

**Table 99-24. Non-Radiological Constituents in Samples from Drinking Water Sources Collected during 1998 and 1999**

See CEMRC 1999 Report, "Radiological and non-radiological constituents in selected drinking water sources" for descriptions of locations and methods of data collection.

Analyte	<sup>a</sup> Method	<sup>b</sup> MDL	Unit	Concentrations of Analytes by Location					
				Carlsbad		Double Eagle		Hobbs	
				1998	1999	1998	1999	1998	1999
Ag	ICPMS	1.8E-03	µg L <sup>-1</sup>	<sup>c</sup> NA	1.6E-02	2.8E-02	<MDL	3.9E-03	3.5E-03
Al	ICPMS	1.8E-03	mg L <sup>-1</sup>	3.2E-02	4.4E-03	6.8E-03	4.6E-03	1.1E-02	5.1E-03
As	AA	6.0E-02	µg L <sup>-1</sup>	5.6E-01	5.4E-01	6.6E+00	5.6E+00	6.5E+00	5.6E+00
Ba	ICPMS	6.8E-03	µg L <sup>-1</sup>	6.8E+01	7.4E+01	6.8E+01	8.8E+01	5.7E+01	6.4E+01
Be	ICPMS	3.6E-02	µg L <sup>-1</sup>	<MDL	<MDL	<MDL	3.6E-02	<MDL	5.4E-02
Ca	ICPMS	6.1E-03	mg L <sup>-1</sup>	7.9E+01	6.1E+01	5.1E+01	4.5E+01	8.0E+01	7.0E+01
Cd	ICPMS	5.8E-03	µg L <sup>-1</sup>	<MDL	6.6E-03	3.6E-02	2.2E-02	1.4E-02	<MDL
Ce	MS-Info	6.7E-04	µg L <sup>-1</sup>	NA	<MDL	6.9E-04	<MDL	8.7E-03	5.8E-03
Co	ICPMS	7.6E-03	µg L <sup>-1</sup>	<MDL	1.5E-01	1.4E-01	9.5E-02	2.3E-01	1.7E-01
Cr	ICPMS	1.2E-01	µg L <sup>-1</sup>	3.0E-01	2.7E+00	3.5E+00	2.9E+00	2.3E+00	2.5E+00
Cu	ICPMS	8.9E-02	µg L <sup>-1</sup>	<MDL	3.9E+00	1.8E+00	3.8E+00	1.9E+00	2.0E+00
Dy	MS-Info	1.7E-03	µg L <sup>-1</sup>	NA	<MDL	<MDL	<MDL	<MDL	<MDL
Er	MS-Info	1.8E-03	µg L <sup>-1</sup>	NA	<MDL	<MDL	<MDL	<MDL	<MDL
Eu	MS-Info	9.7E-04	µg L <sup>-1</sup>	NA	1.4E-02	2.1E-02	1.9E-02	1.4E-02	1.4E-02
Fe	ICPMS	1.1E-03	mg L <sup>-1</sup>	<MDL	4.3E-03	9.0E-03	4.2E-03	6.7E-03	4.3E-03
Gd	MS-Info	2.1E-03	µg L <sup>-1</sup>	NA	<MDL	<MDL	<MDL	<MDL	3.2E-03
Hg	AA	6.0E-03	µg L <sup>-1</sup>	<MDL	<MDL	<MDL	<MDL	8.9E-03	1.1E-02
K	ICPMS	1.3E-02	mg L <sup>-1</sup>	2.9E+00	2.2E+00	2.9E+00	3.5E+00	2.5E+00	2.9E+00
La	MS-Info	4.3E-04	µg L <sup>-1</sup>	NA	1.4E-02	2.6E-02	1.4E-02	2.1E-02	1.3E-02
Li	ICPMS	1.1E-01	µg L <sup>-1</sup>	<sup>c</sup> NA	7.9E+00	1.9E+01	1.9E+01	3.1E+01	2.9E+01
Mg	ICPMS	1.7E-03	mg L <sup>-1</sup>	3.4E+01	3.0E+01	1.1E+01	1.1E+01	2.1E+01	2.1E+01
Mn	ICPMS	8.6E-03	µg L <sup>-1</sup>	2.0E-01	3.2E-01	3.1E-01	2.3E-01	4.0E-01	2.5E-01
Mo	ICPMS	4.9E-02	µg L <sup>-1</sup>	7.0E-01	1.2E+00	2.3E+00	1.5E+00	2.7E+00	2.6E+00
Na	ICPMS	3.7E-03	µg L <sup>-1</sup>	9.9E+01	4.1E+01	3.8E+01	3.3E+01	4.9E+01	4.0E+01
Nd	MS-Info	2.3E-03	µg L <sup>-1</sup>	NA	<MDL	<MDL	<MDL	3.0E-03	4.5E-03
Ni	ICPMS	2.2E-02	µg L <sup>-1</sup>	<MDL	1.9E+00	1.5E+00	1.1E+00	2.5E+00	1.6E+00
Pb	ICPMS	4.3E-02	µg L <sup>-1</sup>	NA	1.5E+00	6.8E-01	1.4E+00	1.7E-01	9.4E-02
Pr	MS-Info	6.9E-04	µg L <sup>-1</sup>	NA	<MDL	9.0E-04	<MDL	1.6E-03	<MDL

Sb	ICPMS	5.6E-03	µg L <sup>-1</sup>	NA	2.4E-01	NA	1.9E-02	NA	4.7E-02
Se	AA	1.2E-01	µg L <sup>-1</sup>	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
Sm	MS-Info	3.0E-03	µg L <sup>-1</sup>	NA	1.7E-02	2.5E-02	3.0E-02	2.2E-02	1.8E-02
Sn	ICPMS	1.2E-01	µg L <sup>-1</sup>	NA	<MDL	<MDL	2.8E-01	<MDL	<MDL
Sr	ICPMS	2.1E-01	µg L <sup>-1</sup>	4.6E+02	3.6E+02	5.0E+02	5.3E+02	7.9E+02	8.9E+02
Th	ICPMS	9.0E-04	µg L <sup>-1</sup>	NA	2.5E-02	3.4E-02	5.7E-03	4.6E-03	3.6E-03
Ti	ICPMS	1.2E-01	µg L <sup>-1</sup>	NA	7.7E+01	5.6E+01	5.1E+01	7.0E+01	8.5E+01
Tl	ICPMS	3.8E-02	µg L <sup>-1</sup>	NA	1.5E-01	<MDL	<MDL	4.9E-02	<MDL
U	ICPMS	6.0E-04	µg L <sup>-1</sup>	NA	8.5E-01	1.8E+00	1.7E+00	3.4E+00	3.0E+00
V	ICPMS	3.7E-01	µg L <sup>-1</sup>	3.8E+00	4.5E+00	2.7E+01	1.8E+01	3.4E+01	2.2E+01
Zn	ICPMS	2.7E-01	µg L <sup>-1</sup>	4.6E+00	1.5E+01	2.3E+00	4.2E+00	2.1E+00	3.4E+00
<sup>d</sup> Nitrate	IC	5.9E-02	mg L <sup>-1</sup>	5.9E+00	4.9E+00	1.1E+01	1.1E+01	2.0E+01	1.8E+01
Chloride	IC	2.1E-02	mg L <sup>-1</sup>	1.9E+02	7.9E+01	3.7E+01	3.5E+01	9.4E+01	7.1E+01
Phosphate	IC	2.4E-01	mg L <sup>-1</sup>	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
Fluoride	IC	4.9E-02	mg L <sup>-1</sup>	7.8E-01	4.9E-01	1.0E+00	8.7E-01	1.3E+00	1.1E+00
Sulfate	IC	1.1E-01	mg L <sup>-1</sup>	1.2E+02	1.2E+02	5.7E+01	5.1E+01	1.4E+02	1.1E+02
<b>Analyte</b>	<b><sup>a</sup>Method</b>	<b><sup>b</sup>MDL</b>	<b>Unit</b>	<b>Concentrations of Analytes by Location</b>					
				<b>Private Well #2</b>		<b>Otis</b>		<b>Loving</b>	
				<b>1998</b>	<b>1999</b>	<b>1998</b>	<b>1999</b>	<b>1998</b>	<b>1999</b>
Ag	ICPMS	1.8E-03	µg L <sup>-1</sup>	9.2E-03	4.6E-03	NA	<MDL	3.3E-03	5.6E-03
Al	ICPMS	1.8E-03	mg L <sup>-1</sup>	9.1E-03	4.6E-03	<MDL	3.5E-03	5.2E-03	3.6E-03
As	AA	6.0E-02	µg L <sup>-1</sup>	2.3E+00	2.1E+00	1.5E+00	1.2E+00	1.6E+00	1.2E+00
Ba	ICPMS	6.8E-03	µg L <sup>-1</sup>	9.1E+00	9.2E+00	1.8E+01	1.7E+01	2.9E+01	3.2E+01
Be	ICPMS	3.6E-02	µg L <sup>-1</sup>	1.9E-01	1.1E-01	<MDL	<MDL	<MDL	9.4E-02
Ca	ICPMS	6.1E-03	mg L <sup>-1</sup>	4.4E+02	4.6E+02	2.5E+02	2.4E+02	9.2E+01	7.8E+01
Cd	ICPMS	5.8E-03	µg L <sup>-1</sup>	9.2E-02	9.9E-02	<MDL	6.9E-03	1.1E-02	1.6E-02
Ce	MS-Info	6.7E-04	µg L <sup>-1</sup>	2.5E-02	2.2E-02	NA	<MDL	9.7E-04	<MDL
Co	ICPMS	7.6E-03	µg L <sup>-1</sup>	1.2E+00	1.0E+00	<MDL	5.1E-01	6.4E-01	1.8E-01
Cr	ICPMS	1.2E-01	µg L <sup>-1</sup>	3.1E+00	3.3E+00	8.6E-01	3.1E+00	2.3E+00	3.4E+00
Cu	ICPMS	8.9E-02	µg L <sup>-1</sup>	5.2E+00	9.3E+00	<MDL	4.4E+00	2.4E+00	4.7E+00
Dy	MS-Info	1.7E-03	µg L <sup>-1</sup>	3.3E-03	<MDL	NA	<MDL	<MDL	<MDL
Er	MS-Info	1.8E-03	µg L <sup>-1</sup>	<MDL	<MDL	NA	<MDL	<MDL	<MDL
Eu	MS-Info	9.7E-04	µg L <sup>-1</sup>	3.8E-03	3.1E-03	NA	4.3E-03	6.5E-03	8.8E-03
Fe	ICPMS	1.1E-03	mg L <sup>-1</sup>	6.8E-01	8.1E-01	<MDL	5.1E-03	<MDL	2.2E-03
Gd	MS-Info	2.1E-03	µg L <sup>-1</sup>	<MDL	5.0E-03	NA	<MDL	2.1E-03	<MDL
Hg	AA	6.0E-03	µg L <sup>-1</sup>	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
K	ICPMS	1.3E-02	mg L <sup>-1</sup>	8.2E+00	8.2E+00	3.2E+00	3.9E+00	2.0E+00	2.5E+00

La	MS-Info	4.3E-04	µg L <sup>-1</sup>	2.1E-02	1.4E-02	NA	2.9E-03	6.8E-03	6.8E-03
Li	ICPMS	1.1E-01	µg L <sup>-1</sup>	1.8E+02	2.1E+02	NA	4.7E+01	1.7E+01	1.9E+01
Mg	ICPMS	1.7E-03	mg L <sup>-1</sup>	1.7E+02	1.4E+02	8.9E+01	8.3E+01	4.1E+01	3.5E+01
Mn	ICPMS	8.6E-03	µg L <sup>-1</sup>	4.4E+01	3.1E+01	<MDL	1.7E-01	6.8E-02	<MDL
Mo	ICPMS	4.9E-02	µg L <sup>-1</sup>	3.7E+01	3.3E+01	<MDL	2.4E+00	1.5E+00	1.4E+00
Na	ICPMS	3.7E-03	µg L <sup>-1</sup>	2.7E+02	2.1E+02	9.6E+01	1.1E+02	2.3E+01	1.9E+01
Nd	MS-Info	2.3E-03	µg L <sup>-1</sup>	2.0E-02	1.4E-02	NA	4.7E-03	3.4E-03	<MDL
Ni	ICPMS	2.2E-02	µg L <sup>-1</sup>	1.8E+01	1.4E+01	<MDL	7.4E+00	2.5E+00	2.2E+00
Pb	ICPMS	4.3E-02	µg L <sup>-1</sup>	9.5E-02	1.4E-01	NA	2.1E-01	1.4E+00	1.7E+00
Pr	MS-Info	6.9E-04	µg L <sup>-1</sup>	4.5E-03	1.7E-03	NA	<MDL	<MDL	<MDL
Sb	ICPMS	5.6E-03	µg L <sup>-1</sup>	NA	2.2E-02	NA	4.0E-02	NA	2.5E-01
Se	AA	1.2E-01	µg L <sup>-1</sup>	1.4E-01	<MDL	<MDL	<MDL	<MDL	<MDL
Sm	MS-Info	3.0E-03	µg L <sup>-1</sup>	7.7E-03	3.2E-03	NA	3.3E-03	1.1E-02	1.0E-02
Sn	ICPMS	1.2E-01	µg L <sup>-1</sup>	<MDL	<MDL	NA	<MDL	<MDL	3.8E-01
Sr	ICPMS	2.1E-01	µg L <sup>-1</sup>	5.6E+03	6.9E+03	2.8E+03	2.8E+03	6.5E+02	8.2E+02
Th	ICPMS	9.0E-04	µg L <sup>-1</sup>	6.0E-03	4.1E-03	NA	6.6E-03	3.7E-03	1.1E-02
Ti	ICPMS	1.2E-01	µg L <sup>-1</sup>	1.0E+03	1.1E+03	NA	4.4E+02	7.9E+01	1.1E+02
Tl	ICPMS	3.8E-02	µg L <sup>-1</sup>	3.6E-01	2.2E-01	NA	<MDL	5.1E-02	<MDL
U	ICPMS	6.0E-04	µg L <sup>-1</sup>	1.7E+01	1.4E+01	NA	4.2E+00	2.0E+00	2.0E+00
V	ICPMS	3.7E-01	µg L <sup>-1</sup>	1.7E+01	1.1E+01	9.4E+00	9.7E+00	1.2E+01	9.2E+00
Zn	ICPMS	2.7E-01	µg L <sup>-1</sup>	3.9E+01	2.2E+01	<MDL	1.1E+01	4.8E+00	7.8E+00
<sup>d</sup> Nitrate	IC	5.9E-02	mg L <sup>-1</sup>	1.4E+00	1.5E+00	1.9E+01	2.2E+01	2.3E+01	2.1E+01
Chloride	IC	2.1E-02	mg L <sup>-1</sup>	5.0E+02	4.8E+02	2.7E+02	3.9E+02	2.9E+01	2.3E+01
Phosphate	IC	2.4E-01	mg L <sup>-1</sup>	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
Fluoride	IC	4.9E-02	mg L <sup>-1</sup>	1.7E+00	1.4E+00	9.4E-01	5.5E-01	6.0E-01	5.7E-01
Sulfate	IC	1.1E-01	mg L <sup>-1</sup>	2.3E+03	2.5E+03	6.5E+02	7.5E+02	2.0E+02	2.0E+02

<sup>a</sup>Method: ICPMS = Inductively Coupled Mass Spectroscopy, IC = Ion Chromatography, AA = Atomic Absorption, MS-Info = Non-Calibrated Mass Spectroscopy (for information only)

<sup>b</sup> MDL = Method Detection Limit

<sup>c</sup> NA = Not Analyzed

<sup>d</sup>Nitrate = total nitrate, not reduced to N