

**Determination of Particle Size Distribution and
Chemical Composition of Particulate Matter from
Selected Sources in California**

**Volume II
(Appendices)**

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Agreement No. A6-175-32

June 30, 1989

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A-1 Source Profile Format and Nomenclature

Appendix A contains a composite source profile printout for each particle size category for each source. Both directly-measured size categories ($<1\mu$, $<2.5\mu$, $<10\mu$, and $<30\mu$ [TSP]) and calculated size categories (1μ - 2.5μ , 2.5μ - 10μ , 10μ - 30μ [$>10\mu$]) are included. Section A-2 provides the source mnemonics for dust (resuspended) composites. Section A-3 provides the source mnemonics for other point and area source (non-resuspended) composites. Section A-4 lists the size category codes. A number of features are included on the printouts primarily as an aid in data processing and can be ignored by the reader. These are filter IDs, analysis flags, and mean particulate mass concentrations (μ/m^3) with their associated uncertainties. The filter IDs given in the printouts for the directly-measured size categories are the IDs for one of the Teflon/quartz filter sets that make up the composites and are included simply as a method for tracking data. Analysis flags as defined in Table 4.4-2 of the text are listed on the print-outs to assist the analyst during data validation. The mean particulate mass concentrations and their associated uncertainties are listed because they are used in intermediate steps in the calculation of the chemical profiles and secondarily for the collection of size distribution of mass. Unlike source sampling for emission factor determination or ambient monitoring, the principal objective in CMB-type receptor source sampling is the development of a source profile made up of the percentage composites of various chemical species, not the particulate mass concentration. It should be further emphasized that receptor modeling source sampling protocols are not designed to characterize the particulate mass concentrations in source emission streams and the parameter other than being used in the calculation process is essentially meaningless in most cases (e.g., the resuspended samples). The uncertainty around the mass concentrations values are in no way a measure of data quality, they simply reflect the variability in the source emission (or resuspension chamber) concentrations during the various sampling periods which make up the composite set.

The key feature of each printout is the percent composition and associated uncertainty for forty-three chemical species. Each uncertainty value is either the root-mean-square propagated analytical uncertainty or the standard deviation of the samples which make up the composite, whichever is larger. Section A-5 gives the chemical species code. Section A-6 contains the composite source profile printouts for dust (resuspended) sources and Section A-7 contains the composite source profile printouts for other point and area sources (non-resuspended).

As discussed in the text, the composite source profiles for the size categories determined from direct measurements have the lowest uncertainties associated with them. These are the $<1\mu$, $<2.5\mu$, $<10\mu$, and TSP size categories (size codes 1, 2.5, 10 and 30, respectively). The size categories calculated by subtraction have higher uncertainties due to the propagation of errors. These are the 1μ to 2.5μ , 2.5μ to 10μ , 10μ to $\sim 30\mu$ size categories (size codes 2, 3, and 4 respectively). Because many of the combustion sources have the overwhelming majority of their particulate mass in the less than one micron size range, some of the size

categories that were determined by subtraction have zero values, negative values, or sum values greater than 100% listed in the print-outs. Since in many cases for example there is so little difference in the mass collected on the $<1\mu$ and <2.5 filters (looking at it another way—there are so few particles in the 1μ to 2.5μ size range), the uncertainties around the measurement can result in the mean value calculated for the $<2.5\mu$ filter to be slightly less than that for the $<1\mu$ filter, resulting in a negative or zero value being reported upon subtraction. Similar effects can be seen for some of the 2.5μ to 10μ and 10μ to $\sim 30\mu$ size categories calculated by subtraction. When this effect is observed in the data, the chemical profiles in the size categories determined by direct measurement only should be used.

A-2

Composite Source Profile Mnemonics Dust (resuspended) Sources

SOIL01	Stockton agricultural soil, "peat"
SOIL02	Stockton agricultural soil, "mineral" (not analyzed—see text)
SOIL03	Fresno paved road
SOIL04	Visalia agricultural soil, cotton/walnut
SOIL05	Visalia agricultural soil, raisin
SOIL06	Visalia sand and gravel
SOIL07	Visalia urban unpaved
SOIL08	Visalia paved road
SOIL09	Bakersfield agricultural soil, alkaline
SOIL10	Bakersfield agricultural soil, sandy loam
SOIL11	Bakersfield unpaved road
SOIL12	Bakersfield paved road
SOIL13	Bakersfield windblown urban unpaved
SOIL14	Bakersfield agricultural soil, Wasco sandy loam
SOIL15	Bakersfield agricultural soil, Cajon sandy loam
SOIL16	Bakersfield unpaved road
SOIL17	Taft unpaved road
SOIL18	Brawley urban unpaved
SOIL19	Brawley paved road
SOIL20	El Centro paved road
SOIL21	El Centro agricultural soil
SOIL22	Trona desert soil
SOIL23	Owens Lake desert soil
SOIL24	Owens Lake desert soil
SOIL25	Owens Valley desert soil
SOIL26	Mammoth Lakes cinder
SOIL27	Mammoth Lakes paved road

A-3

Composite Source Profile Mnemonics Point and Area Sources (non-resuspended)

WHDIEC	Wheeler weigh station diesel truck emissions
SFCRUC	Santa Fe Energy crude oil boiler emissions
CHCRUC	Chevron crude oil boiler emissions
BAAGBC	Bakersfield agricultural burn, wheat and barley
ELAGBC	El Centro agricultural burn, wheat stubble
STAGBC	Stockton agricultural burn, wheat stubble
VIAGBC	Visalia agricultural burn, wheat stubble
VIDAIC	Visalia dairy
FRCONC	Fresno construction dust
MADIEC	Mammoth Lakes bus diesel emissions
BAMAJC	Bakersfield fuel, Majestic fireplace
MAMAJC	Mammoth Lakes fuel, Majestic fireplace
MAFISC	Mammoth Lakes fuel, Fisher woodstove

A-4
Size Codes

Size Range	Code	Origin
< 1.0 μ	1.0	directly measured
1.0 μ -2.5 μ	2	calculated
< 2.5 μ	2.5	directly measured
2.5 μ -10 μ	3	calculated
< 10 μ	10	directly measured
10 μ -30 μ (> 10 μ) ^a	4	calculated
< 30 μ (TSP) ^a	30	directly measured

- a. Particles greater than approximately 30 μ are generally not collected with most ambient or source sampling equipment, and their half-life in the atmosphere is short. The 10 μ -30 μ size category could be referred to in essence as > 10 μ , and the < 30 μ size category as total suspended particles (TSP).

A-5
Chemical Species Codes

Identifying Symbol	Chemical Species	Analytical Technique ^a
Na	water soluble sodium (Na ⁺)	AAS
Al	aluminum	XRF
Si	silicon	XRF
P	phosphorus	XRF
S	sulfur	XRF
SO ₄	sulfate (SO ₄ ²⁻)	IC
Cl	chlorine	XRF
K-x	potassium (K)	XRF
K-a	water soluble potassium (K ⁺)	AAS
Ca	calcium	XRF
Ti	titanium	XRF
V	vanadium	XRF
Cr	chromium	XRF
Mn	manganese	XRF
Fe	iron	XRF
Co	cobalt	XRF
Ni	nickel	XRF
Cu	copper	XRF
Zn	zinc	XRF
Ga	gallium	XRF
As	arsenic	XRF
Se	selenium	XRF
Br	bromine	XRF
Rb	rubidium	XRF
Sr	strontium	XRF
Y	yttrium	XRF
Zr	zirconium	XRF
Mo	molybdenum	XRF
Pd	paladium	XRF
Ag	silver	XRF
Cd	cadmium	XRF
In	indium	XRF
Sn	tin	XRF
Sb	antimony	XRF
Ba	barium	XRF
La	lanthanum	XRF
Hg	mercury	XRF
Pb	lead	XRF
NO ₃	nitrate (NO ₃ ⁻)	IC
NH ₄	ammonium (NH ₄ ⁺)	AC
OC	organic carbon	TOR
EC	elemental carbon	TOR
CO ₃ (or CC)	carbonate carbon	TOR

- a. AAS= Atomic Absorption Spectrophotometry
 XRF= X-ray Fluorescence Spectrometry
 IC = Ion Chromatography
 AC = Automated Colorimetry
 TOR= Thermal/Optical Reflectance

A-6

**Composite Source Profiles
Dust (resuspended) Sources**

Sample ID : SOIL01
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 13727.3249 4833.4024 ug/m3

	Conc (%)	Uncert (%)
Na	0.6548	1.1245
Al	5.0267	2.1827
Si	15.3587	6.2740
P	0.1396	0.0613
S	0.1379	0.0494
SO4	0.0038	0.3367
Cl	0.0440	0.0188
K-x	0.5791	0.2703
K-a	0.0080	0.1331
Ca	1.3707	0.7893
Ti	0.2715	0.1245
V	0.0200	0.0160
Cr	0.0133	0.0055
Mn	0.0484	0.0299
Fe	2.4871	1.5573
Co	0.0016	0.1505
Ni	0.0038	0.0036
Cu	0.0026	0.0034
Zn	0.0067	0.0028
Ga	0.0004	0.0079
As	0.0017	0.0085
Se	0.0003	0.0037
Br	0.0054	0.0029
Rb	0.0055	0.0038
Sr	0.0210	0.0121
Y	0.0008	0.0044
Zr	0.0077	0.0053
Mo	0.0009	0.0114
Pd	0.0017	0.0244
Ag	0.0008	0.0282
Cd	0.0055	0.0301
In	0.0007	0.0352
Sn	0.0000	0.0475
Sb	0.0000	0.0536
Ba	0.0382	0.1663
La	0.0105	0.2124
Hg	0.0021	0.0131
Pb	0.0053	0.0053
NO3	0.0000	0.9328
NH4	0.1110	0.1575
OC	10.6889	3.4567
EC	3.6702	2.9179
CO3	0.1476	0.6124
Sum	40.8927	8.3889

Sample ID : SOIL01
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 16627.2241 2589.5956 ug/m3

	Conc (%)	Uncert (%)
Na	0.2085	0.2130
Al	9.2351	1.2748
Si	25.9390	3.7228
P	0.2612	0.0316
S	0.2008	0.0552
SO4	0.0185	0.1388
Cl	0.0603	0.0082
K-x	1.0605	0.1196
K-a	0.3085	0.2857
Ca	2.0818	0.2346
Ti	0.4804	0.0543
V	0.0317	0.0072
Cr	0.0229	0.0026
Mn	0.0985	0.0111
Fe	5.0125	0.5661
Co	0.0104	0.0701
Ni	0.0099	0.0030
Cu	0.0092	0.0035
Zn	0.0161	0.0073
Ga	0.0002	0.0035
As	0.0033	0.0036
Se	0.0002	0.0017
Br	0.0089	0.0009
Rb	0.0092	0.0010
Sr	0.0281	0.0022
Y	0.0024	0.0011
Zr	0.0101	0.0014
Mo	0.0006	0.0051
Pd	0.0004	0.0108
Ag	0.0009	0.0125
Cd	0.0021	0.0134
In	0.0009	0.0158
Sn	0.0006	0.0213
Sb	0.0006	0.0241
Ba	0.0750	0.0715
La	0.0000	0.0950
Hg	0.0006	0.0059
Pb	0.0088	0.0095
NO3	0.1593	0.3847
NH4	0.0337	0.0302
OC	10.0100	1.3691
EC	3.1564	1.1946
CO3	0.0208	0.2521
Sum	58.2719	4.4116

Sample ID : SOIL01
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 13374.9088 2022.1632 ug/m3

	Conc (%)	Uncert (%)
Na	0.2336	0.2684
Al	9.1831	1.5832
Si	26.3432	4.6774
P	0.2419	0.0487
S	0.1997	0.0455
SO4	0.0137	0.1759
Cl	0.0585	0.0104
K-x	1.0683	0.1518
K-a	0.3545	0.3546
Ca	2.1331	0.2982
Ti	0.4711	0.0688
V	0.0310	0.0092
Cr	0.0213	0.0033
Mn	0.0948	0.0141
Fe	4.8158	0.7161
Co	0.0104	0.0895
Ni	0.0098	0.0034
Cu	0.0096	0.0043
Zn	0.0161	0.0086
Ga	0.0003	0.0045
As	0.0028	0.0045
Se	0.0003	0.0021
Br	0.0090	0.0012
Rb	0.0091	0.0012
Sr	0.0283	0.0028
Y	0.0026	0.0016
Zr	0.0099	0.0017
Mo	0.0008	0.0066
Pd	0.0004	0.0137
Ag	0.0011	0.0158
Cd	0.0015	0.0170
In	0.0007	0.0200
Sn	0.0008	0.0271
Sb	0.0007	0.0306
Ba	0.0699	0.0904
La	0.0000	0.1206
Hg	0.0008	0.0074
Pb	0.0102	0.0112
NO3	0.1948	0.4879
NH4	0.0274	0.0248
OC	9.9474	1.7339
EC	3.2526	1.5146
CO3	0.0134	0.3195
Sum	58.5261	5.5467

Sample ID : SOIL01
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 2140.9786 247.1740 ug/m3

	Conc (%)	Uncert (%)
Na	0.0247	0.0956
Al	11.1006	1.7420
Si	27.7319	4.4397
P	0.3922	0.0638
S	0.2144	0.0860
SO4	0.0623	0.2959
Cl	0.0707	0.0165
K-x	1.1143	0.1862
K-a	0.1296	0.0731
Ca	1.9747	0.3368
Ti	0.5524	0.0946
V	0.0330	0.0196
Cr	0.0317	0.0055
Mn	0.1200	0.0205
Fe	6.1980	1.0456
Co	0.0112	0.1326
Ni	0.0101	0.0025
Cu	0.0069	0.0016
Zn	0.0169	0.0035
Ga	0.0000	0.0076
As	0.0059	0.0051
Se	0.0000	0.0036
Br	0.0073	0.0015
Rb	0.0095	0.0021
Sr	0.0271	0.0037
Y	0.0007	0.0047
Zr	0.0111	0.0044
Mo	0.0000	0.0109
Pd	0.0002	0.0222
Ag	0.0001	0.0258
Cd	0.0006	0.0280
In	0.0018	0.0333
Sn	0.0000	0.0438
Sb	0.0014	0.0501
Ba	0.1111	0.1509
La	0.0113	0.2012
Hg	0.0003	0.0123
Pb	0.0009	0.0099
NO3	0.0353	0.8203
NH4	0.0668	0.0665
OC	7.2652	7.6873
EC	1.8575	2.5395
CO3	0.0832	0.5373
Sum	59.1010	9.5192

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 34204.2558 1753.1320 ug/m3

	Conc (%)	Uncert (%)
Na	0.1100	0.0228
Al	7.3742	0.8298
Si	19.1742	2.1571
P	0.2453	0.0276
S	0.3902	0.0523
SO4	0.2607	0.3878
Cl	0.1409	0.0183
K-x	1.6474	0.1858
K-a	0.1851	0.0550
Ca	2.6217	0.2957
Ti	0.4152	0.0550
V	0.0224	0.0054
Cr	0.0243	0.0030
Mn	0.0886	0.0122
Fe	4.4348	0.5691
Co	0.0050	0.0611
Ni	0.0082	0.0009
Cu	0.0162	0.0016
Zn	0.1336	0.0123
Ga	0.0000	0.0029
As	0.0006	0.0318
Se	0.0000	0.0010
Br	0.0065	0.0008
Rb	0.0108	0.0014
Sr	0.0738	0.0053
Y	0.0019	0.0019
Zr	0.0094	0.0013
Mo	0.0002	0.0027
Pd	0.0005	0.0055
Ag	0.0009	0.0065
Cd	0.0013	0.0068
In	0.0000	0.0079
Sn	0.0039	0.0092
Sb	0.0028	0.0122
Ba	0.0822	0.0153
La	0.0075	0.0469
Hg	0.0015	0.0033
Pb	0.2020	0.0178
NO3	0.0000	0.1868
NH4	0.0023	0.0040
OC	10.0837	2.1824
EC	1.3048	0.5778
CO3	0.1406	0.2436
Sum	48.7894	3.3157

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 17952.9331 1942.6431 ug/m3

	Conc (%)	Uncert (%)
Na	0.0464	0.0651
Al	5.4884	1.7689
Si	15.3792	4.5858
P	0.1913	0.0590
S	0.2628	0.0963
SO4	0.0268	1.2092
Cl	0.1203	0.0337
K-x	1.3706	0.3942
K-a	0.0451	0.1564
Ca	2.2960	0.6261
Ti	0.3382	0.0997
V	0.0144	0.0124
Cr	0.0193	0.0059
Mn	0.0728	0.0213
Fe	3.5300	1.0675
Co	0.0042	0.1371
Ni	0.0056	0.0019
Cu	0.0127	0.0025
Zn	0.0980	0.0186
Ga	0.0000	0.0075
As	0.0010	0.0723
Se	0.0000	0.0029
Br	0.0037	0.0017
Rb	0.0092	0.0020
Sr	0.0687	0.0111
Y	0.0014	0.0051
Zr	0.0094	0.0032
Mo	0.0004	0.0078
Pd	0.0009	0.0159
Ag	0.0016	0.0189
Cd	0.0022	0.0200
In	0.0000	0.0236
Sn	0.0056	0.0300
Sb	0.0030	0.0359
Ba	0.0981	0.0983
La	0.0137	0.1397
Hg	0.0014	0.0093
Pb	0.1452	0.0285
NO3	0.0000	0.5552
NH4	0.0043	0.0092
OC	3.5343	6.1216
EC	0.5650	1.7084
CO3	0.2238	0.3876
Sum	33.9431	8.1721

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 16251.3226 1162.4691 ug/m3

	Conc (%)	Uncert (%)
Na	0.1808	0.0549
Al	9.3975	1.1072
Si	23.2407	2.6239
P	0.3038	0.0515
S	0.5201	0.1708
SO4	0.5465	1.1664
Cl	0.1628	0.0314
K-x	1.9460	0.2823
K-a	0.3358	0.1202
Ca	2.9787	0.4315
Ti	0.4990	0.0668
V	0.0311	0.0079
Cr	0.0299	0.0034
Mn	0.1056	0.0159
Fe	5.4057	0.8833
Co	0.0059	0.0761
Ni	0.0111	0.0014
Cu	0.0200	0.0023
Zn	0.1723	0.0257
Ga	0.0003	0.0055
As	0.0014	0.0423
Se	0.0001	0.0022
Br	0.0095	0.0012
Rb	0.0124	0.0019
Sr	0.0794	0.0059
Y	0.0025	0.0039
Zr	0.0091	0.0019
Mo	0.0004	0.0064
Pd	0.0000	0.0130
Ag	0.0000	0.0156
Cd	0.0015	0.0165
In	0.0030	0.0198
Sn	0.0037	0.0266
Sb	0.0054	0.0298
Ba	0.0640	0.1026
La	0.0142	0.1172
Hg	0.0015	0.0076
Pb	0.2647	0.0319
NO3	0.0000	0.4669
NH4	0.0000	0.0077
OC	19.4744	4.6706
EC	2.6853	1.4380
CO3	0.2256	0.3070

 Sum 67.8694 5.7817

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 13117.3963 1226.3696 ug/m3

	Conc (%)	Uncert (%)
Na	0.1741	0.0689
Al	9.4426	1.3415
Si	23.6561	3.3204
P	0.2776	0.0609
S	0.5068	0.1915
SO4	0.5567	1.4664
Cl	0.1553	0.0368
K-x	1.9448	0.3538
K-a	0.3358	0.1513
Ca	2.9057	0.5601
Ti	0.4946	0.0831
V	0.0317	0.0100
Cr	0.0289	0.0043
Mn	0.1016	0.0202
Fe	5.2314	1.0782
Co	0.0059	0.0966
Ni	0.0107	0.0017
Cu	0.0189	0.0030
Zn	0.1570	0.0336
Ga	0.0004	0.0069
As	0.0012	0.0543
Se	0.0002	0.0028
Br	0.0093	0.0015
Rb	0.0124	0.0023
Sr	0.0782	0.0090
Y	0.0024	0.0050
Zr	0.0091	0.0024
Mo	0.0005	0.0080
Pd	0.0000	0.0164
Ag	0.0000	0.0195
Cd	0.0010	0.0207
In	0.0032	0.0249
Sn	0.0009	0.0333
Sb	0.0057	0.0373
Ba	0.0511	0.1279
La	0.0172	0.1470
Hg	0.0010	0.0096
Pb	0.2430	0.0408
NO3	0.0000	0.5857
NH4	0.0000	0.0097
OC	20.1877	5.6885
EC	2.8296	1.8047
CO3	0.2420	0.3852
Sum	68.8398	7.1165

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 3133.9264 168.8515 ug/m3

	Conc (%)	Uncert (%)
Na	0.2161	0.0857
Al	9.2228	1.0496
Si	21.5503	2.4520
P	0.4161	0.0526
S	0.5725	0.0894
SO4	0.5037	0.6581
Cl	0.1945	0.0222
K-x	1.9560	0.2223
K-a	0.3342	0.1279
Ca	3.2958	0.3745
Ti	0.5191	0.0590
V	0.0290	0.0076
Cr	0.0346	0.0039
Mn	0.1228	0.0140
Fe	6.1414	0.6985
Co	0.0056	0.0872
Ni	0.0126	0.0014
Cu	0.0248	0.0020
Zn	0.2373	0.0176
Ga	0.0001	0.0054
As	0.0034	0.0563
Se	0.0003	0.0020
Br	0.0101	0.0013
Rb	0.0125	0.0012
Sr	0.0848	0.0087
Y	0.0028	0.0041
Zr	0.0092	0.0018
Mo	0.0007	0.0052
Pd	0.0000	0.0107
Ag	0.0012	0.0126
Cd	0.0045	0.0134
In	0.0020	0.0157
Sn	0.0239	0.0191
Sb	0.0064	0.0240
Ba	0.1151	0.0575
La	0.0059	0.0935
Hg	0.0035	0.0064
Pb	0.3571	0.0267
NO3	0.0000	0.3622
NH4	0.0278	0.0482
OC	16.7761	5.0945
EC	2.1172	1.2366
CO3	0.1517	0.2383
Sum	64.2676	5.9593

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 2035.7743 252.9819 ug/m3

	Conc (%)	Uncert (%)
Na	0.0729	0.1015
Al	10.6783	1.7662
Si	24.2215	4.0811
P	0.4513	0.0787
S	0.6070	0.1089
SO4	0.4518	0.9206
Cl	0.2140	0.0378
K-x	2.0377	0.3610
K-a	0.2284	0.2092
Ca	3.3620	0.6035
Ti	0.5317	0.0970
V	0.0277	0.0242
Cr	0.0350	0.0067
Mn	0.1191	0.0226
Fe	6.2145	1.1280
Co	0.0042	0.1454
Ni	0.0126	0.0024
Cu	0.0249	0.0034
Zn	0.2285	0.0289
Ga	0.0001	0.0105
As	0.0053	0.0948
Se	0.0004	0.0041
Br	0.0093	0.0023
Rb	0.0130	0.0022
Sr	0.0872	0.0107
Y	0.0032	0.0077
Zr	0.0098	0.0060
Mo	0.0010	0.0115
Pd	0.0000	0.0236
Ag	0.0005	0.0279
Cd	0.0027	0.0269
In	0.0010	0.0350
Sn	0.0311	0.0457
Sb	0.0075	0.0532
Ba	0.1030	0.1606
La	0.0021	0.2117
Hg	0.0047	0.0138
Pb	0.3460	0.0442
NO3	0.0000	0.8480
NH4	0.0337	0.0583
OC	12.0475	7.8197
EC	1.3167	2.1652
CO3	0.1124	0.5568
Sum	62.9811	9.4108

Sample ID : SOIL03
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 1098.1520 261.9477 ug/m3

	Conc (%)	Uncert (%)
Na	0.7650	0.5633
Al	6.7431	0.5141
Si	17.1074	1.2622
P	0.3627	0.0559
S	0.5211	0.1137
SO4	0.7019	0.9522
Cl	0.1642	0.0197
K-x	1.8269	0.1376
K-a	0.5452	0.1098
Ca	3.2454	0.3706
Ti	0.5168	0.0863
V	0.0336	0.0391
Cr	0.0343	0.0044
Mn	0.1305	0.0117
Fe	6.0993	0.4498
Co	0.0100	0.0895
Ni	0.0127	0.0018
Cu	0.0245	0.0026
Zn	0.2588	0.0279
Ga	0.0000	0.0116
As	0.0000	0.0632
Se	0.0000	0.0051
Br	0.0120	0.0020
Rb	0.0121	0.0033
Sr	0.0828	0.0189
Y	0.0027	0.0080
Zr	0.0084	0.0100
Mo	0.0006	0.0153
Pd	0.0014	0.0311
Ag	0.0058	0.0364
Cd	0.0210	0.0343
In	0.0086	0.0461
Sn	0.0129	0.0625
Sb	0.0048	0.0699
Ba	0.1270	0.2445
La	0.0543	0.2838
Hg	0.0013	0.0177
Pb	0.3865	0.0516
NO3	0.0000	1.1645
NH4	0.0110	0.0192
OC	26.3705	4.0316
EC	3.6350	2.7092
CO3	0.2739	0.7649

Sum -----
 68.8889 5.3165

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 48618.6712 8661.4649 ug/m3

	Conc (%)	Uncert (%)
Na	0.0891	0.0376
Al	8.8208	1.9656
Si	22.0255	4.8348
P	0.1954	0.0411
S	0.0605	0.0175
SO4	0.0000	0.0513
Cl	0.0948	0.0107
K-x	2.8442	0.4185
K-a	0.1761	0.0437
Ca	3.1913	0.3602
Ti	0.7235	0.1054
V	0.0380	0.0084
Cr	0.0284	0.0040
Mn	0.1138	0.0175
Fe	7.0373	1.0178
Co	0.0041	0.0969
Ni	0.0053	0.0010
Cu	0.0049	0.0011
Zn	0.0234	0.0048
Ga	0.0006	0.0017
As	0.0001	0.0024
Se	0.0001	0.0008
Br	0.0014	0.0003
Rb	0.0234	0.0043
Sr	0.0333	0.0059
Y	0.0024	0.0007
Zr	0.0094	0.0013
Mo	0.0000	0.0025
Pd	0.0010	0.0054
Ag	0.0005	0.0062
Cd	0.0024	0.0066
In	0.0030	0.0079
Sn	0.0000	0.0103
Sb	0.0003	0.0116
Ba	0.0596	0.0250
La	0.0000	0.0442
Hg	0.0012	0.0030
Pb	0.0099	0.0020
NO3	0.0000	0.1419
NH4	0.0000	0.0029
OC	2.7657	0.4107
EC	0.0000	0.0817
CO3	0.3060	0.1171
Sum	48.5206	5.3681

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 16139.6539 3091.8069 ug/m3

	Conc (%)	Uncert (%)
Na	0.1055	0.1601
Al	6.6146	3.6175
Si	16.9961	9.0529
P	0.1470	0.0941
S	0.0417	0.0335
SO4	0.0000	0.1931
Cl	0.0702	0.0387
K-x	2.2522	1.1650
K-a	0.1474	0.1634
Ca	2.6144	1.2960
Ti	0.5809	0.2965
V	0.0304	0.0314
Cr	0.0265	0.0117
Mn	0.0873	0.0493
Fe	5.0158	2.8795
Co	0.0084	0.3686
Ni	0.0039	0.0039
Cu	0.0028	0.0016
Zn	0.0180	0.0103
Ga	0.0006	0.0067
As	0.0000	0.0090
Se	0.0002	0.0031
Br	0.0013	0.0010
Rb	0.0150	0.0101
Sr	0.0264	0.0184
Y	0.0018	0.0022
Zr	0.0074	0.0036
Mo	0.0000	0.0096
Pd	0.0002	0.0210
Ag	0.0000	0.0239
Cd	0.0000	0.0256
In	0.0052	0.0304
Sn	0.0000	0.0400
Sb	0.0000	0.0447
Ba	0.0429	0.0801
La	0.0000	0.1716
Hg	0.0011	0.0110
Pb	0.0086	0.0043
NO3	0.0000	0.5345
NH4	0.0000	0.0110
OC	3.3685	1.5770
EC	0.0000	0.3108
CO3	0.3014	0.4478
Sum	38.3963	10.4760

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 32479.0173 6502.5519 ug/m3

	Conc (%)	Uncert (%)
Na	0.0940	0.0342
Al	9.9582	1.5798
Si	24.6410	3.8712
P	0.2206	0.0250
S	0.0701	0.0119
SO4	0.0000	0.0762
Cl	0.1076	0.0122
K-x	3.1530	0.3561
K-a	0.1909	0.0538
Ca	3.4933	0.3956
Ti	0.7983	0.0902
V	0.0421	0.0094
Cr	0.0295	0.0033
Mn	0.1278	0.0144
Fe	8.0818	0.9122
Co	0.0019	0.1124
Ni	0.0060	0.0012
Cu	0.0061	0.0010
Zn	0.0262	0.0020
Ga	0.0009	0.0022
As	0.0006	0.0028
Se	0.0005	0.0010
Br	0.0015	0.0003
Rb	0.0277	0.0021
Sr	0.0371	0.0028
Y	0.0031	0.0007
Zr	0.0105	0.0012
Mo	0.0008	0.0031
Pd	0.0033	0.0068
Ag	0.0021	0.0077
Cd	0.0050	0.0083
In	0.0019	0.0096
Sn	0.0038	0.0130
Sb	0.0018	0.0144
Ba	0.0761	0.0175
La	0.0000	0.0555
Hg	0.0029	0.0034
Pb	0.0105	0.0013
NO3	0.0000	0.2109
NH4	0.0000	0.0035
OC	2.4891	0.6118
EC	0.0000	0.0985
CO3	0.3259	0.1404
Sum	53.8626	4.3672

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 25060.3891 6180.6738 ug/m3

	Conc (%)	Uncert (%)
Na	0.0977	0.0396
Al	9.9441	1.8847
Si	24.7162	4.6590
P	0.2174	0.0338
S	0.0668	0.0141
SO4	0.0000	0.1064
Cl	0.1074	0.0164
K-x	3.1482	0.4806
K-a	0.1844	0.0731
Ca	3.6441	0.5388
Ti	0.8084	0.1217
V	0.0428	0.0127
Cr	0.0289	0.0044
Mn	0.1278	0.0195
Fe	7.9051	1.2281
Co	0.0017	0.1523
Ni	0.0060	0.0017
Cu	0.0061	0.0014
Zn	0.0252	0.0026
Ga	0.0010	0.0030
As	0.0006	0.0038
Se	0.0005	0.0014
Br	0.0014	0.0005
Rb	0.0276	0.0028
Sr	0.0385	0.0038
Y	0.0032	0.0011
Zr	0.0113	0.0016
Mo	0.0009	0.0042
Pd	0.0033	0.0094
Ag	0.0020	0.0107
Cd	0.0032	0.0112
In	0.0023	0.0134
Sn	0.0036	0.0180
Sb	0.0024	0.0200
Ba	0.0734	0.0263
La	0.0000	0.0773
Hg	0.0027	0.0047
Pb	0.0108	0.0018
NO3	0.0000	0.2945
NH4	0.0000	0.0049
OC	2.4656	0.6146
EC	0.0000	0.1372
CO3	0.3601	0.1964

Sum -----
 53.9083 5.2782

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 7418.6282 400.6375 ug/m3

	Conc (%)	Uncert (%)
Na	0.0807	0.0353
Al	10.0607	1.1440
Si	24.5350	2.7894
P	0.2319	0.0263
S	0.0807	0.0092
SO4	0.0000	0.1100
Cl	0.1087	0.0123
K-x	3.1664	0.3600
K-a	0.2110	0.0432
Ca	3.0197	0.3446
Ti	0.7664	0.0871
V	0.0400	0.0095
Cr	0.0314	0.0036
Mn	0.1278	0.0145
Fe	8.6305	0.9813
Co	0.0036	0.1222
Ni	0.0060	0.0013
Cu	0.0056	0.0006
Zn	0.0292	0.0027
Ga	0.0003	0.0030
As	0.0011	0.0033
Se	0.0003	0.0014
Br	0.0017	0.0004
Rb	0.0279	0.0022
Sr	0.0319	0.0025
Y	0.0025	0.0016
Zr	0.0079	0.0015
Mo	0.0002	0.0043
Pd	0.0030	0.0093
Ag	0.0031	0.0108
Cd	0.0107	0.0094
In	0.0009	0.0133
Sn	0.0041	0.0180
Sb	0.0010	0.0201
Ba	0.0810	0.0437
La	0.0072	0.0788
Hg	0.0033	0.0051
Pb	0.0091	0.0018
NO3	0.0000	0.3046
NH4	0.0000	0.0050
OC	2.4960	1.0652
EC	0.0000	0.1422
CO3	0.2451	0.2009
Sum	53.8626	3.4093

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 4259.0938 435.4294 ug/m3

	Conc (%)	Uncert (%)
Na	0.0279	0.0908
Al	11.8464	2.1619
Si	27.9127	5.2151
P	0.2615	0.0495
S	0.0794	0.0171
SO4	0.0000	0.2849
Cl	0.1057	0.0237
K-x	3.2274	0.6559
K-a	0.1305	0.0739
Ca	3.1827	0.6320
Ti	0.7568	0.1582
V	0.0375	0.0188
Cr	0.0302	0.0067
Mn	0.1225	0.0269
Fe	8.5130	1.7757
Co	0.0060	0.2343
Ni	0.0057	0.0025
Cu	0.0032	0.0026
Zn	0.0273	0.0046
Ga	0.0004	0.0073
As	0.0010	0.0077
Se	0.0005	0.0035
Br	0.0005	0.0010
Rb	0.0266	0.0042
Sr	0.0323	0.0057
Y	0.0032	0.0046
Zr	0.0079	0.0049
Mo	0.0000	0.0100
Pd	0.0052	0.0223
Ag	0.0023	0.0262
Cd	0.0157	0.0250
In	0.0011	0.0325
Sn	0.0071	0.0436
Sb	0.0009	0.0495
Ba	0.0969	0.1429
La	0.0095	0.1963
Hg	0.0025	0.0123
Pb	0.0096	0.0079
NO3	0.0000	0.7887
NH4	0.0000	0.0130
OC	2.0245	1.5447
EC	0.0000	0.3672
CO3	0.0985	0.5188
Sum	58.4921	6.2790

Sample ID : SOIL04
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 3159.5344 170.5530 ug/m3

	Conc (%)	Uncert (%)
Na	0.1842	0.0901
Al	7.6627	0.6567
Si	19.9945	1.7761
P	0.1928	0.0158
S	0.0830	0.0080
SO4	0.0000	0.2815
Cl	0.1121	0.0152
K-x	3.0827	0.2448
K-a	0.3168	0.0730
Ca	2.8059	0.2355
Ti	0.7770	0.0840
V	0.0436	0.0120
Cr	0.0329	0.0059
Mn	0.1349	0.0128
Fe	8.7865	0.7420
Co	0.0006	0.1281
Ni	0.0065	0.0015
Cu	0.0087	0.0024
Zn	0.0320	0.0027
Ga	0.0000	0.0068
As	0.0013	0.0066
Se	0.0007	0.0032
Br	0.0034	0.0009
Rb	0.0296	0.0027
Sr	0.0316	0.0036
Y	0.0017	0.0047
Zr	0.0083	0.0041
Mo	0.0031	0.0085
Pd	0.0003	0.0202
Ag	0.0065	0.0243
Cd	0.0042	0.0253
In	0.0019	0.0302
Sn	0.0000	0.0402
Sb	0.0100	0.0464
Ba	0.0612	0.1603
La	0.0253	0.1864
Hg	0.0041	0.0113
Pb	0.0084	0.0098
NO3	0.0000	0.7793
NH4	0.0000	0.0128
OC	3.0719	2.8967
EC	0.0591	0.3629
CO3	0.5334	0.5129

Sum -----
 47.8066 3.7074

Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 37686.1850 7928.9052 ug/m3

	Conc (%)	Uncert (%)
Na	0.0692	0.0189
Al	10.4271	2.1657
Si	22.8488	4.0166
P	0.1331	0.0300
S	0.0846	0.0102
SO4	0.0168	0.0576
Cl	0.1019	0.0221
K-x	2.4599	0.2775
K-a	0.1380	0.0459
Ca	1.6062	0.1809
Ti	0.6880	0.0775
V	0.0377	0.0081
Cr	0.0268	0.0030
Mn	0.1521	0.0172
Fe	6.7316	0.7583
Co	0.0059	0.0922
Ni	0.0057	0.0010
Cu	0.0083	0.0012
Zn	0.0187	0.0019
Ga	0.0001	0.0016
As	0.0008	0.0012
Se	0.0002	0.0008
Br	0.0015	0.0003
Rb	0.0183	0.0014
Sr	0.0235	0.0018
Y	0.0029	0.0005
Zr	0.0127	0.0011
Mo	0.0004	0.0023
Pd	0.0008	0.0050
Ag	0.0009	0.0058
Cd	0.0008	0.0059
In	0.0010	0.0071
Sn	0.0007	0.0094
Sb	0.0027	0.0108
Ba	0.0855	0.0138
La	0.0070	0.0411
Hg	0.0014	0.0027
Pb	0.0086	0.0010
NO3	0.0000	0.1592
NH4	0.0000	0.0026
OC	1.4501	0.3424
EC	0.0226	0.0741
CO3	0.0308	0.1045
Sum	47.0789	4.6568

Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 17012.5944 4503.1369 ug/m3

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*****
Conc      Uncert
(%)      (%)
-----
Na        0.0587    0.0550
Al        8.0086    3.0793
Si       19.2384    6.7211
P         0.1046    0.0390
S         0.0590    0.0244
SO4       0.0043    0.1690
Cl        0.0837    0.0292
K-x       2.2221    0.7154
K-a       0.0942    0.1086
Ca        1.7796    0.4706
Ti        0.6424    0.1998
V         0.0339    0.0212
Cr        0.0234    0.0078
Mn        0.1375    0.0442
Fe        5.8508    1.9480
Co        0.0022    0.2447
Ni        0.0046    0.0026
Cu        0.0075    0.0032
Zn        0.0160    0.0035
Ga        0.0002    0.0047
As        0.0010    0.0061
Se        0.0001    0.0022
Br        0.0012    0.0007
Rb        0.0164    0.0035
Sr        0.0283    0.0049
Y         0.0021    0.0014
Zr        0.0152    0.0031
Mo        0.0009    0.0068
Pd        0.0015    0.0147
Ag        0.0005    0.0171
Cd        0.0000    0.0178
In        0.0022    0.0210
Sn        0.0013    0.0281
Sb        0.0066    0.0318
Ba        0.0847    0.0398
La        0.0022    0.1223
Hg        0.0006    0.0080
Pb        0.0079    0.0029
NO3       0.0000    0.4679
NH4       0.0000    0.0077
OC        0.5267    0.9549
EC        0.0491    0.2178
CO3       0.0542    0.3074

Sum      39.0759    7.7836
  
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Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 20673.5906 3894.0921 ug/m3

	Conc (%)	Uncert (%)
Na	0.0792	0.0271
Al	12.4652	1.6101
Si	25.9527	3.1117
P	0.1565	0.0280
S	0.1067	0.0199
SO4	0.0284	0.0840
Cl	0.1178	0.0466
K-x	2.6706	0.3009
K-a	0.1739	0.0391
Ca	1.4744	0.1661
Ti	0.7293	0.0822
V	0.0414	0.0088
Cr	0.0296	0.0033
Mn	0.1648	0.0186
Fe	7.4816	0.8426
Co	0.0088	0.1041
Ni	0.0065	0.0011
Cu	0.0090	0.0008
Zn	0.0210	0.0018
Ga	0.0006	0.0023
As	0.0010	0.0028
Se	0.0003	0.0011
Br	0.0017	0.0004
Rb	0.0198	0.0022
Sr	0.0195	0.0015
Y	0.0034	0.0006
Zr	0.0107	0.0016
Mo	0.0001	0.0034
Pd	0.0007	0.0073
Ag	0.0017	0.0085
Cd	0.0034	0.0090
In	0.0000	0.0105
Sn	0.0003	0.0141
Sb	0.0000	0.0157
Ba	0.0849	0.0193
La	0.0197	0.0617
Hg	0.0028	0.0040
Pb	0.0093	0.0017
NO3	0.0285	0.2322
NH4	0.0000	0.0038
OC	2.2940	0.4723
EC	0.0000	0.1081
CO3	0.0658	0.1524
Sum	54.0833	3.6664

Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 15527.4510 3490.5273 ug/m3

	Conc (%)	Uncert (%)
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Na	0.0735	0.0381
Al	12.3684	2.3621
Si	26.5334	4.7517
P	0.1473	0.0373
S	0.1003	0.0167
SO4	0.0369	0.1180
Cl	0.1112	0.0418
K-x	2.6740	0.4187
K-a	0.1600	0.0553
Ca	1.5783	0.2325
Ti	0.7272	0.1142
V	0.0404	0.0123
Cr	0.0287	0.0048
Mn	0.1603	0.0258
Fe	7.2160	1.1685
Co	0.0094	0.1457
Ni	0.0062	0.0016
Cu	0.0089	0.0012
Zn	0.0200	0.0025
Ga	0.0009	0.0033
As	0.0008	0.0040
Se	0.0003	0.0016
Br	0.0018	0.0005
Rb	0.0198	0.0030
Sr	0.0213	0.0022
Y	0.0035	0.0009
Zr	0.0115	0.0021
Mo	0.0000	0.0047
Pd	0.0007	0.0103
Ag	0.0021	0.0120
Cd	0.0036	0.0126
In	0.0000	0.0147
Sn	0.0001	0.0199
Sb	0.0000	0.0222
Ba	0.0875	0.0308
La	0.0244	0.0868
Hg	0.0034	0.0055
Pb	0.0096	0.0021
NO3	0.0375	0.3265
NH4	0.0000	0.0054
OC	2.2673	0.6626
EC	0.0000	0.1519
CO3	0.0465	0.2143

Sum	54.3461	5.5152
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Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 5146.1396 404.4633 ug/m3

	Conc (%)	Uncert (%)
Na	0.0945	0.0306
Al	12.9656	1.4749
Si	24.6844	2.8090
P	0.1867	0.0213
S	0.1285	0.0506
SO4	0.0000	0.0938
Cl	0.1390	0.0634
K-x	2.6918	0.3061
K-a	0.2141	0.0530
Ca	1.1834	0.1346
Ti	0.7417	0.0843
V	0.0444	0.0092
Cr	0.0328	0.0037
Mn	0.1801	0.0205
Fe	8.3362	0.9476
Co	0.0070	0.1180
Ni	0.0074	0.0013
Cu	0.0094	0.0009
Zn	0.0241	0.0019
Ga	0.0000	0.0027
As	0.0022	0.0031
Se	0.0003	0.0013
Br	0.0015	0.0004
Rb	0.0202	0.0016
Sr	0.0145	0.0012
Y	0.0033	0.0007
Zr	0.0084	0.0011
Mo	0.0011	0.0040
Pd	0.0007	0.0084
Ag	0.0016	0.0098
Cd	0.0027	0.0104
In	0.0021	0.0123
Sn	0.0012	0.0164
Sb	0.0015	0.0184
Ba	0.0803	0.0220
La	0.0079	0.0714
Hg	0.0010	0.0046
Pb	0.0085	0.0031
NO3	0.0267	0.2598
NH4	0.0000	0.0043
OC	2.3565	0.8516
EC	0.0460	0.1211
CO3	0.1415	0.1708
Sum	54.1867	3.4566

Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 3079.5131 299.9069 ug/m3

	Conc (%)	Uncert (%)
Na	0.0314	0.0750
Al	15.1271	2.6550
Si	27.8456	5.0109
P	0.2109	0.0381
S	0.1414	0.0710
SO4	0.0000	0.2344
Cl	0.1541	0.0781
K-x	2.8284	0.5362
K-a	0.1763	0.0963
Ca	1.2351	0.2358
Ti	0.7697	0.1474
V	0.0474	0.0222
Cr	0.0343	0.0067
Mn	0.1836	0.0359
Fe	8.5771	1.6498
Co	0.0107	0.2123
Ni	0.0069	0.0024
Cu	0.0086	0.0019
Zn	0.0241	0.0035
Ga	0.0000	0.0064
As	0.0016	0.0067
Se	0.0004	0.0030
Br	0.0009	0.0016
Rb	0.0201	0.0030
Sr	0.0136	0.0023
Y	0.0029	0.0025
Zr	0.0076	0.0031
Mo	0.0005	0.0092
Pd	0.0011	0.0194
Ag	0.0000	0.0229
Cd	0.0026	0.0240
In	0.0026	0.0285
Sn	0.0000	0.0381
Sb	0.0025	0.0425
Ba	0.0635	0.1095
La	0.0126	0.1687
Hg	0.0005	0.0105
Pb	0.0086	0.0071
NO3	0.0430	0.6492
NH4	0.0000	0.0107
OC	2.8494	1.2883
EC	0.0799	0.3024
CO3	0.1318	0.4261
Sum	60.4821	6.1409

Sample ID : SOIL05
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 2066.6264 269.3587 ug/m3

	Conc (%)	Uncert (%)
Na	0.1890	0.0954
Al	9.8135	1.0728
Si	20.1136	1.8983
P	0.1515	0.0160
S	0.1110	0.0258
SO4	0.0000	0.2531
Cl	0.1178	0.0498
K-x	2.4981	0.2425
K-a	0.2737	0.0724
Ca	1.1106	0.1215
Ti	0.7012	0.0551
V	0.0405	0.0219
Cr	0.0306	0.0034
Mn	0.1754	0.0150
Fe	8.0064	0.7081
Co	0.0018	0.1168
Ni	0.0083	0.0015
Cu	0.0105	0.0014
Zn	0.0245	0.0036
Ga	0.0010	0.0064
As	0.0035	0.0062
Se	0.0002	0.0030
Br	0.0023	0.0021
Rb	0.0204	0.0019
Sr	0.0158	0.0017
Y	0.0038	0.0034
Zr	0.0097	0.0035
Mo	0.0054	0.0092
Pd	0.0016	0.0193
Ag	0.0060	0.0230
Cd	0.0065	0.0242
In	0.0044	0.0288
Sn	0.0035	0.0384
Sb	0.0000	0.0428
Ba	0.1058	0.1515
La	0.0194	0.1734
Hg	0.0025	0.0105
Pb	0.0082	0.0064
NO3	0.1459	0.7010
NH4	0.0000	0.0115
OC	1.6801	1.4732
EC	0.1063	0.3265
CO3	0.1509	0.4599
Sum	45.4075	2.8980

Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFPLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 7221.0887 7557.0007 ug/m3

	Conc (%)	Uncert (%)
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Na	0.3243	0.2235
Al	11.9443	1.4086
Si	29.5510	3.3703
P	0.1982	0.0281
S	0.1346	0.0764
SO4	0.1653	0.4796
Cl	0.2004	0.0837
K-x	1.8351	0.2679
K-a	0.0437	0.1163
Ca	3.1519	0.3588
Ti	0.5326	0.1601
V	0.0347	0.0437
Cr	0.0222	0.0081
Mn	0.1173	0.0359
Fe	5.0899	1.5098
Co	0.0136	0.0707
Ni	0.0056	0.0031
Cu	0.0104	0.0034
Zn	0.0213	0.0050
Ga	0.0003	0.0109
As	0.0046	0.0102
Se	0.0008	0.0052
Br	0.0015	0.0041
Rb	0.0134	0.0034
Sr	0.0345	0.0053
Y	0.0038	0.0072
Zr	0.0125	0.0088
Mo	0.0003	0.0157
Pd	0.0009	0.0325
Ag	0.0064	0.0399
Cd	0.0018	0.0412
In	0.0013	0.0485
Sn	0.0126	0.0664
Sb	0.0034	0.0744
Ba	0.1527	0.2404
La	0.0395	0.3011
Hg	0.0042	0.0182
Pb	0.0102	0.0142
NO3	0.0000	1.3269
NH4	0.0000	0.0219
OC	0.5416	2.8551
EC	0.0000	0.6991
CO3	0.0000	0.9824

Sum	----- 54.0337	----- 5.2396
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Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 4816.2379 5113.5882 ug/m3

	Conc (%)	Uncert (%)
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Na	0.1647	0.3113
Al	9.9484	2.2766
Si	25.7717	5.4499
P	0.1384	0.0482
S	0.0839	0.0438
SO4	0.2614	0.9732
Cl	0.1678	0.0762
K-x	1.6337	0.4765
K-a	0.0312	0.2360
Ca	2.8977	0.5830
Ti	0.5112	0.2738
V	0.0349	0.0877
Cr	0.0168	0.0144
Mn	0.1016	0.0458
Fe	4.3575	1.8226
Co	0.0110	0.1171
Ni	0.0030	0.0061
Cu	0.0065	0.0067
Zn	0.0135	0.0043
Ga	0.0001	0.0230
As	0.0025	0.0214
Se	0.0004	0.0108
Br	0.0009	0.0085
Rb	0.0151	0.0074
Sr	0.0344	0.0100
Y	0.0028	0.0149
Zr	0.0074	0.0180
Mo	0.0005	0.0330
Pd	0.0014	0.0678
Ag	0.0099	0.0814
Cd	0.0008	0.0855
In	0.0019	0.1022
Sn	0.0082	0.1382
Sb	0.0005	0.1548
Ba	0.1681	0.5197
La	0.0634	0.6289
Hg	0.0046	0.0379
Pb	0.0066	0.0310
NO3	0.0000	2.6923
NH4	0.0000	0.0444
OC	0.5792	5.7279
EC	0.0000	1.3991
CO3	0.0000	1.9706

Sum	46.7711	9.2532
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Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 2404.8508 2443.8901 ug/m3

	Conc (%)	Uncert (%)
Na	0.8297	0.6481
Al	15.6247	2.8418
Si	36.4375	4.8585
P	0.3123	0.0790
S	0.2267	0.1237
SO4	0.0000	1.2758
Cl	0.2616	0.0906
K-x	2.1830	0.3665
K-a	0.0653	0.3096
Ca	3.5933	0.4979
Ti	0.5561	0.2699
V	0.0382	0.1124
Cr	0.0320	0.0261
Mn	0.1457	0.0260
Fe	6.4121	1.5472
Co	0.0189	0.0912
Ni	0.0105	0.0082
Cu	0.0171	0.0125
Zn	0.0357	0.0152
Ga	0.0039	0.0315
As	0.0085	0.0289
Se	0.0018	0.0147
Br	0.0033	0.0116
Rb	0.0097	0.0134
Sr	0.0340	0.0163
Y	0.0067	0.0203
Zr	0.0219	0.0249
Mo	0.0000	0.0452
Pd	0.0000	0.0917
Ag	0.0000	0.1075
Cd	0.0156	0.1150
In	0.0313	0.1396
Sn	0.0386	0.1862
Sb	0.0082	0.2087
Ba	0.2131	0.7365
La	0.0068	0.8520
Hg	0.0034	0.0511
Pb	0.0167	0.0441
NO3	0.3420	3.5328
NH4	0.0000	0.0583
OC	0.4649	7.7401
EC	0.0000	1.9009
CO3	0.0239	2.6605
Sum	67.9894	10.9315

Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 1607.4886 1972.3358 ug/m3

	Conc (%)	Uncert (%)
Na	1.5264	1.8252
Al	20.0513	6.4680
Si	50.4178	16.6416
P	0.4187	0.3482
S	0.3098	0.2408
SO4	0.0000	5.2203
Cl	0.3078	0.3556
K-x	2.9381	0.9155
K-a	0.0925	1.2666
Ca	5.3691	1.9745
Ti	0.7367	1.1083
V	0.0445	0.4429
Cr	0.0535	0.1079
Mn	0.1753	0.0632
Fe	8.0046	2.5222
Co	0.0221	0.1839
Ni	0.0135	0.0343
Cu	0.0089	0.0522
Zn	0.0477	0.0449
Ga	0.0045	0.1266
As	0.0149	0.1172
Se	0.0028	0.0594
Br	0.0035	0.0488
Rb	0.0087	0.0581
Sr	0.0545	0.0690
Y	0.0096	0.0818
Zr	0.0272	0.1059
Mo	0.0000	0.1816
Pd	0.0000	0.3770
Ag	0.0000	0.4412
Cd	0.0404	0.4679
In	0.0589	0.5670
Sn	0.0632	0.7537
Sb	0.0000	0.8462
Ba	0.5837	2.9895
La	0.0091	3.4518
Hg	0.0080	0.2062
Pb	0.0105	0.1796
NO3	1.0380	14.4691
NH4	0.0000	0.2383
OC	0.6240	33.2394
EC	0.0000	8.1125
CO3	0.0321	11.4363
Sum	93.0394	43.2325

Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 797.3622 549.4761 ug/m3

	Conc (%)	Uncert (%)
Na	0.4959	0.7541
Al	13.1232	5.9759
Si	26.4595	12.3983
P	0.3218	0.1376
S	0.2295	0.2570
SO4	0.0000	2.3750
Cl	0.3170	0.2418
K-x	1.5685	0.6646
K-a	0.0000	0.5762
Ca	2.0916	1.0021
Ti	0.2512	0.4931
V	0.0392	0.2016
Cr	0.0192	0.0475
Mn	0.1362	0.0468
Fe	5.6752	2.6577
Co	0.0165	0.0898
Ni	0.0116	0.0155
Cu	0.0308	0.0210
Zn	0.0370	0.0231
Ga	0.0056	0.0575
As	0.0087	0.0535
Se	0.0013	0.0268
Br	0.0102	0.0218
Rb	0.0150	0.0266
Sr	0.0126	0.0299
Y	0.0031	0.0371
Zr	0.0168	0.0483
Mo	0.0000	0.0826
Pd	0.0138	0.1757
Ag	0.0081	0.2038
Cd	0.0000	0.2118
In	0.0239	0.2589
Sn	0.0533	0.3453
Sb	0.0749	0.3904
Ba	0.5046	1.3596
La	0.0000	1.5680
Hg	0.0035	0.0939
Pb	0.0391	0.0812
NO3	0.0000	6.5758
NH4	0.0000	0.1084
OC	0.0000	12.0471
EC	0.0000	2.9407
CO3	0.0000	4.1463
Sum	51.6184	20.4443

Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 522.6852 355.9209 ug/m3

	Conc (%)	Uncert (%)
Na	0.2230	1.6847
Al	19.8828	10.2502
Si	40.8175	21.8440
P	0.4427	0.2416
S	0.3541	0.3991
SO4	0.0000	5.3179
Cl	0.4173	0.4609
K-x	2.3109	1.2622
K-a	0.0000	1.2902
Ca	3.1228	1.9090
Ti	0.3413	1.0534
V	0.0386	0.4302
Cr	0.0276	0.1028
Mn	0.1713	0.0849
Fe	8.2509	4.3233
Co	0.0216	0.1499
Ni	0.0144	0.0341
Cu	0.0240	0.0411
Zn	0.0538	0.0510
Ga	0.0020	0.1313
As	0.0135	0.1191
Se	0.0018	0.0610
Br	0.0111	0.0492
Rb	0.0222	0.0596
Sr	0.0204	0.0685
Y	0.0000	0.0847
Zr	0.0151	0.1096
Mo	0.0000	0.1878
Pd	0.0215	0.3914
Ag	0.0138	0.4528
Cd	0.0000	0.4817
In	0.0046	0.5809
Sn	0.0355	0.7830
Sb	0.1077	0.8887
Ba	0.7633	3.0719
La	0.0000	3.5687
Hg	0.0000	0.2155
Pb	0.0407	0.1817
NO3	0.0000	14.7270
NH4	0.0000	0.2428
OC	0.0000	24.8009
EC	0.0000	6.0470
CO3	0.0000	8.5315
Sum	77.5878	39.7093

Sample ID : SOIL06
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 274.6769 201.5098 ug/m3

	Conc (%)	Uncert (%)
Na	1.0264	2.5140
Al	2.0874	1.0522
Si	3.1378	1.0170
P	0.1322	0.2496
S	0.0445	0.2514
SO4	0.0000	7.8975
Cl	0.4533	0.5944
K-x	0.4050	0.2478
K-a	0.0000	1.9160
Ca	0.4949	0.2341
Ti	0.1213	1.4809
V	0.0643	0.6055
Cr	0.0081	0.1455
Mn	0.0837	0.1101
Fe	1.5000	0.5513
Co	0.0273	0.0673
Ni	0.0082	0.0487
Cu	0.0444	0.0746
Zn	0.0094	0.0831
Ga	0.0262	0.2013
As	0.0019	0.1780
Se	0.0028	0.0931
Br	0.0180	0.0741
Rb	0.0010	0.0897
Sr	0.0000	0.1054
Y	0.0171	0.1298
Zr	0.0170	0.1672
Mo	0.0102	0.2950
Pd	0.0029	0.5745
Ag	0.0085	0.6693
Cd	0.1332	0.7240
In	0.0531	0.8599
Sn	0.2187	1.1755
Sb	0.4204	1.3648
Ba	0.4182	4.5511
La	1.4190	5.3964
Hg	0.0714	0.3331
Pb	0.0278	0.2797
NO3	1.9400	21.9126
NH4	0.0000	0.3606
OC	6.8803	44.7813
EC	0.0000	11.0574
CO3	0.0000	15.5764
Sum	21.3359	54.0191

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 76304.8326 9849.3973 ug/m3

	Conc (%)	Uncert (%)
Na	0.0521	0.0227
Al	9.2411	1.6476
Si	20.6830	3.5614
P	0.1633	0.0286
S	0.0506	0.0289
SO4	0.0799	0.0710
Cl	0.0955	0.0141
K-x	2.4349	0.2750
K-a	0.1118	0.0424
Ca	3.3325	0.3760
Ti	0.7698	0.0868
V	0.0410	0.0091
Cr	0.0326	0.0037
Mn	0.1312	0.0148
Fe	7.7952	0.8787
Co	0.0095	0.1077
Ni	0.0074	0.0012
Cu	0.0102	0.0008
Zn	0.1610	0.0173
Ga	0.0001	0.0039
As	0.0006	0.0486
Se	0.0000	0.0012
Br	0.0015	0.0023
Rb	0.0191	0.0019
Sr	0.0342	0.0031
Y	0.0035	0.0011
Zr	0.0116	0.0013
Mo	0.0002	0.0028
Pd	0.0027	0.0061
Ag	0.0005	0.0069
Cd	0.0028	0.0073
In	0.0005	0.0086
Sn	0.0000	0.0114
Sb	0.0029	0.0130
Ba	0.1240	0.0175
La	0.0007	0.0491
Hg	0.0017	0.0037
Pb	0.3090	0.0426
NO3	0.1805	0.1963
NH4	0.0000	0.0032
OC	2.7526	0.4457
EC	0.1766	0.1696
CO3	0.1245	0.1288
Sum	48.7607	4.0865

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 26718.9899 4728.2430 ug/m3

	Conc (%)	Uncert (%)
Na	0.0182	0.5945
Al	8.1267	3.5446
Si	17.2064	7.9132
P	0.1579	0.0640
S	0.0019	0.0887
SO4	0.1043	0.2651
Cl	0.0894	0.0367
K-x	2.3780	0.9339
K-a	0.0594	0.0686
Ca	3.5367	1.2879
Ti	0.7911	0.2962
V	0.0414	0.0313
Cr	0.0344	0.0126
Mn	0.1300	0.0504
Fe	7.3046	2.9789
Co	0.0078	0.3715
Ni	0.0069	0.0042
Cu	0.0093	0.0028
Zn	0.1216	0.0362
Ga	0.0000	0.0138
As	0.0012	0.1677
Se	0.0000	0.0044
Br	0.0013	0.0082
Rb	0.0180	0.0050
Sr	0.0379	0.0092
Y	0.0047	0.0064
Zr	0.0161	0.0049
Mo	0.0003	0.0104
Pd	0.0068	0.0229
Ag	0.0007	0.0260
Cd	0.0000	0.0279
In	0.0000	0.0326
Sn	0.0000	0.0437
Sb	0.0081	0.0490
Ba	0.0998	0.0635
La	0.0000	0.1869
Hg	0.0023	0.0136
Pb	0.2806	0.0959
NO3	0.1852	0.7324
NH4	0.0000	0.0121
OC	1.2071	1.6170
EC	0.1383	0.3431
CO3	0.1085	0.4810
Sum	42.0792	9.5273

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 49585.8427 6716.8034 ug/m3

	Conc (%)	Uncert (%)
Na	1.1052	1.8113
Al	9.8299	1.1094
Si	22.5339	2.5432
P	0.1661	0.0187
S	0.0846	0.0290
SO4	0.0664	0.0940
Cl	0.0986	0.0111
K-x	2.4638	0.2774
K-a	0.1399	0.0338
Ca	3.2199	0.3624
Ti	0.7577	0.0853
V	0.0408	0.0093
Cr	0.0315	0.0036
Mn	0.1318	0.0148
Fe	8.0561	0.9065
Co	0.0139	0.1127
Ni	0.0076	0.0013
Cu	0.0107	0.0009
Zn	0.1822	0.0131
Ga	0.0004	0.0045
As	0.0021	0.0509
Se	0.0000	0.0015
Br	0.0015	0.0025
Rb	0.0197	0.0015
Sr	0.0322	0.0026
Y	0.0028	0.0030
Zr	0.0092	0.0011
Mo	0.0006	0.0037
Pd	0.0005	0.0081
Ag	0.0004	0.0093
Cd	0.0054	0.0101
In	0.0017	0.0119
Sn	0.0035	0.0160
Sb	0.0000	0.0177
Ba	0.1370	0.0229
La	0.0064	0.0681
Hg	0.0021	0.0047
Pb	0.3240	0.0235
NO3	0.1897	0.2602
NH4	0.0000	0.0043
OC	3.5753	0.9635
EC	0.1976	0.1901
CO3	0.1699	0.1710
Sum	53.4163	3.6197

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 39241.0057 4951.2675 ug/m3

	Conc (%)	Uncert (%)
Na	1.3943	2.2986
Al	9.7621	1.4301
Si	22.6173	3.2808
P	0.1624	0.0241
S	0.0763	0.0382
SO4	0.0730	0.1219
Cl	0.0960	0.0143
K-x	2.4718	0.3579
K-a	0.1348	0.0390
Ca	3.2836	0.4683
Ti	0.7485	0.1099
V	0.0400	0.0121
Cr	0.0307	0.0046
Mn	0.1297	0.0191
Fe	7.8386	1.1671
Co	0.0148	0.1461
Ni	0.0074	0.0017
Cu	0.0101	0.0012
Zn	0.1660	0.0164
Ga	0.0004	0.0058
As	0.0024	0.0562
Se	0.0000	0.0020
Br	0.0015	0.0033
Rb	0.0196	0.0020
Sr	0.0330	0.0032
Y	0.0028	0.0040
Zr	0.0097	0.0015
Mo	0.0005	0.0048
Pd	0.0006	0.0105
Ag	0.0004	0.0121
Cd	0.0058	0.0132
In	0.0022	0.0154
Sn	0.0044	0.0207
Sb	0.0000	0.0229
Ba	0.1386	0.0296
La	0.0081	0.0882
Hg	0.0024	0.0061
Pb	0.3097	0.0299
NO3	0.1994	0.3374
NH4	0.0000	0.0056
OC	3.4261	1.1893
EC	0.2279	0.2093
CO3	0.1492	0.2217
Sum	53.3943	4.6341

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 10344.8370 1777.0013 ug/m3

	Conc (%)	Uncert (%)
Na	0.0454	0.0380
Al	10.0890	1.1465
Si	22.2153	2.5249
P	0.1805	0.0205
S	0.1167	0.0177
SO4	0.0416	0.1057
Cl	0.1088	0.0124
K-x	2.4356	0.2769
K-a	0.1595	0.0282
Ca	2.9785	0.3385
Ti	0.7934	0.0902
V	0.0442	0.0099
Cr	0.0348	0.0040
Mn	0.1398	0.0159
Fe	8.8919	1.0109
Co	0.0102	0.1263
Ni	0.0082	0.0014
Cu	0.0127	0.0011
Zn	0.2442	0.0181
Ga	0.0003	0.0052
As	0.0016	0.0595
Se	0.0000	0.0017
Br	0.0019	0.0030
Rb	0.0201	0.0017
Sr	0.0291	0.0023
Y	0.0027	0.0040
Zr	0.0070	0.0011
Mo	0.0009	0.0043
Pd	0.0004	0.0092
Ag	0.0011	0.0107
Cd	0.0040	0.0114
In	0.0000	0.0132
Sn	0.0020	0.0179
Sb	0.0000	0.0199
Ba	0.1300	0.0250
La	0.0000	0.0761
Hg	0.0012	0.0053
Pb	0.3788	0.0282
NO3	0.1532	0.2927
NH4	0.0000	0.0048
OC	4.1248	0.6349
EC	0.1946	0.1741
CO3	0.2502	0.1929
Sum	53.6531	3.0819

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 5454.8032 780.3046 ug/m3

	Conc (%)	Uncert (%)
Na	0.0275	0.0935
Al	11.6883	2.4055
Si	24.9384	5.2357
P	0.2075	0.0426
S	0.1142	0.0370
SO4	0.0927	0.2944
Cl	0.1099	0.0264
K-x	2.4053	0.5569
K-a	0.1082	0.0748
Ca	3.1041	0.6877
Ti	0.7851	0.1827
V	0.0391	0.0218
Cr	0.0368	0.0084
Mn	0.1345	0.0328
Fe	8.4116	2.0172
Co	0.0098	0.2736
Ni	0.0071	0.0031
Cu	0.0114	0.0024
Zn	0.2314	0.0384
Ga	0.0007	0.0121
As	0.0000	0.1286
Se	0.0000	0.0043
Br	0.0016	0.0066
Rb	0.0192	0.0036
Sr	0.0282	0.0049
Y	0.0031	0.0093
Zr	0.0074	0.0036
Mo	0.0013	0.0113
Pd	0.0004	0.0243
Ag	0.0023	0.0282
Cd	0.0056	0.0299
In	0.0000	0.0349
Sn	0.0036	0.0470
Sb	0.0000	0.0529
Ba	0.0967	0.0992
La	0.0000	0.2070
Hg	0.0010	0.0139
Pb	0.3793	0.0617
NO3	0.2561	0.8138
NH4	0.0000	0.0134
OC	4.3434	1.6829
EC	0.2080	0.3817
CO3	0.2213	0.5351
Sum	57.8412	6.4949

Sample ID : SOIL07
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 4890.0338 1460.6673 ug/m3

	Conc (%)	Uncert (%)
Na	0.1066	0.0795
Al	8.4733	0.9655
Si	19.5254	2.1140
P	0.1500	0.0129
S	0.1185	0.0159
SO4	0.0000	0.2500
Cl	0.1062	0.0128
K-x	2.4952	0.1850
K-a	0.2186	0.0628
Ca	2.8676	0.2121
Ti	0.8075	0.0627
V	0.0482	0.0124
Cr	0.0322	0.0035
Mn	0.1470	0.0138
Fe	9.5457	0.7011
Co	0.0105	0.1390
Ni	0.0091	0.0017
Cu	0.0146	0.0030
Zn	0.2615	0.0193
Ga	0.0000	0.0080
As	0.0077	0.0616
Se	0.0001	0.0033
Br	0.0022	0.0038
Rb	0.0213	0.0020
Sr	0.0304	0.0028
Y	0.0019	0.0058
Zr	0.0065	0.0041
Mo	0.0006	0.0094
Pd	0.0023	0.0198
Ag	0.0013	0.0228
Cd	0.0053	0.0243
In	0.0029	0.0287
Sn	0.0000	0.0383
Sb	0.0014	0.0432
Ba	0.1883	0.0814
La	0.0491	0.1737
Hg	0.0024	0.0111
Pb	0.3858	0.0330
NO3	0.1004	0.6923
NH4	0.0000	0.0114
OC	3.7942	1.3491
EC	0.3075	0.3227
CO3	0.3030	0.4549
Sum	49.9337	2.9430

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 il

Mass 40649.8006 7996.3510 ug/m3

	Conc (%)	Uncert (%)
Na	0.0700	0.0222
Al	10.0069	1.1538
Si	24.5541	2.7594
P	0.2874	0.0324
S	0.4493	0.0683
SO4	0.1305	0.0691
Cl	0.1352	0.0152
K-x	2.2228	0.2698
K-a	0.1499	0.0384
Ca	3.4620	0.6496
Ti	0.7029	0.1038
V	0.0299	0.0082
Cr	0.0269	0.0040
Mn	0.0971	0.0125
Fe	5.5384	0.7180
Co	0.0173	0.0744
Ni	0.0071	0.0009
Cu	0.0102	0.0020
Zn	0.1158	0.0169
Ga	0.0003	0.0023
As	0.0014	0.0170
Se	0.0001	0.0010
Br	0.0024	0.0004
Rb	0.0158	0.0021
Sr	0.0324	0.0080
Y	0.0029	0.0008
Zr	0.0109	0.0025
Mo	0.0004	0.0027
Pd	0.0002	0.0057
Ag	0.0006	0.0066
Cd	0.0024	0.0070
In	0.0014	0.0083
Sn	0.0000	0.0110
Sb	0.0002	0.0123
Ba	0.1026	0.0162
La	0.0003	0.0474
Hg	0.0021	0.0028
Pb	0.1065	0.0133
NO3	0.1201	0.1897
NH4	0.0215	0.0035
OC	10.9177	0.9698
EC	1.3676	0.5864
CO3	0.1095	0.1246
Sum	60.5526	3.3643

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 23538.6289 5192.3647 ug/m3

	Conc (%)	Uncert (%)
Na	0.0323	0.0521
Al	7.5713	2.1761
Si	19.9228	5.1997
P	0.2120	0.0615
S	0.3405	0.0973
SO4	0.0585	0.1632
Cl	0.1015	0.0289
K-x	1.9540	0.5325
K-a	0.1085	0.0704
Ca	3.0073	0.8272
Ti	0.6433	0.1953
V	0.0242	0.0160
Cr	0.0238	0.0076
Mn	0.0852	0.0218
Fe	4.8301	1.4417
Co	0.0170	0.1446
Ni	0.0060	0.0018
Cu	0.0075	0.0033
Zn	0.0917	0.0254
Ga	0.0000	0.0051
As	0.0022	0.0340
Se	0.0001	0.0022
Br	0.0020	0.0009
Rb	0.0146	0.0045
Sr	0.0311	0.0130
Y	0.0025	0.0024
Zr	0.0124	0.0041
Mo	0.0000	0.0064
Pd	0.0003	0.0133
Ag	0.0004	0.0154
Cd	0.0038	0.0163
In	0.0011	0.0194
Sn	0.0000	0.0260
Sb	0.0003	0.0289
Ba	0.1079	0.0602
La	0.0000	0.1136
Hg	0.0026	0.0071
Pb	0.0820	0.0279
NO3	0.1347	0.4503
NH4	0.0044	0.0079
OC	10.3379	2.2968
EC	1.0572	1.3075
CO3	0.1051	0.2961
Sum	50.7731	6.4956

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 14902.5020 2723.5951 ug/m3

	Conc (%)	Uncert (%)
Na	0.1107	0.0561
Al	13.4856	1.7483
Si	31.3302	4.0100
P	0.3760	0.0505
S	0.6014	0.1055
SO4	0.2089	0.1757
Cl	0.1839	0.0236
K-x	2.6225	0.3362
K-a	0.1891	0.0455
Ca	3.9873	0.6433
Ti	0.7993	0.1022
V	0.0385	0.0118
Cr	0.0310	0.0040
Mn	0.1123	0.0146
Fe	6.5162	0.8445
Co	0.0173	0.1023
Ni	0.0084	0.0013
Cu	0.0139	0.0018
Zn	0.1412	0.0160
Ga	0.0011	0.0052
As	0.0013	0.0264
Se	0.0000	0.0023
Br	0.0028	0.0008
Rb	0.0178	0.0017
Sr	0.0337	0.0034
Y	0.0034	0.0033
Zr	0.0093	0.0017
Mo	0.0018	0.0067
Pd	0.0009	0.0139
Ag	0.0006	0.0162
Cd	0.0008	0.0168
In	0.0029	0.0204
Sn	0.0056	0.0276
Sb	0.0007	0.0306
Ba	0.0890	0.0894
La	0.0060	0.1224
Hg	0.0016	0.0078
Pb	0.1350	0.0120
NO3	0.0996	0.4838
NH4	0.0444	0.0088
OC	10.6173	2.0639
EC	1.6830	1.2653
CO3	0.1970	0.3180
Sum	73.3313	5.1612

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 2208.6697 458.3280 ug/m3

	Conc (%)	Uncert (%)
Na	0.1888	0.0599
Al	11.8974	1.7230
Si	26.9342	3.5700
P	0.4751	0.0540
S	0.5473	0.0624
SO4	0.3426	0.1858
Cl	0.1542	0.0178
K-x	2.2889	0.2817
K-a	0.3138	0.0502
Ca	4.5941	0.5219
Ti	0.6683	0.0943
V	0.0319	0.0097
Cr	0.0301	0.0034
Mn	0.1169	0.0133
Fe	6.3074	0.8136
Co	0.0200	0.0879
Ni	0.0089	0.0012
Cu	0.0134	0.0013
Zn	0.1925	0.0243
Ga	0.0107	0.0052
As	0.0111	0.0279
Se	0.0003	0.0023
Br	0.0030	0.0008
Rb	0.0153	0.0028
Sr	0.0367	0.0029
Y	0.0025	0.0036
Zr	0.0064	0.0016
Mo	0.0004	0.0067
Pd	0.0000	0.0139
Ag	0.0033	0.0167
Cd	0.0059	0.0177
In	0.0023	0.0210
Sn	0.0034	0.0283
Sb	0.0030	0.0317
Ba	0.1256	0.0974
La	0.0269	0.1262
Hg	0.0011	0.0078
Pb	0.1698	0.0299
NO3	0.1804	0.5096
NH4	0.0658	0.0097
OC	17.6730	2.0169
EC	2.1221	1.1266
CO3	0.3497	0.3352
Sum	75.2681	4.7429

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 1364.8844 231.5593 ug/m3

	Conc (%)	Uncert (%)
Na	0.0867	0.1366
Al	15.3856	2.8316
Si	33.6574	5.8728
P	0.5864	0.0948
S	0.6310	0.1087
SO4	0.3430	0.4294
Cl	0.1649	0.0374
K-x	2.4576	0.4732
K-a	0.2844	0.1104
Ca	4.9037	0.8824
Ti	0.6753	0.1637
V	0.0338	0.0327
Cr	0.0327	0.0062
Mn	0.1116	0.0249
Fe	6.2691	1.3054
Co	0.0214	0.1531
Ni	0.0083	0.0022
Cu	0.0127	0.0025
Zn	0.1702	0.0267
Ga	0.0005	0.0154
As	0.0007	0.0452
Se	0.0000	0.0051
Br	0.0014	0.0023
Rb	0.0143	0.0054
Sr	0.0350	0.0052
Y	0.0022	0.0078
Zr	0.0036	0.0048
Mo	0.0004	0.0153
Pd	0.0000	0.0317
Ag	0.0041	0.0376
Cd	0.0005	0.0400
In	0.0005	0.0473
Sn	0.0001	0.0636
Sb	0.0012	0.0715
Ba	0.1116	0.2336
La	0.0393	0.2879
Hg	0.0014	0.0177
Pb	0.1631	0.0451
NO3	0.1413	1.1827
NH4	0.0010	0.0209
OC	13.3385	3.8966
EC	1.9011	2.4028
CO3	0.1468	0.7787
Sum	81.1170	8.2722

Sample ID : SOIL08
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 843.7853 239.0629 ug/m3

	Conc (%)	Uncert (%)
Na	0.3626	0.1735
Al	6.1891	0.4774
Si	15.9092	1.1814
P	0.2948	0.0421
S	0.4125	0.0746
SO4	0.3358	0.5417
Cl	0.1362	0.0217
K-x	2.0107	0.1529
K-a	0.3560	0.1339
Ca	4.0839	0.4476
Ti	0.6608	0.0608
V	0.0290	0.0483
Cr	0.0258	0.0045
Mn	0.1250	0.0118
Fe	6.3663	0.4721
Co	0.0180	0.0936
Ni	0.0098	0.0019
Cu	0.0144	0.0023
Zn	0.2268	0.0633
Ga	0.0011	0.0132
As	0.0029	0.0329
Se	0.0016	0.0062
Br	0.0058	0.0029
Rb	0.0169	0.0026
Sr	0.0395	0.0040
Y	0.0030	0.0088
Zr	0.0114	0.0068
Mo	0.0005	0.0186
Pd	0.0034	0.0386
Ag	0.0068	0.0453
Cd	0.0172	0.0484
In	0.0163	0.0574
Sn	0.0101	0.0769
Sb	0.0100	0.0869
Ba	0.1460	0.3046
La	0.0609	0.3535
Hg	0.0022	0.0212
Pb	0.1807	0.0157
NO3	0.2790	1.4983
NH4	0.1770	0.0280
OC	25.0413	4.1114
EC	3.1607	2.3318
CO3	0.9791	0.9870
Sum	67.0483	5.2850

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 36842.4452 3358.6590 ug/m3

	Conc (%)	Uncert (%)
Na	0.5016	0.2108
Al	8.5453	1.0512
Si	22.3230	2.5670
P	0.1454	0.0171
S	0.3738	0.0755
SO4	0.3216	0.5628
Cl	0.3584	0.0479
K-x	2.4403	0.2746
K-a	0.1074	0.0430
Ca	2.0848	0.2345
Ti	0.6151	0.0691
V	0.0342	0.0073
Cr	0.0286	0.0032
Mn	0.1156	0.0130
Fe	6.0460	0.6796
Co	0.0095	0.0827
Ni	0.0068	0.0010
Cu	0.0045	0.0004
Zn	0.0221	0.0022
Ga	0.0001	0.0018
As	0.0034	0.0007
Se	0.0001	0.0008
Br	0.0019	0.0003
Rb	0.0171	0.0013
Sr	0.0264	0.0022
Y	0.0037	0.0005
Zr	0.0116	0.0011
Mo	0.0007	0.0026
Pd	0.0005	0.0054
Ag	0.0002	0.0062
Cd	0.0031	0.0067
In	0.0000	0.0077
Sn	0.0014	0.0104
Sb	0.0007	0.0117
Ba	0.0756	0.0150
La	0.0000	0.0450
Hg	0.0011	0.0030
Pb	0.0057	0.0039
NO3	0.0000	0.1795
NH4	0.0000	0.0029
OC	1.0458	0.7410
EC	0.0083	0.0836
CO3	0.1415	0.1183
Sum	45.0039	2.9927

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 19034.5066 2604.3463 ug/m3

	Conc (%)	Uncert (%)
Na	0.3571	0.2050
Al	6.8096	2.2712
Si	18.4966	5.6190
P	0.1223	0.0395
S	0.2967	0.1226
SO4	0.3521	1.2412
Cl	0.3197	0.0973
K-x	2.2187	0.6072
K-a	0.0407	0.0767
Ca	1.9372	0.5146
Ti	0.5809	0.1515
V	0.0314	0.0164
Cr	0.0265	0.0070
Mn	0.1063	0.0286
Fe	5.5423	1.4911
Co	0.0106	0.1853
Ni	0.0057	0.0021
Cu	0.0037	0.0010
Zn	0.0194	0.0035
Ga	0.0000	0.0044
As	0.0035	0.0019
Se	0.0000	0.0021
Br	0.0016	0.0007
Rb	0.0154	0.0028
Sr	0.0261	0.0042
Y	0.0041	0.0013
Zr	0.0129	0.0026
Mo	0.0002	0.0065
Pd	0.0000	0.0136
Ag	0.0003	0.0155
Cd	0.0030	0.0167
In	0.0000	0.0195
Sn	0.0024	0.0261
Sb	0.0012	0.0293
Ba	0.0804	0.0367
La	0.0000	0.1144
Hg	0.0015	0.0075
Pb	0.0055	0.0056
NO3	0.0000	0.4486
NH4	0.0000	0.0074
OC	1.0754	0.9071
EC	0.0185	0.2087
CO3	0.0828	0.2951
Sum	38.2195	6.3943

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 17807.9386 2860.9318 ug/m3

	Conc (%)	Uncert (%)
Na	0.6557	0.1899
Al	10.5698	1.1883
Si	26.8392	3.0173
P	0.1732	0.0195
S	0.4660	0.0676
SO4	0.4050	0.5396
Cl	0.4082	0.0459
K-x	2.7181	0.3057
K-a	0.1781	0.1070
Ca	2.2742	0.2560
Ti	0.6590	0.0742
V	0.0371	0.0082
Cr	0.0313	0.0035
Mn	0.1270	0.0143
Fe	6.6610	0.7495
Co	0.0087	0.0928
Ni	0.0081	0.0011
Cu	0.0054	0.0006
Zn	0.0252	0.0042
Ga	0.0005	0.0026
As	0.0034	0.0010
Se	0.0003	0.0012
Br	0.0021	0.0004
Rb	0.0189	0.0015
Sr	0.0267	0.0025
Y	0.0032	0.0007
Zr	0.0105	0.0012
Mo	0.0013	0.0038
Pd	0.0036	0.0082
Ag	0.0010	0.0092
Cd	0.0031	0.0098
In	0.0043	0.0118
Sn	0.0005	0.0154
Sb	0.0003	0.0174
Ba	0.0743	0.0210
La	0.0135	0.0689
Hg	0.0019	0.0043
Pb	0.0059	0.0046
NO3	0.0731	0.2701
NH4	0.0000	0.0044
OC	1.0522	0.6764
EC	0.0000	0.1259
CO3	0.1971	0.1778
Sum	53.1649	3.4465

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 13643.0127 2312.9807 ug/m3

	Conc (%)	Uncert (%)
Na	0.6360	0.2418
Al	10.7580	1.5981
Si	27.3425	4.0582
P	0.1702	0.0262
S	0.4762	0.0734
SO4	0.4080	0.7422
Cl	0.3994	0.0616
K-x	2.7457	0.4109
K-a	0.1902	0.1330
Ca	2.3245	0.3447
Ti	0.6695	0.0997
V	0.0370	0.0110
Cr	0.0306	0.0047
Mn	0.1263	0.0192
Fe	6.5918	1.0058
Co	0.0077	0.1249
Ni	0.0081	0.0015
Cu	0.0056	0.0008
Zn	0.0252	0.0052
Ga	0.0006	0.0035
As	0.0031	0.0013
Se	0.0003	0.0016
Br	0.0021	0.0005
Rb	0.0190	0.0020
Sr	0.0274	0.0031
Y	0.0031	0.0009
Zr	0.0111	0.0016
Mo	0.0015	0.0050
Pd	0.0046	0.0109
Ag	0.0009	0.0123
Cd	0.0035	0.0131
In	0.0052	0.0158
Sn	0.0005	0.0206
Sb	0.0003	0.0233
Ba	0.0797	0.0297
La	0.0176	0.0919
Hg	0.0021	0.0058
Pb	0.0064	0.0055
NO3	0.0947	0.3599
NH4	0.0000	0.0059
OC	0.9311	0.8133
EC	0.0000	0.1675
CO3	0.2026	0.2370
Sum	53.7717	4.6155

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 4164.9260 565.7786 ug/m3

	Conc (%)	Uncert (%)
Na	0.7257	0.0906
Al	9.9484	1.1301
Si	25.1815	2.8604
P	0.1834	0.0209
S	0.4332	0.0513
SO4	0.3985	0.6678
Cl	0.4375	0.0498
K-x	2.6265	0.2983
K-a	0.1402	0.0296
Ca	2.1110	0.2399
Ti	0.6239	0.0709
V	0.0372	0.0078
Cr	0.0336	0.0038
Mn	0.1295	0.0147
Fe	6.8808	0.7816
Co	0.0120	0.0974
Ni	0.0079	0.0012
Cu	0.0049	0.0007
Zn	0.0255	0.0020
Ga	0.0002	0.0024
As	0.0044	0.0009
Se	0.0003	0.0011
Br	0.0020	0.0004
Rb	0.0184	0.0015
Sr	0.0244	0.0019
Y	0.0036	0.0007
Zr	0.0085	0.0010
Mo	0.0008	0.0035
Pd	0.0004	0.0071
Ag	0.0011	0.0083
Cd	0.0026	0.0088
In	0.0036	0.0105
Sn	0.0011	0.0140
Sb	0.0005	0.0157
Ba	0.0577	0.0345
La	0.0000	0.0612
Hg	0.0018	0.0040
Pb	0.0044	0.0022
NO3	0.0000	0.2302
NH4	0.0000	0.0038
OC	1.4460	0.5669
EC	0.0000	0.1075
CO3	0.1831	0.1519
Sum	51.1674	3.2649

Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 2576.5329 359.6294 ug/m3

	Conc (%)	Uncert (%)
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Na	0.4818	0.2080
Al	11.3838	1.9452
Si	28.1590	4.8895
P	0.2029	0.0358
S	0.5019	0.0857
SO4	0.3730	1.0772
Cl	0.4711	0.0848
K-x	2.7229	0.5011
K-a	0.0588	0.0917
Ca	2.2145	0.4041
Ti	0.6403	0.1192
V	0.0350	0.0139
Cr	0.0350	0.0066
Mn	0.1285	0.0248
Fe	6.9347	1.3049
Co	0.0155	0.1691
Ni	0.0074	0.0020
Cu	0.0044	0.0011
Zn	0.0259	0.0035
Ga	0.0003	0.0053
As	0.0045	0.0033
Se	0.0004	0.0025
Br	0.0016	0.0011
Rb	0.0187	0.0026
Sr	0.0249	0.0034
Y	0.0041	0.0028
Zr	0.0085	0.0020
Mo	0.0011	0.0077
Pd	0.0006	0.0161
Ag	0.0019	0.0186
Cd	0.0024	0.0198
In	0.0060	0.0234
Sn	0.0017	0.0312
Sb	0.0000	0.0354
Ba	0.0574	0.1024
La	0.0000	0.1393
Hg	0.0013	0.0089
Pb	0.0051	0.0064
NO3	0.0000	0.5453
NH4	0.0000	0.0090
OC	1.2683	1.3125
EC	0.0000	0.2538
CO3	0.0510	0.3578

Sum	55.4244	5.6707
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Sample ID : SOIL09
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 1588.3930 228.0870 ug/m3

	Conc (%)	Uncert (%)
Na	1.1114	0.4413
Al	7.6141	0.5766
Si	20.3265	1.4931
P	0.1522	0.0144
S	0.3222	0.0323
SO4	0.4397	0.2361
Cl	0.3826	0.0315
K-x	2.4645	0.1825
K-a	0.3270	0.2426
Ca	1.9406	0.1441
Ti	0.5956	0.0472
V	0.0406	0.0099
Cr	0.0313	0.0033
Mn	0.1308	0.0115
Fe	6.7813	0.4981
Co	0.0073	0.0988
Ni	0.0085	0.0013
Cu	0.0055	0.0010
Zn	0.0249	0.0022
Ga	0.0005	0.0059
As	0.0045	0.0050
Se	0.0002	0.0028
Br	0.0028	0.0016
Rb	0.0179	0.0017
Sr	0.0236	0.0022
Y	0.0026	0.0041
Zr	0.0086	0.0020
Mo	0.0002	0.0087
Pd	0.0046	0.0182
Ag	0.0026	0.0208
Cd	0.0041	0.0222
In	0.0000	0.0260
Sn	0.0000	0.0350
Sb	0.0038	0.0402
Ba	0.0599	0.1391
La	0.0036	0.1596
Hg	0.0031	0.0100
Pb	0.0031	0.0085
NO3	0.5171	0.6487
NH4	0.0000	0.0107
OC	2.4219	2.1771
EC	0.1840	0.3019
CO3	0.4726	0.4263
Sum	45.6812	2.9252

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i1

Mass 12200.6400 2588.5948 ug/m3

	Conc (%)	Uncert (%)
Na	0.1108	0.0812
Al	6.6734	2.1034
Si	16.2813	4.2424
P	0.1071	0.0396
S	0.1151	0.0129
SO4	0.0619	0.1072
Cl	0.2203	0.1869
K-x	1.2680	0.3815
K-a	0.0686	0.0195
Ca	2.0465	0.3278
Ti	0.2845	0.1106
V	0.0144	0.0080
Cr	0.0140	0.0047
Mn	0.0607	0.0236
Fe	2.8796	1.1800
Co	0.0071	0.0407
Ni	0.0039	0.0012
Cu	0.0162	0.0090
Zn	0.0171	0.0041
Ga	0.0000	0.0018
As	0.0007	0.0022
Se	0.0004	0.0009
Br	0.0011	0.0003
Rb	0.0079	0.0027
Sr	0.0152	0.0023
Y	0.0016	0.0004
Zr	0.0068	0.0016
Mo	0.0009	0.0026
Pd	0.0000	0.0054
Ag	0.0000	0.0063
Cd	0.0017	0.0068
In	0.0000	0.0081
Sn	0.0070	0.0086
Sb	0.0011	0.0123
Ba	0.0524	0.0148
La	0.0035	0.0486
Hg	0.0011	0.0030
Pb	0.0067	0.0017
NO3	0.0469	0.2155
NH4	0.0000	0.0036
OC	2.1192	0.9418
EC	0.0047	0.1003
CO3	0.2282	0.1424
Sum	32.6271	5.0092

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 8709.1716 1620.5404 ug/m3

	Conc (%)	Uncert (%)
Na	0.0763	0.0494
Al	3.8706	1.8628
Si	9.4518	4.2169
P	0.0581	0.0255
S	0.0600	0.0249
SO4	0.0276	0.1365
Cl	0.1028	0.0661
K-x	0.8247	0.4478
K-a	0.0457	0.0336
Ca	1.2551	0.4677
Ti	0.1881	0.1226
V	0.0078	0.0124
Cr	0.0084	0.0052
Mn	0.0395	0.0249
Fe	1.9794	1.2989
Co	0.0054	0.0656
Ni	0.0019	0.0011
Cu	0.0094	0.0067
Zn	0.0101	0.0036
Ga	0.0000	0.0033
As	0.0009	0.0037
Se	0.0003	0.0015
Br	0.0002	0.0004
Rb	0.0050	0.0029
Sr	0.0100	0.0040
Y	0.0010	0.0014
Zr	0.0052	0.0026
Mo	0.0007	0.0046
Pd	0.0000	0.0097
Ag	0.0000	0.0113
Cd	0.0009	0.0121
In	0.0000	0.0144
Sn	0.0076	0.0172
Sb	0.0015	0.0218
Ba	0.0462	0.0474
La	0.0015	0.0871
Hg	0.0006	0.0053
Pb	0.0033	0.0017
NO3	0.0493	0.3770
NH4	0.0000	0.0062
OC	1.7003	1.6236
EC	0.0063	0.1754
CO3	0.1206	0.2484
Sum	19.9108	5.1253

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 3491.4684 1140.5639 ug/m3

	Conc (%)	Uncert (%)
Na	0.2056	0.1822
Al	13.9072	1.9651
Si	34.0411	3.8232
P	0.2321	0.0763
S	0.2634	0.0740
SO4	0.1638	0.2838
Cl	0.5510	0.5673
K-x	2.4412	0.2737
K-a	0.1322	0.0521
Ca	4.1604	0.8247
Ti	0.5405	0.0739
V	0.0311	0.0157
Cr	0.0286	0.0032
Mn	0.1167	0.0154
Fe	5.2675	0.6204
Co	0.0110	0.0722
Ni	0.0090	0.0011
Cu	0.0325	0.0135
Zn	0.0350	0.0027
Ga	0.0014	0.0049
As	0.0010	0.0055
Se	0.0009	0.0023
Br	0.0033	0.0007
Rb	0.0155	0.0017
Sr	0.0290	0.0057
Y	0.0029	0.0029
Zr	0.0110	0.0019
Mo	0.0027	0.0071
Pd	0.0002	0.0149
Ag	0.0000	0.0172
Cd	0.0035	0.0184
In	0.0031	0.0221
Sn	0.0054	0.0298
Sb	0.0029	0.0332
Ba	0.0716	0.1008
La	0.0200	0.1348
Hg	0.0037	0.0082
Pb	0.0154	0.0044
NO3	0.0410	0.5699
NH4	0.0000	0.0094
OC	3.4457	1.1152
EC	0.0000	0.2656
CO3	0.5294	0.3757
Sum	66.0835	4.6699

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 2658.2641 810.0083 ug/m3

	Conc (%)	Uncert (%)
Na	0.2257	0.2040
Al	13.7112	2.4803
Si	33.9424	5.1572
P	0.2112	0.0802
S	0.2504	0.0603
SO4	0.2051	0.3552
Cl	0.5955	0.6085
K-x	2.3916	0.3677
K-a	0.1416	0.0712
Ca	4.4987	0.9075
Ti	0.5373	0.0896
V	0.0300	0.0212
Cr	0.0268	0.0043
Mn	0.1088	0.0205
Fe	5.0821	0.8006
Co	0.0092	0.0983
Ni	0.0081	0.0015
Cu	0.0288	0.0131
Zn	0.0318	0.0036
Ga	0.0016	0.0069
As	0.0009	0.0076
Se	0.0009	0.0032
Br	0.0035	0.0012
Rb	0.0154	0.0027
Sr	0.0297	0.0057
Y	0.0027	0.0041
Zr	0.0114	0.0027
Mo	0.0026	0.0099
Pd	0.0003	0.0207
Ag	0.0000	0.0240
Cd	0.0038	0.0256
In	0.0042	0.0307
Sn	0.0011	0.0416
Sb	0.0033	0.0462
Ba	0.0637	0.1447
La	0.0063	0.1879
Hg	0.0040	0.0114
Pb	0.0137	0.0039
NO3	0.0513	0.7972
NH4	0.0000	0.0132
OC	3.6105	1.5584
EC	0.0000	0.3710
CO3	0.6594	0.5260
Sum	66.1799	6.1912

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFPLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 833.2042 335.4472 ug/m3

	Conc (%)	Uncert (%)
Na	0.1303	0.1106
Al	14.7146	1.7416
Si	34.6092	3.9316
P	0.3025	0.0533
S	0.3150	0.1546
SO4	0.0000	0.3478
Cl	0.3879	0.3923
K-x	2.6128	0.2970
K-a	0.0941	0.0847
Ca	3.0080	0.3631
Ti	0.5533	0.0793
V	0.0346	0.0279
Cr	0.0341	0.0056
Mn	0.1445	0.0164
Fe	5.9090	0.7847
Co	0.0162	0.0827
Ni	0.0117	0.0015
Cu	0.0443	0.0133
Zn	0.0459	0.0038
Ga	0.0009	0.0083
As	0.0016	0.0089
Se	0.0007	0.0038
Br	0.0024	0.0030
Rb	0.0158	0.0024
Sr	0.0266	0.0055
Y	0.0034	0.0047
Zr	0.0098	0.0062
Mo	0.0026	0.0118
Pd	0.0000	0.0240
Ag	0.0076	0.0290
Cd	0.0029	0.0299
In	0.0108	0.0365
Sn	0.0312	0.0500
Sb	0.0031	0.0548
Ba	0.1023	0.1936
La	0.0717	0.2251
Hg	0.0028	0.0135
Pb	0.0210	0.0074
NO3	0.1102	0.9632
NH4	0.0000	0.0159
OC	2.8260	1.8500
EC	0.0000	0.4484
CO3	0.1024	0.6319
Sum	66.2297	4.9581

Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 571.9141 210.2289 ug/m3

	Conc (%)	Uncert (%)
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Na	0.0290	0.2271
Al	18.7264	2.7827
Si	43.3049	6.2644
P	0.3787	0.0844
S	0.3788	0.1978
SO4	0.0000	0.7163
Cl	0.4727	0.4909
K-x	3.0027	0.4617
K-a	0.1338	0.1743
Ca	3.3242	0.5250
Ti	0.6247	0.1236
V	0.0406	0.0557
Cr	0.0370	0.0123
Mn	0.1481	0.0252
Fe	6.3381	1.3252
Co	0.0190	0.1274
Ni	0.0119	0.0040
Cu	0.0538	0.0199
Zn	0.0506	0.0088
Ga	0.0008	0.0168
As	0.0019	0.0170
Se	0.0008	0.0077
Br	0.0012	0.0051
Rb	0.0155	0.0038
Sr	0.0288	0.0052
Y	0.0016	0.0103
Zr	0.0049	0.0131
Mo	0.0021	0.0240
Pd	0.0000	0.0492
Ag	0.0032	0.0591
Cd	0.0038	0.0611
In	0.0153	0.0735
Sn	0.0345	0.1008
Sb	0.0023	0.1122
Ba	0.0670	0.3934
La	0.0221	0.4598
Hg	0.0030	0.0275
Pb	0.0192	0.0174
NO3	0.0609	1.9832
NH4	0.0000	0.0327
OC	2.4146	3.7940
EC	0.0000	0.9230
CO3	0.1170	1.3011

Sum	79.7617	8.4194
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Sample ID : SOIL10
 Filter ID : COMPOSIT/COMPOSIT
 Size : 1.0
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 261.2902 145.5988 ug/m3

	Conc (%)	Uncert (%)
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Na	0.3693	0.4182
Al	5.8830	0.9631
Si	15.3308	3.2907
P	0.1312	0.0209
S	0.1745	0.0486
SO4	0.0000	1.3139
Cl	0.1954	0.1485
K-x	1.7427	0.3239
K-a	0.0000	0.3188
Ca	2.2924	0.8649
Ti	0.3972	0.0855
V	0.0235	0.0971
Cr	0.0278	0.0156
Mn	0.1372	0.0619
Fe	4.9831	1.2587
Co	0.0108	0.0770
Ni	0.0114	0.0071
Cu	0.0234	0.0075
Zn	0.0361	0.0200
Ga	0.0011	0.0300
As	0.0027	0.0284
Se	0.0007	0.0138
Br	0.0078	0.0078
Rb	0.0172	0.0050
Sr	0.0216	0.0059
Y	0.0085	0.0198
Zr	0.0214	0.0252
Mo	0.0036	0.0433
Pd	0.0059	0.0886
Ag	0.0209	0.1061
Cd	0.0100	0.1103
In	0.0030	0.1308
Sn	0.0226	0.1791
Sb	0.0225	0.2024
Ba	0.1726	0.7055
La	0.2271	0.8305
Hg	0.0075	0.0494
Pb	0.0234	0.0418
NO3	0.2148	3.6380
NH4	0.0000	0.0599
OC	3.7952	6.9491
EC	0.0000	1.7000
CO3	0.0626	2.3874

Sum	-----	-----
	36.4425	9.2659

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 30
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 59086.9274 15228.5681 ug/m3

	Conc (%)	Uncert (%)
Na	0.2062	0.0254
Al	8.4021	0.9439
Si	21.5720	2.4233
P	0.1627	0.0183
S	0.1203	0.0167
SO4	0.2082	0.0674
Cl	0.1186	0.0133
K-x	1.9899	0.2232
K-a	0.1075	0.0298
Ca	6.5347	0.8692
Ti	0.5557	0.0623
V	0.0389	0.0070
Cr	0.0259	0.0029
Mn	0.1056	0.0118
Fe	5.7232	0.6415
Co	0.0175	0.0784
Ni	0.0093	0.0010
Cu	0.0056	0.0007
Zn	0.0219	0.0018
Ga	0.0000	0.0018
As	0.0024	0.0014
Se	0.0000	0.0008
Br	0.0016	0.0003
Rb	0.0139	0.0011
Sr	0.0354	0.0027
Y	0.0031	0.0006
Zr	0.0100	0.0010
Mo	0.0000	0.0026
Pd	0.0003	0.0056
Ag	0.0027	0.0066
Cd	0.0027	0.0069
In	0.0028	0.0082
Sn	0.0000	0.0107
Sb	0.0000	0.0120
Ba	0.1056	0.0160
La	0.0038	0.0462
Hg	0.0015	0.0030
Pb	0.0071	0.0014
NO3	0.0638	0.1820
NH4	0.0077	0.0133
OC	1.2958	0.3590
EC	0.0000	0.0849
CO3	0.7867	0.4599
Sum	47.9570	2.8941

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 4
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 26453.2372 7017.9725 ug/m3

	Conc (%)	Uncert (%)
Na	0.1767	0.0713
Al	6.4791	2.4123
Si	17.3311	6.1882
P	0.1137	0.0468
S	0.0831	0.0347
SO4	0.1890	0.1990
Cl	0.0984	0.0339
K-x	1.8470	0.5703
K-a	0.1166	0.0601
Ca	5.4533	1.8717
Ti	0.5304	0.1593
V	0.0399	0.0186
Cr	0.0268	0.0074
Mn	0.0971	0.0303
Fe	5.3098	1.6390
Co	0.0165	0.2046
Ni	0.0082	0.0027
Cu	0.0053	0.0020
Zn	0.0213	0.0041
Ga	0.0000	0.0054
As	0.0014	0.0047
Se	0.0000	0.0025
Br	0.0019	0.0012
Rb	0.0123	0.0027
Sr	0.0350	0.0066
Y	0.0022	0.0015
Zr	0.0109	0.0028
Mo	0.0000	0.0077
Pd	0.0000	0.0169
Ag	0.0060	0.0194
Cd	0.0020	0.0205
In	0.0056	0.0241
Sn	0.0000	0.0319
Sb	0.0000	0.0359
Ba	0.1146	0.0464
La	0.0087	0.1382
Hg	0.0000	0.0090
Pb	0.0082	0.0039
NO3	0.0786	0.5419
NH4	0.0167	0.0289
OC	1.7941	1.2570
EC	0.0000	0.2521
CO3	0.8474	0.9892
Sum	40.5833	7.3245

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 10
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 32633.6902 8258.3091 ug/m3

	Conc (%)	Uncert (%)
Na	0.2302	0.0365
Al	9.9324	1.1159
Si	24.9408	2.8007
P	0.2018	0.0231
S	0.1505	0.0169
SO4	0.2235	0.1044
Cl	0.1348	0.0151
K-x	2.1033	0.2359
K-a	0.0995	0.0260
Ca	7.4017	0.8311
Ti	0.5753	0.0645
V	0.0379	0.0078
Cr	0.0250	0.0028
Mn	0.1124	0.0126
Fe	6.0494	0.6784
Co	0.0183	0.0843
Ni	0.0101	0.0012
Cu	0.0057	0.0006
Zn	0.0223	0.0018
Ga	0.0004	0.0028
As	0.0032	0.0026
Se	0.0001	0.0013
Br	0.0013	0.0008
Rb	0.0152	0.0012
Sr	0.0357	0.0026
Y	0.0039	0.0007
Zr	0.0093	0.0012
Mo	0.0004	0.0041
Pd	0.0036	0.0091
Ag	0.0000	0.0100
Cd	0.0036	0.0108
In	0.0004	0.0126
Sn	0.0001	0.0169
Sb	0.0017	0.0191
Ba	0.0984	0.0231
La	0.0005	0.0736
Hg	0.0033	0.0048
Pb	0.0062	0.0026
NO3	0.0533	0.2856
NH4	0.0000	0.0047
OC	0.8685	0.7892
EC	0.0101	0.1329
CO3	0.7258	0.1943
Sum	53.7969	3.3282

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 3
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 27479.0895 7173.6882 ug/m3

	Conc (%)	Uncert (%)
Na	0.2127	0.0439
Al	10.0698	1.3492
Si	25.2214	3.3847
P	0.1994	0.0273
S	0.1482	0.0203
SO4	0.2115	0.1262
Cl	0.1368	0.0182
K-x	2.1227	0.2848
K-a	0.0948	0.0314
Ca	7.5137	1.0031
Ti	0.5827	0.0780
V	0.0372	0.0093
Cr	0.0249	0.0033
Mn	0.1122	0.0152
Fe	6.0430	0.8183
Co	0.0181	0.1018
Ni	0.0101	0.0014
Cu	0.0057	0.0007
Zn	0.0221	0.0020
Ga	0.0005	0.0034
As	0.0032	0.0031
Se	0.0001	0.0016
Br	0.0012	0.0009
Rb	0.0153	0.0015
Sr	0.0364	0.0033
Y	0.0040	0.0009
Zr	0.0093	0.0014
Mo	0.0004	0.0049
Pd	0.0041	0.0109
Ag	0.0000	0.0121
Cd	0.0041	0.0130
In	0.0005	0.0152
Sn	0.0000	0.0205
Sb	0.0020	0.0231
Ba	0.1033	0.0295
La	0.0006	0.0889
Hg	0.0037	0.0058
Pb	0.0062	0.0031
NO3	0.0547	0.3456
NH4	0.0000	0.0057
OC	0.7717	0.7061
EC	0.0122	0.1607
CO3	0.7166	0.2426
Sum	54.2308	3.9708

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2.5
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG
 i5

Mass 5154.6006 1093.6682 ug/m3

	Conc (%)	Uncert (%)
Na	0.3229	0.0468
Al	9.2325	1.0496
Si	23.5163	2.6731
P	0.2150	0.0245
S	0.1630	0.0195
SO4	0.2880	0.1095
Cl	0.1250	0.0174
K-x	2.0061	0.2281
K-a	0.1243	0.0276
Ca	6.8269	0.7775
Ti	0.5380	0.0612
V	0.0419	0.0075
Cr	0.0256	0.0029
Mn	0.1134	0.0129
Fe	6.0988	0.6933
Co	0.0195	0.0865
Ni	0.0101	0.0012
Cu	0.0063	0.0007
Zn	0.0239	0.0019
Ga	0.0002	0.0030
As	0.0030	0.0023
Se	0.0002	0.0014
Br	0.0016	0.0007
Rb	0.0146	0.0012
Sr	0.0321	0.0025
Y	0.0035	0.0008
Zr	0.0092	0.0012
Mo	0.0010	0.0043
Pd	0.0014	0.0091
Ag	0.0011	0.0105
Cd	0.0055	0.0114
In	0.0043	0.0134
Sn	0.0019	0.0176
Sb	0.0000	0.0198
Ba	0.0725	0.0508
La	0.0053	0.0775
Hg	0.0014	0.0049
Pb	0.0061	0.0015
NO3	0.0458	0.2972
NH4	0.0040	0.0070
OC	1.8761	0.5836
EC	0.0000	0.1386
CO3	0.7700	0.3911

 Sum 52.1460 3.1639

Sample ID : SOIL11
 Filter ID : COMPOSIT/COMPOSIT
 Size : 2
 Analysis flags: TFFLG QFFLG XFLG AFLG CAFLG N4FLG KPFLG NAFLG

Mass 3350.7087 630.8393 ug/m3

	Conc (%)	Uncert (%)
Na	0.2911	0.0887
Al	10.0496	1.6818
Si	24.8950	4.2507
P	0.2250	0.0390
S	0.1726	0.0384
SO4	0.2255	0.2412
Cl	0.1203	0.0323
K-x	1.9885	0.3591
K-a	0.1037	0.0597
Ca	6.9300	1.2263
Ti	0.5307	0.0971
V	0.0421	0.0131
Cr	0.0230	0.0048
Mn	0.1075	0.0204
Fe	5.8534	1.0839
Co	0.0181	0.1424
Ni	0.0087	0.0020
Cu	0.0058	0.0012
Zn	0.0222	0.0031
Ga	0.0003	0.0064
As	0.0029	0.0055
Se	0.0001	0.0029
Br	0.0008	0.0019
Rb	0.0135	0.0021
Sr	0.0304	0.0041
Y	0.0026	0.0021
Zr	0.0083	0.0023
Mo	0.0007	0.0092
Pd	0.0014	0.0194
Ag	0.0007	0.0225
Cd	0.0068	0.0240
In	0.0032	0.0284
Sn	0.0025	0.0376
Sb	0.0000	0.0426
Ba	0.0568	0.1286
La	0.0080	0.1676
Hg	0.0018	0.0105
Pb	0.0050	0.0067
NO3	0.0710	0.6616
NH4	0.0062	0.0110
OC	2.5824	1.2933
EC	0.0000	0.3080
CO3	0.4917	0.6759
Sum	54.5807	5.1439