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NATURAL RADIOACTIVITY IN LIGNITES AND LIGNITE ASH: FINAL REPORT

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ABSTRACT

Natural radioactivity in a Texas lignite field and in leachates from lignite ash from power plants was measured. The radioactivity concentrations found (4 ppm uranium in the lignite, 16 ppm uranium in the lignite ash, and a few picocuries of natural radionuclides per liter in the leachates) do not differ appreciably from those found previously in similar samples and in natural materials such as soils and ground waters. Additional information on stable elements are reported for both the lignites and the leachates.

SUMMARY

This study provides new data on the natural radioactivity content of solid wastes and their leachates that result from burning lignite for power generation. The natural radioactivity in various coals and their associated waste products has been studied extensively, but notably lacking are data on lignites from geological formations containing high concentrations of uranium and data on the leachates of ash from power plants burning lignites. This study addresses both areas and extends the data base in each case.

Samples were taken from the major seams of a lignite field in Texas that is in a geological formation containing large concentrations of uranium. The sample boreholes were distributed evenly over the field to assure representation of the whole field. Samples of the geological material in direct contact with the lignite were also included in this study. Most of the radioactivity was found in the material in contact with the lignite rather than in the lignite itself. The lignite contains about twice the radioactivity of the average US coal; but, because these lignites also contain about twice the ash content of the average US coal, the ash contains about the same radioactivity as the average US coal ash. The uranium content of these lignites is about the same as that of typical soils.

Ash from two power plants that burn lignites was leached over 2 weeks. Samples of the leachate, which were taken daily, were analyzed for both radionuclides and stable

elements. Because minimal quantities of radionuclides were found, we conclude that the radionuclide content of these leachates poses no significant environmental threat.

When these results are combined with other data on radioactivity in coals and associated waste products, our results in this study are not notably different from those of previous studies and none of the materials appear to pose any significant environmental threat from radioactivity.

INTRODUCTION

Before this study, the data base contained information on the radionuclide content of several coals, ashes, and leachates.^{1,2} However, no data were available for lignites associated with uranium-bearing geological formations or for the leaching of lignite ashes. This study assesses the radionuclide content of a mineable lignite field in a geological formation (the Yegua-Jackson) that contains mineable uranium at another location. We also report results of leaching experiments for ashes from two power plants that burn lignites. The radionuclide content of ashes can be estimated with confidence if representative samples of the raw lignite are available for analysis, but the leachability of radionuclides from the ash depends critically on the physical and chemical character of the ash. This character is determined by the detailed chemical history of the minerals in the lignite as they go through the combustion process. Because this history is very difficult, if not impossible, to describe or to duplicate adequately in the laboratory, producing an ash truly representative of the ash from a given power plant is also very difficult. For this reason, we chose to do leaching experiments on composite ash samples representative of a day's run of two operating power plants.

Our goal was to determine the radionuclide content in the solid wastes and leachates generated by using lignites as fuels for electric power generation. This study shows the distribution of radionuclides in a whole lignite field and in the geological material in contact with the lignite. Because of the variability of radionuclide content in individual samples, it is necessary to analyze many samples to obtain a good estimate of the radionuclide content of the field. To this end, several samples distributed over the field were taken from each major lignite seam and from the material in contact with the seams.

The power plant ash samples were studied to determine the leachability of radionuclides and the effect of the nonradioactive components on the leachability of the radionuclides. These combined results show that the properties of the materials studied fall within the range of properties for similar materials studied previously. Furthermore, these materials show no unusually large amounts of radioactivity nor unusual leachability.

ELEMENTAL ANALYSES OF LIGNITE SAMPLES

Seventy-six samples of the lignites and associated geological material were analyzed by neutron activation analysis (see Appendix). The results were subjected to a variety of multivariate statistical analyses to ascertain groupings of the samples (Table I). This analysis divided the samples into two groups: one containing mainly lignites (clusters 1, 3, 4, 5, 7, 9, and 10) and the other containing mainly tuffs (clusters 2, 6, and 8). The lignites averaged about 4 ppm uranium and 12 ppm thorium, whereas the tuffs averaged about 11 ppm uranium and 35 ppm thorium. Additional examination of the data by cluster analysis revealed more details of the sample set, the most significant being that the lignite samples could be divided into three subsets with different calcium:iron ratios. The presence of calcium tends to make leachates basic, whereas iron tends to make them acid. One subset of lignites was higher than average in calcium (clusters 3, 7, and 10), another was higher than average in iron (clusters 4 and 9), and the third was average in both calcium and iron (clusters 1 and 5). Many potentially toxic metals have low solubility in basic solutions with the pH controlled by Ca(OH)_2 and CaCO_3 , two common calcium minerals found in lignites and lignite ash. In solutions where the pH is controlled by iron, many of these metals are soluble enough to attain toxic concentrations. Precise predictions about pH and metal solubility in the ash leachate require a complete description of the mineral content and the combustion chemistry of the mineral matter, details that were beyond the scope of this study. In view of the present limited knowledge about the combustion chemistry of coal minerals in power plants, environmental estimates are best based on experimental data from actual power plant ash.

The significance of these results to a study of radionuclides is the higher than average amounts of uranium and thorium in the lignites, since these elements are the origin of most radioactivity in these samples. Some radioactivity is associated with potassium, but this source is ubiquitous in all natural materials³ and its presence in these samples is insignificant with regard to radiation dose to humans. The significance of the uranium and thorium decay chains has been discussed extensively in the literature⁴ and was reviewed in a previous report related to this project.¹

We will at this point eliminate thorium from further discussion of radiologic dose because thorium itself is immobile in the environment because of the insolubility of its compounds in natural media. Furthermore, its radioactive decay products are short-lived and cannot exist for long in the absence of thorium.

The amounts of uranium in the lignites are larger than the median (1.0 ppm) and average (1.8 ppm) found in US coal samples taken as a whole² (see Fig. 1). Our mean of 4 ppm for the Texas lignite field as a whole is comparable with the thickness-weighted seam

TABLE I. Cluster Analyses of Neutron Activation Data for Texas Lignite Samples (ppm by weight)

Element	<u>Cluster Means</u>					
	1	2	3	4	5	6
Na	5115.00	13700.00	2000.00	5402.50	2453.08	8251.25
U	4.71	15.35	3.40	4.00	3.39	8.95
Co	1.72	2.46	4.68	9.77	4.22	1.09
Ta	0.96	4.63	0.84	1.23	1.00	2.78
Mg	1700.00	3505.00	2475.00	4530.00	2986.54	3797.50
As	6.30	19.05	4.43	15.23	5.21	3.37
Zn	95.55	177.00	55.65	84.53	55.78	95.60
Th	13.10	54.95	11.30	14.48	12.39	33.16
Al	33800.00	88800.00	36400.00	61850.00	46496.15	95987.50
Br	2.66	1.83	5.47	1.88	4.25	1.90
Se	2.37	1.50	17.45	3.67	3.26	2.27
Cl	122.50	670.00	70.40	74.58	87.52	77.06
Sb	1.50	2.22	0.89	1.29	0.85	1.07
Rb	23.25	268.00	20.85	73.18	35.22	68.11
K	2995.00	31100.00	3105.00	13375.00	4783.08	11903.75
La	22.05	32.00	24.40	54.73	29.52	44.38
Cs	1.28	10.45	2.85	6.44	3.99	3.06
Ca	10590.00	7600.00	15200.00	7110.00	12706.54	10435.00
Sm	3.42	11.95	4.21	8.40	4.50	6.77
Ba(2) ^a	516.50	160.50	183.00	465.50	300.05	1121.63
Ti	1370.00	691.50	1680.00	3130.00	2004.62	2307.50
Yb	3.18	7.65	4.66	4.71	3.81	3.09
Ce	49.45	80.55	50.30	115.00	61.60	95.51
V	23.80	9.95	38.05	50.08	40.83	15.67
Lu	0.58	1.09	0.80	0.76	0.61	0.46
Eu	0.44	0.24	0.56	1.52	0.73	0.79
Mn	235.50	432.50	393.50	241.25	399.65	236.25
W	11.90	2.67	1.64	2.04	2.75	2.67
Tb	0.83	1.79	0.89	1.35	0.75	0.87
In	0.19	0.29	0.16	0.17	0.15	0.18
Sc	4.91	2.42	6.26	7.37	6.67	5.07
Yb(2) ^a	4.04	8.60	4.92	5.10	4.28	3.70
Ba	485.50	153.50	165.75	446.75	234.53	1128.00
Cr	8.70	4.82	15.60	31.70	18.70	6.59
Lu(2) ^a	0.63	1.12	0.78	0.75	0.64	0.47
Dy	3.83	11.40	4.99	7.84	5.01	5.58
Fe	8055.00	10700.00	8735.00	27125.00	13108.46	9626.25
Hf	4.30	14.05	2.91	8.69	4.12	8.32

Cluster Means

Element	7	8	9	A	Grand Mean
Na	1972.38	8711.11	3839.44	2456.11	3816.96
U	3.59	11.02	4.44	3.26	4.93
Co	2.25	1.41	6.98	2.08	3.13
Ta	0.97	2.92	1.58	0.83	1.37
Mg	2352.86	5591.67	5921.67	2004.36	3258.97
As	4.35	6.10	3.20	4.51	5.06
Zn	43.34	93.83	138.83	38.29	66.75
Th	11.26	38.31	16.53	10.22	16.60
Al	33171.43	98322.22	85999.99	30984.91	52953.66
Br	5.08	1.80	1.66	4.81	3.76
Se	3.06	2.79	3.77	2.77	3.17
Cl	197.84	386.25	98.01	83.59	143.49
Sb	0.77	1.43	1.03	0.79	0.95
Rb	20.07	173.03	81.18	22.18	55.09
K	4172.86	19938.89	10211.11	4006.18	7680.51
La	16.27	37.56	39.63	16.09	26.37
Cs	1.85	6.24	9.70	1.88	3.93
Ca	14152.86	7953.89	7898.89	13928.91	11908.46
Sm	2.71	5.40	5.26	2.59	4.07
Ba(2) ^a	215.00	279.93	397.83	260.87	329.61
Ti	1685.67	1402.50	3483.89	1512.16	1904.53
Yb	2.61	3.07	3.06	2.28	2.98
Ce	33.29	82.23	80.80	33.54	55.54
V	33.67	12.80	66.41	26.22	32.73
Lu	0.45	0.47	0.47	0.37	0.48
Eu	0.43	0.45	0.94	0.40	0.58
Mn	555.24	443.17	242.00	408.04	396.18
W	2.68	2.54	2.49	2.80	2.78
Tb	0.52	0.78	0.79	0.45	0.66
In	0.22	0.18	0.18	0.14	0.17
Sc	5.40	4.58	9.19	4.54	5.65
Yb(2) ^a	2.94	3.54	3.45	2.61	3.38
Ba	187.10	257.94	256.69	249.53	291.25
Cr	14.53	6.64	33.26	11.56	15.27
Lu(2) ^a	0.44	0.52	0.50	0.39	0.50
Dy	3.55	4.88	4.45	3.15	4.25
Fe	7905.71	9440.56	23405.55	6611.09	10911.35
Hf	3.07	6.25	6.54	2.98	4.55

^a(2) refers to a determination of that element by a duplicate emission line.

averages plotted in Fig. 2. This comparison indicates that this field is at about the 95th percentile for US coals; that is, about 95% of the US coal seams have an average uranium content less than the average uranium content of these samples. However, in assessing the radiologic impact from these lignites, the ash content must also be considered. These samples contain 25% ash, which is about twice that found in the average US coal (13%). Consequently, the ash of these lignites has a uranium content of 16 ppm, which is close to the US average, and the lignites are at the 75th percentile on the probability curve for uranium in ash (Fig. 3). The average in Fig. 3 is found between the 50th percentile (the median) and the 75th percentile because of the skewness in a log-normal distribution. To put these results further into perspective, we note that the uranium and thorium content of the lignites is about the same as that of typical soils,¹ and the content in the ash is about 4 times larger.

Consequently, we would expect these lignites, their waste products, and leachates to behave like other similar materials already reported in the literature.

LEACHING TESTS

Leaching tests were performed on samples of fly ash from two lignite-burning power plants (M-9 and M-11) in the northern Great Plains of the US. (See Refs. 1, 5, and 6 for further information on the fuel and waste materials from these plants.) These tests were done to determine the chemical character of the leachate, to measure the release of radionuclides by leaching, and to determine if the chemical nature of the leachate affected the leaching of the radionuclides. The radioactivity found in the leachates was quite small (in many samples it was below the detection limit), which precluded a detailed study of the effect of the leachate on the leachability of the radionuclides. In no case did the radionuclide levels in the raw leachates exceed the limits for drinking water by more than a factor of 3 (Ref. 7). Under usual field conditions, dilutions of raw leachates by a factor of 100 or more are expected. Although we can learn very little about the mechanism of leaching from studying these samples, the levels observed are too small to be of significant concern.

For the leaching tests, a 200-g sample of ash was shaken with 1 L of deionized water in a 2-L polyethylene bottle. Samples of 200 cm³ of the leachate were withdrawn daily (except weekends), and 200 cm³ of fresh deionized water was added to the bottle to maintain the liquid volume. The leachate was filtered through a Whatman 541 filter, and the major cations were determined by inductively coupled plasma spectrophotometry. A

calibrated pH meter was used to measure pH of the filtered leachate. The radionuclides were analyzed according to the procedures used in our previous studies¹ (see Tables II and III).

The results for the stable species (see Figs. 4 through 9) follow four general types of behavior: Type I, followed by lithium, sodium, potassium, fluorine, and chlorine, starts at a particular level and falls off gradually. Type II, followed by magnesium, calcium, and strontium, starts at a particular level, drops drastically after a few days, and then drops gradually thereafter. Type III, followed by aluminum, rises rapidly for the first few days and continues to rise, but more gradually, for the remainder of the run. Type IV, followed by silicon, boron, vanadium, molybdenum, and barium, starts slowly, after a few days grows to a maximum, and falls off gradually.

Type I behavior would be expected from material that dissolves completely the first day. The gradual drop in concentration is caused solely by the process of withdrawing samples and adding fresh water, which dilutes the concentration. The material observed here probably comes from easily dissolved alkali metal salts. Type II behavior would be expected from material that is readily dissolved or suspended and that subsequently precipitates or forms larger solid particles. This behavior probably is due to finely divided lime particles or lime solutions that react and precipitate less soluble solid phases. Type III behavior would be expected from less soluble structural minerals that dissolve very slowly over a period of time longer than the duration of these tests. Type IV behavior would be expected from structural minerals such as silicates that dissolve in these very basic solutions over a few days. The gradual drop in concentration is expected from the dilution effect mentioned above in the discussion of Type I behavior.

Radon-226 appears to follow Type IV behavior, which suggests that it resides in the structural minerals, whereas Pb-210 appears to follow Type I or II behavior, indicating a similarity to the alkalis or alkaline earths. We looked for several elements in addition to the above, but they were below the detection limits of the analytical scheme. These elements, with their detection limits in parts per million shown in parentheses, are copper (0.03), cadmium (0.3), titanium (0.003), iron (0.2), manganese (0.2), lead (0.7), cobalt (0.1), and nickel (0.1). The concentrations of these metals are controlled by hydroxide ion concentration at these high pH values (11.7 to 12.1), just as they are controlled in coal waste leachates treated with base.⁸

ESTIMATION OF RELEASES FROM LIGNITES AND ASHES

These lignites and ashes do not differ substantially from samples of similar material that we have studied during the past several years. The concentrations of radionuclides in

TABLE II. Coal Fly Ash Leachate Compositions (ppm)^a

<u>M-11</u>										
Days	1	2	5	6	7	8	9	12	14	16
Mg	.106	.091	.035	.039	.034	.033	.046	.020	.018	.065
Si	6.94	5.03	50.0	44.8	31.7	36.3	34.8	26.9	25.6	21.6
B	3.44	10.4	16.3	10.9	7.96	9.05	7.55	7.24	6.42	5.56
Ca	505	571	52.4	57.6	33.5	41.8	40.0	28.4	28.4	26.7
Mo	2.39	2.04	1.73	1.40	1.18	.792	.637	.535	.438	.362
V	.222	.201	.936	.788	.698	.494	.385	.347	.288	.243
Al	1.25	1.28	8.64	7.28	7.83	7.65	7.73	6.21	6.41	6.51
Ba	2.88	2.91	4.80	4.70	3.14	4.56	3.74	3.24	3.09	3.10
Sr	57.2	29.6	15.1	12.5	11.0	12.4	11.8	6.51	6.15	5.31
K	412	273	276	269	191	184	137	101	85.8	70.8
Li	4.59	4.59	4.44	3.12	2.97	2.70	1.96	1.77	1.50	1.26
Na	7400	4660	4680	4040	3680	1510	1950	1750	1450	1190
F	16.93	13.73	10.27	8.47	7.07	5.27	4.00	2.53	3.75	2.67
Cl	5.50	5.06	4.30	3.54	3.16	2.40	2.02	1.53	1.43	1.22
pH	11.7	11.7	12.1	12.0	12.0	12.0	12.0	11.9	12.0	12.0

<u>M-9</u>										
Days	1	2	5	6	7	8	9	12	14	16
Mg	.077	.127	.038	.037	.027	.039	.030	.013	.017	.017
Si	5.53	16.7	34.2	34.3	27.4	27.6	28.2	20.7	16.4	9.84
B	11.4	35.9	20.6	21.7	22.1	21.2	17.6	19.3	15.7	10.1
Ca	489	389	47.4	34.5	27.4	31.9	29.9	22.5	23.4	24.1
Mo	1.81	4.02	3.47	2.61	1.98	1.56	1.13	1.01	.791	.621
V	.075	.207	.555	.478	.401	.329	.244	.242	.196	.158
Al	.723	2.74	8.77	10.2	10.3	9.28	8.24	12.6	12.5	11.4
Ba	3.78	9.12	6.64	7.28	6.57	8.90	8.95	2.57	2.83	2.07
Sr	44.4	41.4	10.1	8.20	4.38	7.10	6.45	3.71	3.28	2.40
K	226	184	145	115	84.5	85.5	73.2	52.5	50.5	42.1
Li	4.60	3.66	3.12	2.52	1.88	1.48	1.35	1.20	.987	.814
Na	2960	2400	2120	1820	1310	1280	960	743	603	483
F	10.18	8.72	5.60	3.99	4.33	3.45	2.68	2.11	1.58	1.15
Cl	1.24	1.01	.90	.79	.63	.90	.45	.55	.55	.41
pH	12.0	11.7	12.0	11.8	11.9	11.9	11.9	11.9	11.9	11.9

^aCu, Cd, Ti, Fe, Mn, Pb, Co, and Ni were below detection limits.

TABLE III. Fly Ash Leachate (pCi/L)

<u>M-11</u>											
	1	2	5	6	7	8	9	12	14	16	Det. Limit
Ra ²²⁶	-	-	-	0.6	-	0.7	-	-	0.5	-	0.1
Pb ²¹⁰	-	4.2	3.1	2.4	2.9	0.6	3.7	-	2.0	2.0	0.2
Po ²¹⁰	-	-	-	0.6	-	-	-	-	-	-	0.5

<u>M-9</u>											
Ra ²²⁶	-	-	-	2.3	11.4	-	-	-	-	-	0.1
Pb ²¹⁰	3.5	1.3	-	0.6	0.4	-	-	1.5	2.7	0.4	0.2
Po ²¹⁰	0.6	-	-	-	-	-	-	-	-	-	0.5

these samples and their leachates fall within the range of values found previously. Consequently, on the basis of the available data, we expect that radionuclide releases from the materials in this study will not differ substantially from those already studied, provided that the conditions to which these materials are subjected are the same. Since these samples do not differ substantially from those discussed at great length in our previous reports,^{1,2,5,6,9,10} we will merely summarize the previous discussions, which used as reference cases those of Beck et al.⁴ Those cases indicate that airborne releases of radionuclides associated with fly ash from a modern 1000-MW(e) coal-fired (or lignite-fired) power plant will result in an increased dose in the maximally exposed individuals of about 0.14 mrem/yr, which is 0.1% of the normal background dose. Doses from leached radionuclides from solid waste materials generated in the coal power cycle are generally much smaller than those from airborne dose. Numerous assumptions are made to estimate these doses. Beck et al. authoritatively discuss the assumptions, the basic data, and the resulting estimates.⁴ The extensive data we have gathered since the publication of Beck et al. strengthen their assumptions and extend the data base.^{2,9} None of the new results, including those of this study, vary from the conclusions of Beck et al.

The case cited above⁴ was based on the assumptions of average radionuclide concentrations and a modern power plant. We have extended the discussion to include the distribution of radionuclide concentrations expected in the US coal supply for power generation

and the distribution of emissions reported for the entire US population of power generation sites.¹¹ Because of generation capacities much greater than 1000 MW(e) and emissions per megawatt greater than those assumed by Beck et al, a few multiple-plant sites will present doses considerably higher than those cited above. However, in this analysis only about 1% of the power-generating sites in the US would be expected to exceed a dose of 5 mrem/yr to the maximally exposed individuals. This dose is about 3% of the natural background dose.

CONCLUSIONS

The impact from radioactivity in coal, including lignites, is very small compared with that from natural background radiation. There are indications⁹ that small portions of the US coal supply may contain radionuclide concentrations considerably higher than the average US coal. However, in spite of our best efforts, we were unable to obtain samples with more than 3 times the average radionuclide concentration. (The samples in this study were only 2 times the average.) The only possible way for radioactivity in coal to become a problem is to burn very radioactive coal (a small probability) as the principal source of fuel at a site with very high emissions (a diminishing probability as plants become modernized). For 99% or more of the US coal-fired power plants, there should be very little problem from solid radionuclides or their leachates.

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Fig. 1.

Cumulative probability curve for individual coal samples in the data base judged to be economic fuel coals. Probability scale is the fraction of the coals that have a uranium concentration equal to or less than the concentration value shown on the horizontal scale. Note that the concentration scale is logarithmic.

Fig. 2.

Cumulative probability curve for seam averages weighted by seam thickness. Probability scale is the fraction of the total seam thickness that has uranium concentrations equal to or less than the value indicated on the horizontal scale.

Fig. 3.

Cumulative probability curve for the uranium content of coal ash. The uranium content of the ash for each sample was obtained by dividing the uranium content of the coal by the ash content of the coal. Seam averages were obtained by weighting the ash content of each sample by the seam thickness of each sample. This probability scale is the fraction of the total seam thickness of all seams that have a uranium concentration equal to or less than the value indicated on the horizontal scale.

Fig. 4.
Elements showing Type I behavior (lithium, sodium, potassium, fluorine, and chlorine) in leachates of M-9 ash.

Fig. 5.
Elements showing Type II behavior (magnesium, calcium, and strontium) and Type III behavior (aluminum) and pH in leachates of M-9 ash.

Fig. 6. Elements showing Type IV behavior (silicon, boron, vanadium, molybdenum, and barium) in leachates of M-9 ash.

Fig. 7.
Elements showing Type I behavior (lithium, sodium, potassium, fluorine, and chlorine) in leachates of M-11 ash.

Fig. 8.
Elements showing Type II behavior (magnesium, calcium, and strontium) and Type III behavior (aluminum) and pH in leachates of M-11 ash.

Fig. 9.
Elements showing Type IV behavior (silicon, boron, vanadium, molybdenum, and barium) in leachates of M-11 ash.

APPENDIX

RESULTS OF NEUTRON ACTIVATION ANALYSIS

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100450
001
051
09
L

6100460
002
046
05
L

6100470
003
053
09
L

6100480
004
039
04
L

ELEMENT

Na- 24	2.652E+03	3.6	2.131E+03	4.0	1.774E+03	4.0	6.002E+03	3.1
Mg- 27	7.327E+03	10.7	-1.625E+03	93.8	4.805E+03	12.2	4.108E+03	12.5
Al- 28	1.013E+05	3.4	3.306E+04	4.6	1.083E+05	3.4	5.948E+04	3.7
Cl- 38	5.316E+01	32.1	2.162E+02	12.7	2.796E+02	10.6	-6.156E+01	72.2
K - 42	9.338E+03	13.8	6.165E+03	21.0	4.689E+03	34.3	1.570E+04	10.0
Ca- 49	6.444E+03	15.6	1.497E+04	12.2	7.154E+03	15.9	3.158E+03	21.9
Ti- 51	3.764E+03	6.7	2.016E+03	10.8	3.888E+03	6.6	3.267E+03	7.0
V - 52	8.067E+01	6.2	2.348E+01	13.2	6.986E+01	6.8	4.991E+01	7.3
Mn- 56	1.899E+02	3.6	5.169E+02	3.5	2.490E+02	3.6	2.049E+02	3.6
Cu- 66	-2.029E+02	100.8	-2.085E+02	100.8	-2.011E+02	100.8	-2.012E+02	100.8
Sr- 87	-2.094E+02	100.3	-2.903E+02	100.3	-2.229E+02	100.3	-1.917E+02	100.3
In-116	1.986E-01	22.0	-1.445E-01	56.1	1.386E-01	20.0	-1.172E-01	55.9
I -128	-1.367E+01	93.1	-1.903E+01	93.2	-1.445E+01	93.2	-1.274E+01	93.1
Ba-139	1.833E+02	19.5	2.605E+02	15.9	-1.040E+02	100.1	4.476E+02	8.9
Dy-165	2.464E+00	12.1	5.126E+00	8.2	3.052E+00	11.4	9.799E+00	6.8
U -235	3.969E+00	2.8	3.736E+00	2.8	4.743E+00	2.8	3.117E+00	2.8
Ga- 72	2.541E+01	18.8	-9.037E+00	79.3	1.629E+01	20.8	9.824E+00	28.5
As- 76	1.970E+00	14.7	9.109E+00	8.6	2.425E+00	13.6	9.646E+00	8.4
Br- 82	-1.408E+00	47.5	7.757E+00	9.6	1.618E+00	33.5	-1.434E+00	47.8
Mo- 99	-9.683E+00	89.6	-6.097E+00	90.7	-8.823E+00	89.5	-7.912E+00	90.9
Se-122	6.293E-01	20.7	8.916E-01	10.6	7.799E-01	16.7	1.130E+00	11.4
La-140	3.615E+01	3.8	2.104E+01	4.0	3.496E+01	3.8	5.717E+01	3.6
Sm-153	3.672E+00	5.0	4.260E+00	4.8	4.125E+00	4.8	9.398E+00	4.6
Yb-175	2.193E+00	9.0	3.434E+00	5.7	2.709E+00	9.4	5.409E+00	4.8
Lu-177	3.401E-01	11.5	5.426E-01	7.0	2.556E-01	19.4	8.395E-01	5.3
W -187	-1.800E+00	53.1	2.326E+00	19.2	2.665E+00	20.7	-2.007E+00	54.7
Au-198	-1.200E-02	100.2	-9.275E-03	100.2	-1.098E-02	100.2	-1.209E-02	100.2
Sc- 46	9.770E+00	3.9	5.122E+00	3.9	1.029E+01	3.8	7.159E+00	3.9
Cr- 51	3.773E+01	6.5	1.210E+01	9.4	3.235E+01	6.1	3.404E+01	6.8
Fe- 59	2.319E+04	3.9	1.203E+04	4.1	2.496E+04	3.8	2.243E+04	3.9
Co- 60	4.634E+00	6.0	5.681E+00	5.3	4.402E+00	5.4	8.152E+00	4.8
Zn- 65	4.578E+01	21.5	8.643E+01	13.1	1.400E+02	10.6	5.441E+01	17.6
Se- 75	-3.773E+00	98.3	2.745E+00	37.4	4.354E+00	26.5	-4.353E+00	101.4
Rb- 86	9.151E+01	9.3	2.728E+01	20.7	6.574E+01	9.5	9.087E+01	8.9
Zr- 95	-1.952E+02	98.2	1.883E+02	25.9	-1.580E+02	93.5	2.820E+02	25.1
Ag-110	-2.936E+00	65.3	-1.329E+00	99.6	-2.417E+00	65.3	-2.425E+00	65.5
Sb-124	-7.589E-01	84.3	1.049E+00	26.0	-6.861E-01	81.8	9.002E-01	31.9
Cs-134	1.213E+01	5.5	1.357E+00	14.2	1.322E+01	5.0	6.615E+00	6.4
Ba-131	-2.691E+02	54.5	1.838E+02	18.4	-1.197E+03	100.0	4.501E+02	13.4
Ce-141	6.419E+01	4.8	4.792E+01	4.4	6.975E+01	3.8	1.209E+02	3.8
Nd-147	-2.185E+01	73.8	-9.999E+00	76.4	4.315E+01	23.9	8.059E+01	21.0
Eu-152	5.301E-01	14.7	6.930E-01	10.8	7.392E-01	9.9	1.743E+00	7.4
Tb-160	5.239E-01	21.1	7.246E-01	15.1	5.861E-01	21.5	1.301E+00	10.8
Yb-169	1.727E+00	13.3	3.376E+00	6.0	2.979E+00	8.8	6.107E+00	5.0
Lu-177	3.330E-01	11.4	5.260E-01	6.9	4.468E-01	7.5	8.234E-01	5.8
Hf-181	4.735E+00	5.0	3.938E+00	4.9	5.121E+00	4.2	1.034E+01	3.7
Ta-182	1.866E+00	11.8	1.077E+00	14.7	2.128E+00	9.3	1.177E+00	13.3
Hg-203	-1.105E+00	100.8	-6.708E-01	100.8	-8.906E-01	100.8	-9.601E-01	100.8
Th-233	1.273E+01	3.6	1.223E+01	3.5	2.423E+01	3.1	1.245E+01	3.5

FILE ID	6100490		6100500		6100510		6100520	
SAMPLE	005		006		007		008	
DUPLICATE	034		031		041		052	
CLUSTER	10		09		05		07	
TYPE	L		L		L		L	
ELEMENT								
Na- 24	1.457E+03	4.4	2.197E+03	4.1	4.960E+03	3.3	1.180E+03	5.2
Mg- 27	-1.553E+03	94.4	8.438E+03	10.6	4.939E+03	17.8	-1.976E+03	93.7
Al- 28	2.644E+04	4.9	8.498E+04	3.7	5.963E+04	3.9	3.436E+04	4.9
Cl- 38	2.444E+02	12.5	1.232E+02	18.0	2.643E+02	12.9	2.721E+02	13.3
K - 42	-3.489E+03	97.2	1.477E+04	14.2	1.076E+04	16.4	-4.598E+03	97.1
Ca- 49	1.034E+04	14.5	6.021E+03	20.1	8.632E+03	16.4	1.599E+04	14.9
Ti- 51	2.119E+03	11.6	4.047E+03	7.0	2.377E+03	10.2	-7.344E+02	94.9
V - 52	3.260E+01	10.6	9.054E+01	6.5	4.051E+01	9.5	2.232E+01	15.8
Mn- 56	4.348E+02	3.5	3.463E+02	3.6	4.141E+02	3.5	6.471E+02	3.5
Cu- 66	-1.919E+02	100.8	-2.302E+02	100.8	-2.571E+02	100.8	-2.457E+02	100.8
Sr- 87	-2.848E+02	100.3	-2.696E+02	100.3	-2.995E+02	100.3	-3.550E+02	100.3
In-116	-1.370E-01	56.2	1.918E-01	21.5	-1.644E-01	55.9	2.674E-01	25.5
I -128	-1.837E+01	93.3	-1.768E+01	93.3	-1.933E+01	93.3	-2.359E+01	93.3
Ba-139	-1.276E+02	100.1	2.399E+02	14.1	2.526E+02	19.3	-1.408E+02	100.1
Dy-165	2.575E+00	13.1	4.249E+00	8.7	3.968E+00	10.5	3.637E+00	9.9
U -235	1.990E+00	2.8	3.217E+00	2.8	4.947E+00	2.8	3.880E+00	2.8
Ga- 72	-9.678E+00	79.6	1.246E+01	24.9	-1.545E+01	78.9	-8.714E+00	79.1
As- 76	5.351E+00	10.2	4.070E+00	11.4	9.513E+00	9.0	4.856E+00	10.5
Br- 82	2.960E+00	16.3	1.057E+00	25.7	4.199E+00	16.2	5.534E+00	11.5
Mo- 99	-8.197E+00	89.2	-7.257E+00	90.8	-1.153E+01	89.7	6.268E+00	22.2
Sb-122	2.911E-01	32.1	8.826E-01	15.9	8.820E-01	13.6	1.227E+00	10.1
La-140	1.906E+01	4.2	3.291E+01	3.9	3.747E+01	3.8	1.477E+01	4.5
Sm-153	2.044E+00	5.2	4.331E+00	4.8	5.055E+00	4.9	2.698E+00	5.0
Yb-175	2.395E+00	7.1	2.800E+00	6.7	2.983E+00	7.6	2.723E+00	6.3
Lu-177	3.931E-01	8.8	3.678E-01	9.1	4.360E-01	10.8	4.518E-01	8.2
W -187	2.245E+00	21.1	-1.875E+00	54.7	-2.135E+00	51.9	2.655E+00	16.8
Au-198	-9.916E-03	100.2	-1.099E-02	100.2	-1.449E-02	100.2	-8.322E-03	100.2
Sc- 46	4.305E+00	3.9	1.203E+01	3.8	6.574E+00	3.9	4.255E+00	3.9
Cr- 51	1.538E+01	8.5	5.058E+01	5.7	2.576E+01	7.8	1.166E+01	14.2
Fe- 59	1.905E+04	3.9	3.341E+04	3.8	2.091E+04	3.9	1.068E+04	4.2
Co- 60	3.950E+00	6.1	1.136E+01	4.6	7.133E+00	5.4	1.686E+00	9.8
Zn- 65	5.086E+01	16.8	2.189E+02	10.2	3.956E+01	25.4	4.564E+01	19.9
Se- 75	2.572E+00	45.4	-3.621E+00	98.6	-2.778E+00	63.3	3.170E+00	30.2
Rb- 86	2.358E+01	19.1	1.272E+02	7.6	4.775E+01	14.2	-1.044E+01	100.0
Zr- 95	-1.484E+02	71.4	-1.743E+02	100.3	-2.364E+02	71.6	-1.557E+02	71.5
Ag-110	-1.672E+00	65.7	-3.033E+00	65.4	-2.617E+00	65.4	-1.771E+00	65.2
Sb-124	-4.808E-01	78.8	-7.309E-01	85.3	1.115E+00	26.7	-6.542E-01	66.8
Cs-134	1.176E+00	14.4	1.260E+01	5.3	4.591E+00	7.9	7.325E-01	28.4
Ba-131	-1.529E+02	54.6	-2.835E+02	54.8	-2.508E+02	59.7	-1.542E+02	56.9
Ce-141	2.977E+01	5.8	7.024E+01	3.9	7.694E+01	4.0	3.096E+01	5.2
Nd-147	-9.320E+00	77.0	-1.422E+01	78.5	-2.213E+01	72.9	-1.052E+01	76.0
Eu-152	4.269E-01	13.7	9.820E-01	9.3	8.669E-01	10.6	4.223E-01	15.7
Tb-160	4.199E-01	21.2	1.016E+00	13.3	1.176E+00	15.5	4.893E-01	24.9
Yb-169	3.085E+00	6.8	3.051E+00	8.6	3.269E+00	9.3	2.830E+00	7.6
Lu-177	4.080E-01	7.5	4.032E-01	8.8	5.027E-01	8.1	4.075E-01	8.2
Hf-181	3.076E+00	5.6	4.881E+00	4.7	5.536E+00	4.6	2.628E+00	6.3
Ta-182	8.689E-01	14.0	1.234E+00	15.9	1.290E+00	15.0	8.188E-01	20.0
Hg-203	-6.309E-01	100.8	-1.055E+00	100.8	-1.023E+00	100.8	-6.835E-01	100.8
Th-233	6.551E+00	4.0	1.449E+01	3.4	1.418E+01	3.6	1.221E+01	3.6

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100530
009
035
07
L

6100540
010
059
08
L

6100550
011
047
10
L

6100560
012
058
07
L

ELEMENT

Na- 24	1.080E+03	5.2	1.249E+04	3.0	1.362E+03	4.8	1.874E+03	4.4
Mg- 27	-1.993E+03	94.8	-2.707E+03	91.5	2.929E+03	26.8	3.298E+03	24.6
Al- 28	2.348E+04	5.7	8.399E+04	3.8	1.682E+04	6.7	2.831E+04	5.4
Cl- 38	4.617E+02	10.1	9.214E+02	8.1	2.597E+02	12.3	4.889E+02	10.2
K - 42	-4.732E+03	97.3	3.166E+04	8.9	-4.006E+03	97.4	-4.538E+03	97.2
Ca- 49	1.462E+04	13.5	4.852E+03	22.1	9.585E+03	16.8	1.249E+04	14.1
Ti- 51	-8.318E+02	94.6	1.205E+03	24.0	-6.979E+02	94.8	1.318E+03	18.2
V - 52	2.824E+01	14.4	-8.333E+00	100.0	1.883E+01	18.0	4.051E+01	10.9
Mn- 56	7.822E+02	3.5	3.461E+02	3.6	5.353E+02	3.5	6.543E+02	3.5
Cu- 66	-2.636E+02	100.8	-3.476E+02	100.8	-2.310E+02	100.8	-2.477E+02	100.8
Sr- 87	-4.004E+02	100.3	-3.224E+02	100.3	-3.382E+02	100.3	-3.641E+02	100.3
In-116	1.938E-01	26.6	-2.040E-01	55.6	-1.600E-01	56.4	3.071E-01	23.8
I -128	-2.660E+01	93.2	-2.109E+01	93.1	-2.248E+01	93.2	-2.353E+01	93.3
Ba-139	-1.757E+02	100.1	2.221E+02	18.7	2.772E+02	24.4	-1.441E+02	100.1
Dy-165	3.257E+00	14.5	6.216E+00	8.1	2.641E+00	19.4	3.533E+00	9.9
U -235	6.755E+00	2.8	1.022E+01	2.8	1.273E+00	2.8	2.251E+00	2.8
Ga- 72	-1.029E+01	79.4	-2.056E+01	78.7	-1.091E+01	79.1	-1.028E+01	79.6
As- 76	4.254E+00	11.0	6.342E+00	11.0	5.478E+00	10.6	3.181E+00	12.9
Br- 82	6.346E+00	11.5	2.078E+00	19.5	5.538E+00	11.6	5.042E+00	10.8
Mo- 99	-8.776E+00	88.7	-1.119E+01	91.2	-8.644E+00	89.1	-6.163E+00	90.7
Sb-122	7.832E-01	14.6	1.539E+00	13.1	7.229E-01	13.9	7.311E-01	16.3
La-140	1.357E+01	4.7	4.009E+01	3.8	1.192E+01	5.0	1.536E+01	4.5
Sm-153	2.578E+00	6.1	5.802E+00	5.0	1.517E+00	7.4	2.602E+00	4.9
Yb-175	2.910E+00	6.9	4.120E+00	6.6	1.925E+00	8.5	3.060E+00	6.3
Lu-177	4.246E-01	11.5	7.511E-01	9.7	3.113E-01	14.2	4.816E-01	7.1
W -187	2.494E+00	18.6	2.659E+00	19.6	2.744E+00	23.3	3.876E+00	16.4
Au-198	-1.013E-02	100.2	-1.803E-02	100.2	-1.026E-02	100.2	-9.279E-03	100.2
Sc- 46	4.968E+00	3.9	2.732E+00	4.1	3.579E+00	4.0	6.061E+00	3.9
Cr- 51	9.101E+00	11.8	-3.448E+00	100.1	1.049E+01	12.6	1.320E+01	9.1
Fe- 59	8.679E+03	4.3	9.382E+03	4.5	1.606E+04	4.0	6.307E+03	4.6
Co- 60	1.856E+00	8.2	7.946E-01	16.7	5.438E+00	5.8	2.673E+00	7.2
Zn- 65	9.415E+01	12.2	2.502E+01	38.8	5.398E+01	18.3	9.926E+01	12.2
Se- 75	2.875E+00	24.2	-3.022E+00	101.4	-1.564E+00	64.6	3.616E+00	21.9
Rb- 86	-1.147E+01	100.0	2.744E+02	6.1	1.880E+01	29.0	2.476E+01	21.0
Zr- 95	-1.762E+02	71.6	-1.944E+02	71.4	-1.574E+02	71.5	-1.898E+02	71.6
Ag-110	-2.048E+00	65.1	-2.112E+00	65.5	-1.729E+00	65.7	-2.187E+00	64.9
Sb-124	-5.742E-01	64.0	1.189E+00	31.2	-5.787E-01	80.5	-7.811E-01	75.1
Cs-134	-5.244E-01	58.2	9.605E+00	5.9	1.718E+00	13.2	1.471E+00	14.7
Ba-131	-1.971E+02	54.2	2.694E+02	16.1	2.068E+02	25.0	-1.941E+02	55.2
Ce-141	3.323E+01	4.4	8.125E+01	4.3	2.541E+01	6.5	3.473E+01	4.6
Nd-147	-1.140E+01	76.8	-2.425E+01	66.2	-9.858E+00	76.9	-1.173E+01	77.3
Eu-152	5.602E-01	13.0	4.370E-01	16.0	4.496E-01	15.0	5.462E-01	13.2
Tb-160	5.604E-01	19.7	7.893E-01	16.5	-3.288E-01	39.6	4.932E-01	27.4
Yb-169	3.030E+00	6.2	4.361E+00	7.3	2.797E+00	6.1	3.431E+00	5.6
Lu-177	4.907E-01	6.9	7.531E-01	6.8	4.037E-01	8.3	5.423E-01	6.4
Hf-181	2.688E+00	5.9	4.363E+00	5.2	1.973E+00	7.6	2.892E+00	5.8
Ta-182	5.514E-01	21.9	2.787E+00	10.6	-4.628E-01	38.1	5.760E-01	24.6
Hg-203	-7.638E-01	100.8	-9.789E-01	100.8	-6.760E-01	100.8	-8.023E-01	100.8
Th-233	1.064E+01	3.6	3.247E+01	3.2	3.678E+00	5.3	8.555E+00	3.7

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100570
013
040
09
L

6100580
014
038
07
L

6100590
015
033
09
L

6100600
016
060
07
L

ELEMENT

Na- 24	4.993E+03	3.3	1.624E+03	4.7	4.703E+03	3.5	1.121E+03	5.4
Mg- 27	4.634E+03	14.9	2.889E+03	27.1	6.455E+03	13.4	2.413E+03	30.4
Al- 28	6.139E+04	3.8	3.761E+04	4.9	8.034E+04	3.7	1.988E+04	6.3
Cl- 38	-6.611E+01	72.8	3.630E+01	27.9	-7.570E+01	73.2	2.374E+02	14.3
K - 42	1.149E+04	13.3	-4.447E+03	97.1	1.391E+04	16.2	-4.434E+03	97.2
Ca- 49	6.266E+03	18.0	1.481E+04	14.1	9.227E+03	16.7	1.667E+04	13.5
Ti- 51	2.864E+03	8.5	2.755E+03	10.4	4.236E+03	7.6	1.516E+03	19.0
V - 52	3.721E+01	9.4	4.903E+01	9.2	6.450E+01	7.7	3.624E+01	11.2
Mn- 56	2.414E+02	3.6	5.705E+02	3.5	2.991E+02	3.6	6.411E+02	3.5
Cu- 66	-2.251E+02	100.8	-2.505E+02	100.8	-2.685E+02	100.8	-2.470E+02	100.8
Sr- 87	-2.413E+02	100.3	-3.497E+02	100.3	-2.853E+02	100.3	-3.582E+02	100.3
In-116	2.366E-01	23.9	2.580E-01	20.5	-1.719E-01	55.4	-1.732E-01	56.1
I -128	-1.548E+01	93.1	-2.317E+01	93.2	-1.870E+01	93.2	-2.355E+01	93.3
Ba-139	4.275E+02	12.3	-1.394E+02	100.1	-1.363E+02	100.1	-1.412E+02	100.1
Dy-165	5.051E+00	9.0	3.859E+00	10.5	3.252E+00	11.4	3.633E+00	10.1
U -235	4.615E+00	2.8	2.787E+00	2.8	4.273E+00	2.8	2.315E+00	2.8
Ga- 72	-1.600E+01	79.1	-1.086E+01	80.0	-1.831E+01	79.3	-9.885E+00	79.9
As- 76	3.819E+00	12.3	4.784E+00	10.5	3.661E+00	15.1	4.166E+00	10.7
Br- 82	2.342E+00	24.1	4.635E+00	12.1	-1.923E+00	47.6	5.026E+00	11.9
Mo- 99	-1.126E+01	89.6	-6.517E+00	90.4	-1.249E+01	89.5	-5.993E+00	90.2
Sb-122	9.214E-01	15.9	6.222E-01	18.8	8.557E-01	18.7	5.644E-01	17.1
La-140	4.049E+01	3.8	1.485E+01	4.5	3.564E+01	4.0	9.570E+00	5.2
Sm-153	5.078E+00	5.0	2.602E+00	5.0	4.385E+00	3.0	2.048E+00	5.3
Yb-175	3.081E+00	7.3	2.624E+00	7.0	2.396E+00	8.9	2.639E+00	6.3
Lu-177	4.157E-01	11.5	4.553E-01	8.5	4.289E-01	12.5	4.941E-01	7.5
W -187	-2.371E+00	69.0	1.980E+00	22.9	-2.522E+00	53.8	3.490E+00	15.9
Au-198	-1.412E-02	100.2	-9.615E-03	100.2	-1.559E-02	100.2	-8.411E-03	100.2
Sc- 46	6.364E+00	3.9	6.797E+00	3.9	1.059E+01	3.8	5.230E+00	3.9
Cr- 51	3.424E+01	6.8	1.928E+01	9.1	3.837E+01	6.3	1.304E+01	15.1
Fe- 59	2.113E+04	3.9	9.926E+03	4.4	2.878E+04	3.8	6.472E+03	4.9
Co- 60	6.746E+00	5.4	2.584E+00	7.9	1.033E+01	4.7	1.750E+00	10.8
Zn- 65	4.190E+01	23.1	3.738E+01	24.4	1.810E+02	10.5	-4.767E+00	100.4
Se- 75	-1.907E+00	101.4	-1.552E+00	90.9	-3.166E+00	101.4	3.819E+00	26.7
Rb- 86	5.898E+01	12.6	1.802E+01	22.3	1.096E+02	9.1	-1.538E+01	100.0
Zr- 95	2.174E+02	24.7	-1.869E+02	71.7	-2.546E+02	71.5	-2.315E+02	71.6
Ag-110	-2.606E+00	65.4	-2.148E+00	65.0	-2.893E+00	65.2	-2.600E+00	65.0
Sb-124	-6.993E-01	86.8	-7.573E-01	80.3	-9.007E-01	80.6	-7.856E-01	63.6
Cs-134	6.116E+00	7.0	3.072E+00	10.3	1.138E+01	5.5	-6.882E-01	58.2
Ba-131	4.232E+02	18.0	-1.963E+02	54.6	4.185E+02	22.6	-2.408E+02	55.0
Ce-141	8.906E+01	4.3	2.963E+01	5.5	7.638E+01	3.9	2.008E+01	6.1
Nd-147	-2.135E+01	73.1	-1.186E+01	77.0	3.389E+01	27.4	-2.117E+01	72.8
Eu-152	1.015E+00	10.1	4.171E-01	16.7	8.947E-01	10.0	3.281E-01	20.2
Tb-160	4.992E-01	25.4	-3.775E-01	100.2	7.070E-01	17.4	6.948E-01	22.1
Yb-169	2.981E+00	8.1	2.412E+00	8.0	3.295E+00	7.3	3.172E+00	8.1
Lu-177	4.698E-01	8.5	3.087E-01	9.8	4.723E-01	7.9	4.506E-01	8.9
Hf-181	7.481E+00	4.1	2.998E+00	6.2	6.517E+00	4.2	2.203E+00	8.2
Ta-182	1.463E+00	13.5	6.486E-01	22.8	1.485E+00	14.5	6.068E-01	33.4
Hg-203	-1.018E+00	100.8	-8.217E-01	100.8	-1.065E+00	100.8	-1.010E+00	100.8
Th-233	1.414E+01	3.5	1.006E+01	3.8	1.711E+01	3.3	6.088E+00	4.6

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100610
017
054
04
L

6100620
018
048
05
L

6100630
019
045
09
L

6100640
020
037
10
L

ELEMENT

Na- 24	4.702E+03	3.4	2.148E+03	4.1	2.587E+03	3.9	1.475E+03	4.6
Mg- 27	3.884E+03	17.1	4.166E+03	16.4	3.220E+03	17.8	3.283E+03	17.5
Al- 28	6.147E+04	4.0	6.449E+04	4.0	8.518E+04	3.7	2.525E+04	5.5
Cl- 38	-7.140E+01	73.0	-6.072E+01	74.6	-6.003E+01	74.8	-4.848E+01	76.9
K - 42	1.081E+04	14.4	-3.943E+03	96.8	8.457E+03	19.8	-3.455E+03	97.2
Ca- 49	1.001E+04	15.2	1.393E+04	13.1	8.087E+03	16.8	1.263E+04	14.6
Ti- 51	3.236E+03	8.4	2.864E+03	9.0	3.170E+03	8.0	1.250E+03	13.5
V - 52	4.582E+01	8.4	6.417E+01	8.4	5.703E+01	7.8	2.804E+01	12.0
Mn- 56	2.688E+02	3.6	3.729E+02	3.5	2.228E+02	3.6	3.796E+02	3.5
Cu- 66	-2.433E+02	100.8	-2.208E+02	100.8	-2.234E+02	100.8	-1.963E+02	100.8
Sr- 87	-2.670E+02	100.3	-2.758E+02	100.3	-2.457E+02	100.3	-2.718E+02	100.3
In-116	2.020E-01	25.4	2.321E-01	15.4	-1.465E-01	55.4	-1.359E-01	56.1
I -128	-1.726E+01	93.1	-1.820E+01	93.2	-1.586E+01	93.2	-1.763E+01	93.3
Ba-139	4.277E+02	12.7	1.651E+02	21.2	-1.163E+02	100.1	-1.103E+02	100.1
Dy-165	5.588E+00	9.4	4.574E+00	8.6	6.278E+00	8.6	3.359E+00	9.4
U -235	4.675E+00	2.8	4.385E+00	2.8	4.723E+00	2.8	2.904E+00	2.8
Ga- 72	-1.897E+01	79.2	-1.272E+01	79.6	-1.619E+01	80.2	-1.067E+01	79.8
As- 76	2.118E+01	8.2	3.972E+00	11.7	4.320E+00	14.3	4.090E+00	10.9
Br- 82	-1.959E+00	47.5	2.845E+00	14.5	1.806E+00	23.2	3.409E+00	12.8
Mo- 99	-1.318E+01	89.2	-6.881E+00	90.8	-1.219E+01	89.1	-6.082E+00	90.5
Sb-122	1.718E+00	11.7	7.483E-01	14.7	1.119E+00	16.7	6.093E-01	16.4
La-140	5.136E+01	3.8	2.363E+01	4.1	5.463E+01	3.8	1.926E+01	4.3
Sm-153	6.767E+00	4.7	3.760E+00	4.9	6.767E+00	4.7	3.033E+00	5.0
Yb-175	3.819E+00	6.9	3.535E+00	5.6	4.237E+00	6.2	2.015E+00	7.0
Lu-177	6.029E-01	8.2	5.989E-01	7.2	6.939E-01	7.1	3.664E-01	10.2
W -187	1.726E+00	31.0	2.619E+00	23.0	1.846E+00	30.5	1.327E+00	26.5
Au-198	-1.607E-02	100.2	-1.042E-02	100.2	-1.430E-02	100.2	-8.762E-03	100.2
Sc- 46	7.778E+00	3.9	9.162E+00	3.9	8.462E+00	3.9	4.468E+00	3.9
Cr- 51	2.856E+01	7.5	2.381E+01	7.0	2.775E+01	8.5	1.449E+01	9.5
Fe- 59	3.260E+04	3.8	1.881E+04	3.9	2.310E+04	4.0	7.267E+03	4.5
Co- 60	1.171E+01	4.7	4.476E+00	5.9	6.336E+00	5.7	3.425E+00	6.9
Zn- 65	1.104E+02	13.4	1.645E+02	10.7	7.975E+01	16.8	6.824E+01	15.9
Se- 75	-6.232E+00	82.0	-2.357E+00	72.2	-4.501E+00	101.4	-3.825E+00	101.4
Rb- 86	6.496E+01	12.1	4.073E+01	12.9	6.323E+01	14.5	1.924E+01	18.5
Zr- 95	3.216E+02	25.4	-2.290E+02	71.6	-2.335E+02	99.0	-1.500E+02	71.5
Ag-110	-2.289E+00	65.4	-2.649E+00	65.1	-3.203E+00	65.3	-1.739E+00	65.1
Sb-124	1.413E+00	28.9	1.085E+00	31.7	-9.006E-01	86.4	-5.876E-01	80.6
Cs-134	6.426E+00	7.0	6.784E+00	6.4	1.072E+01	6.1	1.750E+00	12.0
Ba-131	4.858E+02	14.3	-2.349E+02	54.5	-3.211E+02	56.2	-1.864E+02	50.4
Ce-141	1.147E+02	4.1	4.749E+01	4.1	1.134E+02	4.2	3.827E+01	4.6
Nd-147	3.838E+01	25.5	-1.347E+01	77.9	-2.551E+01	73.4	-1.004E+01	76.7
Eu-152	1.343E+00	8.7	5.966E-01	12.8	1.170E+00	9.6	5.336E-01	14.6
Tb-160	2.057E+00	13.8	5.884E-01	25.9	1.097E+00	17.3	4.536E-01	21.6
Yb-169	3.171E+00	10.7	3.246E+00	6.6	4.709E+00	7.4	2.054E+00	9.1
Lu-177	6.779E-01	3.8	5.649E-01	6.8	7.741E-01	7.4	3.716E-01	9.3
Hf-181	6.621E+00	4.4	5.253E+00	4.5	7.689E+00	4.5	2.746E+00	6.2
Ta-182	1.434E+00	13.7	1.407E+00	13.3	1.629E+00	14.2	3.386E-01	29.4
Hg-203	-8.841E-01	100.8	-9.559E-01	100.8	-1.234E+00	100.8	-6.661E-01	100.8
Th-233	1.661E+01	3.4	1.387E+01	3.4	1.547E+01	3.6	5.973E+00	4.3

FILE ID	6100650	6100660	6100670	6100680
SAMPLE	021	022	023	024
DUPLICATE	042	050	057	044
CLUSTER	10	10	10	09
TYPE	L	L	L	L
ELEMENT				
Na- 24	3.239E+03	3.761E+03	1.104E+03	2.888E+03
Mg- 27	-1.863E+03	-1.792E+03	2.648E+03	4.643E+03
Al- 28	4.706E+04	3.088E+04	2.042E+04	7.064E+04
Cl- 38	-6.819E+01	9.759E+01	1.364E+02	-5.560E+01
K- 42	6.995E+03	4.250E+03	-3.082E+03	7.643E+03
Ca- 49	1.290E+04	1.353E+04	1.216E+04	9.601E+03
Ti- 51	1.523E+03	1.589E+03	1.314E+03	2.736E+03
V- 52	2.751E+01	1.825E+01	1.660E+01	9.659E+01
Mn- 56	3.584E+02	4.400E+02	3.154E+02	2.368E+02
Cu- 66	-2.400E+02	-2.396E+02	-1.785E+02	-1.924E+02
Sr- 87	-2.949E+02	-2.967E+02	-2.476E+02	-2.091E+02
In-116	-1.546E-01	-1.573E-01	-1.182E-01	1.594E-01
I-128	-1.926E+01	-1.965E+01	-1.639E+01	-1.346E+01
Ba-139	-1.338E+02	2.143E+02	3.217E+02	-8.648E+01
Dy-165	4.120E+00	2.738E+00	1.725E+00	6.429E+00
U-235	5.462E+00	4.968E+00	1.882E+00	5.325E+00
Ga- 72	-1.596E+01	-1.417E+01	-1.028E+01	2.165E+01
As- 76	3.759E+00	7.046E+00	3.298E+00	5.085E+00
Br- 82	3.566E+00	6.425E+00	7.451E+00	-1.303E+00
Mo- 99	-1.067E+01	-7.052E+00	-7.363E+00	-1.704E+00
Sb-122	7.055E-01	1.123E+00	-2.147E-01	2.358E+00
La-140	2.451E+01	1.734E+01	9.377E+00	4.030E+01
Sm-153	3.229E+00	2.780E+00	1.338E+00	6.619E+00
Yb-175	2.352E+00	2.040E+00	1.514E+00	4.345E+00
Lu-177	4.459E-01	3.684E-01	2.253E-01	7.500E-01
W-187	3.595E+00	4.192E+00	2.420E+00	3.238E+00
Au-198	-1.287E-02	-1.068E-02	-8.716E-03	-1.025E-02
Sc- 46	5.251E+00	3.967E+00	2.909E+00	9.365E+00
Cr- 51	1.271E+01	9.069E+00	9.591E+00	3.286E+01
Fe- 59	6.600E+03	6.106E+03	4.574E+03	2.418E+04
Co- 60	1.720E+00	6.219E-01	1.053E+00	1.100E+01
Zn- 65	1.134E+02	-6.348E+00	2.339E+01	3.992E+02
Se- 75	3.430E+00	-3.019E+00	2.808E+00	-3.756E+00
Rb- 86	2.553E+01	2.749E+01	2.613E+01	7.325E+01
Zr- 95	1.163E+02	-1.391E+02	-1.172E+02	3.246E+02
Ag-110	-2.066E+00	-2.161E+00	-1.353E+00	-1.847E+00
Sb-124	-7.010E-01	8.960E-01	-5.064E-01	2.375E+00
Cs-134	2.001E+00	1.611E+00	1.169E+00	9.209E+00
Ba-131	1.460E+02	-1.979E+02	3.492E+02	-2.099E+02
Ce-141	5.408E+01	3.717E+01	2.177E+01	9.376E+01
Nd-147	-1.272E+01	-1.981E+01	-8.349E+00	5.080E+01
Eu-152	5.503E-01	3.489E-01	2.827E-01	1.160E+00
Tb-160	4.447E-01	6.527E-01	2.944E-01	1.052E+00
Yb-169	3.329E+00	2.039E+00	1.816E+00	5.189E+00
Lu-177	4.655E-01	3.684E-01	1.920E-01	8.029E-01
Hf-181	5.661E+00	3.313E+00	2.434E+00	5.804E+00
Ta-182	1.365E+00	1.231E+00	3.878E-01	1.504E+00
Hg-203	-7.958E-01	-8.968E-01	-5.419E-01	-8.600E-01
Th-233	2.277E+01	1.457E+01	6.733E+00	1.454E+01

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100690
025
036
10
L

6100700
026
032
07
L

6100710
027
056
10
L

6100720
028
049
06
L

ELEMENT

Na- 24	1.118E+03	4.8	5.167E+03	3.3	4.502E+03	3.4	6.582E+03	3.1
Mg- 27	2.736E+03	24.1	-1.906E+03	93.5	-1.822E+03	93.1	3.719E+03	25.3
Al- 28	4.491E+04	4.2	3.785E+04	4.4	3.271E+04	4.7	6.861E+04	3.6
Cl- 38	9.165E+01	22.8	-7.911E+01	72.7	-7.052E+01	73.6	-6.960E+01	72.3
K- 42	-3.492E+03	97.2	5.564E+03	19.2	7.443E+03	17.7	8.965E+03	14.9
Ca- 49	1.054E+04	13.7	1.501E+04	12.7	1.581E+04	12.5	9.022E+03	13.4
Ti- 51	1.865E+03	12.9	2.122E+03	10.2	1.565E+03	13.3	1.897E+03	9.9
V- 52	3.423E+01	9.3	2.551E+01	12.8	1.467E+01	19.4	2.252E+01	12.4
Mn- 56	4.590E+02	3.5	4.363E+02	3.5	4.994E+02	3.5	2.265E+02	3.6
Cu- 66	-1.955E+02	100.8	-2.476E+02	100.8	-2.273E+02	100.8	-2.295E+02	100.8
Sr- 87	-2.829E+02	100.3	-2.941E+02	100.3	-2.942E+02	100.3	-2.310E+02	100.3
In-116	1.409E-01	29.3	2.875E-01	18.1	1.606E-01	28.2	1.523E-01	25.3
I-128	-1.835E+01	93.2	-1.940E+01	93.2	-1.916E+01	93.3	-1.499E+01	93.1
Ba-139	1.686E+02	26.1	4.614E+02	12.4	4.741E+02	11.5	8.322E+02	7.8
Dy-165	3.254E+00	11.6	4.343E+00	10.6	2.446E+00	11.1	6.046E+00	8.4
U-235	4.023E+00	2.8	5.769E+00	2.8	4.284E+00	2.8	8.969E+00	2.8
Ga- 72	-1.150E+01	80.3	-1.458E+01	78.9	-9.415E+00	79.0	2.354E+01	17.5
As- 76	4.557E+00	10.8	5.266E+00	11.4	5.450E+00	9.9	4.395E+00	10.6
Br- 82	3.800E+00	12.4	5.242E+00	12.6	6.210E+00	11.8	1.793E+00	21.8
Mo- 99	-3.149E+00	100.0	-1.123E+01	89.7	-5.917E+00	91.0	7.964E-01	11.4
Sb-122	9.219E-01	11.1	8.892E-01	14.1	8.501E-01	11.7	8.937E-01	11.5
La-140	2.078E+01	4.2	2.349E+01	4.1	1.527E+01	4.3	3.678E+01	3.7
Sm-153	2.981E+00	5.5	3.514E+00	5.3	2.136E+00	5.5	6.391E+00	5.4
Yb-175	2.376E+00	7.5	3.711E+00	6.5	1.495E+00	9.5	3.782E+00	5.7
Lu-177	3.294E-01	11.0	7.242E-01	7.9	3.255E-01	12.9	5.664E-01	9.4
W-187	1.908E+00	22.8	-2.281E+00	59.9	3.583E+00	15.6	2.194E+00	25.7
Au-198	-9.315E-03	100.2	-1.438E-02	100.2	-9.505E-03	100.2	-1.229E-02	100.2
Sc- 46	4.922E+00	3.9	5.397E+00	3.9	3.586E+00	3.9	5.270E+00	3.9
Cr- 51	1.428E+01	10.6	1.293E+01	11.5	7.325E+00	13.4	1.126E+01	10.2
Fe- 59	8.078E+03	4.4	1.862E+03	7.1	3.109E+03	5.2	5.630E+03	4.4
Co- 60	2.194E+00	8.4	7.377E-01	17.2	8.312E-01	12.6	1.340E+00	8.7
Zn- 65	3.997E+01	19.7	2.294E+01	32.8	3.454E+01	20.3	7.272E+01	12.3
Se- 75	3.816E+00	24.9	-2.883E+00	66.7	1.884E+00	38.7	-2.620E+00	77.9
Rb- 86	1.945E+01	21.6	3.848E+01	14.5	3.480E+01	14.2	6.734E+01	8.2
Zr- 95	-1.912E+02	71.6	-1.919E+02	71.7	-1.177E+02	71.6	1.904E+02	19.9
Ag-110	-2.159E+00	65.0	-2.242E+00	65.1	-1.382E+00	64.7	-1.704E+00	65.0
Sb-124	-6.114E-01	83.9	-6.777E-01	83.9	-5.044E-01	74.6	7.875E-01	28.0
Cs-134	2.856E+00	9.9	1.863E+00	14.4	8.646E-01	15.2	3.058E+00	7.6
Ba-131	2.193E+02	19.9	4.129E+02	11.5	4.553E+02	10.2	8.278E+02	6.4
Ce-141	4.533E+01	4.5	4.880E+01	4.4	2.628E+01	4.6	7.455E+01	3.9
Nd-147	-1.784E+01	73.3	-1.826E+01	72.2	-8.201E+00	74.8	3.136E+01	19.6
Eu-152	4.958E-01	14.8	4.520E-01	17.7	2.771E-01	18.8	6.835E-01	10.1
Tb-160	6.827E-01	22.0	4.599E-01	25.9	3.987E-01	30.8	1.043E+00	11.2
Yb-169	2.133E+00	12.0	3.895E+00	7.1	1.770E+00	8.4	4.621E+00	5.2
Lu-177	2.864E-01	10.1	5.982E-01	6.7	2.264E-01	9.0	5.734E-01	5.3
Hf-181	3.305E+00	5.7	6.111E+00	4.5	3.106E+00	5.1	6.580E+00	3.7
Ta-182	1.376E+00	13.0	2.367E+00	11.1	7.566E-01	14.1	2.609E+00	8.4
Hg-203	-2.375E-01	100.8	-9.053E-01	100.8	-7.035E-01	100.8	-6.690E-01	100.8
Th-233	1.264E+01	3.5	2.231E+01	3.3	1.457E+01	3.3	3.146E+01	3.1

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100730
029
043
10
L

6100740
030
055
09
L

6100750
031
005
09
L

6100760
032
026
05
L

ELEMENT

Na- 24	4.144E+03	3.4	6.705E+03	3.1	2.228E+03	4.0	5.163E+03	3.3
Mg- 27	-1.646E+03	92.9	5.365E+03	13.9	8.812E+03	10.0	-1.912E+03	93.6
Al- 28	3.404E+04	4.5	6.225E+04	3.7	8.600E+04	3.7	3.887E+04	4.3
Cl- 38	-6.373E+01	73.3	-7.287E+01	71.5	1.377E+02	17.5	7.392E+01	25.8
K - 42	5.207E+03	26.2	1.337E+04	13.2	1.170E+04	15.1	8.449E+03	20.4
Ca- 49	1.286E+04	12.1	8.190E+03	15.0	6.679E+03	21.1	1.269E+04	14.0
Ti- 51	2.015E+03	11.6	2.864E+03	7.6	3.920E+03	7.3	2.089E+03	12.5
V - 52	2.541E+01	12.1	4.383E+01	8.3	8.685E+01	6.4	2.425E+01	15.4
Mn- 56	3.479E+02	3.5	1.883E+02	3.6	3.490E+02	3.5	4.327E+02	3.5
Cu- 66	-2.097E+02	100.8	-2.309E+02	100.8	-2.251E+02	100.8	-2.474E+02	100.8
Sr- 87	-2.458E+02	100.3	-2.238E+02	100.3	4.018E+02	28.9	-2.933E+02	100.3
In-116	-1.363E-01	55.8	-1.379E-01	55.7	1.831E-01	23.4	-1.578E-01	55.9
I -128	-1.615E+01	93.2	-1.439E+01	93.2	-1.749E+01	93.3	-1.922E+01	93.2
Ba-139	4.119E+02	10.1	3.729E+02	13.7	3.370E+02	14.1	5.707E+02	11.1
Dy-165	3.801E+00	8.8	3.826E+00	10.0	3.852E+00	9.1	4.012E+00	10.4
U -235	4.929E+00	2.8	3.332E+00	2.8	3.125E+00	2.8	5.808E+00	2.8
Ga- 72	-1.205E+01	79.0	-1.137E+01	79.0	1.086E+01	23.5	-1.475E+01	79.0
As- 76	5.467E+00	11.2	1.170E+00	18.6	5.258E+00	10.6	4.808E+00	11.6
Br- 82	5.556E+00	12.0	-1.284E+00	47.8	-1.350E+00	47.6	4.290E+00	13.1
Mo- 99	-9.333E+00	89.6	-6.831E+00	91.0	-7.410E+00	90.9	-1.083E+01	89.7
Sb-122	9.066E-01	13.2	4.911E-01	23.9	1.034E+00	14.2	1.093E+00	14.4
La-140	1.929E+01	4.1	3.216E+01	3.8	3.545E+01	3.8	2.329E+01	4.1
Sm-153	2.604E+00	5.4	4.410E+00	4.7	5.027E+00	4.8	3.340E+00	5.6
Yb-175	2.255E+00	7.6	2.745E+00	6.8	2.774E+00	6.4	3.573E+00	6.4
Lu-177	3.065E-01	13.0	4.259E-01	8.6	4.750E-01	7.0	6.709E-01	8.4
W -187	2.773E+00	20.0	-1.584E+00	49.1	-1.684E+00	54.7	-2.240E+00	68.1
Au-198	-1.193E-02	100.2	-1.085E-02	100.2	-1.144E-02	100.2	-1.397E-02	100.2
Sc- 46	4.430E+00	3.9	6.353E+00	3.9	1.201E+01	3.8	5.199E+00	3.9
Cr- 51	8.891E+00	13.4	2.622E+01	6.7	4.962E+01	5.6	1.165E+01	13.2
Fe- 59	6.141E+03	4.6	1.187E+04	4.0	3.236E+04	3.8	1.612E+03	7.3
Co- 60	1.246E+00	11.0	2.936E+00	6.2	1.126E+01	4.6	6.999E-01	16.5
Zn- 65	1.557E+01	43.7	5.927E+01	14.5	1.408E+02	11.4	-3.150E+00	100.4
Se- 75	-2.906E+00	90.8	-3.922E+00	101.4	-1.812E+00	101.4	3.342E+00	44.8
Rb- 86	2.228E+01	19.8	7.443E+01	8.3	1.353E+02	7.4	4.392E+01	15.0
Zr- 95	-1.762E+02	71.5	2.003E+02	23.2	-2.550E+02	71.5	-1.867E+02	71.6
Ag-110	-1.990E+00	65.3	-1.729E+00	64.9	-2.944E+00	65.5	-2.168E+00	64.9
Sb-124	-6.617E-01	80.7	-5.094E-01	86.3	-8.536E-01	78.9	1.031E+00	32.3
Cs-134	2.144E+00	10.9	7.006E+00	5.9	1.220E+01	5.3	1.417E+00	14.5
Ba-131	2.780E+02	13.9	3.778E+02	12.8	3.911E+02	15.1	6.058E+02	11.3
Ce-141	3.647E+01	4.9	6.201E+01	4.1	7.052E+01	3.9	5.004E+01	4.3
Nd-147	-1.562E+01	72.8	-9.160E+00	76.7	-1.300E+01	78.5	-1.804E+01	71.9
Eu-152	4.580E-01	14.7	6.966E-01	9.8	8.298E-01	9.6	4.971E-01	14.7
Tb-160	4.158E-01	27.9	5.337E-01	20.8	7.293E-01	17.6	6.540E-01	18.1
Yb-169	2.988E+00	8.1	2.923E+00	6.5	3.182E+00	7.2	4.545E+00	6.2
Lu-177	3.640E-01	8.9	4.597E-01	6.1	5.182E-01	6.7	5.469E-01	6.6
Hf-181	3.171E+00	5.5	5.227E+00	4.2	4.443E+00	4.7	5.503E+00	4.5
Ta-182	8.775E-01	17.6	1.426E+00	11.5	1.206E+00	13.6	2.295E+00	11.1
Hg-203	-7.955E-01	100.8	-6.544E-01	100.8	-1.011E+00	100.8	-8.876E-01	100.8
Th-233	1.293E+01	3.5	1.373E+01	3.3	1.478E+01	3.4	2.109E+01	3.3

FILE ID 6100770
 SAMPLE 033
 DUPLICATE 015
 CLUSTER 09
 TYPE L

6100780
 034
 005
 07
 L

6100790
 035
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 07
 L

6100800
 036
 025
 10
 L

ELEMENT

Na- 24	4.639E+03	3.5	1.416E+03	4.5	1.205E+03	5.6	1.158E+03	4.7
Mg- 27	6.513E+03	13.6	3.294E+03	17.5	2.272E+03	32.1	2.384E+03	22.8
Al- 28	7.841E+04	3.8	2.479E+04	5.2	2.291E+04	6.0	4.400E+04	4.2
Cl- 38	-7.323E+01	73.3	2.292E+02	12.9	3.957E+02	10.9	8.315E+01	35.4
K - 42	1.339E+04	13.2	-3.618E+03	97.3	-4.868E+03	97.2	2.552E+03	33.5
Ca- 49	8.435E+03	18.5	8.411E+03	17.6	1.328E+04	14.8	1.299E+04	13.3
Ti- 51	3.641E+03	7.5	1.450E+03	16.2	-8.199E+02	94.7	1.567E+03	12.0
V - 52	7.178E+01	7.8	4.142E+01	10.3	2.065E+01	19.4	2.952E+01	11.3
Mn- 56	3.014E+02	3.6	4.371E+02	3.5	7.697E+02	3.5	4.502E+02	3.5
Cu- 66	-2.536E+02	100.8	-2.149E+02	100.8	-2.622E+02	100.8	-1.944E+02	100.8
Sr- 87	-2.706E+02	100.3	-3.041E+02	100.3	-3.990E+02	100.3	-2.723E+02	100.3
In- 116	-1.614E-01	55.4	2.523E-01	20.6	-1.883E-01	56.1	-1.347E-01	56.1
I - 128	-1.762E+01	93.2	-1.965E+01	93.3	-2.623E+01	93.2	-1.772E+01	93.3
Ba- 139	2.805E+02	14.2	-1.346E+02	100.1	-1.555E+02	100.1	-1.190E+02	100.1
Dy- 165	4.013E+00	8.6	2.622E+00	13.7	4.469E+00	10.0	2.912E+00	13.0
U - 235	4.100E+00	2.8	1.919E+00	2.8	6.494E+00	2.8	3.962E+00	2.8
Ga- 72	-1.281E+01	78.9	-9.685E+00	79.2	-1.041E+01	79.7	-6.498E+00	80.4
As- 76	2.982E+00	14.2	6.188E+00	9.4	4.625E+00	11.2	4.718E+00	9.9
Br- 82	-1.432E+00	47.6	2.561E+00	16.1	6.449E+00	11.4	3.848E+00	12.0
Mo- 99	-7.711E+00	90.9	-6.196E+00	90.6	7.026E+00	31.2	-4.669E+00	90.2
Sb- 122	6.810E-01	21.6	5.242E-01	16.5	1.122E+00	11.6	1.003E+00	10.3
La- 140	3.358E+01	3.9	2.016E+01	4.2	1.311E+01	4.9	1.971E+01	4.0
Sm- 153	5.054E+00	4.6	2.531E+00	4.9	2.724E+00	6.0	3.240E+00	4.8
Yb- 175	2.461E+00	7.9	2.722E+00	6.0	2.407E+00	7.1	2.215E+00	6.7
Lu- 177	3.791E-01	12.1	3.794E-01	8.1	3.909E-01	12.2	3.115E-01	10.4
W - 187	-1.803E+00	54.4	2.869E+00	15.6	2.735E+00	22.4	2.593E+00	17.3
Au- 198	-1.207E-02	100.2	-9.133E-03	100.2	-1.045E-02	100.2	-6.670E-03	100.2
Sc- 46	9.809E+00	3.9	4.293E+00	3.9	4.393E+00	4.0	5.062E+00	3.9
Cr- 51	3.695E+01	6.8	1.789E+01	8.0	5.600E+00	22.5	1.287E+01	9.1
Fe- 59	2.584E+04	3.9	1.966E+04	3.9	7.273E+03	4.7	8.301E+03	4.2
Co- 60	9.471E+00	4.9	4.540E+00	5.8	1.488E+00	12.3	2.233E+00	7.0
Zn- 65	1.086E+02	13.1	7.838E+01	13.2	-7.685E+00	100.4	5.613E+01	14.4
Se- 75	-2.151E+00	64.7	2.710E+00	29.9	2.751E+00	63.3	4.293E+00	21.6
Rb- 86	9.595E+01	9.6	2.954E+01	21.1	-1.421E+01	100.0	1.979E+01	18.7
Zr- 95	3.472E+02	24.9	-1.338E+02	95.0	-2.157E+02	71.5	-1.331E+02	71.6
Ag- 110	-2.542E+00	65.1	-1.983E+00	65.6	-2.454E+00	65.3	-1.565E+00	65.1
Sb- 124	-6.599E-01	82.3	-5.511E-01	65.4	-7.275E-01	64.1	1.049E+00	24.7
Cs- 134	1.072E+01	5.5	2.254E+00	11.2	-6.607E-01	58.2	2.428E+00	9.4
Ba- 131	2.687E+02	21.4	1.331E+02	28.0	-2.046E+02	48.9	-1.197E+02	65.4
Ce- 141	6.637E+01	4.5	3.271E+01	4.2	2.866E+01	5.3	4.155E+01	4.3
Nd- 147	3.704E+01	28.8	-9.688E+00	77.3	-2.020E+01	69.3	-8.500E+00	76.4
Eu- 152	9.164E-01	10.3	4.027E-01	14.2	4.067E-01	22.0	4.207E-01	14.7
Tb- 160	6.422E-01	29.2	4.554E-01	16.3	-4.435E-01	42.0	4.842E-01	22.2
Yb- 169	2.478E+00	9.0	2.853E+00	6.5	3.345E+00	7.1	2.386E+00	6.8
Lu- 177	4.388E-01	7.8	4.263E-01	6.4	3.934E-01	9.5	3.810E-01	6.9
Hf- 181	5.677E+00	4.5	2.819E+00	5.7	2.411E+00	7.6	2.955E+00	5.1
Ta- 182	1.262E+00	15.0	8.222E-01	17.2	7.940E-01	23.8	1.036E+00	12.0
Hg- 203	-9.282E-01	100.8	-6.948E-01	100.8	-9.777E-01	100.8	-5.899E-01	100.8
Th- 233	1.556E+01	3.5	6.918E+00	3.8	8.784E+00	4.1	1.361E+01	3.3

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100810
037
020
10
L

6100820
038
014
07
L

6100830
039
004
04
L

6100840
040
013
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L

ELEMENT

Na- 24	1.405E+03	4.5	1.600E+03	4.6	6.084E+03	3.1	4.887E+03	3.3
Mg- 27	2.874E+03	19.5	-1.890E+03	94.6	5.598E+03	12.8	4.322E+03	18.2
Al- 28	2.639E+04	5.2	3.682E+04	4.9	6.249E+04	3.6	6.338E+04	3.8
Cl- 38	-5.164E+01	75.5	1.109E+02	26.3	9.052E+01	23.5	9.597E+01	25.5
K - 42	2.379E+03	28.1	-4.428E+03	97.3	1.411E+04	11.5	1.134E+04	15.3
Ca- 49	1.288E+04	14.7	1.364E+04	13.7	4.383E+03	16.6	6.802E+03	18.8
Ti- 51	1.546E+03	14.3	2.197E+03	14.2	3.309E+03	6.6	2.915E+03	8.4
V - 52	2.884E+01	11.4	3.926E+01	11.2	5.528E+01	6.6	4.069E+01	9.1
Mn- 56	3.762E+02	3.5	5.562E+02	3.5	2.074E+02	3.6	2.394E+02	3.6
Cu- 66	-1.860E+02	100.8	-2.561E+02	100.8	-2.042E+02	100.8	-2.356E+02	100.8
Sr- 87	-2.544E+02	100.3	-3.620E+02	100.3	-1.985E+02	100.3	-2.450E+02	100.3
In-116	-1.304E-01	55.8	2.341E-01	25.6	-1.199E-01	55.7	1.526E-01	22.7
I -128	-1.724E+01	93.2	-2.388E+01	93.3	-1.288E+01	93.1	-1.594E+01	93.1
Ba-139	-1.041E+02	100.1	-1.612E+02	100.1	4.999E+02	8.3	2.913E+02	13.6
Dy-165	2.914E+00	10.1	3.080E+00	14.6	9.476E+00	6.8	4.010E+00	10.0
U -235	2.769E+00	2.8	2.885E+00	2.8	3.225E+00	2.8	4.507E+00	2.8
Ga- 72	-9.133E+00	79.2	-1.185E+01	79.7	1.145E+01	27.0	-1.438E+01	79.0
As- 76	4.462E+00	10.2	3.892E+00	12.8	9.554E+00	8.6	3.326E+00	12.3
Br- 82	4.359E+00	11.0	4.140E+00	14.3	1.470E+00	25.0	-1.578E+00	47.5
Mo- 99	-5.672E+00	90.7	-9.299E+00	89.3	-7.115E+00	90.6	-8.153E+00	91.0
Sb-122	6.381E-01	13.3	-2.938E-01	100.1	9.522E-01	14.2	7.729E-01	17.4
La-140	1.932E+01	4.2	1.489E+01	4.7	5.882E+01	3.6	4.408E+01	3.7
Sm-153	3.220E+00	4.9	2.217E+00	5.1	9.440E+00	4.5	6.118E+00	4.8
Yb-175	2.157E+00	6.6	2.221E+00	7.7	5.810E+00	4.8	3.256E+00	6.2
Lu-177	3.296E-01	9.2	3.936E-01	10.1	8.631E-01	5.3	5.050E-01	8.5
W -187	-1.162E+00	61.3	-1.749E+00	51.9	-1.858E+00	54.7	-1.934E+00	49.2
Au-198	-8.490E-03	100.2	-1.144E-02	100.2	-1.062E-02	100.2	-1.260E-02	100.2
Sc- 46	4.303E+00	3.9	6.656E+00	3.9	7.178E+00	3.8	6.784E+00	3.9
Cr- 51	1.482E+01	8.6	2.197E+01	9.6	3.610E+01	5.9	3.746E+01	5.8
Fe- 59	7.182E+03	4.3	9.735E+03	4.5	2.239E+04	3.8	2.310E+04	3.8
Co- 60	3.311E+00	6.4	1.993E+00	10.5	8.109E+00	4.6	7.148E+00	5.0
Zn- 65	7.877E+01	12.6	-1.524E+01	64.9	7.485E+01	13.4	1.358E+02	10.7
Se- 75	2.562E+00	28.4	5.236E+00	25.8	-2.041E+00	77.6	-4.168E+00	95.9
Rb- 86	2.222E+01	19.4	-1.601E+01	100.0	7.603E+01	7.9	8.358E+01	9.3
Zr- 95	-1.249E+02	98.0	-2.551E+02	71.6	3.469E+02	17.1	1.675E+02	22.4
Ag-110	-1.789E+00	65.2	-2.935E+00	65.1	-1.390E+00	99.2	-2.262E+00	65.4
Sb-124	-5.990E-01	87.3	-9.500E-01	81.9	9.386E-01	23.7	-5.927E-01	86.8
Cs-134	1.927E+00	10.5	2.673E+00	11.8	6.707E+00	5.9	6.055E+00	6.4
Ba-131	-1.497E+02	54.5	-2.650E+02	51.3	4.945E+02	11.5	2.897E+02	12.7
Ce-141	3.868E+01	4.4	2.623E+01	5.5	1.189E+02	3.8	9.390E+01	3.8
Nd-147	-8.958E+00	77.1	-2.104E+01	73.3	3.481E+01	23.0	-1.153E+01	76.9
Eu-152	4.623E-01	12.7	2.985E-01	22.2	1.775E+00	6.3	1.111E+00	8.8
Tb-160	4.075E-01	19.6	-4.691E-01	63.0	1.184E+00	10.4	7.145E-01	15.4
Yb-169	2.342E+00	6.2	2.930E+00	8.7	6.415E+00	4.0	3.808E+00	5.2
Lu-177	2.847E-01	7.8	4.555E-01	8.9	8.867E-01	4.7	5.215E-01	6.0
Hf-181	2.649E+00	5.4	3.024E+00	6.6	1.142E+01	3.5	8.089E+00	3.7
Ta-182	4.685E-01	20.8	6.237E-01	20.1	1.257E+00	11.8	1.521E+00	11.8
Hg-203	-6.602E-01	100.8	-1.092E+00	100.8	-6.785E-01	100.8	-8.342E-01	100.8
Th-233	6.506E+00	3.8	9.399E+00	4.0	1.314E+01	3.3	1.603E+01	3.3

FILE ID	6100850	6100860	6100870	6100880
SAMPLE	O41	O42	O43	O44
DUPLICATE	O07	O21	O29	O24
CLUSTER	O05	O07	O10	O09
TYPE	L	L	L	L
ELEMENT				
Na- 24	4.944E+03	3.175E+03	4.100E+03	2.825E+03
Mg- 27	3.782E+03	4.744E+03	-1.544E+03	5.240E+03
Al- 28	5.977E+04	4.711E+04	3.445E+04	6.870E+04
Cl- 38	2.122E+02	-7.268E+01	-6.109E+01	6.347E+01
K- 42	1.052E+04	-3.902E+03	4.758E+03	6.792E+03
Ca- 49	7.038E+03	1.284E+04	1.260E+04	1.048E+04
Ti- 51	2.974E+03	1.392E+03	1.774E+03	3.108E+03
V- 52	4.458E+01	2.152E+01	2.960E+01	1.004E+02
Mn- 56	4.140E+02	3.587E+02	3.436E+02	2.307E+02
Cu- 66	-2.441E+02	-2.468E+02	-2.006E+02	-2.060E+02
Sr- 87	-2.807E+02	-3.040E+02	-2.352E+02	-2.293E+02
In-116	-1.562E-01	2.313F-01	-1.259E-01	2.013E-01
I- 128	-1.823E+01	-1.996E+01	-1.540E+01	-1.486E+01
Ba-139	3.523E+02	-1.375E+02	3.949E+02	-1.048E+02
Dy-165	5.097E+00	3.667E+00	3.719E+00	4.495E+00
U- 235	4.942E+00	5.256E+00	4.876E+00	5.369E+00
Ga- 72	-1.637E+01	-1.126E+01	1.036E+01	-1.399E+01
As- 76	9.633E+00	2.690E+00	5.325E+00	4.349E+00
Br- 82	3.293E+00	3.320E+00	4.606E+00	-1.550E+00
Mo- 99	-1.179E+01	-6.894E+00	6.779E+00	-1.046E+01
Sb-122	8.020E-01	5.067E-01	1.170E+00	2.095E+00
La-140	3.789E+01	2.397E+01	2.154E+01	4.089E+01
Sm-153	5.070E+00	3.793E+00	3.544E+00	5.612E+00
Yb-175	3.087E+00	2.528E+00	2.544E+00	4.140E+00
Lu-177	4.525E-01	4.708E-01	4.255E-01	6.856E-01
W- 187	-2.723E+00	2.594E+00	2.588E+00	3.674E+00
Au-198	-1.490E-02	-1.018E-02	-1.010E-02	-1.257E-02
Sc- 46	6.825E+00	4.766E+00	4.676E+00	9.211E+00
Cr- 51	2.973E+01	9.090E+00	1.003E+01	2.849E+01
Fe- 59	2.242E+04	5.488E+03	7.134E+03	2.268E+04
Co- 60	7.310E+00	1.450E+00	1.566E+00	1.082E+01
Zn- 65	2.965E+01	6.198E+01	7.057E+01	1.790E+02
Se- 75	-3.733E+00	-1.750E+00	3.108E+00	-3.006E+00
Rb- 86	4.829E+01	2.278E+01	3.018E+01	7.029E+01
Zr- 95	2.312E+02	-1.602E+02	-1.392E+02	3.793E+02
Ag-110	-2.710E+00	-1.838E+00	-1.400E+00	-2.406E+00
Sb-124	-6.951E-01	-5.960E-01	-5.319E-01	2.251E+00
Cs-134	5.082E+00	1.761E+00	1.910E+00	8.252E+00
Ba-131	-2.378E+02	-1.632E+02	4.312E+02	-2.621E+02
Ce-141	7.728E+01	4.637E+01	4.295E+01	9.102E+01
Nd-147	-2.052E+01	-1.096E+01	-8.677E+00	-2.133E+01
Eu-152	8.174E-01	3.206E-01	4.635E-01	9.989E-01
Tb-160	8.722E-01	5.051E-01	6.505E-01	1.022E+00
Yb-169	3.931E+00	2.797E+00	2.412E+00	5.139E+00
Lu-177	5.377E-01	4.178E-01	4.068E-01	6.780E-01
Hf-181	6.199E+00	4.260E+00	3.486E+00	5.297E+00
Ta-182	1.195E+00	1.688E+00	1.006E+00	1.155E+00
Hg-203	-1.070E+00	-7.225E-01	-6.077E-01	-1.132E+00
Th-233	1.421E+01	2.021E+01	1.470E+01	1.359E+01

FILE ID	6100890	6100900	6100910	6100920
SAMPLE	O45	O46	O47	O48
DUPLICATE	O19	O02	O11	O18
CLUSTER	O9	O5	10	O5
TYPE	L	L	L	L
ELEMENT				
Na- 24	2.614E+03	2.187E+03	1.309E+03	2.152E+03
Mg- 27	4.785E+03	1.749E+03	2.911E+03	4.563E+03
Al- 28	8.545E+04	3.313E+04	1.746E+04	6.519E+04
Cl- 38	5.648E+01	2.371E+02	3.104E+02	5.813E+01
K- 42	8.492E+03	-3.942E+03	-4.135E+03	4.367E+03
Ca- 49	8.752E+03	1.505E+04	1.046E+04	1.464E+04
Ti- 51	3.252E+03	1.685E+03	-7.113E+02	2.707E+03
V- 52	5.484E+01	2.495E+01	2.767E+01	6.072E+01
Mn- 56	2.275E+02	5.225E+02	5.417E+02	3.726E+02
Cr- 66	-2.175E+02	-2.338E+02	-2.344E+02	-2.124E+02
Sr- 87	-2.370E+02	-3.275E+02	-3.378E+02	-2.674E+02
In- 116	2.158E-01	2.921E-01	-1.621E-01	1.468E-01
I- 128	-1.512E+01	-2.138E+01	-2.226E+01	-1.735E+01
Ba- 139	2.070E+02	-1.464E+02	3.002E+02	-1.201E+02
Dy- 165	7.472E+00	3.821E+00	3.030E+00	4.006E+00
U- 235	4.681E+00	3.694E+00	1.330E+00	4.465E+00
Ga- 72	1.897E+01	1.345E+01	-1.172E+01	1.566E+01
As- 76	3.338E+00	9.743E+00	5.397E+00	3.833E+00
Br- 82	-1.334E+00	8.757E+00	5.226E+00	3.808E+00
Mo- 99	-7.635E+00	4.136E+00	-8.860E+00	-5.693E+00
Sb- 122	1.051E+00	9.885E-01	4.549E-01	8.577E-01
La- 140	5.403E+01	2.308E+01	1.085E+01	2.278E+01
Sm- 153	7.497E+00	3.884E+00	1.698E+00	3.767E+00
Yb- 175	4.545E+00	3.386E+00	2.099E+00	3.437E+00
Lu- 177	7.619E-01	6.236E-01	3.932E-01	5.637E-01
W- 187	2.374E+00	2.181E+00	-1.556E+00	2.664E+00
Au- 198	-1.084E-02	-9.801E-03	-1.031E-02	-8.372E-03
Sc- 46	8.213E+00	5.234E+00	3.211E+00	8.797E+00
Cr- 51	2.663E+01	1.239E+01	6.334E+00	2.650E+01
Fe- 59	2.247E+04	1.243E+04	1.465E+04	1.796E+04
Co- 60	6.386E+00	5.865E+00	5.166E+00	4.110E+00
Zn- 65	1.325E+02	1.369E+02	-2.630E+00	-1.439E+00
Se- 75	-2.093E+00	2.948E+00	-2.1589E+01	5.136E+01
Rb- 86	5.357E+01	2.217E+01	-2.120E+02	-1.836E+02
Zr- 95	2.634E+02	1.466E+02	-2.374E+00	-2.142E+00
Ag- 110	-2.363E+00	-2.015E+00	-2.374E+00	-2.142E+00
Sb- 124	-6.946E-01	1.138E+00	-8.446E-01	1.355E+00
Cs- 134	8.739E+00	1.786E+00	1.513E+00	5.842E+00
Ba- 131	-1.998E+02	1.619E+02	2.259E+02	-2.006E+02
Ce- 141	1.036E+02	5.203E+01	2.149E+01	4.215E+01
Nd- 147	-1.253E+01	2.338E+01	-1.896E+01	-1.058E+01
Eu- 152	1.123E+00	76.7	2.681E-01	5.539E-01
Tb- 160	8.808E-01	11.2	27.2	3.902E-01
Yb- 169	5.657E+00	16.1	3.16E-01	28.5
Lu- 177	6.966E-01	5.1	2.570E+00	3.603E+00
Hf- 181	7.832E+00	6.0	3.429E-01	5.286E-01
Ta- 182	1.555E+00	4.2	1.905E+00	4.744E+00
Hg- 203	-8.833E-01	12.5	-6.903E-01	1.122E+00
Th- 233	1.605E+01	100.8	-9.579E-01	-7.674E-01
		3.4	3.044E+00	1.457E+01
				3.9
				14.7
				3.8
				74.8
				27.3
				11.9
				9.4
				7.4
				3.5
				100.8
				100.3
				27.6
				93.3
				100.1
				10.3
				2.8
				26.2
				10.8
				13.9
				90.6
				13.7
				4.0
				4.8
				5.6
				7.1
				19.0
				100.2
				3.9
				6.9
				3.9
				5.8
				13.3
				101.4
				12.5
				71.6
				65.1
				23.6
				6.5
				47.2
				77.4
				11.7
				28.5
				6.2
				6.5
				4.7
				12.9
				100.8
				3.4

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6100930
049
028
06
L

6100940
050
022
10
L

6100950
051
001
09
L

6100960
052
008
07
L

ELEMENT

Na- 24	6.514E+03	3.1	3.729E+03	3.6	2.653E+03	3.7	1.181E+03	5.1
Mg- 27	-1.750E+03	91.9	-2.012E+03	93.7	6.741E+03	10.7	-1.892E+03	94.0
Al- 28	7.025E+04	3.7	3.246E+04	4.9	1.035E+05	3.4	3.286E+04	5.1
Cl- 38	-6.863E+01	72.1	-7.334E+01	74.0	-5.459E+01	74.4	2.480E+02	13.3
K - 42	1.010E+04	16.9	6.622E+03	24.3	1.215E+04	14.1	-4.567E+03	97.1
Ca- 49	9.707E+03	14.5	1.481E+04	14.5	6.470E+03	17.0	1.382E+04	15.1
Ti- 51	2.183E+03	8.8	1.532E+03	16.3	4.238E+03	6.7	-7.326E+02	94.7
V - 52	2.817E+01	10.8	1.535E+01	19.3	8.373E+01	6.2	2.232E+01	17.4
Mn- 56	2.297E+02	3.6	4.488E+02	3.5	1.953E+02	3.6	6.533E+02	3.5
Cu- 66	-2.210E+02	100.8	-2.512E+02	100.8	-2.141E+02	100.8	-2.429E+02	100.8
Sr- 87	3.407E+02	27.2	-3.206E+02	100.3	-2.226E+02	100.3	-3.557E+02	100.3
In-116	2.545E-01	19.9	-1.642E-01	56.1	1.696E-01	17.0	-1.719E-01	56.0
I -128	-1.423E+01	93.2	-2.128E+01	93.2	-1.432E+01	93.1	-2.335E+01	93.3
Ba-139	8.425E+02	7.0	-1.440E+02	100.1	1.845E+02	20.5	-1.401E+02	100.1
Dy-165	6.551E+00	7.3	-1.284E+00	67.3	3.133E+00	10.7	3.671E+00	9.6
U -235	8.925E+00	2.8	5.149E+00	2.8	4.224E+00	2.8	3.940E+00	2.8
Ga- 72	2.100E+01	21.7	-1.584E+01	79.0	2.577E+01	17.4	1.040E+01	24.8
As- 76	4.740E+00	10.8	6.606E+00	10.8	2.567E+00	15.9	4.210E+00	10.8
Br- 82	2.002E+00	29.7	4.758E+00	13.1	-1.146E+00	47.5	5.970E+00	11.4
Mo- 99	1.041E+01	10.8	-1.064E+01	89.6	-6.320E+00	90.6	-6.265E+00	90.5
Sb-122	8.235E-01	13.9	1.115E+00	11.8	8.949E-01	16.0	1.110E+00	9.9
La-140	3.723E+01	3.7	1.787E+01	4.4	3.486E+01	3.8	1.672E+01	4.4
Sm-153	6.727E+00	4.9	2.514E+00	5.2	4.158E+00	4.7	3.129E+00	5.4
Yb-175	3.731E+00	5.9	2.239E+00	9.1	1.927E+00	8.3	3.143E+00	5.9
Lu-177	5.327E-01	8.6	3.287E-01	13.3	2.491E-01	14.1	4.847E-01	7.6
W -187	2.701E+00	23.5	3.089E+00	22.8	-1.766E+00	64.0	3.803E+00	16.0
Au-198	-1.220E-02	100.2	-1.326E-02	100.2	-9.439E-03	100.2	-8.927E-03	100.2
Sc- 46	5.170E+00	3.9	4.069E+00	4.0	1.065E+01	3.8	4.442E+00	3.9
Cr- 51	9.154E+00	14.4	9.012E+00	16.3	4.299E+01	6.0	1.075E+01	11.0
Fe- 59	5.502E+03	4.4	5.783E+03	4.9	2.561E+04	3.8	1.157E+04	4.1
Co- 60	1.466E+00	8.1	7.581E-01	17.9	5.166E+00	5.6	1.963E+00	8.6
Zn- 65	7.661E+01	12.0	2.570E+01	36.1	7.127E+01	15.1	7.131E+01	13.8
Se- 75	-2.727E+00	71.6	-3.082E+00	58.6	-1.884E+00	70.0	3.198E+00	24.6
Rb- 86	6.172E+01	8.7	3.289E+01	16.9	8.755E+01	8.5	-1.204E+01	100.0
Zr- 95	-1.197E+02	100.3	-1.998E+02	71.6	-2.034E+02	71.6	-1.734E+02	71.6
Ag-110	-1.706E+00	65.2	-2.218E+00	65.3	-2.353E+00	65.2	-1.977E+00	65.3
Sb-124	1.041E+00	28.6	-8.184E-01	81.8	-6.096E-01	80.2	-6.020E-01	80.3
Cs-134	3.249E+00	7.4	1.414E+00	19.2	1.243E+01	5.3	1.555E+00	13.7
Ba-131	7.345E+02	6.8	1.611E+02	20.8	-1.985E+02	55.1	-1.695E+02	54.5
Ce-141	7.282E+01	3.8	3.693E+01	4.9	6.364E+01	4.4	3.337E+01	4.3
Nd-147	8.112E+01	8.1	-1.909E+01	72.4	-1.156E+01	77.8	-1.040E+01	76.7
Eu-152	6.174E-01	10.1	2.025E-01	32.5	7.348E-01	10.4	3.389E-01	16.5
Tb-160	8.588E-01	12.4	5.680E-01	29.5	4.599E-01	24.6	4.540E-01	21.9
Yb-169	4.500E+00	5.1	2.132E+00	13.3	2.095E+00	10.6	3.288E+00	6.0
Lu-177	5.984E-01	5.3	3.500E-01	9.1	3.829E-01	8.9	4.792E-01	6.3
Hf-181	6.474E+00	3.8	3.357E+00	5.9	5.201E+00	4.5	2.697E+00	5.9
Ta-182	2.496E+00	8.2	1.147E+00	17.5	1.592E+00	11.5	8.450E-01	18.6
Hg-203	-6.710E-01	100.8	-9.358E-01	100.8	-8.535E-01	100.8	-7.389E-01	100.8
Th-233	3.091E+01	3.1	1.459E+01	3.6	1.486E+01	3.4	1.194E+01	3.5

6101000
056
027
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6100990
055
030
09
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6100980
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017
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6100970
053
003
09
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FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

ELEMENT

Na-24	1.753E+03	4.0	4.829E+03	3.4	5.879E+03	3.1	4.568E+03	3.4
Mg-27	6.563E+03	11.9	4.525E+03	17.2	5.764E+03	13.3	-1.891E+03	93.2
Al-28	1.104E+05	3.4	6.391E+04	4.0	6.224E+04	3.8	3.355E+04	4.8
Cl-38	2.961E+02	10.3	-7.484E+01	72.7	7.404E+01	71.8	8.610E+01	27.7
K-42	5.284E+03	21.9	1.286E+04	16.5	1.046E+04	14.8	9.119E+03	19.6
Ca-49	6.385E+03	17.3	1.089E+04	15.5	8.450E+03	15.2	1.586E+04	12.6
Ti-51	3.337E+03	6.9	2.700E+03	8.7	2.933E+03	7.8	1.459E+03	14.6
V-52	7.368E+01	6.7	4.933E+01	9.1	4.978E+01	7.8	1.989E+01	20.1
Mn-56	2.587E+02	3.6	2.835E+02	3.6	1.930E+02	3.6	5.028E+02	3.5
Cu-66	-2.053E+02	100.8	-2.488E+02	100.8	-2.394E+02	100.8	-2.477E+02	100.8
Sr-87	-2.323E+02	100.3	-2.631E+02	100.3	-2.336E+02	100.3	-3.054E+02	100.3
In-116	2.167E-01	21.5	2.426E-01	24.5	1.541E-01	27.9	-1.603E-01	56.1
I-128	-1.516E+01	93.2	-1.721E+01	93.2	1.493E+01	93.1	-2.007E+01	93.2
Ba-139	3.107E+02	13.7	4.106E+02	11.1	3.226E+02	13.0	4.749E+02	11.2
Dy-165	3.185E+00	10.4	6.466E+00	7.8	4.051E+00	10.1	2.618E+00	11.5
U-235	4.932E+00	2.8	4.978E+00	2.8	3.375E+00	2.8	4.339E+00	2.8
Ga-72	-4.273E+01	80.0	-2.160E+01	79.6	2.308E+01	79.3	-2.194E+01	79.4
As-76	-3.063E+00	84.7	2.052E+01	8.3	1.373E+00	25.8	6.165E+00	11.6
Br-82	-3.407E+00	46.8	2.663E+00	30.3	1.898E+00	22.3	5.967E+00	13.3
Mo-99	-2.232E+01	88.8	-8.412E+00	90.5	7.898E+00	90.9	-9.795E+00	89.6
Sb-122	-6.699E-01	100.1	1.367E+00	11.2	5.591E-01	28.4	1.023E+00	13.1
La-140	3.222E+01	5.2	5.154E+01	3.8	3.659E+01	3.9	1.549E+01	4.7
Sm-153	3.267E+00	5.6	7.968E+00	4.6	4.575E+00	4.8	1.872E+00	6.6
Yb-175	2.399E+00	20.6	3.790E+00	6.6	3.466E+00	5.9	1.768E+00	9.3
Lu-177	3.049E-01	39.6	7.352E-01	7.2	6.215E-01	6.3	2.672E-01	17.0
W-187	-5.679E+00	54.3	-2.557E+00	70.4	-2.987E+00	62.7	4.631E+00	17.5
Au-198	-2.490E-02	100.2	-1.223E-02	100.2	1.225E-02	100.2	-1.244E-02	100.2
Sc-46	8.637E+00	4.1	7.339E+00	3.9	7.112E+00	3.9	3.673E+00	4.0
Cr-51	2.380E+01	13.3	2.813E+01	7.4	2.554E+01	6.8	7.330E+00	14.0
Fe-59	2.010E+04	4.9	3.113E+04	3.8	1.381E+04	3.9	3.090E+03	5.7
Co-60	5.027E+00	11.6	1.114E+01	4.7	3.476E+00	5.8	9.669E-01	13.9
Zn-65	-4.291E+01	58.8	9.895E+01	13.7	1.162E+02	11.1	1.688E+01	43.4
Se-75	-1.293E+01	101.4	-2.065E+00	84.7	-3.477E+00	99.6	-2.284E+00	75.9
Rb-86	-4.045E+01	100.0	6.077E+01	13.2	8.176E+01	9.0	2.819E+01	18.4
Zr-95	-5.911E+02	71.5	-1.786E+02	95.4	2.808E+02	19.0	-1.401E+02	89.3
Ag-110	-6.593E+00	65.4	-2.334E+00	65.6	-2.092E+00	65.1	-1.631E+00	96.0
Sb-124	-2.607E+00	82.3	1.550E+00	22.1	9.822E-01	30.8	8.906E-01	29.5
Cs-134	-5.695E+02	49.3	5.994E+00	6.9	7.803E+00	5.5	1.606E+00	13.1
Ba-137	1.223E+01	8.7	4.306E+02	14.7	4.596E+02	11.9	4.943E+02	11.5
Ce-141	4.743E+01	6.7	1.051E+02	4.1	7.406E+01	3.8	2.847E+01	5.0
Nd-147	-5.614E+01	70.9	-1.255E+01	76.8	4.133E+01	22.3	-1.681E+01	71.3
Eu-152	6.058E-01	36.4	1.237E+00	9.3	7.676E-01	10.2	3.033E-01	19.3
Tb-160	-8.484E-01	40.3	8.581E-01	15.9	6.228E-01	15.7	-2.771E-01	96.2
Yb-169	-2.205E+00	64.3	4.719E+00	5.8	3.739E+00	5.1	1.717E+00	11.5
Lu-177	-2.764E-01	76.3	5.924E-01	6.5	5.586E-01	5.6	2.921E-01	9.9
Hf-181	4.001E+00	10.4	6.452E+00	4.4	6.420E+00	3.9	3.447E+00	5.7
Ta-182	1.812E+00	27.5	1.047E+00	15.2	1.504E+00	11.0	1.266E+00	15.5
Hg-203	-2.787E+00	100.8	-8.844E-01	100.8	-7.629E-01	100.8	-8.279E-01	100.8
Th-233	1.837E+01	4.7	1.576E+01	3.4	1.502E+01	3.3	1.449E+01	3.5

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101010
057
023
10
L

6101020
058
012
07
L

6101030
059
010
08
L

6101040
060
016
07
L

ELEMENT

Na- 24	1.150E+03	4.9	1.844E+03	4.5	1.286E+04	3.0	1.167E+03	5.2
Mg- 27	2.179E+03	30.4	2.887E+03	25.9	-2.782E+03	92.5	1.907E+03	25.4
Al- 28	2.057E+04	5.6	2.629E+04	5.6	8.713E+04	3.7	2.183E+04	6.1
Cl- 38	-4.596E+01	76.2	5.418E+02	10.3	8.804E+02	8.1	2.490E+02	13.1
K - 42	3.302E+03	29.4	-4.599E+03	97.2	2.891E+04	8.8	-4.500E+03	97.2
Ca- 49	1.324E+04	12.2	1.361E+04	15.5	4.148E+03	23.6	1.619E+04	13.8
Ti- 51	-5.152E+02	94.9	1.566E+03	19.9	1.009E+03	25.0	1.388E+03	19.5
V - 52	1.679E+01	15.3	4.487E+01	12.0	-8.513E+00	100.0	3.056E+01	10.7
Mn- 56	3.173E+02	3.6	6.613E+02	3.5	3.558E+02	3.6	6.669E+02	3.5
Cu- 66	-1.755E+02	100.8	-2.652E+02	100.8	-3.563E+02	100.8	-2.485E+02	100.8
Sr- 87	-2.479E+02	100.3	-3.715E+02	100.3	-3.466E+02	100.3	-3.630E+02	100.3
In-116	1.293E-01	28.0	-1.796E-01	56.1	-2.107E-01	55.7	1.750E-01	30.0
I -128	-1.619E+01	93.3	-2.473E+01	93.3	-2.203E+01	93.2	-2.376E+01	93.4
Ba-139	3.138E+02	14.5	-1.480E+02	100.1	-1.598E+02	100.1	-1.450E+02	100.1
Dy-165	2.037E+00	15.2	3.840E+00	10.0	5.405E+00	10.3	3.405E+00	10.9
U -235	1.784E+00	2.8	2.447E+00	2.8	1.032E+01	2.8	2.402E+00	2.8
Ga- 72	-1.129E+01	79.8	-1.924E+01	79.6	-3.714E+01	78.8	-1.407E+01	80.0
As- 76	2.436E+00	14.8	3.069E+00	16.1	7.316E+00	13.0	4.330E+00	13.3
Br- 82	5.564E+00	10.4	5.231E+00	14.6	-2.586E+00	47.9	4.458E+00	14.4
Mo- 99	-4.631E+00	90.1	-7.195E+00	90.3	4.037E+00	19.9	-5.525E+00	90.2
Sb-122	2.691E-01	26.0	7.231E-01	14.2	1.416E+00	15.2	6.021E-01	17.3
La-140	8.527E+00	5.4	1.709E+01	4.6	4.167E+01	4.0	8.713E+00	5.7
Sm-153	1.695E+00	4.9	2.951E+00	4.9	5.609E+00	5.1	1.993E+00	5.4
Yb-175	1.284E+00	9.3	3.339E+00	6.1	4.254E+00	7.0	2.651E+00	6.6
Lu-177	1.963E-01	11.3	6.072E-01	6.2	6.558E-01	10.4	4.353E-01	7.8
W -187	2.001E+00	24.6	4.958E+00	16.2	-4.157E+00	63.5	3.063E+00	18.9
Au-198	-6.423E-03	100.2	-1.013E-02	100.2	-1.901E-02	100.2	-7.830E-03	100.2
Sc- 46	2.886E+00	4.0	6.064E+00	3.9	2.760E+00	4.0	5.452E+00	3.9
Cr- 51	7.407E+00	11.0	1.657E+01	9.4	3.809E+00	26.3	1.117E+01	11.1
Fe- 59	4.666E+03	4.8	6.090E+03	4.6	9.403E+03	4.4	7.059E+03	4.5
Co- 60	9.678E-01	12.0	2.544E+00	7.7	7.452E-01	17.3	2.103E+00	8.8
Zn- 65	2.954E+01	23.0	5.191E+01	17.5	-1.208E+01	73.6	3.287E+01	24.4
Se- 75	-2.029E+00	68.6	3.577E+00	25.3	-5.051E-01	101.4	3.248E+00	22.3
Rb- 86	2.677E+01	17.2	-1.195E+01	100.0	2.804E+02	5.7	-9.694E+00	100.0
Zr- 95	-1.159E+02	71.5	2.280E+02	31.6	-1.547E+02	95.9	-1.634E+02	71.7
Ag-110	-1.305E+00	65.3	-2.244E+00	64.7	-1.686E+00	95.0	-1.939E+00	64.9
Sb-124	-4.485E-01	79.7	-7.029E-01	63.1	1.837E+00	24.3	-5.420E-01	64.0
Cs-134	1.028E+00	17.0	2.181E+00	14.1	1.097E+01	5.8	8.780E-01	28.3
Ba-131	3.478E+02	11.7	-1.841E+02	55.0	2.091E+02	19.4	-1.650E+02	55.4
Ce-141	1.905E+01	5.5	3.306E+01	4.7	7.842E+01	4.2	2.012E+01	5.2
Nd-147	-7.835E+00	75.7	-1.084E+01	77.6	-2.496E+01	59.5	-1.029E+01	76.9
Eu-152	3.362E-01	17.0	5.164E-01	13.9	3.579E-01	18.3	4.045E-01	16.4
Tb-160	2.956E-01	24.4	6.634E-01	18.5	6.175E-01	21.6	-3.137E-01	42.2
Yb-169	1.416E+00	10.0	3.799E+00	5.6	4.631E+00	6.5	3.277E+00	5.9
Lu-177	3.009E-01	8.8	5.869E-01	6.0	7.068E-01	6.5	4.542E-01	7.7
Hf-181	2.132E+00	6.2	2.906E+00	5.9	4.983E+00	5.1	2.219E+00	6.9
Ta-182	4.774E-01	18.2	7.651E-01	25.2	2.951E+00	9.7	-4.614E-01	38.7
Hg-203	-5.262E-01	100.8	-7.978E-01	100.8	-9.645E-01	100.8	-7.105E-01	100.8
Th-233	5.948E+00	4.0	8.463E+00	3.8	3.159E+01	3.2	6.467E+00	4.2

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101050
061
132
10
1

6101060
062
111
05
1

6101070
063
112
05
1

6101080
064
131
10
1

ELEMENT

Na	24	4.413E+02	8.0	1.297E+03	4.5	2.148E+03	3.9	4.598E+03	3.3
Mg	27	1.250E+03	95.0	2.749E+03	20.9	2.406E+03	21.2	-1.499E+03	92.4
Al	28	5.826E+03	9.5	4.014E+04	4.3	3.860E+04	4.3	2.510E+04	4.8
Cl	38	6.400E+01	29.5	7.183E+01	30.7	5.324E+01	75.6	1.104E+02	29.1
K	42	3.057E+03	97.4	3.617E+03	97.1	3.376E+03	97.2	5.808E+03	20.0
Ca	49	1.027E+04	16.3	1.392E+04	13.2	1.396E+04	11.9	1.142E+04	14.5
Fe	51	5.504E+02	94.6	1.310E+03	14.5	1.467E+03	12.1	1.558E+03	11.5
V	52	8.852E+00	26.1	2.839E+01	11.3	3.831E+01	9.0	2.122E+01	10.9
Mn	56	3.775E+02	3.5	5.144E+02	4.5	4.022E+02	3.5	2.425E+02	3.6
Cu	66	1.653E+02	100.8	1.988E+02	100.8	2.004E+02	100.8	-1.963E+02	100.8
Sr	87	2.599E+02	100.3	2.819E+02	100.3	2.638E+02	100.3	-2.105E+02	100.3
In	116	1.182E-01	56.5	1.348E-01	56.1	1.005E-01	30.9	9.539E-02	24.6
I	128	1.721E+01	93.3	1.826E+01	93.2	1.733E+01	93.2	1.343E+01	93.2
Ba	139	1.136E+02	31.5	1.826E+02	19.6	1.196E+02	100.1	4.966E+02	8.3
Dy	165	1.034E+00	67.3	4.998E+00	8.1	4.332E+00	9.7	3.762E+00	8.5
U	235	6.360E-01	7.8	4.388E+00	2.8	4.021E+00	2.8	3.083E+00	2.8
Ga	72	1.064E+01	79.1	1.759E+01	80.1	1.471E+01	79.9	-1.911E+01	79.1
As	76	1.729E+00	16.2	4.089E+00	12.8	7.099E+00	9.7	1.042E+01	8.7
Br	82	4.560E+00	10.6	3.863E+00	12.9	4.157E+00	11.4	3.621E+00	14.3
Mo	99	4.142E+00	89.8	8.610E+00	88.9	5.625E+00	90.1	-6.261E+00	90.8
Sb	123	1.648E-01	100.1	8.683E-01	11.6	8.612E-01	12.9	1.584E+00	8.9
La	140	4.479E+00	6.5	2.801E+01	4.1	2.206E+01	4.2	1.680E+01	4.3
Sm	153	6.298E-01	6.4	4.013E+00	5.3	4.154E+00	4.6	2.834E+00	4.9
Yb	175	4.331E-01	17.0	3.476E+00	5.9	3.101E+00	5.9	2.915E+00	5.7
W	187	9.655E-02	14.1	5.828E-01	7.4	5.338E-01	6.7	4.895E-01	6.9
Ir	197	1.670E+00	29.2	2.653E+00	24.3	2.268E+00	25.6	5.842E+00	13.9
Au	198	5.666E-03	100.2	-9.974E-03	100.2	7.883E-03	100.2	-9.562E-03	100.2
Sc	46	1.673E+00	4.1	5.229E+00	3.9	5.579E+00	3.9	4.464E+00	3.9
Cr	51	6.117E+00	12.6	9.712E+00	12.0	1.471E+01	9.2	1.080E+01	9.3
Fe	59	1.971E+03	5.9	7.312E+03	4.4	1.054E+04	4.1	1.274E+04	3.9
Co	60	1.009E+00	10.5	1.983E+00	8.5	2.468E+00	7.0	2.324E+00	6.8
Zn	65	6.272E+01	14.8	1.984E+01	41.5	4.132E+01	18.6	7.136E+01	12.4
Se	75	2.173E+00	20.4	-7.470E+00	60.8	3.850E+00	25.5	1.862E+00	37.2
Rb	86	6.853E+00	100.0	2.572E+01	18.4	3.186E+01	14.7	3.248E+01	15.2
Zr	95	1.013E+02	71.6	-1.885E+02	71.4	1.445E+02	71.6	1.199E+02	33.4
Ag	110	1.149E+00	65.2	-2.162E+00	65.0	1.666E+00	65.0	-1.636E+00	65.4
Sb	124	3.802E-01	65.6	-7.997E-01	78.2	1.237E+00	29.0	1.429E+00	17.7
Cs	134	3.023E-01	58.5	2.240E+00	12.2	4.196E+00	7.3	2.286E+00	8.8
Ra	134	1.056E+02	52.3	3.172E+02	15.1	1.622E+02	20.4	5.440E+02	8.1
Ce	141	8.596E+00	5.9	6.244E+01	4.3	5.056E+01	4.2	3.540E+01	4.1
Nd	147	6.662E+00	75.3	-1.835E+01	71.9	9.280E+00	76.6	8.715E+00	77.0
Tu	152	9.788E-02	32.0	5.857E-01	13.5	4.767E-01	13.6	3.268E-01	15.2
Tb	160	1.894E-01	22.9	6.923E-01	18.0	7.526E-01	15.7	5.815E-01	20.1
Yb	169	5.806E-01	13.1	3.989E+00	6.2	3.934E+00	5.2	3.570E+00	5.1
Lu	177	-4.207E-02	87.0	7.660E-01	6.2	5.471E-01	6.0	5.077E-01	5.6
Hf	181	6.942E-01	9.8	3.173E+00	5.8	3.473E+00	5.0	2.971E+00	4.9
Ta	182	-3.607E-01	36.7	8.091E-01	17.3	1.025E+00	14.1	7.152E-01	16.1
Hg	203	-4.528E-01	100.8	-8.570E-01	100.8	-6.376E-01	100.8	-6.206E-01	100.8
Th	233	2.155E+00	5.4	1.412E+01	3.4	1.249E+01	3.4	1.017E+01	3.4

FILE ID	6101090		6101100		6101110		6101120	
SAMPLE	065		066		067		068	
DUPLICATE	130		113		118		124	
CLUSTER	10		10		01		10	
TYPE	L		L		L		L	
ELEMENT								
Na- 24	1.077E+03	4.8	4.396E+02	7.5	5.193E+03	3.3	3.151E+03	3.8
Mg- 27	2.254E+03	25.7	3.303E+03	18.5	-1.755E+03	92.9	3.110E+03	33.1
Al- 28	3.817E+04	4.3	3.329E+04	4.7	3.470E+04	4.5	3.082E+04	5.1
Cl- 38	1.127E+02	22.1	1.057E+02	21.7	1.034E+02	17.0	9.065E+01	31.4
K - 42	-3.403E+03	97.2	-3.845E+03	97.1	-3.000E+03	97.2	-4.216E+03	97.1
Ca- 49	1.473E+04	12.6	1.378E+04	13.6	1.172E+04	13.2	1.115E+04	16.1
Ti- 51	1.523E+03	14.6	1.175E+03	16.5	1.631E+03	11.2	1.283E+03	19.7
V - 52	1.922E+01	14.0	2.355E+01	15.4	2.706E+01	10.8	2.049E+01	15.2
Mn- 56	4.282E+02	3.5	6.138E+02	3.5	2.378E+02	3.6	5.050E+02	3.5
Cu- 66	-1.920E+02	100.8	-1.976E+02	100.8	-2.205E+02	100.8	-2.486E+02	100.8
Sr- 87	-2.678E+02	100.3	-3.047E+02	100.3	-2.383E+02	100.3	-3.313E+02	100.3
In- 116	1.191E-01	29.5	1.710E-01	25.2	2.092E-01	22.1	-1.696E-01	56.1
I - 128	-1.754E+01	93.2	-1.995E+01	93.3	-1.554E+01	93.2	-2.128E+01	93.4
Ba- 139	3.246E+02	18.0	-1.199E+02	100.1	5.180E+02	9.9	5.195E+02	9.6
Dy- 165	3.606E+00	10.7	3.724E+00	9.6	3.720E+00	10.3	3.781E+00	10.2
U - 235	4.783E+00	2.8	4.161E+00	2.8	4.777E+00	2.8	3.176E+00	2.8
Ga- 72	-1.717E+01	79.9	-1.131E+01	80.4	-2.146E+01	79.3	-2.468E+01	79.4
As- 76	8.404E+00	10.0	4.404E+00	11.4	6.555E+00	10.5	6.277E+00	12.0
Br- 82	6.081E+00	11.2	5.693E+00	10.2	3.610E+00	12.8	5.226E+00	14.4
Mo- 99	-8.304E+00	88.5	-4.665E+00	89.6	5.343E+00	15.5	-1.013E+01	89.3
Sb- 122	9.414E-01	11.1	9.078E-01	10.3	1.357E+00	9.8	1.523E+00	11.1
La- 140	2.152E+01	4.3	1.426E+01	4.5	2.231E+01	4.2	1.387E+01	5.1
Sm- 153	3.286E+00	5.3	2.649E+00	4.9	3.576E+00	5.0	2.313E+00	5.7
Yb- 175	2.826E+00	6.6	1.888E+00	7.4	3.371E+00	5.7	2.692E+00	7.5
Lu- 177	4.131E-01	8.5	3.486E-01	8.3	6.446E-01	6.4	3.700E-01	11.3
W - 187	-1.876E+00	52.7	2.139E+00	22.7	1.157E+01	11.5	5.550E+00	19.3
Au- 198	-9.514E-03	100.2	-6.230E-03	100.2	-1.069E-02	100.2	-1.244E-02	100.2
Sc- 46	4.806E+00	3.9	4.464E+00	3.9	4.908E+00	3.9	4.522E+00	4.0
Cr- 51	6.767E+00	20.6	4.876E+00	15.4	8.201E+00	12.9	8.449E+00	15.5
Fe- 59	4.759E+03	4.9	4.689E+03	4.6	8.188E+03	4.2	6.313E+03	4.9
Co- 60	1.453E+00	10.3	1.263E+00	9.8	1.702E+00	7.9	1.272E+00	13.2
Zn- 65	2.408E+01	33.9	4.088E+01	18.2	9.860E+01	11.5	-1.416E+01	70.2
Se- 75	2.256E+00	46.0	2.403E+00	38.5	2.037E+00	25.1	3.203E+00	35.3
Rb- 86	-1.149E+01	100.0	-7.353E+00	100.0	2.152E+01	18.9	2.120E+01	27.3
Zr- 95	-1.831E+02	71.6	-7.783E+01	100.3	-1.565E+02	71.6	-2.151E+02	71.6
Ag- 110	-2.100E+00	65.1	-1.495E+00	64.8	-1.800E+00	65.1	-2.429E+00	65.0
Sb- 124	-6.441E-01	77.9	-5.381E-01	72.2	1.445E+00	23.4	-8.601E-01	78.2
Cs- 134	1.367E+00	14.4	1.033E+00	16.7	1.351E+00	13.2	1.626E+00	15.2
Ba- 131	3.254E+02	15.5	1.202E+02	22.6	4.945E+02	8.8	4.851E+02	12.9
Ce- 141	4.575E+01	4.5	2.952E+01	4.5	4.928E+01	4.0	2.865E+01	5.9
Nd- 147	4.303E+01	28.0	-8.639E+00	75.5	2.989E+01	25.1	-2.067E+01	71.5
Eu- 152	4.587E-01	15.9	3.050E-01	17.2	4.413E-01	13.7	3.707E-01	20.0
Tb- 160	6.859E-01	16.6	3.557E-01	21.8	8.413E-01	13.8	5.365E-01	22.8
Yb- 169	3.170E+00	7.4	1.983E+00	7.8	3.873E+00	4.7	2.894E+00	9.4
Lu- 177	4.918E-01	7.6	3.364E-01	7.2	6.260E-01	5.4	4.736E-01	9.1
Hf- 181	3.083E+00	5.6	2.280E+00	5.8	4.252E+00	4.5	3.139E+00	6.5
Ta- 182	1.047E+00	16.0	7.045E-01	17.7	1.121E+00	12.8	8.774E-01	25.7
Hg- 203	-8.371E-01	100.8	-5.710E-01	100.8	-6.675E-01	100.8	-9.952E-01	100.8
Th- 233	1.371E+01	3.5	1.009E+01	3.4	1.331E+01	3.3	9.512E+00	4.0

FILE ID	6101130	6101140	6101150	6101160
SAMPLE	069	070	071	072
DUPLICATE	122	108	136	140
CLUSTER	05	07	10	05
TYPE	L	L	L	L
ELEMENT				
Na- 24	2.707E+03 3.6	3.287E+03 3.5	1.620E+03 4.0	1.806E+03 3.9
Mg- 27	4.564E+03 16.9	-1.643E+03 93.4	1.935E+03 25.7	4.158E+03 15.2
Al- 28	4.991E+04 4.0	3.424E+04 4.5	4.157E+04 4.0	6.151E+04 3.7
Cl- 38	4.951E+01 34.7	-6.331E+01 74.1	4.954E+01 76.5	-5.053E+01 74.9
K- 42	-3.549E+03 97.1	-3.499E+03 97.1	-3.302E+03 97.2	5.538E+03 24.8
Ca- 49	1.356E+04 13.0	1.623E+04 11.2	1.646E+04 11.2	1.343E+04 12.5
Ti- 51	1.308E+03 14.2	2.638E+03 9.2	2.066E+03 10.7	2.420E+03 8.1
V- 52	2.804E+01 10.6	3.728E+01 8.8	4.765E+01 7.8	5.316E+01 7.2
Mn- 56	4.144E+02 3.5	4.702E+02 3.5	4.601E+02 3.5	3.797E+02 3.5
Cu- 66	-2.091E+02 100.8	-2.154E+02 100.8	-1.883E+02 100.8	-1.784E+02 100.8
Sr- 87	-2.693E+02 100.3	-2.708E+02 100.3	-2.617E+02 100.3	-2.306E+02 100.3
In- 116	-1.396E-01 55.9	2.484E-01 24.1	1.031E-01 31.2	1.776E-01 28.1
I- 128	-1.775E+01 93.2	-1.767E+01 93.3	-1.711E+01 93.3	-1.496E+01 93.2
Ba- 139	-1.199E+02 100.1	2.618E+02 13.5	-1.182E+02 100.1	2.469E+02 13.4
Dy- 165	3.958E+00 9.9	3.245E+00 9.8	2.365E+00 13.2	4.782E+00 7.6
U- 235	4.662E+00 2.8	2.615E+00 2.8	2.722E+00 2.8	3.900E+00 2.8
Ga- 72	-1.611E+01 79.8	1.898E+01 23.8	1.695E+01 80.2	-1.434E+01 80.3
As- 76	3.110E+00 12.4	3.707E+00 11.6	4.822E+00 12.2	3.459E+00 13.8
Br- 82	2.331E+00 17.7	7.933E+00 10.3	4.266E+00 13.8	2.426E+00 15.8
Mo- 99	4.620E+00 14.1	-5.710E+00 90.8	7.343E+00 89.2	-5.128E+00 90.2
Sb- 122	7.286E-01 13.1	1.251E+00 9.6	6.929E-01 17.0	1.167E+00 9.6
La- 140	2.532E+01 4.1	1.391E+01 4.5	1.741E+01 4.4	2.711E+01 3.9
Sm- 153	4.434E+00 4.7	2.228E+00 5.0	2.131E+00 5.1	4.679E+00 4.7
Yb- 175	2.816E+00 6.1	2.351E+00 6.4	2.059E+00 6.8	3.456E+00 5.5
Lu- 177	5.136E-01 7.5	4.609E-01 6.7	3.779E-01 8.8	5.425E-01 6.1
W- 187	-1.639E+00 57.4	3.750E+00 18.4	4.439E+00 21.5	-1.784E+00 55.0
Au- 198	-8.133E-03 100.2	-8.785E-03 100.2	-8.763E-03 100.2	-7.204E-03 100.2
Sc- 46	6.631E+00 3.9	5.955E+00 3.9	5.404E+00 3.9	7.666E+00 3.8
Cr- 51	1.237E+01 10.7	2.127E+01 6.5	1.874E+01 8.0	1.845E+01 7.6
Fe- 59	1.170E+04 4.0	5.483E+03 4.4	6.687E+03 4.4	1.360E+04 3.9
Co- 60	2.985E+00 6.3	2.469E+00 6.5	3.670E+00 6.1	2.987E+00 6.1
Zn- 65	7.375E+01 13.5	-5.712E+00 88.2	2.254E+01 30.1	-9.253E+00 100.4
Se- 75	-3.912E+00 101.4	3.109E+00 26.1	-2.634E+00 84.9	3.270E+00 34.9
Rb- 86	2.804E+01 17.5	3.462E+01 12.7	2.468E+01 17.1	4.318E+01 12.4
Zr- 95	-1.157E+02 100.3	-1.524E+02 71.5	-1.765E+02 71.7	-1.220E+02 98.0
Ag- 110	-1.759E+00 65.1	-1.785E+00 65.1	-2.042E+00 64.9	-1.424E+00 95.3
Sb- 124	5.607E-01 27.8	1.032E+00 27.6	-5.562E-01 82.9	1.057E+00 23.2
Cs- 134	2.590E+00 10.0	2.777E+00 8.9	3.209E+00 8.6	5.712E+00 6.1
Ba- 131	2.555E+02 14.3	3.044E+02 13.2	1.706E+02 24.5	1.953E+02 21.3
Ce- 141	5.103E+01 4.2	2.927E+01 4.5	3.139E+01 4.6	5.635E+01 4.2
Nd- 147	-9.686E+00 76.9	-9.006E+00 77.6	-1.536E+01 73.5	2.313E+01 28.4
Eu- 152	6.891E-01 11.0	4.263E-01 13.2	3.662E-01 15.9	6.966E-01 9.5
Tb- 160	6.838E-01 18.0	5.757E-01 18.1	2.830E-01 23.7	7.251E-01 15.4
Yb- 169	3.252E+00 6.0	2.764E+00 6.4	2.985E+00 7.1	3.895E+00 5.2
Lu- 177	4.918E-01 6.3	4.542E-01 6.0	4.249E-01 7.7	6.228E-01 6.2
Hf- 181	3.691E+00 4.8	3.132E+00 4.9	2.549E+00 6.1	5.524E+00 4.0
Ta- 182	7.698E-01 15.8	1.267E+00 12.0	7.599E-01 17.1	1.126E+00 11.3
Hg- 203	-6.625E-01 100.8	-6.430E-01 100.8	-7.769E-01 100.8	-6.549E-01 100.8
Th- 233	1.474E+01 3.3	1.098E+01 3.4	8.969E+00 3.6	1.537E+01 3.3

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101170
073
147
10
L

6101180
074
119
05
L

6101190
075
153
10
L

6101200
076
109
05
L

ELEMENT

Na- 24	2.826E+03	3.5	2.524E+03	3.7	1.879E+03	4.0	1.109E+03	4.4
Mg- 27	2.233E+03	26.7	-1.629E+03	93.4	-1.613E+03	94.3	3.713E+03	15.5
Al- 28	4.518E+04	4.0	4.565E+04	4.1	1.800E+04	5.7	4.716E+04	3.9
Cl- 38	8.050E+01	26.5	6.970E+01	23.1	-5.849E+01	75.2	-4.271E+01	77.5
K - 42	-3.239E+03	97.1	-3.623E+03	97.0	-3.396E+03	97.4	-3.223E+03	97.2
Ca- 49	1.371E+04	11.5	1.426E+04	12.6	1.319E+04	13.1	1.216E+04	11.9
Ti- 51	1.862E+03	11.5	2.339E+03	9.1	1.069E+03	15.7	2.473E+03	8.7
V - 52	2.571E+01	10.3	3.586E+01	9.9	2.282E+01	13.8	4.536E+01	7.7
Mn- 56	4.107E+02	3.5	5.263E+02	3.5	5.035E+02	3.5	5.051E+02	3.5
Cu- 66	-1.982E+02	100.8	-2.083E+02	100.8	-2.045E+02	100.8	-1.836E+02	100.8
Sr- 87	-2.525E+02	100.3	-2.736E+02	100.3	-2.957E+02	100.3	-2.606E+02	100.3
In-116	-1.315E-01	56.0	-1.377E-01	56.1	-1.401E-01	56.3	1.407E-01	25.3
I - 128	-1.650E+01	93.1	-1.823E+01	93.3	-1.944E+01	93.2	-1.693E+01	93.3
Ba-139	2.083E+02	18.0	3.129E+02	10.8	-1.302E+02	100.1	-1.153E+02	100.1
Dy-165	3.359E+00	11.4	5.659E+00	7.9	2.091E+00	16.1	4.961E+00	8.8
U - 235	4.827E+00	2.8	3.844E+00	2.8	1.612E+00	2.8	3.023E+00	2.8
Ga- 72	1.685E+01	25.5	-2.182E+01	79.6	-1.371E+01	79.5	9.521E+00	23.3
As- 76	4.395E+00	10.8	5.088E+00	12.0	1.584E+00	17.5	5.250E+00	9.1
Br- 82	4.322E+00	11.9	7.868E+00	10.4	2.893E+00	16.5	2.560E+00	13.9
Mo- 99	1.406E+00	14.7	-9.187E+00	88.9	-4.720E+00	90.1	-5.298E+00	90.6
Sb-122	5.260E-01	15.6	1.076E+00	13.3	3.161E-01	20.2	9.481E-01	10.0
La-140	2.064E+01	4.1	3.163E+01	4.0	9.435E+00	5.1	3.192E+01	3.8
Sm-153	3.444E+00	5.0	4.300E+00	5.1	2.171E+00	4.9	4.795E+00	4.7
Yb-175	2.505E+00	5.8	3.585E+00	6.2	2.986E+00	5.6	3.921E+00	4.8
Lu-177	4.368E-01	7.0	5.878E-01	6.4	4.479E-01	6.7	5.315E-01	5.9
W - 187	3.549E+00	15.9	-2.469E+00	60.9	3.868E+00	18.4	2.608E+00	16.8
Au-198	-8.054E-03	100.2	-1.072E-02	100.2	-6.507E-03	100.2	-7.810E-03	100.2
Sc- 46	5.822E+00	3.9	6.445E+00	3.9	3.970E+00	3.9	7.282E+00	3.8
Cr- 51	1.078E+01	8.8	1.910E+01	8.3	1.348E+01	9.3	2.104E+01	6.7
Fe- 59	9.434E+03	4.0	1.084E+04	4.1	2.085E+03	5.6	1.268E+04	3.9
Co- 60	2.089E+00	6.7	3.468E+00	6.4	4.636E+00	5.6	2.576E+00	6.1
Zn- 65	9.202E+01	11.0	3.199E+01	24.1	3.110E+01	21.0	6.326E+00	24.7
Se- 75	2.172E+00	49.0	4.712E+00	39.3	2.903E+00	36.6	2.132E+00	38.6
Rb- 86	2.041E+01	14.9	3.762E+01	17.1	-7.369E+00	100.0	3.122E+01	13.4
Zr- 95	-1.456E+02	71.6	-2.031E+02	71.5	1.129E+02	27.5	2.520E+02	19.4
Ag-110	-1.693E+00	65.2	-2.286E+00	65.4	-1.418E+00	64.8	-1.868E+00	65.1
Sb-124	-5.354E-01	76.4	1.135E+00	27.4	5.229E-01	32.9	9.522E-01	27.2
Cs-134	1.600E+00	11.0	3.655E+00	8.3	1.169E+00	15.8	4.210E+00	6.7
Ba-131	1.839E+02	16.2	4.173E+02	13.3	1.334E+02	21.7	1.674E+02	24.3
Ce-141	4.608E+01	4.2	6.871E+01	4.2	2.115E+01	4.7	6.780E+01	4.0
Nd-147	-8.878E+00	77.0	-1.783E+01	73.2	-7.842E+00	76.7	2.233E+01	23.4
Eu-152	4.934E-01	10.6	7.656E-01	10.7	2.965E-01	18.2	8.866E-01	8.6
Tb-160	4.320E-01	17.7	7.479E-01	15.4	2.806E-01	27.3	9.797E-01	12.6
Yb-169	2.821E+00	5.8	3.982E+00	6.0	3.158E+00	5.1	4.789E+00	4.5
Lu-177	4.399E-01	6.1	6.016E-01	6.4	5.198E-01	5.8	5.776E-01	5.2
Hf-181	4.350E+00	4.1	3.893E+00	5.1	2.012E+00	6.1	4.351E+00	4.1
Ta-182	1.103E+00	11.6	1.136E+00	14.7	3.682E-01	27.7	8.066E-01	13.7
Hg-203	-6.108E-01	100.8	-8.882E-01	100.8	-5.378E-01	100.8	-6.719E-01	100.8
Th-233	1.442E+01	3.2	1.229E+01	3.5	4.985E+00	4.1	1.057E+01	3.4

FILE ID	6101210		6101220		6101230		5101240	
SAMPLE	077		078		079		080	
DUPLICATE	120		133		146		141	
CLUSTER	10		10		10		05	
TYPE	L		L		L		L	
ELEMENT								
Na- 24	6.564E+02	5.5	1.957E+03	3.8	3.386E+03	3.4	1.564E+03	4.1
Mg- 27	3.723E+03	12.6	-1.463E+03	94.4	-1.324E+03	92.8	2.758E+03	18.3
Al- 28	3.565E+04	4.2	2.809E+04	1.6	3.924E+04	4.0	4.428E+04	4.0
Cl- 38	-3.878E+01	77.7	-5.054E+01	75.8	8.150E+01	25.2	8.719E+01	20.1
K - 42	-3.125E+03	97.1	-3.328E+03	97.2	-2.683E+03	97.0	4.317E+03	21.4
Ca- 49	1.425E+04	11.8	1.629E+04	10.7	1.426E+04	12.4	5.341E+03	16.2
Ti- 51	1.523E+03	9.7	1.578E+03	14.0	1.916E+03	8.9	1.424E+03	10.0
V - 52	4.981E+01	7.6	2.255E+01	12.9	4.185E+01	8.4	3.857E+01	8.0
Mn- 56	4.769E+02	3.5	5.097E+02	3.5	2.685E+02	3.5	1.123E+02	3.7
Cu- 66	-1.640E+02	100.8	-1.882E+02	100.8	-1.722E+02	100.8	-1.426E+02	100.8
Sr- 87	-2.413E+02	100.3	-2.660E+02	100.3	-1.961E+02	100.3	-1.557E+02	100.3
In-116	1.044E-01	29.1	8.297E-02	33.2	1.927E-01	19.7	1.203E-01	25.7
I - 128	-1.599E+01	93.3	-1.753E+01	93.3	-1.285E+01	93.2	-9.989E+00	93.1
Ba-139	-9.512E+01	100.1	2.139E+02	19.5	3.274E+02	9.6	-7.407E+01	100.1
Dy-165	3.484E+00	9.2	2.651E+00	13.1	4.022E+00	8.1	6.901E+00	7.1
U -235	2.721E+00	2.8	3.427E+00	2.8	3.900E+00	2.8	3.805E+00	2.8
Ga- 72	-8.209E+00	79.7	-7.392E+00	79.3	-1.006E+01	79.2	-1.166E+01	80.1
As- 76	4.635E+00	10.6	4.739E+00	9.9	3.771E+00	10.5	5.175E+00	10.7
Br- 82	3.250E+00	11.4	5.124E+00	9.8	4.094E+00	10.8	4.849E+00	16.3
Mo- 99	-6.440E+00	89.2	-4.361E+00	90.5	-5.540E+00	90.8	-9.420E+00	89.0
Sb-122	5.556E-01	13.1	6.335E-01	12.0	1.006E+00	8.8	4.867E-01	26.5
La-140	1.792E+01	4.1	1.316E+01	4.3	2.201E+01	3.9	5.956E+01	3.7
Sm-153	2.629E+00	5.0	2.355E+00	5.2	3.805E+00	5.1	5.633E+00	4.7
Yb-175	2.401E+00	6.6	1.953E+00	6.5	2.330E+00	6.3	4.172E+00	5.6
Lu-177	4.014E-01	7.9	3.088E-01	9.5	2.889E-01	10.2	5.747E-01	8.0
W -187	2.437E+00	17.6	2.315E+00	19.6	1.938E+00	24.7	5.946E+00	13.1
Au-198	-7.607E-03	100.2	-6.415E-03	100.2	-8.475E-03	100.2	-1.117E-02	100.2
Sc- 46	5.517E+00	3.9	4.303E+00	3.9	5.902E+00	3.9	4.804E+00	3.9
Cr- 51	2.068E+01	8.2	8.871E+00	11.3	1.720E+01	6.8	1.874E+01	8.5
Fe- 59	1.035E+04	4.1	4.868E+03	4.5	6.698E+03	4.1	1.201E+04	4.1
Co- 60	2.332E+00	7.2	1.038E+00	9.4	3.565E+00	5.4	4.729E+00	5.8
Zn- 65	4.973E+01	15.8	-1.072E+01	54.8	7.329E+01	11.7	6.055E+01	16.1
Se- 75	2.858E+00	36.4	4.042E+00	20.6	3.147E+00	24.2	-2.621E+00	92.9
Rb- 86	0.813E+01	22.5	-6.573E+00	100.0	2.690E+01	14.4	2.709E+01	18.2
Zr- 95	-1.815E+02	71.6	-1.140E+02	71.5	1.342E+02	28.3	-1.297E+02	100.3
Ag-110	-2.109E+00	65.2	-1.324E+00	65.0	-1.613E+00	65.0	-2.059E+00	65.2
Sb-124	-6.574E-01	79.7	-4.217E-01	78.6	-4.266E-01	84.2	-4.796E-01	89.9
Cs-134	3.283E+00	8.3	1.237E+00	13.3	2.845E+00	7.5	3.274E+00	8.6
Ba-131	-1.850E+02	53.6	1.289E+02	21.7	3.267E+02	11.3	-1.713E+02	66.7
Ce-141	3.915E+01	4.8	2.545E+01	4.6	4.891E+01	3.9	1.096E+02	3.9
Nd-147	-1.520E+01	73.6	-7.398E+00	76.1	1.805E+01	30.5	4.359E+01	20.5
Eu-152	4.924E-01	13.8	3.045E-01	14.7	5.818E-01	10.0	1.007E+00	9.4
Tb-160	2.627E-01	28.5	2.953E-01	20.2	4.259E-01	19.7	1.190E+00	12.8
Yb-169	2.700E+00	7.1	2.004E+00	6.6	2.708E+00	5.6	4.344E+00	5.2
Lu-177	3.716E-01	8.5	3.592E-01	6.8	3.353E-01	6.3	6.373E-01	5.8
Hf-181	2.300E+00	6.4	2.133E+00	5.6	3.999E+00	4.2	2.588E+00	5.9
Ta-182	5.391E-01	21.2	6.446E-01	17.0	8.589E-01	12.0	7.869E-01	19.5
Hg-203	-7.948E-01	100.8	-7.995E-01	100.8	-5.800E-01	100.8	-8.174E-01	100.8
Th-233	9.355E+00	3.6	8.847E+00	3.4	1.229E+01	3.3	9.056E+00	3.7

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101250
081
135
10
L

6101260
082
150
10
L

6101270
083
148
10
L

6101280
084
151
05
L

ELEMENT

Na- 24	3.684E+03	3.4	5.297E+02	6.1	3.104E+03	3.5	2.617E+03	3.5
Mg- 27	-1.536E+03	93.0	-1.174E+03	94.8	-1.484E+03	93.0	2.176E+03	18.9
Al- 28	3.349E+04	4.4	9.768E+03	7.0	3.928E+04	4.1	3.285E+04	4.2
Cl- 38	-5.759E+01	73.9	8.188E+01	24.1	-5.792E+01	73.6	-4.635E+01	74.1
K - 42	4.096E+03	26.5	-2.693E+03	97.4	-3.080E+03	97.1	-2.576E+03	97.2
Ca- 49	1.383E+04	11.8	2.091E+04	10.0	1.259E+04	11.9	1.504E+04	10.2
Ti- 51	1.593E+03	11.2	7.294E+02	19.4	1.593E+03	9.5	7.03E+03	10.9
V - 52	3.334E+01	10.7	1.150E+01	17.3	2.464E+01	11.0	4.175E+01	7.7
Mn- 56	4.039E+02	3.5	3.815E+02	3.5	4.123E+02	3.5	2.702E+02	3.5
Cu- 66	-1.979E+02	100.8	-1.520E+02	100.8	-1.856E+02	100.8	-1.664E+02	100.8
Sr- 87	-2.415E+02	100.3	-2.330E+02	100.3	-2.346E+02	100.3	2.016E+02	28.3
In-116	-1.315E-01	55.7	-1.054E-01	56.6	-1.253E-01	55.8	1.096E-01	24.4
I -128	-1.591E+01	93.2	-1.505E+01	93.3	-1.541E+01	93.3	-1.311E+01	93.2
Ba-139	-9.665E+01	100.1	-1.035E+02	100.1	5.686E+02	9.0	2.622E+02	14.8
Dy-165	4.370E+00	8.2	-9.147E-01	67.4	3.582E+00	8.5	4.501E+00	8.5
U -235	3.596E+00	2.8	1.147E+00	2.8	3.255E+00	2.8	2.088E+00	2.8
Ga- 72	-9.047E+00	79.4	-5.717E+00	79.7	-1.183E+01	79.4	-8.686E+00	79.4
As- 76	3.276E+00	10.8	3.072E+00	10.5	2.573E+00	13.0	2.795E+00	11.3
Br- 82	2.679E+00	13.1	7.062E+00	8.8	4.298E+00	11.2	5.692E+00	10.5
Mo- 99	-5.037E+00	90.7	-3.469E+00	90.3	-7.980E+00	89.5	-4.799E+00	90.5
Sb-122	7.133E-01	12.3	3.566E-01	14.2	7.268E-01	12.9	4.768E-01	18.3
La-140	1.733E+01	4.0	5.578E+00	5.2	1.810E+01	4.1	1.911E+01	4.0
Sm-153	3.396E+00	4.6	1.115E+00	5.1	2.932E+00	5.1	3.285E+00	5.5
Yb-175	2.570E+00	6.3	9.737E-01	8.2	2.426E+00	7.3	4.548E+00	4.7
Lu-177	3.800E-01	7.5	1.848E-01	9.4	4.046E-01	9.2	6.655E-01	6.6
W -187	2.414E+00	19.9	1.291E+00	20.3	-1.648E+00	72.7	2.357E+00	16.8
Au-198	-7.676E-03	100.2	-4.933E-03	100.2	-1.013E-02	100.2	-7.112E-03	100.2
Sc- 46	5.219E+00	3.9	2.526E+00	3.9	5.044E+00	3.9	6.927E+00	3.8
Cr- 51	9.788E+00	9.5	6.603E+00	10.3	1.341E+01	9.8	2.004E+01	7.4
Fe- 59	6.819E+03	4.2	3.665E+03	4.6	4.057E+03	4.9	1.002E+04	4.0
Co- 60	1.723E+00	7.4	1.602E+00	7.3	1.767E+00	8.5	7.228E+00	4.7
Zn- 65	4.440E+01	15.8	5.090E+01	12.8	-9.879E+00	74.8	5.520E+01	14.7
Se- 75	7.571E+00	37.7	2.456E+00	20.5	2.650E+00	36.5	2.713E+00	24.8
Rb- 86	2.759E+01	13.9	-6.401E+00	100.0	3.260E+01	17.1	2.916E+01	14.1
Zr- 95	-1.238E+02	71.6	-1.006E+02	71.6	-1.661E+02	71.6	1.947E+02	23.1
Ag-110	-1.454E+00	65.0	-1.157E+00	65.2	-1.554E+00	96.4	-1.644E+00	64.9
Sb-124	9.752E-01	30.0	-3.473E-01	63.8	-5.629E-01	81.3	-4.741E-01	79.1
Cs-134	2.226E+00	8.8	-3.059E-01	58.1	2.207E+00	9.9	3.414E+00	7.8
Ba-131	9.328E+01	23.1	-9.940E+01	54.6	4.890E+02	11.6	2.195E+02	17.6
Ce-141	3.590E+01	4.3	1.218E+01	4.9	4.081E+01	4.3	4.295E+01	4.3
Nd-147	-7.653E+00	76.7	-5.770E+00	77.5	-1.515E+01	72.7	-8.273E+00	77.3
Eu-152	5.174E-01	10.8	1.956E-01	19.3	4.830E-01	12.8	7.271E-01	9.7
Tb-160	3.709E-01	21.4	-1.532E-01	100.2	5.543E-01	20.3	6.360E-01	16.0
Yb-169	2.790E+00	5.7	9.571E-01	9.1	2.839E+00	7.4	5.480E+00	3.9
Lu-177	4.158E-01	6.3	1.605E-01	8.9	3.951E-01	7.3	8.600E-01	4.8
Hf-181	3.215E+00	4.8	1.274E+00	6.5	3.510E+00	5.1	2.748E+00	5.2
Ta-182	7.643E-01	16.1	3.850E-01	20.4	1.129E+00	13.4	5.095E-01	16.8
Hg-203	-5.346E-01	100.8	-4.293E-01	100.8	-7.564E-01	100.8	-5.949E-01	100.8
Th-233	1.028E+01	3.4	3.767E+00	4.0	1.206E+01	3.5	7.292E+00	3.6

FILE ID	6101290	6101300	6101310	6101320
SAMPLE	085	086	087	088
DUPLICATE	110	121	134	123
CLUSTER	10	10	07	05
TYPE	L	L	L	L
ELEMENT				
Na- 24	3.045E+03	2.843E+03	1.810E+03	3.014E+03
Mg- 27	-1.232E+03	-1.475E+03	2.789E+03	3.649E+03
Al- 28	2.254E+04	3.198E+04	4.159E+04	6.326E+04
Cl- 38	-5.051E+01	1.429E+02	5.222E+01	-5.381E+01
K- 42	-2.460E+03	-3.085E+03	3.528E+03	7.872E+03
Ca- 49	1.449E+04	1.360E+04	1.482E+04	1.199E+04
Ti- 51	1.191E+03	1.525E+03	2.664E+03	2.273E+03
V- 52	2.194E+01	2.495E+01	2.817E+01	4.106E+01
Mn- 56	2.523E+02	3.788E+02	4.759E+02	3.623E+02
Cu- 66	-1.651E+02	-1.931E+02	-2.011E+02	-1.867E+02
Sr- 87	-1.911E+02	-2.502E+02	-2.687E+02	-2.291E+02
In-116	-1.042E-01	-1.279E-01	1.917E-01	1.492E-01
I-128	-1.260E+01	-1.632E+01	-1.746E+01	-1.483E+01
Ba-139	3.100E+02	2.654E+02	1.056E+02	4.408E+02
Dy-165	3.890E+00	4.341E+00	3.532E+00	4.362E+00
U-235	2.583E+00	2.561E+00	2.745E+00	4.756E+00
Ga- 72	-1.043E+01	-1.279E+01	-8.620E+00	1.725E+01
As- 76	4.470E+00	5.311E+00	3.546E+00	3.852E+00
Br- 82	6.585E+00	8.481E+00	3.023E+00	1.479E+00
Mo- 99	-5.448E+00	-8.564E+00	-4.729E+00	-5.866E+00
Sb-122	9.274E-01	7.817E-01	5.519E-01	7.573E-01
La-140	1.264E+01	2.342E+01	1.569E+01	2.911E+01
Sm-153	2.863E+00	3.628E+00	2.475E+00	4.488E+00
Yb-175	3.279E+00	2.769E+00	2.066E+00	3.941E+00
Lu-177	5.526E-01	3.948E-01	3.372E-01	6.753E-01
W-187	2.504E+00	-1.584E+00	1.973E+00	3.811E+00
Au-198	-8.546E-03	-1.085E-02	6.987E-03	-8.861E-03
Sc- 46	5.010E+00	4.710E+00	5.796E+00	7.928E+00
Cr- 51	9.163E+00	8.000E+00	1.566E+01	2.488E+01
Fe- 59	5.384E+03	6.859E+03	7.468E+03	1.876E+04
Co- 60	2.164E+00	1.649E+00	2.192E+00	4.921E+00
Zn- 65	-9.758E+00	3.129E+01	-8.773E+00	1.216E+02
Se- 75	1.827E+00	-3.260E+00	2.459E+00	2.024E+00
Rb- 86	1.778E+01	4.753E+01	2.085E+01	5.711E+01
Zr- 95	-1.337E+02	-1.755E+02	-1.416E+02	-1.316E+02
Ag-110	-1.570E+00	-2.005E+00	-1.635E+00	-1.927E+00
Sb-124	-5.742E-01	-6.001E-01	-5.024E-01	-5.383E-01
Cs-134	7.702E-01	3.238E+00	2.193E+00	6.344E+00
Ba-131	3.429E+02	1.749E+02	1.499E+02	4.659E+02
Ce-141	2.575E+01	5.157E+01	3.028E+01	5.964E+01
Nd-147	-7.823E+00	-1.596E+01	-8.609E+00	-9.492E+00
Eu-152	4.203E-01	6.670E-01	3.730E-01	7.692E-01
Tb-160	5.440E-01	7.057E-01	5.274E-01	6.474E-01
Yb-169	3.609E+00	3.245E+00	2.258E+00	4.778E+00
Lu-177	5.305E-01	4.554E-01	3.580E-01	6.669E-01
Hf-181	2.411E+00	4.964E+00	2.609E+00	4.752E+00
Ta-182	5.435E-01	5.491E-01	9.241E-01	1.283E+00
Hg-203	-5.582E-01	-8.002E-01	-6.220E-01	-6.868E-01
Th-233	7.734E+00	9.491E+00	1.182E+01	1.497E+01

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101330
089
117
10
L

6101340
090
128
10
L

6101350
091
116
05
L

6101360
092
127
10
L

ELEMENT

Na- 24	2.789E+03	3.6	2.198E+03	3.7	1.562E+03	4.4	5.319E+03	3.2
Mg- 27	-1.427E+03	93.6	2.440E+03	22.2	-1.576E+03	94.0	3.484E+03	17.8
Al- 28	1.451E+04	6.1	3.797E+04	4.2	2.191E+04	5.4	5.966E+04	3.7
Cl- 38	-5.955E+01	73.6	-5.357E+01	75.2	1.598E+02	19.5	1.320E+02	26.1
K - 42	-3.090E+03	97.3	-3.339E+03	97.1	-3.601E+03	97.3	6.720E+03	21.3
Ca- 49	1.730E+04	10.8	1.420E+04	10.9	1.553E+04	12.3	1.111E+04	12.5
Ti- 51	9.384E+02	16.1	2.123E+03	10.2	1.350E+03	13.2	2.240E+03	8.8
V - 52	2.037E+01	12.7	4.201E+01	8.5	3.498E+01	11.9	3.229E+01	9.9
Mn- 56	4.276E+02	3.5	4.445E+02	3.5	5.539E+02	3.5	2.793E+02	3.5
Cu- 66	-1.908E+02	100.8	-1.953E+02	100.8	-2.079E+02	100.8	-2.030E+02	100.8
Sr- 87	-2.525E+02	100.3	-2.613E+02	100.3	-2.962E+02	100.3	-2.248E+02	100.3
In-116	-1.257E-01	56.2	1.400E-01	23.1	-1.412E-01	56.3	-1.258E-01	55.9
I -128	-1.640E+01	93.3	-1.727E+01	93.2	-1.969E+01	93.2	-1.453E+01	93.2
Ba-139	2.477E+02	12.9	2.326E+02	19.7	-1.173E+02	100.1	5.394E+02	9.5
Dy-165	4.867E+00	7.9	-1.040E+00	67.3	6.556E+00	7.7	3.538E+00	10.3
U -235	2.364E+00	2.8	2.882E+00	2.8	2.870E+00	2.8	6.069E+00	2.8
Ga- 72	-1.229E+01	78.8	-8.617E+00	79.5	-1.133E+01	79.5	-1.529E+01	78.9
As- 76	3.619E+00	13.0	3.364E+00	11.2	6.959E+00	9.2	2.978E+00	14.2
Br- 82	5.064E+00	10.8	2.102E+00	18.7	4.427E+00	11.1	3.143E+00	17.4
Mo- 99	-7.866E+00	89.3	-4.465E+00	90.7	-6.287E+00	90.4	-9.287E+00	89.6
Sb-122	1.248E+00	8.7	7.564E-01	12.5	1.026E+00	11.8	6.182E-01	15.6
La-140	7.876E+00	5.2	1.333E+01	4.3	2.854E+01	3.9	2.553E+01	3.9
Sm-153	2.296E+00	4.9	1.883E+00	5.2	4.906E+00	4.8	3.297E+00	5.1
Yb-175	4.076E+00	5.4	1.464E+00	8.0	4.985E+00	4.8	2.406E+00	8.3
Lu-177	6.470E-01	6.1	2.550E-01	10.3	7.512E-01	5.6	3.862E-01	12.1
W -187	3.322E+00	18.6	2.568E+00	17.1	2.707E+00	21.8	2.426E+00	27.9
Au-198	-9.699E-03	100.2	-6.850E-03	100.2	-9.002E-03	100.2	-1.186E-02	100.2
Sc- 46	4.780E+00	3.9	5.726E+00	3.9	6.141E+00	3.9	5.805E+00	3.9
Cr- 51	6.591E+00	12.6	2.326E+01	6.4	1.595E+01	9.0	1.412E+01	10.4
Fe- 59	2.791E+03	5.5	6.885E+03	4.2	1.458E+04	3.9	8.807E+03	4.2
Co- 60	1.179E+00	11.1	1.960E+00	7.2	3.516E+00	6.0	1.742E+00	8.0
Zn- 65	2.077E+01	35.6	3.477E+01	19.1	8.964E+01	11.9	2.359E+01	29.5
Se- 75	-2.385E+00	98.6	2.061E+00	39.4	4.009E+00	38.2	-2.390E+00	101.4
Rb- 86	-1.009E+01	100.0	2.184E+01	17.2	2.571E+01	17.2	4.807E+01	11.3
Zr- 95	2.686E+02	23.5	-1.332E+02	71.6	-1.364E+02	100.3	-1.776E+02	71.7
Ag-110	-1.968E+00	64.8	-1.532E+00	64.8	-2.028E+00	65.5	-2.056E+00	65.0
Sb-124	-7.048E-01	68.2	-4.617E-01	81.1	-5.698E-01	84.7	-5.541E-01	82.2
Cs-134	6.593E-01	27.7	3.839E+00	7.6	2.162E+00	10.9	3.736E+00	8.1
Ba-131	3.237E+02	16.7	-1.167E+02	63.1	1.301E+02	21.6	6.168E+02	9.5
Ce-141	1.647E+01	5.6	2.416E+01	4.9	6.278E+01	3.9	5.446E+01	4.3
Nd-147	-1.509E+01	73.2	-8.004E+00	77.3	-1.027E+01	77.4	-1.657E+01	72.6
Eu-152	3.627E-01	15.7	3.034E-01	14.0	8.793E-01	9.8	5.558E-01	12.6
Tb-160	6.845E-01	17.2	4.177E-01	19.9	9.157E-01	13.0	4.894E-01	21.2
Yb-169	4.960E+00	4.9	1.363E+00	11.9	5.235E+00	4.4	2.476E+00	7.6
Lu-177	6.778E-01	6.0	2.735E-01	8.9	7.692E-01	5.2	4.163E-01	7.7
Hf-181	3.015E+00	5.8	2.881E+00	5.2	3.806E+00	4.7	3.870E+00	4.9
Ta-182	-4.694E-01	39.8	1.221E+00	11.7	6.196E-01	25.6	1.448E+00	11.3
Hg-203	-7.525E-01	100.8	-5.673E-01	100.8	-7.473E-01	100.8	-8.193E-01	100.8
Th-233	5.310E+00	4.3	8.473E+00	3.5	8.224E+00	3.6	2.087E+01	3.2

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101370
093
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ELEMENT

Na- 24	2.424E+03	3.8	7.813E+03	3.2	6.549E+03	3.2	1.368E+04	3.0
Mg- 27	-1.531E+03	93.3	-2.219E+03	92.3	1.194E+04	8.7	3.158E+03	23.7
Al- 28	3.680E+04	4.4	1.172E+05	3.5	9.749E+04	3.5	8.923E+04	3.6
Cl- 38	-5.348E+01	75.1	-8.473E+01	72.3	-7.319E+01	72.3	7.214E+02	8.2
K - 42	-3.357E+03	97.0	9.956E+03	17.8	8.463E+03	18.9	3.204E+04	8.4
Ca- 49	1.425E+04	13.0	1.101E+04	13.5	1.227E+04	13.0	7.740E+03	17.9
Ti- 51	2.462E+03	9.1	1.548E+03	15.3	2.326E+03	9.1	-6.853E+02	96.0
V - 52	4.610E+01	9.2	-7.352E+00	100.0	3.324E+01	9.8	1.180E+01	21.0
Mn- 56	3.680E+02	3.5	2.159E+02	3.6	2.453E+02	3.6	4.339E+02	3.5
Cu- 66	-1.991E+02	100.8	-2.855E+02	100.8	-2.416E+02	100.8	-3.342E+02	100.8
Sr- 87	-2.447E+02	100.3	5.303E+02	25.6	4.330E+02	29.9	-3.245E+02	100.3
In-116	1.676E-01	20.8	-1.673E-01	55.5	-1.451E-01	55.5	3.696E-01	22.4
I -128	-1.621E+01	93.2	-1.753E+01	93.0	-1.531E+01	93.1	-2.127E+01	93.1
Ba-139	2.652E+02	13.0	9.319E+02	8.0	4.079E+02	9.9	-1.515E+02	100.1
Dy-165	3.891E+00	8.9	4.628E+00	9.7	2.872E+00	9.4	1.181E+01	7.4
U -235	4.163E+00	2.8	1.193E+01	2.8	1.108E+01	2.8	1.532E+01	2.8
Ga- 72	-9.866E+00	79.9	2.017E+01	20.0	-1.823E+01	79.0	-1.840E+01	78.3
As- 76	3.679E+00	11.5	1.870E+00	18.9	3.976E+00	12.5	1.766E+01	8.1
Br- 82	5.562E+00	10.3	-1.799E+00	47.9	-1.699E+00	47.8	-1.656E+00	47.9
Mo- 99	-5.431E+00	90.6	-9.373E+00	90.9	-1.066E+01	89.8	-8.706E+00	90.8
Sb-122	5.913E-01	13.5	1.346E+00	11.9	1.390E+00	11.1	1.829E+00	10.3
La-140	2.055E+01	4.1	5.227E+01	3.7	2.230E+01	4.1	3.058E+01	3.9
Sm-153	3.344E+00	5.0	7.100E+00	5.1	2.696E+00	7.7	1.177E+01	4.7
Yb-175	2.220E+00	7.4	3.211E+00	7.5	1.882E+00	13.1	7.948E+00	4.9
Lu-177	2.962E-01	10.6	4.174E-01	17.7	2.647E-01	32.3	1.056E+00	6.2
W -187	1.663E+00	25.8	-2.428E+00	53.4	-2.341E+00	49.3	2.542E+00	31.8
Au-198	-8.105E-03	100.2	-1.429E-02	100.2	-1.351E-02	100.2	-1.325E-02	100.2
Sc- 46	5.654E+00	3.9	3.586E+00	3.9	7.164E+00	3.9	2.455E+00	4.0
Cr- 51	2.473E+01	7.0	-2.581E+00	100.1	1.592E+01	10.5	3.244E+00	40.3
Fe- 59	5.328E+03	4.5	1.125E+04	4.1	1.925E+04	3.9	1.084E+04	4.1
Co- 60	2.020E+00	7.5	4.916E-01	17.5	3.131E+00	6.8	2.498E+00	6.6
Zn- 65	4.135E+01	18.2	1.260E+02	11.8	1.997E+02	9.8	1.816E+02	10.4
Se- 75	3.433E+00	26.3	-2.641E+00	101.4	-2.816E+00	63.3	-1.530E+00	101.4
Rb- 86	-8.470E+00	100.0	6.693E+01	9.3	5.464E+01	11.5	2.760E+02	5.0
Zr- 95	-1.254E+02	97.0	1.292E+02	23.8	1.525E+02	26.7	2.076E+02	18.2
Ag-110	-1.673E+00	64.9	-1.354E+00	97.1	-2.526E+00	65.2	-1.039E+00	99.4
Sb-124	-4.919E-01	85.3	1.596E+00	22.4	1.187E+00	30.7	2.348E+00	17.0
Cs-134	2.009E+00	11.7	2.571E+00	9.4	7.655E+00	6.2	1.038E+01	5.2
Ba-131	2.317E+02	15.4	8.737E+02	6.5	2.990E+02	15.2	1.919E+02	13.1
Ce-141	4.309E+01	4.2	1.071E+02	3.9	4.880E+01	4.3	8.098E+01	3.9
Nd-147	-9.226E+00	76.4	4.652E+01	17.2	-2.200E+01	72.0	4.857E+01	13.3
Eu-152	5.246E-01	11.7	4.191E-01	14.4	3.316E-01	17.3	1.975E-01	17.1
Tb-160	5.248E-01	20.5	9.156E-01	13.6	-9.658E-01	99.0	1.843E+00	8.4
Yb-169	2.659E+00	7.6	3.204E+00	8.2	-6.000E-01	100.0	8.707E+00	4.0
Lu-177	3.944E-01	7.0	3.572E-01	7.1	2.750E-01	13.2	1.091E+00	4.6
Hf-181	4.121E+00	4.7	5.700E+00	4.1	6.565E+00	4.3	1.396E+01	3.4
Ta-182	1.098E+00	14.2	3.697E+00	7.8	1.818E+00	11.2	4.567E+00	6.8
Hg-203	-6.340E-01	100.8	-7.380E-01	100.8	-1.018E+00	100.8	-6.559E-01	100.8
Th-233	1.493E+01	3.4	4.804E+01	3.1	3.949E+01	3.1	5.462E+01	3.0

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101410
097
114
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6101420
098
138
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6101430
099
129
10
L

6101440
100
126
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ELEMENT

Na- 24	1.328E+04	3.0	8.608E+03	3.1	2.193E+03	3.7	7.185E+03	3.1
Mg- 27	-2.639E+03	91.8	3.946E+03	21.4	-1.318E+03	93.6	5.778E+03	13.9
Al- 28	6.847E+04	3.9	1.103E+05	3.4	3.665E+04	4.2	1.017E+05	3.4
Cl- 38	7.267E+02	8.0	-8.200E+01	72.0	-4.878E+01	74.9	1.356E+02	25.4
K - 42	4.281E+04	7.7	1.349E+04	12.4	5.275E+03	24.1	1.303E+04	13.9
Ca- 49	4.699E+03	20.3	1.114E+04	14.2	1.624E+04	10.9	1.043E+04	13.2
Ti- 51	1.177E+03	17.5	3.667E+03	7.3	1.496E+03	13.0	1.352E+03	14.4
V - 52	-8.466E+00	100.0	-7.062E+00	100.0	2.084E+01	11.0	9.141E+00	24.3
Mn- 56	4.997E+02	3.5	2.517E+02	3.6	3.935E+02	3.5	4.227E+02	3.5
Cu- 66	-3.330E+02	100.8	-2.680E+02	100.8	-1.760E+02	100.8	-2.586E+02	100.8
Sr- 87	-3.320E+02	100.3	-2.559E+02	100.3	3.948E+02	24.5	-2.809E+02	100.3
In-116	-1.992E-01	55.9	1.250E-01	27.6	1.433E-01	24.7	1.892E-01	24.9
I - 128	-2.179E+01	93.2	-1.664E+01	93.0	-1.519E+01	93.2	-1.837E+01	93.3
Ba-139	4.776E+02	13.4	1.325E+03	6.7	2.705E+02	13.1	4.793E+02	11.0
Dy-165	6.354E+00	8.2	5.025E+00	9.3	4.394E+00	8.3	6.963E+00	8.2
U -235	9.416E+00	2.8	5.068E+00	2.8	4.313E+00	2.8	1.247E+01	2.8
Ga- 72	-2.284E+01	78.4	-2.101E+01	79.2	-9.095E+00	79.3	2.272E+01	21.4
As- 76	3.215E+00	15.2	1.839E+00	30.6	3.673E+00	11.0	8.164E+00	9.1
Br- 82	2.212E+00	24.0	-1.938E+00	47.8	3.708E+00	12.1	-1.521E+00	47.7
Mo- 99	3.797E+00	14.7	-1.218E+01	89.7	-4.689E+00	90.5	2.083E+00	9.8
Sb-122	5.903E-01	17.9	1.115E+00	12.1	8.381E-01	12.5	1.423E+00	8.8
La-140	3.697E+01	3.8	5.039E+01	3.7	1.781E+01	4.1	4.485E+01	3.7
Sm-153	6.378E+00	5.0	7.420E+00	4.8	3.363E+00	4.8	7.513E+00	5.1
Yb-175	5.015E+00	5.4	2.093E+00	12.7	2.926E+00	5.7	4.486E+00	5.4
Lu-177	9.738E-01	6.7	3.238E-01	16.0	4.435E-01	7.2	6.693E-01	8.5
W -187	-2.610E+00	56.2	-3.173E+00	54.5	4.619E+00	14.7	2.573E+00	22.2
Au-198	-1.613E-02	100.2	-1.564E-02	100.2	-6.803E-03	100.2	-1.194E-02	100.2
Sc- 46	3.885E+00	3.9	5.837E+00	3.9	4.427E+00	3.9	4.667E+00	3.9
Cr- 51	1.097E+01	10.8	-3.468E+00	66.9	9.501E+00	10.4	7.719E+00	16.4
Fe- 59	1.022E+04	4.1	9.662E+03	4.2	4.762E+03	4.5	8.067E+03	4.1
Co- 60	2.102E+00	7.3	4.223E-01	21.5	1.479E+00	7.9	1.363E+00	8.5
Zn- 65	1.465E+02	10.1	9.487E+01	13.1	3.141E+01	19.8	1.584E+02	9.9
Se- 75	-1.892E+00	101.4	-2.506E+00	101.4	3.001E+00	26.9	-9.213E-01	101.4
Rb- 86	4.845E+02	4.4	9.408E+01	8.4	2.128E+01	13.6	9.711E+01	6.9
Zr- 95	1.829E+02	21.5	3.540E+02	20.6	1.369E+02	24.3	1.722E+02	17.8
Ag-110	-1.703E+00	65.5	-1.825E+00	96.7	-1.336E+00	64.8	-1.614E+00	65.1
Sb-124	-5.023E-01	87.1	1.203E+00	24.4	8.189E-01	29.2	1.501E+00	21.8
Cs-134	1.021E+01	5.2	4.270E+00	7.8	2.142E+00	8.7	4.796E+00	6.2
Ba-131	2.947E+02	12.6	1.580E+03	6.0	3.317E+02	17.3	5.402E+02	7.6
Ce-141	8.368E+01	3.9	1.131E+02	3.9	3.787E+01	4.2	1.024E+02	3.8
Nd-147	-1.216E+01	74.0	5.370E+01	20.1	-8.036E+00	75.8	4.351E+01	16.7
Eu-152	4.330E-01	13.9	1.294E+00	8.7	3.583E-01	13.2	4.252E-01	12.6
Tb-160	8.345E-01	11.7	1.038E+00	13.4	6.889E-01	15.2	9.839E-01	11.2
Yb-169	6.561E+00	4.2	2.704E+00	12.1	3.126E+00	5.8	5.197E+00	4.7
Lu-177	8.789E-01	4.9	3.447E-01	9.1	5.031E-01	6.2	6.994E-01	5.1
Hf-181	7.282E+00	3.8	1.326E+01	3.5	3.602E+00	4.7	9.022E+00	3.5
Ta-182	2.363E+00	8.7	2.712E+00	9.4	1.019E+00	13.0	3.790E+00	7.1
Hg-203	-7.279E-01	100.8	-9.303E-01	100.8	-5.217E-01	100.8	-6.699E-01	100.8
Th-233	3.557E+01	3.1	2.108E+01	3.3	1.378E+01	3.3	4.588E+01	3.0

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FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101450
101
142
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6101460
102
137
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6101470
103
145
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6101480
104
115
08
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ELEMENT

Na- 24	1.010E+04	3.0	6.574E+03	3.2	9.020E+03	3.1	7.938E+03	3.1
Mg- 27	-2.130E+03	91.7	5.083E+03	18.3	3.831E+03	18.5	4.911E+03	15.5
Al- 28	8.214E+04	3.6	9.021E+04	3.6	9.212E+04	3.6	1.405E+05	3.3
Cl- 38	4.273E+02	9.4	3.864E+02	10.3	5.641E+02	9.0	-8.296E+01	73.4
K- 42	2.493E+04	9.1	1.693E+04	12.1	2.446E+04	10.2	7.258E+03	19.3
Ca- 49	4.714E+03	20.4	7.618E+03	17.2	6.863E+03	19.8	1.265E+04	12.8
Ti- 51	1.719E+03	10.3	-6.756E+02	95.6	1.010E+03	17.5	1.597E+03	14.5
V- 52	2.716E+01	13.1	-7.858E+00	100.0	-8.043E+00	100.0	-8.077E+00	100.0
Mn- 56	3.197E+02	3.5	5.395E+02	3.5	4.587E+02	3.5	5.491E+02	3.5
Cu- 66	-2.731E+02	100.8	-2.852E+02	100.8	-2.986E+02	100.8	-2.838E+02	100.8
Sr- 87	-2.620E+02	100.3	-3.252E+02	100.3	-3.080E+02	100.3	-3.150E+02	100.3
In- 116	-1.584E-01	55.9	-1.827E-01	55.8	-1.881E-01	55.4	-1.801E-01	55.6
I- 128	-1.719E+01	93.1	-2.143E+01	93.2	2.014E+01	93.2	-2.060E+01	93.2
Ba- 139	2.602E+02	13.9	-1.485E+02	100.1	-1.269E+02	100.1	-1.430E+02	100.1
Dy- 165	5.829E+00	7.8	3.917E+00	11.0	-1.251E+00	9.2	3.424E+00	11.8
U- 235	9.000E+00	2.8	1.102E+01	2.8	1.074E+01	2.8	1.243E+01	2.8
Ga- 72	-2.234E+01	78.7	-1.444E+01	79.2	-2.001E+01	78.6	2.091E+01	19.8
As- 76	3.411E+00	14.0	7.906E+00	9.4	9.383E+00	9.4	4.373E+00	12.7
Br- 82	-2.014E+00	47.7	-1.046E+00	100.3	2.062E+00	28.7	-1.772E+00	47.7
Mo- 99	-1.262E+01	89.6	5.648E+00	10.9	8.959E+00	9.2	1.166E+00	14.6
Sb- 122	1.248E+00	12.8	1.164E+00	10.5	1.516E+00	11.2	1.606E+00	9.7
La- 140	3.981E+01	3.8	3.195E+01	3.9	2.930E+01	3.9	4.728E+01	3.7
Sm- 153	5.961E+00	4.8	5.178E+00	5.0	4.260E+00	5.4	5.481E+00	5.7
Yb- 175	3.520E+00	6.9	2.787E+00	7.7	2.503E+00	8.1	2.129E+00	12.2
Lu- 177	6.578E-01	9.1	3.893E-01	15.3	3.716E-01	18.3	2.621E-01	46.6
W- 187	-2.829E+00	49.0	1.976E+00	26.6	2.337E+00	24.6	2.905E+00	28.7
Au- 198	-1.583E-02	100.2	-1.057E-02	100.2	-1.361E-02	100.2	-1.408E-02	100.2
Sc- 46	4.509E+00	3.9	5.215E+00	3.9	5.349E+00	3.9	4.036E+00	3.9
Cr- 51	1.069E+01	14.5	3.912E+00	26.1	-2.558E+00	100.1	-2.751E+00	100.1
Fe- 59	1.396E+04	4.0	6.466E+03	4.4	5.615E+03	4.5	5.679E+03	4.5
Co- 60	2.711E+00	7.0	6.023E-01	14.2	5.689E-01	15.4	1.001E+00	11.2
Zn- 65	4.045E+01	21.9	7.015E+01	13.5	1.374E+02	10.4	1.015E+02	11.4
Se- 75	-5.672E+00	92.0	-2.600E+00	100.9	-2.940E+00	101.4	-3.160E+00	101.4
Rb- 86	1.878E+02	6.1	1.825E+02	5.8	2.394E+02	5.2	4.417E+01	11.3
Zr- 95	-1.867E+02	71.6	1.237E+02	20.9	-1.580E+02	88.2	-1.091E+02	100.3
Ag- 110	3.822E+00	26.9	-1.625E+00	65.0	-1.463E+00	96.6	-1.828E+00	65.1
Sb- 124	1.506E+00	27.2	1.367E+00	23.3	1.474E+00	22.7	1.889E+00	20.7
Cs- 134	9.677E+00	5.6	4.319E+00	7.2	6.915E+00	5.8	1.894E+00	10.7
Ba- 131	2.657E+02	16.1	7.760E+01	26.1	-3.563E+02	19.4	3.978E+02	10.8
Ce- 141	8.891E+01	4.1	7.099E+01	3.9	6.766E+01	4.0	1.008E+02	3.9
Nd- 147	4.536E+01	21.3	-1.096E+01	72.7	-1.224E+01	71.0	-2.048E+01	65.8
Eu- 152	6.072E-01	12.6	4.623E-01	12.9	4.205E-01	14.1	4.486E-01	13.7
Tb- 160	1.121E+00	12.3	5.170E-01	17.5	6.963E-01	17.5	7.666E-01	16.6
Yb- 169	4.721E+00	6.1	2.783E+00	6.5	2.745E+00	7.9	1.829E+00	21.0
Lu- 177	6.349E-01	6.4	4.724E-01	6.8	3.887E-01	7.6	2.284E-01	12.6
Hf- 181	5.583E+00	4.4	4.705E+00	4.3	5.115E+00	4.2	7.466E+00	3.9
Ta- 182	2.267E+00	9.5	2.212E+00	9.9	1.996E+00	9.7	4.696E+00	7.1
Hg- 203	-8.900E-01	100.8	-6.467E-01	100.8	-7.284E-01	100.8	-8.284E-01	100.8
Th- 233	2.828E+01	3.2	3.135E+01	3.1	3.299E+01	3.1	5.313E+01	3.0

FILE ID	6101490		6101500		6101510		6101520	
SAMPLE	105		106		107		108	
DUPLICATE	125		154		155		070	
CLUSTER	08		09		06		10	
TYPE	T		T		T		L	
ELEMENT								
Na- 24	4.989E+03	3.3	6.091E+03	3.1	9.803E+03	3.0	3.258E+03	3.5
Mg- 27	8.683E+03	10.1	5.542E+03	13.3	5.178E+03	13.7	-1.696E+03	94.0
Al- 28	1.253E+05	3.4	1.174E+05	3.3	8.689E+04	3.5	3.531E+04	4.5
Cl- 38	9.847E+01	34.1	-6.643E+01	72.7	-7.647E+01	71.7	-6.485E+01	74.0
K - 42	-4.572E+03	96.8	8.714E+03	16.7	1.176E+04	14.9	5.292E+03	29.0
Ca- 49	9.613E+03	15.7	9.057E+03	13.5	1.042E+04	12.7	1.577E+04	11.2
Ti- 51	1.337E+03	17.2	3.926E+03	6.7	2.117E+03	8.9	2.358E+03	9.4
V - 52	-7.969E+00	100.0	4.490E+01	8.2	2.351E+01	10.4	3.435E+01	9.5
Mn- 56	5.869E+02	3.5	1.919E+02	3.6	2.457E+02	3.6	4.612E+02	3.5
Cu- 66	-2.638E+02	100.8	-2.304E+02	100.8	-2.463E+02	100.8	-2.219E+02	100.8
Sr- 87	-3.100E+02	100.3	-2.223E+02	100.3	5.096E+02	20.2	-2.891E+02	100.3
In-116	-1.710E-01	55.7	1.752E-01	18.4	1.711E-01	24.7	-1.480E-01	56.0
I -128	-2.017E+01	93.2	-1.428E+01	93.1	-1.453E+01	93.0	-1.892E+01	93.2
Ba-139	2.365E+02	17.5	4.129E+02	10.7	1.292E+03	6.2	2.224E+02	18.1
Dy-165	4.673E+00	8.8	4.886E+00	8.4	6.153E+00	7.5	2.649E+00	13.8
U -235	1.264E+01	2.8	5.665E+00	2.8	9.645E+00	2.8	2.564E+00	2.8
Ga- 72	2.583E+01	19.7	2.758E+01	19.5	-2.206E+01	78.5	-1.194E+01	78.8
As- 76	7.635E+00	9.6	2.613E+00	14.4	6.099E+00	10.6	3.209E+00	13.2
Br- 82	-1.190E+00	47.7	-1.528E+00	47.8	2.386E+00	21.9	6.886E+00	10.5
Mo- 99	-8.675E+00	53.4	-7.716E+00	90.9	3.781E+00	17.7	-5.166E+00	90.8
Sb-122	2.485E+00	6.4	1.742E+00	8.5	1.056E+00	14.7	9.570E-01	11.5
La-140	4.560E+01	3.7	4.861E+01	3.7	3.763E+01	3.8	1.317E+01	4.5
Sm-153	6.499E+00	4.9	7.461E+00	4.8	5.190E+00	5.6	2.133E+00	4.8
Yb-175	2.238E+00	9.3	2.586E+00	6.7	3.790E+00	6.7	2.049E+00	7.5
Lu-177	-6.048E-02	100.1	3.881E-01	11.2	5.530E-01	10.4	3.483E-01	7.8
W -187	-1.655E+00	49.1	-2.529E+00	64.2	-2.965E+00	55.4	3.167E+00	17.2
Au-198	-9.749E-03	100.2	-1.181E-02	100.2	-1.463E-02	100.2	-7.863E-03	100.2
Sc- 46	3.625E+00	3.9	1.004E+01	3.8	5.412E+00	3.9	5.391E+00	3.9
Cr- 51	-2.112E+00	100.1	1.828E+01	8.0	7.982E+00	15.6	1.940E+01	7.5
Fe- 59	6.006E+03	4.4	2.264E+04	3.8	1.176E+04	4.1	4.784E+03	4.6
Co- 60	5.956E-01	11.8	4.467E+00	5.2	1.825E+00	7.9	2.247E+00	7.0
Zn- 65	6.322E+01	14.1	2.066E+02	9.8	6.802E+01	14.0	4.478E+01	16.8
Se- 75	-2.590E+00	101.4	-2.693E+00	87.2	-1.023E+00	101.4	2.000E+00	40.7
Rb- 86	2.374E+01	16.7	7.246E+01	8.6	4.744E+01	11.4	3.065E+01	15.1
Zr- 95	2.085E+02	18.1	2.955E+02	20.5	9.010E+01	32.5	-1.361E+02	71.6
Ag-110	-1.069E+00	96.7	-2.271E+00	65.2	-1.620E+00	97.3	-1.573E+00	65.0
Sb-124	2.496E+00	16.1	1.041E+00	22.6	9.430E-01	29.5	1.224E+00	25.1
Cs-134	1.497E+00	11.6	7.062E+00	5.7	2.592E+00	9.5	2.153E+00	10.5
Ba-131	1.650E+02	12.3	4.864E+02	9.8	1.219E+03	6.1	2.348E+02	15.3
Ce-141	9.921E+01	3.8	1.029E+02	3.7	7.860E+01	4.1	2.672E+01	4.8
Nd-147	2.997E+01	23.0	4.102E+01	20.0	4.490E+01	24.5	-8.542E+00	77.0
Eu-152	4.543E-01	12.2	1.333E+00	7.0	7.353E-01	10.2	3.990E-01	14.1
Tb-160	4.740E-01	16.3	8.512E-01	13.8	5.318E-01	18.6	3.303E-01	27.9
Yb-169	2.239E+00	12.6	3.546E+00	6.5	3.900E+00	6.5	1.973E+00	8.4
Lu-177	3.364E-01	8.1	4.066E-01	7.1	5.540E-01	6.6	3.298E-01	7.9
Hf-181	6.468E+00	3.9	1.165E+01	3.4	6.653E+00	4.0	2.736E+00	5.6
Ta-182	4.056E+00	7.1	2.013E+00	9.5	2.082E+00	10.2	1.118E+00	13.6
Hg-203	-5.825E-01	100.8	-8.245E-01	100.8	-8.397E-01	100.8	-5.897E-01	100.8
Th-233	4.652E+01	3.0	2.344E+01	3.1	3.024E+01	3.1	9.910E+00	3.5

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101530
109
076
05
L

6101540
110
085
10
L

6101550
111
062
03
L

6101560
112
063
05
L

ELEMENT

Na- 24	1.120E+03	4.5	3.243E+03	3.5	1.270E+03	4.6	2.108E+03	3.9
Mg- 27	3.134E+03	15.1	1.161E+03	30.9	2.727E+03	20.5	1.870E+03	27.4
Al- 28	4.572E+04	4.0	2.377E+04	4.9	3.982E+04	4.3	4.168E+04	4.2
Cl- 38	-4.440E+01	77.2	-5.581E+01	73.0	9.014E+01	21.6	-5.145E+01	76.1
K - 42	-3.399E+03	97.0	6.017E+03	21.9	-3.623E+03	97.1	-3.409E+03	97.1
Ca- 49	1.283E+04	12.1	1.390E+04	12.4	1.521E+04	12.5	1.537E+04	12.3
Ti- 51	2.204E+03	8.5	1.231E+03	14.3	1.328E+03	17.4	1.473E+03	16.0
V - 52	4.288E+01	7.9	2.240E+01	12.4	2.964E+01	12.2	3.449E+01	10.3
Mn- 56	5.064E+02	3.5	2.651E+02	3.6	5.090E+02	3.5	4.025E+02	3.5
Cu- 66	-1.855E+02	100.8	-1.819E+02	100.8	-1.973E+02	100.8	-1.993E+02	100.8
Sr- 87	-2.575E+02	100.3	-2.220E+02	100.3	-2.799E+02	100.3	-2.655E+02	100.3
In-116	-1.294E-01	55.9	1.358E-01	29.8	1.519E-01	27.0	1.083E-01	30.1
I -128	-1.680E+01	93.3	-1.445E+01	93.1	-1.834E+01	93.3	-1.742E+01	93.2
Ba-139	-1.023E+02	100.1	2.727E+02	13.9	2.360E+02	17.3	-1.203E+02	100.1
Dy-165	5.507E+00	7.9	3.568E+00	9.6	5.338E+00	8.3	4.105E+00	10.3
U -235	2.936E+00	2.8	2.718E+00	2.8	4.649E+00	2.8	4.055E+00	2.8
Ga- 72	1.825E+01	25.1	-1.480E+01	79.3	-1.041E+01	79.7	-1.304E+01	79.9
As- 76	4.670E+00	10.3	4.284E+00	11.6	5.151E+00	10.7	7.564E+00	9.2
Br- 82	4.287E+00	10.8	5.961E+00	10.4	4.418E+00	11.8	5.154E+00	12.2
Mo- 99	-5.512E+00	90.5	-8.154E+00	89.6	-5.460E+00	90.0	-6.167E+00	90.6
Sb-122	8.935E-01	10.2	1.008E+00	11.2	9.388E-01	11.1	9.970E-01	10.8
La-140	3.236E+01	3.8	1.218E+01	4.7	2.773E+01	4.0	2.510E+01	4.0
Sm-153	4.807E+00	4.8	2.190E+00	5.3	4.529E+00	4.7	4.406E+00	4.9
Yb-175	4.040E+00	5.0	3.044E+00	6.5	3.695E+00	5.4	3.568E+00	5.1
Lu-177	6.269E-01	5.7	5.017E-01	7.2	5.887E-01	6.4	5.795E-01	6.5
W -187	2.537E+00	19.3	1.534E+00	31.8	-1.175E+00	55.6	3.993E+00	16.2
Au-198	-7.796E-03	100.2	-1.028E-02	100.2	-7.433E-03	100.2	-8.983E-03	100.2
Sc- 46	7.169E+00	3.8	5.202E+00	3.9	5.217E+00	3.9	5.873E+00	3.9
Cr- 51	1.740E+01	7.2	9.906E+00	11.6	1.186E+01	9.8	1.391E+01	8.1
Fe- 59	1.237E+04	3.9	5.925E+03	4.6	7.069E+03	4.3	1.156E+04	4.0
Co- 60	2.742E+00	6.0	2.311E+00	7.6	1.969E+00	8.0	2.731E+00	6.4
Zn- 65	5.323E+01	14.9	-9.834E+00	81.8	5.108E+01	16.0	5.532E+01	14.5
Se- 75	1.478E+00	52.6	1.921E+00	41.3	1.703E+01	33.9	4.593E+00	22.5
Rb- 86	2.679E+01	14.8	1.797E+01	20.1	2.023E+01	17.2	3.463E+01	12.8
Zr- 95	2.256E+02	29.4	-1.831E+02	71.5	1.667E+02	29.1	-1.666E+02	71.6
Ag-110	-1.887E+00	65.3	-2.064E+00	65.2	-1.625E+00	65.1	-1.888E+00	65.3
Sb-124	-5.451E-01	80.9	9.578E-01	26.3	-4.831E-01	80.7	1.182E+00	26.5
Cs-134	4.626E+00	6.5	1.448E+00	18.5	2.111E+00	10.8	4.123E+00	7.0
Ba-131	8.850E+01	26.2	2.731E+02	16.6	1.862E+02	19.1	9.981E+01	24.6
Ce-141	6.436E+01	4.0	2.647E+01	4.9	5.675E+01	4.1	5.706E+01	3.9
Nd-147	3.549E+01	22.9	-1.628E+01	72.8	-9.504E+00	76.2	-1.014E+01	77.2
Eu-152	7.804E-01	8.5	4.440E-01	14.8	4.667E-01	12.5	5.584E-01	12.1
Tb-160	6.816E-01	14.5	5.810E-01	26.6	7.212E-01	16.6	6.425E-01	14.9
Yb-169	3.943E+00	4.7	3.258E+00	6.8	4.235E+00	5.2	4.047E+00	5.0
Lu-177	6.083E-01	5.3	5.435E-01	6.8	6.296E-01	5.8	6.176E-01	5.4
Hf-181	4.463E+00	4.2	2.270E+00	6.3	2.989E+00	5.3	3.409E+00	4.7
Ta-182	6.911E-01	15.5	8.122E-01	34.8	1.120E+00	13.1	1.026E+00	12.2
Hg-203	-6.652E-01	100.8	-8.190E-01	100.8	-6.252E-01	100.8	-6.953E-01	100.8
Th-233	1.021E+01	3.4	7.710E+00	3.9	1.461E+01	3.3	1.331E+01	3.3

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101570
113
066
10
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6101580
114
097
08
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6101590
115
104
08
T

6101600
116
091
05
L

ELEMENT

Na- 24	4.415E+02	7.7	1.306E+04	3.0	7.862E+03	3.1	1.523E+03	4.5
Mg- 27	3.193E+03	22.1	-2.599E+03	92.6	6.070E+03	12.7	-1.686E+03	94.6
Al- 28	3.236E+04	4.8	6.544E+04	3.8	1.396E+05	3.3	2.309E+04	5.4
Cl- 38	1.010E+02	25.0	8.397E+02	7.9	-8.192E+01	73.3	1.886E+02	15.0
K- 42	-3.897E+03	97.2	4.664E+04	7.4	7.783E+03	25.7	-3.870E+03	97.3
Ca- 49	1.459E+04	13.6	3.105E+03	25.5	1.076E+04	13.7	1.676E+04	11.5
Ti- 51	9.217E+02	17.2	1.756E+03	14.8	1.266E+03	15.5	1.497E+03	18.6
V- 52	2.394E+01	12.4	-8.108E+00	100.0	-7.957E+00	100.0	3.126E+01	11.9
Mn- 56	5.994E+02	3.5	4.931E+02	3.5	5.541E+02	3.5	5.572E+02	3.5
Cu- 66	-1.981E+02	100.8	-3.368E+02	100.8	-2.786E+02	100.8	-2.222E+02	100.8
Sr- 87	-3.075E+02	100.3	-3.389E+02	100.3	-3.014E+02	100.3	-3.236E+02	100.3
In-116	1.730E-01	30.1	-1.994E-01	55.9	-1.757E-01	55.6	1.957E-01	30.9
I- 128	-2.046E+01	93.3	-2.232E+01	93.2	-1.989E+01	93.2	-2.131E+01	93.3
Ba-139	-1.228E+02	100.1	3.266E+02	16.6	3.896E+02	12.3	-1.437E+02	100.1
Dy-165	3.371E+00	10.0	4.702E+00	10.0	4.532E+00	8.8	4.713E+00	9.9
U- 235	3.977E+00	2.8	9.288E+00	2.8	1.258E+01	2.8	2.977E+00	2.8
Ga- 72	-1.083E+01	80.5	-2.050E+01	78.9	3.005E+01	25.2	-1.600E+01	80.2
As- 76	3.868E+00	11.8	3.231E+00	15.0	6.670E+00	11.2	6.260E+00	10.7
Br- 82	4.989E+00	10.7	-1.699E+00	47.9	-1.835E+00	47.7	3.925E+00	13.0
Mo- 99	-7.339E+00	88.6	-8.557E+00	90.8	-1.129E+01	89.2	-6.006E+00	90.2
Sb-122	8.849E-01	12.2	5.502E-01	32.0	2.092E+00	8.1	9.352E-01	11.1
La-140	1.459E+01	4.6	3.523E+01	3.9	4.700E+01	3.8	2.665E+01	4.1
Sm-153	2.311E+00	5.3	5.640E+00	4.9	5.840E+00	5.8	4.951E+00	4.6
Yb-175	1.790E+00	7.8	4.159E+00	5.8	1.735E+00	13.7	4.823E+00	5.3
Lu-177	2.787E-01	11.2	7.780E-01	7.0	3.347E-01	25.3	6.935E-01	5.8
W- 187	2.628E+00	19.1	-2.763E+00	63.8	-3.308E+00	54.8	2.233E+00	25.4
Au-198	-8.167E-03	100.2	-1.323E-02	100.2	-1.344E-02	100.2	-8.224E-03	100.2
Sc- 46	4.540E+00	3.9	3.778E+00	3.9	4.175E+00	3.9	6.160E+00	3.9
Cr- 51	9.140E+00	15.4	8.315E+00	13.3	-2.179E+00	100.1	1.212E+01	15.3
Fe- 59	5.148E+03	4.9	9.644E+03	4.1	6.130E+03	4.3	1.326E+04	4.2
Co- 60	1.317E+00	11.3	1.882E+00	7.7	9.605E-01	10.1	3.695E+00	6.9
Zn- 65	2.013E+01	37.3	7.906E+01	13.1	1.421E+02	10.0	-8.677E+00	83.4
Se- 75	3.109E+00	30.2	-4.747E+00	80.1	-2.886E+00	95.2	-2.801E+00	63.2
Rb- 86	-1.159E+01	100.0	4.586E+02	4.4	3.408E+01	11.8	2.326E+01	29.0
Zr- 95	-1.868E+02	71.5	9.763E+01	25.3	8.057E+01	19.5	-2.291E+02	71.6
Ag-110	-2.134E+00	65.1	-1.474E+00	65.3	-1.513E+00	65.3	-2.592E+00	65.1
Sb-124	-7.267E-01	82.7	-3.863E-01	88.9	1.822E+00	18.4	-8.410E-01	78.7
Cs-134	1.401E+00	16.9	1.040E+01	5.2	2.088E+00	9.5	2.132E+00	11.9
Ba-131	2.252E+02	20.4	3.441E+02	10.3	4.731E+02	8.7	-2.124E+02	66.8
Ce-141	3.104E+01	4.9	7.749E+01	3.9	1.099E+02	3.7	6.663E+01	4.2
Nd-147	-1.825E+01	71.9	2.326E+01	27.7	3.401E+01	15.0	3.974E+01	34.5
Eu-152	3.797E-01	18.0	4.116E-01	14.1	5.144E-01	10.7	8.632E-01	12.1
Tb-160	4.846E-01	22.5	9.461E-01	11.8	7.423E-01	13.2	9.716E-01	16.3
Yb-169	2.057E+00	10.4	5.442E+00	4.6	2.603E+00	7.8	4.717E+00	6.3
Lu-177	2.799E-01	10.5	8.180E-01	5.1	3.120E-01	8.1	8.361E-01	6.3
Hf-181	2.276E+00	7.0	7.291E+00	3.8	7.750E+00	3.6	3.294E+00	6.0
Ta-182	8.930E-01	19.1	2.432E+00	9.4	5.014E+00	6.3	7.394E-01	27.5
Hg-203	-8.501E-01	100.8	-6.484E-01	100.8	-6.430E-01	100.8	-1.007E+00	100.8
Th-233	1.079E+01	3.7	3.423E+01	3.1	5.609E+01	3.0	7.930E+00	4.1

FILE ID	6101610	6101620	6101630	6101640
SAMPLE	117	118	119	120
DUPLICATE	089	067	074	077
CLUSTER	10	01	05	10
TYPE	L	L	L	L
ELEMENT				
Na- 24	2.936E+03	5.042E+03	2.489E+03	6.321E+02
Mg- 27	-1.550E+03	-1.643E+03	2.558E+03	3.680E+03
Al- 28	1.459E+04	3.290E+04	4.574E+04	3.470E+04
Cl- 38	-6.233E+01	1.421E+02	-5.622E+01	6.220E+01
K - 42	-3.132E+03	-2.987E+03	-3.597E+03	-3.154E+03
Ca- 49	1.720E+04	9.478E+03	1.386E+04	1.371E+04
Ti- 51	7.939E+02	1.114E+03	1.838E+03	1.881E+03
V - 52	1.658E+01	2.046E+01	4.126E+01	4.336E+01
Mn- 56	4.248E+02	2.332E+02	5.208E+02	4.711E+02
Cu- 66	-2.030E+02	-2.117E+02	-2.056E+02	-1.774E+02
Sr- 87	3.246E+02	-2.252E+02	-2.752E+02	-2.562E+02
In-116	1.315E-01	1.637E-01	2.464E-01	-1.239E-01
I -128	-1.740E+01	-1.471E+01	-1.775E+01	-1.699E+01
Ba-139	3.384E+02	4.529E+02	2.948E+02	-1.148E+02
Dy-165	4.840E+00	3.932E+00	5.489E+00	2.771E+00
U -235	2.536E+00	4.632E+00	3.788E+00	2.626E+00
Ga- 72	-1.754E+01	-2.494E+01	-1.592E+01	-1.350E+01
As- 76	3.223E+00	6.038E+00	5.581E+00	4.740E+00
Br- 82	5.890E+00	-1.707E+00	7.176E+00	3.656E+00
Mo- 99	-5.589E+00	-9.705E+00	-5.499E+00	-4.739E+00
Sb-122	1.349E+00	1.626E+00	1.056E+00	5.698E-01
La-140	8.262E+00	2.180E+01	3.034E+01	1.834E+01
Sm-153	2.622E+00	3.253E+00	4.799E+00	2.830E+00
Yb-175	4.063E+00	2.978E+00	3.570E+00	2.145E+00
Lu-177	7.377E-01	5.150E-01	6.038E-01	4.041E-01
W -187	-1.646E+00	1.216E+01	-1.700E+00	3.055E+00
Au-198	-8.354E-03	-1.200E-02	-7.893E-03	-6.707E-03
Sc- 46	4.736E+00	4.897E+00	6.188E+00	5.427E+00
Cr- 51	9.532E+00	9.197E+00	1.776E+01	1.776E+01
Fe- 59	2.680E+03	7.917E+03	1.030E+04	9.687E+03
Co- 60	1.168E+00	1.739E+00	3.218E+00	2.391E+00
Zn- 65	4.439E+01	9.252E+01	2.422E+01	5.380E+01
Se- 75	2.880E+00	2.705E+00	3.239E+00	3.816E+00
Rb- 86	1.937E+01	2.503E+01	3.118E+01	2.005E+01
Zr- 95	-1.312E+02	-1.493E+02	-1.996E+02	2.191E+02
Ag-110	-1.512E+00	-1.715E+00	-2.237E+00	-1.510E+00
Sb-124	1.478E+00	1.168E+00	-5.996E-01	6.961E-01
Cs-134	-7.427E-02	1.197E+00	4.099E+00	2.964E+00
Ba-131	2.563E+02	5.377E+02	2.941E+02	-1.347E+02
Ce-141	1.895E+01	4.961E+01	6.418E+01	3.563E+01
Nd-147	-8.974E+00	-9.753E+00	-1.793E+01	-8.082E+00
Eu-152	4.452E-01	4.479E-01	6.668E-01	4.317E-01
Tb-160	5.182E-01	8.156E-01	8.756E-01	4.512E-01
Yb-169	4.515E+00	4.196E+00	3.868E+00	2.747E+00
Lu-177	7.074E-01	6.333E-01	6.746E-01	3.964E-01
Hf-181	2.729E+00	4.339E+00	3.903E+00	2.405E+00
Ta-182	-3.363E-01	8.068E-01	1.104E+00	5.949E-01
Hg-203	-5.621E-01	-6.468E-01	-8.896E-01	-5.586E-01
Th-233	6.041E+00	1.294E+01	1.205E+01	9.118E+00

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101650
121
086
10
L

6101660
122
069
05
L

6101670
123
088
05
L

6101680
124
068
10
L

ELEMENT

Na- 24	2.876E+03	3.6
Mg- 27	-1.565E+03	93.2
Al- 28	3.261E+04	4.5
Cl- 38	1.627E+02	14.7
K - 42	6.427E+03	20.4
Ca- 49	1.556E+04	12.8
Ti- 51	1.960E+03	10.2
V - 52	2.242E+01	12.4
Mn- 56	3.940E+02	3.5
Cu- 66	-1.977E+02	100.8
Sr- 87	-2.504E+02	100.3
In-116	1.620E-01	29.2
I -128	-1.652E+01	93.3
Ba-139	2.509E+02	15.4
Dy-165	4.385E+00	8.4
U -235	2.552E+00	2.8
Ga- 72	-2.196E+01	79.6
As- 76	3.906E+00	13.1
Br- 82	7.804E+00	10.1
Mo- 99	-8.954E+00	88.9
Sb-122	6.056E-01	16.7
La-140	2.362E+01	4.2
Sm-153	3.637E+00	5.0
Yb-175	2.592E+00	6.6
Lu-177	4.375E-01	8.3
W -187	3.363E+00	25.0
Au-198	-1.076E-02	100.2
Sc- 46	4.737E+00	3.9
Cr- 51	9.574E+00	11.2
Fe- 59	6.992E+03	4.2
Co- 60	1.521E+00	8.1
Zn- 65	6.863E+01	12.5
Se- 75	1.912E+00	45.7
Rb- 86	4.612E+01	11.1
Zr- 95	1.690E+02	20.7
Ag-110	-1.688E+00	65.2
Sb-124	9.252E-01	24.9
Cs-134	3.031E+00	8.0
Ba-131	2.282E+02	17.9
Ce-141	5.178E+01	3.9
Nd-147	-9.383E+00	76.7
Eu-152	6.073E-01	10.3
Tb-160	6.700E-01	14.9
Yb-169	3.558E+00	5.2
Lu-177	5.247E-01	5.6
Hf-181	4.993E+00	4.2
Ta-182	1.040E+00	12.2
Hg-203	-6.335E-01	100.8
Th-233	9.584E+00	3.5

2.707E+03	3.7
2.579E+03	31.2
5.085E+04	4.0
-5.939E+01	74.8
-3.556E+03	97.1
1.043E+04	14.3
1.362E+03	15.7
3.622E+01	10.5
4.094E+02	3.5
-2.149E+02	100.8
-2.766E+02	100.3
1.219E-01	28.4
-1.806E+01	93.2
3.083E+02	16.6
4.418E+00	9.7
4.758E+00	2.8
-1.679E+01	80.0
3.358E+00	13.1
2.638E+00	14.3
-5.765E+00	90.3
8.727E-01	13.8
2.320E+01	4.2
4.592E+00	4.7
2.955E+00	6.3
4.669E-01	7.3
-1.946E+00	68.9
-8.233E-03	100.2
6.508E+00	3.9
1.163E+01	11.1
1.186E+04	4.2
3.080E+00	7.1
5.122E+01	18.7
-2.546E+00	101.4
2.832E+01	15.9
-1.884E+02	91.1
-2.503E+00	65.2
1.534E+00	23.3
3.392E+00	9.6
2.534E+02	17.5
4.990E+01	4.7
-2.078E+01	72.4
6.462E-01	13.4
6.200E-01	18.3
3.459E+00	7.4
4.900E-01	7.7
3.757E+00	5.5
9.742E-01	16.2
-9.700E-01	100.8
1.424E+01	3.5

3.151E+03	3.4
4.006E+03	13.3
6.406E+04	3.6
-4.980E+01	75.1
8.176E+03	14.7
1.393E+04	11.2
2.602E+03	7.7
5.405E+01	6.8
3.768E+02	3.5
-1.879E+02	100.8
-2.220E+02	100.3
-1.236E-01	55.8
-1.463E+01	93.2
5.551E+02	8.4
5.188E+00	7.6
4.853E+00	2.8
-1.946E+01	79.4
4.090E+00	11.9
2.184E+00	14.4
-5.913E+00	90.7
8.960E-01	11.7
2.962E+01	3.8
5.432E+00	4.8
4.239E+00	4.8
7.069E-01	5.4
4.238E+00	17.6
-8.800E-03	100.2
7.969E+00	3.8
2.411E+01	6.6
1.796E+04	3.8
4.700E+00	5.2
8.607E+01	12.1
-2.339E+00	74.4
5.518E+01	10.3
-1.218E+02	92.5
-1.754E+00	65.3
9.915E-01	25.7
6.816E+00	5.8
5.237E+02	10.0
5.695E+01	4.2
-9.548E+00	77.1
7.230E-01	9.3
5.855E-01	13.6
4.448E+00	4.8
7.206E-01	5.3
4.682E+00	4.3
1.363E+00	10.8
-6.567E-01	100.8
1.460E+01	3.2

3.045E+02	3.8
-1.994E+03	94.1
3.206E+04	5.0
9.115E+01	26.9
-4.243E+03	97.2
1.435E+04	13.9
1.569E+03	21.1
2.199E+01	19.6
4.955E+02	3.5
-2.629E+02	100.8
-3.388E+02	100.3
-1.751E-01	56.2
-2.226E+01	93.3
4.407E+02	12.7
2.975E+00	14.7
3.130E+00	2.8
-2.533E+01	79.4
5.207E+00	12.6
4.490E+00	17.6
-1.039E+01	88.9
1.217E+00	11.7
1.301E+01	5.2
2.013E+00	6.1
2.450E+00	7.5
3.780E-01	11.7
4.873E+00	19.1
-1.227E-02	100.2
4.781E+00	3.9
9.625E+00	11.9
6.682E+03	4.5
1.272E+00	10.5
6.416E+01	14.4
2.565E+00	29.6
2.472E+01	16.5
-1.739E+02	71.6
-2.003E+00	65.1
1.621E+00	28.6
1.322E+00	15.1
5.949E+02	9.7
3.237E+01	4.4
-1.102E+01	76.5
3.441E-01	17.7
6.097E-01	17.5
3.138E+00	6.2
5.242E-01	6.8
3.436E+00	5.2
8.593E-01	16.3
-7.489E-01	100.8
1.013E+01	3.6

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101690
125
105
08
T

6101700
126
100
08
T

6101710
127
092
10
L

6101720
128
090
07
L

ELEMENT

ELEMENT	6101690	6101700	6101710	6101720
Na- 24	5.027E+03 3.3	7.319E+03 3.1	5.428E+03 3.2	2.348E+03 3.7
Mg- 27	1.054E+04 9.6	6.136E+03 14.3	3.158E+03 21.0	2.318E+03 20.6
Al- 28	1.254E+05 3.4	1.025E+05 3.4	6.056E+04 3.6	3.946E+04 4.1
Cl- 38	-7.422E+01 74.7	1.500E+02 17.9	-5.369E+01 72.7	-4.993E+01 75.4
K - 42	5.990E+03 26.6	1.906E+04 11.8	7.605E+03 15.4	-3.184E+03 97.1
Ca- 49	9.965E+03 15.0	1.043E+04 13.4	1.136E+04 12.4	1.380E+04 11.8
Ti- 51	1.507E+03 18.2	1.314E+03 18.7	2.750E+03 8.1	2.595E+03 8.9
V - 52	9.006E+00 32.6	-7.286E+00 100.0	3.761E+01 9.1	4.820E+01 8.3
Mn- 56	5.921E+02 3.5	4.277E+02 3.5	2.830E+02 3.5	4.536E+02 3.5
Cu- 66	-2.681E+02 100.8	-2.635E+02 100.8	-1.739E+02 100.8	-1.878E+02 100.8
Sr- 87	-3.122E+02 100.3	-2.838E+02 100.3	3.147E+02 25.2	-2.467E+02 100.3
In-116	-1.722E-01 55.7	1.754E-01 22.6	1.849E-01 22.6	1.779E-01 25.9
I -128	-2.035E+01 93.3	-1.857E+01 93.2	-1.212E+01 93.2	-1.619E+01 93.2
Ba-139	-1.253E+02 100.1	3.395E+02 12.0	4.846E+02 8.3	1.547E+02 19.5
Dy-165	4.333E+00 9.0	6.340E+00 8.1	3.986E+00 8.0	2.250E+00 10.7
U -235	1.275E+01 2.8	1.256E+01 2.8	6.151E+00 2.8	2.708E+00 2.8
Ga- 72	2.276E+01 20.1	1.913E+01 17.8	-1.344E+01 78.8	-7.438E+00 79.3
As- 76	8.856E+00 9.3	6.865E+00 9.2	4.409E+00 11.7	3.644E+00 11.0
Br- 82	-1.276E+00 47.4	-1.513E+00 47.8	3.729E+00 13.5	3.127E+00 12.4
Mo- 99	-6.706E+00 90.2	5.067E+00 10.2	5.658E+00 42.5	5.027E+00 23.0
Sb-122	2.438E+00 6.5	1.516E+00 9.6	1.027E+00 13.0	7.291E-01 11.9
La-140	4.565E+01 3.8	4.534E+01 3.7	2.596E+01 3.9	1.284E+01 4.2
Sm-153	5.773E+00 5.5	7.223E+00 5.1	3.164E+00 5.7	1.746E+00 5.3
Yb-175	1.618E+00 9.7	4.223E+00 5.4	2.217E+00 8.2	1.541E+00 7.9
Lu-177	-5.599E-02 100.1	7.102E-01 8.4	3.291E-01 14.5	2.924E-01 10.6
W -187	-2.249E+00 55.0	2.427E+00 18.1	-2.182E+00 54.6	2.240E+00 17.3
Au-198	-9.142E-03 100.2	-1.250E-02 100.2	-1.218E-02 100.2	-6.658E-03 100.2
Sc- 46	3.606E+00 4.0	4.618E+00 3.9	5.832E+00 3.9	5.920E+00 3.9
Cr- 51	3.916E+00 33.7	6.386E+00 18.9	1.384E+01 7.7	2.720E+01 6.8
Fe- 59	6.153E+03 4.6	8.028E+03 4.2	8.858E+03 4.0	7.262E+03 4.4
Co- 60	6.771E-01 15.3	1.245E+00 8.9	1.927E+00 6.7	2.090E+00 7.8
Zn- 65	3.859E+01 21.4	1.078E+02 11.3	6.139E+01 12.8	2.497E+01 27.0
Se- 75	-2.376E+00 101.4	-1.303E+00 100.0	-1.908E+00 83.1	2.597E+00 39.6
Rb- 86	2.770E+01 16.7	8.588E+01 7.2	3.929E+01 10.4	3.160E+01 15.2
Zr- 95	9.956E+01 27.5	1.164E+02 18.6	-1.458E+02 73.3	-1.794E+02 71.6
Ag-110	-1.822E+00 65.2	-1.471E+00 65.0	-1.619E+00 76.9	-2.068E+00 65.1
Sb-124	2.917E+00 15.8	1.472E+00 17.9	1.291E+00 19.8	-6.450E-01 80.1
Cs-134	1.336E+00 14.7	4.408E+00 6.8	3.904E+00 6.7	3.583E+00 8.4
Ba-131	2.796E+02 14.7	4.019E+02 8.6	6.256E+02 7.7	1.753E+02 21.4
Ce-141	1.001E+02 3.9	9.675E+01 3.8	5.275E+01 3.9	2.312E+01 5.7
Nd-147	3.318E+01 23.0	3.415E+01 20.0	-9.169E+00 76.4	-1.587E+01 73.3
Eu-152	4.051E-01 14.5	4.653E-01 11.5	5.193E-01 10.3	3.386E-01 17.8
Tb-160	5.399E-01 17.7	1.105E+00 10.2	5.370E-01 16.3	4.003E-01 25.1
Yb-169	2.460E+00 12.8	4.490E+00 5.7	2.852E+00 6.0	1.785E+00 10.4
Lu-177	3.545E-01 9.3	6.796E-01 5.3	4.362E-01 6.1	2.851E-01 10.0
Hf-181	6.139E+00 4.2	8.364E+00 3.6	4.119E+00 4.2	2.667E+00 5.8
Ta-182	4.253E+00 7.6	3.586E+00 7.4	1.629E+00 9.9	1.120E+00 13.6
Hg-203	-8.516E-01 100.8	-6.217E-01 100.8	-6.133E-01 100.8	-7.999E-01 100.8
Th-233	4.544E+01 3.1	4.475E+01 3.0	2.117E+01 3.1	8.881E+00 3.7

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101730
129
099
10
L

6101740
130
065
10
L

6101750
131
064
10
L

6101760
132
061
07
L

ELEMENT

Na- 24	2.244E+03	3.7	1.094E+03	4.8	4.529E+03	3.3	3.489E+02	8.1
Mg- 27	1.539E+03	32.3	2.549E+03	21.8	-1.482E+03	92.7	2.515E+03	32.2
Al- 28	3.905E+04	4.1	3.918E+04	4.3	2.562E+04	4.9	5.958E+03	10.4
Cl- 38	-5.509E+01	74.4	9.720E+01	23.1	-6.315E+01	72.2	6.990E+01	24.8
K - 42	-3.112E+03	97.1	-2.996E+03	97.1	-2.797E+03	97.1	-3.062E+03	97.4
Ca- 49	1.485E+04	11.4	1.472E+04	12.9	1.055E+04	14.6	1.103E+04	14.5
Ti- 51	1.404E+03	13.3	1.362E+03	13.4	1.401E+03	12.5	-5.520E+02	94.6
V - 52	2.297E+01	12.0	2.152E+01	13.5	2.633E+01	11.8	9.632E+00	23.5
Mn- 56	3.989E+02	3.5	4.321E+02	3.5	2.406E+02	3.6	3.739E+02	3.5
Cu- 66	-1.884E+02	100.8	-1.649E+02	100.8	-1.964E+02	100.8	-1.650E+02	100.8
Sr- 87	-2.450E+02	100.3	-2.305E+02	100.3	-2.120E+02	100.3	-2.697E+02	100.3
In-116	1.496E-01	23.5	1.316E-01	28.6	-1.183E-01	56.1	2.437E-01	20.6
I -128	-1.610E+01	93.2	-1.512E+01	93.3	-1.394E+01	93.0	-1.748E+01	93.4
Ba-139	2.560E+02	15.5	-9.072E+01	100.1	5.328E+02	8.3	-1.182E+02	100.1
Dy-165	3.748E+00	10.1	4.395E+00	8.2	3.834E+00	8.5	-1.043E+00	67.5
U -235	4.370E+00	2.8	4.700E+00	2.8	3.000E+00	2.8	6.370E-01	2.8
Ga- 72	1.552E+01	24.2	-9.901E+00	79.6	-1.062E+01	78.7	-5.613E+00	79.7
As- 76	4.638E+00	9.6	7.544E+00	9.2	8.999E+00	8.8	2.317E+00	12.2
Br- 82	3.844E+00	10.5	5.353E+00	10.5	2.895E+00	20.3	5.047E+00	10.4
Mo- 99	-5.278E+00	90.8	-7.929E+00	89.1	-5.853E+00	90.9	-3.710E+00	90.2
Sb-122	9.232E-01	9.9	9.614E-01	12.2	1.483E+00	8.7	2.161E-01	22.1
La-140	1.900E+01	4.0	2.201E+01	4.1	1.510E+01	4.3	4.196E+00	6.3
Sm-153	3.370E+00	5.0	3.412E+00	5.2	2.709E+00	4.7	6.078E-01	7.1
Yb-175	2.858E+00	5.4	2.710E+00	6.6	2.558E+00	6.5	5.842E-01	12.4
Lu-177	5.378E-01	6.7	4.524E-01	9.2	4.003E-01	8.8	7.514E-02	17.8
W -187	4.498E+00	12.8	1.990E+00	20.4	5.561E+00	12.7	1.186E+00	26.6
Au-198	-8.022E-03	100.2	-9.378E-03	100.2	-9.219E-03	100.2	-5.265E-03	100.2
Sc- 46	4.348E+00	3.9	4.782E+00	3.9	4.078E+00	3.9	1.513E+00	4.1
Cr- 51	9.752E+00	10.4	8.868E+00	9.7	1.190E+01	12.1	3.429E+00	18.0
Fe- 59	4.794E+03	4.5	5.024E+03	4.6	1.079E+04	4.2	1.824E+03	6.2
Co- 60	1.373E+00	8.8	1.402E+00	8.4	1.956E+00	8.5	7.229E-01	15.1
Zn- 65	4.089E+01	16.6	4.410E+01	17.7	-1.246E+01	63.0	2.633E+01	23.8
Se- 75	3.420E+00	22.8	2.469E+00	28.3	-2.054E+00	101.4	1.691E+00	33.0
Rb- 86	1.898E+01	16.9	1.604E+01	21.9	2.683E+01	17.7	-5.663E+00	100.0
Zr- 95	8.048E+01	30.5	-1.450E+02	71.7	-1.811E+02	71.4	-9.201E+01	71.6
Ag-110	-1.366E+00	65.2	-1.728E+00	65.1	-2.053E+00	65.3	-1.028E+00	65.4
Sb-124	1.261E+00	21.5	9.457E-01	31.4	-6.967E-01	78.3	-3.094E-01	65.6
Cs-134	2.388E+00	9.2	1.578E+00	13.0	2.090E+00	11.4	-2.583E-01	59.1
Ba-131	2.697E+02	13.8	1.237E+02	18.2	5.338E+02	11.8	-8.112E+01	49.7
Ce-141	3.717E+01	4.2	4.816E+01	4.0	3.313E+01	4.7	6.521E+00	8.0
Nd-147	-7.934E+00	76.0	-9.527E+00	76.1	-1.627E+01	72.7	-6.514E+00	74.2
Eu-152	3.639E-01	13.4	4.284E-01	14.2	3.211E-01	17.8	-6.057E-02	35.4
Tb-160	3.835E-01	17.1	6.051E-01	15.9	5.109E-01	21.2	-1.792E-01	41.6
Yb-169	3.384E+00	5.6	3.512E+00	5.2	3.349E+00	6.7	6.096E-01	15.4
Lu-177	4.206E-01	6.5	4.642E-01	5.9	4.162E-01	7.3	1.036E-01	16.3
Hf-181	2.950E+00	4.9	3.260E+00	4.8	3.130E+00	5.7	6.960E-01	12.8
Ta-182	1.174E+00	13.1	1.094E+00	12.5	8.743E-01	18.3	-3.260E-01	37.2
Hg-203	-1.798E-01	100.8	-1.295E-01	100.8	-8.156E-01	100.8	-4.261E-01	100.8
Th-233	1.440E+01	3.3	1.432E+01	3.3	8.840E+00	3.8	1.755E+00	6.2

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101770
133
078
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6101780
134
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6101790
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081
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6101800
136
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L

ELEMENT

Na- 24	3.9	1.849E+03	4.0	3.602E+03	3.4	1.708E+03	4.0
Mg- 27	94.0	-1.479E+03	93.7	1.541E+03	93.8	-1.229E+03	93.7
Al- 28	4.8	4.221E+04	4.2	3.323E+04	4.3	3.955E+04	4.1
Cl- 38	75.6	-5.043E+01	76.0	5.972E+01	73.5	-3.813E+01	76.8
K - 42	97.2	-3.373E+03	97.1	3.685E+03	23.9	-2.786E+03	97.2
Ca- 49	11.3	1.790E+04	13.5	1.398E+04	12.2	1.401E+04	11.7
Ti- 51	12.6	1.985E+03	9.3	1.477E+03	11.7	2.112E+03	10.7
V - 52	15.6	4.469E+01	8.6	2.761E+01	10.2	4.084E+01	8.9
Mn- 56	3.5	4.861E+02	3.5	3.937E+02	3.5	4.573E+02	3.5
Cu- 66	100.8	-1.948E+02	100.8	2.020E+02	100.8	-1.599E+02	100.8
Sr- 87	100.3	-2.596E+02	100.3	2.497E+02	100.3	-2.196E+02	100.3
In-116	23.2	1.946E-01	19.5	1.291E-01	56.1	-1.109E-01	55.8
I - 128	93.3	-1.697E+01	93.3	1.621E+01	93.3	-1.447E+01	93.3
Ba-139	100.1	-1.043E+02	100.1	1.124E+02	100.1	-8.719E+01	100.1
Dy-165	8.7	3.508E+00	9.2	3.492E+00	10.8	3.426E+00	9.3
U -235	2.8	2.800E+00	2.8	3.460E+00	2.8	2.635E+00	2.8
Ga- 72	79.5	-7.629E+00	79.2	8.494E+00	27.2	1.189E+01	25.9
As- 76	10.2	2.888E+00	11.8	4.121E+00	10.2	3.707E+00	10.7
Br- 82	9.9	3.181E+00	13.3	4.122E+00	12.8	3.844E+00	13.0
Mo- 99	89.1	-4.376E+00	90.6	-5.711E+00	90.9	3.374E+00	32.0
Sb-122	12.9	5.777E-01	12.6	8.539E-01	12.2	6.587E-01	15.4
La-140	4.3	1.504E+01	4.2	1.928E+01	4.0	1.751E+01	4.1
Sm-153	5.0	2.466E+00	4.6	3.709E+00	4.9	2.203E+00	5.4
Yb-173	7.5	2.136E+00	6.5	2.908E+00	5.6	2.119E+00	6.9
Lu-177	9.7	3.382E-01	7.8	4.889E-01	5.9	4.171E-01	8.8
W -187	22.0	-9.314E-01	55.6	2.841E+00	16.6	3.635E+00	17.6
Au-198	100.2	-6.492E-03	100.2	-8.944E-03	100.2	-8.679E-03	100.2
Sc- 46	3.9	5.957E+00	3.9	5.405E+00	3.9	5.731E+00	3.9
Cr- 51	9.1	1.013E+01	8.3	1.196E+01	9.0	2.074E+01	6.7
Fe- 59	4.3	7.783E+03	4.3	7.047E+03	4.2	7.001E+03	4.2
Co- 60	8.3	2.191E+00	7.6	1.834E+00	7.2	3.832E+00	5.4
Zn- 65	83.6	-6.950E+00	84.4	4.424E+01	15.7	-5.506E+00	9.2
Se- 75	20.0	4.728E+00	101.4	3.822E+00	36.9	-1.319E+00	54.5
Rb- 86	100.0	2.463E+01	17.5	2.335E+01	15.5	2.532E+01	13.7
Zr- 95	71.5	-1.863E+02	71.6	-1.270E+02	71.5	7.620E+01	30.4
Ag-110	65.0	-2.123E+00	65.0	-1.491E+00	64.9	-1.686E+00	65.1
Sb-124	28.4	-6.469E-01	81.2	4.249E-01	81.0	-4.983E-01	80.4
Cs-134	12.2	2.551E+00	10.2	2.287E+00	9.0	2.807E+00	7.6
Ba-131	15.5	1.959E+02	54.2	8.600E+01	33.1	2.051E+02	17.1
Ce-141	4.1	2.942E+01	5.2	3.757E+01	4.3	3.417E+01	4.1
Nd-147	77.1	-7.724E+00	73.0	-8.070E+00	76.6	-8.441E+00	77.7
Eu-152	12.8	3.348E-01	17.3	5.132E-01	10.9	4.474E-01	11.3
Tb-160	18.0	6.220E-01	15.3	4.401E-01	26.6	3.789E-01	19.7
Yb-169	6.6	2.135E+00	9.7	2.812E+00	5.6	2.860E+00	5.6
Lu-177	6.5	3.230E-01	8.6	4.427E-01	6.2	4.016E-01	6.0
Hf-181	5.1	2.623E+00	5.8	3.551E+00	4.7	2.792E+00	4.9
Ta-182	13.2	8.899E-01	16.7	6.884E-01	15.8	8.815E-01	13.4
Hg-203	100.8	-8.177E-01	100.8	-5.481E-01	100.8	-6.016E-01	100.8
Th-233	3.4	1.151E+01	3.5	1.045E+01	3.4	9.661E+00	3.4

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101810
137
102
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6101820
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6101830
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6101840
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ELEMENT

Na- 24	6.617E+03	3.2	8.759E+03	3.1	7.942E+03	3.1	1.849E+03	3.9
Mg- 27	5.472E+03	15.8	3.614E+03	24.9	4.503E+03	14.2	3.864E+03	16.9
Al- 28	9.088E+04	3.6	1.119E+05	3.4	1.137E+05	3.4	6.358E+04	3.7
Cl- 38	3.633E+02	10.5	-8.256E+01	71.9	-7.161E+01	72.2	-4.667E+01	75.4
K - 42	1.610E+04	11.8	1.676E+04	11.5	1.560E+04	12.5	-3.138E+03	96.9
Ca- 49	7.402E+03	18.2	9.450E+03	13.4	1.067E+04	14.6	1.234E+04	12.4
Ti- 51	1.161E+03	16.4	3.616E+03	7.2	1.073E+03	17.8	2.704E+03	7.6
V - 52	8.736E+00	23.1	-6.957E+00	100.0	-6.180E+00	100.0	5.258E+01	7.3
Mn- 56	5.483E+02	3.5	2.533E+02	3.6	2.147E+02	3.6	3.791E+02	3.5
Cu- 66	-2.786E+02	100.8	-2.698E+02	100.8	-2.367E+02	100.8	-1.795E+02	100.8
Sr- 87	-3.099E+02	100.3	5.455E+02	17.7	-2.191E+02	100.3	-2.226E+02	100.3
In-116	-1.798E-01	55.6	3.210E-01	19.9	-1.370E-01	55.7	1.971E-01	19.7
I -128	-2.056E+01	93.2	-1.676E+01	93.0	-1.400E+01	93.2	-1.452E+01	93.3
Ba-139	-1.264E+02	100.1	1.513E+03	6.5	9.174E+02	7.3	2.819E+02	13.5
Dy-165	5.117E+00	8.6	4.607E+00	9.2	5.884E+00	7.9	4.850E+00	7.8
U -235	1.099E+01	2.8	5.255E+00	2.8	1.191E+01	2.8	3.745E+00	2.8
Ga- 72	-1.275E+01	79.0	-1.721E+01	78.9	-2.034E+01	79.2	-8.609E+00	79.6
As- 76	6.905E+00	9.5	1.943E+00	19.8	-1.600E+00	86.3	3.324E+00	11.8
Br- 82	2.748E+00	18.8	-1.703E+00	47.9	-2.046E+00	47.8	2.508E+00	13.4
Mo- 99	1.598E+00	11.9	-8.608E+00	91.2	-1.358E+01	89.5	6.272E+00	5.6
Sb-122	9.750E-01	13.1	1.362E+00	10.5	9.172E-01	16.2	1.034E+00	9.8
La-140	3.229E+01	3.8	5.403E+01	3.7	5.144E+01	3.8	2.781E+01	3.8
Sm-153	5.266E+00	4.9	8.430E+00	4.8	6.887E+00	4.9	4.262E+00	4.9
Yb-175	2.440E+00	7.8	2.552E+00	7.3	2.361E+00	10.4	3.697E+00	5.3
Lu-177	3.792E-01	17.0	3.722E-01	13.1	3.786E-01	21.4	4.903E-01	7.0
W -187	-1.612E+00	51.7	-2.670E+00	63.0	-3.096E+00	55.6	2.117E+00	25.6
Au-198	-1.056E-02	100.2	-1.389E-02	100.2	-1.697E-02	100.2	-7.177E-03	100.2
Sc- 46	4.932E+00	3.9	5.979E+00	3.9	3.934E+00	3.9	7.535E+00	3.9
Cr- 51	-3.084E+00	100.1	5.884E+00	28.0	-2.556E+00	100.1	2.247E+01	7.7
Fe- 59	6.378E+03	4.6	9.817E+03	4.1	1.164E+04	4.0	1.343E+04	4.0
Co- 60	6.865E-01	16.5	6.538E-01	14.4	7.880E-01	13.2	3.090E+00	6.4
Zn- 65	7.273E+01	13.4	1.221E+02	11.1	1.494E+02	10.3	6.174E+01	15.5
Se- 75	3.846E+00	32.0	-1.407E+00	94.3	-3.127E+00	92.2	-4.249E+00	66.9
Rb- 86	1.656E+02	6.7	9.462E+01	7.3	6.055E+01	9.4	3.542E+01	14.9
Zr- 95	-1.870E+02	86.7	3.532E+02	16.1	-1.290E+02	97.0	-2.065E+02	71.6
Ag-110	-2.137E+00	65.2	-1.692E+00	65.0	-1.746E+00	65.4	-2.361E+00	65.2
Sb-124	1.147E+00	25.6	1.057E+00	24.4	1.053E+00	24.5	-6.448E-01	81.5
Cs-134	4.179E+00	7.6	3.482E+00	7.7	2.612E+00	9.1	5.703E+00	6.6
Ba-131	1.289E+02	24.0	1.416E+03	5.3	9.364E+02	6.5	1.755E+02	27.7
Ce-141	7.109E+01	4.0	1.149E+02	3.8	1.217E+02	3.7	5.916E+01	4.4
Nd-147	2.926E+01	25.3	4.332E+01	17.6	3.832E+01	18.9	-1.795E+01	73.4
Eu-152	4.592E-01	14.1	1.374E+00	7.3	5.498E-01	11.5	7.727E-01	10.5
Tb-160	7.171E-01	15.4	7.683E-01	15.8	1.128E+00	12.7	5.369E-01	19.0
Yb-169	3.432E+00	8.5	3.150E+00	6.6	3.205E+00	6.6	4.019E+00	6.1
Lu-177	4.553E-01	8.2	3.370E-01	8.3	4.566E-01	6.8	5.366E-01	6.9
Hf-181	4.651E+00	4.7	1.470E+01	3.4	6.513E+00	4.0	5.603E+00	4.3
Ta-182	1.799E+00	10.8	2.706E+00	8.8	3.976E+00	7.5	1.162E+00	13.5
Hg-203	-8.896E-01	100.8	-6.777E-01	100.8	-7.343E-01	100.8	-9.078E-01	100.8
Th-233	2.944E+01	3.2	2.207E+01	3.2	5.183E+01	3.0	1.472E+01	3.4

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101850
141
080
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6101860
142
101
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6101870
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6101880
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ELEMENT

Na- 24	1.525E+03	4.0	1.006E+04	3.0	2.560E+03	3.7	1.372E+04	3.0
Mg- 27	2.763E+03	18.0	3.777E+03	22.2	1.490E+03	93.1	3.852E+03	22.3
Al- 28	4.262E+04	4.1	8.517E+04	3.5	3.818E+04	4.3	8.836E+04	3.6
Cl- 38	1.145E+02	20.7	5.027E+02	8.7	5.388E+01	74.0	6.193E+02	8.5
K - 42	4.121E+03	24.0	2.566E+04	8.9	3.165E+03	97.0	3.020E+04	8.6
Ca- 49	6.063E+03	15.8	5.581E+03	16.6	1.401E+04	12.5	7.461E+03	17.9
Ti- 51	1.592E+03	10.0	1.378E+03	14.3	2.251E+03	8.5	6.975E+02	96.0
V - 52	3.600E+01	8.7	2.316E+01	14.5	4.539E+01	8.6	8.089E+00	100.0
Mn- 56	1.132E+02	3.7	3.229E+02	3.5	3.708E+02	3.5	4.314E+02	3.5
Cu- 66	-1.408E+02	100.8	-2.351E+02	100.8	-1.894E+02	100.8	-3.465E+02	100.8
Sr- 87	-1.578E+02	100.3	-2.299E+02	100.3	-2.345E+02	100.3	-3.344E+02	100.3
In-116	1.430E-01	27.2	-1.402E-01	55.7	2.151E-01	22.6	-2.018E-01	55.8
I -128	-9.932E+00	93.3	-1.493E+01	93.1	1.552E+01	93.2	-2.184E+01	93.1
Ba-139	-7.463E+01	100.1	2.100E+02	17.3	2.895E+02	11.6	-1.549E+02	100.1
Dy-165	6.714E+00	7.4	5.882E+00	7.8	3.528E+00	8.9	1.102E+01	7.5
U -235	3.893E+00	2.8	8.878E+00	2.8	4.133E+00	2.8	1.545E+01	2.8
Ga- 72	-1.119E+01	80.3	2.252E+01	27.2	9.400E+00	79.6	2.127E+01	78.6
As- 76	5.981E+00	9.5	4.418E+00	12.2	4.631E+00	10.6	2.041E+01	8.0
Br- 82	5.321E+00	12.0	-2.009E+00	47.8	6.147E+00	10.5	-1.987E+00	48.0
Mo- 99	-6.890E+00	90.5	4.603E-01	23.6	5.159E+00	90.6	3.662E+00	8.9
Sb-122	6.467E-01	16.7	1.154E+00	15.1	7.549E-01	11.4	2.598E+00	8.1
La-140	6.394E+01	3.6	4.102E+01	3.8	2.097E+01	4.0	3.339E+01	3.8
Sm-153	6.673E+00	4.7	5.721E+00	4.9	3.227E+00	5.1	1.208E+01	4.9
Yb-175	4.490E+00	4.8	4.004E+00	6.9	2.289E+00	6.8	7.350E+00	4.7
Lu-177	7.501E-01	5.8	5.840E-01	10.9	3.832E-01	8.7	1.121E+00	6.2
W -187	5.592E+00	12.4	-3.073E+00	54.8	2.123E+00	21.5	2.799E+00	24.5
Au-198	-9.999E-03	100.2	-1.636E-02	100.2	7.660E-03	100.2	-1.597E-02	100.2
Sc- 46	5.049E+00	3.9	4.518E+00	3.9	5.953E+00	3.9	2.378E+00	4.0
Cr- 51	2.005E+01	8.4	1.217E+01	9.5	1.950E+01	8.0	6.390E+00	22.7
Fe- 59	1.238E+04	4.0	1.417E+04	3.9	5.597E+03	4.7	1.062E+04	4.1
Co- 60	4.854E+00	5.4	2.934E+00	5.9	2.048E+00	8.1	2.409E+00	7.2
Zn- 65	7.667E+01	13.0	1.166E+02	10.6	1.400E+01	53.9	1.720E+02	10.7
Se- 75	-3.509E+00	101.4	-3.260E+00	93.9	3.219E+00	34.9	-1.459E+00	101.4
Rb- 86	1.996E+01	18.5	1.970E+02	5.3	2.497E+01	20.3	2.600E+02	5.2
Zr- 95	-1.395E+02	71.6	1.402E+02	22.9	-1.919E+02	71.6	2.024E+02	14.7
Ag-110	-1.619E+00	65.2	-1.691E+00	65.2	-2.176E+00	65.0	-1.374E+00	65.8
Sb-124	-4.814E-01	80.2	9.574E-01	24.1	9.223E-01	29.8	1.994E+00	20.6
Cs-134	3.051E+00	8.3	9.168E+00	5.2	2.350E+00	11.6	1.051E+01	5.3
Ba-131	-1.573E+03	3.0	1.854E+02	13.0	3.197E+02	16.8	1.287E+02	14.5
Ce-141	1.146E+02	3.8	8.985E+01	3.9	4.453E+01	4.5	8.009E+01	3.9
Nd-147	5.097E+01	16.9	3.290E+01	18.5	-1.803E+01	72.9	3.999E+01	19.0
Eu-152	1.171E+00	8.0	5.108E-01	11.2	4.918E-01	14.1	2.875E-01	14.9
Tb-160	9.907E-01	13.4	1.115E+00	12.9	6.747E-01	18.2	1.735E+00	9.0
Yb-169	4.815E+00	4.6	4.668E+00	5.1	2.469E+00	8.7	8.490E+00	4.1
Lu-177	6.701E-01	5.5	6.597E-01	5.2	4.248E-01	8.2	1.148E+00	4.7
Hf-181	2.610E+00	5.7	5.559E+00	3.9	3.770E+00	5.3	1.408E+01	3.4
Ta-182	5.668E-01	17.1	2.467E+00	8.4	1.360E+00	14.2	4.693E+00	7.2
Hg-203	-6.110E-01	100.8	-6.766E-01	100.8	-8.583E-01	100.8	-6.747E-01	100.8
Th-233	9.863E+00	3.5	2.944E+01	3.1	1.526E+01	3.4	5.533E+01	3.0

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101890
145
103
08
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6101900
146
079
10
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6101910
147
073
10
L

6101920
148
083
07
L

ELEMENT

Na- 24	9.015E+03	3.1	3.427E+03	3.4	2.718E+03	3.6	3.288E+03	3.5
Mg- 27	2.947E+03	26.5	1.975E+03	29.1	1.928E+03	33.5	-1.280E+03	93.4
Al- 28	9.310E+04	3.5	3.848E+04	4.1	4.556E+04	4.0	4.026E+04	4.1
Cl- 38	5.740E+02	8.8	-5.350E+01	72.9	8.280E+01	30.5	6.884E+01	21.4
K - 42	2.481E+04	9.7	-2.783E+03	96.9	-3.361E+03	97.1	4.285E+03	25.8
Ca- 49	6.114E+03	17.2	1.428E+04	11.0	1.507E+04	11.3	1.461E+04	10.7
Ti- 51	8.487E+02	24.6	2.051E+03	8.9	2.105E+03	10.9	1.550E+03	11.9
V - 52	-6.516E+00	100.0	3.918E+01	8.3	2.977E+01	10.4	2.238E+01	12.0
Mn- 56	4.665E+02	3.5	2.706E+02	3.5	4.113E+02	3.5	4.318E+02	3.5
Cu- 66	-2.507E+02	100.8	-1.754E+02	100.8	-2.000E+02	100.8	-1.661E+02	100.8
Sr- 87	-2.641E+02	100.3	-2.001E+02	100.3	-2.615E+02	100.3	-2.179E+02	100.3
In-116	-1.527E-01	55.7	1.141E-01	27.5	1.852E-01	23.5	2.300E-01	20.7
I -128	-1.710E+01	93.2	-1.291E+01	93.2	-1.710E+01	93.2	-1.428E+01	93.3
Ba-139	-1.072E+02	100.1	1.906E+02	11.7	2.260E+02	24.1	5.206E+02	9.3
Dy-165	4.031E+00	9.2	3.685E+00	8.2	3.041E+00	11.6	3.937E+00	8.5
U -235	1.083E+01	2.8	3.691E+00	2.8	4.742E+00	2.8	3.448E+00	2.8
Ga- 72	-2.033E+01	78.8	-9.692E+00	79.3	-1.100E+01	79.6	-1.302E+01	79.4
As- 76	7.138E+00	9.8	3.076E+00	12.1	4.421E+00	10.2	3.286E+00	13.2
Br- 82	-1.942E+00	47.7	3.705E+00	12.3	3.142E+00	15.1	4.946E+00	11.3
Mo- 99	4.933E+00	16.0	-4.910E+00	90.8	1.944E+00	16.6	-8.115E+00	89.5
Sb-122	1.184E+00	12.4	6.235E-01	13.2	6.880E-01	13.6	7.911E-01	11.6
La-140	2.806E+01	4.0	2.017E+01	4.0	2.030E+01	4.0	1.926E+01	4.1
Sm-153	3.699E+00	6.5	3.393E+00	4.8	3.776E+00	4.9	2.962E+00	5.1
Yb-175	2.780E+00	9.1	1.921E+00	6.9	2.353E+00	6.6	2.532E+00	6.5
Lu-177	3.905E-01	20.3	3.904E-01	8.0	4.233E-01	7.8	4.436E-01	8.6
W -187	2.622E+00	27.4	1.589E+00	25.7	4.006E+00	14.3	2.360E+00	21.1
Au-198	-1.527E-02	100.2	-7.495E-03	100.2	-8.735E-03	100.2	-1.024E-02	100.2
Sc- 46	5.363E+00	3.9	6.005E+00	3.9	5.606E+00	3.9	5.346E+00	3.9
Cr- 51	-2.433E+00	100.1	1.828E+01	8.2	9.713E+00	10.3	1.365E+01	7.8
Fe- 59	5.669E+03	4.4	6.821E+03	4.4	9.189E+03	4.1	4.439E+03	4.5
Co- 60	4.172E-01	17.2	3.453E+00	6.1	1.964E+00	7.2	1.818E+00	7.0
Zn- 65	1.176E+02	11.8	3.577E+01	21.4	3.619E+01	19.8	4.828E+01	15.1
Se- 75	-3.098E+00	96.2	-2.682E+00	67.5	-1.011E+00	94.7	2.453E+00	32.1
Rb- 86	2.189E+02	5.2	2.265E+01	15.7	1.997E+01	19.2	2.058E+01	14.8
Zr- 95	7.875E+01	20.5	-1.811E+02	71.6	-1.164E+02	94.1	-1.384E+02	71.5
Ag-110	-1.755E+00	65.1	-2.053E+00	65.2	-1.604E+00	64.9	-1.602E+00	64.8
Sb-124	1.077E+00	21.9	-6.384E-01	81.8	-4.401E-01	84.9	7.786E-01	27.6
Cs-134	6.448E+00	5.8	3.351E+00	9.3	2.183E+00	10.0	2.203E+00	8.6
Ba-131	4.923E+01	22.1	3.408E+02	13.5	-1.927E+02	41.4	4.097E+02	9.2
Ce-141	6.400E+01	4.0	4.826E+01	4.4	4.276E+01	4.3	4.300E+01	4.1
Nd-147	2.257E+01	25.1	-1.614E+01	73.2	-9.267E+00	76.2	-8.824E+00	76.7
Eu-152	4.838E-01	11.5	5.218E-01	12.7	4.969E-01	11.9	5.996E-01	10.4
Tb-160	5.933E-01	19.1	4.724E-01	24.2	4.006E-01	21.4	7.171E-01	14.3
Yb-169	3.061E+00	6.7	2.415E+00	8.9	2.369E+00	6.6	2.982E+00	5.3
Lu-177	4.423E-01	6.5	3.582E-01	8.6	3.820E-01	7.0	4.847E-01	5.8
Hf-181	5.137E+00	4.1	3.566E+00	5.2	4.471E+00	4.4	3.897E+00	4.3
Ta-182	2.327E+00	8.7	1.100E+00	14.0	1.016E+00	12.5	1.196E+00	11.3
Hg-203	-6.851E-01	100.8	-8.117E-01	100.8	-5.987E-01	100.8	-1.056E+00	72.6
Th-233	3.327E+01	3.1	1.201E+01	3.5	1.379E+01	3.3	1.320E+01	3.3

FILE ID	6101930	6101940	6101950	6101951
SAMPLE	149	150	151	152
DUPLICATE	095	082	084	156
CLUSTER	08	10	05	05
TYPE	T	L	L	L
ELEMENT				
Na- 24	6.693E+03 3.1	5.059E+02 6.1	2.648E+03 3.5	2.812E+03 3.5
Mg- 27	1.273E+04 8.6	1.183E+03 94.7	2.774E+03 18.6	2.034E+03 24.6
Al- 28	9.773E+04 3.4	9.505E+03 7.1	3.330E+04 4.3	3.168E+04 4.3
Cl- 38	-7.071E+01 72.4	5.492E+01 28.8	4.227E+01 73.7	-5.165E+01 73.5
K - 42	9.835E+03 14.8	-2.650E+03 97.4	-2.289E+03 97.1	3.258E+03 27.2
Ca- 49	1.191E+04 12.7	1.957E+04 9.9	1.424E+04 12.3	1.346E+04 11.6
Ti- 51	2.579E+03 7.9	-4.798E+02 94.7	1.674E+03 10.8	2.102E+03 8.7
V - 52	3.283E+01 9.7	1.932E+01 14.7	4.794E+01 7.3	4.148E+01 7.5
Mn- 56	2.469E+02 3.6	3.801E+02 3.5	2.797E+02 3.5	2.826E+02 3.5
Cu- 66	-2.341E+02 100.8	-1.520E+02 100.8	1.472E+02 100.8	-1.675E+02 100.8
Sr- 87	-2.264E+02 100.3	-2.347E+02 100.3	1.794E+02 100.3	-1.988E+02 100.3
In-116	1.523E-01 25.4	1.240E-01 27.9	1.298E-01 22.4	1.729E-01 17.3
I -128	-1.462E+01 93.2	-1.518E+01 93.4	-1.178E+01 93.1	-1.299E+01 93.2
Ba-139	3.548E+02 11.0	-1.037E+02 100.1	2.102E+02 13.9	2.181E+02 15.2
Dy-165	3.022E+00 9.1	-9.077E-01 67.6	5.328E+00 7.4	6.123E+00 7.2
U -235	1.123E+01 2.8	1.211E+00 2.8	2.245E+00 2.8	2.141E+00 2.8
Ga- 72	1.999E+01 24.4	-6.603E+00 79.8	-1.353E+01 79.4	-9.719E+00 79.7
As- 76	4.040E+00 11.7	2.608E+00 10.8	2.766E+00 13.1	4.186E+00 11.2
Br- 82	-1.217E+00 47.8	7.288E+00 8.9	5.988E+00 10.4	5.403E+00 10.5
Mo- 99	-6.364E+00 90.8	-3.525E+00 90.5	8.142E+00 89.4	-4.927E+00 90.6
Sb-122	1.379E+00 10.2	3.336E-01 14.4	4.558E-01 21.1	6.988E-01 14.6
La-140	2.149E+01 4.0	5.830E+00 5.3	2.050E+01 4.1	1.982E+01 4.0
Sm-153	2.637E+00 7.3	1.142E+00 5.1	3.475E+00 4.7	3.757E+00 4.7
Yb-175	1.424E+00 13.4	1.030E+00 8.3	4.907E+00 5.0	4.804E+00 4.7
Lu-177	1.995E-01 44.1	1.444E-01 11.2	8.834E-01 5.4	8.059E-01 4.9
W -187	-1.643E+00 48.9	-8.186E-01 82.7	2.396E+00 23.7	1.874E+00 19.8
Au-198	-9.860E-03 100.2	-5.144E-03 100.2	-1.011E-02 100.2	-7.472E-03 100.2
Sc- 46	7.445E+00 3.9	2.676E+00 3.9	7.253E+00 3.8	7.400E+00 3.9
Cr- 51	1.706E+01 9.4	4.483E+00 15.0	2.268E+01 6.7	1.970E+01 8.4
Fe- 59	1.961E+04 3.9	3.798E+03 4.7	1.077E+04 4.0	1.097E+04 4.1
Co- 60	3.044E+00 6.5	1.522E+00 7.8	7.576E+00 4.7	7.636E+00 4.9
Zn- 65	5.862E+01 16.8	1.677E+01 31.3	7.107E+01 12.8	4.568E+01 18.6
Se- 75	2.518E+00 33.9	2.680E+00 22.8	3.311E+00 24.6	3.609E+00 24.5
Rb- 86	5.725E+01 12.0	-6.272E+00 100.0	3.262E+01 12.7	3.228E+01 19.1
Zr- 95	1.369E+02 28.2	-9.708E+01 71.6	-1.649E+02 71.5	-2.057E+02 71.5
Ag-110	-2.485E+00 65.3	-1.122E+00 65.2	-1.911E+00 65.1	-2.294E+00 65.4
Sb-124	1.548E+00 29.8	-3.273E-01 64.3	-5.593E-01 79.4	-6.405E-01 81.9
Cs-134	6.767E+00 6.4	-2.900E-01 58.3	3.352E+00 7.5	3.715E+00 8.6
Ba-131	3.015E+02 16.8	-1.016E+02 54.0	1.976E+02 19.2	1.701E+02 24.8
Ce-141	4.886E+01 4.2	1.266E+01 5.2	4.684E+01 3.9	4.755E+01 4.6
Nd-147	-2.155E+01 72.2	-6.288E+00 76.7	-9.360E+00 77.9	-1.805E+01 73.3
Eu-152	4.560E-01 14.2	1.765E-01 17.5	6.875E-01 9.3	6.877E-01 10.6
Tb-160	4.261E-01 25.5	-1.089E-01 100.2	5.454E-01 18.1	6.789E-01 18.6
Yb-169	1.939E+00 14.8	1.355E+00 7.9	6.321E+00 3.7	6.016E+00 4.3
Lu-177	3.107E-01 11.8	1.778E-01 10.4	9.376E-01 4.6	9.081E-01 5.3
Hf-181	6.016E+00 4.4	1.348E+00 7.5	3.218E+00 4.8	2.965E+00 5.6
Ta-182	1.778E+00 11.2	3.946E-01 25.9	5.970E-01 16.4	-5.035E-01 41.2
Hg-203	-1.002E+00 100.8	-4.301E-01 100.8	-6.721E-01 100.8	-8.729E-01 100.8
Th-233	3.954E+01 3.1	3.544E+00 4.3	7.917E+00 3.5	8.022E+00 3.8

FILE ID
SAMPLE
DUPLICATE
CLUSTER
TYPE

6101960
153
075
10
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6101970
154
106
09
T

6101980
155
107
06
T

6101990
156
152
03
L

ELEMENT

Na- 24	1.861E+03	4.0	6.044E+03	3.2	1.000E+04	3.0	2.733E+03	3.5
Mg- 27	-1.527E+03	94.6	7.424E+03	12.1	5.452E+03	12.7	2.219E+03	27.3
Al- 28	1.752E+04	6.1	1.191E+05	3.4	8.910E+04	3.5	3.303E+04	4.2
Cl- 32	-5.710E+01	75.6	-5.939E+01	72.8	-8.090E+01	71.4	-5.070E+01	73.4
K - 42	-3.369E+03	97.4	1.170E+04	13.4	8.499E+03	13.0	-2.590E+03	97.2
Ca- 49	1.584E+04	11.9	9.650E+03	14.1	1.211E+04	12.7	1.516E+04	11.0
Ti- 51	1.374E+03	18.2	3.862E+03	6.8	2.348E+03	8.2	2.031E+03	9.4
V - 52	1.930E+01	13.5	4.888E+01	8.4	2.360E+01	12.5	4.645E+01	7.3
Mn- 56	4.919E+02	3.5	1.960E+02	3.6	2.510E+02	3.6	2.780E+02	3.5
Cu- 66	-2.047E+02	100.8	-2.073E+02	100.8	-2.476E+02	100.8	-1.726E+02	100.8
Sr- 87	-2.920E+02	100.3	-1.929E+02	100.3	-2.286E+02	100.3	-2.067E+02	100.3
In-116	1.620E-01	23.2	2.170E-01	19.7	-1.434E-01	55.8	1.755E-01	20.4
I -128	-1.923E+01	93.2	-1.265E+01	93.1	-1.501E+01	93.1	-1.368E+01	93.2
Ba-139	-1.265E+02	100.1	4.996E+02	9.1	1.366E+03	6.1	-9.550E+01	100.1
Dy-165	2.746E+00	13.5	6.480E+00	7.3	5.707E+00	7.5	4.643E+00	8.3
U -235	1.671E+00	2.8	5.724E+00	2.8	9.893E+00	2.8	2.150E+00	2.8
Ga- 72	-1.068E+01	79.3	-2.087E+01	79.0	2.020E+01	20.2	-1.215E+01	79.4
As- 76	2.713E+00	12.3	2.159E+00	20.0	4.494E+00	11.1	3.707E+00	11.1
Br- 82	4.412E+00	12.8	-1.842E+00	47.7	1.445E+00	21.1	6.517E+00	9.8
Mo- 99	-5.063E+00	90.7	-1.162E+01	89.6	-7.130E+00	90.9	-5.509E+00	90.8
Sb-122	5.804E-01	14.2	1.092E+00	13.8	1.006E+00	11.9	8.418E-01	11.7
La-140	9.538E+00	4.8	4.562E+01	3.8	3.529E+01	3.8	2.110E+01	4.0
Sm-153	1.985E+00	5.0	6.574E+00	5.0	6.032E+00	4.8	3.884E+00	4.7
Yb-175	3.058E+00	5.5	2.966E+00	8.5	3.184E+00	6.6	5.618E+00	4.4
Lu-177	5.625E-01	5.5	3.738E-01	13.7	5.256E-01	9.7	1.016E+00	4.5
W -187	3.391E+00	15.4	-2.552E+00	54.7	-2.096E+00	55.2	2.097E+00	22.6
Au-198	-7.626E-03	100.2	-1.463E-02	100.2	-1.108E-02	100.2	-8.344E-03	100.2
Sc- 46	4.017E+00	3.9	9.943E+00	3.8	5.391E+00	3.9	7.289E+00	3.9
Cr- 51	1.048E+01	9.9	1.869E+01	8.1	9.786E+00	15.0	1.931E+01	7.4
Fe- 59	2.094E+03	5.9	2.201E+04	3.8	1.169E+04	4.1	1.040E+04	4.0
Co- 60	4.578E+00	5.7	4.538E+00	5.5	1.722E+00	8.4	7.376E+00	4.8
Zn- 65	1.472E+01	44.7	1.979E+02	10.0	5.559E+01	16.5	6.017E+01	14.7
Se- 75	3.491E+00	27.7	-4.665E+00	98.0	-2.098E+00	101.4	1.789E+01	25.7
Rb- 86	1.608E+01	22.8	7.630E+01	8.8	5.239E+01	11.2	2.151E+01	14.9
Zr- 95	-1.236E+02	71.6	3.597E+02	19.9	1.987E+02	22.7	-1.083E+02	100.3
Ag-110	-1.433E+00	64.9	-1.901E+00	96.8	-1.635E+00	97.3	-1.686E+00	64.7
Sb-124	-4.383E-01	82.8	1.275E+00	20.0	1.284E+00	26.7	-4.997E-01	80.2
Cs-134	1.165E+00	14.5	6.931E+00	6.0	2.674E+00	8.8	3.579E+00	7.7
Ba-131	1.108E+02	27.9	5.300E+02	10.4	1.375E+03	6.1	1.796E+02	22.7
Ce-141	2.166E+01	4.7	1.019E+02	3.8	8.105E+01	4.1	4.375E+01	4.3
Nd-147	-8.231E+00	76.4	6.066E+01	19.1	3.592E+01	19.1	-8.880E+00	77.4
Eu-152	3.713E-01	16.0	1.244E+00	7.3	6.504E-01	10.8	6.469E-01	9.8
Tb-160	3.178E-01	20.6	1.368E+00	14.1	7.078E-01	17.9	1.064E+00	15.6
Yb-169	3.193E+00	5.2	3.304E+00	6.5	4.361E+00	6.0	5.591E+00	4.1
Lu-177	4.975E-01	6.3	4.111E-01	7.4	5.213E-01	7.1	9.365E-01	4.8
Hf-181	1.944E+00	6.4	1.173E+01	3.5	6.679E+00	4.0	2.819E+00	5.2
Ta-182	-3.303E-01	41.4	2.155E+00	9.3	1.950E+00	9.9	5.569E-01	20.0
Hg-203	-5.365E-01	100.8	-8.808E-01	100.8	-8.716E-01	100.8	-6.197E-01	100.8
Th-233	4.978E+00	4.2	2.346E+01	3.2	2.974E+01	3.1	8.000E+00	3.5