

Moongate Water System

2017 Water Quality Report

(Testing updated through 2016)

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The water that Moongate Water delivers to you comes from deep wells located in the Joranda Del Muerto Basin. Moongate Water has submitted our forty-year projection to the State Engineer. We have hired a hydrologist to study and model the water basin to determine the water quantity and recharge amounts. Moongate is the only system that has taken steps to ensure the water on the east mesa serves the people that live on the east mesa.

Moongate is pleased to report that our drinking water is safe and meets all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Moongate Water Co., Inc. vigilantly safeguards its water supplies and once again we are proud to report that our system has no violations for the maximum contaminant level or any other water quality standard. We want our customers to be informed about their water utility. Visit our web site at moongatewater.com checkout the helpful information on water quality, water conservation, water rates, scheduled water service disruptions, see Moongate's history or just utilize the links to the New Mexico Public Regulation Commission, New Mexico Environment Department, New Mexico Office of the State Engineer, City of Las Cruces or Dona Ana County. If you have any questions about this report or concerning your water utility, please contact Jeff Gariano, 575-382-7001 or jeff@moongatewater.com.

Moongate Water Co., Inc. routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of **January 1st to December 31st, 2016**. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Source Water Assessment and Protection Program (SWAPP)

A Source Water Assessment and Protection Program (SWAPP) has been completed by the New Mexico Environment Department, Drinking Water Bureau (NMED-DWB). Copies may also be requested by emailing the Drinking Water Bureau at SWAPP@nmenv.state.nm.us or by calling (505) 827-7536 (toll free 1-877-654-8720). Please include your name, address, telephone number, and email address, and the name of the Water System. NMED-DWB may charge a nominal fee for paper copies.

The Moongate Water System is well maintained and operated, and sources of drinking water are generally protected from potential sources of contamination based on well construction, hydrogeologic settings, and system operations and management. The susceptibility rank of the entire water system is moderate. Although throughout the United States it is common to find potential sources of contamination located

atop wellheads, continued regulatory oversight, wellhead protection plans, and other planning efforts continue to be primary methods of protecting and ensuring high quality drinking water. Please contact Mr. Jeff Gariano at 382-7001 to discuss the findings of the SWAPP report.

Why are there contaminants in my drinking water?

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. Microbial contaminants, such as viruses and bacteria, 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 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 are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

How can I get involved?

Be environmentally conscious when you dispose of waste products. Learn product safety and dispose of them properly, toxic materials thrown into an arroyo can eventually leach into the ground water or may harm our children and animals if they are in the area.

Water Testing Data terms and abbreviations

- *Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present.
- *Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- *Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- *Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- *Parts per quadrillion (ppq) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.
- *Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Variances & Exemptions (V&E)* - State or EPA permission not to meet an MCL or a treatment

technique under certain conditions *Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

- *Treatment Technique (TT)* - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Maximum Contaminant Level* - (mandatory language) The “Maximum Allowed” (MCL) is 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.
- *Maximum Contaminant Level Goal* - (mandatory language) The “Goal”(MCLG) is 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.

TEST RESULTS							
Contaminant	Violation Y/N	Range of Level Detected	Date Tested	MCLG	MCL	Likely Source of Contamination	
Microbiological Contaminants							
Total Coliform Bacteria	NO	Not Present	10 Samples collected monthly	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment	
Fecal coliform and <i>E. coli</i>	NONE	Absent	0 Samples per month	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste	
Turbidity	NO	N/A		n/a	TT	Soil runoff	
Radioactive Contaminants							
Gross Alpha w/ Am-241 (pCi/l)	NO	2.0 - 3.5 pCi/L	11/08/2016	Sigma 0.5 - 0.7	SDL 0.7 - 0.8	Erosion of natural deposits	
Gross Alpha w/ U-nat	NO	2.4 - 5.2 pCi/L	7/24/2013	Sigma 0.6 - 1.1	SDL .9 - 1.2	Erosion of natural deposits	
Gross Alpha excluding radon and uranium	NO	0.4 – 2.4 pCi/L	10/21/13			Erosion of natural deposits	
Gross Beta w/ Cs-137 (pCi/l)	NO	3.8 - 6.2 pCi/ L	7/24/2013	Sigma 0.9 - 1.1	SDL 1.2 – 1.4	Decay of natural and man-made deposits	
Gross Beta w/ Sr/Y-90	NO	3.8 - 5.8 pCi/ L	11/08/2016	Sigma .08 - 1.0	SDL 1.1 - 1.4	Decay of natural and man-made deposits	
Beta / Photon emitters	NO	5.3 – 5.3 mrem/yr	10/21/2013			Decay of natural and man-made deposits	
Ra226, SDWA Method	NO	.01 - 1.22 pCi/L	11/08/2016	Sigma .02 - .04	SDL .01 - .02	Erosion of natural deposits	
Ra228, SDWA Method	NO	.20 - .98 pCi/L	11/08/2016	Sigma .08 - .11	SDL .14 - .16	Erosion of natural deposits	
Combined Radium	NO	0.57 – 0.57 pCi/L	10/21/13			Erosion of natural deposits	
Uranium (mg/L), mass concentration	NO	3 - 3ug/L	10/21/2013	Sigma 0.5 - 0.7	SDL 1.0	Erosion of natural deposits	

Inorganic Contaminants

Arsenic (ppb)	NO	1.5-2.4	2014	0 ¹	10 ¹	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	NO	.033 - .057	10/25/2014	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	NO	Not Detected	10/25/2016			
Cadmium (ppb)	NO	Not Detected	10/25/2016	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	NO	Not Detected	10/25/2016	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper (ppm) Collected at Consumer's Tap	NO	.094 mg/l	07/18/2016	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	NO	.045 - .84	10/13/2014	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (ppb) Collected at Consumer's Tap	NO	0.95 ug/l	07/18/2016	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel (unregulated) Ppb	NO	0.00-0.45	08/13/14	100	N/A	Erosion of natural deposits; discharge from mining and refining
Nitrate (as Nitrogen) (ppm)	NO	0.59 - 2.7	12/01/2016	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	NO	29	08/13/14			
Zinc	NO	0.0-0.011	10/25/2016			
Selenium (ppb)	NO	1.4 - 6	2014	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	NO	Not Detected	2016	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Volatile Organic Contaminants Tested

Benzene	Not Detected	12/01/2016	Carbon tetrachloride	Not Detected	12/01/2016
Chlorobenzene	Not Detected	12/01/2016	1,2-Dichloro-benzene	Not Detected	12/01/2016
1,4-Dichloro-benzene	Not Detected	12/01/2016	1,2-Dichloroethane (1,2-DCA)	Not Detected	12/01/2016
1,1-Dichloroethane (1,1-DCA)	Not Detected	12/01/2016	cis-1,2-Dichloro-ethene (cis-1,2-DCE)	Not Detected	12/01/2016
trans-1,2-Dichloro-ethene (trans-1,2-DCE)	Not Detected	12/01/2016	1,2-Dichloropropane	Not Detected	12/01/2016
Ethylbenzene	Not Detected	12/01/2016	Methylene chloride	Not Detected	12/01/2016
Styrene	Not Detected	12/01/2016	Tetrachloroethene	Not Detected	12/01/2016
Toluene	Not Detected	12/01/2016	1,2,4-Trichlorobenzene	Not Detected	12/01/2016
1,1,1-Trichloro-ethane (TCA)	Not Detected	12/01/2016	1,1,2-Trichloro-ethane	Not Detected	12/01/2016
Trichloro-ethene (TCE)	Not Detected	12/01/2016	Vinyl chloride	Not Detected	12/01/2016
Xylenes	Not Detected	12/01/2016			

Herbicides					
2,4-D	Not Detected	10/26/2016	2,4,5-TP (Silvex)	Not Detected	10/26/2016
Dalapon	Not Detected	10/26/2016	Dinoseb	Not Detected	10/26/2016
Pentachlorophenol	Not Detected	10/26/2016	Picloram	Not Detected	10/26/2016
Pesticides					
Endrin	Not Detected	10/18/2016	Gamma-BHC	Not Detected	08/13/14
Methoxychlor	Not Detected	10/18/2016	Toxaphene	Not Detected	10/18/2016
Heptachlor	Not Detected	10/18/2016	Heptachlor epoxide	Not Detected	10/18/2016
Polychlorinated Biphenyls	Not Detected	08/13/14	Chlordane	Not Detected	10/18/2016
Synthetic Organic					
Di(2-Ethylhexyl)adipate	Not Detected	10/31/2016	Hexachlorocyclopentadiene	Not Detected	10/31/2016
Atrazine	Not Detected	10/31/2016	Alachlor	Not Detected	10/31/2016
Hexachlorobenzene	Not Detected	10/31/2016	Di(2-ethylhexyl)phthalate	Not Detected	10/31/2016
Benzo(a)pyrene	Not Detected	10/31/2016	Simazine	Not Detected	10/31/2016
Total TTHM					
Bromodichloromethane	<0.17 ug/l	07/31/2015	Bromoform	<0.17 ug/l	07/31/2015
Chloroform	<0.17 ug/l	07/31/2015	Dibromochloromethane	<0.15 ug/l	10/19/2015
Total Trihalomethanes	<0.15 ug/l	07/31/2015	Dibromofluoromethane (Surrogate)	5.0 ug/l	07/31/2015
1,2 Dichloroethane-d4 (Surrogate)	5.1 ug/l	07/31/2015	Toluene-d8 (Surrogate)	4.8 ug/l	07/31/2015
4-Bromofluorobenzene (Surrogate)	4.9 ug/l	07/31/2015			
Haloacetic Acids HAA5					
Monochloroacetic Acid (MCAA)	<0.51 ug/l	07/31/2015	Monochloroacetic Acid (MBAA)	<0.10 ug/l	07/31/2015
Dichloroacetic Acid (DCAA)	<0.14 ug/l	07/31/2015	Trichloroacetic Acid (TCAA)	<0.06 ug/l	07/31/2015
Dibromoacetic Acid (DBAA)	<0.06 ug/l	07/31/2015	Total Haloacetic Acid (HAA5)	<0.06 ug/l	07/31/2015

National Secondary Drinking Water Regulations

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. The EPA does not regulate the substances listed in the table below, this information is provided as a service to our customers.

Secondary Drinking Water Tests					
Contaminant (Unit Measurement)	Violation Y/N	Level Detected	Date Tested	Standard Range	Likely Source of Contamination
Alkalinity	NO	230 mg/L	10/19/2011	152.5 - 247.5	
Calcium	NO	44 mg/L	10/19/2011	44 – 78.0	
Color	NO	Not Detected	10/17/2016	15 (color units)	
Copper	NO	Not Detected	10/25/2016	0.006 - 1.0 mg/L	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Hardness (as CaCO ₃)		230 mg/L	10/19/2011	230 - 282	
Iron	NO	0.39 mg/L	10/19/2011		
Magnesium	NO	30 mg/L	10/19/2011	12.6 – 33.0	
Manganese	NO	.0014 -.0020 mg/L	10/25/2016	0.0014 - 0.05 mg/L	Manganese is one of the most abundant metals on the earth's surface, making up approximately 0.1% of the earth's crust.
Odor	NO	Not Detected	10/17/2016	3 threshold odor number	
Potassium	NO	4.0	10/19/2011		
pH	NO	7.91	10/19/2011	6.5-8.5	
Silver	NO	Not Detected	10/25/2016	0.10 mg/L	
Sulfate	NO	110-120 mg/L	10/13/2016	120 - 250 mg/L	Sulfate is a substance that occurs naturally in drinking water. Health concerns regarding sulfate in drinking water have been raised because of reports that diarrhea may be associated with the ingestion of water containing high levels of sulfate.
Total Dissolved Solids (TDS)	NO	381-450 mg/L	10/20/2016	345 - 833 mg/L	
Turbidity by nephelometer		8.6 ntu		7.76 - 9.91	
Zinc	NO	0.020 mg/L	10/19/2011	.02 - 5 mg/L	Zinc occurs in small amounts in almost all igneous rocks. Zinc is used in production of corrosion-resistant alloys and brass, and for galvanizing steel and iron products.

Unregulated Contaminate Monitoring Regulation (UCMR2)

<i>Method</i>	<i>Date</i>	<i>Range of Result</i>	<i>Units</i>
BDE 47	06/24/2010	<0.3	Ug/l
BDE 99	06/24/2010	<0.9	Ug/l
BDE 100	06/24/2010	<0.5	Ug/l
BDE 153	06/24/2010	<0.8	Ug/l
Dimethoate	06/24/2010	<0.7	Ug/l
HBB	06/24/2010	<0.7	Ug/l
Terbufos sulfone	06/24/2010	<0.4	Ug/l
1,3-dinitrobenzene	06/24/2010	<0.8	Ug/l
RDX	06/24/2010	<1	Ug/l
TNT	06/24/2010	<0.8	Ug/l

Other Information

On June 27, 1989 NASA tested Moongate well #11 for Freon, TCE, PCE, and NDMA. (Results NONE DETECTED)

Violation Information

In May 2014 Moongate Water was informed by NMED “New Mexico Environment Department” that we needed to collect samples for TTHM and HAA5 water tests. Moongate submitted sample site locations and paper work to NMED for review and comment. On July 14, 2014 Moongate collected these samples in accordance with the guidance and direction of the NMED. On November 4, 2016 Moongate received a notice of violation for not collecting the required number of samples in 2014. Our testing for 2015 and 2016 TTHM and HAA5 tests have been collected and are in compliance with water quality standards and the required number of tests.

NMED “New Mexico Environment Department” tracks all water quality testing results and schedules. The conservation fee you pay each month is paid into the state fund controlled by NMED. These fees are used to pay for water quality testing collected by NMED including tests the NMED authorizes a utility to collect. Moongate was only authorized to collect lead and copper samples for the years of 2007 and 2016. Moongate received a notice of violation for not collecting the required lead and copper samples for 2010 thru 2015. We received authorization in June 2016 to start collecting the water samples for Lead and Copper testing and submit them to the lab. The samples were collected and the results show Moongate’s water quality is in compliance with NMED / EPA standards.

What does this mean?

As you can see by the tables above, our system had no violations for exceeding the maximum contaminant level or any other water quality standard. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Arsenic above 5 up through 10 ppb: While your drinking water meets the current standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. Moongate Water System 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 <http://www.epa.gov/safewater/lead>

Our Nitrate level is 2.7 ppm. Nitrate at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

In our continuing efforts to comply with the regulations of the Safe Drinking Water Act and maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Thank you for allowing us to continue providing your family with clean, quality water this year and for your understanding.

We at Moongate work around the clock to provide safe top quality water to every customer. We ask that all our customers help us protect and conserve our water sources, which is the heart of our community, our way of life and our children's future.

With the need for additional security and safeguards it is going to take the collective effort from all of us to keep our water and community safe. If you notice anyone where you feel they don't belong and they do not appear to be Moongate personnel please contact our office day or night.

Para recibir una explicación de este reporte en Español, por favor de ponerse en contacto con la oficina.

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