.4 <.1	<.05		1
0.75	0.015		0.24 <.1		0.01	1.7	0.1 <.05		3
0.04	0.001		0.02 <.1	<.01		0.1 <.1	<.05	<1	
0.13	0.002		0.07 <.1	<.01		0.3 <.1	<.05		1
0.03	0.002		0.01 <.1	<.01		0.1 <.1	<.05	<1	
0.05	0.004		0.03 <.1		0.01	0.1 <.1	<.05	<1	
0.51	0.008		0.67	0.6	0.05	3.2	0.2	1.01	3
0.44	0.022		0.04 <.1		0.01	2.8 <.1	<.05		2
0.21	0.002		0.04	0.1	0.17	0.8	0.5 >10		1
2.05	0.033		0.15	4.8	0.19	3.5	1.1 <.05		6

Se
ppm
<.5
<.5
<.5

24.8
0.5

<.5

11.9
52.5
0.8
8.5
1.9
9.7
0.7
1.2
0.6
0.7

<.5

3
1.7
0.9

<.5
<.5
<.5
<.5
<.5

0.9

<.5
<.5
<.5
<.5

17.2

<.5

63.5
5

ELEMENT TI	S	Ga	Se	
TL16 0	0.2 <.05		8	0.8
TL16 50	0.2 <.05		8	0.8
TL16 100	0.1 <.05		4	1.7
TL16 150	0.1 <.05		7	0.8
RE TL16 1	0.1 <.05		7	0.6
TL16 200	0.2 <.05		7	0.8
TL16 300	0.2 <.05		6	2.1
TL16 400	0.1 <.05		5	1.3
TL16 500	0.2	0.18	6	3.6
TL16 550	0.2	0.16	6	6.8
TL16 650	0.2	0.07	6	1.8
TL16 850	0.2 <.05		8	2.1
TL16 900	0.1 <.05		6	0.7
TL16 950	0.3	0.06	6	1.9
STANDAR	1.2 <.05		7	5.3
G-1	0.3 <.05		4 <.5	
TL16 1050	0.3 <.05		7 <.5	
TL16 1100	0.2 <.05		6 <.5	
TL16 1150	0.2 <.05		6 <.5	
TL16 1200	0.2 <.05		7	0.7
TL16 1250	0.2 <.05		6	0.5
TL16 1300	0.3 <.05		6	1.1
TL16 1350	0.3	0.12	6	1.6
TL16 1400	0.2 <.05		6	0.6
TL16 1450	0.1 <.05		7	2.1
RE TL16 1.	0.1 <.05		7	2.1
TL16 1500	0.2 <.05		8	0.7
TL16 1600	0.2 <.05		6	0.5
TL16 1700	0.2 <.05		6	0.7
TL16 1950	0.2 <.05		5 <.5	
TL16 2000	0.1 <.05		5 <.5	
SSA	0.2	0.14	2	3.8
SSB	0.2 <.05		2	2.1
STANDAR	1.1 <.05		7	4.7

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL16 0	0.129		2	2.3	0.014	0.19	0.1	0.01	5
TL16 50	0.106		2	2.6	0.017	0.08 <.1		0.03	4.8
TL16 100	0.042		1	1.56	0.01	0.12	0.2	0.02	3.9
TL16 150	0.09		1	1.8	0.017	0.13	0.1	0.02	3.8
RE TL16 1	0.083		3	1.76	0.015	0.12	0.1	0.01	3.4
TL16 200	0.092		2	2.1	0.016	0.23	0.1	0.02	3.9
TL16 300	0.077		1	1.74	0.018	0.19	0.1	0.04	3.4
TL16 400	0.058		1	1.44	0.025	0.12 <.1		0.02	3.4
TL16 500	0.093		3	1.83	0.026	0.36	0.2	0.07	5.4
TL16 550	0.081		3	1.62	0.018	0.26	0.1	0.08	5.3
TL16 650	0.107		3	2.01	0.022	0.36	0.1	0.04	4.8
TL16 850	0.112		3	2.24	0.021	0.31	0.1	0.06	7.8
TL16 900	0.129		2	1.78	0.03	0.36	0.1	0.01	5.2
TL16 950	0.107		3	1.74	0.02	0.4	0.2	0.11	5.2
STANDAR	0.09		19	2.01	0.032	0.14	5.1	0.18	3.7
G-1	0.121		1	0.85	0.077	0.4	1.5 <.01		2.6
TL16 1050	0.096		1	2.29	0.015	0.28	0.1	0.01	4.9
TL16 1100	0.126		1	1.98	0.024	0.21	0.1	0.02	6.5
TL16 1150	0.13		2	1.88	0.033	0.2	0.1	0.02	5.4
TL16 1200	0.149		2	1.78	0.028	0.4	0.1	0.03	4.8
TL16 1250	0.129 <1			1.76	0.02	0.18	0.1	0.01	3.6
TL16 1300	0.128		2	1.85	0.024	0.31	0.2	0.02	6
TL16 1350	0.117		1	2.29	0.031	0.34	0.2	0.03	4.3
TL16 1400	0.107		2	2.03	0.024	0.2	0.1	0.01	4.8
TL16 1450	0.086		2	2.23	0.02	0.12	0.1	0.02	5.4
RE TL16 1	0.079		1	2.26	0.019	0.11	0.1	0.03	5
TL16 1500	0.133		1	2.6	0.017	0.1 <.1		0.01	4.8
TL16 1600	0.136		1	1.8	0.029	0.31	0.1	0.02	5.8
TL16 1700	0.119		1	1.72	0.025	0.26	0.1	0.03	4.7
TL16 1950	0.126		2	1.58	0.025	0.19	0.1	0.02	4.2
TL16 2000	0.126		3	1.35	0.024	0.15	0.1	0.02	4.1
SSA	0.005		3	0.67	0.004	0.07	0.1	0.33	2.4
SSB	0.007		2	0.72	0.004	0.08	0.1	0.35	2.7
STANDAR	0.112		16	2.03	0.035	0.14	5	0.18	3.7

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL16 0	0.2	83	0.42	0.083	13	63.1	1.13	282	
TL16 50	0.2	84	0.39	0.067	11	51.9	0.89	184	
TL16 100	0.4	64	0.51	0.21	25	36	0.54	242	
TL16 150	0.2	74	0.41	0.072	12	49.1	0.73	134	
RE TL16 1	0.2	73	0.36	0.069	11	46.9	0.7	132	
TL16 200	0.2	81	0.39	0.087	20	55.4	0.93	261	
TL16 300	0.4	78	0.46	0.158	28	47.9	0.78	436	
TL16 400	0.3	58	0.57	0.093	23	43.4	0.66	150	
TL16 500	1.3	85	1.19	0.201	14	57.9	1.12	691	
TL16 550	1.6	83	1.5	0.146	16	38.6	1.04	1344	
TL16 650	0.5	80	1.4	0.14	18	91.1	1.21	394	
TL16 850	0.4	104	1.3	0.148	19	58.4	1.31	690	
TL16 900	0.1	82	2.1	0.138	13	58.1	1.21	281	
TL16 950	0.3	79	3.28	0.176	20	63.6	1.4	365	
STANDAR	6.5	59	0.77	0.102	12	180.5	0.64	144	
G-1	0.1	40	0.55	0.081	8	14.4	0.47	211	
TL16 1050	0.4	71	0.43	0.028	16	76.7	1.05	206	
TL16 1100	0.2	76	0.65	0.073	22	74.9	0.97	169	
TL16 1150	0.2	79	1.1	0.096	16	64.5	1.14	154	
TL16 1200	0.1	83	1.2	0.131	13	74.1	1.39	320	
TL16 1250	0.2	83	0.39	0.048	13	51.2	0.92	210	
TL16 1300	0.2	96	0.62	0.077	22	68.5	1.18	237	
TL16 1350	0.3	103	0.46	0.093	24	52.7	1.13	384	
TL16 1400	0.2	83	0.43	0.043	15	49.8	0.81	200	
TL16 1450	0.2	104	0.42	0.086	15	58.9	0.81	130	
RE TL16 1	0.2	96	0.41	0.086	14	56	0.8	120	
TL16 1500	0.2	96	0.28	0.024	12	67.1	0.96	90	
TL16 1600	0.2	70	1.77	0.079	16	66.1	1.09	119	
TL16 1700	0.2	64	2.16	0.074	20	53	1.06	159	
TL16 1950	0.1	67	1.24	0.123	14	58	1.06	103	
TL16 2000	0.1	69	1.24	0.085	13	53	0.94	88	
SSA	0.2	41	0.62	0.082	9	12.5	0.33	868	
SSB	0.2	29	1.56	0.075	10	16.8	0.65	492	
STANDAR	6.1	63	0.77	0.096	13	188.6	0.7	146	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL16 0	3.79	14.2	0.9	4.1	4.1	26	0.4	0.8	
TL16 50	4.08	16.2	0.7	3.2	3	28	0.3	0.8	
TL16 100	3.53	12.4	2.6	4.5	5.9	64	1.7	2.8	
TL16 150	3.19	16.9	0.8	5.1	1.9	28	0.5	0.9	
RE TL16 1	3.16	16.6	0.7	2.5	1.9	25	0.4	0.8	
TL16 200	3.31	13.1	1.5	5.6	3.5	30	0.9	0.8	
TL16 300	3.47	13	2.8	2.5	4.4	49	1.5	1.6	
TL16 400	2.9	19.4	1.6	5.9	2.6	34	2.2	1.5	
TL16 500	3.97	43.8	2.8	13.2	2.2	60	5.9	7.2	
TL16 550	3.65	85.3	4.8	26.9	2.5	74	3	9.6	
TL16 650	3.34	19.2	1.4	9.4	2.3	47	3.6	2	
TL16 850	4.15	50.9	2.6	19.3	3.8	58	3.5	6.8	
TL16 900	3.21	12.5	0.7	6.9	2.9	64	0.4	1.3	
TL16 950	4.01	38.4	1.7	14	5.3	97	1.5	4.4	
STANDAR	2.83	18.5	6.2	42.1	2.9	50	5.7	3.8	
G-1	1.79	0.5	1.8	1.4	4.2	81	<.1	<.1	
TL16 1050	4.29	130.6	1.1	3.6	5.7	28	0.7	2	
TL16 1100	3.6	17.4	1	3.7	6	36	0.3	1	
TL16 1150	3.34	15.4	1	4.9	4.6	51	0.3	0.9	
TL16 1200	3.5	8.4	1.3	5.5	3.2	47	0.4	1	
TL16 1250	3.66	13.2	1.1	3.4	3.5	34	0.6	1.6	
TL16 1300	4.18	17	2.2	7.7	5.6	46	0.7	1.6	
TL16 1350	4.59	13.3	3.4	2.6	5.5	66	1.3	1.1	
TL16 1400	3.68	15.4	1.2	2.8	4.2	31	1	1.3	
TL16 1450	4.01	23	1.4	4.4	3.7	38	1.6	6.7	
RE TL16 1	3.96	22.1	1.4	2.8	3.6	37	1.4	6.2	
TL16 1500	3.97	14.4	0.8	2.5	4	26	0.2	1	
TL16 1600	3.42	19.3	0.8	4.8	4.2	77	0.3	0.8	
TL16 1700	3.48	19.1	1	5.1	5	91	0.4	1.3	
TL16 1950	3.13	13.4	0.8	38.8	3.9	54	0.2	0.6	
TL16 2000	2.85	10.9	0.6	23.8	3.2	53	0.2	0.5	
SSA	2.63	19	1.4	2.8	2.6	90	12.5	3.2	
SSB	6.11	47.7	1.3	2.1	3.3	84	3.4	1.9	
STANDAR	3.09	18.7	6.5	41.4	3.1	52	5.6	3.8	

ELEMENT Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL16 0	1.5	52.6	9	128	0.1	64.4	18.6	806
TL16 50	1.7	37.5	9	76	0.1	59.6	17.5	421
TL16 100	5	78.7	10.8	288	0.3	85	17.3	590
TL16 150	1.9	41.4	8.5	78	0.2	42.3	12.8	430
RE TL16 1	1.8	38.4	9.4	77	0.2	41.2	12.5	402
TL16 200	2.1	72.2	9.2	128	0.3	60.7	18.1	561
TL16 300	3.7	75.7	11.8	271	0.4	73	23.1	454
TL16 400	1.7	61.3	11.7	262	0.4	56.6	15.3	712
TL16 500	3.8	104.8	39.9	849	1.4	103.3	22.8	646
TL16 550	4.9	109.2	138.4	582	1.2	63.9	20.2	1150
TL16 650	1.4	83.5	15.8	299	0.4	95.8	21.1	853
TL16 850	2.4	141.6	29.4	414	0.7	98.7	29.8	1070
TL16 900	1.1	61.5	6.1	97	0.1	52.7	17.9	512
TL16 950	4.1	148.6	15.2	226	0.9	86.4	20.2	534
STANDAR	12.3	137.7	24.5	131	0.2	23.1	11.4	742
G-1	1.6	2.9	2.4	38 <.1		4.1	3.6	499
TL16 1050	2.4	41.7	20.7	198	0.2	58.7	21.1	727
TL16 1100	0.9	44.8	9.1	76	0.5	62.1	18.7	577
TL16 1150	1.5	66	9.4	90	0.3	59.1	17.2	649
TL16 1200	1.2	67.6	64.4	101	0.3	56.8	19	441
TL16 1250	3.3	64.1	11.3	123	0.5	54.2	16.1	345
TL16 1300	4	96.8	13.6	178	0.3	95.6	21.4	811
TL16 1350	7.8	122.6	17.2	269	0.7	98.7	27	991
TL16 1400	3	49.9	34.3	150	0.6	59.1	17.9	694
TL16 1450	5.7	86.7	15.2	305	1	86.2	21.2	582
RE TL16 1	5.9	87	14.9	295	1	88.7	21.7	557
TL16 1500	2.4	58.6	19.5	110	0.7	56.8	16.8	335
TL16 1600	0.9	49.4	8.9	76	0.2	56.7	17.4	494
TL16 1700	1.6	74.6	10.4	101	0.6	57.5	17.4	568
TL16 1950	0.7	31.8	7.4	75	0.1	42.3	15.6	487
TL16 2000	0.6	29.4	5.1	63	0.1	39.1	13.9	355
SSA	4.9	59.3	14.3	926	0.4	77.4	11.3	417
SSB	4.4	39.1	15.6	387	0.3	69.5	19.1	1983
STANDAR	12.5	145.8	25.8	140	0.3	24.3	12.2	797

ELEMENT TI	S	Ga	Se	
TL14 800	0.1 <.05		6	0.8
TL14 850	0.2 <.05		5	1.1
TL14 900	0.3	0.07	7	2.1
TL14 950	0.1 <.05		5	0.6
TL14 1000	0.2 <.05		5	0.9
TL14 1100	0.2 <.05		5	0.6
TL14 1150	0.2	0.2	4	2.1
TL14 1200	0.2 <.05		4	1.1
TL14 1250	0.1 <.05		5	0.5
TL14 1300	0.3 <.05		5	3.6
TL14 1350	0.1 <.05		4	1.4
TL14 1500	0.2 <.05		5	0.8
TL14 1550	0.2 <.05		5	0.8
TL14 1600	0.3 <.05		4	1.3
TL14 1650	0.2 <.05		5	0.6
TL14 1750	0.2 <.05		4	1.4
RE TL14 1	0.2 <.05		4	1.5
TL14 1800	0.1 <.05		4	1.3
TL14 1850	0.1 <.05		5 <.5	
TL14 1950	0.1 <.05		5 <.5	
TL15 0	0.1 <.05		7	0.5
TL15 50	0.1 <.05		7	0.5
TL15 100	0.1 <.05		8	0.6
TL15 150	0.2 <.05		7	0.6
TL15 200	0.2 <.05		7	0.6
TL15 250	0.2 <.05		9	0.6
TL15 300	0.1 <.05		6	0.6
TL15 350	0.2 <.05		7	0.9
TL15 400	0.1 <.05		7	0.6
TL15 450	0.2 <.05		7	0.6
TL15 500	0.2 <.05		6	0.9
STANDAR	1 <.05		6	4.9
TL15 550	0.1 <.05		8	0.7
TL15 600	0.2 <.05		7	1.1
TL15 650	0.1 <.05		8	0.6
TL15 700	0.1 <.05		7	1.1
TL15 750	0.2 <.05		15	1.5
TL15 800	0.1 <.05		8	0.6
TL15 900	0.2 <.05		7	0.5
TL15 950	0.1 <.05		6	0.7
TL15 1000	0.2 <.05		7	0.6
TL15 1050	0.2 <.05		6	0.6
TL15 1100	0.2 <.05		7	0.6
TL15 1150	0.1 <.05		15	0.5
TL15 1200	0.3 <.05		9	0.8
TL15 1300	0.2 <.05		9	0.9
TL15 1450	0.3 <.05		14	0.6
TL15 1600	0.1 <.05		6	0.6
TL15 1700	0.3 <.05		6	0.5
TL15 1750	0.2 <.05		7	0.6
TL15 1800	0.2 <.05		6 <.5	

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL14 800	0.098		1	2.03	0.024	0.08	0.1	0.03	4.7
TL14 850	0.073		1	1.35	0.023	0.2	0.1	0.03	3.2
TL14 900	0.087		1	1.69	0.017	0.36	0.1	0.03	3.1
TL14 950	0.084		1	1.18	0.025	0.15	0.1	0.02	3.3
TL14 1000	0.053	<1		1.5	0.01	0.12	<.1	0.04	3.3
TL14 1100	0.029		1	1.08	0.007	0.18	0.1	0.02	2.4
TL14 1150	0.072	<1		1.11	0.019	0.2	0.2	0.03	3.8
TL14 1200	0.073		1	1.18	0.019	0.22	0.1	0.02	3.3
TL14 1250	0.115		3	1.41	0.036	0.2	0.1	0.02	4.8
TL14 1300	0.075		2	1.57	0.021	0.29	0.2	0.04	4.3
TL14 1350	0.084		1	1.08	0.02	0.21	0.1	0.02	3.1
TL14 1500	0.085		1	1.45	0.022	0.29	0.1	0.02	4.3
TL14 1550	0.099		2	1.51	0.023	0.3	0.1	0.02	5
TL14 1600	0.089	<1		1.39	0.017	0.31	0.1	0.02	4.1
TL14 1650	0.091		1	1.59	0.028	0.18	0.1	0.02	4.2
TL14 1750	0.069		1	1.27	0.021	0.23	0.1	0.02	3.7
RE TL14 1	0.068		4	1.29	0.02	0.23	0.1	0.02	3.6
TL14 1800	0.086		1	1.16	0.021	0.19	0.1	0.01	3.4
TL14 1850	0.084	<1		1.77	0.021	0.06	0.1	<.01	2.6
TL14 1950	0.087		1	1.6	0.026	0.08	0.1	0.01	3.3
TL15 0	0.103	<1		1.98	0.013	0.21	0.1	0.02	3.3
TL15 50	0.102		2	1.99	0.014	0.15	0.1	0.02	3.2
TL15 100	0.09	<1		1.63	0.014	0.14	0.1	0.01	2.8
TL15 150	0.107		1	1.71	0.011	0.21	0.1	0.02	2.8
TL15 200	0.086		1	1.93	0.017	0.19	0.1	0.02	3
TL15 250	0.219	<1		2.49	0.023	0.58	0.1	0.01	6.4
TL15 300	0.13	<1		1.73	0.024	0.22	0.1	0.02	3.5
TL15 350	0.15		1	2.03	0.025	0.29	0.1	0.02	4.2
TL15 400	0.186	<1		2.14	0.022	0.39	0.1	0.02	4.8
TL15 450	0.149	<1		2.08	0.021	0.28	0.1	0.03	4.7
TL15 500	0.14		2	2.16	0.019	0.27	0.1	0.04	5.2
STANDAR	0.093		15	1.94	0.033	0.15	4.8	0.18	3.3
TL15 550	0.186		1	2.12	0.018	0.42	0.1	0.02	5.4
TL15 600	0.113		1	1.87	0.019	0.23	<.1	0.03	5.9
TL15 650	0.095	<1		2.02	0.017	0.17	0.1	0.02	4.6
TL15 700	0.085		2	1.99	0.021	0.14	0.1	0.03	4.7
TL15 750	0.267		1	3.82	0.025	0.3	0.2	0.02	16.1
TL15 800	0.122		2	2.53	0.019	0.11	0.1	0.01	5.8
TL15 900	0.113		2	2.09	0.025	0.1	0.1	0.02	5.5
TL15 950	0.065		1	1.85	0.017	0.07	0.1	0.03	4.5
TL15 1000	0.129		2	1.83	0.027	0.23	0.1	0.01	5.4
TL15 1050	0.108		2	1.54	0.025	0.15	0.1	0.01	4.1
TL15 1100	0.121		1	1.85	0.024	0.18	0.1	0.01	5.3
TL15 1150	0.276		1	4.28	0.013	0.62	0.2	<.01	4.8
TL15 1200	0.179		1	2.48	0.025	0.35	0.1	0.02	6.5
TL15 1300	0.178		2	2.36	0.021	0.49	0.1	0.03	5.4
TL15 1450	0.372		1	4.01	0.018	1.36	0.1	0.02	12.4
TL15 1600	0.097		3	1.95	0.024	0.23	0.1	0.03	6
TL15 1700	0.119		3	1.69	0.023	0.37	0.1	0.03	5.4
TL15 1750	0.098		2	2.16	0.022	0.32	0.1	0.01	5.8
TL15 1800	0.108		3	1.85	0.028	0.31	0.1	0.03	5.6

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL14 800	0.2	67	0.62	0.1	15	62.7	1.01	309	
TL14 850	0.2	52	0.83	0.073	17	45.6	0.73	182	
TL14 900	0.3	114	0.74	0.116	17	54.8	1.19	335	
TL14 950	0.1	50	3.44	0.089	15	45.2	1.98	112	
TL14 1000	0.4	55	0.25	0.083	25	40.7	0.58	148	
TL14 1100	0.3	49	0.48	0.092	21	31.3	0.83	218	
TL14 1150	0.2	50	2.41	0.154	17	48.5	1.2	142	
TL14 1200	0.2	50	2.54	0.132	19	47.7	1.24	169	
TL14 1250	0.1	63	3.53	0.098	14	47.4	1.19	150	
TL14 1300	0.3	83	1.06	0.233	38	55.9	1.12	305	
TL14 1350	0.2	58	3.48	0.122	14	50.3	1.15	157	
TL14 1500	0.2	51	4.38	0.086	17	80.5	1.25	124	
TL14 1550	0.2	59	6.15	0.097	19	76.8	1.4	138	
TL14 1600	0.2	85	1.75	0.172	23	42.8	1.06	490	
TL14 1650	0.2	60	1.06	0.096	16	61.1	0.99	137	
TL14 1750	0.2	51	1.92	0.12	18	50	0.91	255	
RE TL14 1	0.2	53	1.97	0.124	17	46.9	0.91	248	
TL14 1800	0.2	53	3.82	0.112	14	49.5	1.2	141	
TL14 1850	0.2	65	0.49	0.026	8	43.6	0.7	112	
TL14 1950	0.2	59	0.58	0.037	9	39.6	0.72	164	
TL15 0	0.3	73	0.3	0.071	11	44.6	0.9	242	
TL15 50	0.3	82	0.3	0.057	11	46.9	0.83	232	
TL15 100	0.3	71	0.27	0.058	10	39.2	0.72	158	
TL15 150	0.4	74	0.26	0.049	14	43.9	0.74	274	
TL15 200	0.3	69	0.3	0.072	13	42	0.73	224	
TL15 250	0.6	97	0.81	0.135	12	133.4	1.87	636	
TL15 300	0.2	72	0.53	0.053	11	62.2	0.98	243	
TL15 350	0.2	77	0.64	0.058	11	77.3	1.17	293	
TL15 400	0.1	84	0.73	0.106	10	104.2	1.61	274	
TL15 450	0.2	77	0.57	0.077	12	80	1.28	243	
TL15 500	0.3	82	0.64	0.095	12	87.2	1.34	273	
STANDAR	6	57	0.72	0.093	12	192.6	0.65	141	
TL15 550	0.2	91	0.75	0.109	12	109.2	1.52	277	
TL15 600	0.2	86	0.63	0.099	13	63.4	1.1	316	
TL15 650	0.2	97	0.56	0.067	12	45.3	1.02	316	
TL15 700	0.2	73	0.79	0.082	12	38.8	1.3	283	
TL15 750	0.2	290	0.78	0.043	11	16.4	2.36	834	
TL15 800	0.1	102	0.43	0.048	11	46.9	1.14	389	
TL15 900	0.2	68	0.78	0.112	17	70.5	1.16	188	
TL15 950	0.1	61	0.72	0.074	16	54.6	0.95	220	
TL15 1000	0.1	73	0.77	0.103	18	81.6	1.23	224	
TL15 1050	0.1	70	0.77	0.111	13	59.1	0.93	258	
TL15 1100	0.1	73	0.84	0.096	14	67	1.11	307	
TL15 1150	0.1	138	0.32	0.081	6	43.2	2.54	747	
TL15 1200	0.2	104	0.85	0.102	15	105.4	1.6	291	
TL15 1300	0.1	103	1.3	0.188	12	67.2	1.45	374	
TL15 1450	0.1	194	1.42	0.208	7	252.5	3.35	670	
TL15 1600	0.2	71	0.84	0.036	19	51.6	0.84	155	
TL15 1700	0.2	67	2.5	0.079	19	61.3	1.11	122	
TL15 1750	0.2	75	0.56	0.045	16	55.5	0.95	166	
TL15 1800	0.2	68	1.03	0.075	19	53.4	1.06	181	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb
TL14 800	3.88	19.5	1	8	4.3	37	0.3	1.7
TL14 850	3.01	10.1	2	4.7	3.7	49	1	1.5
TL14 900	3.26	5	3.6	12.5	4.4	80	0.7	1.1
TL14 950	2.56	10.6	0.8	3.5	3.1	57	0.5	0.8
TL14 1000	3.72	18.5	1.8	7.1	4.5	19	0.6	0.8
TL14 1100	2.97	81	1.5	7	9.7	26	0.4	2.7
TL14 1150	3.69	84	2.3	26.9	6	83	1	2.7
TL14 1200	3.3	38.5	1.9	17.2	5.8	88	1.2	2.9
TL14 1250	3.06	14.2	1	4.5	3.8	111	0.4	1.1
TL14 1300	4.5	14.5	5	10.5	7.3	108	3.9	2
TL14 1350	3.08	23.7	1.2	7.2	4.5	119	0.8	2.1
TL14 1500	2.86	17.4	0.8	5.6	5.6	148	0.3	1.5
TL14 1550	3.19	27.2	0.8	6.4	6.2	184	0.4	1.8
TL14 1600	3.82	41.3	2.6	4.9	8	104	1.6	2.1
TL14 1650	3.2	17	1	4.3	4.3	63	0.5	0.9
TL14 1750	2.95	14.7	2	8.2	2.8	99	2.1	1.3
RE TL14 1	2.8	15.9	2.1	9.1	2.8	98	2.3	1.3
TL14 1800	2.79	18.8	1.3	7	4.1	122	0.7	2
TL14 1850	3.16	13.7	0.4	2.4	1.9	37	0.1	0.9
TL14 1950	2.87	14.3	0.7	2.7	2.6	39	0.2	0.7
TL15 0	4.11	26.1	0.8	3.1	1.8	27	1	1.2
TL15 50	3.93	16.9	0.9	2.5	1.6	28	0.9	1.1
TL15 100	3.45	19.2	0.9	6.9	1.5	25	0.6	1.1
TL15 150	3.74	21.8	1	5.1	2	27	0.9	1.3
TL15 200	3.6	26.8	1	6	1.3	30	0.7	0.9
TL15 250	4.4	29	0.8	10.4	2.9	47	2.4	1.4
TL15 300	2.99	12.6	0.7	4.1	2.2	32	0.4	0.6
TL15 350	3.47	12.2	0.9	5.1	2.5	37	0.6	0.7
TL15 400	3.51	10.6	0.7	5.8	2.5	29	0.3	0.6
TL15 450	3.34	11.7	1	7.1	2.6	29	0.5	1.1
TL15 500	3.6	14.2	1.3	7	2.4	28	0.4	1.4
STANDAR	2.99	18	6.2	43.5	2.7	48	5.5	3.9
TL15 550	3.5	11.5	0.8	4.4	2.7	24	0.2	0.6
TL15 600	3.74	13	0.9	3.4	3	31	0.9	1.5
TL15 650	4.14	17.1	1.1	3.5	1.7	39	1.4	0.9
TL15 700	3.13	12.1	1.2	2.8	2	35	1.7	1.4
TL15 750	5.95	5.3	1.1	2.8	1.7	51	0.3	0.5
TL15 800	3.73	15.4	0.7	3.7	3.1	26	0.2	1
TL15 900	3.5	16.5	0.9	6	4	40	0.1	0.7
TL15 950	3.15	17.5	0.9	8.4	2.8	40	0.3	0.8
TL15 1000	3.38	22.2	0.7	6.4	5.1	41	0.4	1.1
TL15 1050	2.88	17.6	0.6	3	3.2	38	0.3	0.8
TL15 1100	3.19	19	0.6	4.1	3.7	40	0.4	0.7
TL15 1150	5.82	12.1	0.4	3.6	1.5	19	0.1	0.4
TL15 1200	4.33	15.3	0.8	3.2	4.4	42	0.1	0.5
TL15 1300	4	7.7	1.3	1.9	2.1	47	0.2	0.3
TL15 1450	5.97	8.7	0.6	7.1	1	37	1.1	0.3
TL15 1600	3.6	22.7	1	5.2	3.3	42	0.2	0.8
TL15 1700	3.33	21.8	0.8	5.4	4.1	94	0.2	0.8
TL15 1750	3.65	22.2	0.8	4.1	4.6	30	0.4	1.1
TL15 1800	3.33	19.2	0.8	6.8	3.6	50	0.3	0.8

ELEMENT Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL14 800	1.4	68.7	9.5	95	0.6	63.6	19.5	459
TL14 850	1.5	88	10.7	124	0.5	47.3	15.4	437
TL14 900	5	109.9	15.6	149	0.5	42.4	6.5	370
TL14 950	0.5	36.4	6.9	95	0.1	44.3	14.2	458
TL14 1000	2.1	43.2	15.6	165	0.6	43.4	22.7	1024
TL14 1100	2.1	75.7	18	131	0.3	59	18.4	2025
TL14 1150	1.9	61.7	23.8	171	0.5	66.1	17.5	630
TL14 1200	1.9	67.4	30.3	212	0.4	65.2	15.2	749
TL14 1250	1.4	48.2	9.3	98	0.2	46.5	16	619
TL14 1300	7.3	208.4	21.8	523	0.7	147.6	28.4	1811
TL14 1350	1.7	52.8	16.8	142	0.3	54.2	13.9	465
TL14 1500	0.5	41.4	8.1	82	0.2	77.7	17.3	454
TL14 1550	1.1	51.5	8.8	94	0.4	70.8	16.9	550
TL14 1600	4	109.4	13.1	252	0.5	70.8	13.3	435
TL14 1650	1	58.5	8.4	98	0.2	59	17.4	526
TL14 1750	0.8	170.8	12.5	154	0.2	86.4	16.1	815
RE TL14 1	0.9	166.4	13.1	145	0.2	79.5	14.4	772
TL14 1800	1.3	45.5	15.1	133	0.2	51.6	13.4	507
TL14 1850	1.3	39.9	9.7	67	0.1	32.9	12.2	274
TL14 1950	1.1	31.4	8.1	80	0.1	33.1	13	461
TL15 0	1.9	64.5	12.2	214	0.1	41.7	19.1	1142
TL15 50	2.3	50.5	12.8	140	0.2	35.7	20.6	1020
TL15 100	2.2	51.6	13.4	128	0.1	32.9	14.2	622
TL15 150	2.5	67.3	13.3	157	0.2	38.9	16.6	640
TL15 200	1.9	70.4	12	143	0.1	35	14.8	643
TL15 250	1	103	32.2	312	0.4	85.9	27.7	869
TL15 300	1	49.9	9.2	116	0.1	41.1	13.5	458
TL15 350	1	56.8	10	127	0.1	51.5	15.6	483
TL15 400	0.7	66.1	8.6	117	0.1	61.5	18.3	372
TL15 450	1	63.7	10.9	109	0.2	51	16.5	559
TL15 500	1.2	63.2	15.3	117	0.3	53	19.4	444
STANDAR	12.8	146.3	25.2	139	0.3	24.4	11.8	813
TL15 550	0.6	60.8	7.2	102	0.2	64.7	19.6	367
TL15 600	1.3	44.1	9.3	205	0.3	54.1	19.3	473
TL15 650	1.8	79.5	11.1	141	0.2	45.7	24.3	775
TL15 700	1.4	46.6	9.4	205	0.2	48.3	17.1	576
TL15 750	1.3	47.5	9.9	180	0.2	24.3	34.2	949
TL15 800	1.3	43.8	8	79	0.1	47.7	21.8	572
TL15 900	0.8	38.8	8.2	69	0.1	67.2	18.7	470
TL15 950	0.8	39.5	8	70	0.2	56.6	18	533
TL15 1000	0.6	46.9	7.9	86	0.1	71.3	17.3	489
TL15 1050	0.9	38.6	6.5	84	0.1	50.2	15	709
TL15 1100	0.9	40.9	7.2	79	0.2	51.4	17.7	563
TL15 1150	1.2	31.8	5.2	85	0.1	47.5	30.3	321
TL15 1200	0.7	47.9	7.6	85	0.1	81.2	29.6	571
TL15 1300	1	54.9	5.3	94	0.1	50.5	21.8	550
TL15 1450	1.5	58.5	6.9	119	0.3	161.7	39.9	1332
TL15 1600	1.1	51.8	8.8	66	0.2	53.3	18.3	575
TL15 1700	0.8	50.2	7.6	71	0.2	60.8	18.7	435
TL15 1750	1.4	47.7	10	75	0.2	57.3	18.8	623
TL15 1800	1.3	57.3	8.4	86	0.2	55	17.9	544

ELEMENT TI	S	Ga	Se	
TL13 50	0.2 <.05		7	0.5
TL13 100	0.1 <.05		8 <.5	
TL13 150	0.1 <.05		8 <.5	
TL13 200	0.1 <.05		7	0.5
TL13 250	0.2 <.05		9 <.5	
TL13 300	0.2 <.05		8 <.5	
TL13 350	0.2	0.06	6 <.5	
TL13 400	0.2 <.05		8	0.6
TL13 450	0.2 <.05		7	0.8
TL13 500	0.1 <.05		9 <.5	
TL13 550	0.2 <.05		8	0.7
TL13 600	0.2 <.05		8	0.5
STANDAR	1 <.05		6	4.9
G-1	0.3 <.05		5 <.5	
TL13 650	0.2 <.05		7	0.8
TL13 700	0.2 <.05		8	0.9
TL13 750	0.1	0.06	5	1.2
TL13 800	0.1 <.05		4	0.9
TL13 900	0.2 <.05		6	1.7
TL13 950	0.1	0.27	3	13.3
TL13 1000	0.1 <.05		5	2
TL13 1050	0.2	0.25	4	7.2
TL13 1150	0.2 <.05		7	0.7
TL13 1200	0.2 <.05		8	1
TL13 1250	0.2 <.05		6	1
TL13 1450	0.2 <.05		8	0.8
RE TL13 1.	0.2 <.05		8	1
TL13 1500	0.2 <.05		6	1.1
TL13 1550	0.3 <.05		6	1.9
TL13 1600	0.2 <.05		5	0.8
TL13 1650	0.1 <.05		4	0.7
TL13 1700	0.2 <.05		6	1.2
TL13 1750	0.2 <.05		6	1.1
TL13 1800	0.4 <.05		8	0.9
TL13 1850	0.2 <.05		5	0.9
TL13 1900	0.1 <.05		7	0.5
TL13 1950	0.1 <.05		6 <.5	
TL14 0	0.2 <.05		8 <.5	
TL14 50	0.2 <.05		10	0.6
TL14 100	0.2 <.05		7	0.6
TL14 150	0.2 <.05		6	0.6
TL14 200	0.1 <.05		6	0.6
TL14 250	0.2 <.05		6	0.5
TL14 300	0.1 <.05		6	0.7
TL14 350	0.1 <.05		5	0.8
TL14 400	0.3 <.05		6 <.5	
TL14 450	0.2 <.05		6 <.5	
STANDAR	1.1 <.05		6	4.7
G-1	0.3 <.05		4 <.5	
TL14 500	0.2 <.05		6	0.6
TL14 750	0.1 <.05		3 <.5	

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL13 50	0.128		2	1.79	0.014	0.3	0.1	0.02	3.2
TL13 100	0.076		1	1.51	0.011	0.06	0.1	0.04	2.8
TL13 150	0.075		3	1.78	0.013	0.09	0.1	0.03	2.6
TL13 200	0.098		2	2.11	0.014	0.14	0.1	0.04	3
TL13 250	0.119		2	2.03	0.013	0.15 <.1		0.02	3.2
TL13 300	0.096		2	1.61	0.013	0.15	0.1	0.04	2.6
TL13 350	0.119		2	1.65	0.017	0.21 <.1		0.03	3.4
TL13 400	0.161		1	1.99	0.019	0.27	0.1	0.03	4
TL13 450	0.137		3	1.77	0.024	0.29	0.1	0.05	4.5
TL13 500	0.288		1	2.34	0.021	0.51	0.1	0.01	3.7
TL13 550	0.171		2	2.08	0.023	0.3	0.1	0.04	5.3
TL13 600	0.152		1	2.04	0.02	0.25	0.1	0.03	4.8
STANDAR	0.099		16	1.97	0.034	0.14	4.8	0.18	3.4
G-1	0.136 <1			0.99	0.093	0.49	1.6 <.01		3.3
TL13 650	0.148 <1			2.25	0.024	0.13	0.1	0.04	6.3
TL13 700	0.137 <1			2.08	0.024	0.2	0.1	0.07	5.1
TL13 750	0.08		1	1.35	0.023	0.11	0.1	0.1	3.7
TL13 800	0.044 <1			0.82	0.025	0.07	0.1	0.03	1
TL13 900	0.102		1	1.68	0.023	0.17	0.1	0.06	6.1
TL13 950	0.033 <1			0.88	0.011	0.11	0.3	0.08	6.6
TL13 1000	0.118		1	1.57	0.029	0.27	0.1	0.07	4.6
TL13 1050	0.023 <1			1.17	0.008	0.17	0.1	0.07	4.7
TL13 1150	0.142 <1			1.98	0.02	0.26	0.1	0.03	5.3
TL13 1200	0.14 <1			2	0.021	0.21	0.1	0.04	5.2
TL13 1250	0.117		1	1.83	0.024	0.23	0.2	0.04	4.7
TL13 1450	0.164		1	2.11	0.024	0.31	0.1	0.04	5.5
RE TL13 1.	0.162		1	2.07	0.024	0.3	0.1	0.05	5.5
TL13 1500	0.114		3	1.56	0.024	0.24	0.1	0.05	4
TL13 1550	0.102		2	1.49	0.019	0.32	0.1	0.05	4.5
TL13 1600	0.083		1	1.47	0.017	0.2	0.1	0.04	3.6
TL13 1650	0.076		1	1.28	0.032	0.13	0.1	0.02	2.8
TL13 1700	0.091 <1			1.66	0.027	0.2	0.1	0.06	4.6
TL13 1750	0.083		2	2.03	0.02	0.17	0.1	0.02	6.1
TL13 1800	0.167		2	2.25	0.034	0.8	0.1	0.02	5.7
TL13 1850	0.11		2	1.46	0.03	0.19	0.1	0.01	4.3
TL13 1900	0.11 <1			2.28	0.021	0.1	0.1	0.01	5.1
TL13 1950	0.074		1	1.48	0.025	0.07	0.1	0.01	2.8
TL14 0	0.122		2	2.34	0.022	0.09	0.1	0.04	6.6
TL14 50	0.193		1	2.77	0.028	0.17	0.1 <.01		7.4
TL14 100	0.116		3	2.07	0.02	0.12	0.1	0.02	4.4
TL14 150	0.128		1	1.82	0.022	0.12	0.1	0.03	4.7
TL14 200	0.103		2	1.88	0.022	0.09	0.1	0.04	4.9
TL14 250	0.115		2	1.8	0.025	0.13	0.1	0.02	5.1
TL14 300	0.101		2	1.76	0.025	0.1	0.1	0.03	4.8
TL14 350	0.086		2	1.53	0.028	0.09	0.1	0.03	3.8
TL14 400	0.119		1	1.67	0.023	0.27	0.1	0.01	4.6
TL14 450	0.117		1	1.46	0.022	0.23	0.1	0.02	4.2
STANDAR	0.091		16	1.91	0.033	0.13	4.7	0.19	3.3
G-1	0.121		1	0.91	0.1	0.51	1.3 <.01		3.1
TL14 500	0.104		2	1.76	0.026	0.25	0.1	0.02	4.2
TL14 750	0.056		1	0.89	0.027	0.08	0.1	0.01	1.7

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL13 50	0.2	73	0.34	0.08	13	41.6	0.91	430	
TL13 100	0.2	81	0.26	0.058	10	38.6	0.58	119	
TL13 150	0.3	90	0.19	0.058	11	46.5	0.71	145	
TL13 200	0.3	81	0.28	0.06	11	47.5	0.87	146	
TL13 250	0.3	85	0.23	0.047	12	51.4	0.93	166	
TL13 300	0.4	72	0.29	0.051	11	40	0.68	131	
TL13 350	0.5	67	0.3	0.045	12	38.8	0.79	161	
TL13 400	0.3	90	0.57	0.066	12	81.6	1.22	323	
TL13 450	0.4	72	0.89	0.069	12	73.4	1.14	305	
TL13 500	0.1	121	0.91	0.139	8	159.8	2.24	216	
TL13 550	0.2	95	0.72	0.091	14	100.8	1.44	238	
TL13 600	0.2	79	0.63	0.067	10	76.2	1.24	203	
STANDAR	6.2	61	0.71	0.096	12	190.9	0.68	139	
G-1	0.1	45	0.57	0.087	7	15.7	0.58	247	
TL13 650	0.2	93	0.79	0.102	16	124.2	1.39	285	
TL13 700	0.3	90	1.37	0.133	14	104.9	1.28	420	
TL13 750	0.3	66	1.38	0.107	10	49.3	0.77	222	
TL13 800	0.2	44	0.32	0.05	6	20.5	0.28	87	
TL13 900	0.2	72	1.49	0.108	16	51.2	1.25	227	
TL13 950	0.5	64	0.83	0.215	22	20.3	0.63	213	
TL13 1000	0.6	80	0.89	0.19	14	68.4	1.13	297	
TL13 1050	0.7	52	0.53	0.163	34	44.7	0.62	642	
TL13 1150	0.2	94	0.52	0.1	13	85.2	1.22	432	
TL13 1200	0.2	87	0.54	0.086	15	76.7	1.16	649	
TL13 1250	0.1	77	0.96	0.093	14	68.1	1.05	592	
TL13 1450	0.1	96	1.87	0.105	16	118.5	1.49	387	
RE TL13 1	0.1	90	1.85	0.106	16	108.6	1.46	386	
TL13 1500	0.1	72	2	0.094	14	71.9	1.02	339	
TL13 1550	0.2	79	1.98	0.076	12	69.3	1.04	347	
TL13 1600	0.2	57	0.36	0.078	14	55.3	0.9	123	
TL13 1650	0.1	49	0.65	0.052	11	34.2	0.62	141	
TL13 1700	0.2	55	1.39	0.074	17	63.3	0.97	366	
TL13 1750	0.2	68	1.36	0.087	26	76.8	1.16	162	
TL13 1800	0.2	86	0.72	0.069	21	67.1	1.37	167	
TL13 1850	0.1	67	1.01	0.107	15	52.3	1	142	
TL13 1900	0.2	84	0.54	0.031	16	64.9	0.92	160	
TL13 1950	0.1	58	0.62	0.033	7	36.1	0.55	100	
TL14 0	0.2	78	0.58	0.077	17	85.6	1.22	183	
TL14 50	0.2	104	0.7	0.101	19	111.1	1.72	146	
TL14 100	0.2	74	0.57	0.079	13	80.9	1.23	142	
TL14 150	0.1	71	0.52	0.081	14	75.7	1.13	162	
TL14 200	0.2	69	0.58	0.066	14	61.7	1.05	201	
TL14 250	0.2	71	0.71	0.084	14	64.1	1.09	180	
TL14 300	0.2	69	0.92	0.081	15	64.7	1.04	193	
TL14 350	0.1	56	1.1	0.077	13	55.4	0.92	149	
TL14 400	0.1	65	0.86	0.092	24	74	1.16	128	
TL14 450	0.2	61	0.74	0.094	24	59.2	0.96	134	
STANDAR	6	57	0.7	0.089	11	179	0.67	136	
G-1	0.1	37	0.54	0.088	7	13.1	0.55	246	
TL14 500	0.2	67	0.77	0.08	22	58.1	0.95	160	
TL14 750	0.1	33	0.24	0.07	7	26.6	0.42	78	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL13 50	3.8		12.1	0.9	3.7	2.9	28	0.5	1
TL13 100	3.66		13.5	0.8	3.8	0.8	24	0.5	1.2
TL13 150	4.21		14.4	0.9	6.8	0.8	24	0.5	1.3
TL13 200	3.75		19.7	0.8	4.4	1.5	22	1	1.1
TL13 250	4.29		17.3	0.9	2.5	1.6	22	0.4	0.9
TL13 300	3.9		40.6	0.9	10.3	1.7	25	2.2	1.2
TL13 350	3.31		33.2	0.9	11.8	3.3	24	1.1	1.3
TL13 400	4.04		22.8	1	7.3	2.7	27	1.1	1
TL13 450	3.42		14.1	1.3	8.8	2.8	38	0.7	0.8
TL13 500	4.15		6.2	0.4	1.4	1.8	25	0.2	0.3
TL13 550	3.86		14.7	1.2	5.3	3.2	29	0.4	1
TL13 600	3.83		13.6	0.7	5.7	3	29	0.3	0.9
STANDAR	3.03		17.7	6.2	43.9	2.8	48	5.5	4
G-1	2.22	<.5		1.7	1	4.5	87 <.1	<.1	
TL13 650	4.25		18.2	1.1	6	2.8	34	0.4	1.2
TL13 700	3.88		18.3	1.4	8.4	2.2	50	3.2	2.6
TL13 750	2.84		31.1	1.2	19.6	1.3	52	4.4	3.7
TL13 800	1.86		15.6	0.6	4.3	0.5	23	1.7	1.2
TL13 900	3.57		43.7	2.4	19	4.3	54	4.4	5.7
TL13 950	7.72		310.5	4.3	70.6	6.2	58	7.9	38.9
TL13 1000	3.83		53.5	1.1	28.3	3.6	46	3.4	10.4
TL13 1050	8.02		52.2	3	35	13.2	104	1.1	14.5
TL13 1150	4.01		18.9	1.2	9.3	3.6	36	0.4	0.8
TL13 1200	3.82		22.3	1.5	7.5	2.9	36	0.5	0.8
TL13 1250	3.43		20.5	1.5	10.8	2.3	50	0.4	0.9
TL13 1450	4.11		10.2	1.9	4.4	2	60	0.3	0.5
RE TL13 1	3.93		10.1	1.7	3.4	2.1	60	0.3	0.5
TL13 1500	3.42		10.6	1.5	4.4	2	73	0.4	0.5
TL13 1550	3.76		37.1	2.2	21	2.6	85	0.5	1
TL13 1600	3.53		30.9	1.7	8.1	3.9	35	0.5	1.4
TL13 1650	2.56		19.2	1.5	5.5	2.5	36	0.5	0.9
TL13 1700	3.39		22	2.1	8.2	4	65	1	1.4
TL13 1750	3.82		51.2	1.3	10.2	8.7	68	0.4	2.1
TL13 1800	4.53		12.8	2	4.6	6.6	41	0.3	0.9
TL13 1850	3.19		11.9	0.9	15.2	4.3	52	0.6	0.8
TL13 1900	4.04		16.5	0.8	6	4	40	0.2	0.9
TL13 1950	2.75		13.5	0.5	3.2	1.8	41	0.2	0.6
TL14 0	3.86		17.5	0.9	7.5	3.7	35	0.2	0.7
TL14 50	4.92		14.9	1	5	5.4	32	0.2	0.6
TL14 100	3.86		23.9	0.8	5.1	3.5	35	0.2	1
TL14 150	3.34		12.1	0.7	4.6	4.1	31	0.2	0.7
TL14 200	3.12		12.8	1.5	6.2	3.1	37	0.3	0.7
TL14 250	3.42		11	1.4	6	4	38	0.4	0.9
TL14 300	3.34		14.3	1.6	3.9	2.8	50	0.6	0.7
TL14 350	2.68		10	1.1	4.4	2.1	48	0.5	0.6
TL14 400	3.32		23.2	0.9	5.4	5.8	35	0.4	0.4
TL14 450	3.14		8.3	1	2.4	4.9	33	0.3	0.5
STANDAR	2.99		18	6.4	43.7	2.9	46	5.5	3.9
G-1	1.75	<.5		1.6	1.1	4.1	94 <.1	<.1	
TL14 500	3.67		19	1.4	8.5	3.7	41	0.3	0.6
TL14 750	1.53		7.1	0.4	2.1	1.2	18	0.2	1

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL13 50	2.3	75.5	10.7	195	0.1	54.4	22.1	1740	
TL13 100	3	40.7	11.7	109	0.1	28.5	10.9	409	
TL13 150	3.6	42.9	11.9	112	0.1	32.8	15.4	693	
TL13 200	1.6	60.8	10.5	172	0.1	40	19.1	830	
TL13 250	2.3	52.8	12.5	134	0.1	40.6	19.4	720	
TL13 300	2.1	44.5	13.9	202	0.3	32	14.7	474	
TL13 350	1.2	49.6	10.5	173	0.4	38.6	14.5	527	
TL13 400	1.5	73.9	10	150	0.4	59	19.3	528	
TL13 450	1	68	9.5	140	0.4	53.8	19.3	459	
TL13 500	0.4	69.2	3.4	83	0.1	85.4	28.9	513	
TL13 550	1	69.6	10.1	114	0.2	56	20.1	301	
TL13 600	1.2	47.6	11.1	110	0.2	49.9	18.8	301	
STANDAR	12.9	140.6	24.6	138	0.3	23.8	11.8	780	
G-1	1.9	3	2.3	44	<.1	4.5	4.6	570	
TL13 650	1	56.9	12.1	97	0.6	89.7	25	521	
TL13 700	0.7	78	35	224	0.8	81.2	27.1	759	
TL13 750	0.5	46.5	25.4	302	0.8	36.6	14.4	487	
TL13 800	1.2	32.5	5.8	114	0.3	18.2	8.6	243	
TL13 900	2.1	90.5	35.3	650	1.1	92.5	22.4	726	
TL13 950	22.3	182.5	53.5	1395	3.4	221.2	34.1	704	
TL13 1000	2.5	63.8	54.4	418	2.1	74.2	19.8	620	
TL13 1050	7.5	206.3	35.5	302	1.2	138.6	35.5	1176	
TL13 1150	1.4	60.3	13.9	132	0.2	56.6	23.2	1083	
TL13 1200	1.9	63.5	11.8	143	0.3	56	24.5	864	
TL13 1250	1.3	70.8	10.1	112	0.4	57.1	19.8	773	
TL13 1450	0.7	97.2	10.2	89	0.2	78.4	27.6	813	
RE TL13 1.	0.7	92.2	10.9	84	0.2	74.1	25.8	760	
TL13 1500	0.9	71.7	10.6	85	0.2	56.3	20.9	721	
TL13 1550	1.3	74.2	17.6	112	0.4	56.5	21.3	802	
TL13 1600	2.2	41	16.5	116	0.4	42.8	19.5	497	
TL13 1650	1.5	48.1	9.1	92	0.3	32.9	12.5	512	
TL13 1700	1.3	85.3	11.1	130	0.6	62.5	19.3	724	
TL13 1750	1.3	76.3	11.6	89	0.2	75.6	20.7	490	
TL13 1800	2.5	87.9	13	115	0.2	68.9	25.3	973	
TL13 1850	2	41.2	6.9	110	0.2	45.4	14.4	467	
TL13 1900	1.4	42.1	8.1	97	0.1	48.7	19	461	
TL13 1950	0.9	38.7	7.2	72	0.1	29.6	11.5	214	
TL14 0	0.9	71	8.3	99	0.2	69.9	17.5	472	
TL14 50	0.7	48.4	9.1	106	0.1	81.8	27.6	804	
TL14 100	1.1	41.9	10	83	0.2	72.9	19.5	417	
TL14 150	0.8	40.7	7.4	89	0.1	55.3	16	408	
TL14 200	0.8	39.1	9	107	0.2	45.8	12.6	352	
TL14 250	1	47.3	8.9	127	0.2	49.5	13.9	362	
TL14 300	0.8	44.2	8.7	137	0.2	55.7	17.4	634	
TL14 350	0.6	41.2	6.5	112	0.2	49.2	12.8	458	
TL14 400	0.6	39.7	7.8	114	0.2	64.9	18.3	737	
TL14 450	0.6	36.8	6.8	108	0.1	50.5	15.6	431	
STANDAR	12.6	142.4	24.8	132	0.3	23	11.4	749	
G-1	1.8	3.6	2.2	46	<.1	4.6	3.9	498	
TL14 500	1	39.7	8.7	115	0.1	45.9	19.7	835	
TL14 750	1	22.5	5.3	67	0.1	22.7	11.4	384	

ELEMENT TI	S	Ga	Se	
TL11 1100	0.2 <.05		5 <.5	
TL11 1150	0.1	0.07	4	0.5
TL11 1250	0.2 <.05		5 <.5	
TL11 1300	0.2 <.05		6 <.5	
TL11 1450	0.2	0.07	4 <.5	
TL11 1650	0.1 <.05		4 <.5	
TL11 1700	0.2 <.05		5 <.5	
TL11 1750	0.1 <.05		4 <.5	
TL11 1800	0.2 <.05		5 <.5	
TL11 1850	0.2 <.05		5 <.5	
TL11 1950	0.2 <.05		6	0.5
RE TL11 1	0.2 <.05		6 <.5	
TL11 2000	0.1 <.05		4 <.5	
TL12 0	0.2	0.08	5	1.9
TL12 100	0.3	0.06	6	1.3
TL12 200	0.2 <.05		5 <.5	
TL12 250	0.2 <.05		6	0.5
TL12 300	0.2 <.05		7 <.5	
TL12 350	0.2 <.05		7 <.5	
TL12 450	0.2 <.05		6 <.5	
TL12 500	0.2 <.05		6 <.5	
TL12 600	0.2 <.05		5 <.5	
TL12 650	0.2 <.05		5 <.5	
TL12 800	0.1 <.05		5 <.5	
TL12 850	0.1 <.05		5 <.5	
TL12 900	0.2 <.05		6 <.5	
TL12 950	0.2 <.05		6 <.5	
TL12 1000	0.1 <.05		7 <.5	
STANDAR	1.1 <.05		7	5
G-1	0.2 <.05		4 <.5	
TL12 1050	0.2 <.05		6 <.5	
TL12 1100	0.2 <.05		6 <.5	
TL12 1200	0.3	0.06	5	2.5
TL12 1250	0.1 <.05		6	1.9
TL12 1300	0.2 <.05		6	0.8
TL12 1350	0.3 <.05		8 <.5	
TL12 1400	0.1 <.05		6 <.5	
TL12 1450	0.2	0.08	7	1.6
TL12 1500	0.2	0.13	3	4.6
TL12 1550	0.2 <.05		5	0.6
TL12 1600	0.1 <.05		5	1.2
TL12 1650	0.1 <.05		6 <.5	
TL12 1700	0.2 <.05		5 <.5	
RE TL12 1	0.2 <.05		6 <.5	
TL12 1750	0.1 <.05		5 <.5	
TL12 1800	0.2 <.05		4 <.5	
TL12 1850	0.1 <.05		5 <.5	
TL12 1900	0.2 <.05		6 <.5	
TL12 1950	0.1 <.05		5 <.5	
TL12 2000	0.2 <.05		7 <.5	
TL13 0	0.1 <.05		7 <.5	

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL11 1100	0.079		2	1.77	0.022	0.16	0.1	0.02	5.3
TL11 1150	0.045		2	1.4	0.014	0.1	0.2	0.04	5
TL11 1250	0.065		2	1.4	0.023	0.13	0.1	0.03	3.2
TL11 1300	0.099		2	1.6	0.021	0.18	0.1	0.02	4.7
TL11 1450	0.035		2	1.43	0.015	0.16	0.1	0.03	4.9
TL11 1650	0.097		4	1.37	0.027	0.18	0.1	0.01	4.6
TL11 1700	0.084		2	1.59	0.015	0.28	0.1	0.01	4.6
TL11 1750	0.069		2	1.25	0.021	0.16	0.1	0.02	3.5
TL11 1800	0.085		2	1.53	0.017	0.28	0.1	0.02	5.2
TL11 1850	0.088		3	1.54	0.019	0.31	0.1	0.01	4.7
TL11 1950	0.095		3	1.7	0.019	0.22	0.2	0.02	5.3
RE TL11 1	0.099		2	1.8	0.021	0.22	0.1	0.01	5.3
TL11 2000	0.08		3	1.13	0.023	0.14	0.2	0.01	3.1
TL12 0	0.091		1	1.77	0.018	0.23	0.1	0.02	3.9
TL12 100	0.086		1	1.83	0.015	0.24	0.1	0.03	4.3
TL12 200	0.106		1	1.62	0.022	0.23	0.1	0.02	4
TL12 250	0.131		1	2.02	0.044	0.29	0.2	0.02	4.1
TL12 300	0.153		1	2.17	0.043	0.27	0.2	0.02	4.8
TL12 350	0.134	<1		2.01	0.029	0.23	0.1	0.03	5.5
TL12 450	0.116		1	1.81	0.028	0.19	0.1	0.03	4.1
TL12 500	0.113		3	1.92	0.031	0.18	0.1	0.02	4.7
TL12 600	0.115		1	1.63	0.03	0.15	0.1	0.02	4.4
TL12 650	0.128		1	1.81	0.029	0.22	0.1	0.02	5.4
TL12 800	0.094		1	1.16	0.022	0.13	0.1	0.02	2.8
TL12 850	0.092		2	1.55	0.027	0.11	0.1	0.02	4.9
TL12 900	0.12		1	1.88	0.026	0.13	0.1	0.03	5.6
TL12 950	0.099		1	2.04	0.023	0.11	0.1	0.03	6
TL12 1000	0.078		1	1.89	0.014	0.11	0.1	0.02	3.9
STANDAR	0.088		19	2	0.032	0.13	5.2	0.17	3.4
G-1	0.115	<1		0.79	0.09	0.43	1.4	<.01	2.8
TL12 1050	0.089	<1		1.96	0.013	0.14	0.1	0.01	3.2
TL12 1100	0.122		1	1.98	0.015	0.28	0.1	0.01	4
TL12 1200	0.075	<1		1.57	0.008	0.34	0.1	0.02	4.3
TL12 1250	0.065	<1		2.05	0.02	0.11	0.1	0.01	4
TL12 1300	0.087	<1		1.65	0.017	0.23	0.1	0.03	4.3
TL12 1350	0.143	<1		2.22	0.023	0.4	0.1	0.02	5.6
TL12 1400	0.093		1	1.86	0.018	0.08	0.1	0.01	3.8
TL12 1450	0.069		1	1.81	0.019	0.18	0.2	0.03	3.9
TL12 1500	0.017		2	1	0.007	0.16	0.2	0.03	3.4
TL12 1550	0.086		1	1.5	0.021	0.32	0.1	0.02	3.9
TL12 1600	0.075		1	1.27	0.033	0.18	0.1	0.02	3.1
TL12 1650	0.109		1	1.93	0.024	0.2	0.1	0.01	4.7
TL12 1700	0.126		1	1.62	0.022	0.13	0.1	0.02	5
RE TL12 1	0.126		2	1.68	0.027	0.14	0.1	0.01	5.2
TL12 1750	0.1		2	1.49	0.023	0.18	0.1	0.02	5.1
TL12 1800	0.094		2	1.14	0.018	0.2	0.1	0.01	3.6
TL12 1850	0.1		1	1.48	0.043	0.19	0.1	0.01	3.8
TL12 1900	0.117		2	1.76	0.029	0.17	0.1	0.01	5.3
TL12 1950	0.095		1	1.52	0.021	0.14	0.1	<.01	3.3
TL12 2000	0.15		2	1.79	0.025	0.23	0.1	0.03	7.9
TL13 0	0.102		1	1.86	0.016	0.12	0.1	0.08	4.1

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL11 1100	0.2	49	1.32	0.057	23	78.6	0.98	110	
TL11 1150	0.2	42	1.73	0.053	23	45.7	0.62	110	
TL11 1250	0.2	46	1.4	0.058	18	46.7	0.7	119	
TL11 1300	0.3	57	1.22	0.068	21	59.1	1.05	104	
TL11 1450	0.2	42	1.72	0.055	29	45.3	0.88	95	
TL11 1650	0.1	61	3.24	0.074	15	44.9	1.22	104	
TL11 1700	0.2	51	2.96	0.08	19	64.3	1.26	104	
TL11 1750	0.1	42	1.05	0.042	14	42.3	0.7	106	
TL11 1800	0.1	48	4.32	0.079	22	64.1	1.22	119	
TL11 1850	0.1	53	2.59	0.076	18	60.6	1	129	
TL11 1950	0.3	62	1.04	0.062	16	72.2	1.15	127	
RE TL11 1	0.2	63	1.01	0.064	17	72.9	1.18	124	
TL11 2000	0.1	54	1.73	0.076	12	42.4	0.86	82	
TL12 0	1.4	87	0.49	0.135	32	48.4	0.87	252	
TL12 100	0.4	91	0.51	0.115	23	51.7	0.82	267	
TL12 200	0.5	74	0.61	0.099	20	49.6	0.82	199	
TL12 250	0.4	73	0.84	0.083	20	51.4	1.04	191	
TL12 300	0.3	77	0.73	0.071	18	62.7	1.14	193	
TL12 350	0.2	78	0.73	0.086	19	65.4	1.06	197	
TL12 450	0.2	76	0.68	0.079	17	53.8	0.89	190	
TL12 500	0.2	67	0.78	0.078	15	60.6	1.04	176	
TL12 600	0.2	69	0.87	0.09	15	58.4	0.98	150	
TL12 650	0.2	72	0.85	0.098	18	68	1.07	137	
TL12 800	0.1	65	0.8	0.073	12	43.3	0.72	86	
TL12 850	0.1	58	1.06	0.117	17	56.2	0.88	129	
TL12 900	0.1	71	0.78	0.081	17	70.9	1.06	139	
TL12 950	0.2	71	1.04	0.092	21	61	1.04	155	
TL12 1000	0.3	83	0.35	0.032	12	48.8	0.74	202	
STANDAR	6.5	60	0.78	0.085	12	186	0.68	141	
G-1	0.1	37	0.5	0.075	6	13	0.48	202	
TL12 1050	0.2	77	0.29	0.036	15	48.3	0.76	126	
TL12 1100	0.2	83	0.37	0.062	16	51.3	0.88	257	
TL12 1200	0.3	122	0.56	0.127	29	54.4	0.87	225	
TL12 1250	0.2	86	0.33	0.052	17	56.7	0.87	285	
TL12 1300	0.2	112	4.12	0.138	19	70.9	1.28	279	
TL12 1350	0.2	80	1	0.052	19	77.1	1.18	132	
TL12 1400	0.1	69	0.47	0.026	13	52.8	0.81	87	
TL12 1450	0.3	86	0.57	0.134	17	54.5	0.85	171	
TL12 1500	0.5	58	1.88	0.285	27	25	0.54	185	
TL12 1550	0.2	53	3.25	0.062	18	49.4	1.03	118	
TL12 1600	0.1	45	2.54	0.047	12	35.8	0.75	117	
TL12 1650	0.2	73	0.66	0.052	14	61	0.93	160	
TL12 1700	0.1	64	1.7	0.035	17	68.5	1.03	84	
RE TL12 1	0.1	65	1.75	0.036	17	70.2	1.04	81	
TL12 1750	0.1	58	2.82	0.07	15	51.9	1.02	79	
TL12 1800	0.1	41	9.35	0.071	17	41.1	1	97	
TL12 1850	0.1	50	4.15	0.056	14	54	1.07	76	
TL12 1900	0.2	59	1.14	0.055	26	69.3	1.13	71	
TL12 1950	0.1	61	0.72	0.032	8	49.5	0.69	156	
TL12 2000	0.1	65	0.99	0.063	19	77.3	1.25	165	
TL13 0	0.2	79	0.35	0.09	12	46.4	0.77	263	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb
TL11 1100	3.71	16.6	1.2	3.1	6.8	83	0.2	3.5
TL11 1150	3.39	32.2	1.2	6.4	4.4	91	0.2	1.7
TL11 1250	2.62	9.1	1.2	2.3	2.3	81	0.2	0.6
TL11 1300	3.29	10.1	1.3	292.8	5.1	59	0.1	1
TL11 1450	4.03	30.1	1.8	3.8	7.8	81	0.2	4
TL11 1650	2.88	15.7	0.9	3	4.8	92	0.2	0.7
TL11 1700	3.27	67.2	0.7	16.6	6.9	120	0.1	1.9
TL11 1750	2.41	20.4	0.8	3.5	3.4	52	0.1	0.8
TL11 1800	3.14	36.5	0.7	47.7	7.5	158	0.1	1.9
TL11 1850	2.92	32.6	0.6	6.5	4.6	109	0.2	1
TL11 1950	3.51	35.9	1	4.6	5.1	53	0.3	1.5
RE TL11 1	3.54	35.1	0.9	16.6	5.3	55	0.2	1.5
TL11 2000	2.53	19.9	0.9	4.5	2.7	71	0.1	0.9
TL12 0	3.98	10	2.8	8.6	7.1	40	1.1	1
TL12 100	3.65	5.6	2.6	2.1	4.6	32	0.7	0.5
TL12 200	3.41	12.6	1.4	7.1	4.4	31	1.2	0.9
TL12 250	3.35	8.7	1.3	8.9	4	38	0.6	0.5
TL12 300	3.58	8.8	1.1	3.7	4.8	37	0.3	0.4
TL12 350	3.53	10	1.1	4.4	3.9	34	0.4	0.5
TL12 450	3.17	8.8	1.1	3.8	3	36	0.5	0.4
TL12 500	3.16	8.8	0.9	4.9	3.4	40	0.4	0.4
TL12 600	2.98	11	0.8	2.3	3.8	43	0.3	0.5
TL12 650	3.37	10.8	0.9	2	4.9	40	0.2	0.6
TL12 800	2.57	6.3	0.7	1.7	2.6	30	0.2	0.3
TL12 850	3.1	13.6	0.7	4.5	3.6	43	0.2	0.9
TL12 900	3.43	13.9	0.7	3.7	4.2	41	0.1	0.6
TL12 950	3.5	15.2	1.1	3.1	3.5	50	0.3	0.6
TL12 1000	4.01	25.9	0.8	3.4	2.9	33	0.5	0.8
STANDAR	2.99	18.7	6.3	45.2	2.7	49	5.7	3.8
G-1	1.68	<.5	1.6	<.5	3.7	84	<.1	<.1
TL12 1050	3.52	12.3	0.7	1.7	3.6	25	0.2	0.8
TL12 1100	3.7	21.6	0.9	6.9	6.2	27	0.4	1
TL12 1200	3.96	35.6	2.9	11.6	10.7	32	1.4	7.8
TL12 1250	3.96	57	1.1	12.7	5.2	30	1.3	2.6
TL12 1300	3.02	19.4	1.3	4.7	5.1	123	0.9	1.6
TL12 1350	3.9	24.2	0.7	4.8	6.4	49	0.1	0.9
TL12 1400	3.23	17.6	0.5	7.8	3.1	34	0.2	0.7
TL12 1450	5.29	128.4	3.1	17.3	6	52	1.4	3.6
TL12 1500	5.56	16.4	6	5.5	9.3	129	4.3	7.2
TL12 1550	3.18	20.6	0.8	3.8	4.8	98	0.2	1.2
TL12 1600	2.34	13.8	0.9	2.2	2.7	82	0.2	0.7
TL12 1650	3.33	16.9	0.7	2.7	3.9	37	0.3	0.8
TL12 1700	3.05	14.9	0.6	2.9	5.3	45	0.2	0.7
RE TL12 1	3.03	14.9	0.6	5.4	5.3	47	0.2	0.6
TL12 1750	2.67	14	0.6	5.5	4.3	104	0.2	0.7
TL12 1800	2.49	20.9	0.7	4.1	5.7	400	0.1	1.3
TL12 1850	2.61	20	0.6	3.9	4.4	131	0.1	0.7
TL12 1900	3.17	15.5	0.8	2.1	7.2	53	0.1	0.7
TL12 1950	2.94	13.7	0.4	2.8	2.8	42	0.1	0.7
TL12 2000	3.21	14.4	0.7	148.2	6.6	43	0.1	0.6
TL13 0	3.53	13.2	1	4	1.7	27	0.2	0.8

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn
TL11 1100	0.6	35.4	13.5	86	0.1	67.1	19.9	530
TL11 1150	0.5	42.7	12.1	72	0.2	51.9	18.2	646
TL11 1250	0.6	37.4	7.5	84	0.1	37.5	15	591
TL11 1300	0.5	38.6	7.8	85	0.1	48.9	17.6	479
TL11 1450	0.8	67.9	14.8	96	0.1	74	28.5	792
TL11 1650	0.6	40	6.7	76	0.1	45.6	14	436
TL11 1700	0.5	42.7	9.2	81	0.5	57.9	17.7	455
TL11 1750	0.4	35.3	6.2	63	0.2	37.8	12.3	351
TL11 1800	0.4	38.6	8.4	80	0.5	52.8	15.1	455
TL11 1850	0.5	52.9	6.9	63	0.2	55.6	16.6	423
TL11 1950	0.8	42.5	9.1	81	0.3	62	17.6	498
RE TL11 1	0.8	40.2	8.9	81	0.3	60.2	17.5	508
TL11 2000	0.6	33.3	5.5	73	0.2	37.1	11.5	388
TL12 0	3.5	68.1	10.9	324	0.2	62.6	18.3	443
TL12 100	2	57.3	10.5	212	0.3	42.7	15.2	595
TL12 200	1.9	48.9	9.7	293	0.2	48.5	14.6	427
TL12 250	1.1	47.4	10.8	151	0.2	41.4	14.1	492
TL12 300	1.1	44.4	9.9	130	0.2	48	14.4	501
TL12 350	1	48	8.6	126	0.2	53.6	16.7	565
TL12 450	1	38.8	7.7	140	0.2	43.9	14.9	538
TL12 500	0.8	37.8	7.3	127	0.1	48.8	15	402
TL12 600	0.6	38.1	7.9	100	0.1	50	15.3	719
TL12 650	0.6	33.5	9.5	98	0.1	47.6	15.5	507
TL12 800	0.4	24.7	5.4	87	0.1	31.7	11.6	395
TL12 850	0.4	34.8	10.5	86	0.1	50.4	15.4	591
TL12 900	0.7	42.6	7.7	83	0.1	52.3	17.1	501
TL12 950	0.6	56	7.8	78	0.2	53.2	17.8	566
TL12 1000	2	40.6	15.4	95	0.5	35.1	15	511
STANDAR	13.2	143	24.2	138	0.3	24.8	12	786
G-1	1.7	2.6	1.9	40	<.1	4	3.4	459
TL12 1050	1.8	38.8	9.7	90	0.2	38.4	14.7	406
TL12 1100	1.7	44.4	21.5	145	0.1	45	16.6	509
TL12 1200	8.1	88	69.8	484	0.8	95.6	18.6	414
TL12 1250	6.3	74.2	169.7	310	0.8	64.2	15.4	346
TL12 1300	2.4	70.1	9.4	206	0.3	75.6	17.1	401
TL12 1350	0.9	56.3	8.7	84	0.1	62.9	22.4	436
TL12 1400	1.2	35.9	7.7	94	0.1	42.1	16.3	339
TL12 1450	7.9	138.6	17.5	248	0.6	80.6	25.5	1459
TL12 1500	15.7	242	38.3	700	1.1	202.6	31.3	1247
TL12 1550	1.1	58.8	8.8	91	0.2	52	18.7	479
TL12 1600	1.3	42.9	6	73	0.1	36.1	12.1	324
TL12 1650	1.1	50	7.2	94	0.1	53.1	18.9	746
TL12 1700	0.6	46.3	7.3	64	0.1	51.5	15.6	260
RE TL12 1	0.7	49.1	6.5	67	0.1	56.2	15.1	264
TL12 1750	0.7	50.2	6.1	66	0.1	42.2	14	343
TL12 1800	0.5	36.7	6.1	63	0.1	40.5	14.1	357
TL12 1850	0.5	44.7	5.8	48	0.1	43	13.2	289
TL12 1900	0.7	54.3	8.5	73	0.1	63	18.2	365
TL12 1950	1	37.7	6.7	64	0.1	38	14	319
TL12 2000	0.4	50.5	7.8	75	0.2	65.2	17.8	507
TL13 0	1.8	65.9	11.4	130	0.1	34.2	19	1247

ELEMENT TI	S	Ga	Se	
TL10 0	0.1	0.17	6	1.8
TL10 50	0.1	0.07	6	1
TL10 100	0.1 <.05		3	0.7
TL10 150	0.1 <.05		6	1
TL10 200	0.1 <.05		5	1
TL10 250	0.1	0.07	4	0.9
TL10 350	0.2 <.05		6	0.6
TL10 400	0.2	0.06	5	1
TL10 450	0.2	0.06	5	0.9
STANDAR	1.1 <.05		6	5.1
G-1	0.3	0.12	5 <.5	
TL10 500	0.2	0.14	7 <.5	
TL10 550	0.2	0.12	6	0.7
TL10 600	0.2	0.13	6	0.6
TL10 650	0.2	0.08	5	0.6
TL10 700	0.2 <.05		6 <.5	
TL10 750	0.2 <.05		7 <.5	
TL10 800	0.2 <.05		6	0.5
TL10 850	0.2 <.05		5 <.5	
TL10 1150 <.1		0.09	1 <.5	
TL10 1200	0.3 <.05		6 <.5	
TL10 1300	0.2 <.05		6 <.5	
TL10 1350	0.2 <.05		6	0.6
TL10 1500	0.2 <.05		5 <.5	
RE TL10 1	0.2 <.05		6 <.5	
TL10 1600	0.2 <.05		5 <.5	
TL10 1750	0.1	0.09	3	0.5
TL10 1800	0.3 <.05		6 <.5	
TL11 0	0.2	0.13	6	1.5
TL11 50	0.2	0.06	7	1
TL11 100	0.2 <.05		6	1.3
TL11 150	0.2 <.05		5	1.1
TL11 200	0.1 <.05		6	0.7
TL11 250	0.2 <.05		6	1.1
TL11 300	0.2	0.06	6	0.8
TL11 350	0.2 <.05		7	0.9
TL11 400	0.2 <.05		6	0.8
TL11 450	0.2 <.05		6	0.7
TL11 500	0.2 <.05		6	0.6
TL11 550	0.2 <.05		6	0.5
TL11 600	0.2 <.05		5	0.6
TL11 650	0.2 <.05		5 <.5	
TL11 700	0.2 <.05		6	0.6
TL11 800	0.1 <.05		5 <.5	
STANDAR	1.1 <.05		7	4.9
G-1	0.3 <.05		4 <.5	
TL11 850	0.2 <.05		6 <.5	
TL11 900	0.2 <.05		7 <.5	
TL11 950	0.1 <.05		8 <.5	
TL11 1000	0.2 <.05		6 <.5	
TL11 1050	0.3 <.05		8 <.5	

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL10 0	0.093		2	1.61	0.027	0.11	0.1	0.03	3.3
TL10 50	0.119		1	1.8	0.016	0.14	0.1	0.03	3.9
TL10 100	0.055	<1		0.99	0.034	0.09	0.1	0.02	2
TL10 150	0.103		1	2.1	0.021	0.13	0.1	0.03	4.1
TL10 200	0.058		1	1.35	0.022	0.09	0.1	0.04	2.4
TL10 250	0.07		2	1.32	0.026	0.13	0.1	0.05	2.5
TL10 350	0.123		1	1.84	0.032	0.2	0.1	0.03	4.6
TL10 400	0.108		2	1.68	0.033	0.17	0.1	0.03	3.8
TL10 450	0.1		2	1.63	0.03	0.15	0.1	0.03	3.5
STANDAR	0.1		17	1.96	0.035	0.14	5.2	0.18	3.4
G-1	0.108		3	0.9	0.087	0.43	1.7	<.01	3
TL10 500	0.116		4	2.04	0.037	0.19	0.1	0.03	5.1
TL10 550	0.122		4	1.98	0.039	0.17	0.1	0.02	5.1
TL10 600	0.104		4	1.78	0.033	0.16	0.1	0.02	4.5
TL10 650	0.104		3	1.61	0.033	0.14	0.2	0.02	3.7
TL10 700	0.142		5	1.92	0.03	0.26	0.1	0.02	4.9
TL10 750	0.13		4	2	0.034	0.17	0.1	0.02	5.2
TL10 800	0.114		3	1.62	0.029	0.2	0.2	0.02	5.1
TL10 850	0.103		3	1.58	0.031	0.15	0.2	0.02	3.9
TL10 1150	0.021		4	0.43	0.046	0.05	0.1	0.01	0.9
TL10 1200	0.093		3	1.83	0.023	0.28	0.2	0.01	5.5
TL10 1300	0.1		4	1.74	0.029	0.19	0.1	0.03	4.8
TL10 1350	0.081		3	1.68	0.022	0.19	0.1	0.03	4.8
TL10 1500	0.087		2	1.47	0.023	0.21	0.2	0.01	3.5
RE TL10 1	0.089		2	1.61	0.021	0.27	0.1	0.02	4.3
TL10 1600	0.088		2	1.76	0.019	0.28	0.1	0.01	4
TL10 1750	0.046		3	0.91	0.03	0.06	0.1	0.03	1.6
TL10 1800	0.045		3	2.1	0.012	0.36	0.1	0.01	4.3
TL11 0	0.06		3	1.62	0.013	0.14	0.1	0.06	3.2
TL11 50	0.113		3	2.3	0.017	0.18	0.1	0.04	4.8
TL11 100	0.095		3	2.16	0.024	0.19	0.6	0.03	5.3
TL11 150	0.107		3	1.58	0.033	0.17	0.2	0.03	4.1
TL11 200	0.077		2	1.59	0.022	0.1	0.1	0.04	2.6
TL11 250	0.106		1	1.85	0.03	0.2	0.1	0.03	3.5
TL11 300	0.084		3	1.84	0.031	0.13	0.1	0.04	4.1
TL11 350	0.115		4	2.07	0.03	0.17	0.1	0.04	5.2
TL11 400	0.119		2	1.81	0.033	0.19	0.1	0.03	3.7
TL11 450	0.094		2	1.86	0.032	0.14	0.1	0.04	4
TL11 500	0.109		2	2.03	0.035	0.15	0.1	0.03	4.6
TL11 550	0.142		2	2.21	0.03	0.22	0.1	0.03	6.6
TL11 600	0.095		3	1.72	0.034	0.11	0.1	0.04	4.6
TL11 650	0.103		2	1.59	0.03	0.14	0.1	0.02	4.5
TL11 700	0.107		3	1.72	0.034	0.17	0.1	0.02	4.6
TL11 800	0.103		3	1.56	0.03	0.15	0.1	0.02	4.1
STANDAR	0.101		17	2.14	0.035	0.16	4.7	0.18	3.8
G-1	0.108		1	0.85	0.07	0.41	1.8	<.01	2.4
TL11 850	0.118		2	1.87	0.028	0.15	0.1	0.02	5.9
TL11 900	0.126	<1		2.98	0.026	0.07	0.1	0.01	7
TL11 950	0.089		1	2.49	0.016	0.07	0.1	<.01	4.1
TL11 1000	0.093		2	2.16	0.018	0.11	0.1	0.01	4.4
TL11 1050	0.054		1	2.86	0.013	0.15	0.1	0.03	12.9

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL10 0	0.4		89	0.34	0.088	19	36.7	0.66	193
TL10 50	0.2		82	0.34	0.06	14	42.9	0.74	211
TL10 100	0.6		46	0.28	0.058	15	21.9	0.32	118
TL10 150	1.2		92	0.37	0.098	20	48.9	0.84	241
TL10 200	0.8		62	0.47	0.077	19	31.5	0.5	170
TL10 250	0.4		50	0.77	0.083	21	32.3	0.54	172
TL10 350	0.3		72	0.81	0.076	25	80.8	1.04	187
TL10 400	0.3		63	0.78	0.061	18	59.7	0.89	206
TL10 450	0.2		64	0.66	0.066	20	57.8	0.84	165
STANDAR	6		62	0.72	0.094	12	188.2	0.68	139
G-1	0.1		41	0.56	0.073	9	14.3	0.48	203
TL10 500	0.2		78	0.98	0.079	20	70.7	0.99	170
TL10 550	0.2		71	0.93	0.072	18	65.5	0.95	187
TL10 600	0.1		72	1.24	0.074	17	62.3	0.88	172
TL10 650	0.1		65	0.91	0.065	17	55.7	0.79	189
TL10 700	0.1		82	1.09	0.098	16	87.9	1.19	163
TL10 750	0.1		80	0.95	0.08	18	73.1	1.26	113
TL10 800	0.1		69	1.21	0.088	17	69.7	1.09	117
TL10 850	0.1		67	1.01	0.068	15	62.2	0.87	111
TL10 1150	0.1		15	0.73	0.032	4	9.3	0.14	49
TL10 1200	0.2		63	0.75	0.08	27	83.2	1	136
TL10 1300	0.1		64	1.8	0.069	21	64.4	1.05	129
TL10 1350	0.2		56	1.25	0.058	32	60.8	0.96	113
TL10 1500	0.1		53	1.48	0.066	18	50.4	1.06	105
RE TL10 1	0.1		49	1.01	0.084	28	55.7	1.06	109
TL10 1600	0.2		50	0.97	0.086	28	55.9	1.08	109
TL10 1750	0.1		28	1.77	0.048	9	20	0.31	82
TL10 1800	0.2		40	1.06	0.052	26	53.2	0.89	111
TL11 0	0.9		77	0.36	0.098	20	40.9	0.55	182
TL11 50	0.4		98	0.38	0.071	19	61.8	0.9	214
TL11 100	1		116	1.17	0.189	31	54	1.09	374
TL11 150	0.7		84	0.79	0.115	23	47.4	0.73	235
TL11 200	0.8		78	0.43	0.065	13	33.5	0.48	179
TL11 250	0.5		76	0.64	0.077	21	47.1	0.79	215
TL11 300	0.4		68	1.08	0.083	21	73.7	0.86	207
TL11 350	0.3		79	0.91	0.072	22	86.9	1.02	179
TL11 400	0.3		75	0.69	0.069	18	51.9	0.81	202
TL11 450	0.2		60	0.64	0.067	22	61.3	0.78	170
TL11 500	0.3		69	0.69	0.064	21	65.1	0.93	181
TL11 550	0.2		86	0.68	0.077	24	82.7	1.12	170
TL11 600	0.1		66	0.88	0.075	17	56.2	0.87	149
TL11 650	0.1		61	1.12	0.058	16	59.7	0.88	137
TL11 700	0.1		67	1.33	0.072	16	62.9	0.94	136
TL11 800	0.1		69	1.27	0.08	15	60.5	0.9	117
STANDAR	6		64	0.79	0.087	14	187.1	0.68	141
G-1	0.1		40	0.52	0.073	7	13.8	0.53	206
TL11 850	0.1		66	1.61	0.09	16	65.4	1.41	133
TL11 900	0.1		80	0.63	0.045	18	86.6	1.3	86
TL11 950	0.2		88	0.3	0.02	12	62.7	1	74
TL11 1000	0.2		67	1.06	0.036	16	73.2	0.94	87
TL11 1050	0.3		92	1.04	0.084	39	140.6	1.44	136

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL10 0	3.62		9.6	1.3	2.4	3.1	35	1	1.1
TL10 50	3.85		10.4	1	2.7	3.3	28	0.8	0.7
TL10 100	1.8		7.7	0.9	7.9	1.4	22	1.2	0.4
TL10 150	3.79		15.4	1.4	3.2	4	31	3.1	0.9
TL10 200	2.59		15.6	1.3	4.3	1.4	30	2.6	0.8
TL10 250	2.29		8.3	1.3	2.5	1.2	44	1.7	0.4
TL10 350	3.12		8.5	1.4	7.4	3.6	46	1	0.5
TL10 400	2.78		9.8	1	2.7	2.1	47	0.7	0.4
TL10 450	2.77		9.3	1.2	4.2	2.2	39	0.3	0.4
STANDAR	3		18.2	6.4	45	2.9	50	5.6	4
G-1	1.82	<.5		1.8	1.3	4.2	82	<.1	<.1
TL10 500	3.35		10.1	1	2.9	3	48	0.3	0.6
TL10 550	3.46		11	1.3	2.3	3.4	46	0.3	0.6
TL10 600	2.9		9.6	1.2	11.1	3	54	0.2	0.5
TL10 650	2.74		7.7	1.1	8.2	3.6	45	0.1	0.5
TL10 700	3.52		13.2	0.7	3.3	3.6	57	0.3	0.6
TL10 750	3.36		12.4	0.9	7.4	4.4	46	0.2	0.5
TL10 800	3		12.1	0.7	4.1	4.1	48	0.2	0.6
TL10 850	2.83		10.9	0.8	3.6	3.5	46	0.1	0.5
TL10 1150	0.64		2.5	0.3	1.2	0.3	32	0.1	0.1
TL10 1200	3.86		15.9	1.1	3.3	8.1	41	0.2	0.7
TL10 1300	3.15		12.2	0.9	3.6	3.6	70	0.1	0.8
TL10 1350	3.21		11	1.3	5.4	5.6	57	0.1	0.8
TL10 1500	2.51		22.7	1	7.1	4.3	75	0.2	1
RE TL10 1	2.77		49.5	1	10.3	7.6	43	0.1	1.2
TL10 1600	2.87		47.1	0.9	7.4	8.2	41	0.1	1.2
TL10 1750	1.33		6.1	0.8	2.5	0.9	90	0.2	0.4
TL10 1800	3.24		25	1	3.7	8.2	55	0.1	1.7
TL11 0	3.42		15.3	2.4	6.4	1.5	32	0.5	1.2
TL11 50	3.64		9.6	1.4	4.1	4	31	1.1	0.7
TL11 100	3.52		11	2.7	3.1	4.7	44	2.3	0.6
TL11 150	3.11		14.2	1.8	7.4	4.6	39	1.8	0.9
TL11 200	2.97		15.6	1	3.4	1.9	27	1.4	0.7
TL11 250	2.89		10.9	1.6	3.1	3.2	36	1.2	0.5
TL11 300	2.84		9.4	1.6	4.3	2	51	1.6	0.4
TL11 350	3.35		8.5	1.6	5.8	3.4	48	1	0.4
TL11 400	3.07		40.9	1	9.6	3.4	36	0.3	0.4
TL11 450	2.63		5.4	1.3	7.3	2.3	38	0.6	0.4
TL11 500	3.11		8.4	1.2	4.1	2.9	41	0.3	0.5
TL11 550	3.09		7.2	1.5	3.5	5	39	0.4	0.6
TL11 600	2.78		9.8	1.2	3.2	2.7	45	0.2	0.5
TL11 650	2.49		7.3	1.3	10.3	3	52	0.2	0.5
TL11 700	2.77		8.2	1	3	3.3	55	0.2	0.4
TL11 800	2.74		9.1	0.9	3.1	3.3	50	0.2	0.6
STANDAR	2.97		18.3	6.2	45	3	51	5.3	3.9
G-1	1.8	<.5		1.5	0.5	3.8	84	<.1	<.1
TL11 850	3.37		12.8	0.5	4.4	3.8	51	0.2	0.8
TL11 900	3.9		17.5	0.9	1.9	5.8	52	0.1	0.8
TL11 950	4.21		13.2	0.6	5.5	4.1	19	0.1	0.8
TL11 1000	3.42		12.1	0.8	2.2	3.5	76	0.1	0.6
TL11 1050	6.02		29.1	1.3	6	8.4	61	0.2	1.8

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL10 0		3.9	60.9	9	139	0.2	39.9	12.7	299
TL10 50		1.7	49.4	9	141	0.2	43.2	15	427
TL10 100		1.2	42.4	4.9	197	0.2	28.1	9.1	441
TL10 150		2.1	54.4	11.9	449	0.4	62.5	20.9	637
TL10 200		2.1	62.9	11.7	306	0.4	36.6	15.3	525
TL10 250		1.7	51.9	8	172	0.2	32.5	12.5	608
TL10 350		1.2	40.8	9.1	175	0.2	60.8	18.1	701
TL10 400		1	40.9	7.8	139	0.2	49.8	14.4	489
TL10 450		1	38.5	7.9	130	0.2	48.1	12.1	405
STANDAR		13.1	139.9	25.2	139	0.3	24.9	11.9	790
G-1		1.6	2.9	2.3	42 <.1		3.9	3.9	517
TL10 500		0.8	44.2	7.7	116	0.2	48	15.9	513
TL10 550		0.8	44.3	8.2	114	0.2	51.3	18.9	642
TL10 600		0.7	40.3	7.4	104	0.2	46.9	16.5	638
TL10 650		0.7	30.2	6.4	105	0.1	36.9	15.5	528
TL10 700		0.6	50.9	6.8	93	0.2	54.9	20.6	739
TL10 750		0.8	36	8.4	100	0.1	49.2	18.6	589
TL10 800		0.4	36.1	7.2	94	0.1	51.1	15.6	448
TL10 850		0.5	31.7	6.8	77	0.1	42.4	15.9	512
TL10 1150		0.2	21.5	1.7	44 <.1		7.7	3.6	171
TL10 1200		0.9	38.7	16.7	102	0.1	62.4	21.4	660
TL10 1300		0.4	46.7	7.9	93	0.2	52.4	18	495
TL10 1350		0.7	52.6	9.9	91	0.2	55.7	20.9	518
TL10 1500		0.7	30.9	8.7	101	0.1	46	14.8	385
RE TL10 1		0.4	37.8	9.2	86	0.2	50	16.5	421
TL10 1600		0.4	37.6	8.8	87	0.2	50.6	17.5	451
TL10 1750		0.4	33.7	3.2	50	0.1	16.6	5.9	169
TL10 1800		0.4	49	14	96	0.1	53	19.4	371
TL11 0		3.4	55	14.3	123	0.3	27.8	11	342
TL11 50		2.3	54	11.2	202	0.2	54	18.6	754
TL11 100		2.4	58.5	12.3	418	0.5	70.5	16.9	563
TL11 150		1.8	46.8	13.1	317	0.3	56.3	16.8	419
TL11 200		2.1	46.5	9.7	186	0.3	28.8	12.9	399
TL11 250		1.6	49.7	8.3	214	0.2	40.7	14.8	435
TL11 300		1.5	56.7	8.7	198	0.3	62.6	15.3	552
TL11 350		1.2	46.3	10.9	180	0.2	68.2	21	676
TL11 400		1	35.1	8.4	137	0.1	39.3	15.1	503
TL11 450		1.2	41.4	7.3	146	0.2	48.3	15.3	377
TL11 500		1.2	40.7	8	125	0.2	49	16.1	475
TL11 550		0.6	50.5	9.6	129	0.1	55.2	16.5	332
TL11 600		0.9	36.7	6.6	94	0.1	45.9	16	798
TL11 650		0.3	33	6.9	90	0.1	45.5	13.1	259
TL11 700		0.4	30.9	6.5	98	0.1	44.8	15.2	527
TL11 800		0.5	28	6.5	82	0.1	42.2	14.8	591
STANDAR		12.4	139.5	25.3	136	0.3	25.5	12.7	790
G-1		1.9	2.9	1.9	40 <.1		4	3.7	472
TL11 850		0.5	38.6	7.2	84	0.1	61.8	18.2	655
TL11 900		0.7	48.7	8.4	88	0.1	73.5	21.4	402
TL11 950		1.5	32.1	10.2	80	0.1	49.1	20.1	508
TL11 1000		1.1	47.6	9.6	70	0.1	59.2	19.4	341
TL11 1050		1.2	63.9	14.2	106	0.4	107.6	36.1	851

ELEMENT TI	S	Ga	Se	
TL8 550	0.1	0.06	5	0.8
TL8 600	0.2 <.05		6	0.6
TL8 650	0.1 <.05		5	0.6
TL8 700	0.2 <.05		6	0.6
TL8 750	0.2 <.05		7	0.5
TL8 800	0.2 <.05		5	0.6
TL8 850	0.2 <.05		5	0.8
TL8 900	0.2 <.05		6	0.6
TL8 950	0.1 <.05		5	0.6
TL8 1000	0.2 <.05		6 <.5	
TL8 1050	0.2 <.05		6 <.5	
TL8 1100	0.2 <.05		6 <.5	
RE TL8 11	0.2 <.05		6 <.5	
TL8 1200	0.2 <.05		6	0.5
TL8 1250	0.1 <.05		7 <.5	
TL8 1500	0.2 <.05		5	0.5
TL8 1600	0.2	0.12	5	0.8
TL8 1700	0.2	0.06	6	0.8
TL8 1800	0.2 <.05		5	0.5
TL9 0	0.1 <.05		7	0.8
TL9 50	0.1 <.05		7	0.5
TL9 100	0.2 <.05		7	1.1
TL9 150	0.3	0.07	6	1.9
TL9 200	0.2 <.05		7	0.8
TL9 250	0.3 <.05		7	0.5
STANDAR	1 <.05		7	5.2
G-1	0.3	0.14	5 <.5	
TL9 300	0.2	0.19	7	0.6
TL9 350	0.3	0.14	7 <.5	
TL9 400	0.3	0.14	7	0.6
TL9 450	0.3	0.07	7 <.5	
TL9 500	0.2	0.09	6 <.5	
TL9 550	0.3	0.07	7 <.5	
TL9 600	0.2	0.06	7 <.5	
TL9 650	0.2 <.05		6	0.5
TL9 700	0.2 <.05		6 <.5	
TL9 750	0.2 <.05		6 <.5	
TL9 800	0.2 <.05		6 <.5	
TL9 900	0.1 <.05		5	0.6
RE TL9 90	0.2 <.05		5 <.5	
TL9 1000	0.2 <.05		5	0.6
TL9 1050	0.2	0.06	5	0.7
TL9 1100	0.2	0.08	5 <.5	
TL9 1200	0.2	0.06	5	0.5
TL9 1250	0.2 <.05		6	0.6
TL9 1450	0.2 <.05		5 <.5	
TL9 1500	0.1 <.05		7 <.5	
TL9 1550	0.1 <.05		5	0.5
TL9 1650	0.2 <.05		5	0.5
TL9 1750	0.1 <.05		6 <.5	
TL9 1800	0.2 <.05		4	0.8

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL8 550	0.061		2	1.7	0.029	0.09	0.1	0.04	2.8
TL8 600	0.119		3	1.99	0.03	0.2	0.1	0.02	4.2
TL8 650	0.095		1	1.58	0.029	0.14	0.1	0.02	3.2
TL8 700	0.128		1	1.95	0.032	0.21	0.1	0.02	4.9
TL8 750	0.136		1	2.01	0.029	0.21	0.1	0.03	5.8
TL8 800	0.118		1	1.62	0.027	0.23	0.1	0.02	4.4
TL8 850	0.113		2	1.73	0.027	0.2	0.1	0.02	4.4
TL8 900	0.11		2	1.67	0.026	0.19	0.1	0.03	4.7
TL8 950	0.093		1	1.51	0.029	0.13	0.1	0.02	3.8
TL8 1000	0.136		1	1.82	0.023	0.24	0.1 <.01		4.8
TL8 1050	0.142		2	1.77	0.026	0.28	0.1	0.01	5.5
TL8 1100	0.118		2	1.82	0.028	0.23	0.1	0.01	4.7
RE TL8 11	0.123	<1		1.9	0.028	0.24	0.1	0.01	4.7
TL8 1200	0.129		1	2.01	0.026	0.31	0.1	0.02	5.2
TL8 1250	0.111		1	2.2	0.019	0.13	0.1	0.01	5.4
TL8 1500	0.075		2	1.75	0.018	0.12	0.1	0.02	4.1
TL8 1600	0.076		2	1.42	0.02	0.2	0.1	0.04	3.7
TL8 1700	0.112		2	1.66	0.02	0.27	0.1	0.02	4.8
TL8 1800	0.118		1	1.56	0.021	0.29	0.1	0.02	4.5
TL9 0	0.122		2	2.03	0.012	0.11	0.1	0.03	3.7
TL9 50	0.091		1	1.82	0.014	0.09	0.1	0.03	3.2
TL9 100	0.094		2	2.55	0.017	0.2	0.1	0.05	5.4
TL9 150	0.097		2	2.09	0.014	0.24	0.1	0.05	4.6
TL9 200	0.15		2	2.26	0.032	0.22	0.1	0.01	4.6
TL9 250	0.175		1	2.29	0.041	0.42	0.1	0.01	4.1
STANDAR	0.097		18	2.07	0.033	0.14	5	0.19	3.4
G-1	0.119		1	0.9	0.1	0.47	1.5 <.01		3.3
TL9 300	0.141		1	2.12	0.042	0.28	0.1	0.03	5.5
TL9 350	0.134	<1		1.98	0.031	0.25	0.1	0.02	5.3
TL9 400	0.149	<1		1.99	0.042	0.26	0.1	0.03	5
TL9 450	0.153	<1		2.15	0.032	0.27	0.1	0.02	4.9
TL9 500	0.149		1	1.93	0.041	0.23	0.1	0.01	5.1
TL9 550	0.151		1	2.06	0.035	0.21	0.1	0.02	5.4
TL9 600	0.151		1	2.04	0.04	0.21	0.1	0.03	5.7
TL9 650	0.13	<1		1.9	0.032	0.21	0.1	0.03	5.5
TL9 700	0.115		2	1.82	0.03	0.21	0.1	0.03	5.2
TL9 750	0.134	<1		1.61	0.028	0.21	0.1	0.01	5.2
TL9 800	0.109	<1		1.64	0.024	0.22	0.1	0.02	5.1
TL9 900	0.088		1	1.37	0.029	0.13	0.1	0.02	3.7
RE TL9 90	0.084		1	1.34	0.028	0.12	0.1	0.02	3.6
TL9 1000	0.105		1	1.6	0.026	0.15	0.2	0.02	4.6
TL9 1050	0.096		2	1.46	0.026	0.14	0.1	0.03	4.4
TL9 1100	0.104		3	1.45	0.022	0.17	0.1	0.02	3.7
TL9 1200	0.09		2	1.51	0.022	0.15	0.1	0.03	4.1
TL9 1250	0.105		1	1.55	0.024	0.18	0.1	0.02	4.7
TL9 1450	0.096		1	1.4	0.022	0.2	0.3	0.03	3.6
TL9 1500	0.095		1	1.89	0.019	0.05	0.1	0.02	4.7
TL9 1550	0.09		1	1.4	0.021	0.12	0.1	0.02	4.2
TL9 1650	0.099		2	1.47	0.028	0.18	0.1	0.01	3.8
TL9 1750	0.107		2	2.29	0.023	0.11	0.1	0.01	4.1
TL9 1800	0.082		2	1.38	0.023	0.2	0.1	0.02	4.1

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL8 550	0.2	54	0.98	0.102	21	35.2	0.7	171	
TL8 600	0.2	65	0.66	0.062	16	55	0.97	165	
TL8 650	0.1	60	0.73	0.062	15	44.2	0.75	137	
TL8 700	0.2	73	0.76	0.074	18	60.1	1.03	159	
TL8 750	0.2	78	0.74	0.087	25	73.7	1.16	146	
TL8 800	0.1	66	0.89	0.096	16	61	0.98	115	
TL8 850	0.2	73	1.02	0.086	17	59.1	0.93	126	
TL8 900	0.1	64	1.03	0.078	18	62.1	0.97	124	
TL8 950	0.1	55	1.2	0.063	14	50.9	0.81	121	
TL8 1000	0.1	68	0.92	0.102	16	78.2	1.3	118	
TL8 1050	0.1	79	1.32	0.096	16	76.7	1.33	120	
TL8 1100	0.2	65	0.99	0.081	22	59.6	1.14	122	
RE TL8 11	0.1	67	0.97	0.079	22	59.9	1.14	123	
TL8 1200	0.2	71	1.11	0.065	22	72.9	1.08	146	
TL8 1250	0.2	84	0.64	0.027	22	68.5	0.99	134	
TL8 1500	0.2	46	2.48	0.098	23	49.7	1.02	137	
TL8 1600	0.1	43	2.59	0.067	17	46.3	0.77	126	
TL8 1700	0.1	60	1.93	0.074	21	64.2	1.09	121	
TL8 1800	0.1	64	1.6	0.073	18	56.6	1.04	97	
TL9 0	0.8	105	0.29	0.061	13	53.7	0.84	136	
TL9 50	0.3	88	0.28	0.054	11	39.2	0.7	121	
TL9 100	5.7	123	0.56	0.139	42	52.2	1.07	342	
TL9 150	1.1	115	0.86	0.112	40	56.5	1	366	
TL9 200	0.4	94	0.52	0.057	19	54.2	1.02	230	
TL9 250	0.3	85	0.7	0.041	15	62	1.14	234	
STANDAR	6	61	0.73	0.097	12	186	0.68	135	
G-1	0.1	43	0.53	0.082	7	13.8	0.54	213	
TL9 300	0.2	88	1.07	0.099	18	84.5	1.22	217	
TL9 350	0.1	77	0.86	0.057	23	72.4	1.13	222	
TL9 400	0.1	80	0.91	0.072	20	71	1.14	264	
TL9 450	0.1	76	0.59	0.06	15	63.6	1.11	293	
TL9 500	0.1	79	0.79	0.089	16	72.9	1.14	182	
TL9 550	0.1	79	0.68	0.066	17	71.5	1.15	151	
TL9 600	0.1	82	0.78	0.07	16	74.5	1.19	167	
TL9 650	0.2	72	0.82	0.072	23	62.6	1.07	163	
TL9 700	0.1	63	0.99	0.078	20	62	1.03	168	
TL9 750	0.1	69	0.76	0.096	16	68.6	1.12	123	
TL9 800	0.2	67	0.87	0.085	19	62.9	1.04	135	
TL9 900	0.1	58	1	0.072	14	48.9	0.77	128	
RE TL9 90	0.1	53	0.99	0.073	13	48.5	0.76	122	
TL9 1000	0.1	60	1.09	0.074	16	68.4	1.01	124	
TL9 1050	0.1	57	1.56	0.076	15	57.7	0.93	140	
TL9 1100	0.1	54	1.78	0.081	15	54.8	1.14	112	
TL9 1200	0.1	60	1.16	0.069	16	56.5	0.93	110	
TL9 1250	0.1	57	1.71	0.082	18	63.5	1.1	128	
TL9 1450	0.1	54	1.38	0.076	19	53.8	1.07	109	
TL9 1500	0.2	75	0.77	0.074	12	63.8	0.92	111	
TL9 1550	0.1	59	1.07	0.079	13	49.6	0.87	113	
TL9 1650	0.1	57	0.94	0.044	11	53.1	0.82	108	
TL9 1750	0.2	83	0.36	0.021	9	53.1	0.83	148	
TL9 1800	0.1	54	6.69	0.07	16	45.7	1.05	117	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL8 550	2.4		10.2	1.4	4.2	1.1	49	0.3	0.9
TL8 600	2.96		9.3	1.1	3.3	3.3	38	0.3	0.7
TL8 650	2.6		10.5	1.3	9.1	1.9	40	0.3	0.6
TL8 700	3.27		16.2	1.1	4.1	4.5	40	0.3	0.5
TL8 750	3.48		18.8	1.8	12.8	5	38	0.2	0.8
TL8 800	2.86		14.4	0.8	5.1	4.1	39	0.3	0.6
TL8 850	3.05		19	0.9	5.4	3.6	48	0.1	0.6
TL8 900	2.92		15.2	1.2	4.7	3.5	51	0.3	0.6
TL8 950	2.51		10.5	0.9	1.8	2.6	55	0.1	0.5
TL8 1000	3.14		17.5	0.8	6.1	5.2	40	0.2	0.8
TL8 1050	3.29		16.2	0.7	4.4	4.4	49	0.2	0.8
TL8 1100	3.28		13.5	0.8	3	6.1	42	0.2	0.8
RE TL8 11	3.21		12.8	0.8	5.2	5.8	40	0.2	0.7
TL8 1200	3.4		16.5	1	2.9	4.3	62	0.2	0.6
TL8 1250	4.01		15.9	0.9	2.2	4.9	43	0.2	1
TL8 1500	3.03		12	0.8	1.7	4	119	0.2	0.8
TL8 1600	2.52		14.1	0.9	4.1	2.8	133	0.2	0.8
TL8 1700	3.33		23.4	0.9	5.1	5.1	87	0.2	1.1
TL8 1800	3.08		36.4	0.7	4.7	4.8	69	0.1	0.9
TL9 0	4.01		14.9	1	2.4	2.4	21	0.8	0.7
TL9 50	3.5		16.8	0.9	7.9	1.4	24	0.6	1
TL9 100	4.3		201.6	2.1	29.8	5.4	35	8.7	1.5
TL9 150	3.59		10.4	2.7	2.2	3.9	34	3.8	0.8
TL9 200	3.82		12.9	1.4	3.7	5.6	31	1	0.8
TL9 250	3.73		8.5	1	2	4.1	39	0.5	0.5
STANDAR	3.03		17.9	6.4	42	2.7	48	5.4	3.9
G-1	1.87	<.5		1.7	0.7	3.9	86	<.1	<.1
TL9 300	3.52		8.7	1.2	2.7	3.4	54	0.8	0.6
TL9 350	3.62		6.8	1.3	2.5	4.5	45	0.5	0.4
TL9 400	3.54		7.4	1.3	6.5	4	50	0.5	0.5
TL9 450	3.47		8.8	1	11.4	4.4	34	0.3	0.5
TL9 500	3.36		10.5	0.8	3.5	4.3	44	0.2	0.7
TL9 550	3.7		13.8	1	2.9	5.6	38	0.3	0.5
TL9 600	3.52		11.5	0.8	3.3	4.3	48	0.3	0.6
TL9 650	3.3		11.5	2.6	3.8	4.3	45	0.3	0.7
TL9 700	2.92		8.7	1.8	3.6	3.9	49	0.3	0.6
TL9 750	3.26		12.2	0.7	3.6	4.9	37	0.3	0.8
TL9 800	3.15		14	0.8	3	4	42	0.3	0.6
TL9 900	2.53		12.1	1.1	4.4	2.4	48	0.2	0.5
RE TL9 90	2.37		11.5	1.1	4.6	2.6	50	0.2	0.6
TL9 1000	3.01		14.7	0.9	2.4	3.4	54	0.3	0.6
TL9 1050	2.78		14.5	1	4	2.8	70	0.2	0.6
TL9 1100	2.76		9.6	0.7	1.7	3.7	66	0.2	0.4
TL9 1200	2.89		14.8	0.8	3.4	3.2	57	0.1	0.6
TL9 1250	2.95		13.2	0.8	2.9	3.2	77	0.2	0.7
TL9 1450	2.7		20.9	1.4	2.8	3.5	92	0.3	0.9
TL9 1500	3.84		16.7	0.7	2.7	3.4	49	0.1	0.8
TL9 1550	2.93		12.5	0.8	5	2.8	57	0.2	0.6
TL9 1650	2.8		146.7	0.8	12.4	3.2	54	0.2	0.7
TL9 1750	4.24		39.6	0.4	1.8	2.6	21	0.5	0.9
TL9 1800	2.92		210.4	0.8	65.6	3.3	165	0.2	1.4

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn
TL8 550	1.1	45.3	12.6	88	0.2	27.7	13.3	589
TL8 600	0.6	36.1	11.9	98	0.1	39.6	13.1	383
TL8 650	0.8	32.3	9	85	0.2	32.1	11	311
TL8 700	0.8	30.2	11.6	98	0.2	45.4	15.7	876
TL8 750	1	48.3	11.6	96	0.2	62.1	18.9	692
TL8 800	0.6	32.1	8	80	0.1	46.9	15.7	528
TL8 850	0.6	30.7	10.1	85	0.2	46.3	16.9	387
TL8 900	0.6	41.9	9.2	84	0.2	49.1	15.1	509
TL8 950	0.5	36.7	6.8	75	0.1	42.3	13.4	423
TL8 1000	0.6	34.2	8.7	81	0.2	71.1	17.4	528
TL8 1050	0.6	42.5	7.1	86	0.1	61.8	16.6	446
TL8 1100	0.5	31.1	12	81	0.1	53.2	16.2	566
RE TL8 11	0.6	31.4	10.9	78	0.1	56.1	16.9	557
TL8 1200	0.6	37.7	9.6	79	0.1	58.6	19.1	605
TL8 1250	0.9	41.9	10.5	80	0.2	58.6	20.1	527
TL8 1500	0.6	49.1	11.2	89	0.1	56.8	21.5	626
TL8 1600	0.3	61.9	7.2	70	0.2	48.6	15.8	398
TL8 1700	0.6	63.9	8.3	86	0.2	67.4	19.9	462
TL8 1800	0.5	39.1	7.5	76	0.2	46	16.6	403
TL9 0	2.7	41.9	11.5	191	0.1	41.7	13.9	485
TL9 50	2.6	36.8	9.4	162	0.1	42.3	14.8	475
TL9 100	2.7	83	22.9	1179	1	92.8	24.6	963
TL9 150	3.3	87.5	11.7	597	0.5	59.4	14.7	672
TL9 200	1.9	52.1	16.6	202	0.2	61.6	18.7	890
TL9 250	1.3	41.1	12.3	156	0.2	52.1	15.5	552
STANDAR	12.3	143.7	25.1	138	0.3	24.7	11.6	782
G-1	1.6	3.4	2	43 <.1		4.5	3.7	515
TL9 300	1.2	40.2	10.4	142	0.2	68.5	17.7	567
TL9 350	0.8	40.7	11.1	122	0.2	60.5	16.7	508
TL9 400	1	38	10.1	119	0.2	59.6	16.8	506
TL9 450	0.8	39.8	9.5	119	0.1	55.4	16.6	386
TL9 500	0.7	40.4	9.6	89	0.1	55	15.5	496
TL9 550	1	35	11.6	99	0.1	52.1	18.5	349
TL9 600	0.6	39.5	10.4	99	0.2	53.8	16.9	455
TL9 650	0.8	57.3	10.8	106	0.2	52.1	15	350
TL9 700	0.6	37.4	9.6	103	0.2	51.8	16.2	816
TL9 750	0.7	31.3	8.1	88	0.1	50	15.6	612
TL9 800	0.6	43.2	8.9	93	0.2	57.3	16.2	528
TL9 900	0.6	36.6	6.7	77	0.1	40.5	12.7	665
RE TL9 90	0.7	33.9	6.9	76	0.1	35.3	11.8	671
TL9 1000	0.6	39.6	7.8	81	0.1	49.1	15.3	637
TL9 1050	0.3	35.9	8	75	0.1	44.9	15.6	683
TL9 1100	0.4	34.4	8.4	80	0.1	44.4	14.5	589
TL9 1200	0.5	34.2	7.9	74	0.1	42.9	14.6	514
TL9 1250	0.3	46.2	7.8	83	0.2	54.8	16	582
TL9 1450	0.7	41.5	7.6	78	0.1	52.1	13.8	410
TL9 1500	0.9	44	10.3	77	0.1	56.9	19.8	485
TL9 1550	0.6	44.7	7.2	71	0.1	37.2	15.3	361
TL9 1650	0.4	59.2	7.7	65	0.1	50.6	17.4	359
TL9 1750	1.2	27	10.3	84	0.1	50.6	22.4	454
TL9 1800	0.5	50.3	7	63	0.1	45.1	15.5	448

ELEMENT TI	S	Ga	Se	
TL6 1350	0.2 <.05		7 <.5	
TL6 1400	0.3 <.05		7 <.5	
TL6 1450	0.1	0.06	4 <.5	
TL6 1550	0.2 <.05		6 <.5	
TL6 1600	0.1	0.14	4	0.5
TL6 1650	0.2	0.08	5	0.7
STANDAR	1 <.05		6	5.2
G-1	0.3	0.06	5 <.5	
TL6 1750	0.1	0.2	3	0.7
TL6 1850	0.1	0.14	4	0.6
TL7 0	0.1	0.13	6	1
TL7 50	0.2 <.05		7	0.7
TL7 100	0.1 <.05		7	0.6
TL7 150	0.2 <.05		6	0.7
TL7 200	0.4 <.05		7	0.5
TL7 250	0.4 <.05		8	0.6
TL7 300	0.3 <.05		8 <.5	
TL7 350	0.3 <.05		8	0.7
TL7 400	0.2 <.05		8	0.8
TL7 450	0.3 <.05		8	0.5
TL7 500	0.3 <.05		7 <.5	
TL7 550	0.2 <.05		8 <.5	
TL7 650	0.2 <.05		6 <.5	
TL7 700	0.2 <.05		7 <.5	
TL7 750	0.2 <.05		6 <.5	
TL7 800	0.2 <.05		6 <.5	
TL7 850	0.2 <.05		6 <.5	
TL7 900	0.2 <.05		5 <.5	
TL7 950	0.2 <.05		5 <.5	
TL7 1150	0.2 <.05		5	0.5
TL7 1200	0.4 <.05		8	0.7
TL7 1300	0.3 <.05		8 <.5	
TL7 1350	0.2 <.05		5 <.5	
RE TL7 13	0.2 <.05		5 <.5	
TL7 1450	0.2 <.05		8 <.5	
TL7 1550	0.2 <.05		7 <.5	
TL7 1600	0.2 <.05		5 <.5	
TL7 1650	0.2 <.05		5	0.6
TL7 1700	0.2 <.05		5	0.6
TL7 1750	0.2	0.06	5	0.7
TL8 0	0.1 <.05		8	0.6
STANDAR	1 <.05		6	5.1
G-1	0.3 <.05		4 <.5	
TL8 100	0.1	0.09	7	0.9
TL8 200	0.1	0.09	6	0.8
TL8 250	0.1	0.07	4	0.6
TL8 300	0.3 <.05		8	0.7
TL8 350	0.2	0.08	6	1.1
TL8 400	0.2 <.05		7	0.9
TL8 450	0.2 <.05		6	0.8
TL8 500	0.1 <.05		6	0.7

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL6 1350	0.106		2	1.85	0.028	0.11	0.1	0.03	5.7
TL6 1400	0.124		2	2.16	0.032	0.23	0.1	0.01	4.9
TL6 1450	0.067		1	1.45	0.047	0.07 <.1		0.02	2.5
TL6 1550	0.107		2	1.51	0.027	0.2	0.1	0.03	4.7
TL6 1600	0.067		4	1.08	0.024	0.14	0.1	0.03	3.1
TL6 1650	0.072		2	1.24	0.025	0.16	0.1	0.03	3.4
STANDAR	0.099		17	1.94	0.035	0.14	5.4	0.16	3.4
G-1	0.121		1	0.94	0.099	0.46	1.2 <.01		3.6
TL6 1750	0.055		3	1.03	0.025	0.13	0.1	0.05	2.6
TL6 1850	0.063		2	1.06	0.023	0.11	0.1	0.03	2.6
TL7 0	0.069		1	1.39	0.011	0.11	0.1	0.06	3
TL7 50	0.146		1	2.25	0.015	0.16	0.1	0.03	4.4
TL7 100	0.101		2	1.51	0.011	0.1	0.1	0.03	3
TL7 150	0.101		1	1.93	0.014	0.17	0.1	0.01	3.5
TL7 200	0.189		1	2.56	0.045	0.43	0.1	0.03	4.7
TL7 250	0.191		2	2.39	0.052	0.48	0.1	0.01	4.5
TL7 300	0.176		1	2.37	0.04	0.35	0.1	0.04	7.2
TL7 350	0.141		1	2.38	0.043	0.2	0.1	0.03	5.1
TL7 400	0.118		2	2.38	0.034	0.17	0.1	0.03	5
TL7 450	0.146		2	2.27	0.029	0.27	0.1	0.02	5
TL7 500	0.122		2	2.07	0.023	0.23	0.1	0.03	4.9
TL7 550	0.132		2	2.13	0.024	0.24	0.1	0.01	4.6
TL7 650	0.104		2	1.6	0.024	0.13	0.1	0.02	3.6
TL7 700	0.126		2	1.98	0.024	0.23	0.1	0.02	5.2
TL7 750	0.12		1	1.77	0.028	0.18	0.1	0.02	5.2
TL7 800	0.12		1	1.86	0.027	0.18	0.1	0.02	5.3
TL7 850	0.112		1	1.56	0.028	0.15	0.1	0.02	4.5
TL7 900	0.096		3	1.4	0.026	0.15	0.1	0.02	4.1
TL7 950	0.103		2	1.47	0.024	0.18	0.1	0.02	3.9
TL7 1150	0.114		2	1.34	0.023	0.19	0.2	0.01	3.7
TL7 1200	0.139		1	2.26	0.029	0.45	0.1	0.01	4.6
TL7 1300	0.106		1	1.97	0.017	0.27	0.1	0.01	5.7
TL7 1350	0.056		1	1.41	0.015	0.1	0.1	0.04	5
RE TL7 13	0.055		2	1.37	0.015	0.09	0.1	0.04	5
TL7 1450	0.131		1	2.8	0.029	0.05	0.1	0.01	8.7
TL7 1550	0.104		1	2.34	0.019	0.15	0.1	0.02	6.1
TL7 1600	0.091		2	1.42	0.019	0.25	0.1	0.03	4.3
TL7 1650	0.09 <1			1.35	0.018	0.23	0.1	0.02	4.3
TL7 1700	0.097		3	1.62	0.023	0.25	0.1	0.02	5.1
TL7 1750	0.109		2	1.49	0.025	0.25	0.1	0.01	4.6
TL8 0	0.088		2	2.07	0.012	0.09	0.1	0.06	4
STANDAR	0.098		18	2.05	0.034	0.13	5.2	0.19	3.6
G-1	0.13		1	0.92	0.094	0.49	1.2 <.01		3.1
TL8 100	0.054		1	1.48	0.009	0.05	0.1	0.03	2.2
TL8 200	0.096		2	1.88	0.032	0.17	0.1	0.04	3.4
TL8 250	0.065		1	1.1	0.033	0.08	0.1	0.03	1.9
TL8 300	0.167		1	2.37	0.056	0.3	0.1	0.02	4
TL8 350	0.093		2	1.9	0.04	0.22	0.1	0.04	3.2
TL8 400	0.118		1	2.02	0.037	0.24	0.1	0.03	3.9
TL8 450	0.127		2	2.26	0.037	0.18	0.1	0.03	4.2
TL8 500	0.088		3	1.93	0.028	0.1	0.1	0.04	4.1

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL6 1350	0.2	67	1.02	0.077	23	67.7	1.02	131	
TL6 1400	0.2	64	0.6	0.07	23	78	1.29	109	
TL6 1450	0.1	38	0.96	0.066	9	29.1	0.34	81	
TL6 1550	0.2	59	1.4	0.094	17	55.6	1.03	108	
TL6 1600	0.1	40	2.4	0.071	11	45.7	0.74	90	
TL6 1650	0.1	48	2.36	0.062	15	61.7	0.86	100	
STANDAR	6.3	58	0.71	0.094	12	184.3	0.68	137	
G-1	0.1	41	0.5	0.08	8	14.3	0.51	225	
TL6 1750	0.1	36	2.25	0.061	11	34.7	0.62	101	
TL6 1850	0.1	40	1.67	0.053	12	36.9	0.57	102	
TL7 0	0.9	89	0.38	0.077	19	38.8	0.54	240	
TL7 50	0.2	102	0.32	0.048	11	45	0.92	342	
TL7 100	0.2	99	0.26	0.053	12	42.5	0.63	159	
TL7 150	0.2	82	0.33	0.08	19	42.8	0.78	207	
TL7 200	0.2	90	0.81	0.08	25	67.4	1.25	295	
TL7 250	0.1	82	0.81	0.068	13	67.6	1.27	215	
TL7 300	0.3	87	0.89	0.131	24	89.8	1.39	184	
TL7 350	0.2	86	0.88	0.076	21	74	1.24	218	
TL7 400	0.2	86	0.76	0.069	21	68.8	1.11	231	
TL7 450	0.1	76	0.58	0.041	24	70.8	1.16	189	
TL7 500	0.2	69	0.55	0.053	32	64.2	1.08	153	
TL7 550	0.2	75	0.59	0.053	22	66.9	1.11	169	
TL7 650	0.1	59	0.54	0.05	18	46.3	0.82	140	
TL7 700	0.1	70	0.63	0.075	19	73.7	1.13	155	
TL7 750	0.1	67	0.73	0.081	19	68.8	1.06	142	
TL7 800	0.2	68	0.88	0.081	19	72.5	1.1	136	
TL7 850	0.2	61	0.94	0.077	17	62.1	0.98	115	
TL7 900	0.2	58	1.27	0.076	15	55.9	1.02	114	
TL7 950	0.1	57	0.88	0.079	17	59.7	0.92	105	
TL7 1150	0.1	67	0.91	0.078	19	51.9	0.82	89	
TL7 1200	0.4	61	0.46	0.046	32	55.5	1.43	113	
TL7 1300	0.2	57	0.76	0.068	38	78.3	1.35	114	
TL7 1350	0.3	46	0.73	0.07	29	52.8	0.76	95	
RE TL7 13	0.3	44	0.75	0.071	30	50.8	0.77	96	
TL7 1450	0.2	84	0.52	0.029	23	93.3	1.1	100	
TL7 1550	0.3	66	1.4	0.04	55	69.4	0.92	124	
TL7 1600	0.2	49	2.08	0.081	20	56.9	1.1	97	
TL7 1650	0.1	50	2.13	0.072	19	54.2	1.03	90	
TL7 1700	0.2	57	3.13	0.077	19	59.2	1.16	129	
TL7 1750	0.1	60	2.61	0.069	18	62.5	1.07	122	
TL8 0	0.3	95	0.5	0.097	21	44.9	0.69	248	
STANDAR	6	62	0.7	0.098	13	192.6	0.7	136	
G-1	0.1	43	0.5	0.087	7	13.3	0.53	235	
TL8 100	0.2	88	0.2	0.049	12	34	0.39	148	
TL8 200	0.7	66	0.64	0.066	15	41.2	0.71	180	
TL8 250	0.1	44	0.49	0.05	9	21.9	0.38	107	
TL8 300	0.2	83	0.94	0.06	14	80.8	1.16	223	
TL8 350	0.2	61	1.28	0.073	14	61.4	0.89	210	
TL8 400	0.2	69	0.93	0.06	18	59.8	0.94	185	
TL8 450	0.2	74	0.68	0.057	17	58.9	1.09	197	
TL8 500	0.2	65	0.98	0.081	20	50	0.91	189	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL6 1350	3.65		9.2	1	1.7	4.7	60	0.2	0.6
TL6 1400	3.83		12.6	0.9	3.5	7.6	42	0.1	1
TL6 1450	1.96		6.3	0.5	1.3	1.1	80	0.1	0.3
TL6 1550	3.53		21.7	0.8	5.1	4	68	0.2	1.4
TL6 1600	2.44		36.7	0.9	8.2	1.6	104	0.2	1.1
TL6 1650	2.96		59	0.9	13.1	2.1	105	0.2	1.6
STANDAR	3.07		18.6	6.5	42	2.8	48	5.6	3.9
G-1	1.91	<.5		1.6	1	4	90	<.1	<.1
TL6 1750	2.09		30	0.8	7.6	1.3	96	0.2	1
TL6 1850	2.09		20.4	1.1	4.2	1.5	81	0.2	0.6
TL7 0	3.38		54.4	1.4	16	2.3	34	5.6	1.2
TL7 50	3.54		8	0.8	2.1	2.8	25	0.6	0.5
TL7 100	3.53		11.9	0.9	1.2	2	24	1.4	0.7
TL7 150	3.74		17.7	1.3	5.2	4.8	24	1.3	0.7
TL7 200	4.2		11.2	1.7	7.5	5.8	40	0.7	0.7
TL7 250	3.98		6.7	0.9	5.3	4.6	38	0.4	0.5
TL7 300	4.43		23.8	1	7.4	4.9	46	1.1	0.9
TL7 350	4.14		8.3	1.8	3.8	2.9	46	0.5	0.5
TL7 400	3.95		13.3	1.8	3.5	2.8	41	0.3	0.5
TL7 450	3.79		12.1	1.4	3.7	5.5	32	0.2	0.4
TL7 500	3.48		9.7	1.7	2.6	4.3	33	0.2	0.4
TL7 550	3.55		9.2	1.1	2.3	3.7	34	0.2	0.4
TL7 650	2.7		8	1	2.1	2.6	31	0.1	0.3
TL7 700	3.32		10.3	0.9	3.4	4.9	37	0.2	0.5
TL7 750	3.27		11.9	1.4	12.8	4.6	42	0.3	0.5
TL7 800	3.15		13.7	1	2.9	3.9	43	0.3	0.6
TL7 850	3.07		12	1	5	4.1	44	0.2	0.5
TL7 900	2.76		12.1	0.8	3.2	3.3	47	0.4	0.6
TL7 950	2.88		11.1	0.9	8.4	3.9	44	0.2	0.4
TL7 1150	2.95		9.4	0.8	4.3	4.1	46	0.2	0.4
TL7 1200	6.08		152.9	2	42.7	6.9	36	0.2	0.8
TL7 1300	4.17		65.7	1.6	12.3	11.8	41	0.2	1.4
TL7 1350	3.98		302.2	1.5	33.3	7.6	43	0.7	5.7
RE TL7 13	4.09		308.1	1.6	42.9	7.9	43	0.8	5.6
TL7 1450	4.42		25.8	0.9	3.2	5.4	49	0.1	1.8
TL7 1550	4.64		25.9	2.6	3.8	10.2	86	0.1	0.7
TL7 1600	3.42		55.3	1	13.8	5.2	85	0.2	1.8
TL7 1650	3.31		62.6	0.9	29.4	4.6	94	0.2	1.6
TL7 1700	3.49		41.9	1	10	4	144	0.2	1.3
TL7 1750	3.39		60.2	1	11.8	4.2	110	0.2	0.9
TL8 0	3.66		16.8	1.7	4.2	1.8	28	2.6	0.8
STANDAR	3.01		18.9	6.4	44.1	2.9	49	5.6	3.8
G-1	1.88	<.5		1.5	0.5	3.8	89	<.1	<.1
TL8 100	3.26		15	1.1	2.8	0.8	24	1.1	1
TL8 200	2.98		49.1	1.2	13.1	2.3	40	1.9	0.8
TL8 250	1.9		9.6	0.8	5.3	0.8	28	0.5	0.5
TL8 300	3.66		10.8	1.2	5.5	3.1	50	0.5	0.4
TL8 350	2.71		9.3	1.1	4	1.6	59	0.7	0.4
TL8 400	3.09		9.9	1.3	2.8	2.6	47	0.4	0.4
TL8 450	3.32		13.8	1.3	6.6	2.6	40	0.3	0.6
TL8 500	3		12.7	1.9	8.5	1.9	49	0.3	1.3

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn
TL6 1350	0.7	46	10.7	105	0.2	63.5	22.2	674
TL6 1400	0.6	34.8	11	91	0.1	63.6	19.4	423
TL6 1450	0.3	25.4	5.6	63	0.1	21.5	11.6	311
TL6 1550	0.6	39.3	8.8	97	0.3	49.4	18.3	592
TL6 1600	0.5	47.2	6.4	77	0.2	44.3	15.6	460
TL6 1650	0.6	55.3	9.3	102	0.4	53.9	18.7	513
STANDAR	12.3	144.3	24.8	139	0.3	25.2	12.2	794
G-1	1.6	3.7	2.3	43	<.1	4.7	3.9	528
TL6 1750	0.7	47.2	6.7	80	0.2	38.2	13.4	402
TL6 1850	0.5	42.8	6.1	69	0.2	34.9	12	361
TL7 0	2.9	71.1	84	1022	1.3	42.3	12.2	525
TL7 50	1.5	47	9.6	116	0.2	50.1	19.1	516
TL7 100	3.3	42.5	14.8	122	0.2	31.4	10.4	309
TL7 150	2.6	45.2	17.2	210	0.3	54.8	15.4	501
TL7 200	1.6	55.2	20.2	176	0.4	65.3	18.5	655
TL7 250	1.2	39.7	15.5	138	0.2	58.6	17.6	589
TL7 300	0.9	50.8	38.4	156	0.5	71.3	22.4	608
TL7 350	1.4	52.6	15.8	138	0.3	58.6	18.5	617
TL7 400	1.7	41	13.6	125	0.2	50.6	18.1	702
TL7 450	1.2	37	14.4	109	0.1	56.4	17.8	562
TL7 500	1.1	41.1	19	108	0.2	54.6	17.6	520
TL7 550	1.1	42.4	9.2	99	0.1	51	17.8	499
TL7 650	0.8	33	7.7	92	0.2	34.3	13.2	373
TL7 700	0.8	44	8.6	100	0.2	56.7	18.1	596
TL7 750	0.6	43.9	7.8	90	0.2	53.5	17.2	635
TL7 800	0.8	47.7	7.7	95	0.2	53.3	16.6	562
TL7 850	0.5	37	9.3	98	0.2	50.3	15.9	613
TL7 900	0.6	35	11.9	97	0.2	45	14.5	520
TL7 950	0.5	31.1	7	83	0.1	43.3	15	445
TL7 1150	0.5	32.3	7	80	0.1	44.6	14	353
TL7 1200	1.9	90	22.4	111	0.2	97.1	48.5	523
TL7 1300	0.6	57.1	15	116	0.2	76.9	25.2	588
TL7 1350	0.7	39	86.6	152	0.6	50.5	25.6	805
RE TL7 13	0.8	42.2	90	163	0.6	54.1	26.2	867
TL7 1450	0.9	46.8	10.3	80	0.1	68.6	23.4	384
TL7 1550	1	88.4	22	85	0.1	100.7	30.3	379
TL7 1600	0.7	46.7	10.6	91	0.3	54.1	18.2	455
TL7 1650	0.6	40.6	10.4	90	0.3	52	18.1	459
TL7 1700	0.7	56.5	11.7	93	0.3	66.7	21.4	563
TL7 1750	0.5	53.3	8.9	76	0.2	63.3	20.4	532
TL8 0	3.1	50.4	14.7	284	0.6	50.2	13.8	592
STANDAR	12.8	145.3	25.5	136	0.3	24.6	11.8	802
G-1	1.6	3.2	1.9	41	<.1	4.7	4.1	530
TL8 100	3.9	60.1	11.8	95	0.5	27.8	9.2	275
TL8 200	1.5	41.4	23.2	197	0.5	38.2	12.9	649
TL8 250	1.1	28	6.7	67	0.2	17.8	7.6	265
TL8 300	1.1	42.9	11.8	142	0.2	60.6	17.2	627
TL8 350	1	41.5	10	111	0.2	52.8	14.1	518
TL8 400	1	37.5	10.1	122	0.2	44.8	15.3	491
TL8 450	1	36.5	13.7	127	0.3	47.9	14.7	490
TL8 500	1.1	39.4	13.5	112	0.3	39.1	12.3	447

ELEMENT TI	S	Ga	Se
TL5 350	0.3 <.05		10 0.7
RE TL5 35	0.3 <.05		9 0.6
TL5 400	0.2 <.05		7 0.8
TL5 450	0.2 <.05		7 0.6
TL5 500	0.2 <.05		7 0.5
TL5 550	0.2 <.05		7 0.5
TL5 600	0.2 <.05		7 0.5
TL5 650	0.2 <.05		6 0.5
TL5 700	0.2 <.05		6 <.5
TL5 750	0.2	0.06	6 0.7
TL5 800	0.3 <.05		5 <.5
TL5 950	0.3 <.05		7 <.5
TL5 1000	0.2 <.05		6 0.6
TL5 1050	0.3 <.05		7 <.5
TL5 1100	0.3 <.05		6 <.5
TL5 1150	0.1 <.05		4 0.5
TL5 1250	0.1 <.05		5 <.5
TL5 1350	0.2 <.05		7 <.5
TL5 1450	0.3 <.05		7 0.5
TL5 1650	0.2 <.05		5 0.7
TL5 1800	0.2	0.08	5 0.8
TL5 1850	0.1	0.09	4 0.6
STANDAR	1.1 <.05		6 5.2
G-1	0.3 <.05		5 <.5
TL5 1950	0.1	0.1	5 0.6
TL5 2000	0.2	0.07	5 0.8
TL6 0	0.1 <.05		8 0.7
TL6 050	0.1 <.05		7 1.2
TL6 100	0.1 <.05		4 0.6
TL6 150	0.1 <.05		7 1.2
TL6 200	0.1 <.05		5 0.8
TL6 250	0.1 <.05		5 0.8
TL6 300	0.1 <.05		5 1.1
TL6 350	0.2 <.05		8 0.8
TL6 400	0.2 <.05		8 0.5
TL6 450	0.2 <.05		8 0.6
TL6 500	0.2 <.05		7 <.5
TL6 550	0.2 <.05		7 0.5
TL6 600	0.2 <.05		7 <.5
TL6 650	0.2 <.05		6 <.5
TL6 700	0.2 <.05		7 <.5
RE TL6 70	0.2 <.05		6 <.5
TL6 750	0.2 <.05		5 0.5
TL6 800	0.2 <.05		5 <.5
TL6 850	0.2 <.05		6 0.5
TL6 950	0.2 <.05		6 <.5
TL6 1000	0.2 <.05		5 0.5
TL6 1050	0.2 <.05		7 <.5
TL6 1100	0.1 <.05		8 <.5
TL6 1250	0.1	0.08	4 <.5
TL6 1300	0.2	0.08	5 <.5

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL5 350	0.167	<1		2.84	0.075	0.3	0.1	0.03	5.1
RE TL5 35	0.159		1	2.75	0.074	0.27	0.1	0.03	4.7
TL5 400	0.103		1	2.09	0.047	0.17	0.1	0.03	3.4
TL5 450	0.1	<1		1.99	0.038	0.15	0.1	0.03	3.3
TL5 500	0.114		1	2.22	0.036	0.2	0.1	0.02	4.1
TL5 550	0.112		1	2.23	0.037	0.19	0.1	0.04	4.3
TL5 600	0.115		1	1.93	0.039	0.23	0.1	0.02	4.6
TL5 650	0.09		1	1.76	0.032	0.18	0.1	0.02	3.5
TL5 700	0.1		2	1.72	0.032	0.16	0.1	0.02	3.8
TL5 750	0.094		1	1.67	0.028	0.2	0.1	0.03	3.9
TL5 800	0.11		2	1.59	0.029	0.31	0.2	0.02	4.2
TL5 950	0.14		1	1.86	0.024	0.37	0.1	0.01	4.5
TL5 1000	0.109		1	1.56	0.022	0.25	0.1	0.02	4.6
TL5 1050	0.15		2	1.9	0.031	0.25	0.1	0.02	5.5
TL5 1100	0.159		2	1.74	0.027	0.24	0.1	0.01	6.3
TL5 1150	0.076		1	1.04	0.03	0.1	0.1	0.02	2.9
TL5 1250	0.102		1	1.49	0.025	0.09	0.1	0.01	4
TL5 1350	0.127		1	2.02	0.031	0.1	0.1	0.02	4.7
TL5 1450	0.129		1	1.86	0.045	0.25	0.6	0.02	4.4
TL5 1650	0.1		2	1.32	0.024	0.23	0.1	0.02	3.7
TL5 1800	0.085		2	1.28	0.02	0.16	0.1	0.02	3.7
TL5 1850	0.062		2	1.3	0.027	0.09	0.1	0.03	2.7
STANDAR	0.099		19	1.99	0.034	0.14	5	0.18	3.4
G-1	0.116	<1		0.87	0.098	0.47	1.3	<.01	4.5
TL5 1950	0.064		2	1.27	0.024	0.15	0.1	0.02	3.3
TL5 2000	0.075		2	1.28	0.022	0.13	0.1	0.03	3.5
TL6 0	0.1		1	1.45	0.012	0.1	0.1	0.04	2.9
TL6 050	0.097		1	2.19	0.016	0.15	0.1	0.03	4.4
TL6 100	0.051		1	1.01	0.019	0.09	0.1	0.08	1.8
TL6 150	0.07	<1		1.94	0.022	0.17	0.1	0.05	3.9
TL6 200	0.061	<1		1.38	0.029	0.12	0.1	0.03	2.7
TL6 250	0.057	<1		1.48	0.033	0.11	0.1	0.02	2.1
TL6 300	0.078		2	1.55	0.041	0.14	0.1	0.03	2.7
TL6 350	0.12		1	2.32	0.038	0.22	0.1	0.03	4.7
TL6 400	0.134		1	2.34	0.027	0.25	0.1	0.02	5.3
TL6 450	0.143		1	2.15	0.026	0.28	0.1	0.02	5.1
TL6 500	0.126		1	2.17	0.024	0.21	0.1	0.02	4.8
TL6 550	0.106		1	1.9	0.025	0.18	0.1	0.03	4.2
TL6 600	0.13		2	2.08	0.024	0.26	0.1	0.03	5.4
TL6 650	0.09		1	1.71	0.03	0.16	0.1	0.02	3.9
TL6 700	0.131		2	1.8	0.03	0.23	0.1	0.01	5.1
RE TL6 70	0.144		1	1.93	0.033	0.24	0.1	0.02	5.5
TL6 750	0.088		1	1.42	0.027	0.18	0.1	0.03	3.6
TL6 800	0.096		1	1.48	0.028	0.17	0.1	0.03	3.8
TL6 850	0.117		4	1.66	0.03	0.22	0.1	0.03	4.8
TL6 950	0.13		3	1.83	0.031	0.22	0.1	0.03	5.4
TL6 1000	0.082		1	1.35	0.027	0.18	0.1	0.02	3.6
TL6 1050	0.122		2	2.2	0.022	0.12	0.1	0.02	6.1
TL6 1100	0.126		2	2.57	0.019	0.18	0.1	<.01	5
TL6 1250	0.055		2	1.01	0.029	0.05	0.1	0.02	2
TL6 1300	0.094		2	1.28	0.023	0.14	0.1	0.02	3.6

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL5 350	0.2	89	0.85	0.059	16	74.4	1.21	291	
RE TL5 35	0.2	86	0.79	0.057	16	73	1.18	288	
TL5 400	0.2	68	0.88	0.073	14	48.9	0.84	235	
TL5 450	0.2	69	0.65	0.067	15	49.7	0.81	210	
TL5 500	0.2	70	0.66	0.058	15	60.6	0.97	229	
TL5 550	0.2	74	0.77	0.069	18	57.2	0.98	185	
TL5 600	0.2	69	0.71	0.065	18	58.4	0.96	180	
TL5 650	0.2	58	0.72	0.063	16	48.4	0.83	164	
TL5 700	0.1	61	0.9	0.066	17	47.7	0.85	166	
TL5 750	0.2	59	1.62	0.075	15	53.1	1.02	137	
TL5 800	0.2	56	1.44	0.093	18	55.6	1.22	115	
TL5 950	0.2	62	1.74	0.084	24	70.5	1.4	130	
TL5 1000	0.2	61	1.56	0.096	15	62.2	1.18	133	
TL5 1050	0.2	71	1.05	0.082	18	72.3	1.18	166	
TL5 1100	0.1	74	4.07	0.102	16	93.2	1.46	126	
TL5 1150	0.1	46	1.45	0.068	11	37	0.59	99	
TL5 1250	0.1	54	0.67	0.074	11	49.8	0.81	120	
TL5 1350	0.2	71	0.69	0.057	18	61.3	1.01	154	
TL5 1450	0.2	68	0.98	0.082	17	63.2	1.04	116	
TL5 1650	0.1	48	1.87	0.065	15	54.7	0.93	103	
TL5 1800	0.1	50	2.16	0.06	13	53.5	0.82	106	
TL5 1850	0.1	42	1.96	0.064	12	43.5	0.62	102	
STANDAR	6.3	61	0.73	0.1	13	188.9	0.69	145	
G-1	0.1	40	0.54	0.081	7	13.1	0.52	213	
TL5 1950	0.1	44	1.93	0.062	14	42.3	0.69	114	
TL5 2000	0.1	45	2.01	0.055	16	47	0.74	117	
TL6 0	0.2	99	0.26	0.046	12	39.9	0.53	135	
TL6 050	0.2	74	0.29	0.055	18	48.7	0.84	212	
TL6 100	0.1	45	0.46	0.069	11	20.7	0.37	131	
TL6 150	0.2	73	0.52	0.091	32	41.2	0.66	287	
TL6 200	0.2	52	0.51	0.067	17	28.6	0.5	171	
TL6 250	0.1	46	0.79	0.073	16	27.7	0.52	187	
TL6 300	0.1	56	0.99	0.075	16	37.5	0.6	205	
TL6 350	0.2	83	0.86	0.072	21	59.3	1.02	253	
TL6 400	0.2	76	0.6	0.053	25	65.5	1.14	220	
TL6 450	0.2	76	0.54	0.039	26	75.2	1.11	199	
TL6 500	0.1	77	0.55	0.055	25	72.9	1.11	203	
TL6 550	0.1	65	0.54	0.059	17	64.2	0.97	188	
TL6 600	0.1	75	0.57	0.053	22	75.7	1.11	196	
TL6 650	0.1	61	0.74	0.065	15	52.8	0.85	183	
TL6 700	0.1	70	0.72	0.075	18	74.4	1.11	157	
RE TL6 70	0.1	71	0.8	0.077	18	74.4	1.2	160	
TL6 750	0.1	57	0.93	0.062	14	51.6	0.79	149	
TL6 800	0.1	58	1.06	0.068	16	54.4	0.86	141	
TL6 850	0.2	63	1.33	0.079	17	68.2	1.09	135	
TL6 950	0.2	67	1.16	0.076	18	72.3	1.17	134	
TL6 1000	0.1	49	1.52	0.063	15	53.1	0.84	121	
TL6 1050	0.2	68	0.71	0.05	19	71.1	1.13	127	
TL6 1100	0.2	83	0.48	0.018	12	70.1	0.98	71	
TL6 1250	0.1	38	0.51	0.059	11	26.4	0.37	91	
TL6 1300	0.1	57	1.41	0.081	14	51.1	0.76	103	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb
TL5 350	3.89	7.2	1.2	1.5	2.7	52	0.2	0.4
RE TL5 35	3.78	7.4	1.2	1.6	2.8	53	0.2	0.4
TL5 400	2.9	6.8	1.3	2.6	1.4	48	0.4	0.4
TL5 450	2.98	7.2	1.2	2.2	1.5	40	0.2	0.4
TL5 500	3.48	8.2	1.1	1.3	2.3	37	0.2	0.4
TL5 550	3.4	9.2	1.6	1.9	1.9	46	0.1	0.4
TL5 600	3.32	6.5	1	24.4	3	39	0.3	0.4
TL5 650	2.68	7.1	1.1	2.1	1.7	36	0.2	0.4
TL5 700	2.88	7.6	1.2	2.4	2	39	0.2	0.4
TL5 750	2.82	9.8	1.2	2.4	1.8	61	0.1	0.4
TL5 800	2.94	8.8	0.8	2.7	3.7	53	0.2	0.4
TL5 950	3.36	8.1	0.8	57.1	5.5	74	0.2	0.7
TL5 1000	2.67	7.6	0.8	4.5	2.8	63	0.2	0.6
TL5 1050	3.65	12.5	0.7	2.8	4.5	49	0.2	0.7
TL5 1100	3.64	17.5	0.9	3.9	5	160	0.2	0.7
TL5 1150	2.02	8.3	0.8	2.1	1.8	65	0.1	0.4
TL5 1250	2.67	12	0.6	2.6	3.1	40	0.1	0.5
TL5 1350	3.9	14.1	1.4	3.7	3.8	46	0.1	0.6
TL5 1450	3.63	10.7	1.5	2.8	4.5	54	0.2	0.6
TL5 1650	2.75	16.4	0.8	4.9	3.2	82	0.2	0.8
TL5 1800	2.56	24.8	1.2	5.1	2.4	97	0.2	0.9
TL5 1850	2.23	16.6	1.3	3.3	1.5	94	0.1	0.7
STANDAR	2.97	19	6.4	45	2.9	47	5.8	3.8
G-1	1.85	0.6	1.7	0.9	3.9	85	<.1	<.1
TL5 1950	2.35	18.1	1.3	4.4	1.5	97	0.3	0.7
TL5 2000	2.76	22.4	1	5.2	2.4	100	0.1	0.7
TL6 0	4.06	19.2	0.9	8.2	1.9	26	0.5	0.9
TL6 050	3.94	9.2	1.3	5.9	3.3	27	0.6	0.7
TL6 100	1.95	9	0.8	2.2	0.7	35	0.9	0.5
TL6 150	3.43	10.2	2.5	3.8	2.2	31	0.8	0.6
TL6 200	2.28	7.7	1.6	2.3	1.5	33	0.3	0.5
TL6 250	2.21	6.1	1.6	2.6	0.9	37	0.3	0.5
TL6 300	2.49	5.4	1.6	3	1.2	45	0.8	0.5
TL6 350	3.73	9.2	1.8	2.2	2.4	46	0.4	0.5
TL6 400	3.65	9	1.6	1.9	4.5	34	0.2	0.5
TL6 450	3.83	8.4	1.4	2.3	5.1	31	0.2	0.4
TL6 500	3.66	8.5	1.5	1.2	3.7	33	0.1	0.5
TL6 550	3.23	8.6	1.2	1.9	2.5	33	0.1	0.4
TL6 600	3.73	9	1.4	3.3	4.3	32	0.1	0.5
TL6 650	2.63	8	1.1	2.7	1.8	38	0.1	0.4
TL6 700	3.45	12.5	0.8	6.3	4.6	40	0.2	0.6
RE TL6 70	3.57	12.4	0.8	2.9	4.6	41	0.2	0.6
TL6 750	2.72	8.9	0.9	3.1	2.6	48	0.3	0.4
TL6 800	2.74	8.3	1.2	5.2	2.5	48	0.2	0.4
TL6 850	3.09	11.6	0.7	3.8	3.5	50	0.3	0.6
TL6 950	3.36	17.4	0.7	4.4	3.9	52	0.2	0.6
TL6 1000	2.66	9.7	0.7	2.7	2.2	66	0.2	0.5
TL6 1050	3.53	17.5	0.7	2.5	5.5	39	0.1	0.7
TL6 1100	4.14	19.3	0.7	1.8	4.3	35	0.1	0.8
TL6 1250	1.9	7.5	0.8	2.2	0.9	40	0.2	0.4
TL6 1300	2.71	10.4	1.1	2.6	2.6	67	0.2	0.6

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL5 350	1.4	42.1	11.3	117	0.2	58.9	18.8	676	
RE TL5 35	1.3	41	11.3	109	0.1	53.7	16.8	678	
TL5 400	1.2	37.7	8.1	95	0.2	38	13.4	533	
TL5 450	1.2	35.3	8.6	95	0.2	39.6	13.6	519	
TL5 500	1.1	38.8	8.9	97	0.1	48.7	15.8	581	
TL5 550	1.2	41.5	9.7	91	0.1	45.3	15.2	531	
TL5 600	0.8	35.4	7.7	95	0.1	45.8	14.4	476	
TL5 650	0.8	34.7	7.1	88	0.1	35.9	11.9	410	
TL5 700	0.8	35.2	7.7	80	0.1	37.5	13	460	
TL5 750	0.4	58.4	8.9	74	0.1	41.8	14.8	395	
TL5 800	0.5	30.2	8.5	77	0.1	41.3	13.5	376	
TL5 950	0.5	36.8	7.9	87	0.1	60.7	18.3	414	
TL5 1000	0.3	41.3	7.7	82	0.1	47.5	14.8	441	
TL5 1050	0.5	50.8	8.6	96	0.2	62.4	19.1	555	
TL5 1100	0.6	44.3	7.5	76	0.2	71.9	19.5	439	
TL5 1150	0.4	35.3	4.8	56	0.1	33.4	11.3	338	
TL5 1250	0.5	39	6.6	59	0.1	43.5	13.7	406	
TL5 1350	0.8	40.5	10.4	89	0.1	54.4	19.9	578	
TL5 1450	1.1	44	11.3	103	0.1	56.2	21.1	723	
TL5 1650	0.4	44.2	7.1	80	0.2	47.9	16.4	507	
TL5 1800	0.4	42.1	7.3	79	0.2	49.5	15.9	372	
TL5 1850	0.5	35.7	6.4	58	0.1	33.8	14.6	326	
STANDAR	13.2	144.1	25.4	138	0.3	24.2	11.9	766	
G-1	1.4	3.1	2.4	43	<.1	4.5	3.6	497	
TL5 1950	0.6	53	7.2	77	0.1	43	13.8	382	
TL5 2000	0.4	57.6	7.7	72	0.2	47.3	15.7	498	
TL6 0	2.7	38.1	18.8	124	0.2	30.4	10.5	354	
TL6 050	1.4	54.2	15.3	161	0.2	53.6	19.2	536	
TL6 100	1.8	30.7	10.5	107	0.2	21	11.8	524	
TL6 150	2.3	71.2	17.3	166	0.6	57	15.3	622	
TL6 200	1.4	42.3	10.5	91	0.4	29.2	8	337	
TL6 250	1.3	41.8	8.7	91	0.3	27.2	9.7	413	
TL6 300	1.5	41.9	8.9	112	0.2	30.8	10	474	
TL6 350	1.7	46.3	12.2	135	0.3	49.7	17.1	714	
TL6 400	1.6	39.7	14.6	114	0.2	53.5	16.5	574	
TL6 450	1.2	39.9	11.6	117	0.2	55.2	16.4	564	
TL6 500	1.4	38.6	10.3	109	0.2	52.4	16.4	526	
TL6 550	1.2	35.5	9	103	0.2	43.6	14.2	509	
TL6 600	0.9	43.1	8.5	106	0.1	56.6	16.7	450	
TL6 650	0.9	34.6	7.6	95	0.1	36.4	11	346	
TL6 700	0.7	38.2	7.7	96	0.1	57	16.4	437	
RE TL6 70	0.7	40.1	7.5	94	0.1	56.7	16.2	465	
TL6 750	0.6	39.7	6.7	93	0.1	40.5	15	512	
TL6 800	0.7	41.2	7	93	0.1	43.2	13.3	539	
TL6 850	0.5	42.1	8.6	98	0.2	52.3	16	490	
TL6 950	0.5	43.8	9.5	95	0.2	56.4	18.7	529	
TL6 1000	0.4	45.3	7.2	83	0.2	44.7	14.3	464	
TL6 1050	0.6	36.1	9.5	85	0.1	60.5	19.6	530	
TL6 1100	1.1	33.5	11.5	83	0.1	59.3	19.6	344	
TL6 1250	0.6	37.5	5.8	106	0.1	24	10.4	301	
TL6 1300	0.5	33.2	6.1	97	0.1	42.1	14.9	500	

ELEMENT TI	S	Ga	Se	
TL3 1500	0.2 <.05		8 <.5	
TL3 1550	0.1	0.07	5 <.5	
TL3 1600	0.1	0.07	5	0.6
STANDAR	1.1 <.05		7	4.8
G-1	0.3 <.05		5 <.5	
TL3 1650	0.1	0.08	4	0.5
TL3 1700	0.1	0.08	3 <.5	
TL3 1750	0.1	0.08	4	0.5
TL3 1800	0.2	0.06	5	0.7
TL3 1850	0.1	0.1	4 <.5	
TL3 1900	0.2 <.05		5 <.5	
TL3 1950	0.2 <.05		5	0.5
TL3 2000	0.2 <.05		5	0.7
TL4 0	0.2	0.17	6	2.9
TL4 50	0.1	0.09	6	1
TL4 100	0.2 <.05		6	0.8
TL4 150	0.1 <.05		6	1
TL4 200	0.2 <.05		7	0.5
TL4 250	0.1 <.05		5	0.8
TL4 300	0.2	0.06	6	0.7
TL4 350	0.2 <.05		7	0.6
TL4 400	0.2 <.05		6	0.6
TL4 450	0.2 <.05		7	0.6
TL4 500	0.2 <.05		7	0.8
TL4 550	0.2	0.07	7	0.6
TL4 600	0.2	0.06	5	0.6
TL4 650	0.2 <.05		6	0.6
TL4 700	0.2	0.07	4	0.7
TL4 750	0.2 <.05		6	0.5
RE TL4 75	0.2 <.05		5	0.7
TL4 800	0.2 <.05		5	0.5
TL4 850	0.1 <.05		5	0.6
TL4 950	0.2 <.05		6	0.5
TL4 1000	0.2 <.05		5	0.6
TL4 1050	0.3 <.05		6	0.5
TL4 1100	0.2 <.05		6	0.5
TL4 1250	0.2	0.07	6	0.6
TL4 1300	0.2 <.05		6	0.7
STANDAR	1.1 <.05		6	4.7
G-1	0.3	0.06	5 <.5	
TL4 1400	0.3	0.07	6	0.6
TL4 1500	0.3 <.05		7 <.5	
TL4 1700	0.2 <.05		7	0.8
TL4 1800	0.1	0.11	4	0.5
TL5 0	0.1	0.06	3 <.5	
TL5 50	0.2	0.08	8	1.3
TL5 100	0.1 <.05		7	0.5
TL5 150	0.1 <.05		6 <.5	
TL5 200	0.2 <.05		6	0.5
TL5 250	0.1 <.05		6	0.5
TL5 300	0.2 <.05		7	0.7

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL3 1500	0.127		1	2.07	0.019	0.1	0.1	0.02	5
TL3 1550	0.075		1	1.31	0.033	0.14 <.1		0.03	2.9
TL3 1600	0.075		1	1.27	0.033	0.12	0.1	0.03	2.9
STANDAR	0.104		18	2.13	0.034	0.14	5	0.18	3.6
G-1	0.136 <1			0.95	0.072	0.5	1.4 <.01		2.1
TL3 1650	0.053		2	0.93	0.021	0.13	0.1	0.02	2.2
TL3 1700	0.051		2	0.89	0.032	0.11	0.1	0.02	2.1
TL3 1750	0.052		3	1.08	0.025	0.14	0.1	0.03	2.6
TL3 1800	0.084		3	1.33	0.022	0.2	0.1	0.01	3.8
TL3 1850	0.053		3	0.96	0.02	0.11	0.1	0.02	2.1
TL3 1900	0.106		1	1.34	0.023	0.22	0.1	0.01	4.2
TL3 1950	0.094		1	1.39	0.019	0.22	0.1	0.02	3.9
TL3 2000	0.083		2	1.37	0.021	0.22	0.1	0.03	4.2
TL4 0	0.11		1	1.67	0.026	0.23	0.1	0.03	3.6
TL4 50	0.051		2	1.33	0.02	0.1	0.1	0.07	2
TL4 100	0.075		1	1.76	0.024	0.14	0.1	0.03	3.2
TL4 150	0.07		1	1.6	0.025	0.12	0.1	0.04	2.7
TL4 200	0.13		1	2.22	0.048	0.22	0.1	0.02	4
TL4 250	0.06		1	1.58	0.032	0.09	0.1	0.05	2.7
TL4 300	0.078		1	1.87	0.032	0.11	0.1	0.05	3.3
TL4 350	0.104		1	2.33	0.037	0.13	0.1	0.02	4.2
TL4 400	0.135		2	2.18	0.034	0.19	0.1	0.03	5.1
TL4 450	0.073		2	2.22	0.023	0.11	0.1	0.03	4.1
TL4 500	0.094		1	2.16	0.021	0.16	0.1	0.02	4.5
TL4 550	0.073		2	2.08	0.025	0.12	0.1	0.04	4.3
TL4 600	0.08		1	1.8	0.028	0.14	0.1	0.02	3.7
TL4 650	0.092		1	1.72	0.028	0.18	0.1	0.02	4
TL4 700	0.067		2	1.21	0.022	0.15	0.1	0.03	3
TL4 750	0.086		1	1.57	0.027	0.2	0.1	0.03	4.2
RE TL4 75	0.092		2	1.62	0.029	0.2	0.1	0.02	4.2
TL4 800	0.095		1	1.55	0.033	0.17	0.1	0.02	3.8
TL4 850	0.101		2	1.38	0.032	0.15	0.2	0.01	3.4
TL4 950	0.117		2	1.76	0.035	0.17	0.1	0.01	4.8
TL4 1000	0.1		2	1.46	0.027	0.15	0.1	0.02	3.9
TL4 1050	0.132		1	1.89	0.027	0.34	0.1	0.01	4.3
TL4 1100	0.111		1	1.5	0.023	0.26	0.1	0.02	3.6
TL4 1250	0.109		3	1.81	0.028	0.12	0.2	0.02	4.7
TL4 1300	0.103		1	1.77	0.029	0.12	0.1	0.02	4.2
STANDAR	0.095		17	1.99	0.034	0.14	4.8	0.18	3.4
G-1	0.127 <1			0.93	0.088	0.51	1.3 <.01		3
TL4 1400	0.115		1	1.63	0.047	0.22	0.1	0.02	3.3
TL4 1500	0.145 <1			1.9	0.024	0.27	0.1	0.01	5.8
TL4 1700	0.117		2	1.92	0.021	0.19	0.1	0.03	5.1
TL4 1800	0.072		1	1.15	0.033	0.16	0.1	0.03	2.5
TL5 0	0.036		2	0.76	0.023	0.03	0.1	0.01	1
TL5 50	0.132		1	1.79	0.014	0.19	0.1	0.03	2.9
TL5 100	0.13		1	1.61	0.014	0.16	0.2	0.02	2.9
TL5 150	0.075		1	0.98	0.016	0.07	0.1	0.02	1.6
TL5 200	0.102		1	1.79	0.037	0.2	0.1	0.03	2.7
TL5 250	0.086		2	1.73	0.038	0.14	0.1	0.03	2.5
TL5 300	0.09		1	1.98	0.043	0.17	0.1	0.03	2.7

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL3 1500	0.2	75	0.65	0.029	28	77.8	1.02	145	
TL3 1550	0.1	46	1.39	0.054	20	42.2	0.62	130	
TL3 1600	0.1	44	1.63	0.052	14	47.9	0.68	112	
STANDAR	6.5	65	0.78	0.102	14	194.9	0.72	146	
G-1	0.1	44	0.6	0.084	9	13.3	0.62	284	
TL3 1650	0.1	37	2.6	0.052	11	34.3	0.52	105	
TL3 1700	0.1	33	2.42	0.055	10	30.7	0.48	95	
TL3 1750	0.2	37	2.54	0.062	11	37.8	0.65	110	
TL3 1800	0.2	56	2.72	0.069	15	54.7	0.89	135	
TL3 1850	0.1	41	2.57	0.069	10	35.3	0.55	115	
TL3 1900	0.1	62	1.7	0.102	16	59.2	1.25	99	
TL3 1950	0.1	51	2.72	0.077	17	52.4	1.01	108	
TL3 2000	0.2	50	2.65	0.076	18	48.5	0.97	117	
TL4 0	0.3	105	0.34	0.103	31	43.8	0.79	310	
TL4 50	0.2	69	0.36	0.097	16	29.8	0.5	217	
TL4 100	0.2	70	0.38	0.079	24	38.4	0.63	363	
TL4 150	0.2	61	0.44	0.077	21	31.8	0.55	323	
TL4 200	0.2	74	0.61	0.063	19	47.1	0.87	279	
TL4 250	0.1	47	0.77	0.077	22	33	0.55	233	
TL4 300	0.2	62	0.75	0.078	19	52.2	0.82	223	
TL4 350	0.2	73	0.56	0.061	16	77.2	1.31	217	
TL4 400	0.2	78	0.57	0.043	17	94.5	1.63	237	
TL4 450	0.2	71	0.65	0.088	21	58.8	1.09	246	
TL4 500	0.2	75	0.62	0.066	16	69.3	1.18	238	
TL4 550	0.2	68	0.84	0.091	22	61.4	1.09	205	
TL4 600	0.2	59	0.93	0.07	16	53.4	0.94	193	
TL4 650	0.2	66	1.38	0.074	17	61.5	1.28	166	
TL4 700	0.2	41	5.63	0.094	12	41.2	3.09	120	
TL4 750	0.2	56	1.26	0.08	17	62.8	1.17	125	
RE TL4 75	0.2	56	1.28	0.085	18	62.2	1.23	138	
TL4 800	0.1	52	1.14	0.07	15	46.5	0.9	119	
TL4 850	0.2	63	1.12	0.083	16	49.7	0.86	107	
TL4 950	0.3	64	1.02	0.075	17	63.5	1.04	126	
TL4 1000	0.2	59	1.25	0.067	15	56	0.87	112	
TL4 1050	0.1	54	1.5	0.068	19	65.1	1.09	126	
TL4 1100	0.2	61	1.02	0.083	15	54.5	1.07	108	
TL4 1250	0.2	75	1.34	0.085	17	69.5	1.07	129	
TL4 1300	0.2	71	1.09	0.083	15	67.3	1.05	113	
STANDAR	6.3	64	0.78	0.095	13	190	0.69	143	
G-1	0.1	43	0.55	0.091	7	14.5	0.55	224	
TL4 1400	0.2	65	0.92	0.07	15	52.6	0.91	128	
TL4 1500	0.2	75	1.25	0.083	22	76.7	1.32	130	
TL4 1700	0.2	68	1.5	0.049	27	69.5	0.95	131	
TL4 1800	0.1	43	1.91	0.073	14	42.8	0.7	92	
TL5 0	0.1	37	0.16	0.06	6	16.4	0.23	81	
TL5 50	0.2	116	0.25	0.08	22	49	0.71	243	
TL5 100	0.3	90	0.28	0.043	14	43.6	0.72	172	
TL5 150	0.2	66	0.24	0.026	8	21.4	0.31	93	
TL5 200	0.2	63	0.66	0.068	16	40.1	0.68	182	
TL5 250	0.2	56	0.65	0.066	13	35.5	0.63	163	
TL5 300	0.2	63	0.74	0.076	14	67.7	0.83	207	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL3 1500	3.53	16.9	1.2	2.6	4.5	39	0.1	0.8	
TL3 1550	2.24	8.2	1.3	2.6	1.9	66	0.2	0.6	
TL3 1600	2.35	9.6	1.2	2.2	1.9	83	0.2	0.6	
STANDAR	3.02	18.7	6.2	42.2	3.1	51	5.6	4	
G-1	2	0.5	1.9	0.6	3.9	90	<.1	<.1	
TL3 1650	1.97	8	0.9	1.9	0.8	123	0.1	0.5	
TL3 1700	1.8	11.2	0.6	3.1	0.8	106	0.2	0.6	
TL3 1750	2.16	14.1	1	5.5	1.2	119	0.2	0.9	
TL3 1800	2.99	18.1	0.9	5.1	2.2	122	0.3	1	
TL3 1850	2.08	11.8	1.4	2.6	1	117	0.2	0.6	
TL3 1900	2.83	17.3	0.6	40.4	3.6	66	0.2	0.7	
TL3 1950	3.08	17.8	0.8	4.4	3.3	125	0.2	0.8	
TL3 2000	3.1	23.4	1.1	5.3	3.3	126	0.2	1	
TL4 0	3.79	12.1	2.2	5.1	4.6	39	1.8	0.8	
TL4 50	2.72	9.1	1.7	2.8	0.7	37	0.9	0.9	
TL4 100	2.84	8.1	2.2	3.6	2.3	31	1.2	0.6	
TL4 150	2.47	7.2	1.8	9.5	1.4	33	1.1	0.5	
TL4 200	3.11	5.6	1.2	3.2	2.8	44	0.5	0.4	
TL4 250	2.14	6.4	1.7	2.6	1	47	0.3	0.4	
TL4 300	2.66	10	1.6	2.4	1.3	45	0.3	0.4	
TL4 350	3.52	13.2	1.6	2.3	2.5	41	0.3	0.4	
TL4 400	3.69	14.4	1.4	3.4	3.1	39	0.4	0.4	
TL4 450	3.5	15.3	1.9	3	1.4	42	0.3	0.6	
TL4 500	3.6	13.4	1.2	2.8	2.2	40	0.4	0.6	
TL4 550	3.29	12.5	1.5	2.6	1.6	49	0.3	0.5	
TL4 600	2.72	8.8	1.1	2.3	1.5	50	0.3	0.5	
TL4 650	3.06	8.3	1	2.7	2.3	41	0.4	0.4	
TL4 700	2.05	5.2	0.7	1.6	1.6	60	0.4	0.3	
TL4 750	2.99	9.5	1	2.3	3.2	46	0.4	0.5	
RE TL4 75	2.83	10	1.1	2.5	3.3	46	0.4	0.7	
TL4 800	2.51	9.7	1	1.8	2.7	51	0.2	2.6	
TL4 850	2.69	8	0.8	64.3	3.6	49	0.2	1	
TL4 950	3	14.8	0.8	2.5	3.7	53	0.1	1.1	
TL4 1000	2.82	10.3	0.8	2.4	3.3	55	0.1	0.7	
TL4 1050	3.25	9.3	0.8	1.1	5.1	83	0.2	0.4	
TL4 1100	2.92	12.2	0.8	1932.1	4	43	0.2	0.9	
TL4 1250	3.43	14.7	1.3	2.7	2.8	61	0.2	0.7	
TL4 1300	3.3	14.5	1.4	4.2	2.7	54	0.1	0.7	
STANDAR	3	18.4	6.6	43.5	2.9	49	5.4	3.8	
G-1	1.95	0.7	1.8	0.7	4.3	84	<.1	<.1	
TL4 1400	3.4	12	1.1	2.2	3.9	49	0.3	0.8	
TL4 1500	3.6	21.7	0.8	5.7	5.9	62	0.2	1	
TL4 1700	3.82	24	1.4	5.4	4.5	75	0.2	1	
TL4 1800	2.21	16	1.4	3.6	1.8	88	0.2	0.7	
TL5 0	1.49	6.4	0.6	3.8	0.2	18	0.2	0.4	
TL5 50	4.07	9	1.6	3.1	3.9	28	0.5	0.7	
TL5 100	3.52	10.7	0.8	2.6	3.4	25	0.5	0.7	
TL5 150	2.09	9.9	0.6	2.9	1.4	24	0.1	0.6	
TL5 200	2.8	6.3	1.2	4.1	1.8	38	0.5	0.3	
TL5 250	2.55	6.6	1.2	1.6	1.3	38	0.4	0.4	
TL5 300	2.71	6.6	1.2	2.2	1.1	46	0.3	0.4	

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL3 1500	0.7	41.6	9	80	0.2	58.7	19.5	369	
TL3 1550	0.5	41.2	6	65	0.1	37.3	13.1	420	
TL3 1600	0.6	41.5	6.8	70	0.1	42.4	13.7	397	
STANDAR	13.1	143.7	24.4	137	0.3	24.6	12.1	809	
G-1	1.7	2.8	2	48	<.1	4.6	4.3	585	
TL3 1650	0.5	48.2	5.3	64	0.1	37.4	12	373	
TL3 1700	0.2	42.6	4.5	56	0.1	32.1	11.7	244	
TL3 1750	0.5	59.6	5.8	69	0.2	44.8	14	375	
TL3 1800	0.6	55.1	7.9	81	0.2	64.1	21.1	494	
TL3 1850	0.4	44.3	4.9	63	0.1	34.2	12.3	396	
TL3 1900	0.6	27.6	5.6	64	0.2	47.7	14.1	385	
TL3 1950	0.6	43.6	7.4	79	0.2	58	19.8	434	
TL3 2000	0.6	52.3	9.4	72	0.2	60.2	17.6	554	
TL4 0	6.8	59	14.6	322	0.2	70.8	14	348	
TL4 50	4.2	50	8.8	135	0.5	33.9	10.7	312	
TL4 100	3.1	61.9	9.3	144	0.5	45.2	10.2	284	
TL4 150	2.7	52.2	7.5	128	0.4	34.4	9.3	275	
TL4 200	1.6	42.9	8.1	124	0.2	47.1	14.3	482	
TL4 250	1.5	44.8	5.9	100	0.2	164.2	12.5	422	
TL4 300	1.7	42.1	7.1	91	0.3	138.8	20.4	618	
TL4 350	1.4	46.7	8.6	120	0.2	230.1	24.4	541	
TL4 400	1.3	42.2	7.1	128	0.1	275.3	25	586	
TL4 450	1.7	47.2	8.4	123	0.2	111.5	18.4	562	
TL4 500	1.3	41.3	8.1	124	0.1	116.3	19.7	583	
TL4 550	1.2	58	7.9	114	0.3	102	16.6	546	
TL4 600	1	35.6	6.6	90	0.2	97.4	13.8	416	
TL4 650	0.8	35.9	6.2	96	0.1	96	16.5	430	
TL4 700	0.6	33	5.8	77	0.1	76.7	10.8	299	
TL4 750	0.6	39.2	7	111	0.1	99.1	17.6	379	
RE TL4 75	0.6	39.2	7.6	108	0.2	97.4	16.4	377	
TL4 800	0.6	28.7	6.2	88	0.1	41	12.8	381	
TL4 850	0.4	31.3	4.7	71	0.1	39.2	12.9	393	
TL4 950	0.8	41.9	7.4	74	0.1	48.7	16	454	
TL4 1000	0.5	32.8	5.7	82	0.1	42.4	15.3	429	
TL4 1050	0.4	30	7.5	82	0.1	48.4	17.2	494	
TL4 1100	1	24.7	5.9	86	0.3	40.3	14.2	361	
TL4 1250	0.8	44.4	8.2	108	0.2	53.5	19	602	
TL4 1300	0.8	38.7	8.1	87	0.1	52.3	19	517	
STANDAR	12.5	144	24.8	139	0.3	23.8	11.9	799	
G-1	1.7	3.6	2	44	<.1	4.6	4.2	541	
TL4 1400	0.7	34.8	8.9	100	0.1	45	17.8	468	
TL4 1500	0.6	50.3	8	84	0.3	63.2	19.9	502	
TL4 1700	0.7	58	15.3	96	0.2	67.1	23.1	534	
TL4 1800	0.4	45.1	6	91	0.1	41.5	13.9	380	
TL5 0	1.3	48.2	4.9	44	0.1	12.3	6	274	
TL5 50	3.9	52.1	10.3	118	0.1	43.8	10.8	335	
TL5 100	2.3	47.7	17.8	107	0.1	42.1	14.9	497	
TL5 150	2.3	20.2	9.2	53	0.1	14.3	7.5	366	
TL5 200	1.3	41.1	9.9	90	0.2	33.4	13.1	534	
TL5 250	1.5	41.4	9.3	90	0.1	33.1	12.6	509	
TL5 300	1.4	41	8.5	94	0.2	52	12.9	559	

ELEMENT TI	S	Ga	Se	
TL2 800	0.2 <.05		6 <.5	
TL2 850	0.2 <.05		6 <.5	
TL2 900	0.2	0.07	5	0.6
TL2 950	0.2 <.05		6 <.5	
TL2 1000	0.3 <.05		7	0.6
TL2 1100	0.2	0.11	4	0.6
TL2 1150	0.1 <.05		3 <.5	
TL2 1250 <.1	<.05		3 <.5	
TL2 1350	0.1	0.11	4 <.5	
RE TL2 15	0.1	0.07	4 <.5	
TL2 1400	0.1	0.09	4 <.5	
TL2 1450	0.1 <.05		4 <.5	
TL2 1550	0.1 <.05		4 <.5	
TL2 1600	0.1	0.07	4 <.5	
TL2 1650	0.1	0.09	3 <.5	
TL2 1700	0.1	0.1	3	0.9
TL2 1750	0.1	0.09	4	0.7
TL2 1800	0.1	0.08	4	0.6
TL2 1950	0.2 <.05		5 <.5	
STANDAR	1.1 <.05		6	4.6
G-1	0.3	0.07	6 <.5	
TL3 0	0.2	0.15	8 <.5	
TL3 050	0.1	0.27	5 <.5	
TL3 100	0.2	0.17	8	1.1
TL3 150	0.1	0.09	5	0.7
TL3 200	0.2 <.05		7	0.6
TL3 250	0.2 <.05		10 <.5	
TL3 300	0.2	0.07	7	0.5
TL3 350	0.1	0.13	6	0.6
TL3 400	0.1	0.17	5	0.6
TL3 450	0.1	0.09	5 <.5	
TL3 500	0.1	0.09	6 <.5	
TL3 550	0.1 <.05		5 <.5	
TL3 600	0.1	0.09	5 <.5	
TL3 650	0.1	0.06	5 <.5	
TL3 700	0.2 <.05		7 <.5	
TL3 750	0.3 <.05		7 <.5	
TL3 800	0.2 <.05		7	0.5
TL3 850	0.3 <.05		8 <.5	
TL3 900	0.2 <.05		6 <.5	
TL3 950	0.2 <.05		6 <.5	
TL3 1000	0.2 <.05		5 <.5	
TL3 1050	0.2 <.05		6 <.5	
TL3 1100	0.2 <.05		6	0.5
TL3 1150	0.2	0.08	6	0.5
TL3 1250	0.1 <.05		6 <.5	
TL3 1300	0.3 <.05		7 <.5	
TL3 1350	0.2	0.06	6	0.9
TL3 1400	0.1	0.09	4	0.6
TL3 1450	0.2	0.06	5	0.6
RE TL3 14	0.2 <.05		5	0.5

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL2 800	0.093		2	1.77	0.025	0.22	0.1	0.04	4.2
TL2 850	0.095		2	1.72	0.025	0.21	0.2	0.02	3.9
TL2 900	0.071		2	1.42	0.024	0.17	0.1	0.02	3.2
TL2 950	0.109		1	1.66	0.024	0.22	0.2	0.03	3.8
TL2 1000	0.121		2	2.07	0.028	0.21	0.1	0.03	5.1
TL2 1100	0.06		3	1.36	0.031	0.1	0.1	0.04	2.9
TL2 1150	0.047		1	0.86	0.029	0.06 <.1		0.02	1.5
TL2 1250	0.064		1	0.65	0.041	0.04 <.1		0.01	1.3
TL2 1350	0.058		1	1.22	0.028	0.11	0.1	0.04	2.4
RE TL2 15	0.072		2	1.23	0.038	0.13	0.1	0.03	2.6
TL2 1400	0.058		1	1.27	0.031	0.11	0.1	0.03	2.4
TL2 1450	0.072		1	1.16	0.029	0.12	0.1	0.01	2.5
TL2 1550	0.069		2	1.17	0.037	0.12	0.1	0.03	2.3
TL2 1600	0.059		2	1.15	0.033	0.15	0.1	0.03	2.2
TL2 1650	0.046		3	0.97	0.031	0.1	0.1	0.02	2.1
TL2 1700	0.055		3	1.1	0.026	0.14	0.1	0.03	2.4
TL2 1750	0.069		2	1.24	0.028	0.18	0.1	0.03	2.8
TL2 1800	0.064		2	1.12	0.023	0.15 <.1		0.03	2.8
TL2 1950	0.096		1	1.47	0.023	0.19	0.1	0.01	4
STANDAR	0.097		17	2.11	0.034	0.14	4.8	0.19	3.4
G-1	0.138		2	1.01	0.105	0.54	1.3 <.01		4.4
TL3 0	0.108		2	1.88	0.015	0.18	0.1	0.04	3
TL3 050	0.065		3	0.97	0.026	0.06	0.1	0.05	1.2
TL3 100	0.073		1	1.88	0.021	0.13	0.1	0.05	3.1
TL3 150	0.116		1	1.68	0.019	0.16	0.1	0.01	3.3
TL3 200	0.153		2	1.86	0.047	0.2	0.1	0.02	4.6
TL3 250	0.136		3	2.39	0.029	0.18	0.1	0.03	5.3
TL3 300	0.106		2	1.9	0.039	0.13	0.1	0.03	4.2
TL3 350	0.052		2	1.51	0.033	0.06	0.1	0.05	2.8
TL3 400	0.03		3	1.28	0.03	0.04 <.1		0.02	1.6
TL3 450	0.047		2	1.37	0.037	0.06 <.1		0.02	2.3
TL3 500	0.059		1	1.61	0.024	0.09	0.1	0.02	3.4
TL3 550	0.05		2	1.37	0.031	0.08 <.1		0.02	2.5
TL3 600	0.055		3	1.4	0.028	0.07	0.1	0.04	2.8
TL3 650	0.068		2	1.52	0.03	0.11	0.1	0.04	3.2
TL3 700	0.113		2	1.96	0.031	0.18	0.1	0.02	4.6
TL3 750	0.13		2	1.87	0.03	0.25	0.1	0.02	5.3
TL3 800	0.086		3	1.91	0.023	0.21	0.1	0.03	4.1
TL3 850	0.141		1	2.2	0.022	0.27	0.1	0.03	6.3
TL3 900	0.105		2	1.99	0.028	0.19	0.1	0.03	4.6
TL3 950	0.112		2	1.82	0.026	0.18	0.1	0.03	4.8
TL3 1000	0.09		2	1.68	0.025	0.18	0.1	0.04	3.8
TL3 1050	0.12		2	1.74	0.024	0.22	0.1	0.02	4.1
TL3 1100	0.103		1	1.82	0.03	0.15	0.1	0.02	4.3
TL3 1150	0.086		3	1.82	0.032	0.13	0.1	0.03	4.4
TL3 1250	0.069		1	0.81	0.019	0.08	0.1	0.02	1.4
TL3 1300	0.107		2	2.26	0.021	0.14	0.1	0.03	5.4
TL3 1350	0.098		2	1.72	0.019	0.2	0.1	0.05	4.4
TL3 1400	0.057		2	1.15	0.039	0.11	0.1	0.03	2.1
TL3 1450	0.091		1	1.51	0.05	0.19	0.1	0.02	2.8
RE TL3 14	0.092		1	1.49	0.053	0.19	0.2	0.03	2.7

ELEMENT	Bi	V	Ca	P	La	Cr	Mg	Ba	
TL2 800	0.2	54	1.43	0.055	20	61.2	0.91	153	
TL2 850	0.2	51	1.08	0.048	18	55.6	0.83	144	
TL2 900	0.2	45	1.57	0.054	15	43	0.69	123	
TL2 950	0.2	68	1.01	0.066	19	51.8	0.85	129	
TL2 1000	0.4	73	1.02	0.077	19	84.4	1.19	182	
TL2 1100	0.3	42	1.86	0.066	13	54.5	0.72	136	
TL2 1150	0.1	26	0.53	0.051	7	23.4	0.4	80	
TL2 1250	0.1	40	0.7	0.034	6	12	0.22	44	
TL2 1350	0.1	35	2.21	0.054	12	36.6	0.6	102	
RE TL2 15	0.1	39	2.03	0.051	11	39.3	0.63	123	
TL2 1400	0.1	37	2.12	0.061	11	35.5	0.61	121	
TL2 1450	0.1	42	1.7	0.066	12	38.5	0.66	117	
TL2 1550	0.1	38	1.9	0.05	10	37	0.61	117	
TL2 1600	0.1	36	2.18	0.056	11	35.2	0.64	118	
TL2 1650	0.1	31	2	0.05	9	31.9	0.51	95	
TL2 1700	0.1	36	2.39	0.058	11	39.4	0.59	137	
TL2 1750	0.1	42	2.27	0.053	11	43.9	0.73	112	
TL2 1800	0.1	42	2.44	0.052	13	47.3	0.64	128	
TL2 1950	0.2	59	1.43	0.056	16	54.2	0.94	114	
STANDAR	6.5	63	0.76	0.088	13	187.5	0.68	143	
G-1	0.1	44	0.58	0.088	9	13.4	0.63	282	
TL3 0	0.2	110	0.28	0.077	15	51.9	0.78	194	
TL3 050	0.1	60	0.51	0.103	8	19.5	0.35	117	
TL3 100	0.2	90	0.39	0.101	21	45.2	0.68	296	
TL3 150	0.2	82	0.38	0.092	20	47.6	0.86	270	
TL3 200	0.2	87	0.57	0.057	19	60.3	1.05	205	
TL3 250	0.2	98	0.47	0.061	19	76.2	1.03	195	
TL3 300	0.2	75	0.79	0.077	16	85	1.11	173	
TL3 350	0.1	52	0.74	0.1	17	65.6	0.78	168	
TL3 400	0.1	40	0.82	0.128	12	35.7	0.66	166	
TL3 450	0.1	47	0.51	0.088	10	46.1	0.74	140	
TL3 500	0.2	61	0.57	0.106	13	58	0.95	173	
TL3 550	0.1	45	0.48	0.083	11	35.7	0.71	148	
TL3 600	0.1	44	1.43	0.083	13	45	0.82	183	
TL3 650	0.1	54	1.08	0.07	14	49.9	0.86	146	
TL3 700	0.2	60	0.85	0.046	15	66.4	1.02	156	
TL3 750	0.2	71	0.75	0.061	20	73.1	1.14	127	
TL3 800	0.2	50	1.22	0.065	17	81.8	1.02	181	
TL3 850	0.3	73	0.71	0.065	26	103.3	1.34	145	
TL3 900	0.2	61	1.34	0.078	19	71	1.09	177	
TL3 950	0.3	66	1.22	0.058	14	68.2	1.06	138	
TL3 1000	0.2	53	1.54	0.064	21	57.5	0.96	131	
TL3 1050	0.2	58	1.02	0.078	19	68.5	1.08	161	
TL3 1100	0.3	57	1	0.074	16	62.4	0.93	133	
TL3 1150	0.3	56	1.46	0.079	19	68.1	0.94	148	
TL3 1250	0.2	42	0.52	0.035	11	24.2	0.35	81	
TL3 1300	0.2	74	1.21	0.056	43	72.1	1	171	
TL3 1350	0.2	65	1.68	0.075	50	60.6	0.92	150	
TL3 1400	0.2	32	1.5	0.065	11	29.7	0.5	163	
TL3 1450	0.1	52	1.32	0.059	13	40.1	0.66	178	
RE TL3 14	0.1	51	1.34	0.056	14	43	0.66	186	

ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb
TL2 800	2.77	15.2	1.1	2.4	2	75	0.6	0.8
TL2 850	2.51	13.8	1.1	9	2.1	57	0.3	0.7
TL2 900	2.23	9.8	0.9	2.5	1.6	67	0.3	0.7
TL2 950	3.03	13.4	1.1	1.8	3	46	0.2	0.8
TL2 1000	3.8	14.3	1.3	3	3.3	50	0.3	1.1
TL2 1100	2.34	10.2	1.7	4.6	1.3	79	0.8	0.7
TL2 1150	1.46	4.3	0.5	0.9	0.8	33	0.2	0.4
TL2 1250	1.39	2.6	0.3	<.5	0.5	31	0.1	0.2
TL2 1350	2.04	7.8	0.9	2.2	1	92	0.2	0.5
RE TL2 15	2.15	7.5	0.9	1.5	1.4	83	0.2	0.5
TL2 1400	2.04	8	0.9	1.6	1	87	0.2	0.6
TL2 1450	2.15	8.5	1	5.3	1.7	69	0.2	0.5
TL2 1550	2.01	7.6	0.9	2.6	1.6	79	0.2	0.6
TL2 1600	2.02	9.8	0.9	2.1	1.1	88	0.2	0.5
TL2 1650	1.74	9.9	0.8	2.3	0.8	91	0.2	0.5
TL2 1700	2.02	17.6	1.5	3.8	0.9	106	0.2	0.9
TL2 1750	2.31	24.1	0.8	4.2	1.5	97	0.2	0.9
TL2 1800	2.47	28.1	1	11.3	1.3	109	0.2	1
TL2 1950	3.31	27.3	0.7	4.1	3.1	71	0.2	0.8
STANDAR	3.04	18.3	6	43.1	2.9	49	5.6	3.8
G-1	2.11	<.5	1.7	1.5	4.1	98	<.1	<.1
TL3 0	3.9	16.5	1.2	2.5	2.5	27	0.6	0.8
TL3 050	2.16	4.2	0.6	0.8	0.3	40	0.8	0.5
TL3 100	3.57	16.5	1.8	6.3	1.5	35	1.7	0.9
TL3 150	3.47	23.4	1.3	7.6	4.9	32	1.3	0.7
TL3 200	3.66	13.2	1.1	3	4.3	45	0.5	0.6
TL3 250	4.27	17.7	1.4	5.8	3.5	39	0.5	0.8
TL3 300	3.22	16.3	1.3	4.2	1.8	46	0.3	0.6
TL3 350	2.36	12.4	1.7	4.2	0.6	49	0.3	0.5
TL3 400	2	10.9	1.2	2.5	0.3	48	0.4	0.6
TL3 450	2.27	12.3	1	1.9	0.5	36	0.4	0.4
TL3 500	2.9	14.4	1.1	1.9	0.7	43	0.4	0.6
TL3 550	2.28	15.6	0.9	2.2	0.7	37	0.2	0.6
TL3 600	2.19	12.1	1.2	2.3	1	67	0.7	15.4
TL3 650	2.47	14.6	1.1	4.6	1	54	0.7	13.3
TL3 700	3.15	15.6	0.9	5.4	2.8	49	0.3	6.4
TL3 750	3.42	12.2	1.1	2.7	4.3	42	0.2	2.2
TL3 800	2.75	10.2	1.1	3.7	2.2	65	0.1	1.7
TL3 850	3.75	16.1	1.5	3.8	5.8	42	0.2	1.8
TL3 900	3.14	14.9	1	4.4	2.6	61	0.3	1.4
TL3 950	3.1	14.4	0.9	2.6	2.7	55	0.2	0.9
TL3 1000	2.64	15.2	1.1	5	2.3	69	0.2	0.7
TL3 1050	3	14.1	1	2.6	3.8	52	0.3	1
TL3 1100	2.92	12.9	1.2	2.6	2.9	51	0.3	0.7
TL3 1150	2.84	10.2	1.8	4.4	2.1	65	0.4	0.8
TL3 1250	1.84	7.8	0.6	1.6	1	35	0.2	0.4
TL3 1300	3.75	32.9	2	6.5	3.9	81	0.1	0.6
TL3 1350	3.05	33.1	7.7	6.2	3.3	86	0.2	0.8
TL3 1400	1.67	6.3	1.1	2.2	0.9	72	0.2	0.7
TL3 1450	2.47	7.8	1.2	1.7	1.8	62	0.1	0.6
RE TL3 14	2.49	7.5	1.2	4.7	2	65	0.2	0.6

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL2 800	1.1	35.3	6	95	0.1	38.9	13.7	426	
TL2 850	0.8	32.6	5.9	91	0.1	35.1	13	391	
TL2 900	0.5	35.5	5.5	81	0.1	29.7	11.6	371	
TL2 950	0.7	30.6	5.9	95	0.1	34.7	15.6	587	
TL2 1000	1.2	51.4	8	116	0.2	72.4	22.6	712	
TL2 1100	0.8	49.7	5.9	129	0.2	49.8	13.5	496	
TL2 1150	0.6	22.3	4.1	77	0.1	19.2	8.8	302	
TL2 1250	0.3	19.1	3.1	73	<.1	9	6.2	179	
TL2 1350	0.7	41	5.1	71	0.1	31.8	11.5	331	
RE TL2 15	0.6	36.7	5.3	71	0.1	34.5	12.6	384	
TL2 1400	0.6	39.5	5.9	73	0.1	31.1	12.7	322	
TL2 1450	0.4	37.5	5.2	77	0.1	35.7	11.7	370	
TL2 1550	0.6	33	5.7	68	0.1	30.8	11.5	344	
TL2 1600	0.4	40.8	5.1	68	0.1	32.3	11.3	361	
TL2 1650	0.6	38.9	4.8	70	0.1	29.8	10.5	336	
TL2 1700	0.6	48.6	6	71	0.2	40.6	12.8	409	
TL2 1750	0.6	42.7	6.5	89	0.2	46.3	15.1	441	
TL2 1800	0.5	54.1	6.9	76	0.2	52.3	15.9	490	
TL2 1950	0.6	45.2	8.2	89	0.2	55.5	19.7	506	
STANDAR	12.7	142.5	24.6	139	0.3	24.1	11.9	784	
G-1	1.7	3	2.3	47	<.1	4.7	4.4	598	
TL3 0	2.4	42.2	8.5	120	0.2	42.5	16.2	744	
TL3 050	1.1	28.8	4.1	106	0.1	15	10.6	533	
TL3 100	4.1	73	8.8	148	0.5	49.7	17.1	554	
TL3 150	2.5	52.9	7	269	0.2	91.9	16.5	474	
TL3 200	1.6	49.2	6.4	121	0.1	62.4	14.9	479	
TL3 250	2.3	56.6	8.7	146	0.2	90.4	19.8	656	
TL3 300	1.6	54.5	6.1	110	0.2	101.1	18.1	499	
TL3 350	1.5	63.5	5.1	68	0.2	125.6	12.8	387	
TL3 400	1.9	46.8	5	71	0.2	119.8	12.9	474	
TL3 450	1.6	37	5.2	75	0.1	137.3	14.4	450	
TL3 500	2.7	46.4	6.7	89	0.2	151.5	17.1	500	
TL3 550	1.6	29.6	5.6	63	0.2	106.6	11.7	424	
TL3 600	0.9	38.8	5.5	79	0.2	137.9	12.5	371	
TL3 650	1	41.3	5.7	94	0.2	103.7	12.3	392	
TL3 700	0.9	35.6	7	90	0.1	65.7	16.7	426	
TL3 750	0.8	36.4	6.2	90	0.1	53.6	15.1	398	
TL3 800	0.7	42.2	6.1	83	0.2	55.9	14	709	
TL3 850	1	51.5	8.2	100	0.2	73.1	21	346	
TL3 900	0.8	46.3	6.6	88	0.2	54.7	17.1	601	
TL3 950	0.8	37.2	7	83	0.1	47.3	17.1	472	
TL3 1000	0.6	46.8	9	73	0.1	49	15	464	
TL3 1050	0.9	33.8	7.1	87	0.1	50.6	16	452	
TL3 1100	0.8	45.4	7.2	103	0.2	56	16.8	430	
TL3 1150	0.6	50.8	8.7	104	0.2	54.8	15.6	325	
TL3 1250	1.1	80.7	7	54	0.1	18.5	10.1	210	
TL3 1300	0.9	69	9.5	77	0.1	71.2	22.7	636	
TL3 1350	1	78.4	8.1	70	0.1	57.8	18.9	496	
TL3 1400	0.6	34.7	5.3	70	0.1	26.5	10.1	436	
TL3 1450	0.5	34.1	6.5	61	0.1	31.5	12.7	439	
RE TL3 14	0.6	36.1	6.6	61	0.1	33.4	13.7	458	

ELEMENT TI	S	Ga	Se	
TL1 0	0.1	0.06	7	0.6
STANDAR	1.1 <.05		6	5
TL1 50	0.1 <.05		8	1
TL1 100	0.2 <.05		8	0.9
TL1 150	0.1	0.07	6	0.5
TL1 200	0.2 <.05		9	0.5
TL1 250	0.2 <.05		8	0.8
TL1 300	0.2 <.05		7	0.7
TL1 350	0.2 <.05		8	0.7
TL1 400	0.2	0.09	8	0.7
RE TL1 40	0.2 <.05		8	0.6
TL1 450	0.1 <.05		6 <.5	
TL1 500	0.1 <.05		7	0.6
TL1 550	0.1 <.05		6	0.5
TL1 600	0.2 <.05		8 <.5	
TL1 650	0.2 <.05		8 <.5	
TL1 700	0.1	0.06	6 <.5	
TL1 750	0.2 <.05		7 <.5	
TL1 800	0.2 <.05		6 <.5	
TL1 850	0.1 <.05		5 <.5	
TL1 900	0.1 <.05		7 <.5	
TL1 950	0.1	0.07	6 <.5	
TL1 1000	0.2	0.13	7	0.7
TL1 1050	0.2	0.07	6	0.7
TL1 1200	0.2 <.05		6 <.5	
TL1 1250	0.3	0.1	7 <.5	
TL1 1350	0.1	0.16	4	0.6
TL1 1400	0.2 <.05		9 <.5	
TL1 1450	0.2 <.05		7 <.5	
TL1 1500	0.2 <.05		6 <.5	
TL1 1550	0.2 <.05		6 <.5	
TL1 1600	0.2 <.05		5 <.5	
TL1 1650	0.3 <.05		12 <.5	
TL2 0	0.1	0.07	6 <.5	
TL2 50	0.1	0.1	7 <.5	
STANDAR	1 <.05		7	4.7
G-1	0.3 <.05		5 <.5	
TL2 100	0.2	0.09	7	1
TL2 150	0.1	0.07	6	0.6
TL2 200	0.2 <.05		5	0.5
TL2 250	0.2 <.05		5	0.5
TL2 300	0.3 <.05		7	0.6
TL2 350	0.3 <.05		7	0.5
TL2 400	0.2 <.05		5	0.5
TL2 450	0.2 <.05		6 <.5	
TL2 500	0.1 <.05		6 <.5	
TL2 550	0.2 <.05		8 <.5	
TL2 600	0.2 <.05		6	0.5
TL2 650	0.2 <.05		7 <.5	
TL2 700	0.2 <.05		6 <.5	
TL2 750	0.2 <.05		7 <.5	

ELEMENT	Ti	B	Al	Na	K	W	Hg	Sc	
TL1 0	0.075		2	1.91	0.01	0.09	0.1	0.04	2.9
STANDAR	0.095		17	2	0.033	0.14	4.9	0.18	3.6
TL1 50	0.077		2	1.65	0.017	0.09	0.1	0.04	3.2
TL1 100	0.124 <1			2.09	0.024	0.26	0.2	0.03	5.1
TL1 150	0.078		1	1.19	0.029	0.08	0.1	0.04	2.1
TL1 200	0.144 <1			2.29	0.063	0.2	0.1	0.03	5
TL1 250	0.116		1	2.14	0.045	0.17	0.1	0.04	4.5
TL1 300	0.105		1	1.75	0.046	0.16	0.1	0.03	4
TL1 350	0.106		1	1.98	0.064	0.23	0.1	0.04	5.6
TL1 400	0.119		2	2.29	0.05	0.23	0.1	0.03	6.1
RE TL1 40	0.119		1	2.26	0.044	0.22	0.1	0.03	5.7
TL1 450	0.089		2	1.79	0.036	0.13	0.1	0.03	3.9
TL1 500	0.086		1	1.84	0.028	0.12	0.1	0.03	3.7
TL1 550	0.068		1	1.67	0.028	0.1	0.1	0.03	3.3
TL1 600	0.115		1	2.18	0.02	0.18	0.1	0.03	4.9
TL1 650	0.126 <1			2.16	0.02	0.27	0.1	0.02	5
TL1 700	0.069		1	1.66	0.026	0.14	0.1	0.03	3.5
TL1 750	0.068 <1			1.75	0.024	0.15	0.1	0.03	3.5
TL1 800	0.089 <1			1.76	0.026	0.21	0.1	0.03	4
TL1 850	0.075		1	1.56	0.031	0.17	0.1	0.03	3.5
TL1 900	0.094		1	1.85	0.024	0.1	0.2	0.03	4.4
TL1 950	0.11		1	1.43	0.029	0.09	0.1	0.03	3.2
TL1 1000	0.101		1	1.87	0.031	0.24	0.1	0.02	4.3
TL1 1050	0.094		2	2.1	0.028	0.13	0.1	0.05	4.4
TL1 1200	0.089		1	1.85	0.028	0.06	0.1	0.03	3.8
TL1 1250	0.133 <1			1.64	0.026	0.29 <1		0.02	4.8
TL1 1350	0.061		2	1.16	0.026	0.14	0.1	0.04	2.8
TL1 1400	0.152 <1			2.48	0.028	0.31	0.1	0.02	4.4
TL1 1450	0.128		1	2.29	0.025	0.13	0.1	0.01	4.5
TL1 1500	0.137		2	1.92	0.032	0.23 <1		0.01	5
TL1 1550	0.111		1	1.89	0.025	0.32	0.1	0.02	4.8
TL1 1600	0.118		1	1.55	0.024	0.25	0.1	0.01	4.7
TL1 1650	0.218 <1			3.42	0.083	0.37	0.1	0.01	8
TL2 0	0.118		1	1.76	0.02	0.11	0.1	0.03	3.7
TL2 50	0.098		1	2	0.015	0.09	0.1	0.02	3.4
STANDAR	0.097		17	1.98	0.034	0.15	4.9	0.19	3.6
G-1	0.138		2	0.94	0.07	0.5	1.2 <0.01		2.2
TL2 100	0.109		2	2.31	0.019	0.19	0.2	0.02	4.2
TL2 150	0.08		3	1.93	0.024	0.12	0.1	0.03	3.6
TL2 200	0.097		4	1.89	0.025	0.13	0.2	0.02	4.6
TL2 250	0.068		2	1.65	0.026	0.09	0.1	0.04	3.5
TL2 300	0.121		2	2.05	0.026	0.17	0.1	0.01	4.6
TL2 350	0.121		2	2.24	0.022	0.17	0.1	0.02	4.7
TL2 400	0.078		2	1.87	0.03	0.08	0.1	0.02	3
TL2 450	0.066		1	1.81	0.027	0.07	0.1	0.03	3.2
TL2 500	0.074		2	1.95	0.025	0.09	0.1	0.02	3.2
TL2 550	0.108		1	2.33	0.022	0.14	0.1	0.02	4.9
TL2 600	0.078		1	1.68	0.024	0.14	0.1	0.02	3.1
TL2 650	0.128		2	1.99	0.028	0.27	0.1	0.01	3.9
TL2 700	0.091		2	1.77	0.025	0.18	0.1	0.03	3.9
TL2 750	0.095		2	1.91	0.025	0.2	0.1	0.02	3.7

ELEMENT Bi	V	Ca	P	La	Cr	Mg	Ba	
TL1 0	0.1	73	0.23	0.045	9	42.6	0.73	114
STANDAR	6	59	0.74	0.094	11	177.4	0.68	135
TL1 50	0.2	89	0.41	0.072	13	49.8	0.8	202
TL1 100	0.3	98	0.44	0.082	22	62.7	0.98	271
TL1 150	0.1	69	0.59	0.084	11	29	0.47	146
TL1 200	0.1	81	0.68	0.062	19	165.7	1.58	212
TL1 250	0.1	77	0.84	0.078	16	117.5	1.32	216
TL1 300	0.1	68	0.98	0.069	15	79.5	1.02	161
TL1 350	0.1	74	1.38	0.071	17	95	1.26	176
TL1 400	0.2	85	1.12	0.077	17	81.7	1.13	178
RE TL1 40	0.1	80	1.06	0.072	17	77	1.08	180
TL1 450	0.2	57	0.94	0.063	14	48.5	0.77	163
TL1 500	0.2	67	0.73	0.074	14	52.2	0.79	156
TL1 550	0.2	57	0.7	0.077	14	42.6	0.71	153
TL1 600	0.3	75	0.49	0.056	16	65.8	1.12	174
TL1 650	0.2	77	0.5	0.058	18	115.7	1.32	175
TL1 700	0.2	53	0.65	0.079	21	50.2	0.75	154
TL1 750	0.2	55	0.53	0.071	17	50.1	0.8	149
TL1 800	0.2	60	0.55	0.062	25	49.7	0.78	136
TL1 850	0.2	50	0.76	0.069	24	41.7	0.71	136
TL1 900	0.6	66	0.46	0.079	14	70.4	0.89	204
TL1 950	0.3	80	0.55	0.079	14	47.6	0.66	186
TL1 1000	0.3	59	1.31	0.068	23	71	1.02	171
TL1 1050	0.4	67	1.08	0.085	21	133.5	1.21	175
TL1 1200	0.2	66	1.19	0.053	23	46.7	0.63	135
TL1 1250	0.4	73	1.58	0.073	15	101.5	1.26	159
TL1 1350	0.2	43	2.22	0.08	12	48.2	0.76	117
TL1 1400	0.4	85	0.76	0.05	30	64.2	1.07	152
TL1 1450	0.2	86	0.64	0.025	13	73.4	1.01	134
TL1 1500	0.2	79	1.1	0.069	19	75.7	1.13	146
TL1 1550	0.2	72	0.86	0.054	21	71.8	1.08	139
TL1 1600	0.2	69	1.82	0.088	19	67.3	1.15	108
TL1 1650	0.1	112	0.81	0.036	20	200.5	1.99	248
TL2 0	0.2	92	0.3	0.049	11	42	0.74	157
TL2 50	0.2	103	0.28	0.057	16	50.6	0.79	211
STANDAR	6.5	63	0.77	0.105	13	188.2	0.69	148
G-1	0.1	41	0.57	0.073	8	12.4	0.6	260
TL2 100	0.2	101	0.41	0.09	22	55.3	0.96	288
TL2 150	0.2	74	0.45	0.067	18	122.7	1.69	238
TL2 200	0.1	80	0.39	0.054	13	220.9	2.99	192
TL2 250	0.1	52	0.64	0.061	12	119.5	1.81	254
TL2 300	0.1	65	0.73	0.059	14	282	2.23	323
TL2 350	0.2	77	0.67	0.057	16	290	1.88	205
TL2 400	0.1	61	0.7	0.067	16	133.7	1.14	212
TL2 450	0.2	53	0.73	0.067	14	121.1	1.08	191
TL2 500	0.2	66	0.54	0.066	14	64.8	0.9	169
TL2 550	0.2	73	0.81	0.057	17	64.3	1.08	175
TL2 600	0.1	53	0.91	0.059	14	45.3	0.73	154
TL2 650	0.2	68	0.8	0.048	28	134.3	1.31	182
TL2 700	0.2	59	0.91	0.055	20	52.6	0.81	162
TL2 750	0.2	53	0.83	0.05	17	57.9	0.93	155

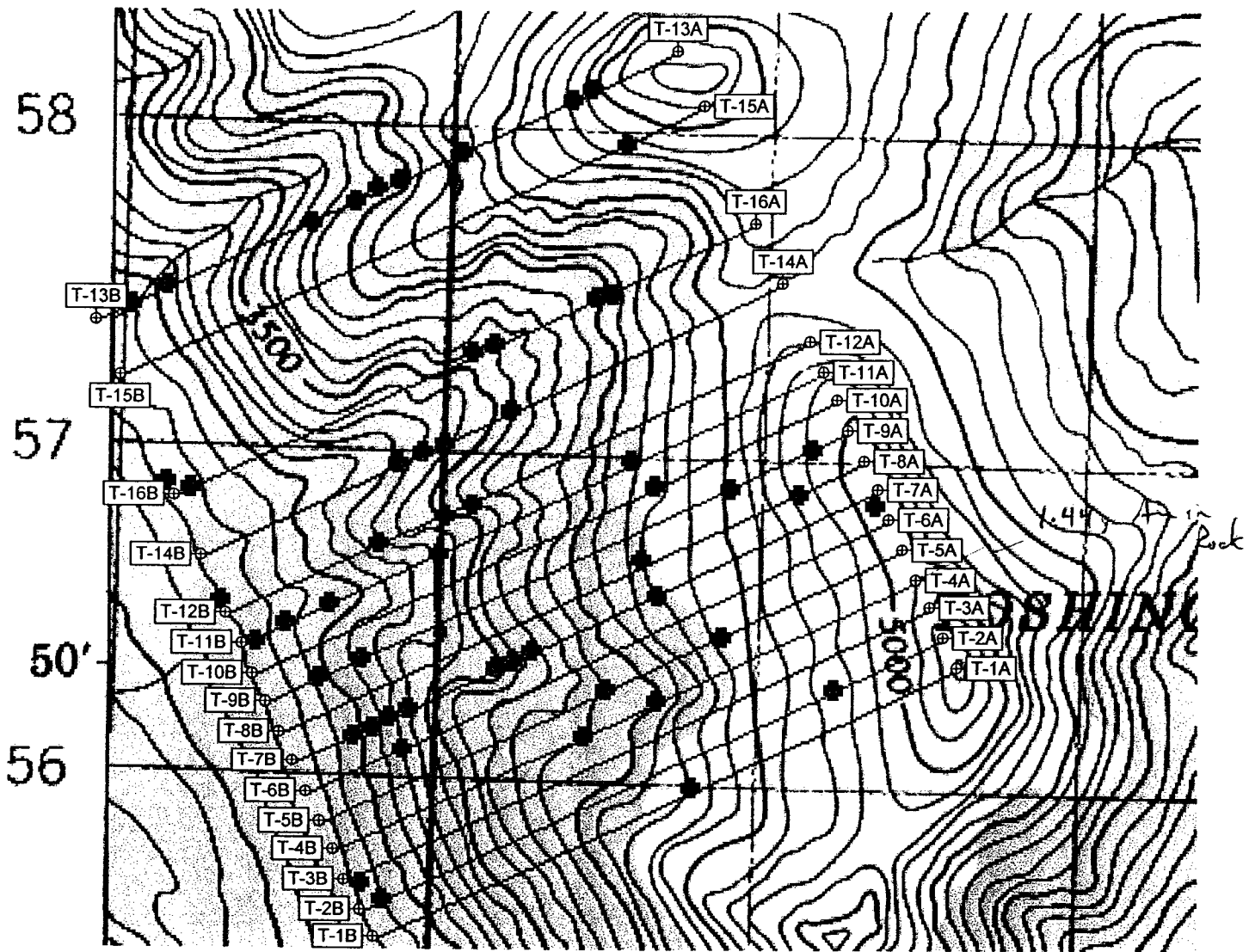
ELEMENT	Fe	As	U	Au	Th	Sr	Cd	Sb	
TL1 0	3.51	12.9	0.8	0.8	2	1.1	22	0.3	0.9
STANDAR	2.93	18.5	6.3	6.3	42.8	2.8	46	5.4	4
TL1 50	3.76	14.3	1	1	2.7	1.3	40	0.3	1.1
TL1 100	4.15	31.3	1.4	1.4	7.7	4.4	46	0.4	0.8
TL1 150	2.67	10.2	0.8	0.8	2.8	0.8	42	0.4	0.5
TL1 200	3.6	14	1.6	1.6	3.5	3.7	61	0.3	0.4
TL1 250	3.27	18.5	1.3	1.3	4.5	2	60	0.2	0.5
TL1 300	2.93	18.3	1.1	1.1	6.9	2	58	0.2	0.4
TL1 350	3.48	21.6	1.4	1.4	7.5	2.4	66	0.3	0.6
TL1 400	3.53	18.8	1.9	1.9	3.9	2	60	0.2	0.5
RE TL1 40	3.41	18.4	1.9	1.9	5.7	2	58	0.2	0.6
TL1 450	2.89	12.8	1.2	1.2	6.2	1.5	54	0.2	0.5
TL1 500	3.07	13.4	1.2	1.2	2.8	1.5	47	0.3	0.5
TL1 550	2.73	13.3	1.1	1.1	1.7	1.1	43	0.2	0.5
TL1 600	3.85	13.6	1.1	1.1	2.9	3.5	34	0.1	0.5
TL1 650	3.62	9.9	1.1	1.1	3.9	4.7	34	0.1	0.4
TL1 700	2.65	10.3	1.2	1.2	3.2	1.5	45	0.3	0.5
TL1 750	3	11.7	1.2	1.2	3.2	1.9	40	0.3	0.5
TL1 800	2.99	13.8	1.4	1.4	1.8	2.5	38	0.1	0.6
TL1 850	2.51	14.1	1.4	1.4	2.6	1.7	47	0.2	0.7
TL1 900	3.08	65.4	1.4	1.4	11.3	2	39	0.5	19.1
TL1 950	2.92	13.4	1.1	1.1	3.6	1.9	38	0.9	0.6
TL1 1000	3.22	16.2	2	2	3.3	2.9	59	0.4	0.7
TL1 1050	3.49	14.3	1.8	1.8	6.9	2.3	60	1.3	0.6
TL1 1200	2.95	13.2	1.4	1.4	2.5	2.3	91	0.1	0.4
TL1 1250	3.71	15.3	0.9	0.9	3.7	2.3	78	0.1	0.5
TL1 1350	2.08	10.5	0.9	0.9	4.2	1.1	85	0.3	0.4
TL1 1400	4.89	17.4	1.4	1.4	1.5	3.7	39	0.8	0.9
TL1 1450	3.84	18.7	0.6	0.6	3.4	3.5	42	0.1	0.7
TL1 1500	3.56	17.7	0.7	0.7	2.7	4.3	51	0.2	0.7
TL1 1550	3.69	31.2	0.8	0.8	7.4	4.2	48	0.2	1
TL1 1600	3.3	20.9	0.8	0.8	4.2	4.2	76	0.1	1.1
TL1 1650	4.32	10.7	1.3	1.3	3.2	6.1	80	0.1	0.2
TL2 0	3.68	9.1	0.7	0.7	2.3	2.4	25	0.5	0.7
TL2 50	4.2	10.7	1.1	1.1	6.7	2	29	0.4	0.8
STANDAR	3.12	18.8	6.4	6.4	42.8	2.9	51	5.8	3.9
G-1	2	<.5	1.8	1.8	0.8	4.1	84	<.1	<.1
TL2 100	4.58	18.8	1.5	1.5	3	4	35	1.6	0.9
TL2 150	3.25	14.4	1.6	1.6	4.2	1.7	37	0.4	0.7
TL2 200	3.91	15.4	1	1	2.7	2.4	31	0.3	0.5
TL2 250	2.7	9.1	1.1	1.1	7.5	1.2	40	0.4	0.4
TL2 300	3.05	6.4	1.1	1.1	2.3	2	40	0.2	0.3
TL2 350	3.47	10.4	1.2	1.2	24.7	2.7	35	0.2	0.4
TL2 400	2.66	10.8	1.1	1.1	1.9	1	45	0.3	0.4
TL2 450	2.61	10.2	1.2	1.2	3.1	1.1	47	0.3	0.4
TL2 500	3.07	16.1	1.1	1.1	2.3	0.9	38	0.1	2.8
TL2 550	3.75	38.4	1.5	1.5	2.5	2.2	46	0.2	2.4
TL2 600	2.75	18.9	1.1	1.1	2.1	1.3	51	0.3	1.1
TL2 650	3.01	14.7	1.1	1.1	3	3	43	0.1	0.7
TL2 700	2.95	15.7	1.2	1.2	2.2	2	53	0.2	0.5
TL2 750	2.82	12	1.1	1.1	2.8	2.1	44	0.2	0.6

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	
TL1 0	2.3	38.3	9.2	105	0.1	34.6	14.7	530	
STANDAR	13	148.1	25	139	0.3	24.4	12.7	787	
TL1 50	3.2	47.8	10.1	104	0.1	38.3	14.1	491	
TL1 100	2.5	63.7	13.5	126	0.2	66.5	21.7	689	
TL1 150	1.6	55.9	5.9	104	0.1	22.3	11.3	406	
TL1 200	2.6	50.9	6.6	121	0.1	159.2	19.7	496	
TL1 250	2.7	52.2	7.1	112	0.1	103.5	18.8	573	
TL1 300	2.1	45.4	5.8	99	0.1	73.6	15.8	470	
TL1 350	2.3	57.4	6.9	110	0.1	83.1	18.2	531	
TL1 400	1.9	63	7.7	104	0.1	64.9	16.7	365	
RE TL1 40	1.9	61.8	7.2	100	0.1	63.3	16.1	350	
TL1 450	2	43.2	6.6	85	0.1	37.5	14.3	453	
TL1 500	2.2	43.1	6.6	95	0.1	39.9	15.1	554	
TL1 550	2.1	38.5	6.5	84	0.1	31.8	13.6	512	
TL1 600	2.2	37.1	8.1	99	0.1	45.9	17.3	526	
TL1 650	1.4	37.1	6.8	94	0.1	64.7	19	521	
TL1 700	1.6	38.6	6.1	81	0.2	32.4	13.2	463	
TL1 750	1.5	36.1	6.7	95	0.1	34.1	13.8	441	
TL1 800	1.2	37.6	6.3	81	0.1	35.2	13.5	397	
TL1 850	0.9	34.7	5.7	82	0.2	32.2	11.3	339	
TL1 900	4.9	43.4	7.8	137	0.3	51.1	19.4	775	
TL1 950	1.2	42.2	5.5	100	0.2	39.9	15.3	569	
TL1 1000	0.9	56.7	7.5	109	0.1	58.7	17.1	436	
TL1 1050	1.2	65.6	7.6	163	0.2	123.9	24.4	713	
TL1 1200	0.9	62.8	7.9	66	0.1	32.4	14.3	372	
TL1 1250	0.8	87.2	7.8	69	0.1	99.3	34.3	441	
TL1 1350	0.6	58.1	6	62	0.1	42.4	14.2	378	
TL1 1400	2.2	96.3	21.5	142	0.2	85.3	39.5	831	
TL1 1450	1.3	44.5	9.3	67	0.1	57.7	19.2	354	
TL1 1500	0.6	55.2	8.5	75	0.1	71.6	21.2	484	
TL1 1550	0.7	69.7	8.9	67	0.2	58.6	20.6	555	
TL1 1600	0.7	46.7	7.4	75	0.3	54.9	19.4	507	
TL1 1650	2.9	57.4	5.1	145	0.1	150.8	22.9	571	
TL2 0	1.7	39	7.3	113	0.1	41.7	18.3	716	
TL2 50	2.7	53.7	9.1	140	0.1	54.2	19.5	626	
STANDAR	12.8	138.4	24.5	137	0.3	24.2	12.6	813	
G-1	1.5	3.1	2	49	<.1	4	4.3	560	
TL2 100	4.5	81.5	8.3	217	0.3	80.8	28.4	746	
TL2 150	3.8	66.6	7	121	0.3	287.2	25.5	472	
TL2 200	4.3	43.3	6.5	110	0.1	383.1	32.8	583	
TL2 250	1.8	47.1	5.6	83	0.1	410.9	25.1	438	
TL2 300	1.8	37.3	4.9	85	0.1	300.3	25.4	457	
TL2 350	2.1	50.1	7.3	105	0.1	270.1	24.7	470	
TL2 400	1.8	48	6.2	102	0.1	152	17.9	579	
TL2 450	1.8	43.8	6.3	119	0.2	130.5	15.9	495	
TL2 500	2	42.6	7.5	98	0.1	71.3	16.6	565	
TL2 550	1.8	41.9	8.7	107	0.1	51.4	17.5	583	
TL2 600	1.5	30.8	5.8	90	0.1	38.6	14	464	
TL2 650	1.1	37.1	5.3	85	0.1	76.4	17.1	392	
TL2 700	1.1	33.6	6	85	0.1	38.2	13.5	398	
TL2 750	1	33.3	6.1	97	0.1	38.7	14.2	413	

Soils Survey for the
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January 2005

APPENDIX C

SAMPLE LOCATION MAP

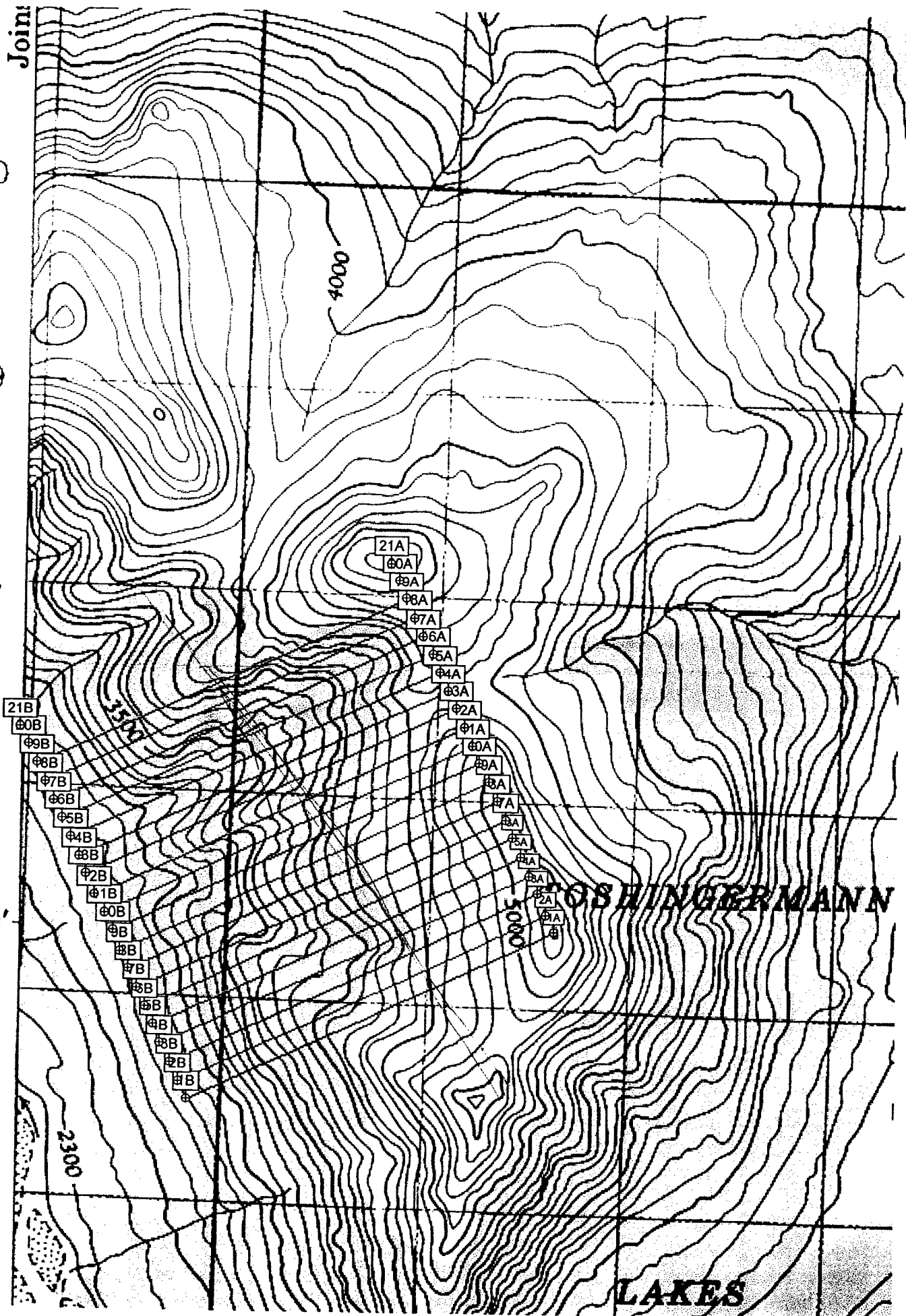


TOSH > 10 ppb Au in soils

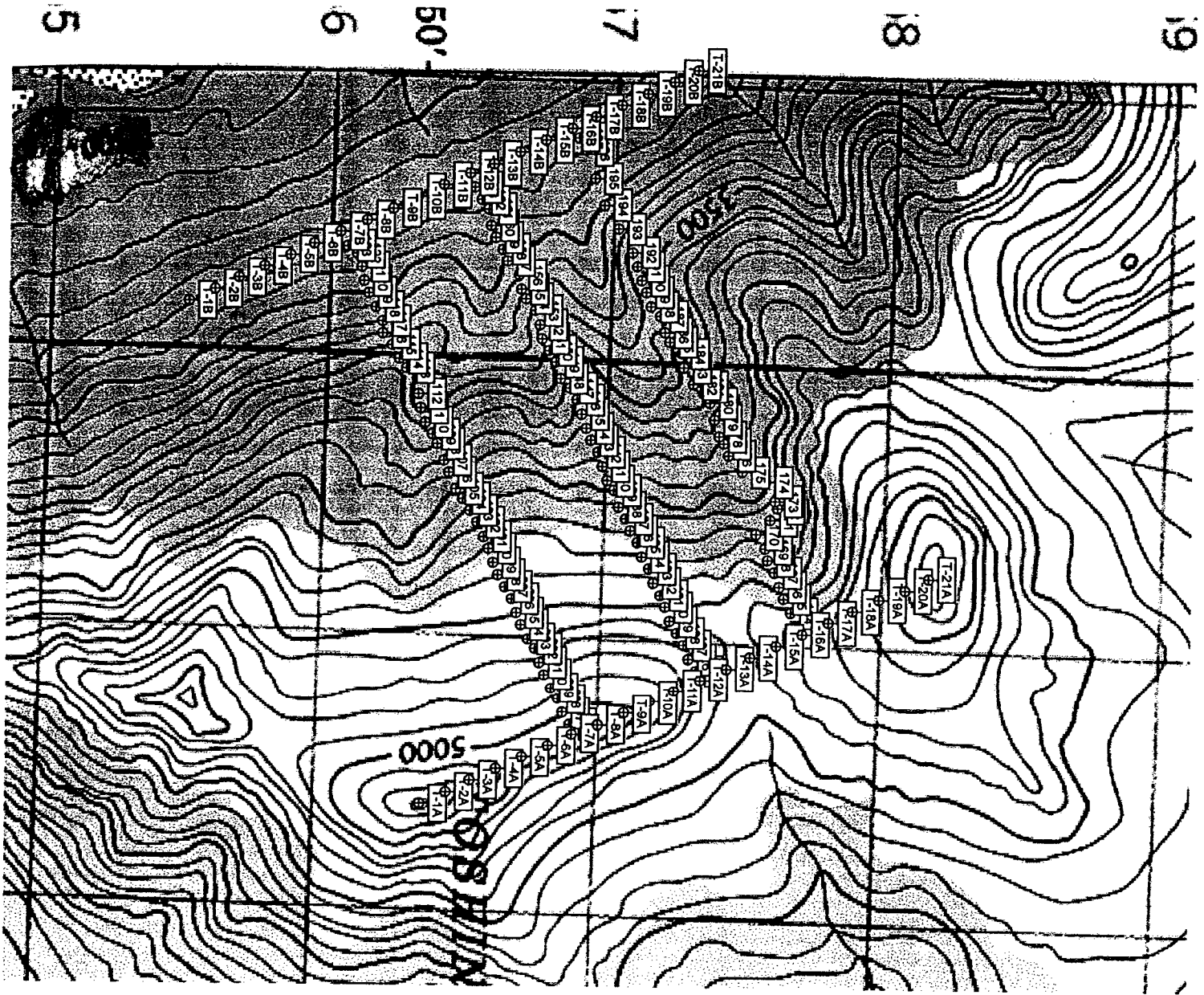
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TOSH GRID



LINE 7, 12, 16

19

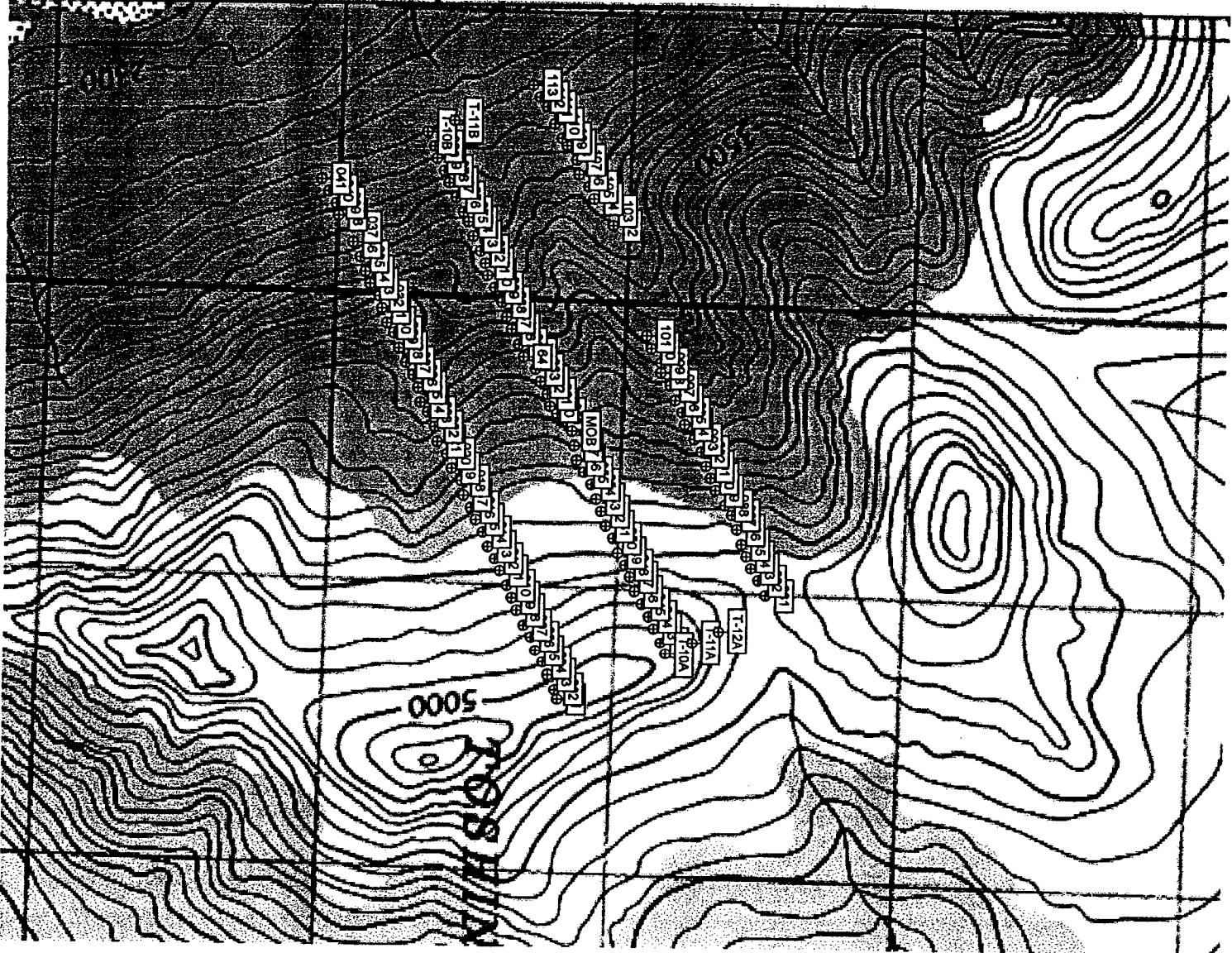
18

17

50'

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5



19

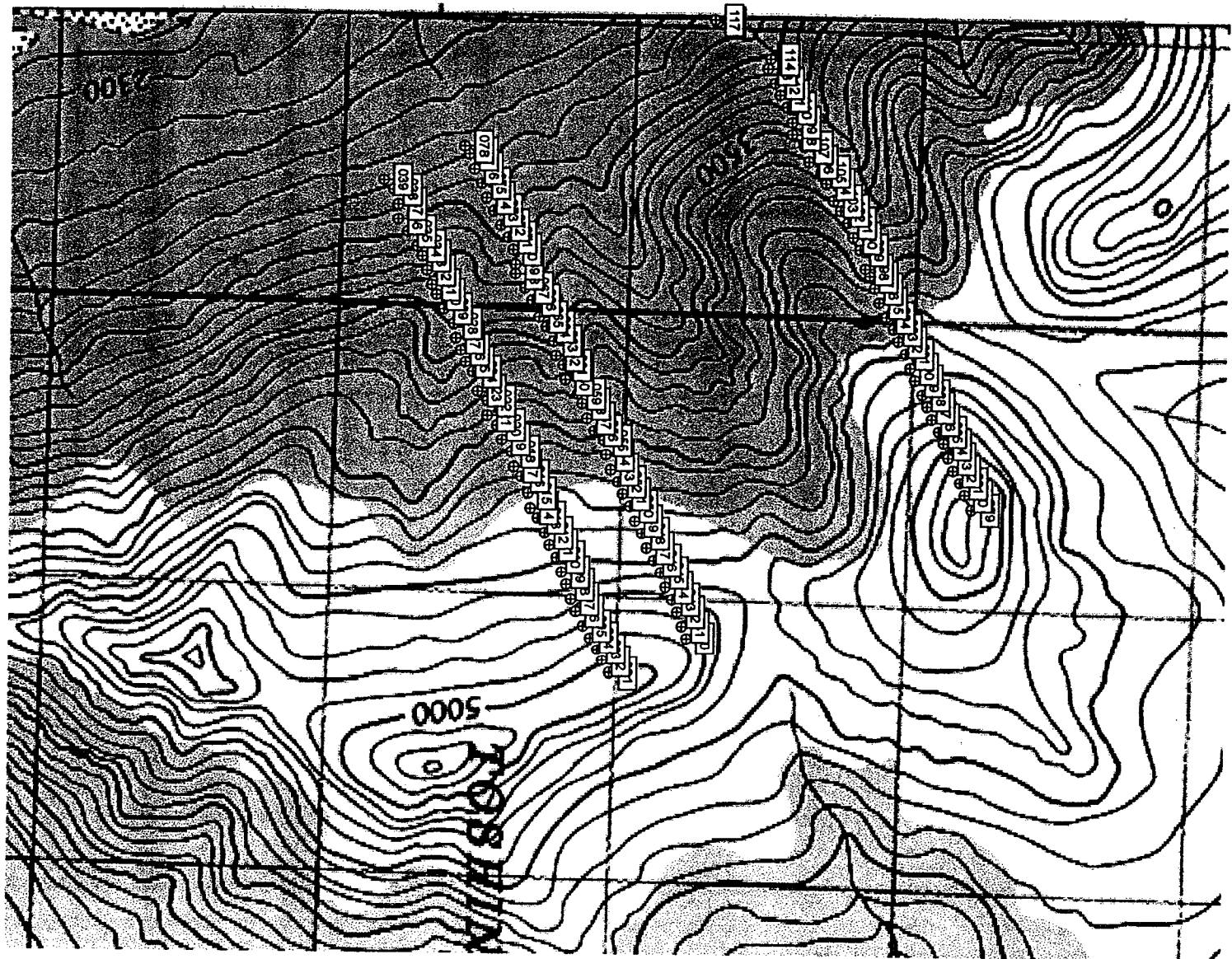
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17

50'

6

5



19

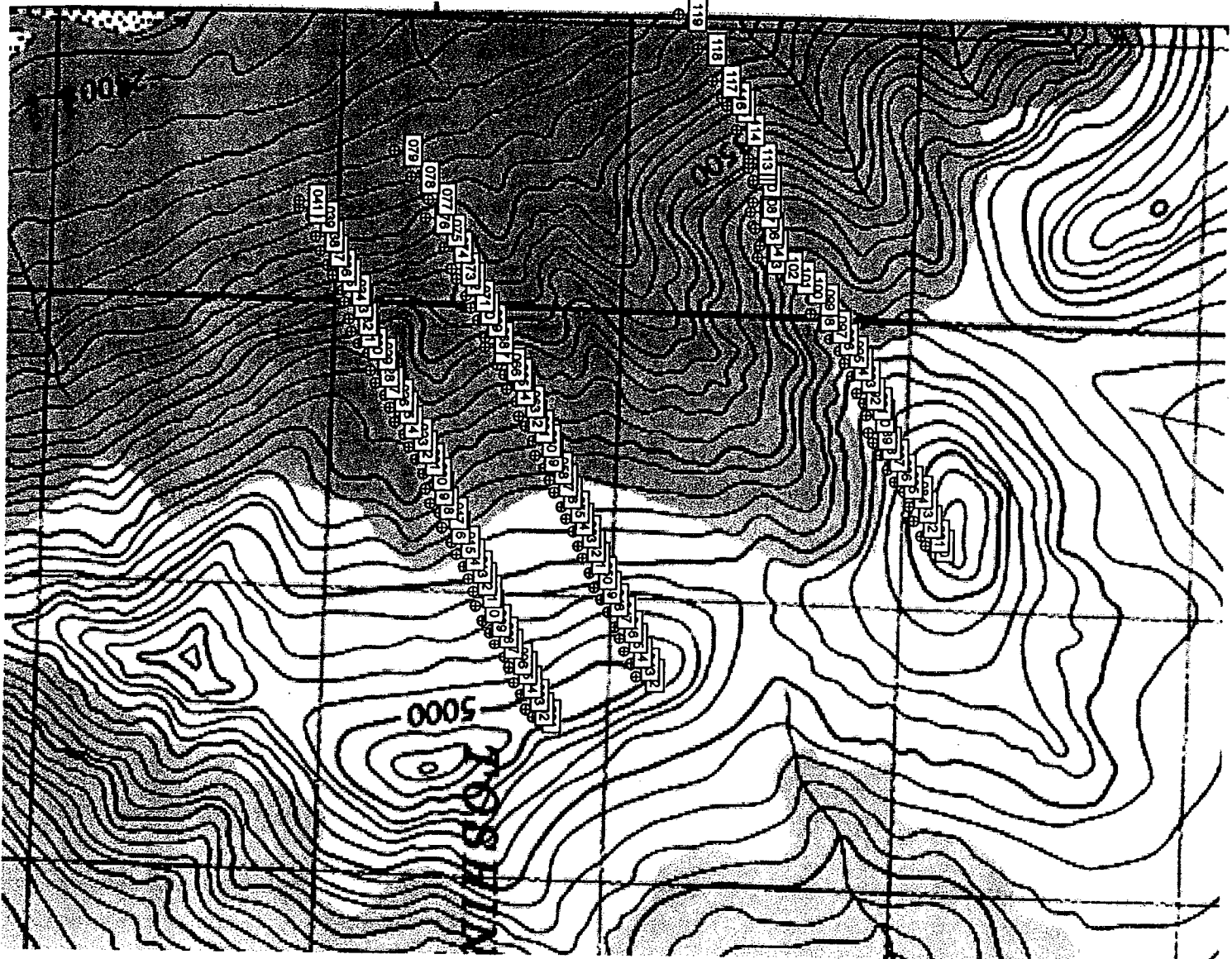
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17

50'

6

5



19

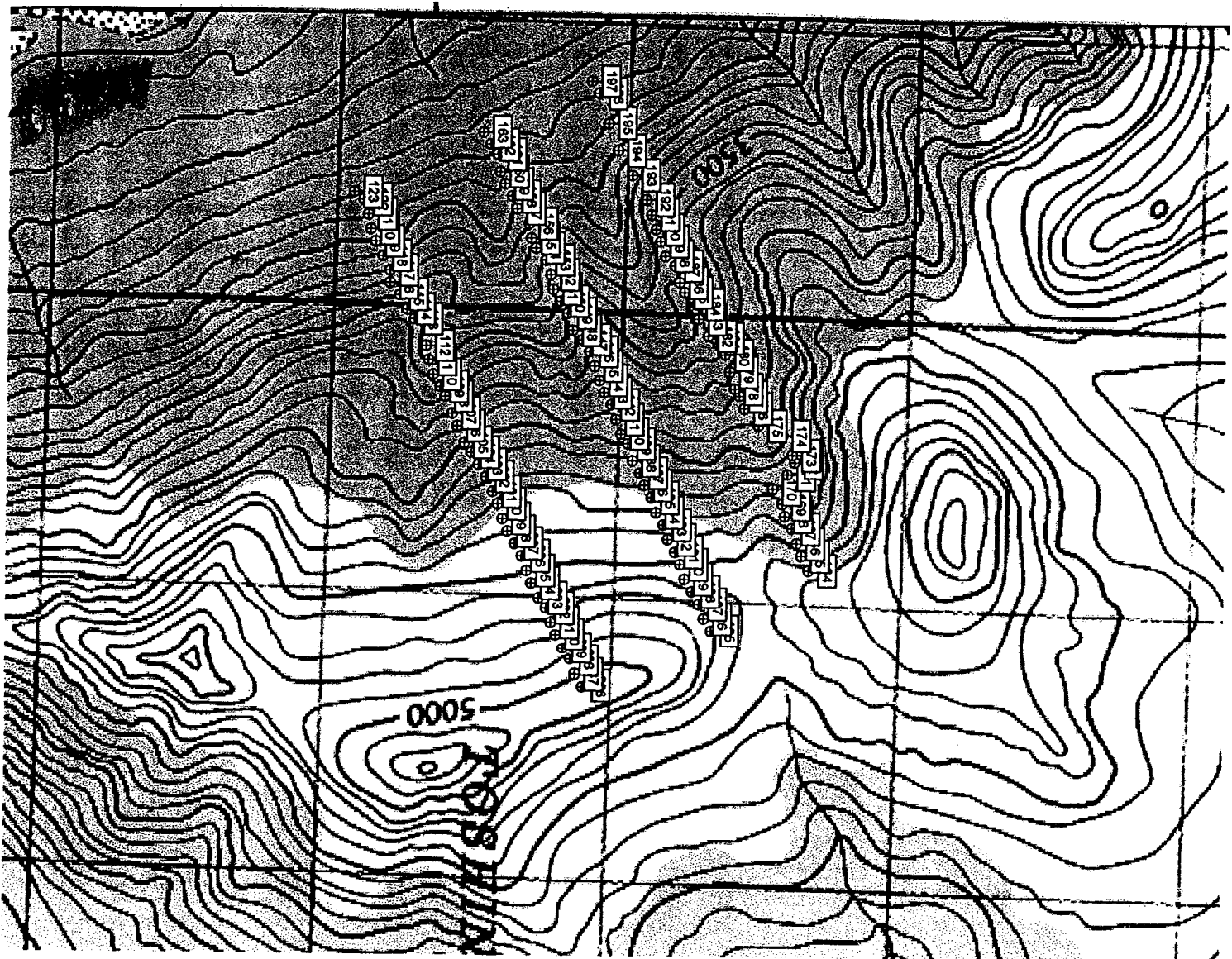
18

17

50'

6

5



*Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005*

APPENDIX D

STATEMENT OF COSTS

Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005

STATEMENT OF COSTS

Dates of Field Work: June 24–27 and August 23–27 (inclusive), 2004 (9 days)

Crew: Ron Berdahl, Andrew Berdahl, Scott Berdahl, David Quincey

Wages:

Prep time (includes hiring, administration, program set up, etc. 4 man/days)	\$	1,000.00
Field Days: 16 man days @ \$250/man/day		4,000.00
Smoke and travel days: 5 @ \$125/man/day		2,500.00
Analysis: ACME Labs 1DX pkg., 494 soils, 11 rocks @ \$18 w/freight		9,090.00
Helicopter: Trans North		13,232.82
Vehicles (2): Whse to M 1118 rtn. 352 km/leg x 4 legs x \$0.48/km (gov't. rate)		1,351.68
Per Diem: Food and Kluane Wilderness Village @ \$52/man/day 9 x 52 x 4 men		1,872.00
Rental of radios (4), sat phone, GPS (4), consumables, flags, sample bags, notebooks, Workers' Compensation, batteries, claim posts, etc.		1,200.00
TOTAL:		<u>\$ 34,246.50</u>

*Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005*

APPENDIX E

STATEMENT OF QUALIFICATIONS

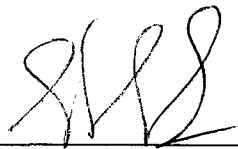
Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005

STATEMENT OF QUALIFICATIONS

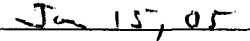
I, Ron Berdahl, declare I am an independent prospector who has worked in the Tosh area during the 2004 field season.

I have worked several years in the Southwest Yukon and taken several courses related to prospecting, and in addition make the bulk of my living from prospecting.

The data contained herein is true and correct to the best of my knowledge.



Ron S. Berdahl



Date

*Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005*

APPENDIX F

PROJECT PERSONNEL

*Soils Survey for the
Toshingermann Lake Project 115G13/14
January 2005*

PROJECT PERSONNEL

Ron Berdahl	Soil Sampling / Supervisor
Andrew Berdahl	Soil Sampling
Scott Berdahl	Soil Sampling
David Quincey	Soil Sampling

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DATE DUE