

**APPENDIX D**

**WATER RESOURCES APPENDIX**

**Appendix D-1  
Groundwater Quality Data Distribution Area 39-2015**

NATURALLY OCCURRING COMPOUNDS AS WELL AS CONTAMINANTS					DISTRIBUTION AREA 39 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
<b>INORGANICS</b>									
Alkalinity, total	n/a	n/a	mg/L	Naturally occurring	No	25.4	37.8	31.3	10
Aluminum	n/a	n/a	mg/L	Naturally occurring	No	ND	0.03	ND	10
Ammonia, free	n/a	n/a	mg/L	Some fertilizers, septic systems	No	ND	ND	ND	10
Arsenic	10	0	ug/L	Erosion of natural deposits	No	ND	ND	ND	10
Barium	2	2	mg/L	Erosion of natural deposits	No	ND	ND	ND	10
Boron	n/a	n/a	mg/L	Naturally occurring	No	ND	ND	ND	10
Bromide	n/a	n/a	mg/L	Naturally occurring	No	ND	ND	ND	10
Cadmium	5	5	ug/L	Natural deposits, galvanized pipe	No	ND	ND	ND	10
Calcium	n/a	n/a	mg/L	Naturally occurring, pH control	No	7.5	10.6	9.0	10
CO2, calculated	n/a	n/a	mg/L	Naturally occurring	No	0.3	5.0	3.1	10
Chloride	250	n/a	mg/L	Naturally occurring, salt water intrusion	No	6.5	11.1	8.1	10
Chromium, total	100	100	ug/L	Natural deposits	No	ND	0.88	0.63	10
Cobalt-59	n/a	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Color	15	n/a	Color Units	Naturally occurring metals or minerals	No	ND	ND	ND	10
Copper	AL=1.3	1.3	mg/L	Household plumbing	No	ND	ND	ND	10
Dissolved Solids, total	n/a	n/a	mg/L	Naturally occurring minerals and metals	No	58	83	69	10
Fluoride	2.2	n/a	mg/L	Erosion of natural deposits	No	ND	ND	ND	10
Hardness, total	n/a	n/a	mg/L	Measure of the calcium and magnesium	No	25.9	37.1	31.2	10
Hexavalent Chromium	n/a	n/a	ug/L	Erosion of natural deposits	No	0.14	0.65	0.49	10
Iron	300	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Lead	AL=15	0	ug/L	Household plumbing, lead solder	No	ND	ND	ND	10
Lithium	n/a	n/a	ug/L	Naturally occurring	No	ND	1.6	ND	10
Magnesium	n/a	n/a	mg/L	Naturally occurring	No	1.70	2.70	2.09	10
Manganese	300	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Molybdenum	n/a	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Nickel	100	n/a	ug/L	Alloys, coatings manufacturing, batteries	No	ND	ND	ND	10
Nitrate	10	10	mg/L	Natural deposits, fertilizer, septic tanks	No	ND	ND	ND	10
Perchlorate	15	5	ug/L	Fertilizers, solid fuel propellant, fireworks	No	ND	0.15	ND	10
Phosphate, total	n/a	n/a	mg/L	Added to keep iron in solution	No	ND	ND	ND	10
pH	n/a	n/a	pH Units	Measure of water acidity or alkalinity	No	7.1	8.2	7.4	10
pH, field	n/a	n/a	pH Units	Measure of water acidity or alkalinity	No	6.5	7.7	7.2	10
Potassium	n/a	n/a	mg/L	Naturally occurring	No	0.44	0.62	0.52	10
Silicon	n/a	n/a	mg/L	Naturally occurring	No	5.0	8.0	6.4	10
Sodium	n/a	n/a	mg/L	Naturally occurring	No	5.3	7.2	6.0	10
Specific Conductance	n/a	n/a	umho/cm	Total of naturally occurring minerals	No	89	123	104	10
Selenium	n/a	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Strontium-88	n/a	n/a	mg/L	Naturally occurring	No	0.022	0.032	0.028	10
Sulfate	250	n/a	mg/L	Naturally occurring	No	5.4	7.6	6.6	10
Surfactants, anionic	0.5	n/a	mg/L	Washwater from septic systems	No	ND	ND	ND	8
Titanium	n/a	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Total Organic Carbon	n/a	n/a	mg/L	Naturally occurring	No	0.27	0.27	0.27	2
Turbidity	5	n/a	NTU	Silts and clays in aquifer	No	ND	0.50	ND	10
Vanadium	n/a	n/a	ug/L	Naturally occurring	No	ND	ND	ND	10
Zinc	5	n/a	mg/L	Naturally occurring, plumbing	No	ND	ND	ND	10
<b>SYNTHETIC ORGANIC COMPOUNDS INCLUDING PESTICIDES, HERBICIDES, PHARMACEUTICALS AND PERSONAL CARE PRODUCTS</b>									
Alachlor	2	n/a	ug/L	Used as a herbicide	No	ND	ND	ND	10
Alachlor ESA	50	n/a	ug/L	Degradation product of Alachlor	No	ND	ND	ND	10
Alachlor OA	50	n/a	ug/L	Degradation product of Alachlor	No	ND	ND	ND	10
Aldicarb Sulfone	2	1	ug/L	Pesticide used on row crops	No	ND	ND	ND	10
Aldicarb Sulfoxide	4	1	ug/L	Pesticide used on row crops	No	ND	ND	ND	10
Carbamazepine	50	n/a	ug/L	Anticonvulsant, mood stabilizing drug	No	ND	ND	ND	10
Dilantin	50	n/a	ug/L	Antiepileptic drug	No	ND	ND	ND	10
Diethyltoluamide (DEET)	50	n/a	ug/L	Insect repellent	No	ND	ND	ND	10
1,4-Dioxane	50	n/a	ug/L	Used in manufacturing processes	No	ND	ND	ND	10
Gemfibrozil	50	n/a	ug/L	Lipid lowering drug	No	ND	ND	ND	10
Hexazinone	50	n/a	ug/L	Used as a herbicide	No	ND	ND	ND	10
Ibuprofen	50	n/a	ug/L	Anti-inflammatory drug	No	ND	ND	ND	10
Imidacloprid	50	n/a	ug/L	Used as a pesticide	No	ND	ND	ND	10
Meprobamate	50	n/a	ug/L	Antianxiety drug	No	ND	ND	ND	10
Metalaxyl	50	n/a	ug/L	Used as a fungicide	No	ND	ND	ND	10
Metolachlor	50	n/a	ug/L	Used as a soil herbicide	No	ND	ND	ND	10
Metolachlor ESA	50	n/a	ug/L	Degradation product of Metolachlor	No	ND	ND	ND	10
Metolachlor OA	50	n/a	ug/L	Degradation product of Metolachlor	No	ND	ND	ND	10
Phenobarbital	50	n/a	ug/L	Anticonvulsant, mood stabilizing drug	No	ND	ND	ND	5
Sulfamethoxazole	50	n/a	ug/L	Antibiotic	No	ND	ND	ND	10
Tetrachloroterephthalic Acid	50	n/a	ug/L	Used as an herbicide	No	ND	ND	ND	10

NATURALLY OCCURRING COMPOUNDS AS WELL AS CONTAMINANTS					DISTRIBUTION AREA 39 Range of Readings				
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Violation Yes/No	Low Value	High Value	Avg. Value	No. Of Tests
<b>VOLATILE ORGANIC COMPOUNDS</b>									
Carbon Tetrachloride	5	0	ug/L	From industrial chemical factories	No	ND	ND	ND	23
Chlorobenzene	5	n/a	ug/L	From industrial chemical factories	No	ND	ND	ND	23
Chlorodifluoromethane	5	n/a	ug/L	Used as a refrigerant	No	ND	ND	ND	23
Cis-1,2-Dichloroethene	5	n/a	ug/L	From industrial chemical factories	No	ND	ND	ND	23
Dichlorodifluoromethane	5	n/a	ug/L	Refrigerant, aerosol propellant	No	ND	ND	ND	23
1,1-Dichloroethane	5	n/a	ug/L	Degreaser, gasoline, manufacturing	No	ND	ND	ND	23
1,1-Dichloroethene	5	n/a	ug/L	From industrial chemical factories	No	ND	ND	ND	23
1,2-Dichloroethane	5	n/a	ug/L	From industrial chemical factories	No	ND	ND	ND	23
1,2-Dichloropropane	5	0	ug/L	From industrial chemical factories	No	ND	ND	ND	23
Ethyl Benzene	5	n/a	ug/L	From paint on inside of water storage tank	No	ND	0.31	ND	23
4-Methyl-2-Pentanone	50	n/a	ug/L	From manufacturing facilities	No	ND	ND	ND	23
Methyl-Tert-Butyl Ether	10	n/a	ug/L	Gasoline	No	ND	0.38	ND	23
o-Xylene	5	n/a	ug/L	From paint on inside of water storage tank	No	ND	0.40	ND	23
p,m-Xylene	5	n/a	ug/L	From paint on inside of water storage tank	No	ND	1.19	ND	23
Tetrachloroethene	5	0	ug/L	Factories, dry cleaners, spills	No	ND	ND	ND	23
Tetrahydrofuran	50	n/a	ug/L	Solvent for natural and synthetic resins	No	ND	ND	ND	23
Toluene	5	n/a	ug/L	From paint on inside of water storage tank	No	ND	0.15	ND	23
1,1,1-Trichloroethane	5	n/a	ug/L	Metal degreasing sites, factories	No	ND	ND	ND	23
Trichloroethene	5	0	ug/L	Metal degreasing sites, factories	No	ND	ND	ND	23
Trichlorofluoromethane	5	n/a	ug/L	Dry cleaning, propellant, fire extinguishers	No	ND	ND	ND	23
1,1,2-Trichlorotrifluoroethane	5	n/a	ug/L	Solvent in paints and varnishes	No	ND	ND	ND	23
1,2,3-Trichloropropane	5	n/a	ug/L	Degreasing agent, manufacturing	No	ND	ND	ND	23
1,2,4-Trimethylbenzene	5	n/a	ug/L	By-product of oil refinery process	No	ND	ND	ND	23
<b>DISINFECTANT AND DISINFECTION BY-PRODUCTS (**MCL is the sum of the four starred compounds shown below)</b>									
Bromochloroacetic Acid	50	n/a	ug/L	By-product of chlorination	No	ND	ND	ND	4
Bromodichloroacetic Acid	50	n/a	ug/L	By-product of chlorination	No	ND	ND	ND	4
Bromodichloromethane	**80	0	ug/L	By-product of chlorination	No	ND	0.97	0.29	23
Bromoform	**80	0	ug/L	By-product of chlorination	No	ND	ND	ND	23
Chlorate	n/a	n/a	mg/L	By-product of chlorination	No	0.03	0.10	0.06	44
Chlorine residual., free	4	4	mg/L	Used as disinfectant	No	0.24	1.41	0.87	163
Chloroform	**80	70	ug/L	By-product of chlorination	No	0.45	2.62	1.05	23
Dibromochloromethane	**80	60	ug/L	By-product of chlorination	No	ND	0.77	ND	23

UNREGULATED CONTAMINANT MONITORING RULE CYCLE 3 (UCMR3)					DISTRIBUTION AREA 39 Range of Readings			
Detected Compound	MCL	MCGL	Unit Of Measure	Likely Source	Low Value	High Value	Avg. Value	No. Of Tests
<b>UCMR3 TEST RESULTS FOR 2014 - INORGANICS</b>								
Chromium, total	100	100	ug/L	Natural deposits	0.34	0.73	0.59	6
Cobalt-59	n/a	n/a	ug/L	Naturally occurring	ND	ND	ND	6
Strontium-88	n/a	n/a	mg/l	Naturally occurring	0.021	0.027	0.025	6
Vanadium	n/a	n/a	ug/L	Naturally occurring	ND	0.4	0.2	6
<b>UCMR3 TEST RESULTS FOR 2014 - SYNTHETIC ORGANIC COMPOUNDS INCLUDING PESTICIDES, HERBICIDES, PHARMACEUTICALS AND PERSONAL CARE PRODUCTS</b>								
PFBS	50	n/a	ug/L	Used on products for stain/water resistance	ND	ND	ND	4
PFHpA	50	n/a	ug/L	Used on products for stain/water resistance	ND	ND	ND	4
PFHxS	50	n/a	ug/L	Used on products for stain/water resistance	ND	ND	ND	4
PFOA	50	n/a	ug/L	Fire fighting foam, cleaners, cosmetics, greases	ND	ND	ND	4
PFOS	50	n/a	ug/L	Pesticide, alkaline cleaners, floor polish	ND	ND	ND	4
<b>UCMR3 TEST RESULTS FOR 2014 - VOLATILE ORGANIC COMPOUNDS</b>								
Carbon Tetrachloride	5	0	ug/L	From industrial chemical factories	ND	ND	ND	4
Chlorodifluoromethane	5	n/a	ug/L	Used as a refrigerant	ND	ND	ND	4
1,1-Dichloroethane	5	n/a	ug/L	Degreaser, gasoline, manufacturing	ND	ND	ND	4
1,2-Dichloroethane	5	n/a	ug/L	From industrial chemical factories	ND	ND	ND	4
1,2-Dichloropropane	5	0	ug/L	From industrial chemical factories	ND	ND	ND	4
Tetrachloroethene	5	0	ug/L	Factories, dry cleaners, spills	ND	ND	ND	4
Trichloroethene	5	0	ug/L	Metal degreasing sites, factories	ND	ND	ND	4
1,2,3-Trichloropropane	5	n/a	ug/L	Degreasing agent, manufacturing	ND	ND	ND	4

[Please see page 10 for information on the UCMR3 testing.](#)