Appendix C

Elemental Total Content (by XRF), Carbon, Loss on Ignition and Specific Surface Area

Nomenclature

BDL = below detection limit

BRL = below reportable limit (20 mg/kg)

CV = coefficient of variation (%)

EC = elemental carbon

OC = organic carbon

S.A. = specific surface area (BET isotherm by gas adsorption)

TC = total carbon

LOI = loss on ignition

n = number of sample aliquots analyzed

σ = standard deviation based on n analyses

Notes

1. All elemental and carbon analysis results reported on a dry weight basis.
2. Moisture content reported is for “as received” samples.

Fly Ash

Sample ID:		CFA				AFA			
Analyte	Detection Limit (mg/kg)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	160	130,222	2	36	0.0	124,986	2	193	0.2
As	380	BDL	2			BDL	2		
Ba	84	1,260	2	7	0.6	1,044	2	12	1.1
Br	200	BDL	2			BDL	2		
Ca	1,000	36,640	2	72	0.2	38,531	2	425	1.1
Cd	640	BRL	2			BRL	2		
Ce	220	BDL	2			BDL	2		
Cl	46	6,202	2	47	0.8	5,918	2	104	1.8
Co	24	65	2	3	5.0	72	2	10	14.0
Cr	28	177	2	35	19.9	197	2	4	2.0
Cu	14	181	2	2	1.0	211	2	2	0.9
F	820	BRL	2			BRL	2		
Fe	340	52,876	2	108	0.2	51,065	2	463	0.9
Ga	16	50	2	2	3.6	51	2	1	1.5
Ge	14	BRL	2			BRL	2		
K	48	21,293	2	144	0.7	18,241	2	77	0.4
La	54	BDL	2			127	2	31	24.4
Mg	100	9,465	2	75	0.8	9,115	2	0	0.0
Mn	32	527	2	1	0.2	323	2	6	1.9
Mo	26	BRL	2			26	2	12	45.2
Na	76	3,684	2	57	1.6	4,099	2	27	0.7
Nb	18	32	2	15	45.7	32	2	5	14.6
Ni	48	105	2	8	7.2	126	2	9	7.3
P	40	1,395	2	11	0.8	1,335	2	12	0.9
Pb	34	67	2	16	24.2	73	2	11	14.9
Rb	16	134	2	8	5.9	115	2	2	1.7
Sc	500	BDL	2			BDL	2		
Se	16	27	2	4	16.0	29	2	2	8.0
Si	18	234,602	2	539	0.2	212,998	2	232	0.1
Sr	920	1,176	2	4	0.3	1,007	2	2	0.2
S	16	3,999	2	180	4.5	3,973	2	27	0.7
Ti	30	9,460	2	54	0.6	8,372	2	62	0.7
V	38	294	2	10	3.4	360	2	2	0.4
W	36	BDL	2			BRL	2		
Y	18	90	2	7	7.9	93	2	3	3.3
Zn	14	128	2	3	2.3	140	2	4	2.8
Zr	24	318	2	16	5.1	282	2	13	4.5
EC (%)		3.6	2	0.32	8.9	9.03	2	1.59	17.6
OC (%)		0.1	2	0.06	60.0	0.11	2	0.02	18.2
TC (%)		3.69	2	0.26	7.0	9.15	2	1.61	17.6
LOI (%)									
S.A. (m^2/g)		2.57	1			13.89	1		
Moisture (%)		18.9	3	0.1	0.529	18.6	3	0.05	0.269

Fly Ash

Sample ID:	DFA				BFA			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	115,447	2	111	0.1	112,215	3	352	0.3
As	BDL	2			BDL	3		
Ba	1,283	2	11	0.9	1,325	3	10	0.8
Br	BRL	2			BRL	3		
Ca	32,621	2	37	0.1	35,238	3	411	1.2
Cd	BRL	2			BRL	3		
Ce	BRL	2			BRL	3		
Cl	310	2	0	0.1	455	3	59	13.0
Co	24	2	20	80.6	26	3	4	16.1
Cr	228	2	0	0.2	245	3	14	5.7
Cu	60	2	2	3.7	57	3	5	9.2
F	BRL	2			BRL	3		
Fe	116,523	2	668	0.6	111,577	3	1,514	1.4
Ga	37	2	5	14.1	32	3	4	13.7
Ge	BRL	2			23	3	5	23.6
K	19,630	2	74	0.4	20,284	3	52	0.3
La	BDL	2			BDL	3		
Mg	8,120	2	74	0.9	8,991	3	62	0.7
Mn	255	2	15	5.8	262	3	7	2.8
Mo	BRL	2			BRL	3		
Na	6,955	2	7	0.1	7,498	3	147	2.0
Nb	BRL	2			22	3	5	21.4
Ni	57	2	3	4.6	75	3	7	9.4
P	1,787	2	26	1.5	2,435	3	21	0.9
Pb	BDL	2			BDL	3		
Rb	120	2	1	1.2	134	3	1	0.6
Sc	BRL	2			BRL	3		
Se	BRL	2			BRL	3		
Si	222,181	2	148	0.1	219,739	3	659	0.3
Sr	1,040	2	4	0.4	1,150	3	16	1.4
S	5,370	2	89	1.7	7,358	3	173	2.4
Ti	5,984	2	67	1.1	6,166	3	65	1.0
V	196	2	9	4.5	194	3	10	5.1
W	BRL	2			BRL	3		
Y	54	2	10	18.0	33	3	4	12.0
Zn	133	2	15	11.5	145	3	4	2.9
Zr	213	2	15	7.1	217	3	7	3.1
EC (%)	1.38	2	0.11	8.0	1.51	2	0.43	28.5
OC (%)	0.03	2	0.01	33.3	0.43	2	0.27	62.8
TC (%)	1.46	2	0.18	12.3	1.93	2	0.7	36.3
LOI (%)								
S.A. (m^2/g)	2.37	1			5.74	1		
Moisture (%)	11	3	0.4	3.636	11.6	3	0.4	3.448

Fly Ash

Sample ID:	KFA			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	124,250	2	2,051	1.7
As	BDL	2		
Ba	582	2	36	6.3
Br	BRL	2		
Ca	14,150	2	71	0.5
Cd	BRL	2		
Ce	BDL	2		
Cl	BDL	2		
Co	BRL	2		
Cr	160	2	22	13.7
Cu	92	2	1	0.8
F	BRL	2		
Fe	161,175	2	5,975	3.7
Ga	37	2	10	27.1
Ge	29	2	1	2.4
K	15,800	2	71	0.4
La	80	2	10	12.8
Mg	5,898	2	39	0.7
Mn	230	2	13	5.7
Mo	31	2	5	14.9
Na	2,588	2	32	1.2
Nb	BRL	2		
Ni	148	2	9	6.0
P	1,083	2	53	4.9
Pb	54	2	17	32.2
Rb	94	2	3	3.0
Sc	BRL	2		
Se	BRL	2		
Si	213,325	2	1,874	0.9
Sr	BDL	2		
S	2,980	2	212	7.1
Ti	6,208	2	25	0.4
V	228	2	10	4.5
W	86	2	5	6.1
Y	78	2	1	0.9
Zn	179	2	2	1.0
Zr	196	2	10	5.2
EC (%)	0.08	3	0.03	37.5
OC (%)	0.13	3	0.01	7.7
TC (%)	0.21	3	0.03	14.3
LOI (%)	1.59	1		
S.A. (m^2/g)				
Moisture (%)	0.3	3	0.3	100

		Gypsum (Unwashed, Gyp-U)				Gypsum (Washed, Gyp-W)			
Sample ID:		NAU				NAW			
Analyte	Detection Limit (mg/kg)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	160	345	3	38	10.9	197	3	85	43.3
As	380	BRL	3			BRL	3		
Ba	84	BDL	3			BDL	3		
Br	200	BRL	3			BRL	3		
Ca	1,000	299,167	3	1,168	0.4	290,200	3	400	0.1
Cd	640	BRL	3			BRL	3		
Ce	220	BRL	3			BRL	3		
Cl	46	1,327	3	101	7.6	BRL	3		
Co	24	BRL	3			BRL	3		
Cr	28	BRL	3			BRL	3		
Cu	14	33	3	9	26.2	26	3	16	62.4
F	820	BDL	3			BDL	3		
Fe	340	1,433	3	38	2.6	1,297	3	21	1.6
Ga	16	BRL	3			BRL	3		
Ge	14	BRL	3			BRL	3		
K	48	BRL	3			BRL	3		
La	54	BDL	3			BDL	3		
Mg	100	549	3	13	2.4	360	3	8	2.2
Mn	32	BRL	3			BRL	3		
Mo	26	BRL	3			BRL	3		
Na	76	281	3	37	13.1	196	3	7	3.6
Nb	18	BRL	3			BRL	3		
Ni	48	233	3	12	5.2	222	3	9	4.1
P	40	417	3	14	3.4	380	3	12	3.0
Pb	34	BRL	3			BRL	3		
Rb	16	BRL	3			BRL	3		
Sc	500	BDL	3			BDL	3		
Se	16	BRL	3			BRL	3		
Si	18	3,000	3	235	7.8	2,703	3	51	1.9
Sr	920	BDL	3			BDL	3		
S	16	225,233	3	850	0.4	231,633	3	153	0.1
Ti	30	31	3	20	63.8	BDL	3		
V	38	BRL	3			BRL	3		
W	36	223	3	14	6.4	159	3	6	3.6
Y	18	BRL	3			BRL	3		
Zn	14	BRL	3			BRL	3		
Zr	24	BRL	3			BRL	3		
EC (%)		BDL	3			BDL	3		
OC (%)		0.55	3	0.06	10.9	0.51	3	0.02	3.9
TC (%)		0.55	3	0.06	10.9	0.51	3	0.02	3.9
LOI (%)		9.20	1			2.10	1		
S.A. (m^2/g)		9.92	1			3.88	1		
Moisture (%)		27.8	3	0.01	0.04	28	3	0.1	0.357

	Gypsum (Unwashed, Gyp-U)				Gypsum (Washed, Gyp-W)			
Sample ID:	OAU				OAW			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	1,074	3	192	17.9	927	3	142	15.3
As	BRL	3			BRL	3		
Ba	BDL	3			BDL	3		
Br	BRL	3			BRL	3		
Ca	285,567	3	1,050	0.4	284,500	3	557	0.2
Cd	BRL	3			BRL	3		
Ce	BDL	3			BRL	3		
Cl	644	3	9	1.4	BRL	3		
Co	BRL	3			BRL	3		
Cr	BRL	3			BRL	3		
Cu	26	3	16	59.1	29	3	16	56.8
F	BRL	3			BRL	3		
Fe	1,763	3	64	3.6	1,720	3	26	1.5
Ga	BRL	3			BRL	3		
Ge	BRL	3			BRL	3		
K	375	3	31	8.2	330	3	25	7.6
La	BDL	3			BRL	3		
Mg	2,903	3	286	9.8	2,073	3	101	4.9
Mn	33	3	19	58.3	48	3	21	43.8
Mo	BRL	3			BRL	3		
Na	272	3	20	7.3	209	3	33	15.7
Nb	BRL	3			BRL	3		
Ni	225	3	12	5.5	207	3	32	15.7
P	BRL	3			BRL	3		
Pb	BRL	3			BRL	3		
Rb	BRL	3			BRL	3		
Sc	BDL	3			BDL	3		
Se	BRL	3			BRL	3		
Si	4,220	3	266	6.3	3,907	3	106	2.7
Sr	BDL	3			BDL	3		
S	220,267	3	839	0.4	224,467	3	493	0.2
Ti	98	3	12	12.3	78	3	14	18.2
V	BRL	3			59	3	25	42.8
W	181	3	28	15.5	147	3	35	23.4
Y	BRL	3			BRL	3		
Zn	BRL	3			BRL	3		
Zr	BRL	3			BRL	3		
EC (%)	0.43	2	0.56	130.2	0.05	2	0.07	140.0
OC (%)	2.5	2	0.45	18.0	2.31	2	0.06	2.6
TC (%)	2.93	2	0.11	3.8	2.36	0	0	0.0
LOI (%)	20.4	1			3.91			
S.A. (m^2/g)	7.58	1			3.39	1		
Moisture (%)	21.3	3	6.4	30.05	21.3	3	1.3	6.103

Gypsum (Unwashed, Gyp-U)

Sample ID:	PAD (U)				QAU			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	1,257	3	172	14	4,817	3	242	5.03
As	BRL	3			BRL	3		
Ba	BDL	3			BDL	3		
Br	BRL	3			BRL	3		
Ca	300,500	3	557	0	301,100	3	800	0.27
Cd	BRL	3			BRL	3		
Ce	BRL	3			BRL	3		
Cl	147	3	35	24	1,130	3	44	3.93
Co	BRL	3			BRL	3		
Cr	BRL	3			BRL	3		
Cu	99	3	11	11	114	3	9	7.70
F	1,952	3	116	5.9	6,122	3	586	9.6
Fe	1,637	3	95	5.8	1,503	3	10	0.7
Ga	BRL	3			BRL	3		
Ge	BRL	3			BRL	3		
K	471	3	28	5.9	501	3	8	1.5
La	BDL	3			BDL	3		
Mg	769	3	40	5.2	10,053	3	703	7.0
Mn	158	3	9	5.5	72	3	8	10.8
Mo	BRL	3			BRL	3		
Na	287	3	28	9.6	1,553	3	57	3.7
Nb	BRL	3			BRL	3		
Ni	545	3	27	4.9	566	3	12	2.2
P	224	3	17	7.7	417	3	5	1.1
Pb	BRL	3			BRL	3		
Rb	BRL	3			BRL	3		
Sc	BDL	3			BDL	3		
Se	BRL	3			22	3	1	2.6
Si	2,497	3	223	8.9	11,433	3	506	4.4
Sr	BDL	3			BDL	3		
S	225,050	3	624	0.3	202,117	3	1,032	0.5
Ti	58	3	19	32.7	192	3	19	9.7
V	BRL	3			BDL	3		
W	428	3	25	5.8	465	3	24	5.1
Y	BRL	3			BRL	3		
Zn	BRL	3			BRL	3		
Zr	BRL	3			BRL	3		
EC (%)	BDL	3			0.03	3	0	0
OC (%)	0.12	3	0.03	25	0.87	3	0.12	13.79
TC (%)	0.12	3	0.03	25	0.91	3	0.12	13.19
LOI (%)	2.75	1			6.12	1		
S.A. (m^2/g)								
Moisture (%)	18.3	3	1.6	8.743	24.4	3	4.2	17.21

Scrubber Sludge (ScS)

Sample ID:		CGD				AGD			
Analyte	Detection Limit (mg/kg)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	160	5,609	3	530	9.4	8,687	2	142	1.6
As	380	BRL	3			BRL	2		
Ba	84	192	3	16	8.2	189	2	38	20.3
Br	200	BDL	3			BDL	2		
Ca	1,000	348,533	3	735	0.2	327,840	2	0	0.0
Cd	640	BRL	3			BRL	2		
Ce	220	BRL	3			BRL	2		
Cl	46	8,073	3	589	7.3	8,537	2	212	2.5
Co	24	BRL	3			BRL	2		
Cr	28	BRL	3			BDL	2		
Cu	14	BRL	3			BRL	2		
F	820	3,432	3	994	29.0	1,966	2	366	18.6
Fe	340	3,581	3	106	3.0	6,295	2	21	0.3
Ga	16	BRL	3			BRL	2		
Ge	14	BRL	3			BRL	2		
K	48	1,465	3	68	4.7	2,463	2	12	0.5
La	54	BDL	3			BRL	2		
Mg	100	3,760	3	326	8.7	9,888	2	358	3.6
Mn	32	160	3	5	2.9	159	2	4	2.6
Mo	26	BRL	3			BRL	2		
Na	76	908	3	82	9.0	1,572	2	33	2.1
Nb	18	BRL	3			BRL	2		
Ni	48	BRL	3			BRL	2		
P	40	393	3	24	6.1	468	2	10	2.2
Pb	34	BRL	3			BRL	2		
Rb	16	BRL	3			BRL	2		
Sc	500	BDL	3			BDL	2		
Se	16	32	3	2	6.5	BRL	2		
Si	18	12,486	3	529	4.2	25,103	2	1,540	6.1
Sr	920	BDL	3			BDL	2		
S	16	177,098	3	703	0.4	169,806	2	499	0.3
Ti	30	258	3	17	6.6	354	2	22	6.1
V	38	BRL	3			BRL	2		
W	36	BDL	3			BRL	2		
Y	18	BRL	3			BRL	2		
Zn	14	BRL	3			BRL	2		
Zr	24	BRL	3			BRL	2		
EC (%)		0.27	2	0.03	11.11	0.1	2	0.07	70.0
OC (%)		0.12	2	0.03	25	0.35	2	0.02	5.7
TC (%)		0.39	2	0.06	15.38	0.45	2	0.05	11.1
LOI (%)									
S.A. (m^2/g)		16.63				14.47			
Moisture (%)		22.2	3	5	22.52	19.4	3	0.4	2.062

Scrubber Sludge (ScS)

Sample ID:	DGD				BGD			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	2,378	2	136	5.7	20,836	2	1,274	6.1
As	BRL	2			BRL	2		
Ba	BDL	2			417	2	6	1.4
Br	BDL	2			BDL	2		
Ca	339,697	2	310	0.1	287,766	2	1,854	0.6
Cd	BRL	2			BRL	2		
Ce	BDL	2			BDL	2		
Cl	5,025	2	124	2.5	4,003	2	8	0.2
Co	BRL	2			BRL	2		
Cr	BDL	2			95	2	31	33.0
Cu	BRL	2			21	2	8	40.9
F	BRL	2			BRL	2		
Fe	3,368	2	16	0.5	35,445	2	618	1.7
Ga	BRL	2			BRL	2		
Ge	BRL	2			BRL	2		
K	534	2	3	0.7	4,377	2	19	0.4
La	BDL	2			BDL	2		
Mg	15,882	2	116	0.7	11,606	2	116	1.0
Mn	44	2	14	32.5	96	2	2	2.0
Mo	BRL	2			BRL	2		
Na	572	2	19	3.3	1,753	2	116	6.6
Nb	BRL	2			BRL	2		
Ni	BRL	2			BRL	2		
P	87	2	2	1.8	388	2	0	0.0
Pb	BRL	2			BRL	2		
Rb	BRL	2			29	2	19	65.5
Sc	BDL	2			BDL	2		
Se	BRL	2			BRL	2		
Si	7,168	2	198	2.8	41,890	2	1,699	4.1
Sr	BDL	2			BDL	2		
S	184,853	2	194	0.1	147,870	2	1,120	0.8
Ti	209	2	2	0.7	1,622	2	54	3.3
V	BRL	2			46	2	14	29.9
W	BRL	2			BRL	2		
Y	BRL	2			BRL	2		
Zn	BRL	2			45	2	0	0.9
Zr	BRL	2			63	2	5	7.3
EC (%)	0.3	2	0.04	13.3	0.93	2	0.05	5.4
OC (%)	0.14	2	0.05	35.7	0.22	2	0.01	4.5
TC (%)	0.44	2	0.01	2.3	1.15	2	0.04	3.5
LOI (%)								
S.A. (m^2/g)	17.54				22.69			
Moisture (%)	48.8	3	1.3	2.664	43.3	3	0.1	0.231

Scrubber Sludge (ScS)

Sample ID:	KGD			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	24,950	2	1,697	6.8
As	BRL	2		
Ba	213	2	7	3.3
Br	BRL	2		
Ca	249,725	2	4,632	1.9
Cd	BRL	2		
Ce	BRL	2		
Cl	1,900	2	205	10.8
Co	BRL	2		
Cr	43	2	6	13.2
Cu	31	2	4	11.4
F	BRL	2		
Fe	36,100	2	2,121	5.9
Ga	BRL	2		
Ge	BRL	2		
K	3,745	2	318	8.5
La	BDL	2		
Mg	11,525	2	106	0.9
Mn	89	2	17	19.5
Mo	BRL	2		
Na	810	2	65	8.0
Nb	BRL	2		
Ni	77	2	1	1.8
P	238	2	19	7.9
Pb	BRL	2		
Rb	21	2	5	25.6
Sc	BDL	2		
Se	BRL	2		
Si	32,100	2	1,838	5.7
Sr	BDL	2		
S	178,225	2	1,945	1.1
Ti	1,558	2	117	7.5
V	48	2	5	9.6
W	68	2	7	9.8
Y	20	2	5	24.7
Zn	62	2	10	16.1
Zr	58	2	5	7.9
EC (%)	0.22	3	0.19	86.4
OC (%)	0.49	3	0.29	59.2
TC (%)	0.71	3	0.48	67.6
LOI (%)	8.63	1		
S.A. (m^2/g)				
Moisture (%)	45.3	3	0.4	0.883

Fixated Stabilized Sludge (FSS)

Sample ID:		CCC				ACC			
Analyte	Detection Limit (mg/kg)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	160	111,012	2	3,421	3.1	102,335	2	334	0.3
As	380	BDL	2			BDL	2		
Ba	84	1,144	2	11	1.0	962	2	58	6.0
Br	200	BDL	2			BDL	2		
Ca	1,000	78,145	2	4,908	6.3	81,978	2	37	0.0
Cd	640	BRL	2			BRL	2		
Ce	220	BDL	2			BDL	2		
Cl	46	5,403	2	41	0.8	7,933	2	1,291	16.3
Co	24	53	2	8	14.8	63	2	9	14.1
Cr	28	168	2	23	13.7	141	2	19	13.7
Cu	14	162	2	4	2.3	164	2	12	7.5
F	820	BRL	2			BRL	2		
Fe	340	46,513	2	37	0.1	44,675	2	260	0.6
Ga	16	45	2	1	3.3	44	2	4	9.3
Ge	14	BRL	2			BRL	2		
K	48	18,116	2	335	1.8	16,028	2	37	0.2
La	54	94	2	6	6.7	105	2	3	2.8
Mg	100	9,034	2	297	3.3	10,254	2	56	0.5
Mn	32	474	2	17	3.5	320	2	3	0.9
Mo	26	BRL	2			BRL	2		
Na	76	3,521	2	86	2.4	3,421	2	74	2.2
Nb	18	BRL	2			21	2	2	10.6
Ni	48	98	2	3	3.0	100	2	6	6.0
P	40	1,167	2	7	0.6	1,060	2	28	2.7
Pb	34	59	2	2	3.2	54	2	4	7.6
Rb	16	107	2	1	0.7	90	2	3	3.7
Sc	500	BDL	2			BDL	2		
Se	16	31	2	2	6.0	26	2	2	7.1
Si	18	195,178	2	5,466	2.8	170,986	2	297	0.2
Sr	920	1,051	2	8	0.8	BDL	2		
S	16	34,418	2	4,946	14.4	38,799	2	482	1.2
Ti	30	8,282	2	30	0.4	7,012	2	26	0.4
V	38	257	2	17	6.7	282	2	15	5.3
W	36	BDL	2			BRL	2		
Y	18	65	2	3	4.6	76	2	10	13.7
Zn	14	104	2	2	2.2	104	2	9	8.5
Zr	24	259	2	3	1.1	221	2	12	5.2
EC (%)		3.93	2	0.47	12.0	8.73	2	1.03	11.8
OC (%)		0.05	2	0	0.0	0.57	2	0.46	80.7
TC (%)		3.98	2	0.47	11.8	9.3	2	0.58	6.2
LOI (%)									
S.A. (m^2/g)		4.93	1			10.22	1		
Moisture (%)		17.2	3	1.4	8.1	25.8	3	0.1	0.4

Fixated Stabilized Sludge with Lime (FSSL)

Sample ID:	DCC				BCC			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	16,929	2	113	0.7	4,953	2	423	8.5
As	BRL	2			BDL	2		
Ba	333	2	9	2.6	158	2	9	5.7
Br	BDL	2			BDL	2		
Ca	304,718	2	1,740	0.6	327,010	2	288	0.1
Cd	BRL	2			BRL	2		
Ce	BRL	2			BRL	2		
Cl	6,261	2	140	2.2	4,433	2	444	10.0
Co	BRL	2			BRL	2		
Cr	48	2	11	22.7	45	2	12	26.5
Cu	BRL	2			BRL	2		
F	BRL	2			BRL	2		
Fe	17,223	2	227	1.3	10,682	2	308	2.9
Ga	BRL	2			BRL	2		
Ge	BRL	2			BRL	2		
K	3,910	2	15	0.4	1,055	2	2	0.2
La	BRL	2			BDL	2		
Mg	15,511	2	76	0.5	11,553	2	259	2.2
Mn	74	2	12	16.3	52	2	9	17.5
Mo	BRL	2			BDL	2		
Na	1,498	2	30	2.0	762	2	37	4.9
Nb	BRL	2			BRL	2		
Ni	BRL	2			BRL	2		
P	275	2	20	7.3	112	2	16	14.3
Pb	BRL	2			BRL	2		
Rb	28	2	5	16.3	BRL	2		
Sc	BDL	2			BDL	2		
Se	BRL	2			BRL	2		
Si	33,135	2	38	0.1	11,681	2	571	4.9
Sr	BDL	2			BDL	2		
S	158,777	2	3,820	2.4	183,273	2	452	0.2
Ti	1,343	2	8	0.6	441	2	21	4.7
V	46	2	3	7.4	BRL	2		
W	BRL	2			BRL	2		
Y	BRL	2			BRL	2		
Zn	42	2	7	17.1	25	2	2	8.3
Zr	46	2	4	9.1	BRL	2		
EC (%)	0.91	2	0.17	18.7	0.49	2	0.04	8.2
OC (%)	0.17	2	0.12	70.6	0.17	2	0.04	23.5
TC (%)	1.08	2	0.05	4.6	0.66	2	0.07	10.6
LOI (%)								
S.A. (m^2/g)	3.46	1			14.49	1		
Moisture (%)	38.9	3	0.5	1.3	42.3	3	0.1	0.2

Fixated Stabilized Sludge with Lime (FSSL)

Sample ID:	KCC				
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	
Al	1,628	2	11	0.7	
As	BRL	2			
Ba	BDL	2			
Br	BRL	2			
Ca	291,100	2	0	0.0	
Cd	BRL	2			
Ce	BDL	2			
Cl	812	2	44	5.4	
Co	BRL	2			
Cr	BRL	2			
Cu	BRL	2			
F	BRL	2			
Fe	938	2	11	1.1	
Ga	BRL	2			
Ge	BRL	2			
K	165	2	5	2.8	
La	BDL	2			
Mg	9,933	2	81	0.8	
Mn	BRL	2			
Mo	BRL	2			
Na	355	2	26	7.4	
Nb	BRL	2			
Ni	51	2	5	9.1	
P	BRL	2			
Pb	BRL	2			
Rb	BRL	2			
Sc	BDL	2			
Se	BRL	2			
Si	5,075	2	64	1.3	
Sr	BDL	2			
S	220,400	2	141	0.1	
Ti	79	2	19	23.8	
V	BRL	2			
W	66	2	35	52.8	
Y	BRL	2			
Zn	BRL	2			
Zr	BRL	2			
EC (%)	0.26	3	0.15	57.7	
OC (%)	0.58	3	0.32	55.2	
TC (%)	0.85	3	0.44	51.8	
LOI (%)	5.63	1			
S.A. (m^2/g)					
Moisture (%)	51.4	3	0.5	0.973	

Fixated Stabilized Sludge with Lime (FSSL)

Sample ID:	MAD				MAS			
Analyte	Mean (mg/kg)	n	σ (mg/kg)	CV (%)	Mean (mg/kg)	n	σ (mg/kg)	CV (%)
Al	38,380	10	1,036	2.7	32,200	3	721	2.2
As	BDL	10			BRL	3		
Ba	187	10	19	10.0	183	3	15	8.0
Br	BRL	10			BRL	3		
Ca	230,470	10	1,157	0.5	207,367	3	3,408	1.6
Cd	BRL	10			BRL	3		
Ce	BDL	10			BDL	3		
Cl	3,105	10	449	14.5	873	3	71	8.1
Co	BRL	10			BDL	3		
Cr	65	10	12	18.4	55	3	15	27.2
Cu	95	10	14	14.7	90	3	10	11.2
F	BRL	10			BRL	3		
Fe	66,275	10	487	0.7	46,767	3	603	1.3
Ga	BRL	10			BRL	3		
Ge	42	10	8	18.3	36	3	2	5.7
K	9,468	10	111	1.2	7,290	3	111	1.5
La	63	10	23	36.9	57	3	25	43.8
Mg	8,241	10	89	1.1	4,540	3	30	0.7
Mn	174	10	7	4.1	121	3	8	6.3
Mo	BDL	10			BDL	3		
Na	2,340	10	574	24.5	6,220	3	122	2.0
Nb	BRL	10			BRL	3		
Ni	334	10	10	3.0	300	3	16	5.3
P	316	10	17	5.5	229	3	26	11.1
Pb	61	10	12	19.1	60	3	26	42.6
Rb	68	10	4	6.1	43	3	10	22.8
Sc	BDL	10			BDL	3		
Se	BRL	10			BRL	3		
Si	60,300	10	1,345	2.2	50,800	3	1,249	2.5
Sr	BDL	10			BDL	3		
S	171,105	10	2,703	1.6	173,800	3	1,552	0.9
Ti	2,643	10	28	1.1	2,103	3	38	1.8
V	136	10	10	7.3	119	3	28	23.7
W	215	10	39	18.3	193	3	27	13.7
Y	32	10	7	20.8	23	3	8	35.7
Zn	171	10	14	8.2	149	3	13	8.7
Zr	128	10	10	7.9	102	3	9	8.4
EC (%)	0.34	3	0.02	6.2	0	2	0	
OC (%)	0.96	3	0.36	38.0	0.75	2	0.01	1.3
TC (%)	1.30		0.34	26.1	0.75	2	0.01	1.3
LOI (%)	5.79	1			3.69	1		
S.A. (m^2/g)	7.36	1						
Moisture (%)	32.1	3	0.2	0.6	27.2	3	1	3.7