

- Water Quality data for Wells and Treated water from Lake Thunderbird
- Water Quality Data for Oklahoma City Water
- City of Norman Web Site WWW.NORMANOK.GOV



To our Residents:

The Norman Utilities Authority provides innovative leadership and superior services to insure that you, our customers, have access to safe, high quality water. This report, the Consumer Confidence Report (CCR), provides information on our sources of water, water quality test results and additional materials to give you the confidence and assurance of the safety of Norman's drinking water.

RESPONSE TO LEAD AND COPPER CONCERNS

There's been a lot of news coverage recently about lead in drinking water. Norman's water laboratory staff collected 62 water samples for lead and copper in 2015. The 90th percentile result for lead was 0.6 ppb (parts per billion) or 25 times lower than the allowable amount of 15 ppb. And, similarly samples for copper were 14 times below the allowable limit. In fact, as a result of Norman's continued excellent water quality tests for lead/copper, the Department of Environmental Quality (DEQ) suggested reducing our monitoring frequency to every three years.

PHASE II WATER TREATMENT PLANT

Norman's Water Treatment Plant staff, engineers and consultants met with DEQ during 2015 as we work out the engineering plans for the Phase II Water Treatment Plant improvements. The \$31 million project will provide changes to meet the new regulatory requirements, improve water quality, improve chemical safety and update equipment. Completed plans are anticipated to be approved by DEQ later in 2016 and construction will start shortly thereafter.

INFRASTRUCTURE INVESTMENTS

The aging infrastructure of utilities across America has also continues to be in the news and the Norman Utilities Authority is taking steps to address this issue. This past year, over 10,600 feet of large diameter (24 inches and larger) water lines were replaced through the central part of Norman. In addition, our own Water Line Maintenance crews replaced over 7,500 feet of old 6 inch and 8 inch water lines in different neighborhoods, and installed 31 new fire hydrants. This is a small piece of the total need, but we are actively working to ensure continued water service and fire protection to our community.

RECYCLING CENTERS

Good stewardship of all our resources remains a top priority. This past year we started our fourth drop-off recycling facility; located adjacent to the new Fire Station #9 on Alameda Street. Together these four drop off recycling centers collect over 120 tons of recycling materials each month. Our residential curbside recycling efforts continue to win acclaims by maintaining over 90% participation throughout the year. And our recycling partner, Republic, recognized us with a billboard on I-35 congratulating Norman residents for achieving over 10,000,000 pounds of recycling during 2015.

NORMAN LEADS IN ENVIRONMENTAL STEWARDSHIP

The City of Norman is recognized as leaders in environmental stewardship regarding water, wastewater, sanitation, recycling, composting and water reuse. I encourage you to read this brochure and be part of the community conversation about protecting our natural resources and planning for the future.



Mayor Cindy Rosenthal
Chairman Norman Utility Authority

2015 Detectable Contaminants Table (Water Wells)

	Nitrite-Nitrate level (ppm)	Fluoride level (ppm)	Barium level (ppb)	Selenium level (ppb)	Arsenic level (ppb)	Chromium (ppb)	Adjusted Gross Alpha (pCi/L)	Uranium (ppb)
Well # 3A		0.27	293			44	12	3.8
sample date		5/25/2012	5/25/2012			5/25/2012	9/17/2015	9/17/2015
Well # POE3		1.0	77	3	0.83		2.0	
sample date		5/25/2012	4/7/2015	4/7/2015	1/21/2015		*	
Well # 8		0.24	224		8.6	43	8.0	9.1
sample date		11/20/2012	11/20/2012		*	11/20/2012	*	*
Well # 20			894		5.4		8.9	10
sample date			11/20/2012		2/19/2014		*	*
Well #31			190	5.8	3	41	17.4	8.7
sample date			10/29/2014	10/29/2014	*	10/29/2014	*	*
Well # 34		0.31	207			54	12	11
sample date		11/20/2012	11/20/2012			11/20/2012	3/6/2014	3/6/2014
Well # 33		0.32	220		6.3	51	9.8	5.6
sample date		11/20/2012	11/20/2012		*	11/20/2012	3/6/2014	3/6/2014
Well # 38		0.29	306		1.8	21	7.0	6.7
sample date		11/20/2012	11/20/2012		4/10/2014	11/20/2012	6/17/2015	6/17/2015
Well # 39		0.31	251		8.2	59	7.2	9.5
sample date		11/20/2012	11/20/2012		*	11/20/2012	*	*
Well # 40		0.29	231		0.87	46	7.9	5.6
sample date		11/20/2012	11/20/2012		2/5/2014	11/20/2012	1/15/2014	1/15/2014
Well # POE 2		0.47	194	21	3.4	45		9.0
sample date		9/28/2012	9/28/2012	9/28/2012	*	6/25/2007		3/6/2014
Well # 41			190	2.5	3.3	49	5.8	4.4
sample date			11/19/2014	11/19/2014	2/5/2014	11/19/2014	4/24/2014	4/24/2014
Well # 42			303	1.1		31	7.3	3.2
sample date			12/19/2015	12/19/2015		12/29/2015	4/24/2014	4/24/2014

Source Water Assessment Plan (SWAP) - Qualitative Susceptibility Rating is Moderate

As of 5/20/2016 the well does not provide water to the City of Norman drinking water system.

* indicates a composite of quarterly data

2015 Detectable Contaminants Table (Water Wells)

	Nitrite-Nitrate level (ppm)	Fluoride level (ppm)	Barium level (ppb)	Selenium level (ppb)	Arsenic level (ppb)	Chromium (ppb)	Adjusted Gross Alpha (pCi/L)	Uranium (ppb)
Well # 43	0.66		390	2.1	0.8	9.0	3.5	1.8
sample date	11/18/2014		11/18/2014	11/18/2014	2/10/2014	11/18/2014	4/24/2014	4/24/2014
Well # 44			173	3.6	0.9	84	7.1	5.1
sample date			12/29/2015	12/29/2015	12/29/2015	12/29/2015	4/24/2014	4/24/2014
Well # 45			199			77	6.4	4.4
sample date			12/30/2015			12/30/2015	4/24/2014	4/24/2014
Well # 46			186		2.0	53	12	7.8
sample date			12/29/2015		5/22/2013	5/25/2012	*	*
Well # 47			458				5.5	3.8
sample date			5/25/2012				*	*
Well # 48		0.46	219	22	7.8	87	11	9.1
sample date		5/25/2012	5/25/2012	5/25/2012	12/29/2015	5/25/2012	*	*
Well # 49		0.51	172	15	4.8	88	12	8.6
sample date		12/29/2015	12/29/2015	12/29/2015	12/19/2015	12/29/2015	*	*
Well # 51	0.25		220	1.1	1.7	52	8.2	7.4
sample date	3/3/2015		4/7/2015	4/7/2015	4/7/2015	4/7/2015	*	*
Well # 54	0.39	0.29	283			50	5.2	4.4
sample date	11/19/2014	5/25/2012	5/25/2012			5/25/2012	*	*
Well # 55	0.62		190	3.4	5.2	40	5.7	4.7
sample date	8/11/2015		6/1/2015	6/1/2015	1/28/2015	1/6/2015	*	*
Well # 56			199	1.3	3.9	43	9.4	7.1
sample date			10/29/2014	10/29/2014	2/10/2014	10/29/2014	3/12/2013	3/12/2013
Well # 57	0.23		182	3.0	2.1	51	9.5	3
sample date	10/29/2014		11/19/2014	11/19/2014	2/13/2014	11/19/2014	9/17/2015	9/17/2015
Well # 58	0.25		211	4.3	4.5	46	8.7	7.8
sample date	7/14/2015		6/1/2015	6/1/2015	1/21/2015	6/1/2015	*	*
Well # 59	0.26		252	1.3		45	4.8	4.9
sample date	3/3/2015		4/29/2015	4/29/2015		5/25/2012	*	*
Well # 60		0.44	299	19	4.6	38	7.4	6.3
sample date		5/22/2012	5/25/2012	5/25/2012	8/15/2013	5/25/2012	*	*
Well # 60		0.44	299	19	4.6	38	7.4	6.3
sample date		5/22/2012	5/25/2012	5/25/2012	8/15/2013	5/25/2012	*	*
Well # POE04	0.38		208	18	4.96	45	10.1	10.5
	10/20/2015		11/4/2015	11/4/2015	*	11/4/2015	*	*

* indicates a composite of quarterly data

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also, come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring, or be the result of oil and gas production and mining activities.

Information Regarding Lead in Drinking Water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Norman Utilities Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Parameter	Units	MCLG	MCL	Major Sources in Drinking Water
Nitrite-Nitrate	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride – Total	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer
Barium – Total	ppb	2000	2000	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium – Total	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Arsenic – Total	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Chromium – Total	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Lead	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Turbidity	NTU	NA	TT= >0.3 NTU in not more than 5% of samples	Soil runoff
Total Organic Carbon (TOC)	ppm		TT= ratio must be greater or equal to 1.00 for compliance	Naturally occurring
Gross Alpha	pCi/L	15	15	Decay of natural and man-made deposits
Gross Beta	pCi/L	50	50	
Radium 226	pCi/L	5	5	
Total Trihalomethanes	ppb	0	80 (RAA)	By-product of drinking water chlorination
Haloacetic Acid	ppb	0	60 (RAA)	By-product of drinking water chlorination
Coliform Bacteria	CFU	0	presence of coliform bacteria in <5% of samples	Naturally present in the environment
MRDL				
Chloramine	ppm	none	4	Water additive used to control microbes



ABBREVIATION TABLE	
MCL	Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology
MCLG	Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. Compliance with the MRDL is calculated as a Running Annual Average (RAA).
MRDLG	Maximum Residual Disinfectant Level Goal - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
RAA	Running Annual Average - average of last 12 months, or last 4 quarters that facility is in operation.
AL	Action Level
TT	Treatment Technique) - A required process intended to reduce the level of a contaminant in drinking water
NTU	Nephelometric Turbidity Units - a measure of clarity
pCi/L	picocuries per liter - a measure of radioactivity
ppm	parts per million, or milligrams per liter (mg/L)
ppb	part per billion, or micrograms per liter (ug/L)
CFU	Colony Forming Units
<	less than
>	greater than
POE	Point of Entry combining more that one water source

A Note About Arsenic

Arsenic is a naturally occurring mineral present in the Garber-Wellington Aquifer. In Norman's case, its presence in our groundwater results from the erosion of natural deposits accumulated during the formation of the aquifer millions of years ago. Contamination by humans is not to blame; only nature gets credit for its presence in the ground water.

The U.S. Environmental Protection Agency defines the maximum contaminant level (MCL) at 10 parts per billion (ppb) for arsenic. The City of Norman is in compliance with the 10 ppb MCL.

While your drinking water meets EPA's standard, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is known to cause cancer at high concentrations and is linked to other health effects, such as skin damage and circulatory problems.

You MAY use phosphorus containing fertilizer if:

- You are applying fertilizer in the first six months of turf establishment from seed or sod.
- A soil test by a certified lab shows a phosphorus level of 10 parts per million or less, and you apply at the recommended rate.
- It is naturally occurring phosphorus in a natural or organic fertilizer.

Did You Know?

Lake Thunderbird has been identified by the Oklahoma Department of Environmental Quality as having impaired water quality due to elevated levels of chlorophyll-a. The high level of chlorophyll-a is directly related to increased algae production caused by excess phosphorus in the lake.

You may NOT:

- Apply any fertilizer when runoff producing rainfall is occurring or predicted or when soils are saturated and fertilizer may wash or move off-site.
- Apply any fertilizer to impervious surfaces such as streets, driveways or sidewalks. If this happens, sweep or blow the fertilizer back onto the intended surface or collect and dispose of properly.
- Store fertilizer uncontained on impervious surfaces
- Apply fertilizer within 25 feet of any wetland, watercourse or storm water retention/detention basin.
- Blow, sweep, dump or place leaves, grass clippings or any yard waste in any street, storm drain or waterway.

Water Quality Summary 2015 Wholesale Systems, Distribution System and Water Treatment Plant

DETECTED CONTAMINANTS	UNITS	IDEAL GOAL (EPA'S MCLG)	HIGHEST LEVEL ALLOWED (EPA'S MCL)	NORMAN WTP PWS ID 1020801	HEFNER WTP PWS ID 1020902	DRAPER WTP PWS ID 1020902B	OVERHOLSER WTP PWS ID 1020902C	UNIVERSITY of OKLAHOMA 3001414	GRIFFIN MEMORIAL HOSPITAL PWS ID 3001404	RANCH ESTATES TP PWS ID 3001402	TURTLE CREEK MHP PWS ID 3001409	COMPLIANCE	MAJOR SOURCES IN DRINKING WATER		
Inorganic Compounds															
Fluoride ¹	ppm	4	4	Average level detected in most recent testing - 2015				0.70	0.75	0.73	0.77		YES	Added during treatment for dental health or dissolved from natural deposits	
Lead	ppb	0	AL = 15	2015 - Most recent systemwide distribution testing - results are the 90th Percentile				0.63	<5.0	<5.0	<5.0	<5.0	All Sites < AL	Corrosion of household plumbing; erosion of natural deposits	
Barium	ppm	2	2	Highest level most recent testing - 2013				Most recent testing 2015 0.059	0.052	0.057	0.032		YES	Discharge of Drilling Wastes; discharge from metal refineries; erosion of natural deposits	
Copper	ppm	0	AL = 1.3	2015 - Most recent system wide distribution testing - 90th Percentile				0.09	0.08	0.06	0.06	0.05	0.06	All Sites < AL	Corrosion of household plumbing; erosion of natural deposits
Arsenic	ppb	0	10	Range detected in most recent testing: 2013				Most recent testing 2014 <2	<2	<2	<2		YES	Erosion of natural deposits; runoff from orchards; runoff from electronics and glass production wastes	
Nitrate-Nitrite ²	ppm	10	10	Highest level				<0.06	0.314	0.250	0.234		YES	Runoff from fertilizer, leaching from septic tanks, sewage or erosion of natural deposits	
Radiological															
Gross Alpha	pCi/L	0	15	Most recent testing 2015 0.383	Range detected in most recent testing: 2012				0.383	<2.229	<0.474	<2.373		Decay of natural and man-made deposits	
Gross Beta	pCi/L	0	50	3.00	6.78	2.61	6.82						YES	Decay of natural and man-made deposits	
Radium 226 + 228	pCi/L	0	5	0.423	<0.545	<0.495	0.980						YES	Decay of natural and man-made deposits	
Uranium	ppb	0	30	<1	<1	<1	<1								

Water Quality Summary 2015 Wholesale Systems, Distribution System and Water Treatment Plant

DETECTED CONTAMINANTS	UNITS	IDEAL GOAL (EPA'S MCLG)	HIGHEST LEVEL ALLOWED (EPA'S MCL)	NORMAN WTP PWS ID 1020801	HEFNER WTP PWS ID 1020902	DRAPER WTP PWS ID 1020902B	OVERHOLSER WTP PWS ID 1020902C	UNIVERSITY of OKLAHOMA 3001414	GRIFFIN MEMORIAL HOSPITAL PWS ID 3001404	RANCH ESTATES TP PWS ID 3001402	TURTLE CREEK MHP PWS ID 3001409	COMPLIANCE	MAJOR SOURCES IN DRINKING WATER			
Disinfection By-Products Stage 2 Rule Monitoring³																
Total Trihalomethanes⁴	ppb	0	80 (LRAA)	Most recent systemwide distribution testing										YES	By-product of drinking water disinfection	
				Highest Locational Running Annual Average (LRAA)												
				1801 Creighton Dr 14.0	10401 W. Stanley Draper Dr (Draper) - 75.7	201 Stevenson Pkwy 10.4	Gibbs St 5.3	Lot 27 4.8								
				4.7-21.3	Range Detected: 4.72 - 85.6		6.6-15.3	5.3	4.8							
				16.6	24.6	75.7	69.7	9.70	5.3	4.8						
				4.7-21.3	4.7 - 38.8	49.0 - 83.8	53.6 - 85.6	<4-15.3	5.3	4.8						
Haloacetic Acids⁴	ppb	0	60 (LRAA)	Most recent systemwide distribution testing 2014/2015										YES	By-product of drinking water disinfection	
				Highest Locational Running Annual Average (LRAA)												
				1801 Creighton Dr 13.8	6400 N Westminster Rd (Draper) - 53.23	201 Stevenson Pkwy 11.7	Gibbs St 10.5	Lot 27 11.7								
				7.79-13.8	Range Detected: 2.51 - 63.90		<6.0-16.3	10.5	11.7							
				11.3	11.5	53.2	38.2	11.2	10.5	11.7						
				<5.0-13.8	2.51 - 19.2	20.1 - 63.9	16.4 - 48.6	<6.0-16.3	10.5	11.7						
Bromate⁵	ppb	0	10 (RAA)	Highest quarterly average (RAA) - 1.76										YES	By-product of disinfection by ozone Only Hefner Plant uses Ozone	
				Range detected - <8.75 - 24.6												
Precursor Removal																
Total Organic Carbon⁶ (TOC)			TT = Ratio must be greater than or equal to 1.00 for compliance	Average of monthly ratios										YES	Naturally occurring	
				159	1.88	0.391	1.43									
Monthly Ratio = (% TOC removed) divided by (% TOC removal required)																

Water Quality Summary 2015 Wholesale Systems, Distribution System and Water Treatment Plant

DETECTED CONTAMINANTS	UNITS	IDEAL GOAL (EPA'S MCLG)	HIGHEST LEVEL ALLOWED (EPA'S MCL)	NORMAN WTP PWS ID 1020801	HEFNER WTP PWS ID 1020902	DRAPER WTP PWS ID 1020902B	OVERHOLSER WTP PWS ID 1020902C	UNIVERSITY of OKLAHOMA 3001414	GRIFFIN MEMORIAL HOSPITAL PWS ID 3001404	RANCH ESTATES TP PWS ID 3001402	TURTLE CREEK MHP PWS ID 3001409	COMPLIANCE	MAJOR SOURCES IN DRINKING WATER		
Disinfection Residual															
Chloramines as Chlorine ⁷	ppm	NA	MRDL	Average readings									YES	Water additive used to control microbes	
			4.0	3.2	3.7	3.4	3.2	1.5	2.0	1.7					
			Range detected	0.16-4.0	2.10 - 4.50	2.70 - 3.90	2.01 - 4.32	0.2-2.9	2.6-3.3		0.7-1.7				
Microbiological															
Coliform Bacteria	CFUs % positive	0	Presence of Coliform bacteria in <5% of samples	Sept '15 2.6 % total coliform positive samples	2015 - 0 % total coliform positive samples					Nov '15 100% total coliform positive samples	2015 - 0% total coliform positive samples	Ranch Estates TP was not in compliance in November '15 All other system were in compliance for all of 2015	Naturally present in the environment - No E. Coli positive samples in 2015.		
Clarity															
Turbidity	NTU % > 0.3	NA	TT = > 0.3 NTU in not more than 5% of samples	Monthly lowest % < 0.3 NTU									YES	Lime and/or calcium carbonate particles from softening efforts; soil runoff	
				98.9	100.0%	100.0%	100.0%	Highest single reading							
				1.2	0.25	0.15	0.26								
Long Term 2 Enhanced Surface Water Treatment Rule															
Cryptosporidium ⁸	cysts/L	0	NA	Source Water tested in the lowest category	All source waters tested at less than 0.075 cysts/L (lowest risk category)									YES	Storm runoff, agricultural runoff and leaking sewage systems

Footnotes From the City of Oklahoma City

Monitoring Frequency Note: The state has set forth enforceable regulations on how often contaminants must be monitored and tested. Some of our data, though representative, is more than one year old.

ODEQ monitors and tests the following Inorganic Compounds and Radiological Compounds for Oklahoma City Utilities:
Barium, Arsenic, Gross Alpha, Gross Beta, Radium 226 + 228 and Uranium.

Required Sampling Frequency:

Every 9 years - Fluoride, Barium and Arsenic

Every 6 years – Radionuclides

Every 3 years – Lead and Copper

1. Fluoride: Monitored every 12 hours at each WTP. The highest single reading for 2015 at each plant was below the MCL and considered a safe level.

Draper – Highest single reading = 0.97 ppm. Average fluoride concentration for 2015 = 0.73 ppm

Overholser – Highest single reading = 1.04 ppm. Average fluoride concentration for 2015 = 0.77 ppm

Hefner – Highest single reading = 1.25 ppm. Average fluoride concentration for 2015 = 0.75 ppm

2. Nitrate-Nitrite: Measured as the sum of Nitrate-N and Nitrite-N.

3. Disinfection By-Products Stage 2 Rule Monitoring: U.S. water utilities are required to continuously improve the quality of water delivered to customers. The Federal Environmental Protection Agency and the Oklahoma Department of Environmental Quality enforce drinking water laws and develop long-range improvement activities. In 2009, Oklahoma City collected information on how THMs and HAAs change in the water system and is working with EPA and DEQ to decrease the numbers.

4. Total Trihalomethanes and Haloacetic Acids: The MCL is based on the RAA; therefore the MCL does not apply to individual samples that are allowed to be higher than the MCL.

5. Bromate: The MCL is based on the RAA; therefore the MCL does not apply to individual samples that are allowed to be higher than the MCL. Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

6. Total Organic Carbon: Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include Trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these by-products in excess of the MCL (Maximum Contaminant Level) may lead to adverse health effects. TOC compliance is based on the percent TOC removed, not the total amount present. The starting TOC at the Draper Treatment facility is low; therefore the potential for formation of THMs and HAAs due to TOC is low. The THM and HAA values for the Draper Treatment facility are below the LRAA MCL, which is currently considered a safe level for these disinfection by-products. Draper Treatment facility uses an alternative method (SUVA analysis) for meeting TOC removal criteria.

7. Chlorine: Compliance with the 4.0 mg/L MRDL is based upon an annual average; therefore, the MRDL does not apply to individual samples that are allowed to be higher than the MRDL.

8. Cryptosporidium: Current round of LT2 testing is underway. Not enough data to calculate the 12 month running averages. Current averages with 11 data points are <0.075 cysts/L (0.029 – Overholser, Non-detect for all Hefner, Draper and Atoka samples).

9. UCMR3: EPA uses the Unregulated Contaminant Monitoring (UCM) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Every five years EPA reviews the list of contaminants, largely based on the Contaminant Candidate List. The SDWA Amendments of 1996 provide for:

- Monitoring no more than 30 contaminants every five years
- Monitoring only a representative sample of public water systems serving less than 10,000 people
- Storing analytical results in a National Contaminant Occurrence Database (NCOD)
- UCMR3 is the third round of monitoring under the UCM Rule.

Unregulated Contaminants Monitoring Rule 3—Detected Analytes

Detected Contaminant	Units	IDEAL GOAL (EPA's MCLG)	HIGHEST LEVEL ALLOWED (EPA's MCL)	Average		Range		Average and Range	MAJOR SOURCES IN DRINKING WATER
				Norman	Oklahoma City	Norman	Oklahoma City	University of Oklahoma	
Chlorate	ppb	NA	NA	234	36.4	<20-970	< 20.0 - 36.4	<20	By-product of drinking water disinfection, making of dyes, explosives, matches, printing fabrics, herbicides, antiseptics, toothpastes and in paper pulp processing.
Hexavalent Chromium	ppb	NA	NA	41	0.141	0.08-97	< 0.030 - 0.391	2.8	Naturally occurring. By-product of making steel and other alloys, plating, dyes and pigments, leather and wood preservation.
Total Chromium	ppb	100	100	41	0.428	0.31-89	< 0.200 - 0.471	2.6	Naturally occurring. By-product of making steel and other alloys, plating, dyes and pigments, leather and wood preservation.
Molybdenum	ppb	NA	NA	1.4	2.76	1.0-2.6	< 1.00 - 3.24	1.38	Naturally occurring. By-product of making steel and other alloys, lubricants, dyes and pigments, fertilizers.
Strontium	ppb	NA	NA	442	295	89-820	42.9 - 763	145	Naturally occurring. By-product of making electronics and fireworks.
Vanadium	ppb	NA	NA	28	2.78	2.8-140	< 0.200 - 7.50	10.1	Naturally occurring. By-product of making steel alloys, chemical manufacturing, ceramics and batteries.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Advisory Notice From EPA

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

For More Information

The Norman Utilities Authority members are also the elected Mayor and City Council members. Their meetings are held at the same time as City Council meetings and are open to the public. Meeting schedule: Second and fourth Tuesday of each month at City Hall, beginning at 6:30 p.m.

For Questions Regarding Water Quality Phone (405) 321-2182

Chris Mattingly _____ Manager of Water Treatment — E-mail: chris.mattingly@normanok.gov

Scott Aynes _____ Supervisor of Water Treatment — E-mail: scott.aynes@normanok.gov

Geri Wellborn _____ Laboratory Manager — E-mail: geri.wellborn@normanok.gov

For Questions Regarding City Services

The Action Center _____ Phone (405) 366-5396— E-mail: action.center@normanok.gov

Customer Service/Billing _____ (405) 366-5320

Water/Sewer Emergency _____ (405) 329-0703 (Daytime) **(405) 321-1600 (After hours)**

Citizens can go to www.greennorman.org to get more conservation information.

2015 Water Quality Data

Parameter	Vernon Campbell WTP Average	Well Water Average	Oklahoma City Average	
Total Hardness	129	101	51	mg/L as CaCO ₃
Calcium Hardness	38	47	37	mg/L as CaCO ₃
Magnesium Hardness	24	no data	13	mg/L as CaCO ₃
Total Alkalinity	47	217	37	mg/L as CaCO ₃
Chloride	22	7.4	10	mg/L
pH	9.0	8.3	7.8	pH Units
Fluoride	0.70	0.36	0.62	mg/L
Chloramine	3.1	no data	3.4	mg/L
Turbidity	0.09	no data	0.04	NTU

Norman OK1020801

Type of Violation	Explanation of Violation	Health Effect Information
Monitoring Violation	On 16 December, 13 June, 12 August 2014 and 5 January 2015 we did not complete all monitoring for E. coli at our ground water sources and therefore cannot be sure of the quality of our drinking water at that time.	Health Effects are unknown