Clay Rural Water System Drinking Water Information

(System Information, Sampling Requirements, and Compliance Report)

Secretary Award For Drinking Water Excellence

Population Served: 5,150

System Population: 4,395

Certified Operator: Mr Tom Hollingsworth
30376 SD Hwy 19
Wakonda, SD 57073-6416

Work Phone: (605)267-2088
Home Phone:
Cell Phone:
Fax: (605)267-2085
Email: clayruralwaterth@gmail.com

Financial Contact: Mr Greg Merrigan
30376 SD Highway 19
Wakonda, SD 57073-6416

Work Phone: (605)267-2088
Home Phone:
Cell Phone:
Fax: (605)267-2085
Email: greg.merrigan@clayruralwater.com

Other Contacts:

Last Inspection: July 13, 2016

Type of System: Community

Area Served: Clay, Union County

Number of Service Connections: 1,850

Contamination Risk: moderate

Water Sold To: Gayville, Wakonda

PWS Owner Type: Private Ownership

Service Area: Rural Water System/Colonies

Contract Laboratory: State Health Lab, Pierre

Monitoring/Reporting - Entry Point

Clay Rural Water System EPA ID: 0626

SAMPLING

Entry point: Treatment Plant

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Nov-12		
	B. Arsenic	Every nine years	Yes	Nov-12		
	C. Barium	Every nine years	Yes	Nov-12		
	D. Beryllium	Every nine years	Yes	Nov-12		
	E. Cadmium	Every nine years	Yes	Nov-12		
	F. Chromium	Every nine years	Yes	Nov-12		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Every nine years	Yes	Nov-12		
	J. Nickel	Every nine years	Yes	Nov-12		
	K. Selenium	Every nine years	Yes	Nov-12		
	L. Thallium	Every nine years	Yes	Nov-12		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals	Quarterly	No	May-15	2018	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Sep-15	2018	
	B. Method 524	Triennially	No	Sep-15	2018	
	C. Method 525	Triennially	No	Sep-15	2018	
	D. Method 531.1	Triennially	No	Sep-15	2018	
	E. Method 547	Triennially	No	Sep-15	2018	
	F. Method 548	Triennially	No	Sep-15	2018	
	G. Method 549	Triennially	No	Sep-15	2018	
5	Nitrate	Annually	N/A	Jul-17		
6	Nitrite	Triennially	N/A	Jul-15		

(These values are calculated from available data. Check correspondence for verification.)

Bacteriological Monitoring

Bacteriological sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	60
B	Samples required:	Five Samples Each Month.
C	Survey samples:	0
D	Safe samples:	60
E	Unsafe samples:	0
F	Repeat samples:	0
H	Groundwater Samples:	

Lead and Copper Monitoring

(These values are calculated from available data. Check correspondence for verification.)

A	Date Last Tested:	July 22, 2015	
B	Samples required:	20	
C	Sampling Frequency	Triennially	
D	Date Due Next	2018	
E	Lead - 90% Level	0.5	Action Level - 15 ug/l
F	Copper 90% Level	0.02	Action Level - 1.3 mg/l

Disinfectant Residual Monitoring

Residual sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	60	
B	Samples required:	Five Samples Each Month.	
C	Last Qtr Cl Residual:	0.88	mg/l
D	Running Annual Average:	0.86	mg/l
E	Date of last DBP test:	August 2, 2017	
F	THM - Qtr Average:	30.6	ug/l
G	Haa5 - Qtr Average:	4.8	ug/l

Asbestos

A	Date of last test:	Waiver - Testing Not Required	
B	Asbestos Result:		million fibers per liter

Comments

Violations and Significant Deficiencies

Clay Rural Water System **EPA ID: 0626**

Violations From January 1, 2013 To January 1, 2018

Violation Type	Parameter	Date	Status
No Violations			

Significant Deficiency	Date Identified	Date Corrected

EPA ID#: 0626 System Name: Clay Rural Water System

Sampler- Mr Tom Hollingsworth Work Phone-(605)267-2088
Title- System Manager
Address- 30376 SD Hwy 19
Wakonda SD 57073-6416

Location- City: Wakonda County: Clay, Union
Service Area- Other residential areas
PWS Owner Type- Private Ownership
Water Supply Type- Groundwater Supply

Population Served- 4,395 Service Connections- 1,850

Sources for Clay Rural Water System

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	#1	1978	60	12	Permanent	Groundwater	Vulnerable	Treatment At Plant
02	#2	1978	60	12	Permanent	Groundwater	Vulnerable	Treatment At Plant
03	TREATMENT PLANT				Permanent	Treatment Plant	Non-Vulnerable	Aeration Coagulation, Softening - Lime Polymers Soda Ash Disinfection - Gas Chlorine Filtration - Gravity Corrosion Control - Phosphates Mixing Device Recarbonation Sedimentation Fluoridation - H2SiF6
04	#3	1996	200	16	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
12	BERESFORD				Emergency	Purchased Groundwater	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only
13	VERMILLION (S)					Purchased Groundwater	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only
14	COYOTE PLANT				Emergency	Purchased Groundwater	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only Treatment At Plant
15	VERMILLION (E)					Purchased Groundwater	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only
16	COYOTE PLANT	2006				Treatment Plant	Non-Vulnerable	Disinfection - Hypochlorites Filtration - Zeolite
18	#4	2010	160	16	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant

Date Of This Report: August 29, 2017

EPA ID#: 0626 System Name: Clay Rural Water System

Common Ion Data

(All chemical data are reported in milligrams per liter (mg/l) except pH and Langlier Index)

Please refer to Private Well Data for more information about these test results.

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Raw	08/15/85	902	989	7.36	293	0	25	5.2	141.0	44.1	3.00	1.03	8.8	281	357	0	534	+0.13	0.5	0.18
01	Raw	06/10/92	986	1220	7.40	295	0	30	7.3	175.0	50.5	3.41	0.94	5.4	388	360	0	645	+0.21	0.1	0.19
02	Raw	08/15/85	1077	1173	7.33	303	0	30	5.9	171.0	51.3	3.20	1.00	8.8	380	370	0	638	+2.40	0.7	0.17
03	Raw	03/21/96	880	1188	7.48	296	0	29	7.6	181.8	56.2	6.90	1.08	3.3	421	361	0	685	+0.59	0.3	0.21
03	Raw	12/08/98	896	1160	7.27	302	0	33	6.9	159.0	50.3	3.68	1.03	4.0	360	368	0	604	+0.33	0.2	0.22
03	Raw	05/01/02	1012	1330	7.36	302	0	29	7.6	188.0	53.8	5.64	1.16	4.0	453	368	0	691	+0.48	0.1	0.19
03	Raw	06/23/05	843	1310	7.28	300	0	30	7.8	192.0	56.4	5.60	1.19	6.0	447	366	0	712	+0.43	0.1	0.17
03	Raw	08/15/07	1021	1290	7.24	299	0	30	8.4	201.0	58.6	5.72	1.28	4.0	496	365	0	743	+0.38	0.1	0.18
03	Raw	06/28/11	909	1190	7.40	303	0	40	6.8	160.0	52.2	4.84	0.96	5.0	401	370	0	614	+0.46	0.2	1.17
18	Raw	06/24/14	973	1260	7.67	278	0	35	0.7	173.0	58.6	5.48	1.28	4.0	457	339	0	673	+0.73	0.0	0.25
Averages			950	1211	7.38	297	0	31	6.4	174.2	53.2	4.75	1.10	5.3	408	362	0	654		0.2	0.29

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Treated	06/10/92	990	1220	7.57	286	0	30	8.7	172.0	50.1	0.18	0.07	10.6	396	349	0	636	+0.37	0.2	1.07
03	Treated	03/21/96	866	1188	7.49	290	0	28	8.5	173.6	56.0	0.06	0.15	5.0	422	354	0	664	+0.58	0.5	1.27
03	Treated	12/08/98	681	1020	8.46	63	1	162	7.6	18.5	21.1	0.22	0.02	9.0	389	74	1	133	-0.06	0.3	1.35
03	Treated	05/01/02	73	1140	8.04	37	0	168	8.2	24.0	20.4	0.04	0.02	9.0	475	45	0	144	-0.61	0.5	1.29
03	Treated	06/23/05	757	1100	8.87	46	3	161	8.5	43.3	18.7	0.11	0.02	12.0	475	49	4	185	+0.57	0.1	1.58
03	Treated	08/15/07	744	1080	8.90	37	3	158	9.3	27.2	30.0	0.06	0.02	11.0	502	38	4	191	+0.31	0.1	1.22
03	Treated	06/28/11	715	1030	9.30	129	19	136	7.1	27.7	38.1	0.03	0.02	12.0	394	111	23	226	+1.26	0.2	0.23
03	Treated	07/13/16	723	1050	8.86	47	4	130	7.4	59.7	23.3	0.00	0.00	0.0	459	48	5	245	+0.71	0.0	0.58
Averages			694	1104	8.44	117	4	122	8.2	68.3	32.2	0.09	0.04	8.6	439	134	5	303		0.2	1.07

Date Of This Report: August 29, 2017

You can contact us by calling
(605)267-2088 or write us at
30376 SD Highway 19
Wakonda SD 57073-6416

Clay Rural Water System

2017 Drinking Water Report

It's your tap water!

EPA ID: 0626

Water Quality

Secretary's Award

The Clay Rural Water System has supplied fifteen consecutive years of safe drinking water to the public it serves and has been awarded the Secretary's Award for Drinking Water Excellence by the South Dakota Department of Environment and Natural Resources. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Water Source

We serve more than 4,395 customers an average of 568,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Clay Rural Water System public water supply system is medium.

For more information about your water and information on opportunities to participate in public meetings, call (605)267-2088 and ask for Greg Merrigan.

Additional Information

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 can pick up substances resulting from the presence of animals or from human activity.

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 stormwater 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 stormwater runoff, and residential uses.

- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

- *Radioactive contaminants*, which 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 which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 can be obtained by calling the Environment Protection Agency's 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. The Clay Rural Water System public water supply 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*.

Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2017 The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

2017 Table of Detected Contaminants For Clay Rural Water System (EPA ID 0626)

Terms and abbreviations used in this table:

** Maximum Contaminant Level Goal(MCLG): 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.*

** Maximum Contaminant Level(MCL): 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.*

** Action Level(AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.*

** Treatment Technique(TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU*

** Running Annual Average(RAA): Compliance is calculated using the running annual average of samples from designated monitoring locations.*

Units:

**MFL: million fibers per liter*

**pCi/l: picocuries per liter(a measure of radioactivity)*

**ppt: parts per trillion, or nanograms per liter*

**mrem/year: millirems per year(a measure of radiation absorbed by the body)*

**ppm: parts per million, or milligrams per liter(mg/l)*

**ppq: parts per quadrillion, or picograms per liter*

**NTU: Nephelometric Turbidity Units*

**ppb: parts per billion, or micrograms per liter(ug/l)*

**pspm: positive samples per month*

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.0	0	07/22/15	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	1	0	07/22/15	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Fluoride	0.96	0.52 - 0.96	04/10/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	4.80		08/02/17	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	30.6		08/02/17	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Please direct questions regarding this information to Mr Tom Hollingsworth with the Clay Rural Water System public water system at (605)267-2088.