Appendix 10. Water-Quality Data

Appendix 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan

[Comment: CHC or 3H refer to appendix table 10-1B. m, meters; °C, degrees Celsius; µS/cm, microsiemens per centimeter at 25°C; mg/L, milligrams per liter; g/L, grams per liter; samples analyzed at USGS laboratory (R) unless indicated as USGS Denver laboratory (D); milligrams per liter; Alk, titration alkalinity; <, less than; >, greater than or equal to; --, not applicable; µg/L, microgram per liter; ICPMS, inductively coupled plasma mass spectrometry; FU, filtered unacidified; FA, filtered acidified; NFA, not acidified in the field]

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids (g/L)	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
2.1	Well 2.1	09-25-04	0000	Eastern Front		20.2	338		8.23	4.1	0	0-1	1
2.1	Well 2.1	06-07-06	0945	Eastern Front	41.47	20.5	351	0.17	8.08		0	0-1	4.1
3	Well 3	10-31-04	0000	Deh Sabz	16.24	15.4			7.8		0	1-2	1
6	Karez N6	05-10-06	1140	Eastern Front		16.3	546	0.24	8.32		0	1-2	
7	Well 7	10-31-04	0000	Eastern Front	5.98	15	347		7.4		0	1-2	1
7	Well 7	06-04-06	0945	Eastern Front	5.47	12.6	452	0.2	7.25		0	0-1	
8	Well 8	11-02-04	0000	Deh Sabz	15.84	15.5	1,700		7.28		0	2-5	3
8	Well 8	06-07-06	1025	Deh Sabz	14.36	17.4	1,832	0.88	7.43		0	1-2	>2,420
9	Well 9	09-25-04	0000	Deh Sabz	23.4	18.5	540		7.8	4.3	0	1-2	200
10	Karez 10	05-10-06	1205	Eastern Front			667	0.32	8.18		0	1-2	
11	Well 11	11-02-04	0000	Deh Sabz		16.8			7.6		0	1-2	1
12	Well 12	11-18-04	0000	Deh Sabz	14.07	15.9	2,275		7.5		0	5-10	>2,420
13	Well 13	11-04-04	0000	Deh Sabz		18.5			7.81		0	1-2	200
13	Well 13	05-16-06	1200	Deh Sabz	32.1	20.1	507	0.22	7.69		0	1-2	
15	Well 15	11-04-04	0000	Deh Sabz	15.72	17.3	2,068		7.25		0	1-2	1
15	Well 15	05-30-06	1510	Deh Sabz	16.88	15.8	2,374	1.11	7.06		0	1-2	18
16	Well 16	11-09-04	0000	Shomali		15.6	1,062		7.64		0	5	1
17	Well 17	11-16-04	0000	Shomali	18.53	14.2	584		7.42		0	2-5	1
18.2	Well 18.2	11-16-04	0000	Shomali		13.6	491		7.53		0	1-2	200
20	Well 20	11-11-04	0000	Western Front	14.32	11.6	293.6		7.65		0	1-2	200
20	Well 20	06-10-06	0925	Western Front	10.33	13.2	335	0.15	7.18		0	2-5	2,419
21	Well 21	11-08-04	0000	Western Front	14.7	14	310.3		7.81		0	1-2	2
21	Well 21	06-12-06	0920	Western Front	12.02	14	382	0.17	7.6		0	0-1	32
22.1	Well 22.1	06-12-06	0945	Shomali	13.85	14.1	443	0.22	7.21		0-0.15	2-5	2,419
23	Well 23	11-11-04	0000	Shomali		14.7	507		7.78		0	1-2	1
24	Well 24	09-22-04	0000	Shomali	12.21	13.9	567		7.16	8.5	0	2-5	1
24	Well 24	06-14-06	0950	Shomali	10.01	15.5	588	0.27	7.12		0	1-2	1
25	Well 25	09-27-04	0000	Shomali	21	15.5	615		7.29	12.8	0	5	1
25	Well 25	06-14-06	1015	Shomali	20.01	15.8	636	0.29	7.27		0	2-5	72.7
26	Well 26	11-09-04	0000	Shomali		14.8	581		7.17		0	2-5	2
27	Well 27	11-09-04	0000	Shomali		14.8	303		8.05		0	1-2	2
28	Well 28	09-27-04	0000	Shomali	19.34	14.9	602		7.41	9.9	0	2-5	200
28	Well 28	05-23-06	1300	Shomali	21.35	13.7	589	0.27	7.3		0	1-2	22.4
29	Well 29	11-01-04	0000	Shomali		15.4	1,030		7.17	8.3	0	3-5	27
31.2	Well 31.2	10-30-04	0000	Shomali	23.52	13.7	632		7.5	9	0	2-5	200
33	Well 33	10-30-04	0000	Western Front	5.2	14.7	536		7.5	3.7	0	1-2	1
33	Well 33	05-23-06	1030	Western Front	3.4	16.3	615	0.27	7.25		0	1-2	1,046
35	Well 35	11-07-04	0000	Deh Sabz		17.8	521		7.68		0	1-2	78
36	Well 36	11-07-04	0000	Deh Sabz		17	965		7.24		0	1-2	12
37	Well 37	11-07-04	0000	Deh Sabz	15.1	18.2	793		6.93		0	1-2	1,046
37	Well 37	05-14-06	1000	Deh Sabz	15.14	18.8	600	0.36	7.43		0	1-2	1,733
38	Well 38	11-01-04	0000	Shomali		14.9	641		7.38	8.5	0	2-5	5
39.2	Well 39.2	11-10-04	0000	Shomali	11.13	15.4	682		7.33	8.2	0	1-2	1
41	Well 41	11-06-04	0000	Western Front	4.82	15.8	262		7.78	9	0	2	2
41	Well 41	05-28-06	0950	Western Front	3.51	18.1	248	0.11	7.62		0	1-2	5.2
42	Well 42	11-10-04	0000	Shomali	7.25	14.3	672		7.51	5	0	1-2	200
42	Well 42	05-28-06	0810	Shomali	6.98	15.8	706	0.33	7.38		0	1-2	1,986
43	Well 43	05-28-06	0925	Western Front	5.05	15.2	629	0.29	7.08		0	0-1	>2,420
45	Well 45	11-08-04	0000	Western Front	8.49	16.7	733		7.34	6.4	0	1-2	3
45	Well 45	05-30-06	1220	Western Front	7.68	18.2	759	0.33	7.05		0	1-2	1
47	Well 47	05-30-06	1345	Shomali	6.43	16.1	1,490	0.65	7.23		0	1-2	1,986
52	Well 52	09-22-04	0000	Western Front	21.7	13.5	472.6		7.08	7.6	0	2-5	200
52	Well 52	06-10-06	1030	Western Front	17.46	13.8	518	0.24	7.14		0	1-2	>2,420

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2-NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
2.1	09-25-04	1	8.2	323		0.004	0.03					17	10.7	86.5	42.4
2.1	06-07-06	4.1													
3	10-31-04	1				0.08	1.24	1.2	5.3			38	27.4	207.7	16.2
6	05-10-06							2.46	10.9			51.4	29.3	249	22.1
7	10-31-04	1				0.004	0.28					65	26.2	270.2	2
7	06-04-06	219													
8	11-02-04	1				0.03	2.2	2.2	9.7			97	90.2	613.7	232
8	06-07-06	461													
9	09-25-04	1	8	491		0.004	3.06					36	29.7	212.2	32.8
10	05-10-06							2.07	9.18			76.3	37.2	343.7	18.1
11	11-02-04	1				0.004	3.71					54	18.5	211	18.3
12	11-18-04	19				0.04	11.6	11.6	51.4			96	126	758.6	183
13	11-04-04	1				0.02	3.7	3.7	16.4			47	14.7	177.9	32.6
13	05-16-06	12						3.30	14.6			49.8	14.7	184.9	35.1
15	11-04-04	1				0.01	2.72	2.7	12			108	121	768	256
15	05-30-06	1													
16	11-09-04	1				0.004	7.07					74	31.1	312.9	103
17	11-16-04	1				0.02	3.85	3.8	16.8			53	31.5	262.1	26.8
18.2	11-16-04	1				0.004	2.14					73	16.6	250.6	9.1
20	11-11-04	41				0.02	2.89	2.9	12.8			44	6.9	138.3	3.2
20	06-10-06	0													
21	11-08-04	1	7.9	287		0.02	1.06	1	4.4			41	10.2	144.4	5.4
21	06-12-06	1													
22.1	06-12-06	4.1													
23	11-11-04	1				0.04	1.74	1.7	7.5			68	14.9	231.2	10.3
24	09-22-04	1	7.3	513		0.004	3.16					84	16.8	278.9	11.2
24	06-14-06	0													
25	09-27-04	1	7.6	572		0.004	7.61	7.6	33.6			84	24.1	309	11
25	06-14-06	1													
26	11-09-04	1				0.004	7					80	18.5	276	14.7
27	11-09-04	1				0.02	1.73	1.7	7.5			42	8.1	138.2	6.5
28	09-27-04	9	7.7	554		0.04	4.6	4.6	20.4			70	28.2	290.9	15.8
28	05-23-06	3						3.73	16.5			67.8	28.1	285	16.4
29	11-01-04	1				0.03	4.7	4.7	20.8			127	49	518.9	76.6
31.2	10-30-04	118				0.02	5.11	5.1	22.6			89	22.9	316.5	14.2
33	10-30-04	1				0.004	2.11					81	16.8	271.4	10.5
33	05-23-06	1						4.00	17.7			92	19	308	11.6
35	11-07-04	1				0.007	4.34	4.3	19			44	21.1	196.8	28.6
36	11-07-04	1				0.004	2.93					84	49.1	412	48.3
37	11-07-04	1				0.005	3.88	3.9	17.3			76	25.2	293.6	52
37	05-14-06	308						3.80	16.8			70.3	23	270.3	53.6
38	11-01-04	1				0.004	6.35					81	39.2	363.7	36.3
39.2	11-10-04	1				0.004	1.87	1.9	8.4			59	32.1	279.5	32.9
41	11-06-04	1				0.004	1.64	1.6	7.1			37	4.9	112.6	7.4
41	05-28-06	1													
42	11-10-04	3				0.004	2.97					65	29.3	283	36.6
42	05-28-06	18.3						1.79	7.94			66.8	31.4	296.1	43.2
43	05-28-06	1													
45	11-08-04	1				0.004	2.77					74	42	357.8	26.9
45	05-30-06	1													
47	05-30-06	1						4.18	18.5			101.3	70.5	542.6	108
52	09-22-04	1	7.4	422		0.02	2.81	2.8	12.4			74	11.4	231.7	7.9
52	06-10-06	125													

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ (R&D)	sum meq cations	sum meq anions	Percent charge imbalance
2.1	Well 2.1	09-25-04	0000	Eastern Front	1.98	2.9	140		170.7	140	3.69	3.72	-0.22
2.1	Well 2.1	06-07-06	0945	Eastern Front									
3	Well 3	10-31-04	0000	Deh Sabz	0.49	1.3	212		258.5	212	4.99	4.88	0.52
6	Karez N6	05-10-06	1140	Eastern Front	0.61	1.2		251.7	251.7	206	6.07	5.62	1.95
7	Well 7	10-31-04	0000	Eastern Front	0.05	0.6	217		264.6	217	5.59	4.71	4.28
7	Well 7	06-04-06	0945	Eastern Front									
8	Well 8	11-02-04	0000	Deh Sabz	4.08	5.8	343		418.2	343	22.82	22.73	0.10
8	Well 8	06-07-06	1025	Deh Sabz									
9	Well 9	09-25-04	0000	Deh Sabz	0.98	1.4	194		236.5	194	5.81	5.64	0.74
10	Karez 10	05-10-06	1205	Eastern Front	0.42	1.4		380.0	380.0	312	7.82	7.54	0.93
11	Well 11	11-02-04	0000	Deh Sabz	0.55	0.9	184		224.3	184	5.10	4.79	1.55
12	Well 12	11-18-04	0000	Deh Sabz	2.89	5.3	228		278.0	228	23.70	22.85	0.91
13	Well 13	11-04-04	0000	Deh Sabz	1.06	4.3	120		146.3	120	5.13	4.64	2.53
13	Well 13	05-16-06	1200	Deh Sabz	1.12	4.5		168.2	168.2	138	5.39	5.38	0.04
15	Well 15	11-04-04	0000	Deh Sabz	4.02	3.1	385		469.4	385	26.99	25.62	1.30
15	Well 15	05-30-06	1510	Deh Sabz									
16	Well 16	11-09-04	0000	Shomali	2.53	5.3	202		246.3	202	10.98	10.70	0.63
17	Well 17	11-16-04	0000	Shomali		2.4	251		306.0	251	6.58	5.53	4.29
18.2	Well 18.2	11-16-04	0000	Shomali		3	256		312.1	256	5.54	5.35	0.88
20	Well 20	11-11-04	0000	Western Front		3	138		168.3	138	3.00	2.91	0.83
20	Well 20	06-10-06	0925	Western Front									
21	Well 21	11-08-04	0000	Western Front	0.2	3.1	157		191.4	157	3.24	3.27	-0.27
21	Well 21	06-12-06	0920	Western Front									
22.1	Well 22.1	06-12-06	0945	Shomali									
23	Well 23	11-11-04	0000	Shomali	0.29	3.9	240		292.6	240	5.22	5.12	0.49
24	Well 24	09-22-04	0000	Shomali	0.29	4.3	248		302.4	248	6.23	5.46	3.31
24	Well 24	06-14-06	0950	Shomali									
25	Well 25	09-27-04	0000	Shomali	0.27	3.2	287		349.9	287	6.82	6.33	1.85
25	Well 25	06-14-06	1015	Shomali									
26	Well 26	11-09-04	0000	Shomali	0.39	4.4	240		292.6	240	6.33	5.39	4.02
27	Well 27	11-09-04	0000	Shomali	0.24	3.9	150		182.9	150	3.17	3.15	0.16
28	Well 28	09-27-04	0000	Shomali	0.4	3.8	274		334.1	274	6.70	6.07	2.45
28	Well 28	05-23-06	1300	Shomali	0.42	4		330.0	330.0	271	6.61	6.15	1.81
29	Well 29	11-01-04	0000	Shomali	1.46	4.1	204		248.7	204	13.98	11.65	4.55
31.2	Well 31.2	10-30-04	0000	Shomali	0.35	3.2	199		242.6	199	7.11	4.58	10.82
33	Well 33	10-30-04	0000	Western Front	0.28	4.1	201		245.1	201	6.05	4.20	8.99
33	Well 33	05-23-06	1030	Western Front	0.29	4.2		370.0	370.0	303	6.83	6.35	1.82
35	Well 35	11-07-04	0000	Deh Sabz	0.89	1	155		189.0	155	5.28	5.06	1.05
36	Well 36	11-07-04	0000	Deh Sabz	1.04	1.5	207		252.4	207	10.54	9.68	2.15
37	Well 37	11-07-04	0000	Deh Sabz	1.32	5.8	208		253.6	208	8.37	8.13	0.70
37	Well 37	05-14-06	1000	Deh Sabz	1.42	5		204.8	204.8	168	7.94	7.52	1.36
38	Well 38	11-01-04	0000	Shomali	0.83	6.6	351		428.0	351	9.15	8.56	1.67
39.2	Well 39.2	11-10-04	0000	Shomali	0.86	4.2	289		352.4	289	7.24	6.97	0.95
41	Well 41	11-06-04	0000	Western Front	0.3	2.4	121		147.5	121	2.65	2.62	0.32
41	Well 41	05-28-06	0950	Western Front									
42	Well 42	11-10-04	0000	Shomali	0.95	4.1	287		349.9	287	7.45	6.55	3.22
42	Well 42	05-28-06	0810	Shomali	1.09	4.5		420.0	420.0	344	8.02	7.81	0.68
43	Well 43	05-28-06	0925	Western Front									
45	Well 45	11-08-04	0000	Western Front	0.62	5.3	331		403.6	331	8.60	7.32	4.03
45	Well 45	05-30-06	1220	Western Front									
47	Well 47	05-30-06	1345	Shomali	2.02	8.5		490.0	490.0	402	16.02	15.58	0.70
52	Well 52	09-22-04	0000	Western Front	0.23	3	208		253.6	208	5.09	4.64	2.32
52	Well 52	06-10-06	1030	Western Front									

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
2.1	09-25-04	7.6	33.8	0.09	0.06	13	216					0.64	3.4	0.1		2.2
2.1	06-07-06					2.9										
3	10-31-04	5.3	23.8	0.21		20	265			-0.08	-0.79		1.9	0.1		3
6	05-10-06	15.5	50.5	0.36	0.09	18.1		351		-0.73	-5.78		315	0.1	1.3	1.3
7	10-31-04	1.3	16.2	0.36		15	248					0.71	1.1	0.1		0.6
7	06-04-06															
8	11-02-04	240	437	0.43	0.78	20	1,400	1,339	1.05	-0.38	-0.83	0.82	4	0.1		2.1
8	06-07-06															
9	09-25-04	24.3	51.6	0.09	0.18	19	334					0.62	2.5	0.1		1.9
10	05-10-06	8.3	51.6	0.16	<0.05	17.1				-1.36	-8.11		34	1.6	0.5	0.5
11	11-02-04	10.9	38.8	0.35	0.1	20	284						1.7	0.2		0.5
12	11-18-04	370	377	0.66	1.04	22	1,460	1,369	1.07	-0.41	-0.88	0.64	2	0.2		1.3
13	11-04-04	28.6	68.9	0.46		30	321			0.18	1.8		13.5	0.1		0.8
13	05-16-06	29.2	86.3	0.54	0.08	30.4		366		-0.88	-7.59		3	<0.1	0.9	0.9
15	11-04-04	315	434	0.23	0.9	23	1,590	1,504	1.06	0.75	1.44	0.77	3.2	0.1		0.8
15	05-30-06															
16	11-09-04	57.6	242	0.46	0.37	26	705					0.66	0.8	0.1		0.8
17	11-16-04	7.8	14.3	0.52	0.08	27	343	331	1.04	0.66	5.37	0.59	1.4	0.1		3.2
18.2	11-16-04	3.8	6	0.16	0.06	23	285					0.58	0.8	0.1		0.9
20	11-11-04	2.8	3.3	0.14	0.05	18	181			-0.13	-2.18	0.62	1.7	0.1		0.2
20	06-10-06															
21	11-08-04	3.2	2	0.07		24	191			-0.14	-2.16	0.62	1.3	0.1		0.2
21	06-12-06															
22.1	06-12-06															
23	11-11-04	6.8	6.2	0.19	0.07	25	286	287	1	-0.07	-0.68	0.56	0.8	0.1		0.6
24	09-22-04	6.8	14.8	0.17	0.04	23	298					0.53	1.2	0.1		0.1
24	06-14-06															
25	09-27-04	11.6	13	0.21	0.05	25	383	378	1.01	-0.14	-1.03	0.62	1.1	0.1		0.7
25	06-14-06															
26	11-09-04	9.7	15.3	0.14	0.05	24	347					0.6	0.8	0.1		0.4
27	11-09-04	2.7	3.8	0.08	0.05	19	177			-0.13	-2.01	0.58	0.9	0.1		0.9
28	09-27-04	9.1	16.2	0.32	0.04	27	337	355	0.95	0.2	1.54	0.56	1.5	0.1		0.2
28	05-23-06	11.2	20.3	0.19	<0.05	26.3				-1.09	-7.71		<1	<0.1	0.4	0.4
29	11-01-04	111	213	0.38	0.41	26	802	751	1.07	1.83	7.09	0.78	3.1	0.1		0.1
31.2	10-30-04	12.5	11.9	0.19		23	298			2.08	17.42	0.47	4.2	0.1		0.4
33	10-30-04	4	3.5	0.22		23	286					0.53	1.2	0.1		0.2
33	05-23-06	4.46	7.8	0.19	<0.05	23.7				-1.2	-8.15		<1	<0.1	0.2	0.2
35	11-07-04	26.5	58.2	0.23	0.2	19	312	311	1	-0.16	-1.53	0.6	1.7	0.1		1.4
36	11-07-04	64.9	178	0.2	0.39	21	636					0.66	1.5	0.1		0.9
37	11-07-04	39.8	137	0.39	0.23	31	521	510	1.02	-0.13	-0.8	0.66	8.1	0.1		0.4
37	05-14-06	41.2	144	0.38	0.17	30.6		508		-0.67	-4.08		1	<0.1	1.1	1.1
38	11-01-04	25.9	39.1	0.34	0.09	27	482					0.75	0.9	0.1		0.6
39.2	11-10-04	20.4	29.6	0.3	0.1	24	378	384	0.98	0.02	0.15	0.55	0.9	0.1		0.6
41	11-06-04	4	4.1	0.07	0.06	18	156	158	0.99	-0.1	-1.82	0.6	1.2	0.1		0.5
41	05-28-06															
42	11-10-04	15.9	17.6	0.24	0.07	24	389					0.58	5.1	0.1		0.3
42	05-28-06	18	19.9	0.24	<0.05	24.2				-1.53	-8.82		3	<0.1	0.9	0.9
43	05-28-06															
45	11-08-04	15.4	12.9	0.22		28	413					0.56	1.9	0.1		0.9
45	05-30-06															
47	05-30-06	139	174	0.28	0.22	28.0		942		-1.88	-5.62		2	<0.1	1.2	1.2
52	09-22-04	10	9.6	0.09	0.03	23	264			0.21	2.15	0.56	2.2	0.1		0.3
52	06-10-06															

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
2.1	Well 2.1	09-25-04	0000	Eastern Front	53	0.03	24	0.02	0.4	3.28	0.4	12.6	
2.1	Well 2.1	06-07-06	0945	Eastern Front									
3	Well 3	10-31-04	0000	Deh Sabz	85	0.03	45	0.02	5.2	1.25	1.2	9	
6	Karez N6	05-10-06	1140	Eastern Front	49		120	<0.05	3	0.27	1.1		300
7	Well 7	10-31-04	0000	Eastern Front	32	0.03	11	0.02	0.4	0.23	0.4	7	
7	Well 7	06-04-06	0945	Eastern Front									
8	Well 8	11-02-04	0000	Deh Sabz	30	0.03	2,000	0.02	8.3	2.33	3.3	7	
8	Well 8	06-07-06	1025	Deh Sabz									
9	Well 9	09-25-04	0000	Deh Sabz	92	0.03	68	0.02	16	0.2	0.7	3.6	
10	Karez 10	05-10-06	1205	Eastern Front	60		110	<0.05	2	0.13	1.2		30
11	Well 11	11-02-04	0000	Deh Sabz	35	0.03	78	0.02	1.7	1.52	1.7	8	
12	Well 12	11-18-04	0000	Deh Sabz	47	0.03	1,060	0.02	17	0.44	2	9	
13	Well 13	11-04-04	0000	Deh Sabz	24	0.03	139	0.02	0.8	0.39	0.6	16	
13	Well 13	05-16-06	1200	Deh Sabz	22		130	<0.05	<1	0.25	0.7		<20
15	Well 15	11-04-04	0000	Deh Sabz	30	0.03	3,030	0.02	26	2.15	2.3	12	
15	Well 15	05-30-06	1510	Deh Sabz									
16	Well 16	11-09-04	0000	Shomali	28	0.03	316	0.02	3.2	0.78	1.2	8	
17	Well 17	11-16-04	0000	Shomali	67	0.03	170	0.02	5.8	1.93	0.6	3	
18.2	Well 18.2	11-16-04	0000	Shomali	45	0.03	53	0.02	4.5	0.99	2.7	13	
20	Well 20	11-11-04	0000	Western Front	17	0.03	16	0.02	0.5	1.2	0.6	5	
20	Well 20	06-10-06	0925	Western Front									
21	Well 21	11-08-04	0000	Western Front	22	0.03	19	0.05	1	1.52	5	18	
21	Well 21	06-12-06	0920	Western Front									
22.1	Well 22.1	06-12-06	0945	Shomali									
23	Well 23	11-11-04	0000	Shomali	41	0.03	45	0.07	0.6	0.18	0.5	3	
24	Well 24	09-22-04	0000	Shomali	39	0.03	49	0.02	1.8	0.48	0.6	3.2	
24	Well 24	06-14-06	0950	Shomali									
25	Well 25	09-27-04	0000	Shomali	77	0.03	60	0.03	3.9	0.27	0.5	3.2	
25	Well 25	06-14-06	1015	Shomali									
26	Well 26	11-09-04	0000	Shomali	59	0.03	120	0.02	1.8	0.22	0.4	3	
27	Well 27	11-09-04	0000	Shomali	28	0.03	69	0.02	2.7	1.95	1.9	8	
28	Well 28	09-27-04	0000	Shomali	79	0.03	62	0.02	2.2	0.92	0.7	6.3	
28	Well 28	05-23-06	1300	Shomali	77		70	<0.05	2	0.25	0.5		<20
29	Well 29	11-01-04	0000	Shomali	63	0.03	229	0.02	0.4	0.46	3.8	20	
31.2	Well 31.2	10-30-04	0000	Shomali	85	0.03	127	0.02	2.6	1.58	0.8	6	
33	Well 33	10-30-04	0000	Western Front	42	0.03	35	0.03	0.5	1.28	1.2	3	
33	Well 33	05-23-06	1030	Western Front	46		30	<0.05	<1	0.3	0.4		<20
35	Well 35	11-07-04	0000	Deh Sabz	58	0.03	54	0.02	6.9	0.66	1.8	4	
36	Well 36	11-07-04	0000	Deh Sabz	37	0.03	114	0.02	9.8	1.32	1.1	9	
37	Well 37	11-07-04	0000	Deh Sabz	31	0.03	184	0.02	0.4	2.62	1.6	23	
37	Well 37	05-14-06	1000	Deh Sabz	34		170	<0.05	2	0.31	1.6		<20
38	Well 38	11-01-04	0000	Shomali	88	0.03	188	0.02	1	0.27	30.1	5	
39.2	Well 39.2	11-10-04	0000	Shomali	76	0.03	213	0.02	9.6	0.59	2.3	8	
41	Well 41	11-06-04	0000	Western Front	17	0.03	64	0.02	1.3	1.31	0.3	12	
41	Well 41	05-28-06	0950	Western Front									
42	Well 42	11-10-04	0000	Shomali	108	0.03	226	0.02	0.4	0.97	0.8	12	
42	Well 42	05-28-06	0810	Shomali	117		240	<0.05	5	0.42	0.8		<20
43	Well 43	05-28-06	0925	Western Front									
45	Well 45	11-08-04	0000	Western Front	204	0.03	328	0.02	5.1	0.29	0.5	3	
45	Well 45	05-30-06	1220	Western Front									
47	Well 47	05-30-06	1345	Shomali	123		850	<0.05	6	0.28	1.4		<20
52	Well 52	09-22-04	0000	Western Front	36	0.03	19	0.02	0.5	0.54	0.9	3.2	
52	Well 52	06-10-06	1030	Western Front									

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
2.1	09-25-04	0.04	11.4	8.9	9.5	2.2	0.69	0.2	0.1	1,450	0.02	0.99	0.21	5.9	FAFU
2.1	06-07-06														
3	10-31-04	0.27	10.8	2.1	2.1	1.7	1.73	0.8	0.1	795	0.02	3.52	9.38	131	FAFU
6	05-10-06	19.4	6	9		2.1	0.9	2	<0.05	605		4.7	3.9	9	FAFU
7	10-31-04	0.04	6.8	0.8	0.7	2.2	2.47	0.4	0.1	730	0.02	4.47	2.66	1.2	FAFU
7	06-04-06														
8	11-02-04	0.36	159	3.8	3.2	1.7	0.4	5.4	0.1	3,810	0.02	21.4	7.41	903	FAFU
8	06-07-06														
9	09-25-04	0.38	14.5	2.9	3.1	0.9	1.01	1.7	0.1	807	0.02	3.46	7.32	241	FAFU
10	05-10-06	29.5	5	1		2.3	0.4	1	<0.05	811		8.4	1.6	14	FAFU
11	11-02-04	0.16	4.9	2.5	2.6	2.8	2.27	1	0.1	706	0.02	2.83	1.83	96.7	FAFU
12	11-18-04	0.04	124	3	3	5.3	3.54	12.7	0.1	7,090	0.02	22.3	5.59	8.7	FAFU
13	11-04-04	0.06	18.4	6.3	6	9.2	0.29	1.2	0.1	678	0.02	2.84	4.76	4.3	FAFU
13	05-16-06	0.09	15	2		8.5	0.4	2	<0.05	659		2.9	4.3	7	CFC,3H,FAFU
15	11-04-04	0.06	31.9	0.5	4.1	0.8	3.56	3.3	0.1	2,490	0.02	15.7	7.55	2.7	FAFU
15	05-30-06														
16	11-09-04	0.05	16.6	1.5	1.4	4.8	0.03	5.4	0.1	991	0.02	9.59	10	2.5	FAFU
17	11-16-04	0.04	17.5	5.9	5.6	2.4	0.2	0.5	0.1	1,040	0.02	4.91	3.75	2.1	FAFU
18.2	11-16-04	0.09	9.1	2.4	2.3	1	0.03	0.3	0.1	461	0.02	2.81	6.83	119	FAFU
20	11-11-04	0.04	1.4	4.7	4.4	0.7	0.1	0.2	0.1	299	0.02	1.93	3.15	4.5	FAFU
20	06-10-06														
21	11-08-04	0.06	3.9	7.4	7	0.3	0.23	0.2	0.1	199	0.02	1.5	4.64	412	FAFU
21	06-12-06														
22.1	06-12-06														
23	11-11-04	2.14	26	1.8	1.7	1.8	0.15	0.6	0.1	387	0.02	3.16	8.15	5090	FAFU
24	09-22-04	0.08	7.5	0.7	0.7	1	1.15	0.2	0.1	482	0.02	7.7	3.79	3.3	FAFU
24	06-14-06														
25	09-27-04	0.53	26	0.4	0.4	1	2.28	0.4	0.1	780	0.02	6.43	5.34	213	FAFU
25	06-14-06														
26	11-09-04	0.23	24.3	0.1	0.3	0.5	0.03	0.2	0.1	456	0.02	4.82	5.86	42.5	FAFU
27	11-09-04	0.25	17.5	4.3	4.1	0.8	0.29	0.3	0.1	220	0.02	1.59	8.97	2.8	FAFU
28	09-27-04	0.04	30.9	10.3	11	1.6	0.94	0.4	0.1	1,040	0.02	6.98	6.13	7.3	FAFU
28	05-23-06	0.11	24	1		2.5	0.6	<1	<0.05	972		7.5	6.6	19	CFC,3H,FAFU
29	11-01-04	0.04	17.9	12.3	12.1	3.3	1.24	3.5	0.1	1,920	0.02	14.7	5.91	5.5	FAFU
31.2	10-30-04	0.04	27.2	24.8	24	1	1.38	0.2	0.1	653	0.02	6.57	6.61	8.3	FAFU
33	10-30-04	0.73	15.4	12.8	12.1	1.2	0.27	0.3	0.1	476	0.02	2.83	4.8	271	FAFU
33	05-23-06	1.04	16	4		1.2	1.5	1	<0.05	517		4.1	4.9	540	CFC,3H,FAFU
35	11-07-04	0.93	6.3	1.2	1.1	1.8	0.45	1.6	0.1	681	0.02	2.95	4.49	107	FAFU
36	11-07-04	0.06	9.8	2	1.9	1.3	0.73	2.7	0.1	1,040	0.02	8.01	4.82	1.8	FAFU
37	11-07-04	0.17	18.9	18.2	17.6	3.8	1.2	1.8	0.1	928	0.02	8.17	6.9	190	FAFU
37	05-14-06	0.22	15	4		2.9	0.3	3	<0.05	805		6.4	11.3	8	CFC,3H,FAFU
38	11-01-04	0.21	55.6	2.1	2	2.5	0.9	0.6	0.1	910	0.02	11.3	3.49	339	FAFU
39.2	11-10-04	0.54	28	1.4	1.3	2.6	0.03	0.6	0.1	1,190	0.02	7.76	8.21	5.3	FAFU
41	11-06-04	0.04	15.7	4	3.9	0.7	0.73	0.3	0.1	157	0.02	2.26	4.42	1.1	FAFU
41	05-28-06														
42	11-10-04	0.04	33.2	33.4	31.3	1.6	0.29	0.3	0.1	968	0.02	7.12	5.24	3.2	FAFU
42	05-28-06	0.08	34	12		2.4	0.5	<1	<0.05	957		8.2	8.6	7	CFC,3H,FAFU
43	05-28-06														
45	11-08-04	0.31	72.1	0.4	0.3	0.8	10.8	0.4	0.1	1,390	0.02	8.55	6.14	2.1	FAFU
45	05-30-06														
47	05-30-06	0.19	103	<1		2.4	0.7	2.4	<0.05	2,120		17.8	5.7	12	CFC,3H,FAFU
52	09-22-04	0.04	4.7	2.9	3	0.4	0.81	0.2	0.1	307	0.02	1.73	4.03	9	FAFU
52	06-10-06														

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids (g/L)	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
53	Well 53	11-03-04	0000	Deh Sabz		14.4	803		7.31	7.1	0	3	200
54	Well 54	11-03-04	0000	Deh Sabz		17.1	1,224		7.74	9.1	0	1-2	1
54	Well 54	05-21-06	1145	Deh Sabz		18.2	1,204	0.55	7.59		0	2-5	2
56	Well 56	11-06-04	0000	Deh Sabz		15.6	542		7.75	8.3	0	1-2	1
58	Well 58	09-20-04	0000	Central Kabul	11.22	16.1	1,105		7.33	2.8	0	5	1
59.1	Well 59.1	11-16-04	0000	Eastern Front	34.99	16.7	614		7.75		0	1-2	2
59.1	Well 59.1	05-10-06	1005	Eastern Front	26.42	17.7	582	0.39	7.77		0	1-2	
60.1	Well 60.1	11-02-04	0000	Deh Sabz		17.4	488		7.59		0	3-5	101
63	Well 63	11-08-04	0000	Shomali	19	16.5	465		7.62	8.2	0	2	11
64	Well 64	06-24-06	0830	Central Kabul	7.12	16.9	1,156	0.56	7.28		0	2-5	1
65	Well 65	05-25-06	0930	Central Kabul	57.47	21.6	674	0.33	7.55		0	2-5	548
66.1	Spring 66.1	05-10-06	1110	Eastern Front		15.3	303	0.13	7.74		0	0-1	
67	Well 67	12-09-06	1300	Western Front	31.96	14.5	662	0.34	7.85		0	0-1	
67.1	Kheelre Spring	05-23-06	1145	Shomali		16.7	469	0.23	7.39		0	1-2	387
67.2	Spring 67A	06-17-06	1120	Shomali		18.6	2,199	1.23	5.78		0	0	
68.1	Spring 68	05-21-06	1000	Shomali		14.9	411	0.19	7.37		0	1-2	276
69.1	Karez 69.1	05-10-06	1030	Eastern Front		18.3	507	0.25	7.99		0	1-2	
71	Azizi Hotak Tank	06-05-07	0940	Eastern Front	35.84	20	754	0.34	8.02				
72	Well 72	06-12-07	0900	Shomali	24.94	15.2	524	0.23	8.02		0	1-2	
73	9 Pola Qare Bagh	06-17-07	1015	Western Front	23.2	16.3	295	0.12	8.44		0	0-1	
74	Well 74	06-19-07	1140	Shomali	27	15.2	1,144	0.45	7.54		0	0-1	
100	Swedish well 224	11-06-04	0000	Western Front		13.2	343.8		6.73		0	1-2	10
100	Swedish well 224	06-03-06	1100	Western Front	3.49	13.2	334	0.15	7.11		0	1-2	488
101	Spring 101	05-13-06	1130	Western Front		11	359	0.16	7.24		0	1-2	
102	Well 102	09-21-04	0000	Paghman/Upper Kabul	19.1	14.7	345		7.11	8.4	0	2-5	118
103	Well 103	09-21-04	0000	Paghman/Upper Kabul		12.9	392		7.16	9.6	0	2-5	1
104	Well 104	11-06-04	0000	Western Front		14.7	610		7.26		0	5-10	411
104	Well 104	05-13-06	1100	Western Front		14.4	761	0.45	7.52		0	20-50	
104	Well 104	12-03-06	1220	Western Front	17.21	12.1	1,000	0.37	7.78		0	20-50	
105	Karez 105	05-13-06	1000	Paghman/Upper Kabul		14.7	317	0.1	7.85		0	2	
106	Well 106	11-06-04	0000	Paghman/Upper Kabul		14.3	523		7.29		0	1-2	18
107	Well 107	11-06-04	0000	Paghman/Upper Kabul		15	533		7.36		0	1-2	1
107	Well 107	05-15-06	1040	Paghman/Upper Kabul		15.5	551	0.24	7.61		0	1-2	261
109	Well 109	11-08-04	0000	Paghman/Upper Kabul		13.3	532		7.65		0	1-5	4
110	Well 110	11-08-04	0000	Paghman/Upper Kabul	31.69	14.8	590		7.5		0-0.15	2-5	2
111	Well 111	11-09-04	0000	Paghman/Upper Kabul	6.1	12.7	540		7	0.36	0	2-5	200
112	Well 112	11-03-04	0000	Paghman/Upper Kabul		14.3	530		7.26		0	1-2	8
112	Well 112	06-03-06	1200	Paghman/Upper Kabul	10.44	16.2	530	0.25	7.68		0	1-2	11
113	Well 113	11-03-04	0000	Paghman/Upper Kabul		13.8	898		7.45		0	2-5	1
113	Well 113	05-29-06	0930	Paghman/Upper Kabul	5.97	15.4	960	0.45	7.55		0	1-2	68.9
114	Well 114	11-01-04	0000	Paghman/Upper Kabul		14.7	1,197		8.37		0	1-2	200
115	Well 115	11-01-04	0000	Paghman/Upper Kabul		17.3			7.33		1	10-20	78
115	Well 115	05-29-06	1015	Paghman/Upper Kabul	20.9	19.5	2,241	0.6	7.89		0	0	>2,420
116	Well 116	11-10-04	0000	Logar	5.9	14.4	1,084		7.32		0	2-5	200
116	Well 116	05-29-06	1105	Logar	2.51	15.9	1,475	0.74	7.49		0	2-5	>2,420
117	Well 117	11-01-04	0000	Paghman/Upper Kabul		14.3			7.57		0	1-2	3
117	Well 117	05-15-06	1220	Paghman/Upper Kabul	9.26	16.6	845	0.37	7.35		0	1-2	1

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2-NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
53	11-03-04	1				0.004	5					81	37.8	357.9	32.5
54	11-03-04	1				0.004	5.9					56	43.2	317.8	143
54	05-21-06	1						5.74	25.4			58.2	42.6	320.8	139
56	11-06-04	1				0.02	2.98	3	13.3			38	18.8	172.3	55.9
58	09-20-04	1	7.6	1120		0.004	8.52					60	78.1	471.5	74.8
59.1	11-16-04	1				0.004	0.64					42	27.7	219	39.5
59.1	05-10-06							1.02	4.51			46.4	28.8	234.5	48.6
60.1	11-02-04	1				0.01	3.25	3.2	14.2			52	26.1	237.3	26.7
63	11-08-04	1				0.004	2.44					51	19.9	209.3	17
64	06-24-06	1													
65	05-25-06	1						3.89	17.2			72.7	8.12	215	57.6
66.1	05-10-06							0.86	3.82			41.4	12.6	155.3	1.37
67	12-09-06		7.8	677										231.2	
67.1	05-23-06	7.4						2.42	10.7			61.9	14.2	213	18.6
67.2	06-17-06														
68.1	05-21-06	6.2						1.94	8.6			56.3	16.4	208.1	9.4
69.1	05-10-06							1.22	5.42			65.1	27.5	275.8	7.99
71	06-05-07			754				3.46	15.3			56.3	36.3		65.1
72	06-12-07			524				3.09	13.7			68	22.9		9.89
73	06-17-07			295				2.21	9.78			45	7.38		8.98
74	06-19-07			1144				2.37	10.5			108	39.3		63.6
100	11-06-04	1				0.004	1.77					52	7.2	159.5	7.2
100	06-03-06	1													
101	05-13-06							2.12	9.38			60.1	8.18	183.8	6.64
102	09-21-04	8	7.8	317		0.02	2.1	2.1	9.3			52	7	158.7	6.9
103	09-21-04	1	7.6	470		0.004	4.16					73	16.7	251.1	8.5
104	11-06-04	1				0.03	7.11	7.1	31.4			73	25.3	286.5	13
104	05-13-06							40.21	178			116.6	32.1	424.4	23.4
104	12-03-06		7.9	1000										419	
105	05-13-06							0.93	4.12			35.1	12.5	139.1	10.2
106	11-06-04	8				0.04	2.98	2.9	12.8			58	17.4	216.5	28.5
107	11-06-04	1				0.03	3.41	3.4	15.1			49	20.6	207.2	35.4
107	05-15-06	1						3.19	14.1			52.9	19.8	213.6	39.4
109	11-08-04	1				0.004	2.95					61	19.4	232.2	23.8
110	11-08-04	1				0.05	3.36	3.3	14.6			55	23.4	233.7	50.7
111	11-09-04	200				0.02	4.47	4.5	19.9			76	16.4	257.3	14.6
112	11-03-04	1				0.005	2.96	3	13.3			64	17	229.8	21.7
112	06-03-06	1													
113	11-03-04	1				0.01	4.56	4.6	20.4			83	45.4	394.2	59.6
113	05-29-06	1													
114	11-01-04	2				0.01	2.47	2.5	11.1			51	9.2	165.2	173
115	11-01-04	1				0.55	10.9	10.4	46			863	242	3151.6	565
115	05-29-06	13.4													
116	11-10-04	2				0.02	4.23	4.2	18.6			79	56.7	430.8	59.9
116	05-29-06	248													
117	11-01-04	1				0.008	2.5	2.5	11.1			73	33.3	319.4	26.5
117	05-15-06	1						3.16	14			91.1	42.4	402.1	29.9

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
53	Well 53	11-03-04	0000	Deh Sabz	0.75	3.7	238		290.2	238	8.79	6.42	7.79
54	Well 54	11-03-04	0000	Deh Sabz	3.49	4.2	222		270.7	222	12.83	12.43	0.78
54	Well 54	05-21-06	1145	Deh Sabz	3.38	4.4		268.6	268.6	220	12.72	12.40	0.63
56	Well 56	11-06-04	0000	Deh Sabz	1.85	2.5	244		297.5	244	6.01	5.90	0.44
58	Well 58	09-20-04	0000	Central Kabul	1.5	5.5	380		463.3	380	13.09	7.60	13.28
59.1	Well 59.1	11-16-04	0000	Eastern Front	1.16	3.2	208		253.6	208	6.27	6.09	0.73
59.1	Well 59.1	05-10-06	1005	Eastern Front	1.38	2.9		254.3	254.3	209	6.98	6.76	0.78
60.1	Well 60.1	11-02-04	0000	Deh Sabz	0.75	1.5	161		196.3	161	6.03	5.47	2.46
63	Well 63	11-08-04	0000	Shomali	0.51	2.1	231		281.7	231	5.05	4.95	0.48
64	Well 64	06-24-06	0830	Central Kabul									
65	Well 65	05-25-06	0930	Central Kabul	1.71	7.7		154.8	154.8	127	7.03	6.68	1.28
66.1	Spring 66.1	05-10-06	1110	Eastern Front	0.05	0.7		176.2	176.2	145	3.22	3.24	-0.10
67	Well 67	12-09-06	1300	Western Front	1.1		213		259.7	213			
67.1	Kheelre Spring	05-23-06	1145	Shomali	0.55	3.6		280.0	280.0	230	5.21	4.84	1.85
67.2	Spring 67A	06-17-06	1120	Shomali									
68.1	Spring 68	05-21-06	1000	Shomali	0.28	3.5		244.9	244.9	201	4.72	4.38	1.86
69.1	Karez 69.1	05-10-06	1030	Eastern Front	0.21	1.3		320.0	320.0	262	5.99	5.90	0.38
71	Azizi Hotak Tank	06-05-07	0940	Eastern Front		2.2		310.6	310.6	255	8.81	8.83	-0.04
72	Well 72	06-12-07	0900	Shomali		2.7		327.0	327.0	268	5.86	5.68	0.76
73	9 Pola Qare Bagh	06-17-07	1015	Western Front		3.2		180.8	180.8	148	3.35	3.13	1.71
74	Well 74	06-19-07	1140	Shomali		13		362.3	362.3	297	11.86	11.34	1.13
100	Swedish well 224	11-06-04	0000	Western Front	0.25	2	160		195.1	160	3.58	3.52	0.43
100	Swedish well 224	06-03-06	1100	Western Front									
101	Spring 101	05-13-06	1130	Western Front	0.21	2.5		218.9	218.9	180	4.05	3.94	0.73
102	Well 102	09-21-04	0000	Paghman/Upper Kabul	0.24	1.7	158		192.6	158	3.54	3.16	2.83
103	Well 103	09-21-04	0000	Paghman/Upper Kabul	0.23	3	182		221.9	182	5.52	3.64	10.27
104	Well 104	11-06-04	0000	Western Front	0.33	1.6	217		264.6	217	6.42	5.12	5.63
104	Well 104	05-13-06	1100	Western Front	0.49	1.2		263.6	263.6	216	9.62	6.64	9.15
104	Well 104	12-03-06	1220	Western Front	0.43		210		256.0	210			
105	Karez 105	05-13-06	1000	Paghman/Upper Kabul	0.38	1.6		180.0	180.0	148	3.31	3.28	0.23
106	Well 106	11-06-04	0000	Paghman/Upper Kabul	0.84	3.7	223		271.9	223	5.72	5.31	1.86
107	Well 107	11-06-04	0000	Paghman/Upper Kabul	1.07	2.9	238		290.2	238	5.83	5.45	1.68
107	Well 107	05-15-06	1040	Paghman/Upper Kabul	1.17	3		312.1	312.1	256	6.13	5.79	1.41
109	Well 109	11-08-04	0000	Paghman/Upper Kabul	0.68	2.3	255		310.9	255	5.80	5.74	0.28
110	Well 110	11-08-04	0000	Paghman/Upper Kabul	1.44	5.9	270		329.2	270	7.11	6.55	2.04
111	Well 111	11-09-04	0000	Paghman/Upper Kabul	0.4	2.7	193		235.3	193	5.90	4.64	6.01
112	Well 112	11-03-04	0000	Paghman/Upper Kabul	0.62	2.8	244		297.5	244	5.67	5.57	0.45
112	Well 112	06-03-06	1200	Paghman/Upper Kabul									
113	Well 113	11-03-04	0000	Paghman/Upper Kabul	1.31	4.3	302		368.2	302	10.74	9.68	2.60
113	Well 113	05-29-06	0930	Paghman/Upper Kabul									
114	Well 114	11-01-04	0000	Paghman/Upper Kabul	5.86	4.3	84		102.4	84	10.97	10.86	0.26
115	Well 115	11-01-04	0000	Paghman/Upper Kabul	4.38	15.5	104		126.8	104	88.80	2.08	47.71
115	Well 115	05-29-06	1015	Paghman/Upper Kabul									
116	Well 116	11-10-04	0000	Logar	1.26	4.7	300		365.8	300	11.53	11.08	1.00
116	Well 116	05-29-06	1105	Logar									
117	Well 117	11-01-04	0000	Paghman/Upper Kabul	0.65	4.5	224		273.1	224	7.77	5.63	8.00
117	Well 117	05-15-06	1220	Paghman/Upper Kabul	0.65	4.7		485.9	485.9	399	9.61	9.36	0.64

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
53	11-03-04	18	55.6	0.37		29	403					0.5	0.9	0.1		1.2
54	11-03-04	69.3	290	0.58	0.39	39	814					0.67	1.1	0.1		3.8
54	05-21-06	67.9	292	0.62	0.29	41.1		833		-1.21	-4.6		1	<0.1	4.4	4.4
56	11-06-04	5.5	41.7	1.08	0.08	35	346	358	0.97	-0.17	-1.45	0.64	0.8	0.1		1.9
58	09-20-04		0.09	0.31	0.22	33	689					0.62	1.2	0.1		2.5
59.1	11-16-04	17.8	68.8	0.26	0.12	19	345					0.56	2.8	0.3		2.1
59.1	05-10-06	23.7	92.3	0.3	0.11	17.4		417		-0.87	-5.92		3	0.2	2.5	2.5
60.1	11-02-04	28.6	69.3	0.2	0.23	18	346	333	1.04	0.25	2.12	0.71	0.9	0.1		0.8
63	11-08-04	4.4	10	0.25	0.06	22	271					0.58	1.5	0.1		1.2
64	06-24-06															
65	05-25-06	21.9	169	1.61	0.09	27.0		476		-0.51	-3.54		3	<0.1	0.6	0.6
66.1	05-10-06	1.65	14.5	0.19	<0.05	6.3				-0.75	-10.51		10	<0.1	0.4	0.4
67	12-09-06						385					0.58				0.5
67.1	05-23-06	3.63	6.92	0.28	<0.05	25.2				-0.86	-7.66		1	<0.1	0.5	0.5
67.2	06-17-06															
68.1	05-21-06	7.24	7.6	0.24	<0.05	22.7				-0.74	-7.35		1	0.2	1.9	1.9
69.1	05-10-06	3.78	26.2	0.3	<0.05	17.3				-1.24	-9.53		825	<0.1	0.9	0.9
71	06-05-07	29	140	0.2	0.16	19.0							5	<0.1	1.3	1.3
72	06-12-07	5.75	7.63	0.18	<0.05	24.7							7	<0.1	0.8	0.8
73	06-17-07	2.66	4.33	0.11	<0.05	19.2							7	<0.1	0.6	0.6
74	06-19-07	119	98	0.11	0.17	15.9							5	0.1	0.3	0.3
100	11-06-04	5	8.5	0.1	0.05	19	199					0.58	0.8	0.1		0.5
100	06-03-06															
101	05-13-06	5.69	9	0.22	<0.05	17.6				-0.85	-9.56		<1	0.1	1.1	1.1
102	09-21-04		0.09	0.09	0.02	15	206					0.6	3.7	0.1		0.3
103	09-21-04		0.09	0.2	0.04	20							2	0.1		1
104	11-06-04	19.9	10.7	0.3	0.07	31	339	336	1.01	0.7	5.89	0.56	3.4	0.1		0.4
104	05-13-06	64.8	23.8	0.59	0.07	27.4		627		-0.94	-4.7		1	<0.1	0.4	0.4
104	12-03-06						617					0.62				0.4
105	05-13-06	3.64	10.8	0.36	<0.05	18.5				-0.73	-10.01		2	0.1	2.2	2.2
106	11-06-04	10.3	27	0.33	0.08	21	314	313	1	0.14	1.29	0.6	1.6	0.1		2.4
107	11-06-04	6.3	24.6	0.5	0.1	26	318	323	0.98	0.07	0.57	0.6	1.8	0.1		2.2
107	05-15-06	6.24	24.1	0.57	0.05	26.1		373		-1.08	-8.19		1	0.1	3	3
109	11-08-04	8.2	19.7	0.25	0.11	20	313					0.59	1.6	0.1		0.9
110	11-08-04	12.1	39.1	0.31		30	393			0.24	1.74	0.67	1,570	0.2		0.3
111	11-09-04	13.3	19.4	0.14		19	305			0.89	8.23	0.56	3.9	0.1		1.1
112	11-03-04	10.8	18.5	0.17	0.08	20	310	315	0.98	-0.17	-1.51	0.58	1.6	0.1		1.2
112	06-03-06															
113	11-03-04	74.9	73.4	0.29	0.22	28	586	571	1.03	0.58	2.8	0.65	2.4	0.3		0.4
113	05-29-06															
114	11-01-04	205	163	0.11	0.64	13	696	681	1.02	-0.1	-0.44	0.58	2.1	0.1		0.7
115	11-01-04			0.09		17	5330						305	0.2		7.1
115	05-29-06															
116	11-10-04	129	69.5	0.29	0.24	27	611	625	0.98	-0.05	-0.2	0.56	2.4	0.3		0.3
116	05-29-06															
117	11-01-04	22	25.3	0.22	0.1	18	353	348	1.01	1.85	13.74		1.7	0.1		0.6
117	05-15-06	28.6	28.4	0.24	0.06	21.1		552		-1.88	-9.04		1	<0.1	0.8	0.8

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
53	Well 53	11-03-04	0000	Deh Sabz	75	0.03	182	0.02	5.6	0.87	1.5	12	
54	Well 54	11-03-04	0000	Deh Sabz	15	0.03	451	0.02	9.1	0.61	2.7	3	
54	Well 54	05-21-06	1145	Deh Sabz	16		420	<0.05	9	0.35	2.5		<20
56	Well 56	11-06-04	0000	Deh Sabz	43	0.03	230	0.03	4.5	0.87	2	5	
58	Well 58	09-20-04	0000	Central Kabul	79	0.03	880	0.02	0.4	0.91	1.2	5.5	
59.1	Well 59.1	11-16-04	0000	Eastern Front	79	0.03	88	0.02	1.6	3.52	0.8	6	
59.1	Well 59.1	05-10-06	1005	Eastern Front	69		100	<0.05	2	0.16	0.69		<20
60.1	Well 60.1	11-02-04	0000	Deh Sabz	61	0.03	52	0.02	3.4	1.12	0.7	13	
63	Well 63	11-08-04	0000	Shomali	72	0.03	152	0.02	8.7	1.41	1.6	20	
64	Well 64	06-24-06	0830	Central Kabul									
65	Well 65	05-25-06	0930	Central Kabul	18		140	<0.05	<1	1.2	1.2		<20
66.1	Spring 66.1	05-10-06	1110	Eastern Front	8		20	<0.05	<1	0.06	0.3		<20
67	Well 67	12-09-06	1300	Western Front		0.06							
67.1	Kheelre Spring	05-23-06	1145	Shomali	48		40	<0.05	<1	0.3	0.3		<20
67.2	Spring 67A	06-17-06	1120	Shomali									
68.1	Spring 68	05-21-06	1000	Shomali	28		40	<0.05	1	0.22	0.35		<20
69.1	Karez 69.1	05-10-06	1030	Eastern Front	44		50	<0.05	2	0.5	1.2		720
71	Azizi Hotak Tank	06-05-07	0940	Eastern Front	31		150	<0.05	9	0.09	1.4		<20
72	Well 72	06-12-07	0900	Shomali	40		40	<0.05	8	0.11	0.7		20
73	9 Pola Qare Bagh	06-17-07	1015	Western Front	40		20	<0.05	4	0.07	0.5		<20
74	Well 74	06-19-07	1140	Shomali	74		1,420	<0.05	3	0.27	1.7		40
100	Swedish well 224	11-06-04	0000	Western Front	16	0.03	22	0.02	0.5	0.54	10.2	26	
100	Swedish well 224	06-03-06	1100	Western Front									
101	Spring 101	05-13-06	1130	Western Front	29		20	<0.05	1	0.39	0.6		<20
102	Well 102	09-21-04	0000	Paghman/Upper Kabul	13	0.03	35	0.02	0.4	0.44	0.7	3.2	
103	Well 103	09-21-04	0000	Paghman/Upper Kabul	27	0.03	42	0.02	2.1	0.4	1	4.7	
104	Well 104	11-06-04	0000	Western Front	13	0.03	64	0.02	2.4	1.41	0.5	12	
104	Well 104	05-13-06	1100	Western Front	21		50	<0.05	<1	0.49	6.3		<20
104	Well 104	12-03-06	1220	Western Front		0.06							
105	Karez 105	05-13-06	1000	Paghman/Upper Kabul	14		60	<0.05	<1	0.37	0.6		<20
106	Well 106	11-06-04	0000	Paghman/Upper Kabul	28	0.03	216	0.02	5.3	0.23	0.7	5	
107	Well 107	11-06-04	0000	Paghman/Upper Kabul	28	0.03	192	0.03	5.2	1.8	6.2	9	
107	Well 107	05-15-06	1040	Paghman/Upper Kabul	29		190	<0.05	7	0.31	1.8		<20
109	Well 109	11-08-04	0000	Paghman/Upper Kabul	32	0.03	119	0.23	2.1	2.29	1.5	7	
110	Well 110	11-08-04	0000	Paghman/Upper Kabul	86	0.05	862	0.02	7.8	1.38	14.2	1,690	
111	Well 111	11-09-04	0000	Paghman/Upper Kabul	20	0.03	73	0.02	2.1	1.36	0.7	6	
112	Well 112	11-03-04	0000	Paghman/Upper Kabul	17	0.03	109	0.02	2.4	1.47	4.2	11	
112	Well 112	06-03-06	1200	Paghman/Upper Kabul									
113	Well 113	11-03-04	0000	Paghman/Upper Kabul	85	0.03	921	0.02	0.4	0.34	0.9	7	
113	Well 113	05-29-06	0930	Paghman/Upper Kabul									
114	Well 114	11-01-04	0000	Paghman/Upper Kabul	39	0.03	109	0.02	1.8	0.49	1.2	10	
115	Well 115	11-01-04	0000	Paghman/Upper Kabul	90	0.05	357	0.06	1.1	6.72	7.1	265	
115	Well 115	05-29-06	1015	Paghman/Upper Kabul									
116	Well 116	11-10-04	0000	Logar	80	0.03	1,260	0.02	3.8	2.94	1.4	6	
116	Well 116	05-29-06	1105	Logar									
117	Well 117	11-01-04	0000	Paghman/Upper Kabul	64	0.03	528	0.02	0.4	0.8	0.9	13	
117	Well 117	05-15-06	1220	Paghman/Upper Kabul	97		610	<0.05	<1	0.22	2.6		<20

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
53	11-03-04	0.14	21.6	3.7	3.7	1.7	0.03	0.8	0.1	1,180	0.02	8.85	5.87	3.6	FAFU
54	11-03-04	0.16	23.5	0.8	0.7	4.6	0.03	5.1	0.1	1,270	0.02	10.4	14.5	141	FAFU
54	05-21-06	1.9	21	<1		4.7	4.5	7	<0.05	1,310		11.6	14.2	48	CFC,3H,FAFU
56	11-06-04	0.2	12.7	1.4	1.3	11.4	0.11	1.1	0.1	816	0.02	17.3	17.5	68.5	FAFU
58	09-20-04	0.04	184	1.2	1.1	2.5	6.88	1.4	0.1	1,020	0.02	7.56	1.89	2.5	FAFU
59.1	11-16-04	0.15	10.7	6.2	6.1	2.8	1.54	0.9	0.1	764	0.02	4.84	7.97	91.8	FAFU
59.1	05-10-06	16.1	8	<1		3.7	0.6	2	<0.05	858		9.2	1.7	84	CFC,3H,FAFU
60.1	11-02-04	0.08	5.4	3.4	3.4	1.5	0.63	1.9	0.1	488	0.02	3.47	3.53	1.3	FAFU
63	11-08-04	0.37	15.6	2.4	2.3	1.8	0.03	0.7	0.1	665	0.02	4.6	5.89	143	FAFU
64	06-24-06														
65	05-25-06	0.38	17	<1		6.7	0.8	1	<0.05	629		2.6	10.5	388	CFC,3H,FAFU
66.1	05-10-06	2.95	<1	<1		3	<0.1	<1	<0.05	293		2.7	0.5	4	CFC,3H,FAFU
67	12-09-06								0.1		0.04				3H,FAFU
67.1	05-23-06	0.57	25	<1		2.2	0.3	<1	<0.05	396		4.4	16.1	8	CFC,3H,FAFU
67.2	06-17-06														
68.1	05-21-06	7.12	7	<1		4	0.1	<1	<0.05	339		2.6	4.8	12	CFC,3H,FAFU
69.1	05-10-06	0.7	7	21		2.6	1.9	<1	<0.05	659		5.3	4.1	3	FAFU
71	06-05-07	0.38	15	<1		1.8	1	3	<0.05	978		6.02	6.7	134	CFC,3H,FAFU,DG, NFA
72	06-12-07	0.3	16	<1		1	0.4	<1	<0.05	559		3.71	7.5	12	CFC,3H,FAFU,DG, NFA
73	06-17-07	0.14	8	<1		1.4	0.2	<1	<0.05	219		2.02	9.7	4	CFC,3H,FAFU,DG, NFA
74	06-19-07	0.13	329	17		0.6	0.9	1	<0.05	831		4.51	1.6	165	CFC,3H,FAFU,DG
100	11-06-04	0.25	3	1.3	1.3	0.5	0.59	0.2	0.1	196	0.02	0.89	2.45	44.8	FAFU
100	06-03-06														
101	05-13-06	0.44	5	<1		2.1	0.2	<1	<0.05	284		1.3	6.5	2	CFC,3H,FAFU
102	09-21-04	0.04	3.1	1.1	1.2	0.5	0.74	0.2	0.1	216	0.02	0.98	1.57	4.4	FAFU
103	09-21-04	0.04	4.9	0.8	0.8	1.2	0.73	0.2	0.1	554	0.02	2.71	2.35	0.7	FAFU
104	11-06-04	0.04	2.7	13.1	12.4	0.5	1.04	0.3	0.1	893	0.02	3.23	3.29	3.9	FAFU
104	05-13-06	2	4	1		0.5	1.1	<1	<0.05	1,600		5.3	2.4	207	CFC,3H,FAFU
104	12-03-06								0.1		0.04				3H,FAFU
105	05-13-06	0.32	6	3		3	0.1	<1	<0.05	463		2.2	1.9	3	CFC,3H,FAFU
106	11-06-04	0.08	51.8	0.3	0.3	4.7	0.64	0.8	0.1	431	0.02	5.35	4.55	1.1	FAFU
107	11-06-04	0.29	35.4	13.4	13	4.2	1.1	0.9	0.1	470	0.02	4.37	8.46	3.9	FAFU
107	05-15-06	4	33	1		4.4	0.2	1	<0.05	457		8.2	9.5	6	CFC,3H,FAFU
109	11-08-04	0.75	10.1	4.3	3.8	1.5	2.18	0.3	0.1	566	0.02	3.9	2.36	204	FAFU
110	11-08-04	2.02	62.9	12.6	51.1	1.2	5.43	0.5	0.1	136	0.02	4.52	10	71.2	FAFU
111	11-09-04	0.07	6.9	2.7	2.6	0.8	1	0.7	0.1	383	0.02	4.47	2.5	4.6	FAFU
112	11-03-04	0.08	10.6	3.3	3.2	1	1.03	0.8	0.1	414	0.02	3.9	2.21	74.9	FAFU
112	06-03-06														
113	11-03-04	0.13	121	0.1	0.3	1.7	14.2	0.3	0.1	373	0.02	6.44	0.87	6.8	FAFU
113	05-29-06														
114	11-01-04	0.07	32.4	1.8	1.9	1	1.04	2.7	0.1	1,400	0.02	5.77	5.35	97.4	FAFU
115	11-01-04	13.1	147	1,070	1,130	1.6	11.2	91.1	0.1	22,300	0.02	12.9	0.9	1950	FAFU
115	05-29-06														
116	11-10-04	0.15	163	1.3	5.1	1.5	3.11	0.2	0.1	2,490	0.02	11.5	6.2	5.6	FAFU
116	05-29-06														
117	11-01-04	0.23	77.8	12.8	12.3	1.6	8.16	0.7	0.1	651	0.02	2.74	0.77	445	FAFU
117	05-15-06	0.62	87	2		1.2	10.4	1	<0.05	784		3.4	1.7	511	CFC,3H,FAFU

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
118	Well 118	11-01-04	0000	Paghman/Upper Kabul		13.3	922		7.54		0	1	1
119	Well 119	11-03-04	0000	Paghman/Upper Kabul		13.9	951		6.96		0	2-5	74
120	Well 120	11-08-04	0000	Paghman/Upper Kabul		14.4	656		7.39		0	1-5	1
121	Well 121	11-08-04	0000	Paghman/Upper Kabul		13.9	756		7.37		0	2-5	1
124	Well 124	05-27-06	0900	Central Kabul	4.9	14.5	820	0.4	7.57		0	1-2	1
125	Well 125	11-22-04	0000	Central Kabul		15.8	3,420		7.2	12.9	0	10	1,203
126	Well 126	11-22-04	0000	Central Kabul	10.83	14.8	1,056		7.23	6.3	0	2-5	1
129	Well 129	05-24-06	1255	Central Kabul	10.11	17.6	1,177	0.5	7.41		0	2-5	147
130	Well 130	11-03-04	0000	Paghman/Upper Kabul		15.6	909		7.29		0	2-5	5
131	Well 131	09-23-04	0000	Central Kabul	10.65	15.5	844		7.77	8.6	0	1-5	2
132	Well 132	11-22-04	0000	Central Kabul	20.07	15.9	2,760		7.01		0.15	50	2
133	Well 133	11-22-04	0000	Central Kabul	6.84	13.1	1,471		7.83		0	2-5	219
133	Well 133	05-27-06	0930	Central Kabul	4.33	16.2	1,740	0.87	7.51		0	1-2	1
134	Well 134	11-22-04	0000	Logar	7.44	16	1,678		7.79		0	5-10	488
135	Well 135	11-10-04	0000	Logar	12.15	14.3	1,398		7.23		0	2-5	200
135	Well 135	05-17-06	1050	Logar	6.43	15.3	1,343	0.58	7.42		0	2-5	183
136	Well 136	11-10-04	0000	Logar	9.4	13.7	1,084		7.52		0	2-5	36
138	Well 138	11-10-04	0000	Logar	10.78	14.2	1,320		7.48		0	2-5	3
139	Well 139	11-16-04	0000	Logar	10.13	14	1,436		7.31		0	1-2	200
140	Well 140	11-16-04	0000	Logar	10.2	14.5	1,360		7.32		0	2-5	1
140	Well 140	05-29-06	1220	Logar	10.7	15.8	1,391	0.61	7.54		0	1-2	34.5
141	Well 141	11-18-04	0000	Logar	6.5	15.6	1,992		7.67	3.4	0	2	1
143	Well 143	11-16-04	0000	Logar	9.3	14.3	1,435		7.56		0	2-5	200
143	Well 143	05-29-06	1200	Logar	6.38	14.5	1,595	0.88	7.64		0	1-2	>2,420
147	Well 147	11-11-04	0000	Central Kabul		15.7	672		7.75		0	2-5	144
148	Well 148	09-26-04	0000	Central Kabul	11.03	18.3	1,887		7.44	4.6	0	5	50
148	Well 148	06-05-06	1015	Central Kabul	11.55	18.1	2,099	0.92	7.64		0	2-5	83.9
150	Well 150	10-31-04	0000	Central Kabul		16.6	413		8.99	6.3	0	0-1	200
151	Well 151	10-31-04	0000	Central Kabul		16.4	1,857		7.76	2.3	0	2	8
152	Well 152	11-11-04	0000	Central Kabul	15.95	16	722		7.72		0	1-2	19
152	Well 152	06-05-06	1000	Central Kabul	15.9	16.6	758	0.36	7.85		0	1-2	138
153	Well 153	11-11-04	0000	Central Kabul	11.4	17.8	15,290		7.55		0.15	2-5	200
153	Well 153	11-17-04	0000	Central Kabul	8	17.3	14,010		7.81	2.7	0.15	2-5	517
153	Well 153	05-20-06	1305	Central Kabul		20	7,350	3.7	8.25		0.15-0.3	2-5	>2,420
154	Well 154	11-11-04	0000	Central Kabul		14.6	1,415		7.76		0	1-2	12
156	Well 156	11-20-04	0000	Central Kabul	5.95	15.6	1,943		7.39		0.15	20	161
156	Well 156	05-27-06	1000	Central Kabul	3.06	15.3	2,063	1.04	7.93		0	0-1	365
157	Well 157	11-20-04	0000	Central Kabul	6.6	18.2	4,941		7.56	5.3	0.15-0.3	50	24
157	Well 157	05-27-06	1010	Central Kabul	4.95	18	5,570	2.82	7.53		0	20-50	>2,420
159	Well 159	11-20-04	0000	Logar	4.9	11.9	1,428		7.82	10.9	0	0	20
160	Well 160	11-17-04	0000	Central Kabul	6.78	13.8	1,479		7.63	2.1	0	2-5	109
162.2	Well 162.2	05-31-06	1020	Central Kabul	7.1	16.6	1,476	0.75	7.62		0	1-2	1
163	Well 163	11-17-04	0000	Central Kabul	8.6	14.1	1,165		7.8	7.8	0	2-5	>2,420
163	Well 163	05-31-06	1040	Central Kabul	5.8	16.1	1,326	0.62	7.73		0	1-2	>2,420
164	Well 164	11-21-04	0000	Central Kabul	12	15.2	1,389		7.49	5.5	0	10-20	1
165	Well 165	11-21-04	0000	Central Kabul	20.51	13.3	1,002		7.68	2.6	0	5	1
165	Well 165	05-22-06	1000	Central Kabul	19.2	16.2	525	0.59	7.54		0	2-5	1,414
166.2	Well 166.2	11-21-04	0000	Central Kabul	7	17	12,000		7.65	2.2	0	0-1	1
167	Well 167	11-02-04	0000	Central Kabul	16.65	16.4	1,517		7.67	8.5	0	2-5	10
167	Well 167	06-20-06	0945	Central Kabul	17.67	20.4	1,465	0.71	7.85		0	2-5	4.1
168	Well 168	11-02-04	0000	Central Kabul	10.73	16.1	1,385		7.62	3.9	0	10-20	200
168	Well 168	05-22-06	1040	Central Kabul	11.2	18.4	1,532	0.74	7.41		0.3	50	325
169.2	Well 169.2	11-04-04	0000	Central Kabul		16.6	962		7.1	6.9	0	2-5	1

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2-NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
118	11-01-04	1				0.004	2.3					81	41.4	372.8	48.9
119	11-03-04	2				0.02	3.72	3.7	16.4			89	46.2	412.5	46.1
120	11-08-04	1				0.004	3.37					65	24.5	263.2	41.2
121	11-08-04	1				0.004	3.37	3.4	15.1			59	31.6	277.5	64.4
124	05-27-06	1													
125	11-22-04	1				0.007	24	24	106.2			137	104	770.4	368
126	11-22-04	1				0.007	8.46	8.5	37.6			84	54.7	435	60.7
129	05-24-06	4.1						13.46	59.6			91.3	62.3	484.6	74.9
130	11-03-04	1				0.004	15.6	15.6	69.1			82	48.7	405.3	68.9
131	09-23-04	1	7.8	780		0.004	3.93					68	43	346.9	46
132	11-22-04	1				0.004	144					264	109	1108.1	107
133	11-22-04	1				0.01	3.89	3.9	17.3			70	77.7	494.8	109
133	05-27-06	1													
134	11-22-04	1				0.06	11.3	11.2	49.6			48	127	642.9	133
135	11-10-04	1				0.07	6.39	6.3	27.9			63	96.2	553.5	102
135	05-17-06	1						8.92	39.5			70.8	87.9	538.8	96.5
136	11-10-04	1				0.03	1.14	1.1	4.9			43	68.6	389.9	80.3
138	11-10-04	1				0.009	3.65	3.6	15.9			43	100	519.2	95.6
139	11-16-04	165				0.01	0.75	0.7	3.1			67	105	599.7	105
140	11-16-04	1				0.006	3.75	3.7	16.4			66	93.9	551.5	99.8
140	05-29-06	1													
141	11-18-04	1				0.004	3.62					41	142	687.2	188
143	11-16-04	1				0.06	4.99	4.9	21.7			53	104	560.7	110
143	05-29-06	22													
147	11-11-04	6				0.004	2.71					55	34.2	278.2	34.7
148	09-26-04	1	7.7	2010		0.05	7.85	7.8	34.5			95	94.3	625.6	219
148	06-05-06	1													
150	10-31-04	1				0.004	0.03					8.23	3.34	34.3	86.8
151	10-31-04	1				0.01	1.65	1.6	7.1			81	103	626.5	175
152	11-11-04	1				0.004	2.66					56	35.1	284.4	41.3
152	06-05-06	1													
153	11-11-04	1				0.05	1.98	1.9	8.4			281	481	2682.7	2,570
153	11-17-04	1				0.19	1.92	1.7	7.5			223	427	2315.4	2,300
153	05-20-06	1						0.96	4.23			56.6	269	1249.2	1,230
154	11-11-04	1				0.01	2.28	2.3	10.2			39	104	525.7	116
156	11-20-04	6				0.18	16.6	16.4	72.6			114	120	778.9	128
156	05-27-06	5.2													
157	11-20-04	1				0.24	35.6	35.4	156.7			152	255	1429.8	591
157	05-27-06	1													
159	11-20-04	1				0.004	0.03					38.6	114	565.9	102
160	11-17-04	3				0.004	3.92					52	108	574.6	109
162.2	05-31-06	1													
163	11-17-04	6				0.04	4.95	4.9	21.7			64	71.9	455.9	89.4
163	05-31-06	461													
164	11-21-04	1				0.004	15.8					79	112	658.5	154
165	11-21-04	1				0.16	9.31	9.2	40.7			55	62	392.7	58.5
165	05-22-06	1						10.57	46.8			57.3	69.3	428.5	66.2
166.2	11-21-04	1				0.004	0.26					334	590	3263.9	1,630
167	11-02-04	1				0.006	12.9	12.9	57.1			92	68.5	511.8	138
167	06-20-06	1													
168	11-02-04	1				0.004	29.5					85	65.7	482.8	114
168	05-22-06	1						27.11	120			88.2	66.4	493.7	114
169.2	11-04-04	1				0.004	5.64					68	50.2	376.5	61.1

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
118	Well 118	11-01-04	0000	Paghman/Upper Kabul	1.1	5	254		309.7	254	9.85	7.83	5.71
119	Well 119	11-03-04	0000	Paghman/Upper Kabul	0.99	4.7	312		380.4	312	10.53	9.21	3.35
120	Well 120	11-08-04	0000	Paghman/Upper Kabul	1.11	4.3	290		353.6	290	7.25	7.03	0.77
121	Well 121	11-08-04	0000	Paghman/Upper Kabul	1.68	2	353		430.4	353	8.51	8.41	0.28
124	Well 124	05-27-06	0900	Central Kabul									
125	Well 125	11-22-04	0000	Central Kabul	5.77	18.4	377		459.7	377	32.24	29.28	2.41
126	Well 126	11-22-04	0000	Central Kabul	1.27	8.7	328		399.9	328	11.75	9.80	4.51
129	Well 129	05-24-06	1255	Central Kabul	1.48	8.9		510.0	510.0	418	13.39	12.32	2.07
130	Well 130	11-03-04	0000	Paghman/Upper Kabul	1.49	7.4	304		370.7	304	11.46	10.35	2.55
131	Well 131	09-23-04	0000	Central Kabul	1.07	5.1	334		407.2	334	9.21	9.16	0.15
132	Well 132	11-22-04	0000	Central Kabul	1.4	12.5	226		275.6	226	27.50	16.29	12.80
133	Well 133	11-22-04	0000	Central Kabul	2.13	54.9	487		593.8	487	16.31	15.79	0.81
133	Well 133	05-27-06	0930	Central Kabul									
134	Well 134	11-22-04	0000	Logar	2.28	7.5	477		581.6	477	19.27	17.86	1.90
135	Well 135	11-10-04	0000	Logar	1.89	7.1	496		604.8	496	16.02	15.37	1.03
135	Well 135	05-17-06	1050	Logar	1.81	6.9		570.0	570.0	467	15.45	14.81	1.05
136	Well 136	11-10-04	0000	Logar	1.77	5.5	358		436.5	358	11.67	11.56	0.23
138	Well 138	11-10-04	0000	Logar	1.83	5.6	483		588.9	483	15.03	14.72	0.52
139	Well 139	11-16-04	0000	Logar	1.87	8.9	530		646.2	530	17.15	15.69	2.23
140	Well 140	11-16-04	0000	Logar	1.85	7	458		558.4	458	15.87	14.55	2.17
140	Well 140	05-29-06	1220	Logar									
141	Well 141	11-18-04	0000	Logar	3.12	9	468		570.6	468	22.64	21.82	0.93
143	Well 143	11-16-04	0000	Logar	2.02	9.3	526		641.3	526	16.59	16.03	0.86
143	Well 143	05-29-06	1200	Logar									
147	Well 147	11-11-04	0000	Central Kabul	0.91	3.8	229		279.2	229	7.29	7.00	0.99
148	Well 148	09-26-04	0000	Central Kabul	3.81	4.8	320		390.2	320	22.48	22.12	0.41
148	Well 148	06-05-06	1015	Central Kabul									
150	Well 150	10-31-04	0000	Central Kabul	6.45	1.05	86		104.9	86	4.50	4.67	-0.91
151	Well 151	10-31-04	0000	Central Kabul	3.04	4.2	202		246.3	202	20.60	19.68	1.15
152	Well 152	11-11-04	0000	Central Kabul	1.07	3.2	211		257.3	211	7.68	7.49	0.64
152	Well 152	06-05-06	1000	Central Kabul									
153	Well 153	11-11-04	0000	Central Kabul	21.59	22.5	401		488.9	401	167.66	177.04	-1.36
153	Well 153	11-17-04	0000	Central Kabul	20.8	20.4	453		552.3	453	148.34	154.28	-0.98
153	Well 153	05-20-06	1305	Central Kabul	15.14	17.4		648.7	648.7	532	79.86	81.55	-0.53
154	Well 154	11-11-04	0000	Central Kabul	2.2	5.7	444		541.4	444	16.06	15.51	0.88
156	Well 156	11-20-04	0000	Central Kabul	2	14.9	500		609.6	500	21.94	20.40	1.82
156	Well 156	05-27-06	1000	Central Kabul									
157	Well 157	11-20-04	0000	Central Kabul	6.8	13.7	297		362.1	297	55.53	54.14	0.63
157	Well 157	05-27-06	1010	Central Kabul									
159	Well 159	11-20-04	0000	Logar	1.87	8.99	410		499.9	410	16.38	16.09	0.45
160	Well 160	11-17-04	0000	Central Kabul	1.98	7.3	489		596.2	489	16.79	16.19	0.91
162.2	Well 162.2	05-31-06	1020	Central Kabul									
163	Well 163	11-17-04	0000	Central Kabul	1.82	5.6	374		456.0	374	13.40	12.06	2.61
163	Well 163	05-31-06	1040	Central Kabul									
164	Well 164	11-21-04	0000	Central Kabul	2.61	7.6	451		549.9	451	20.45	14.81	8.00
165	Well 165	11-21-04	0000	Central Kabul	1.28	4.5	318		387.7	318	10.72	10.08	1.55
165	Well 165	05-22-06	1000	Central Kabul	1.39	4.9		374.8	374.8	307	11.81	10.60	2.71
166.2	Well 166.2	11-21-04	0000	Central Kabul	12.42	18.4	108		131.7	108	138.67	142.86	-0.74
167	Well 167	11-02-04	0000	Central Kabul	2.65	7.4	211		257.3	211	16.66	15.27	2.18
167	Well 167	06-20-06	0945	Central Kabul									
168	Well 168	11-02-04	0000	Central Kabul	2.26	15.8	277		337.7	277	15.24	12.85	4.25
168	Well 168	05-22-06	1040	Central Kabul	2.23	15		363.5	363.5	298	15.44	14.19	2.11
169.2	Well 169.2	11-04-04	0000	Central Kabul	1.37	5.5	357		435.3	357	10.50	10.07	1.05

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
118	11-01-04	66	42.8	0.26	0.16	25	454					0.49	1.9	0.2		0.7
119	11-03-04	53.6	70.1	0.27	0.24	26	571	540	1.06	0.9	4.53	0.6	0.9	0.1		1.5
120	11-08-04	11.8	43.2	0.27	0.11	22	386					0.59	1.7	0.1		1.8
121	11-08-04	12.2	48.6	0.29		24	465			-0.26	-1.5	0.62	0.9	0.2		0.2
124	05-27-06															
125	11-22-04	700	95.7	0.3	0.34	29	1,750	1,785	0.98	0.89	1.41	0.51	1.6	0.2		1.1
126	11-22-04	76.1	52.9	0.22	0.18	30	614	602	1.02	1.15	5.22	0.58	13.1	0.1		2.2
129	05-24-06	90.6	67.5	0.29	0.12	31.7		793		-1.95	-6.89		2	<0.1	3.2	3.2
130	11-03-04	108	58.7	0.29	0.22	29	647	655	0.99	-0.17	-0.75	0.71	1.1	0.1		1.9
131	09-23-04	55	44.7	0.2	0.14	27	513					0.61	1.6	0.1		2.4
132	11-22-04	334	113	0.15	0.36	25	1,690					0.61	1.6	0.2		0.6
133	11-22-04	120	128	0.2	0.27	38	894	907	0.99	-0.03	-0.08	0.61	1.6	0.1		2.3
133	05-27-06															
134	11-22-04	171	168	0.6	0.41	33	1,020	1,024	1	0.17	0.46	0.61	2.4	1		5.5
135	11-10-04	94.5	134	0.51	0.37	23	843	846	1	-0.14	-0.44	0.6	2.4	0.2		1.1
135	05-17-06	92	138	0.41	0.23	22.9		897		-2.35	-7.21		1	<0.1	1.6	1.6
136	11-10-04	85.9	95	0.39	0.23	24	613	623	0.98	-0.21	-0.9	0.57	0.8	0.2		2
138	11-10-04	98.4	110	0.6	0.3	28	763	787	0.97	-0.3	-1	0.58	3.2	0.1		2.4
139	11-16-04	98.6	111	0.46	0.26	28	842	845	1	1.05	3.22	0.59	2.5	0.3		1.2
140	11-16-04	89.4	138	0.49	0.42	31	843	817	1.03	0.73	2.41	0.62	2.4	0.1		1.1
140	05-29-06															
141	11-18-04	201	326	0.64	0.53	41	1,260					0.63	4	0.2		10.1
143	11-16-04	99.6	130	0.48	0.39	26	860	870	0.99	-0.15	-0.46	0.6	2.4	0.2		1.8
143	05-29-06															
147	11-11-04	22.9	85.4	0.49	0.16	14	396					0.59	1.5	0.1		0.3
148	09-26-04	327	312	0.3	0.9	24	1,370	1,304	1.05	-0.52	-1.16	0.73	2	0.1		0.6
148	06-05-06															
150	10-31-04	37.4	90.8	0.63	0.18	10.1	296					0.72	3.3	0.1		0.3
151	10-31-04	307	335	0.59	0.78	26	1,220	1,161	1.05	0.45	1.13	0.66	8.3	0.1		1.7
152	11-11-04	32.6	113	0.52	0.17	14	440					0.61	1.2	0.2		0.4
152	06-05-06															
153	11-11-04	4,190	2,440	1.21	7.71	20	10,900	10,262	1.06	-11.17	-3.26	0.71	22.4	0.7		2.8
153	11-17-04	3,590	2,110	1.32	6.14	19	9,350	8976	1.04	-7.54	-2.5	0.67	4.8	0.6		1.8
153	05-20-06	1,650	1,170	<0.05	2.43	10.8				-5.03	-3.09		3	0.4	1.8	1.8
154	11-11-04	159	103	0.23	0.33	36	840	840	1	0.03	0.1	0.59	2.4	0.2		8.5
156	11-20-04	213	211	0.28	0.32	27	1,200	1,201	1	-0.05	-0.12	0.62	4.6	0.2		9.9
156	05-27-06															
157	11-20-04	623	1,470	0.77	1.8	18	3,740	3,460	1.08	-2.01	-1.81	0.76	1.3	1.3		4.5
157	05-27-06															
159	11-20-04	132	200	0.56	0.36	18.9	857					0.6	1.1	0.2		22.7
160	11-17-04	136	124	0.23	0.23	34	881					0.6	2.4	0.1		4.7
162.2	05-31-06															
163	11-17-04	99.6	85.4	0.25	0.23	30	673	692	0.97	0.73	2.86	0.58	2.4	0.3		0.9
163	05-31-06															
164	11-21-04	127	106	0.26	0.29	34	884					0.64	3.2	0.1		1.8
165	11-21-04	91.7	54.5	0.18	0.23	24	557	582	0.96	-0.23	-1.06	0.56	3.2	0.4		1
165	05-22-06	111	63.5	0.17	0.17	23.1		667		-1.14	-4.68		1	<0.1	1.7	1.7
166.2	11-21-04	2,750	3,030	0.25	6.05	16	9,220					0.77	3.2	0.4		0.1
167	11-02-04	91.1	407	0.48	0.46	34	1,080	1,023	1.06	0.24	0.73	0.71	1.4	0.1		1.9
167	06-20-06															
168	11-02-04	122	186	0.69	0.35	23	917					0.66	2	0.1		0.7
168	05-22-06	142	203	<0.05	0.23	22.9				-2.23	-6.84		1	<0.1	1.1	1.1
169.2	11-04-04	69	47.4	0.46	0.15	22	552					0.57	1.7	0.2		0.3

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
118	Well 118	11-01-04	0000	Paghman/Upper Kabul	48	0.03	943	0.02	1	1.17	0.9	9	
119	Well 119	11-03-04	0000	Paghman/Upper Kabul	60	0.03	859	0.02	1.6	1.81	1.5	11	
120	Well 120	11-08-04	0000	Paghman/Upper Kabul	72	0.03	356	0.02	8.4	0.52	2.4	6	
121	Well 121	11-08-04	0000	Paghman/Upper Kabul	68	0.03	552	0.03	0.4	1.24	6.6	10	
124	Well 124	05-27-06	0900	Central Kabul									
125	Well 125	11-22-04	0000	Central Kabul	257	0.06	1,000	0.06	0.5	1.1	3.2	30	
126	Well 126	11-22-04	0000	Central Kabul	67	0.03	785	0.02	0.4	0.84	1	3	
129	Well 129	05-24-06	1255	Central Kabul	84		710	<0.05	1	0.38	0.9		<20
130	Well 130	11-03-04	0000	Paghman/Upper Kabul	179	0.03	828	0.02	0.7	0.79	4.9	3	
131	Well 131	09-23-04	0000	Central Kabul	59	0.03	695	0.02	0.4	0.27	1	4.8	
132	Well 132	11-22-04	0000	Central Kabul	172	0.06	799	0.04	3.2	0.85	4.8	9	
133	Well 133	11-22-04	0000	Central Kabul	73	0.03	1,110	0.02	0.4	1.96	3	3	
133	Well 133	05-27-06	0930	Central Kabul									
134	Well 134	11-22-04	0000	Logar	66	0.03	1,510	0.12	0.4	0.49	30.6	8	
135	Well 135	11-10-04	0000	Logar	62	0.03	1,410	0.02	8.1	3.17	1.4	3	
135	Well 135	05-17-06	1050	Logar	50		1,210	<0.05	7	0.19	1.8		<20
136	Well 136	11-10-04	0000	Logar	64	0.03	997	0.04	0.4	0.64	0.8	12	
138	Well 138	11-10-04	0000	Logar	100	0.03	1,510	0.02	2.7	2.05	1.2	14	
139	Well 139	11-16-04	0000	Logar	91	0.03	1,780	0.02	2.6	1.24	1.2	5	
140	Well 140	11-16-04	0000	Logar	62	0.03	1,290	0.02	6.6	1.9	1.5	8	
140	Well 140	05-29-06	1220	Logar									
141	Well 141	11-18-04	0000	Logar	71	0.03	2,240	0.03	6.7	0.73	2.3	3	
143	Well 143	11-16-04	0000	Logar	80	0.03	1,450	0.19	11	1.1	1.4	3	
143	Well 143	05-29-06	1200	Logar									
147	Well 147	11-11-04	0000	Central Kabul	40	0.03	136	0.02	1	2.3	0.9	5	
148	Well 148	09-26-04	0000	Central Kabul	65	0.03	1,460	0.07	1.7	0.36	3.4	3.2	
148	Well 148	06-05-06	1015	Central Kabul									
150	Well 150	10-31-04	0000	Central Kabul	36	0.03	142	0.02	0.4	3.96	0.8	213	
151	Well 151	10-31-04	0000	Central Kabul	24	0.03	1,060	0.04	0.4	0.26	1.4	70	
152	Well 152	11-11-04	0000	Central Kabul	48	0.03	159	0.02	1.7	2.16	1.1	19	
152	Well 152	06-05-06	1000	Central Kabul									
153	Well 153	11-11-04	0000	Central Kabul	33	0.21	7,900	0.16	3.1	4.8	12.3	30	
153	Well 153	11-17-04	0000	Central Kabul	31	0.18	7,600	0.36	5.2	3.19	8.8	30	
153	Well 153	05-20-06	1305	Central Kabul	23		6,660	0.19	1	0.65	9.6		<20
154	Well 154	11-11-04	0000	Central Kabul	71	0.03	1,490	0.02	0.4	4.01	3.9	10	
156	Well 156	11-20-04	0000	Central Kabul	195	0.03	1,190	0.02	0.4	0.98	2.2	4	
156	Well 156	05-27-06	1000	Central Kabul									
157	Well 157	11-20-04	0000	Central Kabul	15	0.06	160	0.04	28	0.55	6.1	9	
157	Well 157	05-27-06	1010	Central Kabul									
159	Well 159	11-20-04	0000	Logar	62	0.03	1,060	0.02	0.4	0.96	1.2	6	
160	Well 160	11-17-04	0000	Central Kabul	178	0.03	1,180	0.02	0.4	1.26	1.2	4	
162.2	Well 162.2	05-31-06	1020	Central Kabul									
163	Well 163	11-17-04	0000	Central Kabul	65	0.03	1,250	0.02	16	2.45	1.5	3	
163	Well 163	05-31-06	1040	Central Kabul									
164	Well 164	11-21-04	0000	Central Kabul	81	0.03	1,130	0.06	0.4	1.14	6.3	12	
165	Well 165	11-21-04	0000	Central Kabul	145	0.03	1,250	2.38	3.3	3.82	2	5	
165	Well 165	05-22-06	1000	Central Kabul	137		850	<0.05	11	0.24	0.6		<20
166.2	Well 166.2	11-21-04	0000	Central Kabul	18	0.03	1,650	0.15	0.9	1.41	9.7	207	
167	Well 167	11-02-04	0000	Central Kabul	30	0.03	521	0.29	5.2	0.48	2.1	4	
167	Well 167	06-20-06	0945	Central Kabul									
168	Well 168	11-02-04	0000	Central Kabul	36	0.03	772	0.02	9.7	0.64	1.5	7	
168	Well 168	05-22-06	1040	Central Kabul	36		820	<0.05	11	0.38	1.2		<20
169.2	Well 169.2	11-04-04	0000	Central Kabul	95	0.03	747	0.02	1.6	2.02	5.3	6	

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
118	11-01-04	0.1	119	0.6	1.5	1	10.9	0.2	0.1	278	0.02	4.27	0.49	4.3	FAFU
119	11-03-04	0.09	104	3.6	3.4	1.2	9.48	1.3	0.1	911	0.02	6.11	0.85	1.4	FAFU
120	11-08-04	0.05	44.6	1.2	1.2	1.7	0.79	1.1	0.1	536	0.02	5.11	3.46	44.1	FAFU
121	11-08-04	0.13	18	12	11.3	1.1	2.21	1.1	0.1	695	0.02	5.98	2.58	924	FAFU
124	05-27-06														
125	11-22-04	0.74	152	9	9	3.1	0.7	0.7	0.2	1,900	0.04	7.1	5.29	1,250	FAFU
126	11-22-04	0.1	90.1	1.3	1.3	1	14.5	1.2	0.1	828	0.02	6.32	1.31	26.9	FAFU
129	05-24-06	0.09	85	<1		2.1	22.7	2	<0.05	1,010		9.8	1.3	9	CFC,3H,FAFU
130	11-03-04	0.43	118	0.9	0.9	2.2	7.92	1.5	0.1	975	0.02	6.5	3.95	27.9	FAFU
131	09-23-04	0.54	109	0.3	0.4	1.2	5.55	1.2	0.1	701	0.02	4.78	1.53	139	FAFU
132	11-22-04	0.27	167	0.3	0.9	0.6	4.09	1.2	0.2	2,140	0.04	4.93	6.89	40.2	FAFU
133	11-22-04	1.73	164	35.2	35.7	3.3	19.6	3.6	0.1	818	0.02	9.14	1.31	16,50	FAFU
133	05-27-06														
134	11-22-04	7.66	263	15.6	16.2	39	3.69	6.2	0.1	1,510	0.02	9.16	6.44	780	FAFU
135	11-10-04	0.08	211	5.1	5.1	4.5	2.32	2.3	0.1	1,230	0.02	7.48	11.4	3.1	FAFU
135	05-17-06	0.61	175	<1		3.6	0.8	4	<0.05	1,470		8.9	15.3	15	CFC,3H,FAFU
136	11-10-04	0.13	151	2.2	2	3.5	2.09	1.3	0.1	1,030	0.02	6.12	2.02	2.1	FAFU
138	11-10-04	0.04	272	3.3	4.3	4.4	5.51	7.8	0.1	941	0.02	7.23	3.27	2.1	FAFU
139	11-16-04	1.28	314	105	108	2.9	5.16	1.4	0.1	1,860	0.02	16.3	4.04	5.8	FAFU
140	11-16-04	0.09	186	3.3	3.2	3.4	6.13	2.6	0.1	1,520	0.02	15.7	6.41	6.3	FAFU
140	05-29-06														
141	11-18-04	0.06	341	0.1	1	11.7	1.31	35.7	0.1	2,410	0.02	21.6	5.53	51.6	FAFU
143	11-16-04	2.35	245	4.8	4.8	3.9	2.28	3.3	0.1	1,460	0.02	10.4	4.77	2,100	FAFU
143	05-29-06														
147	11-11-04	0.08	12.5	4.2	3.5	4	2.02	1.5	0.1	994	0.02	4.7	1.71	52	FAFU
148	09-26-04	0.13	173	3.3	3.4	3.2	1.97	2.7	0.1	2,430	0.02	12.3	7.76	12.5	FAFU
148	06-05-06														
150	10-31-04	0.04	1.5	16.4	16.7	1.8	0.69	0.4	0.1	114	0.02	0.72	0.11	1.4	FAFU
151	10-31-04	0.04	78.1	3	2.7	8.2	1.34	2.9	0.1	2,080	0.02	7.99	2.81	2.5	FAFU
152	11-11-04	0.1	13.8	4.9	4.7	4.1	0.97	1.9	0.1	1,090	0.02	5.24	2.59	119	FAFU
152	06-05-06														
153	11-11-04	1.47	705	255	236	43.1	9.74	5.6	0.7	10,500	0.14	75.9	11	253	FAFU
153	11-17-04	6.63	463	211	200	42.5	14.1	12.7	0.6	8,840	0.12	60.2	7.49	256	FAFU
153	05-20-06	3.1	518	17		55.3	21.8	16	<0.05	5,610		28.4	0.7	1,010	CFC,3H,FAFU
154	11-11-04	0.14	153	34.9	35.4	2.5	11	0.5	0.1	945	0.02	7.3	1.45	11.4	FAFU
156	11-20-04	0.04	234	931	901	2.8	4.96	22.6	0.1	1,680	0.02	5.98	5.96	3.3	FAFU
156	05-27-06														
157	11-20-04	4.66	257	8.6	16.1	6.5	4.72	22.7	0.2	8	0.04	36.2	6.4	12	FAFU
157	05-27-06														
159	11-20-04	0.04	235	33.8	33	7.3	1.27	0.9	0.1	1,150	0.02	2.55	1.35	34.1	FAFU
160	11-17-04	0.04	164	20.6	21.4	1.8	6.35	0.8	0.1	1,810	0.02	11.4	2.47	4	FAFU
162.2	05-31-06														
163	11-17-04	0.53	164	1.2	5.2	1.4	3.14	0.5	0.1	267	0.02	5.83	4.83	6	FAFU
163	05-31-06														
164	11-21-04	0.12	180	4	3.8	1.9	6.37	0.6	0.1	1590	0.02	10.2	1.63	39.9	FAFU
165	11-21-04	7.88	119	7	6.8	1.1	0.6	1.8	0.1	872	0.02	6.27	4.63	2,920	FAFU
165	05-22-06	0.16	127	<1		0.8	0.6	2	<0.05	755		4.5	6.7	8	CFC,3H,FAFU
166.2	11-21-04	0.54	207	10.6	66.6	5.5	9.42	0.2	0.1	12,400	0.02	17.6	4.01	453	FAFU
167	11-02-04	0.04	23.9	8.6	8.4	5.1	1.35	10.8	0.1	2,020	0.02	12.4	12.5	18	FAFU
167	06-20-06														
168	11-02-04	0.04	72	3.7	3.5	7.8	11.8	1.6	0.1	2,010	0.02	13.5	7.09	2.4	FAFU
168	05-22-06	0.09	83	2		7	28.3	3	<0.05	2,290		14.5	6.7	13	3H,FAFU
169.2	11-04-04	0.04	61.5	2.3	4.7	2.8	2.03	0.7	0.1	845	0.02	11	8.42	153	FAFU

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
170	Well 170	11-04-04	0000	Central Kabul		16.2	1,472		6.94	6.9	0	5-10	1
170	Well 170	06-18-06	1150	Central Kabul	10.61	17.6	1,662	0.76	7.44		0	2-5	9.8
171	Well 171	11-22-04	0000	Central Kabul		15.3	1,368		7.39		0	2-5	32
172	Well 172	11-20-04	0000	Central Kabul	11.14	15.2	1,522		7.25	2.4	0	10-20	1
172	Well 172	05-22-06	1145	Central Kabul	10.32	22.5	1,627	0.76	7.35		0	2-5	1
173	Well 173	11-20-04	0000	Central Kabul	7.34	14.9	903		7.71	2.1	0	2-5	19
173	Well 173	06-18-06	1050	Central Kabul	7.61	16.1	950	0.44	7.84		0	1-2	>2,420
174	Well 174	11-20-04	0000	Central Kabul	16.98	15.5	840		7.49	8.2	0	5-10	82
175	Well 175	11-18-04	0000	Central Kabul	21.82	18.3	694		7.92	8.1	0	2-5	22
176	Well 176	11-18-04	0000	Central Kabul	6.5	15.4	2,375		7.79	6.1	0	1-2	613
177	Well 177	11-21-04	0000	Central Kabul	6.9	10.9	6,390		8.08	8.7	1.5-3.0	20-50	>2,420
178	Well 178	11-17-04	0000	Central Kabul	11.83	14.9	1,080		7.4	2.8	0	2-5	10
180	Spring 180	05-17-06	0945	Central Kabul		18.6	410	0.19	7.67		0	1-2	>2,420
181	Chari Sib Spring	05-17-06	1135	Logar		14.8	833	0.38	7.45		0	1-2	980
182	Well 182	06-02-07	1155	Paghman/Upper Kabul	8.08	16	755	0.3	7.88		0	2-5	
183	Hootkhel-Nowbahar Pump Station	06-04-07	0905	Central Kabul	4.84	18.1	1,196	0.55	8.15		0	0-1	
184	Well 184	06-06-07	0920	Paghman/Upper Kabul	3.17	15.6	1,319	0.45	7.74		0	2-5	
185	Well 185	06-16-07	1050	Central Kabul	13.76	20.3	5,060	2.15	8.29		0	5-10	
186	Well 186	06-18-07	0940	Central Kabul	25.05	18.5	706	0.32	8.28		0	2-5	
187	Hotuk Pump Station	06-20-07	1030	Logar	7.97	15.4	1,155	0.51	7.82		0	1-2	
201	Well 201	06-13-06	1045	Logar	4.32	14.6	1,106	0.52	7.99		0	1-2	6.3
202	Well 202	08-01-04	0000	Logar	6.07	15.4	1,045			3.9	0	1-2	1
202	Well 202	11-16-04	0000	Logar	11	14	932		7.76	10.5	0	1-2	1
202	Well 202	06-13-06	1000	Logar	6.78	15.1	693	0.52	7.81		0	1-2	3.1
203	Well 203	05-20-06	1110	Logar		16.2	940	0.44	7.98		0	0-1	1
204	Well 204	06-13-06	1020	Logar	7.9	14.4	1,225	0.58	8.02		0	1-2	1
205	Well 205	08-01-04	0000	Logar	11	16	1,512			1.1	0	2-5	13
205	Well 205	11-18-04	0000	Logar		16.3	1,527		7.41	4.6	0	2	4
206	Well 206	08-01-04	0000	Logar	12	15.6	1,280			3	0	1-2	4
208	Well 208	09-20-04	0000	Central Kabul	17.96	15.5	1,079		7.36	9	0	5-10	1
208	Well 208	05-20-06	0930	Central Kabul	15.02	18.3	1,127	0.55	7.71		0	1-2	1
210	Well 210	05-31-06	0940	Central Kabul	8.38	16.7	1,112	0.56	7.74		0	1-2	1
211	Well 211	07-31-04	0000	Paghman/Upper Kabul	5.59	15.4	801			5.4	0	5	
211	Well 211	06-08-06	0915	Paghman/Upper Kabul	4.27	16.1	916	0.45	7.7		0	1-2	161
212	Well 212	06-08-06	0950	Paghman/Upper Kabul	4.68	15	948	0.49	7.66		0	1-2	7.5
213	Well 213	05-15-06	1305	Paghman/Upper Kabul	4.42	15.1	799	0.43	7.55		0	2-5	1
214	Well 214	06-11-06	1245	Paghman/Upper Kabul	8.78	16.3	688	0.3	7.65		0	1-2	177
216	Well 216	07-31-04	0000	Paghman/Upper Kabul	26.14	15.1	450			11.7	0	1-2	
216	Well 216	11-07-04	0000	Paghman/Upper Kabul	20.64	14.5	515		7.68	13.5	0	2-5	1
216	Well 216	06-11-06	1125	Paghman/Upper Kabul	25.71	15.4	418	0.17	7.9		0	1-2	4.1
217	Well 217	11-07-04	0000	Paghman/Upper Kabul	26.32	15.5	497		7.69	14.9	0	1-2	1

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2-NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
170	11-04-04	1				0.004	9.97					72	94.4	568.6	99.7
170	06-18-06	1													
171	11-22-04	1				0.004	6.01	6	26.6			95	61.8	491.7	96.1
172	11-20-04	1				0.004	18.3					91	89.1	594.2	90.6
172	05-22-06	1						23.49	104			101.6	98.1	658.7	101
173	11-20-04	1				0.004	4.04	4	17.7			35	55.2	314.7	72.1
173	06-18-06	6.3													
174	11-20-04	1				0.02	10.1	10.1	44.7			96	28.7	357.9	41.3
175	11-18-04	1				0.004	3.91					40	22.6	193	68.4
176	11-18-04	1				0.007	1.79	1.8	8			83	175	928	157
177	11-21-04	11				1.4	42.5	41.1	181.9			144	506	2443.5	608
178	11-17-04	1				0.004	8.51					64	68.4	441.5	58.7
180	05-17-06	5.2						3.30	14.6			50.6	10.6	170	14.6
181	05-17-06	1						1.37	6.08			68.9	30.4	297.2	61.3
182	06-02-07			755				8.99	39.8			103.3	23		22
183	06-04-07			1196				0.61	2.71			35.6	88.3		85.8
184	06-06-07			1319				13.15	58.2			83	74.7		87.9
185	06-16-07			5060				17.78	78.7			221.4	266.2		524.7
186	06-18-07			706				6.73	29.8			42.6	29.2		38.8
187	06-20-07			1155				1.56	6.89			56.2	79.4		70.4
201	06-13-06	1													
202	08-01-04	1	7.9	828	0.02	0.004	1.96			2.02	0.003	40	63.7	362.2	64.9
202	11-16-04	1				0.004	2.05					39	64	361	63.4
202	06-13-06	1													
203	05-20-06	1						1.97	8.7			39.1	61.8	352.2	70.4
204	06-13-06	1													
205	08-01-04	1	7.6	1460	0.02	0.004	3.84			3.67	0.062	54	91.4	511.3	159
205	11-18-04	1				0.004	3.61					50	89	491.4	161
206	08-01-04	1	7.8	1280	0.02	0.004	3.75			3.81	0.009	38	102	515	133
208	09-20-04	1	7.6	1010		0.004	9.43					72	53.5	400.1	68.4
208	05-20-06	1						9.62	42.6			75.3	57.6	425.3	72.6
210	05-31-06	1													
211	07-31-04		7.6	801	0.02	0.004	6.06			5.86	0.003	75	50.9	396.9	56.6
211	06-08-06	1													
212	06-08-06	1													
213	05-15-06	1						2.04	9.05			73.2	50	388.7	47.8
214	06-11-06	1													
216	07-31-04		7.8	407	0.02	0.004	2.22			2.14	0.014	63	13.4	212.5	12.4
216	11-07-04	1				0.004	2.79					71	16.6	245.7	14.8
216	06-11-06	1													
217	11-07-04	1				0.004	3.09					67	15.3	230.3	14.9

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
170	Well 170	11-04-04	0000	Central Kabul	1.82	6.1	410		499.9	410	16.19	14.70	2.41
170	Well 170	06-18-06	1150	Central Kabul									
171	Well 171	11-22-04	0000	Central Kabul	1.89	16.5	369		449.9	369	14.65	13.27	2.47
172	Well 172	11-20-04	0000	Central Kabul	1.62	14.1	495		603.5	495	16.49	15.06	2.27
172	Well 172	05-22-06	1145	Central Kabul	1.71	14.5		630.0	630.0	517	18.25	16.36	2.74
173	Well 173	11-20-04	0000	Central Kabul	1.77	5.5	318		387.7	318	9.76	9.52	0.62
173	Well 173	06-18-06	1050	Central Kabul									
174	Well 174	11-20-04	0000	Central Kabul	0.95	8.3	263		320.7	263	9.26	7.18	6.35
175	Well 175	11-18-04	0000	Central Kabul	2.14	2.4	168		204.8	168	6.97	6.77	0.74
176	Well 176	11-18-04	0000	Central Kabul	2.24	5.5	312		380.4	312	26.13	26.04	0.08
177	Well 177	11-21-04	0000	Central Kabul	5.35	31.6	384		468.2	384	77.86	73.50	1.44
178	Well 178	11-17-04	0000	Central Kabul	1.22	5.1	362		441.4	362	11.75	11.14	1.33
180	Spring 180	05-17-06	0945	Central Kabul	0.49	8.5		202.4	202.4	166	4.29	4.05	1.41
181	Chari Sib Spring	05-17-06	1135	Logar	1.55	4.5		390.0	390.0	320	8.83	8.89	-0.18
182	Well 182	06-02-07	1155	Paghman/Upper Kabul		3.7		301.4	301.4	247	8.18	7.71	1.50
183	Hootkhel-Nowbahar Pump Station	06-04-07	0905	Central Kabul		4.8		551.0	551.0	452	13.21	13.51	-0.56
184	Well 184	06-06-07	0920	Paghman/Upper Kabul		6.6		471.9	471.9	387	14.54	13.18	2.46
185	Well 185	06-16-07	1050	Central Kabul		12.9		254.6	254.6	209	57.05	56.76	0.13
186	Well 186	06-18-07	0940	Central Kabul		6.1		205.6	205.6	169	6.48	6.22	0.99
187	Hotuk Pump Station	06-20-07	1030	Logar		5.1		511.2	511.2	419	12.81	12.94	-0.25
201	Well 201	06-13-06	1045	Logar									
202	Well 202	08-01-04	0000	Logar	1.48	4.4	327		398.7	327	10.40	9.93	1.14
202	Well 202	11-16-04	0000	Logar	1.45	4.6	329		401.1	329	10.31	10.08	0.58
202	Well 202	06-13-06	1000	Logar									
203	Well 203	05-20-06	1110	Logar	1.63	4.7		415.0	415.0	340	10.44	10.26	0.44
204	Well 204	06-13-06	1020	Logar									
205	Well 205	08-01-04	0000	Logar	3.06	6.6	534		651.1	534	17.62	16.96	0.96
205	Well 205	11-18-04	0000	Logar	3.16	6.5	527		642.6	527	17.30	16.88	0.61
206	Well 206	08-01-04	0000	Logar	2.55	6.3	501		610.9	501	16.60	16.09	0.78
208	Well 208	09-20-04	0000	Central Kabul	1.49	14.2	280		341.4	280	11.52	10.08	3.34
208	Well 208	05-20-06	0930	Central Kabul	1.53	15.3		410.0	410.0	336	12.25	11.51	1.55
210	Well 210	05-31-06	0940	Central Kabul									
211	Well 211	07-31-04	0000	Paghman/Upper Kabul	1.24	4.5	339		413.3	339	10.69	9.49	2.96
211	Well 211	06-08-06	0915	Paghman/Upper Kabul									
212	Well 212	06-08-06	0950	Paghman/Upper Kabul									
213	Well 213	05-15-06	1305	Paghman/Upper Kabul	1.05	6.7		375.8	375.8	308	10.19	10.00	0.49
214	Well 214	06-11-06	1245	Paghman/Upper Kabul									
216	Well 216	07-31-04	0000	Paghman/Upper Kabul	0.37	2.4	195		237.8	195	4.89	4.49	2.17
216	Well 216	11-07-04	0000	Paghman/Upper Kabul	0.41	2.9	235		286.5	235	5.69	5.42	1.18
216	Well 216	06-11-06	1125	Paghman/Upper Kabul									
217	Well 217	11-07-04	0000	Paghman/Upper Kabul	0.43	2.7	191		232.9	191	5.37	4.40	4.96

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
170	11-04-04	161	94.1	0.41	0.24	34	863					0.59	3.1	0.2		1.8
170	06-18-06															
171	11-22-04	161	64.7	0.24	0.16	29	782	772	1.01	0.74	2.62	0.57	1.6	0.2		0.8
172	11-20-04	126	77.2	0.35	0.41	32	886					0.58	1.6	0.2		1.3
172	05-22-06	147	90.3	0.2	0.2	32.5		1,068		-2.37	-6.19		<1	<0.1	1.6	1.6
173	11-20-04	63.5	65.9	0.29	0.19	19	523	525	1	-0.24	-1.22	0.58	2.4	0.2		1.5
173	06-18-06															
174	11-20-04	39.2	39	0.33	0.09	25	508	480	1.06	1.27	7.43	0.6	0.8	0.1		0.7
175	11-18-04	52.2	93.1	0.73	0.25	24	418					0.6	1.8	0.1		1.4
176	11-18-04	386	428	0.2	1.03	28	1,530	1,459	1.05	-0.65	-1.25	0.64	1.2	0.1		0.5
177	11-21-04	1,270	1,440	0.37	2.93	32	4,710	4,447	1.06	-0.33	-0.21	0.74	2.2	0.6		8.8
178	11-17-04	87.2	69.3	0.17	0.29	26	615					0.57	1.6	0.1		1.2
180	05-17-06	7.38	25.2	0.47	<0.05	20.6				-0.76	-8.16		3	<0.1	0.3	0.3
181	05-17-06	58.6	40.6	0.27	0.08	19.0		524		-1.67	-8.73		<1	<0.1	1.1	1.1
182	06-02-07	23.4	101	0.22	0.06	19.8							6	<0.1	1.1	1.1
183	06-04-07	98.7	81.1	0.19	0.18	24.2							4	0.1	8.9	8.9
184	06-06-07	103	122	0.2	0.19	31.2							11	<0.1	1.4	1.4
185	06-16-07	887	1,323	0.46	2.36	21.4							11	<0.1	4.8	4.8
186	06-18-07	28.4	98.5	0.47	0.16	30.9							9	<0.1	2.5	2.5
187	06-20-07	83.4	106	0.25	0.16	22.7							12	<0.1	1.9	1.9
201	06-13-06															
202	08-01-04	66	73.7	0.34	0.2	26	539					0.52	0.9	0.1		0.9
202	11-16-04	68.2	75.7	0.28	0.25	28	536					0.58	0.9	0.2		0.8
202	06-13-06															
203	05-20-06	63.2	80.2	0.49	0.13	26.3		604		-1.67	-7.54		1	0.1	1.1	1.1
204	06-13-06															
205	08-01-04	112	150	0.78	0.38	22	907					0.6	3.7	0.1		2.3
205	11-18-04	115	149	0.76	0.41	23	880					0.58	1	0.1		2.3
206	08-01-04	111.5	140.5	0.41	0.35	34	865					0.68	0.8	0.1		1.6
208	09-20-04	98.4	82	0.18	0.18	29	606					0.56	1.3	0.1		1
208	05-20-06	109	82.4	0.21	0.13	30.6		732		-1.62	-6.31		<1	0.1	1.3	1.3
210	05-31-06															
211	07-31-04	48.7	64.5	0.28		28	554					0.69	1.1	0.1		0.9
211	06-08-06															
212	06-08-06															
213	05-15-06	71.4	87.4	0.26	0.1	28.5		600		-1.47	-6.86		<1	0.1	2.6	2.6
214	06-11-06															
216	07-31-04	8.3	17.1	0.17	0.06	15	244					0.54	1.4	0.1		3.1
216	11-07-04	9.2	22.4	0.16	0.06	16	304					0.59	1.5	0.1		3.4
216	06-11-06															
217	11-07-04	8.9	16.1	0.13	0.06	19	283					0.57	0.8	0.1		0.8

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
170	Well 170	11-04-04	0000	Central Kabul	83	0.03	1,380	0.02	5.7	2.41	2.1	3	
170	Well 170	06-18-06	1150	Central Kabul									
171	Well 171	11-22-04	0000	Central Kabul	95	0.03	679	0.02	0.4	0.98	1	3	
172	Well 172	11-20-04	0000	Central Kabul	198	0.03	1,200	0.02	4	4.76	3.5	4	
172	Well 172	05-22-06	1145	Central Kabul	223		1,040	<0.05	1	2.33	1.4		<20
173	Well 173	11-20-04	0000	Central Kabul	57	0.03	1,250	0.02	49	2.54	0.7	4	
173	Well 173	06-18-06	1050	Central Kabul									
174	Well 174	11-20-04	0000	Central Kabul	154	0.03	249	0.02	0.6	0.84	1.6	3	
175	Well 175	11-18-04	0000	Central Kabul	83	0.03	233	0.02	6.1	1.43	0.8	3	
176	Well 176	11-18-04	0000	Central Kabul	97	0.03	1,180	0.08	0.4	0.94	1.9	9	
177	Well 177	11-21-04	0000	Central Kabul	40	0.09	3,070	0.06	19	3.41	8.5	15	
178	Well 178	11-17-04	0000	Central Kabul	140	0.03	1,020	0.02	5	0.62	1.2	3	
180	Spring 180	05-17-06	0945	Central Kabul	52		90	<0.05	<1	0.21	0.8		<20
181	Chari Sib Spring	05-17-06	1135	Logar	104		980	<0.05	<1	0.3	0.7		<20
182	Well 182	06-02-07	1155	Paghman/Upper Kabul	56		100	<0.05	4	0.19	5.7		<20
183	Hootkhel-Nowbahar Pump Station	06-04-07	0905	Central Kabul	66		1,290	<0.05	3	0.17	1.3		<20
184	Well 184	06-06-07	0920	Paghman/Upper Kabul	103		830	<0.05	2	0.14	1.9		<20
185	Well 185	06-16-07	1050	Central Kabul	34		1,910	<0.05	24	0.41	8.3		90
186	Well 186	06-18-07	0940	Central Kabul	40		150	<0.05	5	0.1	1.6		<20
187	Hotuk Pump Station	06-20-07	1030	Logar	88		1,090	<0.05	4	0.12	1.7		<20
201	Well 201	06-13-06	1045	Logar									
202	Well 202	08-01-04	0000	Logar	67	0.03	874	0.06	3.9	0.45	1.9	3.2	
202	Well 202	11-16-04	0000	Logar	68	0.03	935	0.02	0.5	2.48	2.1	3	
202	Well 202	06-13-06	1000	Logar									
203	Well 203	05-20-06	1110	Logar	67		910	<0.05	<1	0.29	1.3		<20
204	Well 204	06-13-06	1020	Logar									
205	Well 205	08-01-04	0000	Logar	41	0.03	2,640	0.02	20	0.25	1.7	16	
205	Well 205	11-18-04	0000	Logar	38	0.03	2,440	0.1	23	0.53	1.8	3	
206	Well 206	08-01-04	0000	Logar	55	0.03	1,850	0.02	1.1	0.16	1.5	37	
208	Well 208	09-20-04	0000	Central Kabul	82	0.03	636	0.02	0.4	0.8	1.2	3.2	
208	Well 208	05-20-06	0930	Central Kabul	89		760	<0.05	<1	0.27	0.8		<20
210	Well 210	05-31-06	0940	Central Kabul									
211	Well 211	07-31-04	0000	Paghman/Upper Kabul	75	0.03	781	0.02	2.2	0.26	1.5	3.5	
211	Well 211	06-08-06	0915	Paghman/Upper Kabul									
212	Well 212	06-08-06	0950	Paghman/Upper Kabul									
213	Well 213	05-15-06	1305	Paghman/Upper Kabul	49		880	<0.05	<1	0.23	2.2		<20
214	Well 214	06-11-06	1245	Paghman/Upper Kabul									
216	Well 216	07-31-04	0000	Paghman/Upper Kabul	21	0.03	59	0.05	2.2	0.33	4.5	14	
216	Well 216	11-07-04	0000	Paghman/Upper Kabul	22	0.03	77	0.02	2.9	0.75	2	8	
216	Well 216	06-11-06	1125	Paghman/Upper Kabul									
217	Well 217	11-07-04	0000	Paghman/Upper Kabul	16	0.03	67	0.02	1.9	0.55	0.7	3	

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
170	11-04-04	0.07	186	3.5	3.5	2.2	2.56	0.5	0.1	1,920	0.02	12	8.18	9.9	FAFU
170	06-18-06														
171	11-22-04	0.06	122	0.6	1.2	1.5	16.7	0.2	0.1	475	0.02	6.73	1.42	2.4	FAFU
172	11-20-04	0.11	194	1.4	1.2	1.7	88.7	0.3	0.1	1,430	0.02	9.17	4.7	12.6	FAFU
172	05-22-06	0.4	179	1		1.6	33.1	2	<0.05	1,580		10.3	3.9	69	CFC,3H,FAFU
173	11-20-04	0.14	86.9	5.2	5.1	2.6	0.36	1.4	0.1	1,200	0.02	14.8	8.95	87	FAFU
173	06-18-06														
174	11-20-04	0.04	21.6	3.9	3.8	1.6	1.16	0.5	0.1	1,340	0.02	11.8	22.4	14.4	FAFU
175	11-18-04	0.04	10.6	4.6	2.7	7	0.4	3.8	0.1	1,080	0.02	7.44	9.8	3.4	FAFU
176	11-18-04	0.04	130	34.4	33.2	2.2	2.31	2.4	0.1	2,070	0.02	10.6	4.79	15	FAFU
177	11-21-04	0.12	514	12.4	13.2	8.7	4.4	24.3	0.3	4,350	0.06	31.5	9.88	7.1	FAFU
178	11-17-04	0.17	128	0.2	0.6	0.8	2.89	1.2	0.1	350	0.02	6.72	6.06	43.1	FAFU
180	05-17-06	0.41	4	2		6.5	0.3	<1	<0.05	516		3.5	14.2	39	CFC,3H,FAFU
181	05-17-06	1.5	129	1		1.7	0.3	1	<0.05	865		6	3.4	5	CFC,3H,FAFU
182	06-02-07	0.1	20	1		1.4	1.3	1	<0.05	617		10.3	3.1	9	CFC,3H,FAFU,DG, NFA
183	06-04-07	0.1	164	108		4.6	4.5	1	<0.05	1,140		4.43	6.9	39	CFC,3H,FAFU,DG, NFA
184	06-06-07	0.2	157	<1		2	13.1	3	<0.05	1,120		14.9	2.7	14	CFC,3H,FAFU,DG, NFA
185	06-16-07	0.45	243	1		4.3	14.5	38	<0.05	12,530		31.8	12.2	159	CFC,3H,FAFU,DG, NFA
186	06-18-07	0.47	21	4		5.8	0.6	3	<0.05	988		5.67	21.9	2030	CFC,3H,FAFU,DG, NFA
187	06-20-07	0.16	287	2		1.9	2.7	4	<0.05	1,080		5.07	3.5	130	CFC,3H,FAFU,DG, NFA
201	06-13-06														
202	08-01-04	0.18	163	0.5	0.9	2	5.33	1.2	0.1	885	0.02	3.83	1.25	15.9	FAFU
202	11-16-04	0.09	164	3.5	3.6	2.1	5.93	1.3	0.1	897	0.02	4.6	1.16	10.4	FAFU
202	06-13-06														
203	05-20-06	1.4	154	<1		2.2	5.3	2	<0.05	866		5.2	1.1	5	CFC,3H,FAFU
204	06-13-06														
205	08-01-04	0.15	266	2.7	3.5	5.6	1.68	3	0.1	2,260	0.02	12.7	3.29	2.5	FAFU
205	11-18-04	0.13	238	1.8	1.4	5.6	0.47	3.7	0.1	2,160	0.02	14.6	3.62	33.8	FAFU
206	08-01-04	0.11	196	0.5	1	2.1	5.18	2.6	0.1	1,500	0.02	16.5	2	2.3	FAFU
208	09-20-04	0.04	126	1.1	0.9	1.1	14.2	1.2	0.1	844	0.02	7.21	1.17	1.9	FAFU
208	05-20-06	0.07	104	<1		3.5	14.4	2	<0.05	873		8.5	0.8	4	CFC,3H,FAFU
210	05-31-06														
211	07-31-04	0.14	95.8	0.2	0.5	1.3	12.4	1.5	0.1	866	0.02	6.65	1.56	37.7	FAFU
211	06-08-06														
212	06-08-06														
213	05-15-06	1.3	101	3		2.8	10.9	2	<0.05	719		5.4	0.5	10	CFC,3H,FAFU
214	06-11-06														
216	07-31-04	1.45	6.1	0.4	0.7	1.3	1.32	0.4	0.1	341	0.02	3.8	2.57	273	FAFU
216	11-07-04	0.47	7.9	0.9	0.9	1.2	0.59	0.7	0.1	410	0.02	6.78	2.39	82.1	FAFU
216	06-11-06														
217	11-07-04	0.04	6.1	0.6	0.7	0.8	0.67	0.5	0.1	351	0.02	3.8	1.94	3.1	FAFU

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
217	Well 217	06-11-06	1100	Paghman/Upper Kabul	36.13	17.1	505	0.22	7.93		0	1-2	2
218	Well 218	06-20-06	1030	Central Kabul	21.72	20.1	668	0.28	8.06		0	2-5	1
219	Well 219	08-02-04	0000	Central Kabul	39.66	18.5				8	0	2-5	
219	Well 219	11-21-04	0000	Central Kabul	40.06	18.3	796		7.84	9	0	2-5	1
219	Well 219	06-20-06	1000	Central Kabul	35.93	19.1	708	0.32	8.08			2-5	7.5
220	Well 220	08-02-04	0000	Central Kabul	24.79	20.6				6.4	0	5-10	
220	Well 220	11-21-04	0000	Central Kabul	34.3	19.7	1,198		7.82	7.6	0	2-5	1
220	Well 220	06-20-06	1100	Central Kabul	23.83	20.8	1,180	0.56	7.93		0	1-2	1
221	Well 221	12-05-06	1120	Logar	5.11	13	1,145	0.45	8.21		0	1.5	
221	Well 221	02-19-07	1120	Logar	5.25	13.8	1,003	0.45	8.14		0	1-2	13.5
222	Afshar 6B	12-10-06	1220	Paghman/Upper Kabul	13.98	12.7	638	0.27	8.15		0	1-2	
223	US Embassy CAFE well	02-22-07	1400	Central Kabul		16.3	857		5.88				1
301	Istalef River at Istalef	12-04-06	1310	Shomali		5.3	196	0.08	8.45		0	0-1	
301	Istalef River at Istalef	12-18-06	0945	Shomali		4.4	175	0.06	8.56		0	0-1	
301	Istalef River at Istalef	01-02-07	1220	Shomali		4.6	156	0.04	8.43		0	0-1	
301	Istalef River at Istalef	01-16-07	1050	Shomali		4.2	136	0.04	8.51		0	0-1	
301	Istalef River at Istalef	01-30-07	1040	Shomali		7.5	190	0.07	8.48		0	0-1	
301	Istalef River at Istalef	02-13-07	1145	Shomali		7.6	158	0.05	8.49		0	0-1	
301	Istalef River at Istalef	02-27-07	1100	Shomali		6.9	146	0.05	8.59		0	0-1	
301	Istalef River at Istalef	03-13-07	1045	Shomali		6	139	0.05	8.68		0	0-1	
301	Istalef River at Istalef	03-27-07	1000	Shomali		11	105.7	0.04	8.44		0	1-2	
301	Istalef River at Istalef	04-10-07	0845	Shomali		9.4	92	0.03	8.52		0	0-1	
301	Istalef River at Istalef	04-24-07	1055	Shomali		12.5	77.8	0.02	8.57		0	0-1	
301	Istalef River at Istalef	06-14-07	0920	Shomali		14.7	103		8.75				
301	Istalef River at Istalef	07-15-07	1105	Shomali		17.8	140	0.05	8.48				
302	Panjshir River at Sayad	12-09-06	1155	Shomali		9.5	401	0.19	8.5		0	0-1	649
302	Panjshir River at Sayad	12-26-06	1210	Shomali		11.4	427	0.2	8.44		0	0-1	
302	Panjshir River at Sayad	01-09-07	1115	Shomali		9.1	424	0.2	8.4		0	0-1	
302	Panjshir River at Sayad	01-23-07	1125	Shomali		9.4	442	0.2	8.52		0	0-1	
302	Panjshir River at Sayad	02-06-07	1130	Shomali		12.5	448	0.19	8.44		0	0-1	
302	Panjshir River at Sayad	02-20-07	1140	Shomali		10.5	343	0.2	8.37		0	0-1	435
302	Panjshir River at Sayad	03-06-07	1100	Shomali		12.7	474	0.2	8.37		0	0-1	
302	Panjshir River at Sayad	03-20-07	0945	Shomali		8.9	262	0.09	8.51		0	0-1	
302	Panjshir River at Sayad	04-03-07	1210	Shomali		11.2	232.4	0.09	8.17		0	0-1	
302	Panjshir River at Sayad	04-17-07	0855	Shomali		12.3	275	0.11	8.65		0	0-1	
302	Panjshir River at Sayad	06-19-07	1030	Shomali		14.8	261		8.52				
303	Barik Ab River	12-26-06	1030	Shomali		2.3	541	0.31	8.56		0	0-1	
303	Barik Ab River	01-09-07	1015	Shomali		0.6	393	0.31	8.5		0	0-1	
303	Barik Ab River	01-23-07	1240	Shomali		0.7	508	0.36	8.48		0	0-1	
303	Barik Ab River	02-20-07	1020	Shomali		11.1	1497	0.73	8.19		0	0-1	>2,420
303	Barik Ab River	03-06-07	1000	Shomali		7.5	795	0.36	8.52		0	0-1	

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2-NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
217	06-11-06	1													
218	06-20-06	1													
219	08-02-04		7.6	740	0.02	0.004	6.98			6.99	0.003	55	32.5	271.2	61.3
219	11-21-04	1				0.02	7.04	7	31			56	50.2	346.6	79.1
219	06-20-06	1						5.56	24.6			47.5	25	221.6	47.6
220	08-02-04		7.8	1140	0.02	0.004	10.3			9.75	0.003	81	61.4	455.1	81.4
220	11-21-04	1				0.004	9.89					74	56.4	417.1	76
220	06-20-06														
221	12-05-06		8.1	1110										397.6	
221	02-19-07	1													
222	12-10-06		7.8	624										287.2	
223	02-22-07	1						5.42	24			54.7	52.6		48.4
301	12-04-06	>2,420													
301	12-18-06														
301	01-02-07														
301	01-16-07														
301	01-30-07														
301	02-13-07							1.27	5.6			21.3	2.83		4.19
301	02-27-07							1.26	5.59			20.5	2.63		3.95
301	03-13-07							1.68	7.42			20	2.57		3.89
301	03-27-07							1.87	8.26			16.9	2.26		3.45
301	04-10-07							1.36	6			12.4	1.6		2.31
301	04-24-07							1.24	5.5			10.6	1.44		2.02
301	06-14-07							0.49	2.16			15.1	2.04		2.96
301	07-15-07														
302	12-09-06	70													
302	12-26-06														
302	01-09-07														
302	01-23-07														
302	02-06-07							1.04	4.59			50.6	12.5		20
302	02-20-07	98.5						1.10	4.89			53.2	13.8		22.8
302	03-06-07							1.03	4.55			51.9	14.1		22.3
302	03-20-07							1.35	5.99			33	6.82		8.94
302	04-03-07							1.34	5.95			29.5	5.45		6.64
302	04-17-07							1.20	5.32			32	8.09		9.14
302	06-19-07							0.71	3.14			29.3	7.37		10.4
303	12-26-06														
303	01-09-07														
303	01-23-07	>2,420						5.87	26			88.6	70.8		
303	02-20-07							1.70	7.51			58.3	31.9		132
303	03-06-07														62.5

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
217	Well 217	06-11-06	1100	Paghman/Upper Kabul									
218	Well 218	06-20-06	1030	Central Kabul									
219	Well 219	08-02-04	0000	Central Kabul	1.62	2.9	150		182.9	150	8.27	7.58	2.18
219	Well 219	11-21-04	0000	Central Kabul	1.85	4	151		184.1	151	10.65	7.55	8.51
219	Well 219	06-20-06	1000	Central Kabul	1.39	2.8		184.7	184.7	151	6.66	6.11	2.14
220	Well 220	08-02-04	0000	Central Kabul	1.66	5.2	133		162.2	133	12.98	12.06	1.84
220	Well 220	11-21-04	0000	Central Kabul	1.62	5.2	133		162.2	133	11.97	11.40	1.22
220	Well 220	06-20-06	1100	Central Kabul									
221	Well 221	12-05-06	1120	Logar	1.73		385		469.4	385			
221	Well 221	02-19-07	1120	Logar									
222	Afshar 6B	12-10-06	1220	Paghman/Upper Kabul	0.51		259		315.8	259			
223	US Embassy CAFE well	02-22-07	1400	Central Kabul		6		382.1	382.1	313	9.50	9.21	0.77
301	Istalef River at Istalef	12-04-06	1310	Shomali									
301	Istalef River at Istalef	12-18-06	0945	Shomali									
301	Istalef River at Istalef	01-02-07	1220	Shomali									
301	Istalef River at Istalef	01-16-07	1050	Shomali									
301	Istalef River at Istalef	01-30-07	1040	Shomali									
301	Istalef River at Istalef	02-13-07	1145	Shomali		2.3		79.9	79.9	66	1.55	1.47	1.25
301	Istalef River at Istalef	02-27-07	1100	Shomali		2.2		76.5	76.5	63	1.48	1.41	1.19
301	Istalef River at Istalef	03-13-07	1045	Shomali		2.1		73.1	73.1	60	1.44	1.36	1.52
301	Istalef River at Istalef	03-27-07	1000	Shomali		2		60.6	60.6	50	1.24	1.14	1.97
301	Istalef River at Istalef	04-10-07	0845	Shomali		1.6		45.9	45.9	38	0.90	0.85	1.28
301	Istalef River at Istalef	04-24-07	1055	Shomali		1.6		39.5	39.5	32	0.78	0.73	1.67
301	Istalef River at Istalef	06-14-07	0920	Shomali		2.2		60.5	60.5	50	1.11	1.08	0.81
301	Istalef River at Istalef	07-15-07	1105	Shomali									
302	Panjshir River at Sayad	12-09-06	1155	Shomali									
302	Panjshir River at Sayad	12-26-06	1210	Shomali									
302	Panjshir River at Sayad	01-09-07	1115	Shomali									
302	Panjshir River at Sayad	01-23-07	1125	Shomali									
302	Panjshir River at Sayad	02-06-07	1130	Shomali		5.3		189.5	189.5	155	4.60	4.65	-0.24
302	Panjshir River at Sayad	02-20-07	1140	Shomali		5.7		197.6	197.6	162	4.98	4.96	0.11
302	Panjshir River at Sayad	03-06-07	1100	Shomali		5.7		176.0	176.0	144	4.92	4.57	1.85
302	Panjshir River at Sayad	03-20-07	0945	Shomali		3.5		113.0	113.0	93	2.71	2.67	0.35
302	Panjshir River at Sayad	04-03-07	1210	Shomali		3.3		100.0	100.0	82	2.31	2.32	-0.02
302	Panjshir River at Sayad	04-17-07	0855	Shomali		3.6		124.7	124.7	102	2.78	2.80	-0.13
302	Panjshir River at Sayad	06-19-07	1030	Shomali		3.3		112.6	112.6	92	2.63	2.70	-0.68
303	Barik Ab River	12-26-06	1030	Shomali									
303	Barik Ab River	01-09-07	1015	Shomali									
303	Barik Ab River	01-23-07	1240	Shomali									
303	Barik Ab River	02-20-07	1020	Shomali		8		439.8	439.8	361	16.44	15.41	1.62
303	Barik Ab River	03-06-07	1000	Shomali		5.4		211.0	211.0	173	8.50	8.56	-0.17

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
217	06-11-06															
218	06-20-06															
219	08-02-04	68	128	0.48	0.3	39	524						21.4	0.1		1.9
219	11-21-04	66.8	127	0.44	0.31	41	516	546	0.95	2.42	13.09	0.65	3.8	0.1		2
219	06-20-06	36.8	98.2	0.48	0.16	41.1		435		-0.61	-4.41		2	0.1	1.6	1.6
220	08-02-04	1,21.5	287	0.55	0.48	42	844						0.8	0.1		3.3
220	11-21-04	109	272	0.52	0.44	45	788					0.66	2.1	0.1		3.1
220	06-20-06															
221	12-05-06						635					0.55				0.9
221	02-19-07															
222	12-10-06						362					0.57				3.8
223	02-22-07	68.2	49.2	0.2	0.08	25.7							19	<0.1	1.4	1.4
301	12-04-06															
301	12-18-06															
301	01-02-07															
301	01-16-07															
301	01-30-07															
301	02-13-07	2.47	4.4	<0.05	<0.05	11.0							6	<0.1	0.6	0.6
301	02-27-07	1.92	4.8	0.07	<0.05	11.9							113	0.11	0.5	0.5
301	03-13-07	1.89	5.03	0.06	<0.05	12.3							140	<0.1	0.4	0.4
301	03-27-07	1.81	4.81	0.06	<0.05	11.7							53	<0.1	0.5	0.5
301	04-10-07	0.99	3.47	<0.05	<0.05	10.5							35	<0.1	0.4	0.4
301	04-24-07	0.82	2.89	<0.05	<0.05	9.3							12	<0.1	0.3	0.3
301	06-14-07	1.07	2.7	<0.05	<0.05	10.4							10	<0.1	0.4	0.4
301	07-15-07															
302	12-09-06															
302	12-26-06															
302	01-09-07															
302	01-23-07															
302	02-06-07	33.7	28.3	0.05	<0.05	7.9							26	0.2	1.2	1.2
302	02-20-07	37.5	31.6	0.06	<0.05	8.0							2	0.2	1.1	1.1
302	03-06-07	35.4	32.7	0.08	0.05	8.0							21	0.2	1	1
302	03-20-07	15.2	18.8	0.09	<0.05	8.0							28	0.2	1.8	1.8
302	04-03-07	11.4	17	0.08	<0.05	8.3							33	0.2	1.6	1.6
302	04-17-07	11.7	20.2	0.1	<0.05	7.8							29	0.2	1	1
302	06-19-07	14.1	22.1	0.06	<0.05	5.9							14	0.1	0.9	0.9
303	12-26-06															
303	01-09-07															
303	01-23-07															
303	02-20-07	149	192	0.3	<0.05	26.7							1,870	0.2	2.8	2.8
303	03-06-07	89.3	124	0.15	0.18	8.2							5	0.2	1.7	1.7

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
217	Well 217	06-11-06	1100	Paghman/Upper Kabul									
218	Well 218	06-20-06	1030	Central Kabul									
219	Well 219	08-02-04	0000	Central Kabul	35	0.03	143	0.09	5.2	0.26	1.6	8.1	
219	Well 219	11-21-04	0000	Central Kabul	34	0.03	276	0.02	5.3	0.33	1.4	5	
219	Well 219	06-20-06	1000	Central Kabul	31		120	<0.05	4	0.27	1		<20
220	Well 220	08-02-04	0000	Central Kabul	43	0.03	231	0.02	3.9	0.44	2.8	13.1	
220	Well 220	11-21-04	0000	Central Kabul	40	0.03	232	0.02	4.4	2.91	1.6	4	
220	Well 220	06-20-06	1100	Central Kabul									
221	Well 221	12-05-06	1120	Logar		0.06							
221	Well 221	02-19-07	1120	Logar									
222	Afshar 6B	12-10-06	1220	Paghman/UpperKabul		0.06							
223	US Embassy CAFE well	02-22-07	1400	Central Kabul	89		690	<0.05	13	0.15	0.8		20
301	Istalef River at Istalef	12-04-06	1310	Shomali									
301	Istalef River at Istalef	12-18-06	0945	Shomali									
301	Istalef River at Istalef	01-02-07	1220	Shomali									
301	Istalef River at Istalef	01-16-07	1050	Shomali									
301	Istalef River at Istalef	01-30-07	1040	Shomali									
301	Istalef River at Istalef	02-13-07	1145	Shomali	19		30	<0.05	<1	0.42	0.2		<20
301	Istalef River at Istalef	02-27-07	1100	Shomali	20		<20	<0.05	<1	1.77	0.5		120
301	Istalef River at Istalef	03-13-07	1045	Shomali	18		<20	<0.05	<1	0.35	0.3		120
301	Istalef River at Istalef	03-27-07	1000	Shomali	14		<20	<0.05	<1	0.26	0.3		30
301	Istalef River at Istalef	04-10-07	0845	Shomali	10		<20	<0.05	<1	0.26	0.2		20
301	Istalef River at Istalef	04-24-07	1055	Shomali	8		<20	<0.05	<1	<0.05	0.3		<20
301	Istalef River at Istalef	06-14-07	0920	Shomali	14		<20	<0.05	<1	<0.05	1		<20
301	Istalef River at Istalef	07-15-07	1105	Shomali									
302	Panjshir River at Sayad	12-09-06	1155	Shomali									
302	Panjshir River at Sayad	12-26-06	1210	Shomali									
302	Panjshir River at Sayad	01-09-07	1115	Shomali									
302	Panjshir River at Sayad	01-23-07	1125	Shomali									
302	Panjshir River at Sayad	02-06-07	1130	Shomali	41		320	<0.05	<1	0.17	0.5		40
302	Panjshir River at Sayad	02-20-07	1140	Shomali	44		380	<0.05	<1	0.24	0.1		<20
302	Panjshir River at Sayad	03-06-07	1100	Shomali	40		400	<0.05	<1	0.46	0.1		<20
302	Panjshir River at Sayad	03-20-07	0945	Shomali	25		60	<0.05	<1	0.44	0.2		<20
302	Panjshir River at Sayad	04-03-07	1210	Shomali	23		40	<0.05	<1	0.33	0.3		<20
302	Panjshir River at Sayad	04-17-07	0855	Shomali	20		160	<0.05	<1	0.09	<0.1		<20
302	Panjshir River at Sayad	06-19-07	1030	Shomali	22		200	<0.05	<1	0.06	0.7		<20
303	Barik Ab River	12-26-06	1030	Shomali									
303	Barik Ab River	01-09-07	1015	Shomali									
303	Barik Ab River	01-23-07	1240	Shomali									
303	Barik Ab River	02-20-07	1020	Shomali	110		1,110	<0.05	6	1.72	4.6		2,280
303	Barik Ab River	03-06-07	1000	Shomali	58		490	<0.05	1	0.41	0.8		<20

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
217	06-11-06														
218	06-20-06														
219	08-02-04	0.11	14.6	0.6	0.7	3.7	0.93	2.6	0.1	1,160	0.02	4.85	17	16.1	FAFU
219	11-21-04	0.06	34.4	1.1	1	3.9	2.08	3.8	0.1	1,280	0.02	6.58	16.4	11.4	FAFU
219	06-20-06	0.12	13	2		3.9	0.5	3	<0.05	882		4.9	15	50	CFC,3H,FAFU
220	08-02-04	0.16	22	0.5	0.8	3.8	1.45	4	0.1	2,280	0.02	7.28	18.3	58.5	FAFU
220	11-21-04	0.04	21.1	3.8	4.2	3.7	2.08	4	0.1	2,010	0.02	8.05	18.4	7.7	FAFU
220	06-20-06														
221	12-05-06								0.1		0.04				3H,FAFU
221	02-19-07														CFC,DG
222	12-10-06								0.1		0.04				3H,FAFU
223	02-22-07	0.37	107	<1		1.3	7.8	<1	<0.05	779		5.84	3.4	42	3H,FAFU,CFC,DG
301	12-04-06														
301	12-18-06														
301	01-02-07														
301	01-16-07														
301	01-30-07														
301	02-13-07	<0.05	6	15		0.8	0.6	<1	<0.05	97		0.66	3	3	CFC,3H,FAFU
301	02-27-07	0.39	21	18		0.7	0.9	<1	<0.05	86		0.57	3.9	4	FAFU
301	03-13-07	0.1	20	13		0.6	0.6	<1	<0.05	82		0.57	3.5	<1	3H,FAFU
301	03-27-07	<0.05	17	6		0.6	0.8	<1	<0.05	66		0.5	3.7	<1	FAFU
301	04-10-07	0.06	12	4		0.5	0.4	<1	<0.05	480		0.33	3.3	9	3H,FAFU
301	04-24-07	0.08	11	2		0.4	0.6	<1	<0.05	38		0.24	2.5	1	FAFU, NFA
301	06-14-07	0.07	8	1		0.6	0.2	<1	<0.05	66		0.44	3.8	4	CFC,FAFU, NFA
301	07-15-07														CFC,FAFU
302	12-09-06														
302	12-26-06														
302	01-09-07														
302	01-23-07														
302	02-06-07	0.24	67	4		0.6	1.2	<1	<0.05	305		2.27	0.5	3	CFC,3H,FAFU
302	02-20-07	<0.05	78	4		0.7	1.2	<1	<0.05	328		2.37	0.5	3	FAFU
302	03-06-07	0.29	52	4		0.6	1.1	<1	<0.05	300		1.94	0.4	1	3H,FAFU
302	03-20-07	<0.05	33	5		0.9	1	<1	<0.05	149		1.59	0.8	<1	FAFU
302	04-03-07	<0.05	30	6		1.1	1	<1	<0.05	126		1.42	0.7	<1	3H,FAFU
302	04-17-07	<0.05	32	9		0.8	1	<1	<0.05	138		0.83	0.6	<1	FAFU
302	06-19-07	<0.05	47	2		0.8	0.5	<1	<0.05	153		0.91	1.3	4	CFC,FAFU, NFA
303	12-26-06														
303	01-09-07														
303	01-23-07														
303	02-20-07	1.67	109	64		3	6.2	3	<0.05	1920		17.5	10.9	8	CFC,3H,FAFU
303	03-06-07	<0.05	58	8		2	1.7	2	<0.05	783		6.96	2.6	2	FAFU

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
303	Barik Ab River	03-20-07	0830	Shomali		9.4	496	0.24	8.59		0	0-1	
303	Barik Ab River	04-03-07	1055	Shomali		9.2	114.3	0.08	8.54		0	1-2	
303	Barik Ab River	04-17-07	1000	Shomali		14.8	198	0.07	8.48		0	0-1	
303	Barik Ab River	05-20-07	0000	Shomali									
321	Logar River	12-05-06	1010	Logar		4.9	745	0.32	8.68		0	1-2	
321	Logar River	12-19-06	1040	Logar		4.1	746	0.29	8.75		0	1-2	
321	Logar River	01-06-07	0950	Logar		0.5	412.1	0.28	8.77		0-0.15	0-1	
321	Logar River	01-21-07	1050	Logar		0.7	412.7	0.32	8.63		0	0	
321	Logar River	02-07-07	1100	Logar		7.8	595	0.32	8.68		0	1-2	
321	Logar River	02-21-07	1055	Logar		6.2	754	0.13	8.77		0	1-2	1,120
321	Logar River	03-07-07	1000	Logar		9.1	704	0.33	8.78		0	0-1	
321	Logar River	03-19-07	0955	Logar		9.6	661	0.31	8.75		0	1-2	
321	Logar River	04-04-07	0955	Logar		11.2	510	0.25	8.64		0	0-1	
321	Logar River	04-18-07	1010	Logar		16.4	513	0.24	8.75		0	1-2	
321	Logar River	06-20-07	1110	Logar		22.2	1,215		8.64				
322	Kabul River at Tang-i-gharu	12-05-06	1320	Central Kabul		6.2	929	0.38	8.72		0.15-0.3	1-2	
322	Kabul River at Tang-i-gharu	12-25-06	1335	Central Kabul									
322	Kabul River at Tang-i-gharu	01-06-07	1225	Central Kabul		0.8	434.4	0.33	8.77		0-0.15	0-1	
322	Kabul River at Tang-i-gharu	01-21-07	1340	Central Kabul		4.2	748	0.31	8.86		0	0-1	
322	Kabul River at Tang-i-gharu	02-07-07	1300	Central Kabul		10	782	0.34	8.82		0	1-2	
322	Kabul River at Tang-i-gharu	02-21-07	1340	Central Kabul		7.8	742	0.21	8.89		0	1-2	>2,420
322	Kabul River at Tang-i-gharu	03-07-07	1000	Central Kabul		10.9	701	0.31	8.78		0	0-1	
322	Kabul River at Tang-i-gharu	03-19-07	1105	Central Kabul		8.8	510	0.23	8.68		0	1-2	
322	Kabul River at Tang-i-gharu	04-04-07	1200	Central Kabul		11.8	426	0.19	8.59		0	1-2	
322	Kabul River at Tang-i-gharu	04-18-07	1235	Central Kabul		16.9	365.5	0.17	8.64		0	1-2	
322	Kabul River at Tang-i-gharu	06-04-07	1115	Central Kabul		22.6	831		8.95				
322	Kabul River at Tang-i-gharu	07-04-07	0955	Central Kabul		22.9	810		8.76				
323	Paghman River at Paghman	12-10-06	1300	Paghman/Upper Kabul		8.5	142	0.05	9.03		0	0-1	
323	Paghman River at Paghman	12-25-06	1205	Paghman/Upper Kabul		3.7	126.3	0.04	9.02		0	1-2	
323	Paghman River at Paghman	01-10-07	1220	Paghman/Upper Kabul		4.6	127.8	0.04	8.92		0-0.15	0-1	

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2- NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
303	03-20-07							2.37	10.5			43.4	18.7		
303	04-03-07							2.00	8.85			22.8	6.1		32.6
303	04-17-07							1.36	6.04			20.5	5.6		8.95
303	05-20-07														8.67
321	12-05-06														
321	12-19-06														
321	01-06-07														
321	01-21-07							1.71	7.56			54.3	42.9		
321	02-07-07	162						1.87	8.3			55.6	41.6		42.1
321	02-21-07							1.71	7.59			54.2	38.8		44.8
321	03-07-07							2.39	10.6			50.2	23		42.6
321	03-19-07							3.37	14.9			50.1	21.7		23.1
321	04-04-07							2.37	10.5			49.1	22.7		23.7
321	04-18-07							1.36	6			48.3	71.8		22.6
321	06-20-07														97.2
322	12-05-06														
322	12-25-06														
322	01-06-07														
322	01-21-07														
322	02-07-07							2.33	10.3			56.1	43.5		47.1
322	02-21-07	>2,420						3.05	13.5			57.1	39.7		43.1
322	03-07-07							2.94	13			55.8	33.5		37.8
322	03-19-07							2.51	11.1			39.1	12.6		11.8
322	04-04-07							3.77	16.7			46.8	18.1		17.7
322	04-18-07							2.39	10.6			39.9	13.7		12.6
322	06-04-07							3.89	17.2			60.5	32.2		59.7
322	07-04-07							2.94	13			60.6	39.6		46.3
323	12-10-06														
323	12-25-06														
323	01-10-07														

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
303	Barik Ab River	03-20-07	0830	Shomali					0.0				
303	Barik Ab River	04-03-07	1055	Shomali		4.4		173.4	173.4	142	5.30	5.21	0.43
303	Barik Ab River	04-17-07	1000	Shomali		2.8		90.3	90.3	74	2.12	2.04	0.96
303	Barik Ab River	05-20-07	0000	Shomali		2.5		78.5	78.5	64	1.94	1.90	0.60
321	Logar River	12-05-06	1010	Logar									
321	Logar River	12-19-06	1040	Logar									
321	Logar River	01-06-07	0950	Logar									
321	Logar River	01-21-07	1050	Logar									
321	Logar River	02-07-07	1100	Logar		3.8		348.4	348.4	286	8.32	7.88	1.35
321	Logar River	02-21-07	1055	Logar		3.8		359.7	359.7	295	8.39	8.37	0.07
321	Logar River	03-07-07	1000	Logar		3.6		327.7	327.7	269	7.98	7.51	1.50
321	Logar River	03-19-07	0955	Logar		3		260.4	260.4	214	5.56	5.46	0.44
321	Logar River	04-04-07	0955	Logar		4		243.4	243.4	200	5.50	5.29	0.96
321	Logar River	04-18-07	1010	Logar		2.8		260.4	260.4	214	5.45	5.45	0.00
321	Logar River	06-20-07	1110	Logar		6.5		470.9	470.9	386	12.97	13.12	-0.30
322	Kabul River at Tang-i-gharu	12-05-06	1320	Central Kabul									
322	Kabul River at Tang-i-gharu	12-25-06	1335	Central Kabul									
322	Kabul River at Tang-i-gharu	01-06-07	1225	Central Kabul									
322	Kabul River at Tang-i-gharu	01-21-07	1340	Central Kabul									
322	Kabul River at Tang-i-gharu	02-07-07	1300	Central Kabul		4.4		359.0	359.0	294	8.69	8.49	0.59
322	Kabul River at Tang-i-gharu	02-21-07	1340	Central Kabul		4.4		348.6	348.6	286	8.24	8.13	0.34
322	Kabul River at Tang-i-gharu	03-07-07	1000	Central Kabul		4		329.3	329.3	270	7.41	7.50	-0.31
322	Kabul River at Tang-i-gharu	03-19-07	1105	Central Kabul		2.3		170.9	170.9	140	3.60	3.50	0.75
322	Kabul River at Tang-i-gharu	04-04-07	1200	Central Kabul		3.7		202.7	202.7	166	4.75	4.39	1.99
322	Kabul River at Tang-i-gharu	04-18-07	1235	Central Kabul		2.3		181.7	181.7	149	3.77	3.74	0.20
322	Kabul River at Tang-i-gharu	06-04-07	1115	Central Kabul		6.7		279.6	279.6	229	8.55	8.43	0.35
322	Kabul River at Tang-i-gharu	07-04-07	0955	Central Kabul		5.6		357.3	357.3	293	8.58	8.49	0.26
323	Paghman River at Paghman	12-10-06	1300	Paghman/Upper Kabul									
323	Paghman River at Paghman	12-25-06	1205	Paghman/Upper Kabul									
323	Paghman River at Paghman	01-10-07	1220	Paghman/Upper Kabul									

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
303	03-20-07															
303	04-03-07	35.9	65.1	0.2	0.09	11.8							34	0.3	2.4	2.4
303	04-17-07	8.46	15.5	0.1	<0.05	11.7							102	<0.1	1.6	1.6
303	05-20-07	9.79	16.1	0.07	<0.05	9.0							19	<0.1	1.2	1.2
321	12-05-06															
321	12-19-06															
321	01-06-07															
321	01-21-07															
321	02-07-07	39.3	51	0.3	0.07	15.9							14	0.2	2.4	2.4
321	02-21-07	42.3	61.3	0.32	0.08	15.9							49	0.2	2.7	2.7
321	03-07-07	37.8	51.6	0.29	0.09	15.7							129	0.2	2.4	2.4
321	03-19-07	18.7	32	0.23	<0.05	12.7							25	0.2	2.7	2.7
321	04-04-07	19.1	36.5	0.23	0.05	13.8							380	0.4	3.5	3.5
321	04-18-07	18.5	31.8	0.23	<0.05	12.6							13	0.2	3	3
321	06-20-07	108	113	0.36	0.19	21.6							20	0.2	4.4	4.4
322	12-05-06															
322	12-25-06															
322	01-06-07															
322	01-21-07															
322	02-07-07	46.2	62.5	0.31	0.06	16.4							6	0.2	3.2	3.2
322	02-21-07	43	57.8	0.28	0.09	15.8							81	0.2	3.1	3.1
322	03-07-07	36.8	51	0.25	0.08	14.4							7	0.3	3.5	3.5
322	03-19-07	10.5	19.2	0.13	<0.05	10.7							23	0.2	2.8	2.8
322	04-04-07	15.8	29.8	0.19	<0.05	17.8							1,260	0.2	2.3	2.3
322	04-18-07	11.3	21.4	0.15	<0.05	10.7							11	0.1	2.2	2.2
322	06-04-07	70	89.9	0.2	0.15	9.1							20	0.3	8.3	8.3
322	07-04-07	46.7	63.2	0.23	0.11	19.2							10	0.2	5.5	5.5
323	12-10-06															
323	12-25-06															
323	01-10-07															

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
303	Barik Ab River	03-20-07	0830	Shomali									
303	Barik Ab River	04-03-07	1055	Shomali	43		330	<0.05	<1	1.02	0.5		<20
303	Barik Ab River	04-17-07	1000	Shomali	22		80	<0.05	<1	0.26	0.3		30
303	Barik Ab River	05-20-07	0000	Shomali	19		80	<0.05	<1	0.08	0.6		<20
321	Logar River	12-05-06	1010	Logar									
321	Logar River	12-19-06	1040	Logar									
321	Logar River	01-06-07	0950	Logar									
321	Logar River	01-21-07	1050	Logar									
321	Logar River	02-07-07	1100	Logar	51		690	<0.05	2	1.11	0.5		<20
321	Logar River	02-21-07	1055	Logar	51		710	<0.05	3	0.97	0.6		<20
321	Logar River	03-07-07	1000	Logar	50		640	<0.05	2	1.85	1		150
321	Logar River	03-19-07	0955	Logar	32		380	<0.05	<1	1.82	1		20
321	Logar River	04-04-07	0955	Logar	53		590	<0.05	2	2.38	2.2		440
321	Logar River	04-18-07	1010	Logar	34		420	<0.05	<1	0.19	1.2		<20
321	Logar River	06-20-07	1110	Logar	58		1,290	<0.05	4	0.39	2.1		60
322	Kabul River at Tang-i-gharu	12-05-06	1320	Central Kabul									
322	Kabul River at Tang-i-gharu	12-25-06	1335	Central Kabul									
322	Kabul River at Tang-i-gharu	01-06-07	1225	Central Kabul									
322	Kabul River at Tang-i-gharu	01-21-07	1340	Central Kabul									
322	Kabul River at Tang-i-gharu	02-07-07	1300	Central Kabul	52		730	<0.05	2	0.76	0.8		<20
322	Kabul River at Tang-i-gharu	02-21-07	1340	Central Kabul	51		660	<0.05	2	1.55	1		<20
322	Kabul River at Tang-i-gharu	03-07-07	1000	Central Kabul	47		670	<0.05	1	1.7	1.2		<20
322	Kabul River at Tang-i-gharu	03-19-07	1105	Central Kabul	15		200	<0.05	<1	0.79	0.6		<20
322	Kabul River at Tang-i-gharu	04-04-07	1200	Central Kabul	30		240	<0.05	3	1.74	2.4		1,690
322	Kabul River at Tang-i-gharu	04-18-07	1235	Central Kabul	14		180	<0.05	<1	0.13	0.6		<20
322	Kabul River at Tang-i-gharu	06-04-07	1115	Central Kabul	48		570	<0.05	3	0.82	4.3		<20
322	Kabul River at Tang-i-gharu	07-04-07	0955	Central Kabul	57		700	<0.05	2	0.81	1.7		<20
323	Paghman River at Paghman	12-10-06	1300	Paghman/Upper Kabul									
323	Paghman River at Paghman	12-25-06	1205	Paghman/Upper Kabul									
323	Paghman River at Paghman	01-10-07	1220	Paghman/Upper Kabul									

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
303	03-20-07														
303	04-03-07	<0.05	43	24		2.8	2.3	1	<0.05	578		4.78	5.3	<1	FAFU
303	04-17-07	0.07	23	14		1.2	0.9	<1	<0.05	177		1.7	5.3	<1	FAFU
303	05-20-07	0.21	21	10		0.9	0.7	<1	<0.05	145		1.4	4.2	<1	FAFU
321	12-05-06														
321	12-19-06														
321	01-06-07														
321	01-21-07														
321	02-07-07	<0.05	143	13		2.7	2.8	1	<0.05	667		4.37	2.6	2	CFC,3H,FAFU
321	02-21-07	0.07	142	11		3.4	3.3	3	<0.05	707		5.33	2.5	2	FAFU
321	03-07-07	0.14	134	13		2.8	3.8	2	0.07	623		4.01	2.6	2	3H,FAFU
321	03-19-07	<0.05	69	7		2.2	2.9	2	<0.05	353		2.41	2.3	2	FAFU
321	04-04-07	0.57	107	37		3.5	7.6	1	<0.05	345		4.34	4.9	4	3H,FAFU
321	04-18-07	<0.05	74	3		2.4	4.1	<1	<0.05	347		2.62	2.5	1	FAFU
321	06-20-07	0.26	224	44		3.7	4.3	2	<0.05	1,460		8.78	4.7	9	CFC,FAFU, NFA
322	12-05-06														
322	12-25-06														
322	01-06-07														
322	01-21-07														
322	02-07-07	<0.05	136	16		3.3	3.3	2	<0.05	715		5.07	2.9	1	CFC,3H,FAFU
322	02-21-07	0.14	124	25		2.8	4.1	2	<0.05	652		4.64	3.1	2	FAFU
322	03-07-07	<0.05	117	28		2.6	4.6	<1	<0.05	543		3.79	3.1	4	3H,FAFU
322	03-19-07	<0.05	32	13		1.3	2.2	<1	<0.05	202		1.4	1.8	<1	FAFU
322	04-04-07	1.25	42	67		0.9	11	<1	<0.05	285		2.15	4.3	5	3H,FAFU
322	04-18-07	<0.05	29	6		1.2	2.3	<1	<0.05	220		1.34	1.6	<1	FAFU
322	06-04-07	0.16	79	57		3.1	3.8	2	<0.05	689		3.78	6.3	2	CFC,FAFU, NFA
322	07-04-07	0.14	131	84		2.7	3.2	2	<0.05	643		3.9	5.8	2	SCFC,FAFU, NFA
323	12-10-06														
323	12-25-06														
323	01-10-07														

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	Sample water level (m)	Water tempe-rature (°C)	Spec. cond. (µS/cm)	Total dissolved solids	pH field	O_2 (mgL)	NO_2 N field (mg/L)	NO_3 N field (mg/L)	Total coli count per 100 mL
323	Paghman River at Paghman	01-25-07	1130	Paghman/Upper Kabul		7.5	140.3	0.05	9.02		0	0-1	
323	Paghman River at Paghman	02-10-07	1350	Paghman/Upper Kabul		5.7	111	0.04	8.96		0	0-1	
323	Paghman River at Paghman	02-24-07	1245	Paghman/Upper Kabul		6.3	109.8	0.04	8.91		0	0-1	116
323	Paghman River at Paghman	03-10-07	1225	Paghman/Upper Kabul		7.7	106	0.03	8.66		0	0-1	
323	Paghman River at Paghman	03-24-07	1215	Paghman/Upper Kabul		12.3	101	0.03	8.52		0	0-1	
323	Paghman River at Paghman	04-07-07	1230	Paghman/Upper Kabul		11.8	80.9	0.03	8.6		0	1-2	
323	Paghman River at Paghman	04-21-07	1145	Paghman/Upper Kabul		13.8	67.4	0.03	8.7		0	0-1	
323	Paghman River at Paghman	06-02-07	1030	Paghman/Upper Kabul		18	98.5		8.64				
323	Paghman River at Paghman	07-02-07	1005	Paghman/Upper Kabul		18	114	0.03	8.41		0	0-1	
324	Kabul River at Tangi Saedan	12-10-06	1020	Paghman/Upper Kabul		5.5	786	0.32	8.39		0.15-0.3	0-1	
324	Kabul River at Tangi Saedan	12-25-06	1045	Paghman/Upper Kabul		14.7	678	0.3	8.45		0-0.15	1-2	
324	Kabul River at Tangi Saedan	01-10-07	0955	Paghman/Upper Kabul		2.7	663	0.29	8.4		0-0.15	1-2	
324	Kabul River at Tangi Saedan	01-25-07	1010	Paghman/Upper Kabul		6.3	666	0.28	8.36		0	1-2	
324	Kabul River at Tangi Saedan	02-10-07	1100	Paghman/Upper Kabul		6.9	553	0.25	8.57		0	0-1	
324	Kabul River at Tangi Saedan	02-24-07	1130	Paghman/Upper Kabul		6.3	508	0.21	8.51		0	1-2	1,414
324	Kabul River at Tangi Saedan	03-10-07	0900	Paghman/Upper Kabul		6.4	394.7	0.18	8.28		0	0-1	
324	Kabul River at Tangi Saedan	03-24-07	1040	Paghman/Upper Kabul		8.1	326.2	0.13	8.63		0	1-2	
324	Kabul River at Tangi Saedan	04-07-07	1010	Paghman/Upper Kabul		11.2	277.3	0.13	8.49		0	1-2	
324	Kabul River at Tangi Saedan	04-21-07	1015	Paghman/Upper Kabul		11.4	293.3	0.11	8.48		0	1-2	
987	Panjshir River at Shukhi	05-11-06	0000	Shomali									

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month-day-year)	*E. coli* count per 100 mL	pH lab	Spec. cond. Lab (µS/cm)	NO_4 N (mg/L)	NO_2 N mg/L)	NO_2- NO_3N (mg/L)	NO_3 N (mg/L)	NO_3 NO_3 (mg/L)	Total N (mg/L)	PO_4 P (mg/L)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	Na (mg/L)
323	01-25-07														
323	02-10-07							0.98	4.32			14.9	2.1		3.28
323	02-24-07	42.2						0.97	4.28			15.2	2.04		3.3
323	03-10-07							1.13	4.99			13.8	1.9		3
323	03-24-07							0.96	4.27			8.07	1.41		2.07
323	04-07-07							1.36	6.01			10.2	1.54		2.06
323	04-21-07							0.93	4.12			8.79	1.58		2.18
323	06-02-07							0.40	1.78			13.9	2.04		3.12
323	07-02-07							0.61	2.71			16.3	2.12		3.13
324	12-10-06														
324	12-25-06														
324	01-10-07														
324	01-25-07														
324	02-10-07							2.51	11.1			72.4	22.2		19.9
324	02-24-07	387						2.62	11.6			65.3	17.9		15.2
324	03-10-07							3.32	14.7			53.7	12.7		10.1
324	03-24-07							2.14	9.49			35.5	6.88		5.16
324	04-07-07							2.69	11.9			41.9	8.83		6.62
324	04-21-07							2.37	10.5			40.3	8.33		6.1
987	05-11-06							0.82	3.63			26.7	5.34	88.7	7.72

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month-day-year)	Time (hhmm)	Sub basin or source water area	SAR	K (mg/L)	Alk mg/L as $CaCO_3$ (D)	Alk mg/L as HCO_3 (R)	Alk mg/L as HCO_3 (R&D)	Alk mg/L as $CaCO_3$ R&D	sum meq cations	sum meq anions	Percent charge imbalance
323	Paghman River at Paghman	01-25-07	1130	Paghman/Upper Kabul									
323	Paghman River at Paghman	02-10-07	1350	Paghman/Upper Kabul		0.9		51.3	51.3	42	1.09	1.04	1.27
323	Paghman River at Paghman	02-24-07	1245	Paghman/Upper Kabul		0.9		51.7	51.7	42	1.10	1.04	1.30
323	Paghman River at Paghman	03-10-07	1225	Paghman/Upper Kabul		0.8		48.3	48.3	40	1.00	0.99	0.34
323	Paghman River at Paghman	03-24-07	1215	Paghman/Upper Kabul		1.1		27.8	27.8	23	0.64	0.57	2.87
323	Paghman River at Paghman	04-07-07	1230	Paghman/Upper Kabul		0.8		32.6	32.6	27	0.75	0.67	2.82
323	Paghman River at Paghman	04-21-07	1145	Paghman/Upper Kabul		0.9		30.2	30.2	25	0.69	0.63	2.34
323	Paghman River at Paghman	06-02-07	1030	Paghman/Upper Kabul		1.2		51.3	51.3	42	1.04	1.00	0.97
323	Paghman River at Paghman	07-02-07	1005	Paghman/Upper Kabul		1.4		59.3	59.2	49	1.17	1.12	0.98
324	Kabul River at Tangi Saedan	12-10-06	1020	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	12-25-06	1045	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	01-10-07	0955	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	01-25-07	1010	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	02-10-07	1100	Paghman/Upper Kabul		3.4		316.8	316.8	260	6.47	6.17	1.18
324	Kabul River at Tangi Saedan	02-24-07	1130	Paghman/Upper Kabul		2.5		283.3	283.3	232	5.52	5.44	0.36
324	Kabul River at Tangi Saedan	03-10-07	0900	Paghman/Upper Kabul		1.9		217.9	217.9	179	4.26	4.15	0.63
324	Kabul River at Tangi Saedan	03-24-07	1040	Paghman/Upper Kabul		1.7		135.3	135.3	111	2.63	2.53	1.00
324	Kabul River at Tangi Saedan	04-07-07	1010	Paghman/Upper Kabul		1.6		158.8	158.8	130	3.18	3.00	1.41
324	Kabul River at Tangi Saedan	04-21-07	1015	Paghman/Upper Kabul		1.5		155.0	155.0	127	3.03	2.90	1.09
987	Panjshir River at Shukhi	05-11-06	0000	Shomali	0.36	2.9	97.2	97.2	97.2	80	2.20	2.18	0.22

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Cl (mg/L)	SO_4 (mg/L)	F (mg/L)	Br (mg/L)	SiO_2 (mg/L)	ROE	SOC	ROESOC	Ion Balance Charge	Ion Balance Percent	ROESC	Al (µg/L)	Sb (µg/L)	As (µg/L)	As (µg/L) (R or D)
323	01-25-07															
323	02-10-07	2.24	6.3	<0.05	<0.05	6.9							4	<0.1	0.4	0.4
323	02-24-07	2.31	6.32	<0.05	<0.05	6.7							36	0.1	0.4	0.4
323	03-10-07	2.01	6.75	0.06	<0.05	7.0							4	<0.1	0.5	0.5
323	03-24-07	0.93	4.33	<0.05	<0.05	6.7							81	<0.1	0.7	0.7
323	04-07-07	1.2	4.93	<0.05	<0.05	8.2							145	<0.1	0.6	0.6
323	04-21-07	1.41	4.57	<0.05	<0.05	7.0							11	<0.1	0.8	0.8
323	06-02-07	1.51	5.39	<0.05	<0.05	8.5							15	<0.1	0.7	0.7
323	07-02-07	1.38	5.38	<0.05	<0.05	9.5							17	0.3	0.8	0.8
324	12-10-06															
324	12-25-06															
324	01-10-07															
324	01-25-07															
324	02-10-07	21.9	17.3	0.12	<0.05	14.9							190	0.1	4.6	4.6
324	02-24-07	16.5	15.9	0.12	<0.05	13.5							7	0.1	4.1	4.1
324	03-10-07	9.78	14.6	0.12	<0.05	12.3							11	0.2	2.7	2.7
324	03-24-07	4.16	9.18	0.08	<0.05	9.4							37	0.2	1.8	1.8
324	04-07-07	5.76	11.4	0.09	<0.05	11.0							10	0.1	1.8	1.8
324	04-21-07	5.3	10.1	0.08	<0.05	9.9							20	<0.1	2	2
987	05-11-06	9.9	14.8	0.07	<0.05	6.5				-0.41	-8.52		17	0.1	0.8	0.8

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Local name	Date (month/ day/year)	Time (hhmm)	Sub basin or source water area	Ba (µg/L)	Be (µg/L)	B (µg/L)	Cd (µg/L)	Cr (µg/L)	Co (µg/L)	Cu (µg/L)	Fe (µg/L) D	Fe (µg/L)
323	Paghman River at Paghman	01-25-07	1130	Paghman/Upper Kabul									
323	Paghman River at Paghman	02-10-07	1350	Paghman/Upper Kabul	5		30	<0.05	<1	0.59	<0.1		<20
323	Paghman River at Paghman	02-24-07	1245	Paghman/Upper Kabul	5		20	<0.05	<1	2.07	<0.1		40
323	Paghman River at Paghman	03-10-07	1225	Paghman/Upper Kabul	5		<20	<0.05	<1	0.56	0.5		<20
323	Paghman River at Paghman	03-24-07	1215	Paghman/Upper Kabul	3		<20	<0.05	<1	1.48	0.5		60
323	Paghman River at Paghman	04-07-07	1230	Paghman/Upper Kabul	4		<20	<0.05	<1	0.18	0.5		154
323	Paghman River at Paghman	04-21-07	1145	Paghman/Upper Kabul	3		<20	<0.05	<1	<0.05	0.5		<20
323	Paghman River at Paghman	06-02-07	1030	Paghman/Upper Kabul	5		40	<0.05	<1	<0.05	1		<20
323	Paghman River at Paghman	07-02-07	1005	Paghman/Upper Kabul	6		30	1.17	<1	0.06	1		<20
324	Kabul River at Tangi Saedan	12-10-06	1020	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	12-25-06	1045	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	01-10-07	0955	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	01-25-07	1010	Paghman/Upper Kabul									
324	Kabul River at Tangi Saedan	02-10-07	1100	Paghman/Upper Kabul	38		480	<0.05	1	1.29	0.2		170
324	Kabul River at Tangi Saedan	02-24-07	1130	Paghman/Upper Kabul	29		350	<0.05	<1	0.5	<0.1		<20
324	Kabul River at Tangi Saedan	03-10-07	0900	Paghman/Upper Kabul	24		30	<0.05	<1	0.91	0.4		<20
324	Kabul River at Tangi Saedan	03-24-07	1040	Paghman/Upper Kabul	8		<20	<0.05	<1	0.88	0.4		20
324	Kabul River at Tangi Saedan	04-07-07	1010	Paghman/Upper Kabul	8		<20	<0.05	<1	0.16	0.3		<20
324	Kabul River at Tangi Saedan	04-21-07	1015	Paghman/Upper Kabul	9		<20	<0.05	<1	0.11	0.4		<20
987	Panjshir River at Shukhi	05-11-06	0000	Shomali	79		120	<0.05	<1	<0.05	0.5		<20

Table 10-1A. Water-quality data for the period July 2004 through July 2007, for the Kabul Basin, Afghanistan.—Continued

ID	Date (month/ day/year)	Pb (µg/L)	Li (µg/L)	Mn ICPMS µg/L	Mn (µg/L)	Mo (µg/L)	Ni (µg/L)	Se (µg/L)	Ag (µg/L)	Sr (µg/L)	Th (µg/L)	U (µg/L)	V (µg/L)	Zn (µg/L)	Comment
323	01-25-07														
323	02-10-07	<0.05	1	4		0.4	0.6	<1	<0.05	58		0.2	0.6	2	CFC,3H,FAFU
323	02-24-07	0.07	<1	7		0.3	0.8	<1	<0.05	57		0.16	0.6	2	FAFU
323	03-10-07	<0.05	<1	4		0.3	0.7	<1	<0.05	49		0.09	0.5	<1	3H,FAFU
323	03-24-07	0.06	1	14		0.3	0.7	<1	<0.05	32		0.06	0.5	2	FAFU
323	04-07-07	0.1	<1	4		0.3	0.6	<1	<0.05	36		0.06	1	2	3H,FAFU
323	04-21-07	<0.05	0	2		0.3	0.4	<1	<0.05	33		0.06	0.6	3	FAFU
323	06-02-07	0.15	4	1		0.4	0.2	<1	<0.05	50		0.12	1.5	1	CFC,FAFU, NFA
323	07-02-07	0.13	4	3		0.4	0.2	<1	<0.05	59		0.14	1.8	12	CFC,FAFU, NFA
324	12-10-06														
324	12-25-06														
324	01-10-07														
324	01-25-07														
324	02-10-07	0.026	65	50		0.6	5.8	<1	<0.05	397		1.93	2.1	2	CFC,3H,FAFU
324	02-24-07	<0.05	48	31		0.7	4.1	<1	<0.05	335		1.63	1.5	1	FAFU
324	03-10-07	<0.05	26	44		1	4	<1	<0.05	239		1.23	1.7	<1	FAFU
324	03-24-07	<0.05	11	6		0.7	1.5	<1	<0.05	127		0.59	0.6	<1	FAFU
324	04-07-07	<0.05	14	5		0.7	2	<1	<0.05	161		0.66	0.5	<1	FAFU
324	04-21-07	0.05	14	7		0.6	1.7	<1	<0.05	152		0.65	0.6	<1	FAFU
987	05-11-06	<0.05	21	<1		0.8	0.3	<1	<0.05	128		0.91	0.5	21	3H,FAFU

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