

GWIC ID	Site Name	Latitude	Longitude	Geomethod	Datum	Basin	Township	Range	Section	Tract	County	Type	Aquifer	Total_depth	Comp_date	Agency
2174	SHIRLEY WILLIAM AND MARY	47.31907	-111.15331	MAP	NAD27	BB	18N	05E	18	BBAB	CASCADE	SPRING	217KOTN			MBMG
2262	SAND COULEE MINING DISTRICT * NO-NAME CREEK * AS-02 OR 3A OSM-32	47.388521	-111.17839	MAP	WGS84	BB	19N	04E	23	AADC	CASCADE	MINE DRAINAGE				MBMG
2262	SAND COULEE MINING DISTRICT * NO-NAME CREEK * AS-02 OR 3A OSM-32	47.388521	-111.17839	MAP	WGS84	BB	19N	04E	23	AADC	CASCADE	MINE DRAINAGE				MBMG
2276	MINING COULEE DISCHARGE PIPE * EAST SIDE OSM-33	47.38555	-111.17736	MAP	WGS84	BB	19N	04E	23	DAAC	CASCADE	MINE DRAINAGE				MBMG
2276	MINING COULEE DISCHARGE PIPE * EAST SIDE OSM-33	47.38555	-111.17736	MAP	WGS84	BB	19N	04E	23	DAAC	CASCADE	MINE DRAINAGE				MBMG
2309	GUISTI RONALD AND JUDITH	47.38392	-111.14642	MAP	WGS84	BB	19N	05E	19	CAAD	CASCADE	WELL	330MDSN	235	11/26/1979	MBMG
2441	JOHNSON GENE * 10' W OF SAND COULEE CREEE	47.4391	-111.143	UNKNOWN	NAD27	BB	20N	05E	31	DCBA	CASCADE	WELL	111SNGR	18		MBMG
2526	DEPT FISH WILDLIFE AND PARKS * KUNESH WELL	47.532732784	-111.2311984	SUR-GPS	NAD83	BB	21N	04E	33	BDDCB	CASCADE	WELL	217KOTN	40	8/28/1965	MBMG
2528	GIANT SPRINGS - MONTANA DEPT OF FISH WILDLIFE AND PARKS	47.5342	-111.2301	NAV-GPS	NAD83	BB	21N	04E	33	BDAD	CASCADE	SPRING	330MDSN			MBMG
30542	MENGHINI DUANE AND SHIRELY	47.29870819	-111.0457861	SUR-GPS	NAD83	BB	18N	05E	24	BCDB	CASCADE	WELL	217KOTN	65	4/26/1962	MBMG
31892	KNAUP RICHARD	47.40666	-111.23201	MAP	NAD83	BB	19N	04E	16	BAAB	CASCADE	WELL	330MDSN	400	10/28/1987	MBMG
31939	KNOX DUANE	47.3889	-111.1349	MAP	WGS84	BB	19N	05E	20	BCB	CASCADE	WELL	330MDSN	344	4/12/1986	MBMG
31965	BELT COMMUNITY CHURCH	47.4269	-110.9249	NAV-GPS	NAD27	BE	19N	06E	11	ABDB	CASCADE	WELL	330MDSN	250	4/22/1987	MBMG
31992	HEPFNER JOE AND JEANIE	47.40041566	-110.9288605	SUR-GPS	NAD83	BE	19N	06E	23	BADA	CASCADE	WELL	221SWFT	75	10/31/1977	MBMG
32000	MILOS RANCH	47.38978	-110.903942	TRS-SEC	NAD83	BE	19N	06E	24	DC	CASCADE	WELL	330MDSN	618	2/28/1981	MBMG
32009	STINSON JERRY	47.374192	-110.921365	TRS-SEC	NAD83	BE	19N	06E	26	DDC	CASCADE	WELL	330MDSN	520	5/29/1985	MBMG
32069	WAREHIME EARL E	47.359654	-110.880956	TRS-SEC	NAD83	BE	19N	07E	31	DCD	CASCADE	WELL	330MDSN	400	4/17/1982	MBMG
126078	KNAUP DEAN	47.4125791	-111.2332318	SUR-GPS	NAD83	BB	19N	04E	9	CACA	CASCADE	WELL	330MDSN	450	10/3/1991	MBMG
139022	KONESKY GEORGE AND DIANE	47.37044	-111.23883	MAP	WGS84	BB	19N	04E	28	CBB	CASCADE	WELL	330MDSN	675	4/20/1993	MBMG
141006	SHIRLEY MARY	47.3316	-111.1542	MAP	NAD83	BB	18N	05E	7	BBDC	CASCADE	WELL	330MDSN	725	1/27/1994	MBMG
145604	ASSELS STEVEN D. AND LINDA L.	47.3993	-110.9303	NAV-GPS	NAD83	BE	19N	06E	23	BDAB	CASCADE	WELL	221SWFT	66	8/17/1994	MBMG
146929	MBMG RESEARCH WELL * C-5	47.382925	-111.187253	TRS-SEC	NAD83	BB	19N	04E	23	CADA	CASCADE	WELL	221MRSN	75	2/22/1984	MBMG
149852	STIFF JOHN	47.44830903	-111.2950274	SUR-GPS	NAD83	BB	20N	03E	36	ABCB	CASCADE	WELL	330MDSN	360	5/25/1995	MBMG
149855	HALKO PATRICK M AND JAMI L	47.406732	-111.164708	NAV-GPS	WGS84	BB	19N	04E	12	DCA	CASCADE	WELL	330MDSN	210	4/7/1995	MBMG
152258	MBMG RESEARCH WELL T-1D	47.3287	-111.135881	MAP	NAD83	BB	18N	05E	7	ADDA	CASCADE	WELL	221MRSN	180	8/26/1995	MBMG
162423	STOCKETT WATER AND SEWER DISTRICT SPRING 1	47.3369	-111.1545	MAP	NAD83	BB	18N	05E	6	CCAB	CASCADE	SPRING	221SWFT			MBMG
164111	HOYER, KEITH AND HEATHER	47.4516	-110.9184	NAV-GPS	NAD83	BE	20N	06E	35	DADA	CASCADE	WELL	2175BR5	90	6/20/1997	MBMG
196148	REDDISH GARY	47.323	-110.931	NAV-GPS	NAD83	BE	18N	06E	14	BDBC	CASCADE	WELL	330MDSN	800	5/13/2002	MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
200616	ANACONDA MINE DRAIN AT CULVERT OSM-7	47.381	-110.9292	NAV-GPS	NAD27	BE	19N	06E	26	BDCD	CASCADE	MINE DRAINAGE				MBMG
205599	MCEWEN LARRY AND MARLENE	47.4052	-111.15371	MAP	WGS84	BB	19N	05E	18	BDD	CASCADE	WELL	330MDSN	216	6/19/2003	MBMG
210668	PHILLIPS, RON	47.45002161	-111.2365665	SUR-GPS	NAD83	BB	20N	04E	33	BBAA	CASCADE	WELL	330MDSN	160	5/21/2004	MBMG
212233	MURPHY, LARRY	47.4041	-110.891	NAV-GPS	NAD83	BE	19N	07E	18	CDCB	CASCADE	WELL	217CBNK	380	7/14/2004	MBMG
214914	AMD 3RD AND LEWIS STREET IN BELT	47.384889	-110.922306	NAV-GPS	NAD83	BE	19N	06E	26	ACAA	CASCADE	MINE DRAINAGE				MBMG
214914	AMD 3RD AND LEWIS STREET IN BELT	47.384889	-110.922306	NAV-GPS	NAD83	BE	19N	06E	26	ACAA	CASCADE	MINE DRAINAGE				MBMG
214914	AMD 3RD AND LEWIS STREET IN BELT	47.384889	-110.922306	NAV-GPS	NAD83	BE	19N	06E	26	ACAA	CASCADE	MINE DRAINAGE				MBMG
214914	AMD 3RD AND LEWIS STREET IN BELT	47.384889	-110.922306	NAV-GPS	NAD83	BE	19N	06E	26	ACAA	CASCADE	MINE DRAINAGE				MBMG
214915	AMD AT LEWIS COULEE	47.385889	-110.920306	DIGITALMAP	NAD83	BE	19N	06E	26	AACD	CASCADE	MINE DRAINAGE				MBMG
214915	AMD AT LEWIS COULEE	47.385889	-110.920306	DIGITALMAP	NAD83	BE	19N	06E	26	AACD	CASCADE	MINE DRAINAGE				MBMG
214915	AMD AT LEWIS COULEE	47.385889	-110.920306	DIGITALMAP	NAD83	BE	19N	06E	26	AACD	CASCADE	MINE DRAINAGE				MBMG
214915	AMD AT LEWIS COULEE	47.385889	-110.920306	DIGITALMAP	NAD83	BE	19N	06E	26	AACD	CASCADE	MINE DRAINAGE				MBMG
215048	BELT WELL 4B COAL	47.3651	-110.9564	NAV-GPS	NAD83	BE	19N	06E	34	CB	CASCADE	WELL	221MRSN	284	10/6/2004	MBMG
217046	BELT WELL 1A	47.384	-110.9528	NAV-GPS	NAD27	BE	19N	06E	27	BDB	CASCADE	WELL	330MDSN	670	10/25/2004	MBMG
217047	BELT WELL 1B	47.384	-110.9527	NAV-GPS	NAD83	BE	19N	06E	27	BACC	CASCADE	WELL	221MRSN	216	12/1/2004	MBMG
217048	BELT WELL 1C	47.3839	-110.9528	NAV-GPS	NAD83	BE	19N	06E	27	BACC	CASCADE	WELL	217KOTN	90	12/26/2004	MBMG
217050	BELT WELL 2C	47.3789	-110.9474	NAV-GPS	NAD83	BE	19N	06E	27	CBBC	CASCADE	WELL	217KOTN	80	9/23/2004	MBMG
217052	BELT WELL 3B	47.3726	-110.9725	NAV-GPS	NAD83	BE	19N	06E	28	CDC	CASCADE	WELL	221MRSN	282	12/1/2004	MBMG
217053	BELT WELL 3C	47.3726	-110.9724	NAV-GPS	NAD83	BE	19N	06E	28	CDC	CASCADE	WELL	217CBNK	159	10/30/2004	MBMG
217056	BELT WELL 4C	47.3651	-110.9563	NAV-GPS	NAD83	BE	19N	06E	34	BC	CASCADE	WELL	217KOTN	127	10/7/2004	MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG

Appendix A. Inorganic water quality.

GWIC ID	Site Name	Latitude	Longitude	Geomethod	Datum	Basin	Township	Range	Section	Tract	County	Type	Aquifer	Total_depth	Comp_date	Agency
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
217524	FRENCH COULEE 4 INCH PVC PIPE AMD OSM-6	47.3778	-110.9293	NAV-GPS	NAD83	BE	19N	06E	26	CADC	CASCADE	MINE DRAINAGE				MBMG
223946	BELT WELL 14B	47.36878	-110.97809	NAV-GPS	NAD83	BB	19N	06E	32	A	CASCADE	WELL	221MRSN	272	10/19/2005	MBMG
224149	BELT WELL 11B	47.36752	-110.96501	NAV-GPS	NAD83	BB	19N	06E	33	A	CASCADE	WELL	221MRSN	271	10/11/2005	MBMG
224150	BELT WELL 12B	47.37877	-110.96037	NAV-GPS	NAD83	BE	19N	06E	28	D	CASCADE	WELL	221MRSN	270	10/25/2005	MBMG
224151	BELT WELL 13B	47.37621	-110.96532	NAV-GPS	NAD83	BE	19N	06E	28	D	CASCADE	WELL	221MRSN	264	10/27/2005	MBMG
235488	BUMGARNER JAMES	47.4719	-111.1672	NAV-GPS	NAD83	BB	20N	04E	24	CAAA	CASCADE	WELL	330MDSN	330	4/17/2007	MBMG
235689	URQHART SCOTT	47.4744	-111.1678	NAV-GPS	NAD83	BB	20N	04E	24	BDAD	CASCADE	WELL	330MDSN	340	4/27/2007	MBMG
236507	CALDWELL, DAVID	47.48665	-111.19978	MAP	NAD83	BB	20N	04E	15	DAAB	CASCADE	WELL	221SWFT	380	4/27/2007	MBMG
239236	SMITH, JEFF & CARLA	47.47717	-111.1672	NAV-GPS	NAD83	BB	20N	04E	24	BADA	CASCADE	WELL	330MDSN	342	10/9/2007	MBMG
242153	THOMPSON MONTE & LISA	47.478066	-111.16923	TRS-SEC	NAD83	BB	20N	04E	24	BA	CASCADE	WELL	330MDSN	320	11/6/2007	MBMG
245668	KELLEY RANDALL	47.2952	-111.20074	MAP	NAD83	BB	18N	04E	22	BC	CASCADE	WELL	330MDSN	1120	6/20/2008	MBMG
248664	HUESTIS HARLEY	47.47170278	-111.165525	MAP	WGS84	BB	20N	04E	24	D	CASCADE	WELL	330MDSN	420	12/17/2008	MBMG
252467	SHORT, BILL AND LINDA	47.47104351	-111.1616541	SUR-GPS	NAD83	BB	20N	04E	24	DBAD	CASCADE	WELL	330MDSN	482	9/25/2009	MBMG
255442	LUOMA KEITH	47.39067	-111.1447	MAP	WGS84	BB	19N	05E	19	AB	CASCADE	WELL	217KOTN	305	4/28/2010	MBMG
261984	OCONNER, TOM AND EMEDORA	47.474527	-111.1672023	SUR-GPS	NAD83	BB	20N	04E	24	ACBC	CASCADE	WELL	330MDSN	420	8/5/2011	MBMG
276129	GASVODA, JIM	47.1155	-111.1288	MAP	WGS84	BC	16N	05E	29	BBCB	CASCADE	WELL	330MDSN	228.5	5/15/2013	MBMG
277205	DAWSON RANCH	47.37168	-110.86491	MAP	NAD83	BE	19N	07E	32	BAA	CASCADE	WELL	217KOTN	220	4/8/2014	MBMG
279108	GLENN, MEEK, DEBRA, MARTY	47.4735	-111.168583	NAV-GPS	NAD83	BB	20N	04E	24	BDDB	CASCADE	WELL	330MDSN	462	6/9/2014	MBMG
279137	WEBER, CHARLIE	47.485	-111.175278	NAV-GPS	NAD83	BB	20N	04E	13	CB	CASCADE	WELL	330MDSN	410	7/31/2014	MBMG
279240	COULTER, GLEN	47.453667	-111.020717	NAV-GPS	NAD83	BE	20N	06E	31	BD	CASCADE	WELL	217KOTN	232	6/25/2014	MBMG
281405	O'LEARY, JOHN	47.474117	-111.17285	NAV-GPS	NAD83	BB	20N	04E	24	BC	CASCADE	WELL	330MDSN	431	11/4/2014	MBMG
291365	GOODMAN, RICKEY AND LORI	47.478714	-111.171439	NAV-GPS	NAD83	BB	20N	04E	24	BB	CASCADE	WELL	330MDSN	402	2/24/2017	MBMG
291858	KATE'S COULEE OREGON MINE SC-8 USGS 19 KATE'S COULEE SC-8 OSM-21	47.392868	-111.179646	MAP	WGS84	BB	19N	04E	14	DDC	CASCADE	MINE DRAINAGE				MBMG
291858	KATE'S COULEE OREGON MINE SC-8 USGS 19 KATE'S COULEE SC-8 OSM-21	47.392868	-111.179646	MAP	WGS84	BB	19N	04E	14	DDC	CASCADE	MINE DRAINAGE				MBMG
291859	COTTONWOOD MINE #6 CW-2 USGS 7 COTTONWOOD MINE CW-2 OSM-31	47.336554	-111.151657	MAP	WGS84	BB	18N	05E	6	CCA	CASCADE	MINE DRAINAGE				MBMG
291859	COTTONWOOD MINE #6 CW-2 USGS 7 COTTONWOOD MINE CW-2 OSM-31	47.336554	-111.151657	MAP	WGS84	BB	18N	05E	6	CCA	CASCADE	MINE DRAINAGE				MBMG
291861	NELSON MINE AT SAND COULEE SC-12 USGS 20 NELSON MINE SC-12 OSM-30	47.3961619	-111.171901	MAP	WGS84	BB	19N	04E	13	CBC	CASCADE	MINE DRAINAGE				MBMG
291861	NELSON MINE AT SAND COULEE SC-12 USGS 20 NELSON MINE SC-12 OSM-30	47.3961619	-111.171901	MAP	WGS84	BB	19N	04E	13	CBC	CASCADE	MINE DRAINAGE				MBMG
291863	GIFFIN SPRING IN #5 COULEE NF-3 USGS 6 OSM-20	47.31408698	-111.186957	MAP	WGS84	BB	18N	04E	14	ACB	CASCADE	MINE DRAINAGE				MBMG
291863	GIFFIN SPRING IN #5 COULEE NF-3 USGS 6 OSM-20	47.31408698	-111.186957	MAP	WGS84	BB	18N	04E	14	ACB	CASCADE	MINE DRAINAGE				MBMG
291865	COTTONWOOD MINE #2 CW-10 USGS 8 COTTONWOOD MINE #2 OSM-58	47.355057	-111.16451	MAP	WGS84	BB	19N	04E	36		CASCADE	MINE DRAINAGE				MBMG
291865	COTTONWOOD MINE #2 CW-10 USGS 8 COTTONWOOD MINE #2 OSM-58	47.355057	-111.16451	MAP	WGS84	BB	19N	04E	36		CASCADE	MINE DRAINAGE				MBMG
294553	BURGESS, GUY	47.378969	-111.198367	MAP	WGS84	19N	04E	22	DDDD	CASCADE	WELL		330MDSN	740	10/6/2017	MBMG
296887	SC-3 MINE DRAIN WATER AT CULVERT IN PRIVATE ROAD SC-3	47.38855	-111.178844	DIGITALMAP	WGS84	BB	19N	04E	23		CASCADE	MINE DRAINAGE				MBMG
296888	GARY REDDISH GARY REDDISH SHALLOW	47.32311	-110.930838	DIGITALMAP	WGS84	BE	18N	06E	14	BDB	CASCADE	WELL	330MDSN	36		MBMG

Appendix A. Inorganic water quality.																										
GWIC ID	Sample_date_time	Water_temp	Lab_name	Field_pH	Field_SC	Lab_pH	Lab_SC	Ca	Mg	Na	K	Fe	Mn	SiO ₂	HCO ₃	CO ₂	SO ₄	Cl	NO ₃ _As_N	F	OPO ₄ _As_P	Ag	Al	As	B	Ba
2174	10/20/2017 15:24	11.3	MBMG	7.73	788	7.33	595.82	63.73	37.01	12.42	1.87	<0.015 U	<0.002 U	9.67	364.52	0	28.2	4.04	6.01	0.43	<0.020 U	0.280 J	<2.000 U	0.210 J	23.41	276.53
2262	7/20/2017 15:22	10.5	MBMG	2.03	6304	2.73	5178.67	190.17	131.93	18.31	<0.500 U	426.9	1.548	78.34	0	0	4254	7.38	<0.050 U	8.59	<0.100 U	<1.000 U	363750	<1.000 U	146.51	<1.000 U
2262	5/22/2018 9:46	10.9	MBMG	2.18	6206	2.71	4838.78	185.75	135.55	22.4	<0.500 U	394.15	1.628	82.09	0	0	4371	6.76	0.210 J	8.59	<0.100 U	<1.000 U	349200	<1.000 U	159.52	<1.000 U
2276	7/20/2017 14:13	14.9	MBMG	1.94	8954	2.58	7179.52	229	199.49	13.65	<0.500 U	828.6	2.137	109.55	0	0	7253	2.180 J	0.28	17.28	<0.100 U	<1.000 U	726000	2.640 J	311.34	<1.000 U
2276	5/12/2018 9:12	11.5	MBMG	2.34	8874	2.6	7396.29	231.17	203.58	18.86	<0.500 U	799.45	2.545	118.33	0	0	7584	2.030 J	0.250 J	18.8	0.150 J	<1.000 U	759350	2.830 J	205.11	<1.000 U
2309	7/19/2017 13:58	12.4	MBMG	7.55	721	7.57	537.45	69.86	26.03	9.55	2.11	<0.015 U	<0.002 U	10.85	228.54	0	116.4	4.39	0.82	0.43	<0.020 U	<1.000 U	<2.000 U	1.38	36.92	39.69
2441	6/21/2018 12:54	10.4	MBMG	7.57	2657	7.32	2158.75	406.4	79.76	14	4.29	0.269 J	1.038	16.78	338.95	0	1061	5.4	0.11	1.42	<0.020 U	<0.500 U	<1.000 U	<0.500 U	86.59	24.8
2526	6/20/2017 10:32	12.7	MBMG	7.67	582	7.57	603.2	84.31	29.22	7.48	1.77	<0.015 U	<0.002 U	9.26	229.45	0	160.8	3.55	0.55	0.37	<0.020 U	<0.100 U	<2.000 U	0.61	30.77	24.72
2528	7/21/2017 11:17	11.9	MBMG	7.18	791	7.6	595.7	80.7	27.68	10.47	1.95	<0.015 U	<0.002 U	10.06	232.5	0	146.3	4.7	0.49	0.5	<0.020 U	<0.100 U	4.160 J	0.95	34.76	26.51
30542	6/20/2017 15:16	13.8	MBMG	7.82	586	7.77	603.52	62.46	39.24	12.27	1.23	<0.015 U	<0.002 U	8.26	339.2	0	23.41	14.89	10.4	0.31	0.030 J	<0.100 U	<2.000 U	0.250 J	15.76	320.88
31892	10/19/2017 11:38	16.1	MBMG	7.41	970	7.25	748.46	85.58	30.13	28.48	3.66	<0.015 U	<0.002 U	13.36	257.08	0	175.5	19.25	0.33	0.86	<0.020 U	0.57	<2.000 U	1.75	89.2	22.77
31939	7/19/2017 15:23	12.7	MBMG	7.44	1224	7.51	943.1	119.63	45.75	14.32	3.2	<0.038 U	<0.005 U	12.17	227.07	0	314	7.51	1.41	0.54	0.040 J	<0.250 U	<5.000 U	2.03	51.31	26.64
31965	6/22/2017 14:30	11.9	MBMG	6.97	1579	7.18	1278.94	102.13	89.43	50.46	3.39	<0.038 U	<0.005 U	9.37	478.6	0	291.2	25.56	4.69	0.35	<0.020 U	<0.250 U	<5.000 U	0.690 J	45.28	82.64
31992	5/24/2017 14:52	11.9	MBMG	7.42	594	7.48	637.77	94.13	22.8	7.32	2.4	<0.015 U	<0.002 U	12.04	232.57	0	151.7	5.45	0.74	0.14	<0.020 U	<0.100 U	<2.000 U	0.210 J	22.24	82.6
32000	6/20/2018 13:43	12.5	MBMG	8.1	645	7.76	517.34	70.98	21.92	2.12	1.01	<0.015 U	<0.002 U	7.73	198.72	0	120.9	0.9	0.27	0.36	<0.020 U	<0.100 U	<2.000 U	0.46	11.91	34.55
32009	6/20/2018 10:13	10.4	MBMG	7.85	847	7.56	687.74	92.99	29.67	3.04	1.23	0.051 J	<0.002 U	8.12	207.54	0	207	1.13	0.33	0.51	<0.020 U	<0.100 U	<2.000 U	0.320 J	19.04	26.67
32069	6/22/2017 11:01	9.6	MBMG	6.54	685	6.72	513.33	50.17	36.66	8.1	1.71	4.58	0.248	5.87	256.93	0	80.5	1.72	<0.010 U	0.33	<0.020 U	<0.100 U	<2.000 U	0.330 J	22.34	22.38
126078	10/19/2017 12:55	14.8	MBMG	7.18	1479	7.08	1191.86	154.29	52.11	26.43	3.72	1.025	0.036 J	11.44	314.82	0	377.3	19.41	<0.010 U	1.02	<0.020 U	0.690 J	<5.000 U	9.46	97.83	10.87
139022	10/19/2017 17:48	13	MBMG	7.62	695	7.44	522.21	67.5	24.41	8.63	1.85	0.028 J	<0.002 U	11.15	236.06	0	99.7	4.17	0.5	0.42	<0.020 U	0.430 J	<2.000 U	1.27	34.56	43.54
141006	10/20/2017 14:31	12.3	MBMG	7.79	671	7.58	503.35	63.15	27.33	3.32	1.24	<0.015 U	<0.002 U	8.17	190.52	0	126.6	1.1	0.5	0.45	<0.020 U	0.450 J	<2.000 U	0.73	17.3	26.36
145604	6/20/2018 11:42	8.3	MBMG	7.77	576	7.5	455.33	64.13	16.08	6.95	1.87	<0.015 U	<0.002 U	7.65	239.41	0	52.69	2.96	0.47	0.21	<0.020 U	<0.100 U	<2.000 U	0.200 J	24.81	47.7
146929	5/4/2018		MBMG			7.31	828.42	76.5	55.41	15.53	4.6	0.364	0.023 J	9	400.11	0	77.22	12.85	11.24	0.67	0.030 J	<0.250 U	<5.000 U	0.610 J	38.08	117.15
149852	6/21/2018 10:17	13.7	MBMG	7.11	1988	7.18	1652	179.85	65.3	86.94	11.39	0.054 J	0.309	25.71	364.5	0	547	50.14	<0.010 U	1.38	<0.020 U	<0.250 U	<5.000 U	1.12	245.65	11.13
149855	7/19/2017 10:53	13.4	MBMG	7.13	844	7.2	633.21	84.73	28.02	13.88	2.4	<0.015 U	<0.002 U	12.25	235.76	0	158.7	6.83	0.41	0.57	0.17	0.330 J	4.050 J	6.17	50.09	19.17
152258	5/4/2018	9.4	MBMG	7.62	1366	7.44	1065.59	93.48	45.94	70.37	11.39	0.769	0.138	8.97	422.02	0	169.2	53.13	0.050 J	1.21	0.050 J	<0.250 U	<5.000 U	9.84	85.82	25.01
162423	10/20/2017 10:43	10	MBMG	7.24	1070	7.01	831.5	99.22	45.65	13.58	3.66	<0.015 U	<0.002 U	12.69	467.31	0	85.81	6.53	2.5	0.41	<0.020 U	1.04	<2.000 U	0.290 J	43.22	167.55
164111	10/4/2017 19:09	11.01	MBMG	7.96	518.2	7.11	597.94	74.84	25.43	8.62	2.33	0.036 J	0.218	10.59	264.75	0	104.6	3.85	<0.010 U	0.43	<0.020 U	<0.100 U	<2.000 U	0.41	29.47	61.8
196148	6/22/2017 17:35	9.8	MBMG	7.35	694	7.4	531.93	73.69	25.15	6.05	1.99	0.236	0.021	8.19	310.51	0	43.04	3.46	2.21	0.33	<0.020 U	<0.100 U	<2.000 U	<0.100 U	20.95	68.89
200616	1/24/2017 16:29	9.92	MBMG	2.67	2483	3.1	2780	161.39	73.18	11.2	2.57	191.15	0.51	65.37	0	0	1752	7.47	<0.010 U	5.98	0.030 J	<0.250 U	112588.34	1.63	166.12	3.41
200616	4/19/2017 8:58	9.84	MBMG	2.57	2537	3.08	2640	160.81	72.51	9.97	2.23	170.135	0.431	65.65	0	0	1634	7.52	0.05	5.3	0.13	<0.500 U	110670	1.680 J	141.81	1.350 J
200616	7/13/2017 11:03	10.1	MBMG	2.46	2478	3.04	2022	151.32	66.24	11.2	2.05	141.9	0.361	60.64	0	0	1487	6.59	0.040 J	3.82	<0.020 U	<0.250 U	98465	1.56	100.67	1.190 J
200616	10/5/2017 14:52	10.13	MBMG	3.4	2803	3.01	2584	170.93	73.94	11.4	2.68	188.55	0.422	66.9	0	0	1823	6.18	<0.010 U	4.73	<0.020 U	1.300 J	121310	1.910 J	225.83	2.100 J
200616	1/9/2018 14:26	9.91	MBMG	2.74	2747	3.02	2720	175.25	75.67	10.46	2.43	193.21	0.462	66.79	0	0	1859	6.33	<0.010 U	1.71	<0.020 U	4.86	131065	2.67	232.63	19.19
200616	4/3/2018 15:25	9.97	MBMG	2.69	2465	2.99	7693	159.67	74.67	11.26	2.46	165.95	0.363	64.54	0	0	1844	8.73	<0.010 U	1.77	<0.020 U	<0.250 U	117350	1.53	206.17	1.130 J
200616	7/26/2018 15:30	10.03	MBMG	2.71	2554	3	2626	147.18	62.14	10.07	1.92	141.78	0.386	66	0	0	1681	7.43	<0.010 U	1.9	<0.020 U	<0.500 U	95085	1.650 J	123.18	1.280 J
200616	10/8/2018 17:45	10.04	MBMG	2.58	2674	3.03	2854	169.94	71.61	10.2	2.41	182.433	0.255	66.46	0	0	1810	6.16	<0.010 U	1.54	<0.020 U	<0.500 U	116840	1.700 J	250.22	1.670 J
200616	3/26/2019 13:27	11.8	MBMG	2.72	2901	3.07	2752	166.76	74.93	11.25	2.66	228.545	0.468	72.72	0	0	1950	6.85	0.040 J	5.3	<0.020 U	<0.500 U	148585	2.91	252.41	2.96
200616	7/17/2019 10:24	10.05	MBMG	2.54	2744	2.89	2703	164.47	77.39	13.31	2.45	193.971	0.475	74.38	0	0	1890	11.22	<0.010 U	1.9	<0.020 U	2.050 J	132957.06	2.02	110.27	1.550 J
200616	10/22/2019 12:43	10.02	MBMG	2.82	2816	3.03	2666	174.87	78.08	11.73	2.15	197.573	0.478	69.97	0	0	2104	8.76	0.040 J	6.61	<0.020 U	<0.500 U	138135.93	1.840 J	303.25	2.250 J
205599	7/19/2017 11:57	13.6	MBMG	7.45	759	7.5	564.27	74.58	26.14	12.03	2.06	<0.015 U	<0.002 U	11.53	239.8	0	122.3	5.79	0.47	0.47	0.030 J	<0.100 U	<2.000 U	1.3	44.48	33.02
210668	6/20/2018 15:30	11.6	MBMG	7.39	2331	7.24	1827.98	166.21	89.17	92.15	8.36	<0.038 U	<0.005 U	15.11	477.61	0	473.6	97.88	1.77	0.68	<0.020 U	<0.250 U	<5.000 U	1.55	117.84	18.74
212233	6/20/2018 12:50	11.1	MBMG	7.18	1256	7.01	1090.24	79.6	72.26	36.5	5.43	1.807	0.018 J	6.35	493.53	0	190.9	7.52	<0.010 U	0.76	<0.020 U	<0.250 U	<5.000 U	0.670 J	50.73	14.88
214914	7/26/2018 15:12	19.25	MBMG	2.71	3157	2.75	3482	105.8	82.25	23.41	1.49	267.14	0.42	66.6	0	0	2826	16.29	<0.050 U	3.42	<0.100 U	<0.500 U	167565	<0.500 U	135.16	1.060 J

Appendix A. Inorganic water quality.																										
GWIC ID	Sample_date_time	Water_temp	Lab_name	Field_pH	Field_sc	Lab_pH	Lab_SC	Ca	Mg	Na	K	Fe	Mn	SiO ₂	HCO ₃	CO ₃	SO ₄	Cl	NO ₃ _As_N	F	OPO ₄ _As_P	Ag	Al	As	B	Ba
217524	4/3/2018 16:44	9.3	MBMG	2.51	2764	2.86	3314	173.8	83.96	22.39	3.37	355.485	0.384	75.47	0	0	2695	52.39	<0.010 U	1.7	<0.020 U	<0.500 U	212745	8.36	356.99	4.55
217524	7/26/2018 16:08	12.45	MBMG	2.36	3707	2.8	3920	186.36	82.96	26.07	0.870 J	359.95	0.480 J	86.74	0	0	3525	38	0.37	5.87	<0.100 U	<1.000 U	227950	2.730 J	129.5	<1.000 U
217524	10/8/2018 18:16	10.21	MBMG	2.4	4083	2.87	4253	167.38	78.66	18.05	3.2	530.7	0.480 J	83.01	0	0	3694	27.62	<0.050 U	6.73	<0.100 U	<1.000 U	259350	15.19	523.17	3.780 J
217524	3/26/2019 14:10	7.32	MBMG	2.54	3635	2.73	3996	145.1	65.49	14.06	3.63	396.95	0.410 J	73	0	0	2995	21.74	0.180 J	5.76	<0.100 U	<1.000 U	208100	10.21	373.21	6.77
217524	7/17/2019 11:35	12.67	MBMG	2.36	4028	2.61	3882	147.7	79.94	30.92	0.640 J	424.593	0.421 J	81.33	0	0	3349	45.94	0.47	4.9	0.400 J	2.700 J	226864.05	<1.000 U	107.85	<1.000 U
217524	10/22/2019 13:50	11.05	MBMG	2.63	4571	2.68	4429	209.05	98.88	18.48	<0.500 U	578.384	0.634	99.91	0	0	4564	30.15	<0.050 U	8.19	<0.100 U	<1.000 U	337887	<1.000 U	821.93	<1.000 U
223946	11/16/2019 12:45	11.55	MBMG	6.97	524.9	7.24	603.65	77.68	27.31	9.92	3.35	<0.015 U	0.116	6.51	304.41	0	95.1	2.56	0.050 J	1.04	<0.020 U	<0.100 U	<2.000 U	<0.100 U	57.97	31.69
224149	11/15/2019 16:02	10.84	MBMG	6.75	859.3	6.81	993.78	124.18	41.2	10.48	3.93	3.655	0.164	6.27	374.59	0	221.6	3.11	<0.010 U	0.45	<0.020 U	<0.100 U	<2.000 U	0.99	50.13	33.09
224150	11/17/2019 16:30	11.17	MBMG	5.85	2940	5.9	4044.21	635	120.94	13.49	9.12	425.313	3.501	5.96	139.17	0	2530	2.29	0.15	0.84	<0.020 U	<0.500 U	887.89	11.05	457.08	18.63
224151	11/18/2019 11:39	9.69	MBMG	7.58	484.1			62.38	21.28	2.64	10.18	3.833	0.552	9.73	320.49	0						<0.100 U	2.420 J	4.66	21.74	32.77
235488	4/14/2017 16:37	12.7	MBMG	7.06	1051	7.21	818.65	101.13	36.7	23.32	3.43	<0.038 U	0.007 J	9.05	254.99	0	226.2	15.64	0.67	0.91	0.070 J	<0.250 U	5.940 J	2.95	71.61	13.98
235689	4/14/2017 11:35	13.5	MBMG	7.05	1202	7.21	934.31	145.96	32.29	17.65	2.92	0.449	0.111 J	13.29	239.36	0	322.3	10.95	0.39	0.74	0.030 J	<0.250 U	7.480 J	2.92	57.21	18.63
236507	4/14/2017 13:30	12.6	MBMG	6.13	5250	6.32	4188.88	411.67	397.91	165.5	25.56	11.698	2.378	8.27	799.14	0	2246	46.72	<0.050 U	0.58	0.400 J	<1.000 U	158.72	6.99	355.68	4.520 J
239236	6/21/2017 10:01	14	MBMG	7.47	876	7.48	674.62	84.14	30.59	20.02	3.22	<0.015 U	<0.002 U	11.89	255.13	0	154.5	11.92	0.44	0.6	<0.020 U	<0.100 U	4.960 J	1.5	72.29	24.07
242153	6/20/2017 16:11	13.7	MBMG	7.32	858	7.42	672.64	81.9	29.98	18.96	3.09	<0.015 U	0.008 J	11.8	250.08	0	155.8	11.39	0.42	0.6	<0.020 U	<0.100 U	15.36	0.55	68.61	22.47
245668	10/19/2017 14:58	12	MBMG	7.67	672	7.44	512.67	72.97	23.07	2.45	0.92	<0.015 U	<0.002 U	8.27	215.45	0	113.4	1.01	0.49	0.31	<0.020 U	0.61	<2.000 U	0.72	13.79	35.96
248664	6/20/2017 13:00	13.3	MBMG	7.47	799	7.5	615.39	77.83	27.28	14.87	2.68	<0.015 U	<0.002 U	11.73	245.46	0	132.1	8.33	0.4	0.51	<0.020 U	<0.100 U	<2.000 U	1.39	55.36	26.61
252467	6/20/2017 11:10	13.8	MBMG	7.43	761	7.38	581.13	76.64	26.82	12.21	2.42	<0.015 U	<0.002 U	11.14	240.44	0	123.3	6.34	0.44	0.47	<0.020 U	<0.100 U	<2.000 U	1.49	46.34	31.23
255442	7/19/2017 16:24	11.4	MBMG	7.37	1207	7.41	916.6	93.16	54.17	28.59	3.87	<0.038 U	<0.005 U	12.29	326.65	0	178.6	34.87	9.57	0.68	0.030 J	<0.250 U	<5.000 U	2	55.07	39.7
261984	4/13/2017 15:15	13.2	MBMG	7.03	1419	6.89	1054.6	122.34	69.13	27.18	3.79	<0.038 U	0.362	10.53	256.63	0	406.9	11.99	0.56	1.19	0.030 J	<0.250 U	43.92	0.550 J	69.58	24.87
276129	7/18/2017 19:00	6.8	MBMG	7.66	643	7.49	459.19	77.03	14.87	3.36	0.77	<0.015 U	0.002 J	7.65	300.24	0	4.91	1.22	6.56	0.15	0.060 J	<0.100 U	<2.000 U	0.58	6.43	195.24
277205	7/18/2019 18:08	8.8	MBMG	7.03	3914	7.15	3438.18	217.31	121.76	419.25	8.24	0.728 J	0.329 J	8.19	669.34	0	1212	78.88	<0.050 U	0.85	0.180 J	<1.000 U	<20.000 U	8.1	200.52	6.35
279108	6/21/2017 11:08	13.7	MBMG	7.34	860	7.5	664.18	83.08	30.04	18.65	3.08	<0.015 U	<0.002 U	11.98	252.43	0	149.6	11.16	0.42	0.51	<0.020 U	<0.100 U	<2.000 U	1.3	71.33	24.37
279137	8/14/2018 10:40	14.3	MBMG	7.66	819	7.31	665.76	79.57	28.4	16.62	2.77	<0.015 U	<0.002 U	12.42	248.52	0	144.4	10.34	0.45	0.62	<0.020 U	<0.100 U	<2.000 U	1.42	60.45	26.97
279240	5/30/2017 15:09	10.1	MBMG	7.35	958	7.19	1052.61	65.97	88.4	36.34	5.63	<0.015 U	0.008 J	8.11	617.77	0	87.4	5.24	5.88	0.95	<0.020 U	<0.100 U	<2.000 U	0.310 J	105.49	40.29
281405	6/21/2017 12:31	13.5	MBMG	7.19	1148	7.39	908.31	117.32	40.49	21.87	3.53	<0.038 U	<0.005 U	8.63	264.28	0	274.4	13.59	0.38	0.74	<0.020 U	<0.250 U	<5.000 U	0.930 J	81.28	12.77
291365	4/13/2017 17:43	13.5	MBMG	7.21	943	7.22	697.93	89.19	33.57	20.5	3.25	<0.015 U	0.088	11.03	244.89	0	189.4	12.73	0.45	0.85	0.020 J	<0.100 U	17.17	<0.100 U	66.97	22.79
291858	7/20/2017 13:42	15	MBMG	3.51	3793	3.52	3077.23	174.63	138.05	23.62	4.38	266.75	1.251	39.88	0	0	2628	5.34	<0.050 U	5.62	0.160 J	<1.000 U	185350	20.37	189.66	11.59
291858	5/22/2018 10:43	11.5	MBMG	3.72	3694	3.47	3295.37	170.55	135.11	27.65	4.31	283.75	1.098	39.89	0	0	2822	5.37	<0.050 U	6.09	0.480 J	<1.000 U	186550	13.54	104.07	10.62
291859	7/20/2017 11:26	14.4	MBMG	2.3	6463	2.85	5131.14	335.92	128.77	13.85	5.63	625.4	2.271	90.97	0	0	4277	2.7	<0.050 U	9.72	0.110 J	<1.000 U	282750	<1.000 U	275.57	<1.000 U
291859	5/22/2018 12:48	11	MBMG	2.52	5834	3.03	4986.43	319.37	121.01	14.45	7.72	620.55	1.94	93.01	0	0	4325	2.7	<0.050 U	9.49	<0.100 U	<1.000 U	261000	<1.000 U	190.88	<1.000 U
291861	7/20/2017 15:04	18.5	MBMG	2.17	11831	2.72	9859.42	273.52	276.41	20.37	<2.500 U	1733.85	8.561	138.97	0	0	11366	3.870 J	<0.100 U	28.36	0.210 J	<5.000 U	1165600	29.7	299.81	<5.000 U
291861	5/22/2018 11:17	11.9	MBMG	2.24	10349	2.7	9041.57	238.47	239.4	34.28	<2.500 U	1406.15	5.374	144.98	0	0	10214	3.640 J	<0.100 U	24.21	0.510 J	<5.000 U	984700	32.03	102.95	<5.000 U
291863	7/20/2017 12:03	9.5	MBMG	5.24	1456	6.02	1165.31	122.85	44.42	17.92	6.63	68.17	0.448	15.25	124.63	0	555.4	4.91	<0.010 U	1.5	<0.020 U	<0.250 U	1018.15	1.69	78.51	15.47
291863	5/22/2018 13:24	9.4	MBMG	4.88	1441	6.09	1157.39	119.42	45.3	21.39	7.13	67.41	0.469	16.74	128.89	0	548.7	5.64	<0.010 U	1.74	<0.020 U	<0.250 U	661.11	1.18	60.21	13.75
291865	5/22/2018 12:04	14.1	MBMG	3.13	3206	3.22	2838.59	189.39	137.69	21.76	5.31	24.411	0.74	23.91	0	0	3260	36.28	0.29	4.04	0.390 J	<0.500 U	161060	<0.500 U	171.27	35.5
291865	5/22/2018 12:24	14.1	MBMG	3.13	3206	3.3	2786.56	184.25	132.15	20.8	5.09	20.436	0.755	23.71	0	0	2231	36.38	0.3	4.09	<0.100 U	<0.500 U	155895	<0.500 U	177.04	35.96
294553	8/14/2018 16:14	13.8	MBMG	7.56	816	7.41	646.5	72.64	28.46	13.95	2.54	<0.015 U	<0.002 U	11.83	252.93	0	126	7.93	0.77	0.58	<0.020 U	<0.100 U	<2.000 U	1.32	52.75	30.58
296887	5/22/2018 10:09	12.3	MBMG	2.77	4921	3	4403.69	219.24	142.9	24.94	3.31	367.4	2.108	66.11	0	0	3820	9.12	0.96	7.46	<0.100 U	<1.000 U	294800	5.98	106.47	13.03
296888	5/23/2018 11:05	8.1	MBMG	7.28	649	7.54	505.85	64.56	22.8	7.1	3.77	<0.015 U	<0.002 U	10.04	284.36	0	33.83	6.46	4.69	0.3	<0.020 U	<0.100 U	<2.000 U	0.230 J	17.6	221.91

Appendix A. Inorganic water quality.																												
	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	heq	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L
GWIC ID	Be	Br	Cd	CO	Cr	Cu	Hg	Li	Mo	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn	Zr	Ce	Cs	Ga	La	Nb	Nd	
2174	<0.100 U	69	<0.100 U	<0.100 U	0.95	4.13		10.8	1.02	<0.100 U	0.5	<0.100 U	0.96	<0.100 U	293.34	3.02	<0.100 U	3.33	0.410 J	25.83	<0.100 U	<0.100 U	<0.100 U	13.03	<0.100 U	<0.100 U	<0.100 U	
2262	32.07	<50.000 U	43.79	1345.4	100.3	240.61		419.79	<1.000 U	2712.88	13.03	<1.000 U	11.96	<1.000 U	1249.27	48.37	<1.000 U	61.42	14.23	14698.37	<1.000 U	487.95	<1.000 U	5.62	167.03	<1.000 U	279.12	
2262	24.31	<50.000 U	45.04	1175.98	130.93	380.33		472.92	<1.000 U	2912.37	6.55	<1.000 U	8.48	<1.000 U	1145.05	40.19	<1.000 U	53.4	7.68	12713.59	<1.000 U	453.62	<1.000 U	5.06	158.5	<1.000 U	304.43	
2276	46.57	<50.000 U	77.51	2053.28	219.73	822.76		747.17	<1.000 U	4676.75	6.57	<1.000 U	18.58	<1.000 U	1160.77	71.54	<1.000 U	145.7	61.98	23329.71	3.280 J	651.2	<1.000 U	23.33	282.04	<1.000 U	445.06	
2276	37.08	316	69.92	2322.7	215.45	914.13		973.48	<1.000 U	5378.79	13.4	<1.000 U	14.64	<1.000 U	1036.08	92.14	<1.000 U	106.9	55.39	21807.84	2.600 J	633.5	<1.000 U	15.91	255.5	<1.000 U	419.01	
2309	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.420 J	1.090 J		14.92	1.45	<0.100 U	<0.060 U	<0.100 U	1.04	<0.100 U	759.24	2.47	<0.100 U	1.7	0.53	4.24	<0.100 U	<0.100 U	<0.100 U	1.45	<0.100 U	<0.100 U	<0.100 U	
2441	<0.500 U	117	<0.500 U	3.08	<0.500 U	<2.500 U		<10.0 U	5.19	3.07	<0.300 U	<0.500 U	<0.500 U	<0.500 U	890.88	11.38	<0.500 U	3.35	<0.500 U	37.55	<0.500 U	<0.500 U	<0.500 U	1.350 J	<0.500 U	<0.500 U	<0.500 U	
2526	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.290 J	<0.500 U		13.75	1.42	<0.100 U	<0.060 U	<0.100 U	1.02	<0.100 U	1135.84	3.07	<0.100 U	1.63	0.360 J	<0.500 U	<0.100 U	<0.100 U	<0.100 U	0.92	<0.100 U	<0.100 U	<0.100 U	
2528	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.340 J	<0.500 U		16.25	1.37	<0.100 U	0.57	<0.100 U	1.04	<0.100 U	1039.63	3.02	<0.100 U	1.43	4.40 J	8.06	<0.100 U	<0.100 U	<0.100 U	0.94	<0.100 U	<0.100 U	<0.100 U	
30542	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.270 J	15.18		5.810 J	0.340 J	<0.100 U	<0.060 U	<0.100 U	0.470 J	<0.100 U	346.58	0.54	<0.100 U	2.17	0.190 J	78.18	0.130 J	<0.100 U	<0.100 U	12.06	<0.100 U	0.270 J	<0.100 U	
31892	<0.100 U	116	<0.100 U	<0.100 U	0.92	2.47		51.58	1.72	<0.100 U	<0.060 U	<0.100 U	0.65	<0.100 U	1061.81	5.1	<0.100 U	1.53	0.61	36.7	<0.100 U	<0.100 U	1.07	1.11	<0.100 U	<0.100 U	<0.100 U	
31939	<0.250 U	<10.000 U	<0.250 U	<0.250 U	<0.250 U	<1.250 U		30.23	1.000 J	<0.250 U	<0.150 U	<0.250 U	2.04	<0.250 U	720.98	6.68	<0.250 U	2.81	0.550 J	1.490 J	<0.250 U	<0.250 U	<0.250 U	1.010 J	<0.250 U	<0.250 U	<0.250 U	
31965	<0.250 U	145	<0.250 U	<0.250 U	<0.250 U	1.280 J		26.54	0.910 J	0.960 J	<0.150 U	<0.250 U	21.12	<0.250 U	532.58	6.23	<0.250 U	10.59	<0.250 U	14.13	<0.250 U	<0.250 U	<0.250 U	1.65	<0.250 U	<0.250 U	<0.250 U	
31992	<0.100 U	<10.000 U	<0.100 U	<0.100 U	<0.100 U	4.06		11.56	1.16	<0.100 U	<0.060 U	<0.100 U	0.75	<0.250 U	718.16	6.1	<0.100 U	1.41	<0.100 U	2.85	<0.100 U	<0.100 U	<0.100 U	3.74	<0.100 U	<0.100 U	<0.100 U	
32000	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.420 J	2.61		<10.0 U	1.37	<0.100 U	<0.060 U	<0.100 U	0.56	<0.100 U	768.98	1.05	<0.100 U	1.91	0.470 J	11.27	<0.100 U	<0.100 U	<0.100 U	1.7	<0.100 U	<0.100 U	<0.100 U	
32009	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.400 J	1.380 J		<10.0 U	3.35	<0.100 U	<0.060 U	<0.100 U	0.75	<0.100 U	1357.61	1.68	<0.100 U	2.06	0.320 J	193.77	0.480 J	<0.100 U	<0.100 U	1.28	<0.100 U	<0.100 U	<0.100 U	
32069	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.290 J	0.280 J		20.33	0.59	<0.500 U	<0.060 U	<0.100 U	<0.100 U	<0.100 U	239.51	1.72	<0.100 U	<0.100 U	0.100 U	17.6	0.280 J	<0.100 U	<0.100 U	0.87	<0.100 U	0.260 J	<0.100 U	
126078	<0.250 U	117	<0.250 U	<0.250 U	0.710 J	<1.250 U		51.45	1.98	<0.250 U	<0.150 U	<0.250 U	<0.250 U	<0.250 U	920.21	9.78	<0.250 U	3.94	<0.250 U	67.35	0.600 J	<0.250 U	0.930 J	<0.250 U	<0.250 U	0.550 J	<0.250 U	
139022	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.98	<0.500 U		12.24	1.78	<0.100 U	0.52	<0.100 U	0.66	<0.100 U	727.84	2.36	<0.100 U	1.74	0.72	196.75	<0.100 U	<0.100 U	<0.100 U	2.22	<0.100 U	<0.100 U	<0.100 U	
141006	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.88	<0.500 U		8.220 J	3.06	<0.100 U	0.070 J	<0.100 U	1.65	<0.100 U	832.06	4.25	<0.100 U	1.52	0.390 J	251.73	<0.100 U	<0.100 U	<0.100 U	1.34	<0.100 U	<0.100 U	<0.100 U	
145604	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.290 J	1.050 J		12.3	1.49	<0.100 U	<0.060 U	<0.100 U	<0.100 U	<0.100 U	469.5	0.380 J	<0.100 U	0.93	0.280 J	9.73	0.360 J	<0.100 U	<0.100 U	2.32	<0.100 U	0.320 J	<0.100 U	
146929	<0.250 U	150	<0.250 U	4.77	1.64	2.930 J		20.600 J	22.97	10.82	<0.150 U	<0.250 U	3.59	<0.250 U	380.66	1.42	<0.250 U	5.15	0.800 J	58.4	<0.250 U	<0.250 U	<0.250 U	4.68	<0.250 U	<0.250 U	<0.250 U	
149852	<0.250 U	304	<0.250 U	0.660 J	<0.250 U	1.910 J		143.45	1.62	<0.250 U	<0.150 U	<0.250 U	<0.250 U	<0.250 U	1141.4	4.89	0.510 J	4.81	<0.250 U	6.44	<0.250 U	<0.250 U	<0.250 U	0.520 J	<0.250 U	<0.250 U	<0.250 U	
149855	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.430 J	1.430 J		19.04	1.71	<0.100 U	0.280 J	<0.100 U	2.56	<0.100 U	674.95	3.37	0.260 J	1.43	0.470 J	15.83	0.310 J	<0.100 U	0.480 J	0.69	<0.100 U	0.290 J	<0.100 U	
152258	<0.250 U	337	<0.250 U	1.7	1.32	<1.250 U		94.79	11.81	3.05	<0.150 U	1.130 J	<0.250 U	<0.250 U	1092.11	2.76	<0.250 U	3.08	<0.250 U	30	0.620 J	<0.250 U	<0.250 U	1.000 J	<0.250 U	0.600 J	<0.250 U	
162423	<0.100 U	69	<0.100 U	0.210 J	1.49	2.06		18.35	1.1	<0.100 U	0.37	<0.100 U	0.480 J	<0.100 U	356.1	4.34	<0.100 U	3.37	0.61	8.91	0.430 J	<0.100 U	<0.100 U	7.61	<0.100 U	<0.100 U	<0.100 U	
164111	<0.100 U	<10.000 U	<0.100 U	0.94	0.66	<0.500 U		15.04	5.87	<0.100 U	<0.060 U	<0.100 U	<0.100 U	<0.100 U	720.65	2.56	<0.100 U	1.89	0.260 J	7.26	<0.100 U	<0.100 U	<0.100 U	3.13	<0.100 U	<0.100 U	<0.100 U	
196148	<0.100 U	<10.000 U	<0.100 U	<0.100 U	0.230 J	<0.500 U		6.530 J	0.430 J	<0.100 U	<0.060 U	<0.100 U	0.82	<0.100 U	381.3	0.89	<0.100 U	1.03	<0.100 U	279.19	<0.100 U	<0.100 U	<0.100 U	2.78	<0.100 U	<0.100 U	<0.100 U	
200616	14.24	<10.000 U	7.78	341.72	32.36	24.91		197.14	0.940 J	750.13	0.99	<0.250 U	3.5	<0.250 U	1661.91	81.05	0.690 J	3.04	17.15	3885.16	<0.250 U	156.26	<0.250 U	<0.250 U	65.31	<0.250 U	107.74	
200616	10.97	<10.000 U	8.34	339.94	20.28	13.85		172.99	<0.500 U	776.1	<0.300 U	<0.500 U	4.28	<0.500 U	1684.54	16.5	<0.500 U	3.02	18.17	3748.71	<0.500 U	187.41	<0.500 U	1.460 J	77.71	<0.500 U	107.37	
200616	11.14	<10.000 U	5.67	274.85	24.85	31.48		155.55	<0.250 U	643.58	0.680 J	<0.250 U	2.35	<0.250 U	1381.22	27.98	0.540 J	1.97	11.83	3155.74	<0.250 U	133.1	<0.250 U	0.830 J	49.22	<0.500 U	81.39	
200616	17.08	<10.000 U	9.25	365.95	31.92	15.34		200.38	<0.500 U	857.99	1.260 J	<0.500 U	3.52	<0.500 U	1819.86	29.54	<0.500 U	3.19	22.14	4205.17	<0.500 U	223.8	<0.500 U	1.600 J	93.37	<0.500 U	144.03	
200616	14.48	<10.000 U	8.57	354.17	30.93	19.74		182.51	12.53	787	2.22	<0.500 U	5.25	<0.500 U	1691.5	2.6	1.020 J	2.92	23.93	4010.25	1.620 J	189.2	<0.500 U	2.61	76.87	<0.500 U	119.48	
200616	8.48	<10.000 U	8.2	307.65	30.53	16.56		148.64	<0.250 U	708.4	1.01	<0.250 U	2.89	<0.250 U	1537.14	8.26	0.760 J	3.06	12.74	3668.38	<0.250 U	135.43	<0.250 U	1.28	55.31	<0.500 U	83.84	
200616	15.6	<10.000 U	7.4	307.77	31.23	48.6		169.95	<0.500 U	709.07	<0.300 U	<0.500 U	<0.500 U	<0.500 U	1439.05	42.93	<0.500 U	3.13	18.34	3257.03	<0.500 U	182.2	<0.500 U	1.390 J	74.18	<0.500 U	117.9	
200616	17.76	<10.000 U	8.67	340.13	35.77	14.58		184.85	<0.500 U	752.32	1.270 J	<0.500 U	3.37	<0.500 U	1731.92	20.71	<0.500 U	3.25	24.16	3829.21	1.480 J	172.07	<0.500 U	1.590 J	69.64	1.240 J	125.08	
200616	14.76	<10.000 U	10.56	398.53	44.79	12.15		233.88	<0.500 U	1021.15	1.74	<0.500 U	4.42	<0.500 U	1727.61	34.38	<0.500 U	3.71	26.88	4527.07	<0.500 U	210.84	<0.500 U	1.990 J	88.95	<0.500 U	132.88	
200616	16.02	<10.000 U	9.63	398.08	42.25	39.78		218.37	<0.500 U	991.03	1.3																	

Appendix A. Inorganic water quality.

GWIC ID	Be	Br	Cd	CO	Cr	Cu	Hg	Li	Mo	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn	Zr	Ce	Cs	Ga	La	Nb	Nd
217524	13.43	<10,000 U	5.92	173.08	54.03	19.15	277.82	<0.500 U	422.13	2.15	<0.500 U	3.78	<0.500 U	1490.57	24.54	1.280 J	6.19	14.7	2168.81	1.300 J	247.82	<0.500 U	3.66	103.76	<0.500 U	121.88	
217524	23.87	<50,000 U	6.99	196.07	66.74	105.06	358.79	<1,000 U	515.44	<0.600 U	<1,000 U	<1,000 U	<1,000 U	1657.59	67.84	<1,000 U	6.83	10.77	2454.86	<1,000 U	302.89	<1,000 U	4.310 J	128.08	<1,000 U	167.89	
217524	26.88	<50,950 U	6.73	226.74	73.89	19.950 J	350.6	<1,000 U	526.85	4.48	<1,000 U	4.950 J	<1,000 U	1461.63	37.75	<1,000 U	7.33	40.54	2502.76	<1,000 U	357.73	<1,000 U	4.390 J	148.85	<1,000 U	219.97	
217524	19.6	<50,000 U	5.99	177.79	58.08	20.5	353.19	<1,000 U	450.24	3.16	<1,000 U	4.290 J	<1,000 U	1319.01	44.73	<1,000 U	5.92	23.98	2086.66	2.990 J	302.39	<1,000 U	3.900 J	126.61	<1,000 U	175.61	
217524	22.86	<50,000 U	5.63	175.67	71.35	98.01	319.02	<1,000 U	477.1	<0.600 U	<1,000 U	5.41	<1,000 U	1320.41	53.8	<1,000 U	8.8	19.71	2093.58	<1,000 U	332.21	<1,000 U	5.81	142.15	<1,000 U	186.63	
217524	31.38	<50,000 U	8.23	268.32	105.87	113.81	478.43	<1,000 U	694	<0.600 U	<1,000 U	5.96	<1,000 U	2026.59	57.71	<1,000 U	10.91	19.21	3010.75	2.050 J	399.01	<1,000 U	7.34	170.2	<1,000 U	240.24	
223946	<0.100 U	<0.100 U	<0.100 U	0.380 J	0.390 J	6.08	42.13	0.440 J	<0.100 U	<0.060 U	<0.100 U	<0.100 U	<0.100 U	798.67	2.25	<0.100 U	<0.100 U	55.1	1.31	<0.100 U	<0.100 U	2.23	<0.100 U	<0.100 U	<0.100 U	<0.100 U	
224149	<0.100 U	<0.100 U	<0.100 U	2.65	1.19	5.79	44.07	0.66	11.17	<0.060 U	0.57	<0.100 U	<0.100 U	762.96	7.47	<0.100 U	<0.100 U	0.58	<0.500 U	<0.100 U	<0.100 U	<0.100 U	2.25	<0.100 U	<0.100 U	<0.100 U	
224150	<0.500 U	<10,000 U	<0.500 U	438.13	<0.500 U	31.11	97.44	1.200 J	812.66	<0.300 U	<0.500 U	<0.500 U	<0.500 U	3262.92	50.47	<0.500 U	<0.500 U	1776.96	2.51	84.09	<0.500 U	1.320 J	45.51	<0.500 U	47.44		
224151	<0.100 U	<0.100 U	<0.100 U	1.97	0.320 J	6.1	6.290 J	2.32	3.76	<0.060 U	0.420 J	<0.100 U	1.08	349.13	1.04	<0.100 U	0.76	0.75	<0.500 U	1.06	<0.100 U	<0.100 U	22.42	<0.100 U	0.230 J	<0.100 U	
235488	<0.250 U	112	<0.250 U	<0.250 U	<0.250 U	1.480 J	37.7	1.090 J	<0.250 U	0.550 J	<0.250 U	6.38	<0.250 U	724.31	2.47	<0.250 U	2.19	0.790 J	11.12	<0.250 U	<0.250 U	0.580 J	0.650 J	<0.250 U	<0.250 U	<0.250 U	
235689	<0.250 U	88	<0.250 U	0.860 J	<0.250 U	<1.250 U	31.31	2.14	<0.250 U	<0.150 U	<0.250 U	4.45	<0.250 U	861.05	3.86	<0.250 U	2.33	<0.250 U	11.85	<0.250 U	<0.250 U	0.700 J	0.870 J	<0.250 U	<0.250 U	<0.250 U	
236507	<1,000 U	<50,000 U	<1,000 U	306.38	<1,000 U	<5,000 U	661.64	<1,000 U	431.26	<0.600 U	<1,000 U	<1,000 U	<1,000 U	10250.01	28.53	<1,000 U	7.06	<1,000 U	407.96	<1,000 U	<1,000 U	2.980 J	<1,000 U	<1,000 U	<1,000 U	<1,000 U	
239236	<0.100 U	93	<0.100 U	<0.100 U	0.330 J	1.320 J	35.4	1.45	<0.100 U	<0.060 U	<0.100 U	0.87	<0.100 U	928.14	3.08	<0.100 U	1.74	0.55	7.44	<0.100 U	<0.100 U	0.64	0.85	<0.100 U	<0.100 U	<0.100 U	
242153	<0.100 U	90	<0.100 U	0.64	0.350 J	1.020 J	33.85	1.41	<0.100 U	0.31	<0.100 U	1.19	<0.100 U	914.57	2.89	<0.100 U	1.47	0.210 J	11.28	0.330 J	<0.100 U	0.63	0.85	<0.100 U	0.290 J	<0.100 U	
245668	<0.100 U	<10,000 U	0.380 J	<0.100 U	0.87	0.890 J	4.980 J	1.36	<0.100 U	3.53	<0.100 U	0.74	<0.100 U	871.12	4.52	<0.100 U	1.2	0.63	458.86	<0.100 U	<0.100 U	<0.100 U	1.74	<0.100 U	<0.100 U	<0.100 U	
248664	<0.100 U	77	<0.100 U	<0.100 U	0.340 J	2.23	26.05	1.29	<0.100 U	<0.060 U	<0.100 U	0.93	<0.100 U	821.63	2.44	<0.100 U	1.47	0.57	15.26	<0.100 U	<0.100 U	0.440 J	1.05	<0.100 U	<0.100 U	<0.100 U	
252467	<0.100 U	<10,000 U	<0.100 U	<0.100 U	0.350 J	9.16	21.26	1.36	<0.100 U	<0.060 U	<0.100 U	0.92	<0.100 U	794.17	2.33	<0.100 U	1.53	0.6	19.75	<0.100 U	<0.100 U	0.360 J	1.21	<0.100 U	<0.100 U	<0.100 U	
255442	<0.250 U	<10,000 U	<0.250 U	<0.250 U	2.390 J	26.8	0.770 J	<0.250 U	<0.150 U	<0.250 U	7.12	<0.250 U	396.07	3.89	<0.250 U	4.06	<0.250 U	9.44	<0.250 U	<0.250 U	<0.250 U	1.43	<0.250 U	<0.250 U	<0.250 U	<0.250 U	
261984	<0.250 U	104	<0.250 U	20.31	<0.250 U	<1.250 U	75	1.090 J	95.32	<0.150 U	<0.250 U	4.04	<0.250 U	1066.05	4.9	<0.250 U	3.45	<0.250 U	133.41	<0.250 U	<0.250 U	0.830 J	1.240 J	<0.250 U	<0.250 U	<0.250 U	
276129	<0.100 U	242	<0.100 U	<0.100 U	1.01	1.300 J	2.280 J	0.450 J	<0.100 U	0.3	<0.100 U	0.62	2	84.23	<0.100 U	<0.100 U	0.320 J	0.460 J	15.78	<0.100 U	<0.100 U	<0.100 U	6.83	<0.100 U	<0.100 U	<0.100 U	
277205	<1,000 U	542	<1,000 U	3.230 J	<1,000 U	<5,000 U	266.45	6.79	3.620 J	<0.600 U	<1,000 U	<1,000 U	<1,000 U	2880.02	23.04	<1,000 U	12.39	<1,000 U	35.35	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U	
279108	<0.100 U	90	<0.100 U	<0.100 U	0.370 J	3.23	33.22	1.55	<0.100 U	0.210 J	<0.100 U	0.88	<0.100 U	904.27	2.93	<0.100 U	1.66	0.53	7.54	<0.100 U	<0.100 U	0.6	0.88	<0.100 U	<0.100 U	<0.100 U	
279137	<0.100 U	86	<0.100 U	<0.100 U	0.980 J	23.95	23.95	1.2	<0.100 U	<0.060 U	<0.100 U	1.06	<0.100 U	850.81	2.78	<0.100 U	1.43	0.390 J	13	<0.100 U	<0.100 U	0.55	1.04	<0.100 U	<0.100 U	<0.100 U	
279240	<0.100 U	79	<0.100 U	1.07	<0.100 U	<0.500 U	96.92	2.78	6.25	<0.060 U	<0.100 U	1.07	<0.100 U	1119.59	4.3	<0.100 U	6.69	0.350 J	23.26	0.410 J	<0.100 U	0.280 J	1.61	<0.100 U	0.240 J	<0.100 U	
281405	<0.250 U	101	<0.250 U	<0.250 U	0.720 J	<1.250 U	35.72	0.730 J	<0.250 U	<0.150 U	<0.250 U	1.44	<0.250 U	746.25	5.17	<0.250 U	1.35	0.720 J	19.99	<0.250 U	<0.250 U	<0.250 U	<0.250 U	<0.250 U	<0.250 U	<0.250 U	
291365	<0.100 U	202	<0.100 U	7.78	<0.100 U	3.65	40	1.49	24.36	<0.060 U	<0.100 U	0.99	<0.100 U	937.18	2.24	0.210 J	1.53	<0.100 U	46.53	<0.100 U	<0.100 U	0.75	1.11	<0.100 U	<0.100 U	<0.100 U	
291858	26.32	<50,000 U	6.59	658.3	22.98	97.17	425.58	5.23	1483.04	11.23	<1,000 U	6.09	<1,000 U	1256.06	46.46	<1,000 U	20.8	34.6	6171.85	<1,000 U	348.03	<1,000 U	<1,000 U	130.25	<1,000 U	223.3	
291858	21.06	<50,000 U	8.03	635.57	26.22	131.83	383.11	6.25	1528.1	5.64	<1,000 U	4.920 J	<1,000 U	1199.57	24.66	<1,000 U	19.04	44.71	6113.79	2.110 J	316.76	<1,000 U	<1,000 U	115.84	<1,000 U	200.6	
291859	96.76	<50,000 U	30.56	3945.77	22.35	241.33	559.84	<1,000 U	7593.46	7.39	<1,000 U	9.97	<1,000 U	1379.87	63.75	3.390 J	12.37	88.32	36977.06	4.310 J	452.62	2.550 J	2.250 J	145.26	<1,000 U	351.24	
291859	66.89	<50,000 U	23.55	3189.47	15.08	268.91	529.97	<1,000 U	6390.53	2.590 J	<1,000 U	6.82	<1,000 U	1233.07	44.18	3.430 J	8.21	81.06	29540	<1,000 U	611.97	2.270 J	<1,000 U	118.06	<1,000 U	246.54	
291861	126.9	<100,000 U	111.75	2394.92	343.16	1086.45	1116.01	<5,000 U	5290.23	24.51	<5,000 U	23.900 J	<5,000 U	1907.16	198.09	<5,000 U	364.68	406.08	20234.61	<5,000 U	1783.53	<5,000 U	36.81	647.76	<5,000 U	1078.82	
291861	78.76	<100,000 U	106.04	1999.18	254.97	1314.01	894.89	<5,000 U	4606.32	<3,000 U	<5,000 U	<5,000 U	<5,000 U	1552.07	104.39	<5,000 U	338.67	267.04	16504.63	<5,000 U	1524.68	<5,000 U	35.98	564.34	<5,000 U	887.07	
291863	2.15	<10,000 U	<0.250 U	87.86	<0.250 U	18.05	72.99	<0.250 U	177.08	3.19	<0.250 U	<0.250 U	<0.250 U	375.31	10.62	<0.250 U	<0.250 U	<0.250 U	645.63	<0.250 U	17.31	<0.250 U	0.860 J	6.83	<0.250 U	11.5	
291863	1.54	<10,000 U	<0.250 U	59.56	<0.250 U	26	65.84	0.580 J	159.98	2.9	<0.250 U	<0.250 U	<0.250 U	306.34	5.55	<0.250 U	<0.250 U	<0.250 U	509.37	1.070 J	9.14	<0.250 U	0.590 J	3.77	<0.250 U	6	
291865	13.77	<50,000 U	35.87	848.58	8.78	106.18	222.17	<0.500 U	1473.64	3.85	<0.500 U	2.86	<0.500 U	712.11	16.41	<0.500 U	22.25	<0.500 U	6584.32	<0.500 U	205.59	<0.500 U	2.280 J	74.26	<0.500 U	132.62	
291865	13.67	<50,000 U	36.31	860.17	7.86	100.16	230.24	<0.500 U	1471.14	1.52	<0.500 U	3.34	<0.500 U	737.95	15.96	<0.500 U	23	<0.500 U	6596.16	<0.500 U	190.57	<0.500 U	2.090 J	76.84	<0.500 U	115.59	
294553	<0.100 U	76	<0.100 U	<0.100 U	0.350 J	0.740 J	19.26	1.19	<0.100 U	2.16	<0.100 U	1.22	<0.100 U	786.35	2.15	<0.100 U	1.63	0.390 J	344.56	<0.100 U	<0.100 U	0.390 J	1.15	<0.100 U	<0.100 U	<0.100 U	
296887	26.54	<50,000 U	32.69	1063.01	77.54	228.91	398.48	<1,000 U	2430.12	11.96	<1,000 U	7.66	<1,000 U	1208.13	33.43	2.970 J	45.95	48.2	10392.71	<1,000							

Appendix A. Inorganic water quality.

	meq/L	meq/L	meq/L	meq/L	meq/L	meq/L
GWIC ID	Pd	Pr	Rb	Th	W	NO ₂ _N_Mg/L
2174	0.310 J	<0.100 U	1.9	<0.100 U	<0.100 U	<0.010 U
2262	12.67	62.65	5.76	13.39	<1.000 U	<0.050 U
2262	10.99	67.77	4.870 J	10.34	<1.000 U	<0.050 U
2276	23.13	131.99	<1.000 U	46.58	<1.000 U	<0.050 U
2276	21.6	122.48	<1.000 U	33.86	<1.000 U	<0.050 U
2309	0.490 J	<0.100 U	1.78	<0.100 U	<0.100 U	<0.010 U
2441	<0.500 U	<0.500 U	<0.500 U	<0.500 U	<0.500 U	<0.010 U
2526	0.66	<0.100 U	1.71	<0.100 U	<0.100 U	<0.010 U
2528	0.57	<0.100 U	1.92	<0.100 U	<0.100 U	<0.010 U
30542	0.330 J	<0.100 U	2.23	<0.100 U	<0.100 U	<0.010 U
31892	0.78	<0.100 U	7.81	<0.100 U	<0.100 U	<0.010 U
31939	<0.250 U	<0.250 U	3.52	<0.250 U	<0.250 U	<0.010 U
31965	<0.250 U	<0.250 U	3.84	<0.250 U	<0.250 U	<0.010 U
31992	0.370 J	<0.100 U	0.83	<0.100 U	<0.100 U	<0.010 U
32000	0.480 J	<0.100 U	0.7	<0.100 U	<0.100 U	<0.010 U
32009	0.85	<0.100 U	0.84	<0.100 U	<0.100 U	<0.010 U
32069	0.350 J	<0.100 U	2.11	<0.100 U	<0.100 U	<0.010 U
126078	1.010 J	<0.250 U	8.21	<0.250 U	<0.250 U	<0.010 U
139022	0.57	<0.100 U	1.93	<0.100 U	<0.100 U	<0.010 U
141006	0.65	<0.100 U	0.9	<0.100 U	<0.100 U	<0.010 U
145604	0.330 J	<0.100 U	0.430 J	<0.100 U	<0.100 U	<0.010 U
146929	<0.250 U	<0.250 U	1.92	<0.250 U	<0.250 U	<0.010 U
149852	0.720 J	<0.250 U	6.86	<0.250 U	<0.250 U	<0.010 U
149855	0.490 J	<0.100 U	4.36	<0.100 U	<0.100 U	<0.010 U
152258	0.840 J	<0.250 U	11.19	<0.250 U	3.47	<0.010 U
162423	0.350 J	<0.100 U	1.92	<0.100 U	<0.100 U	<0.010 U
164111	0.460 J	<0.100 U	2.05	<0.100 U	<0.100 U	<0.010 U
196148	0.240 J	<0.100 U	1.27	<0.100 U	<0.100 U	<0.010 U
200616	4.24	23.94	10.23	4.15	<0.250 U	<0.010 U
200616	4.27	26.49	13.12	4.8	<0.500 U	<0.010 U
200616	4.44	15.9	8.61	2.81	<0.250 U	<0.010 U
200616	4.82	26.85	12.14	5.86	<0.500 U	<0.010 U
200616	5.45	25.7	12.32	5.74	<0.500 U	<0.010 U
200616	3.89	18.94	11.67	4.75	<0.250 U	<0.010 U
200616	4.02	26.09	10	4.73	<0.500 U	<0.010 U
200616	5.48	29.96	13.23	5.68	<0.500 U	<0.010 U
200616	5.74	30.42	12.01	6.29	<0.500 U	<0.010 U
200616	5.81	32.2	11.74	5.72	<0.500 U	<0.010 U
200616	5.59	32.99	13.78	5.33	<0.500 U	0.08
205599	0.51	<0.100 U	2.37	<0.100 U	<0.100 U	<0.010 U
210668	0.760 J	<0.250 U	5.7	<0.250 U	<0.250 U	<0.010 U
212233	0.720 J	<0.250 U	7.26	<0.250 U	<0.250 U	<0.010 U
214914	3.86	35.62	12.79	8.12	<0.500 U	<0.050 U
214914	4.620 J	44.03	14.36	12.5	<1.000 U	<0.050 U
214914	8.61	63.37	16.38	10.87	<1.000 U	<0.050 U
214914	6.46	48.23	16.93	9.06	<1.000 U	<0.050 U
214915	4.74	52.36	12.92	11.17	<0.500 U	<0.050 U
214915	4.03	49.23	14.63	5.95	<0.500 U	<0.050 U
214915	7.3	52.3	14.37	11.28	<0.500 U	<0.050 U
214915	7.64	47.94	17.1	4.41	<0.500 U	<0.050 U
215048	0.480 J	<0.100 U	10.76	<0.100 U	2.62	<0.010 U
217046	0.99	<0.100 U	1.3	<0.100 U	<0.100 U	<0.010 U
217047	0.470 J	<0.100 U	5.62	<0.100 U	0.310 J	0.07
217048	1.000 J	<0.250 U	15.14	<0.250 U	0.840 J	<0.010 U
217050	0.380 J	<0.100 U	3.77	<0.100 U	0.69	<0.010 U
217052	0.61	<0.100 U	7.85	<0.100 U	<0.100 U	0.08
217053	0.57	<0.100 U	7.13	<0.100 U	<0.100 U	<0.010 U
217056	0.450 J	<0.100 U	5.97	<0.100 U	0.220 J	<0.010 U
217524	5.29	44.69	16.55	10.39	<1.000 U	<0.050 U
217524	4.070 J	40.13	14.46	12.61	<1.000 U	<0.050 U
217524	5.32	30.73	4.560 J	11.3	<1.000 U	<0.050 U
217524	5.33	46.38	17.24	11.84	<1.000 U	<0.050 U
217524	6.93	48.44	17.64	11.93	<1.000 U	<0.050 U

Appendix A. Inorganic water quality.

GWIC ID	Pd	Pr	Rb	Th	W	NO ₂ _N_Mg/L
217524	4.63	29.21	13.9	11.53	<0.500 U	<0.010 U
217524	4.850 J	39.85	7.66	11.78	<1.000 U	<0.050 U
217524	5.61	52.45	16.53	13.63	<1.000 U	<0.050 U
217524	5.66	41.61	13.1	10.67	<1.000 U	<0.050 U
217524	5.54	44.23	6.98	14.77	<1.000 U	<0.050 U
217524	7.65	58.44	9.34	18.92	<1.000 U	<0.050 U
223946	0.62	<0.100 U	6.05	<0.100 U	0.260 J	<0.010 U
224149	0.55	<0.100 U	7.18	<0.100 U	1.71	<0.010 U
224150	4.32	11.05	15.14	<0.500 U	<0.500 U	0.07
224151	0.470 J	<0.100 U	7.72	<0.100 U	0.260 J	
235488	<0.250 U	<0.250 U	7.58	<0.250 U	<0.250 U	<0.010 U
235689	<0.250 U	<0.250 U	6.63	<0.250 U	<0.250 U	<0.010 U
236507	5.68	<1.000 U	48.41	<1.000 U	<1.000 U	<0.050 U
239236	0.56	<0.100 U	5.09	<0.100 U	<0.100 U	<0.010 U
242153	0.62	<0.100 U	4.87	<0.100 U	<0.100 U	<0.010 U
245668	0.72	<0.100 U	0.67	<0.100 U	<0.100 U	<0.010 U
248664	0.440 J	<0.100 U	3.65	<0.100 U	<0.100 U	<0.010 U
252467	0.440 J	<0.100 U	2.94	<0.100 U	<0.100 U	<0.010 U
255442	<0.250 U	<0.250 U	4.45	<0.250 U	<0.250 U	<0.010 U
261984	0.570 J	<0.250 U	8.14	<0.250 U	<0.250 U	<0.010 U
276129	<0.100 U	<0.100 U	0.57	<0.100 U	<0.100 U	<0.010 U
277205	2.190 J	<1.000 U	8.71	<1.000 U	<1.000 U	<0.050 U
279108	0.5	<0.100 U	4.75	<0.100 U	<0.100 U	<0.010 U
279137	0.64	<0.100 U	3.7	<0.100 U	<0.100 U	<0.010 U
279240	0.66	<0.100 U	7.71	<0.100 U	<0.100 U	0.22
281405	0.580 J	<0.250 U	5.42	<0.250 U	<0.250 U	<0.010 U
291365	0.460 J	<0.100 U	6.33	<0.100 U	<0.100 U	<0.010 U
291858	8.58	50.41	15.86	2.590 J	<1.000 U	<0.050 U
291858	8.21	45.37	12.45	4.760 J	<1.000 U	<0.050 U
291859	14.55	72.18	49.34	4.370 J	<1.000 U	<0.050 U
291859	11.12	52.3	45.7	2.590 J	<1.000 U	<0.050 U
291861	28.06	249.15	<5.000 U	108.55	<5.000 U	<0.100 U
291861	21.160 J	206.61	<5.000 U	95.86	<5.000 U	<0.100 U
291863	0.690 J	2.48	15.54	<0.250 U	<0.250 U	<0.010 U
291863	0.760 J	1.34	13.25	<0.250 U	<0.250 U	<0.010 U
291865	3.83	26.54	3.34	9.78	<0.500 U	<0.050 U
291865	3.63	26.6	3.3	8.95	<0.500 U	<0.050 U
294553	0.52	<0.100 U	2.91	<0.100 U	<0.100 U	<0.010 U
296887	10.59	57.36	8.68	10.48	<1.000 U	<0.050 U
296888	<0.100 U	<0.100 U	1.95	<0.100 U	<0.100 U	<0.010 U

Appendix A. Inorganic water quality.

	meq/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
GWIC ID	NO ₂ _NO ₃ _N_Mg/L	OH_Mg/L	Dissolved Organic Carbon	Dissolved Inorganic Carbon	Total Dissolved Solids	Sum Dissolved Constituents	Hardness	Alkalinity	SAR	Procedure_type	
2174	5.03	0		25.6	342.573	527.77	311.467	299.3624	0.2959	DISSOLVED	
2262	0.47	0		13	5495.789	5495.789	1017.8784	0	0.2455	DISSOLVED	
2262	0.6	0		2.45	5500.594	5500.594	1021.7415	0	0.2995	DISSOLVED	
2276	1.81	0		4.96	9403.643	9403.643	1392.9138	0	0.1632	DISSOLVED	
2276	1.86	0		1.37	9758.822	9758.822	1415.1668	0	0.2198	DISSOLVED	
2309	0.82	0		33	352.7019	468.894	281.5799	187.8192	0.2593	DISSOLVED	
2441	<0.200 U	0			1756.1931	1928.198	1343.073	278.038	0.1662	DISSOLVED	
2526	0.48	0			410.3379	526.53	330.7916	187.8192	0.1675	DISSOLVED	
2528	0.49	0		31	397.1663	515.388	315.4388	191.0998	0.245	DISSOLVED	
30542	8.48	0			337.7881	509.793	317.4745	278.038	0.2931	DISSOLVED	
31892	0.39	0		31.6	483.35	613.749	337.7083	210.7839	0.663	DISSOLVED	
31939	1.33	0		28.6	630.2027	745.38	487.0231	186.1788	0.276	DISSOLVED	
31965	4.03	0		43.7	811.5346	1054.574	623.1125	392.8619	0.8716	DISSOLVED	
31992	0.71	0			410.7153	528.937	328.8874	191.0998	0.168	DISSOLVED	
32000	4.22	0		19.5	323.9436	424.914	267.4598	163.214	0.0532	DISSOLVED	
32009	0.26	0		20.9	446.3171	551.854	354.3177	170.5956	0.0694	DISSOLVED	
32069	<0.200 U	0		35.2	317.449	447.848	276.167	210.7839	0.2095	DISSOLVED	
126078	<0.200 U	0		41.4	800.6394	960.467	599.7469	258.3539	0.462	DISSOLVED	
139022	0.59	0		29.7	335.3632	455.107	269.0191	193.5604	0.2388	DISSOLVED	
141006	0.52	0		25.5	325.8207	422.732	270.1758	156.6527	0.0794	DISSOLVED	
145604	0.42	0			270.954	392.22	226.3179	196.0209	0.2025	DISSOLVED	
146929	9.4	0		21	461.0123	663.968	419.0881	328.0684	0.3401	DISSOLVED	
149852	<0.200 U	0		30.4	1146.959	1332.156	717.8602	299.3624	1.413	DISSOLVED	
149855	0.37	0		35.8	424.0222	543.766	326.9011	193.5604	0.3369	DISSOLVED	
152258	<0.200 U	0		25.1	661.3318	875.45	422.5086	346.1122	1.4818	DISSOLVED	
162423	2.26	0		49.7	501.9303	738.881	435.6477	383.0199	0.2919	DISSOLVED	
164111		0			361.8189	496.277	291.5454	217.3453	0.2294	DISSOLVED	
196148	1.97	0		38.8	316.321	474.119	287.5213	255.0732	0.154	DISSOLVED	
200616		0			2387.068	2387.068	704.1997	0	0.1804	DISSOLVED	
200616		0			2242.753	2242.753	699.9937	0	0.1645	DISSOLVED	
200616		0			2033.212	2033.212	650.4899	0	0.1877	DISSOLVED	
200616		0		16.8	2474.4	2474.4	731.1492	0	0.177	DISSOLVED	
200616		0		12.9	2525.015	2525.015	749.057	0	0.159	DISSOLVED	
200616		0		15.6	2454.375	2454.375	706.0377	0	0.1801	DISSOLVED	
200616		0			2217.711	2217.711	623.2767	0	0.1743	DISSOLVED	
200616		0		11.5	2440.234	2440.234	719.0869	0	0.1623	DISSOLVED	
200616		0		11.5	2672.814	2672.814	724.8116	0	0.1778	DISSOLVED	
200616		0		15.1	2565.087	2565.087	729.2188	0	0.2095	DISSOLVED	
200616		0		8.04	2796.911	2796.911	758.0277	0	0.1897	DISSOLVED	
205599	0.44	0		32.8	372.9756	494.749	293.8185	196.841	0.3046	DISSOLVED	
210668	1.43	0		42.6	1180.865	1423.397	782.0501	392.0417	1.4315	DISSOLVED	
212233	<0.200 U	0			645.2548	895.905	496.1834	405.1645	0.7227	DISSOLVED	
214914		0			3562.392	3562.392	602.7236	0	0.4076	DISSOLVED	
214914		0		12.4	3927.433	3927.433	637.7524	0	0.3963	DISSOLVED	
214914		0		14.2	5124.088	5124.088	892.423	0	0.335	DISSOLVED	
214914		0		13.9	4350.09	4350.09	721.6511	0	0.3401	DISSOLVED	
214915		0			3605.491	3605.491	720.0905	0	0.3081	DISSOLVED	
214915		0			3732.117	3732.117	794.6656	0	0.3241	DISSOLVED	
214915		0		28.1	4184.784	4184.784	895.7027	0	0.2908	DISSOLVED	
214915		0		25.4	4101.627	4101.627	812.5885	0	0.3053	DISSOLVED	
215048		0	12.22	79.2	449.9015	612.266	359.978	262.4547	0.2523	DISSOLVED	
217046		0	1.95	47.2	410.6559	538.518	320.2966	206.6831	0.1216	DISSOLVED	
217047		0	0.94	58.2	396.9784	517.737	343.9291	195.2007	0.2581	DISSOLVED	
217048		0	1.38	141.6	627.7905	996.155	604.7069	595.4441	0.23	DISSOLVED	
217050		0	0.67	71	352.3333	534.486	364.7043	294.4414	0.1823	DISSOLVED	
217052		0	1.47	44.9	616.8339	687.361	397.0893	114.0038	0.1747	DISSOLVED	
217053		0	0.56	88.8	378.6316	603.405	336.2094	363.3358	0.4034	DISSOLVED	
217056		0	0.35	88.1	396.6567	623.967	368.7511	367.4366	0.2719	DISSOLVED	
217524		0			4872.721	4872.721	707.0554	0	0.2455	DISSOLVED	
217524		0			4031.925	4031.925	722.7262	0	0.3399	DISSOLVED	
217524		0			4349.984	4349.984	860.9871	0	0.3262	DISSOLVED	
217524		0		19.7	4797.852	4797.852	691.4847	0	0.2648	DISSOLVED	
217524		0		10.6	4996.822	4996.822	676.4077	0	0.251	DISSOLVED	

Appendix A. Inorganic water quality.

GWIC ID	NO ₃ _NO ₂ _N_Mg/L	OH_Mg/L	Dissolved Organic Carbon	Dissolved Inorganic Carbon	Total Dissolved Solids	Sum Dissolved Constituents	Hardness	Alkalinity	SAR	Procedure_type
217524		0		11.1	3676.693	3676.693	779.558	0	0.3429	DISSOLVED
217524		0			4541.83	4541.83	806.8043	0	0.3983	DISSOLVED
217524		0		11.1	4871.893	4871.893	741.7124	0	0.2876	DISSOLVED
217524		0		11.2	3931.798	3931.798	631.8715	0	0.2423	DISSOLVED
217524		0		1.11	4393.696	4393.696	697.8399	0	0.5106	DISSOLVED
217524		0		0.11	5947.942	5947.942	928.9879	0	0.257	DISSOLVED
223946		0	13.84	62.3	373.8047	528.051	306.3749	249.332	0.2486	DISSOLVED
224149		0	0.89	86.7	599.1151	789.386	479.6567	307.5641	0.1987	DISSOLVED
224150		0	7.05	75.7	3817.1089	3887.636	2083.384	114.0038	0.1239	DISSOLVED
224151		0			269.3015	431.666	243.3513	262.4547	0.0837	DISSOLVED
235488	0.58	0		17.36	542.4568	671.841	403.5788	209.1436	0.4982	DISSOLVED
235689	0.35	0		21.42	663.996	785.262	497.3678	196.0209	0.3512	DISSOLVED
236507	<0.200 U	0		132.76	3711.7431	4117.147	2665.7375	655.3166	1.399	DISSOLVED
239236	0.46	0		33.4	443.3528	572.737	336.006	209.1436	0.4748	DISSOLVED
242153	0.39	0		30.6	437.0587	563.906	327.902	205.0428	0.4566	DISSOLVED
245668	0.5	0		28.1	327.4103	436.499	277.1622	176.3368	0.0523	DISSOLVED
248664	0.4	0		27.6	396.8167	521.127	306.626	200.9419	0.3727	DISSOLVED
252467	0.44	0		26.2	375.7156	497.489	301.7612	196.841	0.3006	DISSOLVED
255442	8.09	0		45.1	578.4227	744.339	455.5842	268.1959	0.5912	DISSOLVED
261984	0.48	0		25.05	781.248	911.647	590.0221	210.7839	0.4837	DISSOLVED
276129	5.8	0		39.5	264.6993	416.916	253.5488	246.0513	0.082	DISSOLVED
277205	<0.200 U	0			2395.6617	2735.105	1043.7872	548.6944	5.6432	DISSOLVED
279108	0.42	0		25.2	433.2689	561.131	331.0954	206.6831	0.4544	DISSOLVED
279137	0.41	0			417.6431	543.983	315.5807	204.2226	0.4164	DISSOLVED
279240	5.15	0			607.8265	921.393	528.5815	506.8657	0.6813	DISSOLVED
281405	0.38	0		28.9	611.8793	745.83	459.6049	216.5251	0.4465	DISSOLVED
291365	0.39	0		20.47	481.5177	605.828	360.8815	200.9419	0.481	DISSOLVED
291858	<0.200 U	0		25.3	3479.299	3479.299	1004.2649	0	0.3295	DISSOLVED
291858	<0.200 U	0		28.2	3688.456	3688.456	981.9761	0	0.3888	DISSOLVED
291859	0.35	0		14.3	5812.658	5812.658	1368.8096	0	0.1647	DISSOLVED
291859	0.2	0		15.5	5806.189	5806.189	1295.544	0	0.1693	DISSOLVED
291861	1.5	0		3.81	15032.851	15032.851	1820.683	0	0.2039	DISSOLVED
291861	1.53	0		1.3	13308.389	13308.389	1580.83	0	0.3721	DISSOLVED
291863	<0.200 U	0		44.1	900.5284	963.952	489.5892	102.5214	0.354	DISSOLVED
291863	<0.200 U	0		29.1	898.4628	963.916	484.6465	105.8021	0.4151	DISSOLVED
291865	<0.200 U	0		2.5	3870.83	3870.83	1039.6389	0	0.2969	DISSOLVED
291865	0.22	0		1.94	2820.991	2820.991	1004.0016	0	0.2884	DISSOLVED
294553	0.7	0			391.0755	519.445	298.5234	207.5033	0.3526	DISSOLVED
296887	1.2	0		1.53	4967.562	4967.562	1135.6187	0	0.3228	DISSOLVED
296888	3.98	0		27	293.2685	437.367	255.0511	232.9286	0.1907	DISSOLVED