

MO-Well Data, Water Quality Criteria Exceedances and Outliers

Parameters	Units	Parameter Values <sup>1</sup>															
		MO-101				MO-102				MO-103				MO-104			
		4/23/09	5/7/09	5/21/09	6/4/09	4/23/09	5/7/09	5/21/09	6/4/09	4/23/09	5/7/09	5/21/09	6/4/09	4/22/09	5/6/09	5/20/09	6/3/09
Total Alkalinity as CaCO <sub>3</sub>	mg/L	112	110	111	112	99	105	107	109	115	113	105	114	108	124	123	124
CO <sub>3</sub>	mg/L	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
HCO <sub>3</sub>	mg/L	137	135	136	137	121	128	130	132	141	138	129	139	132	151	150	151
Dissolved Calcium	mg/L	82	91	92	89	70	75	82	77	74	80	62	79	76	85	85	91
Total Chloride	mg/L	7	8	9	10	6	6	6	6	6	6	5	6	8	9	9	9
Dissolved Fluoride	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Dissolved Magnesium	mg/L	4	4	4	4	3	4	4	4	4	4	3	4	4	4	5	5
Total NH <sub>3</sub> -N	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved NO <sub>3</sub> +NO <sub>2</sub> -N	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	0.09	0.07	0.15	0.1	0.72	0.84	0.87	0.84
Dissolved Potassium	mg/L	3	3	3	2	3	3	3	3	2	2	2	2	4	3	3	2
Dissolved SiO <sub>2</sub>	mg/L	14.1	14.4	15.7	15.4	15.2	14.2	15.4	14.8	14.4	15.8	15.5	15.4	14.5	15.9	15.2	15.5
Dissolved Sodium	mg/L	31	34	31	29	32	32	30	29	30	33	30	32	35	30	42	35
Total SO <sub>4</sub>	mg/L	196	204	200	199	174	181	184	180	177	175	124	174	171	177	183	177
Specific Conductance at 25 °C	µmhos/cm	652	624	612	638	567	577	566	588	593	577	448	580	596	616	615	616
Laboratory pH	SU	7.89	7.93	7.84	7.87	8.06	8	7.94	7.93	7.81	7.77	7.9	7.83	7.79	7.77	7.86	7.73
TDS Dried at 180 °C	mg/L	428	442	442	451	373	406	434	393	389	396	322	426	394	424	438	413
Dissolved Aluminum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Arsenic	mg/L	0.001	-0.001	-0.001	-0.001	0.004	0.003	0.003	0.002	-0.001	-0.001	0.001	0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Barium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Boron	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Cadmium	mg/L	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
Dissolved Chromium	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Copper	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Dissolved Iron	mg/L	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	0.04	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
Dissolved Lead	mg/L	0.003	-0.001	-0.001	-0.001	0.001	-0.001	-0.001	-0.001	0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Manganese	mg/L	0.01	0.01	0.01	0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Dissolved Mercury	mg/L	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Molybdenum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Nickel	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Selenium	mg/L	0.012	0.012	0.013	0.012	-0.001	-0.001	-0.001	-0.001	0.013	0.014	0.015	0.014	0.043	0.046	0.046	0.047
Dissolved Uranium	mg/L	0.385	0.384	0.378	0.368	0.332	0.339	0.341	0.339	0.469	0.481	0.326	0.464	0.718	0.916	0.883	0.899
Dissolved Vanadium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Zinc	mg/L	0.05	0.02	0.02	0.01	0.02	-0.01	0.01	-0.01	0.02	-0.01	-0.01	-0.01	0.02	-0.01	-0.01	-0.01
Total Iron	mg/L	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.07	-0.03	-0.03	-0.03
Total Manganese	mg/L	0.01	-0.02	0.01	0.02	-0.01	-0.02	-0.01	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01	-0.02	-0.02	-0.01
Gross Alpha	pCi/L	424	445	552	440	312	387	402	388	505	500	267	458	682	834	837	717
Gross Beta	pCi/L	95.7	144	118	108	97.4	100	114	95.9	115	121	81.1	110	197	382	303	255
Dissolved Ra-226	pCi/L	4.3	4.1	5	5.2	6.9	7.7	7.9	8.6	4.1	3.3	2.1	3.4	3.1	2.7	3.2	2.4
Dissolved Ra-228	pCi/L	3.1	2.1	2.9	2.4	3.5	2.7	2.3	3.8	3	2.7	1.8	2.4	2.3	2.1	3.3	3.8
Dissolved Ra-226+Ra-228	pCi/L	7.4	6.2	7.9	7.6	10.4	10.4	10.2	12.4	7.1	6	3.9	5.8	5.4	4.8	6.5	6.2

<sup>1</sup> Less than values are denoted by a minus sign in front of the detection limit.

<sup>2</sup> When the mean minus three standard deviations is a negative value, ND is written for "not detected".

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

Value is an outlier or calculation excludes outlier(s).

MO-Well Data, Water Quality Criteria Exceedances and Outliers

Parameters	Units	Parameter Values <sup>1</sup>															
		MO-105				MO-106				MO-107				MO-108			
		4/23/09	5/7/09	5/21/09	6/4/09	4/22/09	5/6/09	5/20/09	6/3/09	4/22/09	5/6/09	5/20/09	6/3/09	4/22/09	5/6/09	5/20/09	6/3/09
Total Alkalinity as CaCO <sub>3</sub>	mg/L	107	104	114	105	71	96	99	86	105	103	103	104	109	107	103	103
CO <sub>3</sub>	mg/L	-1	-1	-1	-1	2	5	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
HCO <sub>3</sub>	mg/L	130	127	139	129	82	107	119	105	128	126	126	127	134	130	125	126
Dissolved Calcium	mg/L	57	58	79	56	35	50	51	49	52	56	57	57	57	60	59	58
Total Chloride	mg/L	5	5	6	5	4	5	5	5	5	4	4	5	5	5	5	5
Dissolved Fluoride	mg/L	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Dissolved Magnesium	mg/L	3	3	4	3	1	2	2	2	3	3	2	3	3	3	2	3
Total NH <sub>3</sub> -N	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	0.5	0.36	0.16	0.14
Dissolved NO <sub>3</sub> +NO <sub>2</sub> -N	mg/L	0.12	0.12	0.1	0.15	0.14	0.13	0.17	0.15	-0.05	0.06	0.08	0.08	-0.05	-0.05	-0.05	-0.05
Dissolved Potassium	mg/L	2	2	2	2	3	3	2	3	2	2	2	2	3	3	2	2
Dissolved SiO <sub>2</sub>	mg/L	14.2	14.4	15.3	15.1	12.2	13.4	11.9	14.1	13.1	14.3	12.1	14.3	13.9	14.9	12.3	14.1
Dissolved Sodium	mg/L	31	32	29	31	39	30	31	31	33	31	34	33	34	31	34	32
Total SO <sub>4</sub>	mg/L	124	125	174	122	98	108	114	116	115	114	118	116	120	119	126	127
Specific Conductance at 25 °C	µmhos/cm	481	469	557	469	362	432	438	428	458	459	439	456	480	471	457	473
Laboratory pH	SU	7.94	7.98	7.75	7.91	9	8.72	8.39	8.25	8.01	7.96	8.06	7.93	7.99	8.02	8.1	7.94
TDS Dried at 180 °C	mg/L	312	324	402	336	240	291	304	276	298	297	316	300	316	312	322	310
Dissolved Aluminum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Arsenic	mg/L	0.002	0.001	-0.001	0.001	0.008	0.005	0.004	0.003	0.002	0.002	0.001	0.002	0.002	0.002	0.001	-0.001
Dissolved Barium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Boron	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Cadmium	mg/L	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
Dissolved Chromium	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Copper	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Dissolved Iron	mg/L	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
Dissolved Lead	mg/L	0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Manganese	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.02	0.02	0.02
Dissolved Mercury	mg/L	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Molybdenum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Nickel	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Selenium	mg/L	0.013	0.014	0.014	0.016	0.029	0.028	0.031	0.037	0.012	0.02	0.02	0.022	0.003	0.005	0.005	0.005
Dissolved Uranium	mg/L	0.327	0.320	0.473	0.313	0.262	0.353	0.371	0.359	0.430	0.424	0.409	0.419	0.506	0.347	0.324	0.334
Dissolved Vanadium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Zinc	mg/L	0.01	-0.01	-0.01	-0.01	0.16	0.01	-0.01	-0.01	0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Total Iron	mg/L	-0.03	-0.03	-0.03	0.06	-0.07	0.14	0.03	0.08	-0.03	-0.03	-0.03	-0.03	-0.07	-0.03	-0.03	-0.03
Total Manganese	mg/L	-0.01	-0.02	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	0.01	-0.02	-0.02	-0.01	-0.01	-0.02	0.02	0.02
Gross Alpha	pCi/L	249	334	463	372	217	271	261	378	383	326	343	408	402	302	397	290
Gross Beta	pCi/L	78.3	121	131	91.5	81.9	221	160	122	124	177	137	98.7	137	87.6	94.5	91.4
Dissolved Ra-226	pCi/L	2.5	2.4	2.5	2.7	2.2	5.4	5.5	4.9	8.1	6.4	5.9	5.1	8.7	4.7	4	3.4
Dissolved Ra-228	pCi/L	1.5	2.1	3.3	3.3	1.5	1.3	2.4	3	1.6	1.1	1.8	2	2	1.9	2.5	4.7
Dissolved Ra-226+Ra-228	pCi/L	4	4.5	5.8	6	3.7	6.7	7.9	7.9	9.7	7.5	7.7	7.1	10.7	6.6	6.5	8.1

<sup>1</sup> Less than values are denoted by a minus sign in front of the detection limit.

<sup>2</sup> When the mean minus three standard deviations is a negative value, ND is written for "not detected".

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

Value is an outlier or calculation excludes outlier(s).

MO-Well Data, Water Quality Criteria Exceedances and Outliers

Parameters	Units	Parameter Values <sup>1</sup>															
		MO-109				MO-110				MO-111				MO-112			
		4/22/09	5/6/09	5/20/09	6/3/09	4/21/09	5/5/09	5/19/09	6/2/09	5/5/09	5/19/09	6/2/09	11/18/09	4/21/09	5/5/09	5/19/09	6/2/09
Total Alkalinity as CaCO <sub>3</sub>	mg/L	100	108	107	107	87	92	95	96	101	91	98	105	36	43	73	70
CO <sub>3</sub>	mg/L	-1	-1	-1	-1	8	6	-1	-1	5	-1	-1	-5	9	6	4	4
HCO <sub>3</sub>	mg/L	123	131	130	131	89	101	115	117	113	111	120	128	26	41	81	78
Dissolved Calcium	mg/L	55	63	59	58	45	45	47	47	51	45	46	49	26	30	38	42
Total Chloride	mg/L	8	6	6	7	7	7	7	8	5	6	6	5	10	9	7	7
Dissolved Fluoride	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Dissolved Magnesium	mg/L	3	3	3	3	-1	1	1	1	2	2	2	2	1	2	2	2
Total NH <sub>3</sub> -N	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	0.06	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved NO <sub>3</sub> +NO <sub>2</sub> -N	mg/L	0.16	0.17	0.19	0.18	0.16	0.13	0.13	0.13	-0.05	0.16	0.16	0.2	0.3	0.31	0.33	0.33
Dissolved Potassium	mg/L	5	3	3	3	5	4	4	3	8	3	2	2	3	2	2	2
Dissolved SiO <sub>2</sub>	mg/L	14.1	15.5	12.6	14.8	12.7	12.6	11.7	13.6	13.4	12.7	14.8	14.4	15.6	14.9	14.2	17.5
Dissolved Sodium	mg/L	33	29	31	30	35	33	33	31	33	31	31	32	29	27	26	29
Total SO <sub>4</sub>	mg/L	120	122	126	124	98	96	99	101	126	94	96	97	82	87	82	83
Specific Conductance at 25 °C	µmhos/cm	479	484	468	481	398	417	398	421	499	380	408	415	307	322	329	347
Laboratory pH	SU	7.65	7.9	8.1	7.93	9.16	8.78	8.57	8.06	8.73	8.15	7.81	7.92	9.69	9.36	8.88	8.75
TDS Dried at 180 °C	mg/L	310	324	335	318	264	258	283	285	310	265	261	246	214	205	229	218
Dissolved Aluminum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Arsenic	mg/L	-0.001	-0.001	-0.001	-0.001	0.003	0.002	0.002	0.001	0.011	0.002	0.001	-0.001	0.002	0.002	-0.001	-0.001
Dissolved Barium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Boron	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Cadmium	mg/L	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
Dissolved Chromium	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Copper	mg/L	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01
Dissolved Iron	mg/L	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
Dissolved Lead	mg/L	-0.001	-0.001	-0.001	-0.001	0.002	0.002	0.002	0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Manganese	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Dissolved Mercury	mg/L	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Dissolved Molybdenum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Nickel	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Dissolved Selenium	mg/L	0.025	0.026	0.025	0.027	0.02	0.021	0.019	0.019	-0.001	0.021	0.022	0.027	0.03	0.03	0.03	0.032
Dissolved Uranium	mg/L	0.378	0.418	0.399	0.397	0.266	0.313	0.302	0.294	0.424	0.288	0.369	0.320	0.132	0.146	0.312	0.331
Dissolved Vanadium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Dissolved Zinc	mg/L	0.02	-0.01	0.01	-0.01	0.05	-0.01	0.04	-0.01	0.01	0.06	-0.01	-0.01	0.04	-0.01	-0.01	-0.01
Total Iron	mg/L	-0.07	-0.03	-0.03	-0.03	-0.03	-0.07	-0.03	-0.07	-0.07	-0.03	-0.07	-0.03	-0.03	-0.07	-0.03	-0.07
Total Manganese	mg/L	-0.01	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Gross Alpha	pCi/L	371	424	481	443	234	294	319	385	1060	298	439	372	137	148	287	334
Gross Beta	pCi/L	116	169	122	122	80.3	89.2	98.8	96.7	544	136	138	101	53.1	56.8	110	94.6
Dissolved Ra-226	pCi/L	4	3.9	3.1	2.8	2.4	3.1	2.5	2.6	360	5.5	6.2	6.6	1.4	0.74	1.3	1
Dissolved Ra-228	pCi/L	2.5	2.6	3.7	3.9	1.2	7	2.5	4.2	5.1	2.5	1.4	2	0.8	0.6	0.7	0.4
Dissolved Ra-226+Ra-228	pCi/L	6.5	6.5	6.8	6.7	3.6	10.1	5	6.8	5.1	8	7.6	8.6	2.2	1.34	2	1.4

<sup>1</sup> Less than values are denoted by a minus sign in front of the detection limit.

<sup>2</sup> When the mean minus three standard deviations is a negative value, ND is written for "not detected".

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

Value is an outlier or calculation excludes outlier(s).

MO-Well Data, Water Quality Criteria Exceedances and Outliers

Parameters	Units	Parameter Values <sup>1</sup>								Outlier Tolerance Interval Calculation					
		MO-113				MO-114				No. of Obs.	Mean	Tolerance Limit Factor	Standard Deviation	Lower Range	Upper Range
		4/21/09	5/5/09	5/19/09	6/2/09	12/1/09	12/16/09	1/14/10	2/3/10						
Total Alkalinity as CaCO <sub>3</sub>	mg/L	102	104	104	105	106	107	110	111	56	101.21	3.066	16.17	51.64	150.79
CO <sub>3</sub>	mg/L	-1	-1	-1	-1	-5	-5	-5	-5	56	2.07	3.066	2.04	-4.19	8.34
HCO <sub>3</sub>	mg/L	125	126	127	129	129	130	134	136	56	121.75	3.066	23.13	50.83	192.67
Dissolved Calcium	mg/L	53	49	50	56	72	68	77	68	56	61.07	3.066	16.16	11.53	110.62
Total Chloride	mg/L	7	7	6	6	7	6	6	6	56	6.36	3.066	1.49	1.77	10.94
Dissolved Fluoride	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	56	0.20	3.066	0.02	0.13	0.27
Dissolved Magnesium	mg/L	3	3	3	2	3	3	3	3	56	2.86	3.066	1.02	-0.26	5.97
Total NH <sub>3</sub> -N	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	56	0.07	3.066	0.07	-0.16	0.29
Dissolved NO <sub>3</sub> +NO <sub>2</sub> -N	mg/L	0.17	0.16	0.15	0.17	-0.1	-0.1	-0.1	0.1	56	0.17	3.066	0.19	-0.42	0.77
Dissolved Potassium	mg/L	2	2	2	2	4	4	3	3	56	2.79	3.066	1.06	-0.45	6.03
Dissolved SiO <sub>2</sub>	mg/L	15.5	14.5	13.1	15.6	16.7	15.5	16.2	14.1	56	14.42	3.066	1.26	10.57	18.27
Dissolved Sodium	mg/L	31	29	30	32	33	31	33	30	56	31.66	3.066	2.57	23.77	39.55
Total SO <sub>4</sub>	mg/L	103	102	101	106	165	159	160	160	56	133.95	3.066	36.18	23.02	244.87
Specific Conductance at 25 °C	µmhos/cm	432	446	418	436	534	537	536	538	56	486.14	3.066	87.11	219.07	753.22
Laboratory pH	SU	8.08	8.22	8.1	7.85	8.19	8.17	7.95	8.05	56	8.14	3.066	0.43	6.81	9.47
TDS Dried at 180 °C	mg/L	292	292	299	273	366	357	366	384	56	330.02	3.066	65.96	127.77	532.26
Dissolved Aluminum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	56	0.10	3.066	0.00	0.10	0.10
Dissolved Arsenic	mg/L	-0.001	-0.001	-0.001	-0.001	0.001	0.001	-0.001	-0.001	56	0.002	3.066	0.002	-0.004	0.007
Dissolved Barium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	56	0.10	3.066	0.00	0.10	0.10
Dissolved Boron	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	56	0.10	3.066	0.00	0.10	0.10
Dissolved Cadmium	mg/L	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	56	0.005	3.066	0.000	0.005	0.005
Dissolved Chromium	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	56	0.05	3.066	0.00	0.05	0.05
Dissolved Copper	mg/L	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	56	0.01	3.066	0.00	0.00	0.02
Dissolved Iron	mg/L	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	0.1	56	0.03	3.066	0.01	0.00	0.06
Dissolved Lead	mg/L	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	56	0.001	3.066	0.000	0.000	0.002
Dissolved Manganese	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	56	0.01	3.066	0.00	0.00	0.02
Dissolved Mercury	mg/L	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	56	0.00100	3.066	0.00000	0.00100	0.00100
Dissolved Molybdenum	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	56	0.10	3.066	0.00	0.10	0.10
Dissolved Nickel	mg/L	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	56	0.05	3.066	0.00	0.05	0.05
Dissolved Selenium	mg/L	0.04	0.043	0.04	0.042	0.019	0.021	0.018	0.017	56	0.02	3.066	0.01	-0.02	0.06
Dissolved Uranium	mg/L	0.609	0.629	0.581	0.641	0.408	0.405	0.409	0.383	56	0.41	3.066	0.16	-0.07	0.89
Dissolved Vanadium	mg/L	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	56	0.10	3.066	0.00	0.10	0.10
Dissolved Zinc	mg/L	0.06	-0.01	-0.01	-0.01	-0.01	-0.01	0.02	-0.01	55	0.02	3.094	0.02	-0.05	0.09
Total Iron	mg/L	-0.03	-0.07	-0.03	-0.07	-0.03	-0.03	-0.03	-0.03	56	0.04	3.066	0.02	-0.03	0.11
Total Manganese	mg/L	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	56	0.01	3.066	0.00	0.00	0.03
Gross Alpha	pCi/L	490	612	568	587	361	335	346	528	56	417.84	3.066	167.68	-96.26	931.94
Gross Beta	pCi/L	213	237	175	202	118	90.6	112	139	56	139.38	3.066	81.10	-109.27	388.03
Dissolved Ra-226	pCi/L	37	34	37	38	2.4	2.7	2.6	2.7	56	12.71	3.066	48.04	-134.57	160.00
Dissolved Ra-228	pCi/L	1.4	1.9	1.5	2.9	3.3	3.7	3.6	4.4	56	2.57	3.066	1.21	-1.15	6.29
Dissolved Ra-226+Ra-228	pCi/L	38.4	35.9	38.5	40.9	5.7	6.4	6.2	7.1	56	8.86	3.066	8.59	-17.47	35.18

<sup>1</sup> Less than values are denoted by a minus sign in front of the detection limit.

<sup>2</sup> When the mean minus three standard deviations is a negative value, ND is written for "not detected".

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

Value is an outlier or calculation excludes outlier(s).

MO-Well Data, Water Quality Criteria Exceedances and Outliers

Parameters	Units	Values with Outliers (if any) Removed					
		Minimum	Mean	Maximum	Standard Deviation	Mean ± 3 Standard Deviations <sup>2</sup>	
Total Alkalinity as CaCO <sub>3</sub>	mg/L	36.00	101.21	124.00	16.17	52.71	149.72
CO <sub>3</sub>	mg/L	1.00	2.07	9.00	2.04	ND	8.20
HCO <sub>3</sub>	mg/L	26.00	121.75	151.00	23.13	52.36	191.14
Dissolved Calcium	mg/L	26.00	61.07	92.00	16.16	12.59	109.55
Total Chloride	mg/L	4.00	6.36	10.00	1.49	1.87	10.84
Dissolved Fluoride	mg/L	0.10	0.20	0.30	0.02	0.13	0.27
Dissolved Magnesium	mg/L	1.00	2.86	5.00	1.02	ND	5.91
Total NH <sub>3</sub> -N	mg/L	0.05	0.07	0.50	0.07	ND	0.29
Dissolved NO <sub>3</sub> +NO <sub>2</sub> -N	mg/L	0.05	0.17	0.87	0.19	ND	0.76
Dissolved Potassium	mg/L	2.00	2.64	5.00	0.78	0.31	4.97
Dissolved SiO <sub>2</sub>	mg/L	11.70	14.42	17.50	1.26	10.65	18.18
Dissolved Sodium	mg/L	26.00	31.66	42.00	2.57	23.94	39.38
Total SO <sub>4</sub>	mg/L	82.00	133.95	204.00	36.18	25.41	242.49
Specific Conductance at 25 °C	µmhos/cm	307.00	486.14	652.00	87.11	224.82	747.47
Laboratory pH	SU	7.65	8.14	9.69	0.43	6.84	9.44
TDS Dried at 180 °C	mg/L	205.00	330.02	451.00	65.96	132.13	527.91
Dissolved Aluminum	mg/L	0.10	0.10	0.10	0.00	0.10	0.10
Dissolved Arsenic	mg/L	0.001	0.002	0.008	0.001	ND	0.01
Dissolved Barium	mg/L	0.10	0.10	0.10	0.00	0.10	0.10
Dissolved Boron	mg/L	0.10	0.10	0.10	0.00	0.10	0.10
Dissolved Cadmium	mg/L	0.005	0.005	0.005	0.00	0.00	0.01
Dissolved Chromium	mg/L	0.05	0.05	0.05	0.00	0.05	0.05
Dissolved Copper	mg/L	0.01	0.01	0.02	0.00	0.00	0.02
Dissolved Iron	mg/L	0.03	0.03	0.10	0.01	0.00	0.06
Dissolved Lead	mg/L	0.001	0.001	0.003	0.000	0.00	0.00
Dissolved Manganese	mg/L	0.01	0.01	0.02	0.00	0.00	0.02
Dissolved Mercury	mg/L	0.00100	0.00100	0.00100	0.00000	0.00	0.00
Dissolved Molybdenum	mg/L	0.10	0.10	0.10	0.00	0.10	0.10
Dissolved Nickel	mg/L	0.05	0.05	0.05	0.00	0.05	0.05
Dissolved Selenium	mg/L	0.001	0.021	0.047	0.01	ND	0.06
Dissolved Uranium	mg/L	0.13	0.41	0.92	0.16	ND	0.88
Dissolved Vanadium	mg/L	0.10	0.10	0.10	0.00	0.10	0.10
Dissolved Zinc	mg/L	0.01	0.02	0.06	0.01	ND	0.06
Total Iron	mg/L	0.03	0.04	0.14	0.02	ND	0.11
Total Manganese	mg/L	0.01	0.01	0.02	0.00	ND	0.03
Gross Alpha	pCi/L	137.00	407.94	837.00	149.81	ND	857.36
Gross Beta	pCi/L	53.10	134.01	382.00	62.52	ND	321.57
Dissolved Ra-226	pCi/L	0.74	6.70	38.00	9.10	ND	34.00
Dissolved Ra-228	pCi/L	0.40	2.57	7.00	1.21	ND	6.21
Dissolved Ra-226+Ra-228	pCi/L	1.34	8.86	40.90	8.59	ND	34.62

<sup>1</sup> Less than values are denoted by a minus sign in front of the detection limit.

<sup>2</sup> When the mean minus three standard deviations is a negative value, ND is written for "not detected".

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

Value is an outlier or calculation excludes outlier(s).