



**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	07/30/2018		
Media:	Water		
Regulatory Program(s)	CWA – NPDES		
Company Name:	City of Elephant Butte		
Facility Name:	Sierra County Regional Wastewater Treatment Plant		
Facility Physical Location:	1001 Sunset Ridge Road		
(city, state, zip code)	Sierra County, NM 87935		
Mailing address:	PO Box 1080		
(city, state, zip code)	Elephant Butte, NM 87935		
County/Parish:	Sierra County		
Facility Contact:	David DuVall	City Manager	
	citymanager@cityofelephantbutte.com		
FRS Number:	110064634560		
Identification/Permit Number:	NM0030864		
Media Number:			
NAICS:	221320		
SIC:	4952		
Personnel participating in inspection:			
Amy Andrews, P.E.	USEPA/6EN-WM	Environmental Engineer	214-907-0638
Marcus Ortega	City of Elephant Butte	Wastewater Technician/Operator	575-744-4892
Shawn Tillots	City of Elephant Butte	Wastewater Technician/Operator	575-744-4892
EPA Lead Inspector Signature/Date			
	Amy Andrews		Date
Supervisor Signature/Date			
	Carol Peters		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

Environmental Protection Agency (EPA) Region 6 inspector, Amy Andrews, arrived at the City of Elephant Butte, Sierra County Regional Wastewater Treatment Plant (WWTP) at 10:15 am on July 30, 2018 for an unannounced Compliance Evaluation Inspection (CEI). I met with Marcus Ortega and Shawn Tillots, City of Elephant Butte Wastewater Treatment Operators, for the Opening Conference. I presented my credentials to Mr. Ortega and Mr. Tillots and explained that this was an EPA inspection to determine compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act (CWA). The inspection was conducted under the authority of the NPDES permit program, in accordance with the Federal CWA.

This report is based on information supplied by City of Elephant Butte representatives (the permittee), observations made by the EPA inspector, and records and reports maintained by the permittee and the EPA.

FACILITY DESCRIPTION

The City of Elephant Butte, Sierra County Regional WWTP is located at 1001 Sunset Ridge Road, Sierra County, New Mexico. The facility is classified as a minor municipal discharger, and is permitted for a design flow discharge of 0.6 million gallons per day (MGD), with actual average flow maintained around 0.06 MGD. Discharge is to receiving waters named Cuchillo Negro Creek, and thence to the Rio Grande.

Raw sewage flows through a collection system via six (6) lift stations to the plant. The final station is approximately one quarter mile north of the plant. Influent flow is measured with a magnetic flow meter. An additional lift station is located at the treatment plant to direct decant from the digester and the drying beds back to the headworks. At the headworks, raw sewage passes through a manual bar screen and grit chamber. Screenings are sent down a chute to a container at ground level. The main treatment units for this facility are two sequencing batch reactor (SBR) basins and a digester which allow for aeration, mixing, anoxic and decanting of influent. Following the SBR treatment units, flow enters a flow equalization (EQ) basin before entering the disinfection unit. The EQ basin is covered to minimize algal growth in the effluent prior to discharge. This also increases the bulb life span in the Ultraviolet (UV) disinfection chamber. Effluent flows from the EQ basin past the UV disinfection into a 3" Parshall flume for flow measurement prior to being discharged to Cuchillo Negro Creek.

Sludge produced at the plant is placed in two divided (four concrete cell) drying beds for dewatering. Screenings removed from the bar screen are also transported and disposed with the dried sewage sludge. Once the sludge passes a paint filter liquid test it is stockpiled on site for further drying and pathogen removal through natural processes. The facility uses a roll off for further storage to prevent moisture from rewetting the material. The dewatered sludge is transported to the Socorro Landfill by a registered waste hauler for final disposal. Mr. Ortega indicated that sludge had not been taken to the

landfill during the five months that he had been working at the facility, and was not sure when it may have happened previous to his starting there.

Section II - OBSERVATIONS

Mr. Ortega and Mr. Tillots met me at the WWTP and gave me a tour of the facility. Pollutants that are sampled and analyzed for by the permittee include pH, E. coli bacteria, and flow rate. Samples of other pollutants are sent to Aqua Environmental Testing Lab, LLC in Las Cruces, NM.

I was informed that their previous operator has resigned the previous Friday, therefore all documentation was locked in his office and unavailable as of the date of the inspection. As of the time of this inspection, the facility does not have a certified Operator. David DuVall, the City Manager of the City of Elephant Butte, emailed requested records and documents to me on 8/3/2018.

Section III – AREAS OF CONCERN

Requirement 1

NPDES Permit NM0030846, Part III.D.9 Standard Conditions: *Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.*

Concern 1

The permittee's name (City of Elephant Butte) is not listed on the permit. The permittee was informed of this requirement previously, in an inspection conducted January 10, 2013, prior to the issuance of the current permit.

Requirement 2

NPDES Permit NM0030846, B.3.a. Proper Operation and Maintenance: *The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control {and related appurtenances} which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate, quality assurance procedures.*

Concern 2

The permittee was unable to demonstrate that Standard Operating Procedures existed for either WWTP operations or laboratory procedures. During this inspection, solids were present at the effluent finger weir following the ultraviolet (UV) disinfection basin (see photo in Appendix 1) and the effluent appearance was turbid. It is unclear when the last time the facility may have wasted solids from the SBR basins. Visual observation of effluent quality does not appear to match the values shown on the DMRs. The permittee has reported E. coli as less than one (<1) colony forming units (cfu) per 100 milliliters on their DMRs for a majority of the reporting periods since this permit became effective October 1, 2013.

Requirement 3

NPDES Permit NM0030846, Part I.A. Final Effluent Limits: *Pollutant pH, measurement frequency of 5/Week*

Concern 3

pH was not measured at a frequency of 5/week during the months of April, May, or June 2018 (see bench sheets in Appendix 2). Measurement frequency was inconsistent, sometimes measuring pH every day for two weeks, and then missing 3 or 4 days in a week. Bench sheets did not clearly designate the start and end of each week, making it difficult to determine the number of samples collected in a week. However, regardless of when the weeks started, there were only a total of five pH samples collected between May 19 and May 31, 2018 as well as between June 16 and June 31, 2018.

Requirement 4

NPDES Permit NM0030846, Part III. C.4. Record Contents: *Records of monitoring information shall include: a. The date, exact place, and time of sampling or measurements; b. The individual(s) who performed the sampling or measurements; c. The date(s) and time(s) analyses were performed; d. The individual(s) who performed the analyses; e. The analytical techniques or methods used; and f. The results of such analyses.*

NPDES Permit NM0030846, Part III. C.5. Monitoring Procedures *a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator. b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities. c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

Concern 4

Bench sheets for E. coli are missing basic information such as the person who did the analysis, time of analysis as well as any procedural techniques used before or during the analysis, such as holding time or temperature of the sample prior to analysis, or incubation time or temperature during the analysis. Many of the sheets have values scribbled out or what looks to be white-out with other text over the top of the white-out, with no initials of the person who made the changes or any indication of why the changes were necessary. Bench sheets for E. coli list the method as "22nd Edition Standard Method 9223-B." Standard Methods 22nd Edition was published in 2012. The approved Standard Method, as shown in 40 CFR Part 136.3, is from 2004. BOD and TSS chain of custody forms from samples sent to an external laboratory are missing proper custody information, including relinquished and received signatures, and the laboratory reports are missing the analysis time, making it difficult or impossible to verify compliance with holding times. The permittee was unable to show documentation demonstrating that monitoring and analytical instruments had been calibrated. Bench sheets do not show any indication that the facility has a quality control program, or that spikes and duplicates are part of that program.

Requirement 5

NPDES Permit NM0030846, Part I.A. Footnote 4: *TRC shall be measured during periods when chlorine is used as either backup bacteria control, when disinfection of plant treatment equipment is required or when used for filamentaceous algae control. For permit reporting, when chlorine is not used in the treatment system the permittee may report N/A on the DMR. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.*

Concern 5

The permittee stated that they clean the ultraviolet (UV) disinfection bulbs on Monday of every week using chlorine, however permittee has reported “NODI-9” which is “Conditional Monitoring - Not Required This Period,” on every DMR since the beginning of this permit cycle (10/1/2013). However, the permittee is required to sample for TRC when disinfection of plant treatment equipment is required.

Requirement 6

NPDES Permit NM0030846, Part III.C.5. *b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities*

Concern 6

pH buffer solutions did not have received-on or opened-on dates written on the bottles. The manufacturer of these solutions, “USABlueBook” states that they must be used within 6 months after opening. It was therefore impossible to confirm proper calibration of the pH instrument.

Section IV – FOLLOW UP

The following information was received by EPA after exiting the Facility on 7/30/2018:

- April, May, and June 2018 DMR data was emailed by the facility on 8/3/2018

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 32 photos taken 7/30/2018

Appendix 2 – Selected Laboratory bench sheets for May, June, and July 2018

...

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: City of Elephant Butte, Sierra County Regional Wastewater Treatment Plant		
City: Elephant Butte	County/Parish: Sierra County	State: New Mexico



Photo File Name: DSCN0434.JPG

Date of Photo: 7/30/2018

Time of Photo: 10:23 AM

Photographer: Amy Andrews

Description: Sign outside of wastewater treatment plant identifying the facility as belonging to the City of Elephant Butte, rather than Sierra County, as identified on the permit.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: City of Elephant Butte, Sierra County Regional Wastewater Treatment Plant		
City: Elephant Butte	County/Parish: Sierra County	State: New Mexico



Photo File Name: DSCN0440.JPG

Date of Photo: 7/30/2018

Time of Photo: 10:48 AM

Photographer: Amy Andrews

Description: Solids floating in finger weirs after the ultraviolet (UV) disinfection chamber (UV banks are to the right in the photo, effluent flows toward the left).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: City of Elephant Butte, Sierra County Regional Wastewater Treatment Plant		
City: Elephant Butte	County/Parish: Sierra County	State: New Mexico

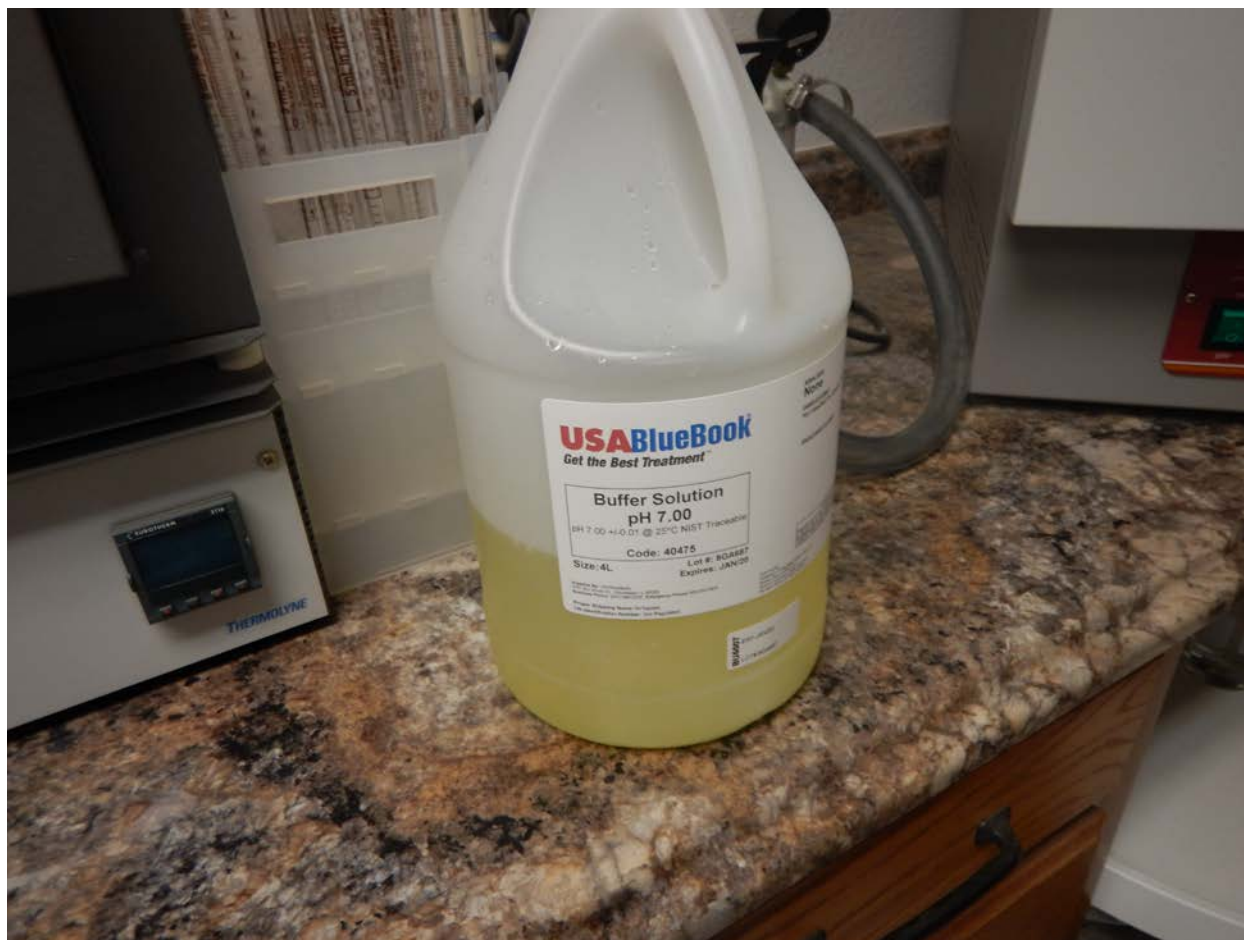


Photo File Name: DSCN00443.JPG

Date of Photo: 7/30/2018

Time of Photo: 11:09 AM

Photographer: Amy Andrews

Description: pH buffers showing no received-on or opened-on dates.

Appendix 2
Selected Laboratory bench sheets
for May, June, and July 2018

Month: April 2018

City of Elephant Butte

DMR Worksheet

DATE	Effluent flow	BOD mg/L	BOD lbs	TSS mg/L	TSS lbs	E-Coli	CFU/100mls	pH
	in MGD	from lab	calc	from lab	calc	GEO	AVG CALC	
1	0.06576		0		0			
2	0.05271		0		0			
3	0.06747		0		0	<	1	7.43
4	0.0577		0		0			7.31
5	0.0336		0		0			7.5
6	0.05257		0		0			7.43
7	0.06924		0		0			7.48
8	0.05673		0		0			7.66
9	0.05758	8.85	4.24992222	4	1.9208688			7.4
10	0.0477		0		0	<	1	7.66
11	0.04775		0		0			7.4
12	0.04937		0		0			7.44
13	0.04366		0		0			7.46
14	0.0546		0		0			7.42
15	0.06132		0		0			7.46
16	0.04787		0		0			
17	0.04813		0		0			7.42
18	0.07686		0		0			7.57
19	0.0492		0		0			
20	0.0483		0		0			7.6
21	0.05199		0		0			
22	0.0593		0		0			
23	0.05816		0		0			7.43
24	0.05401	8.55	3.85129107	4	1.8017736			7.49
25	0.06269		0		0			7.44
26	0.04905		0		0			7.48
27	0.05151		0		0			7.54
28	0.05136		0		0			
29	0.06864		0		0			
30	0.06865		0		0			7.42
31			0		0			
	AVERAGE	8.85	4.24992222	4	1.9208688	<		7.66
	0.055449333	8.7	4.05060665	4	1.8613212		1	7.31
		BOD		TSS				
		%Removal		%Removal				
	from lab mg/l	158		245				
	% removal	94.4936709		98.367347				
	LEGEND							
	=average							
	=7 day max							
	=30 day min							
	=cal geo mean							



5961
CITY OF ELEPHANT BUTTE
 P. O. Box 1080
 Elephant Butte, New Mexico 87935
 (575) 744-4892
 FAX (575) 744-4493
"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* Tim Crawford	
Collection Date* 3-13-2018 4-3-18	Collection Time* 10:20 1:45	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg 5 0	Yellow Sm 1	Fluor. Lg 2 0
			Fluor. Sm 1 0
			MPN INDEX <1
Analyst	Confirmed by Jesse Cole	Verification	
Notes:	Sample Temperature: °C	Sample Turbidity: NTU / TRC:	ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.



5961
CITY OF ELEPHANT BUTTE
 P. O. Box 1080
 Elephant Butte, New Mexico 87935
 (575) 744-4892
 FAX (575) 744-4493
"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme
 Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* Tim Crawford	
Collection Date* 3-15-2018 4-10-18	Collection Time* 10:20 1:45	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg ☒	Yellow Sm ☒	Fluor. Lg ☒
			Fluor. Sm ☒
			MPN INDEX ☒ <1
Analyst	Confirmed by <i>Jesse Cole</i>		Verification
Notes:	Sample Temperature:	°C	Sample Turbidity: NTU / TRC: ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.

12695 Leasburg St. Pk. Rd
Las Cruces NM 88007

AETLab NM Lab # 1201

E-mail: aetlab@windstream.net

CHEMICAL ANALYSIS SUBMITTAL & CUSTODY FORM

Lab personnel will complete shaded areas. Clients please fill in and check all other areas as needed.		Lab Sample Number(s): <u>LC040918 - C1</u>	
System Name: <u>City of Elephant Butte</u>		Date Received: <u>4-9-18</u>	Time Received: <u>1405</u>
Contact Person: <u>Jesse Cole</u>		Received By: <u>JAC</u>	Analyzed By:
Mailing Address: <u>PO box 1080 Elephant Butte, NM 87935</u>		Client ID:	Sample Matrix:
Phone/Fax: <u>575-744-9163</u>	E-mail: <u>publicworks@cityofelephantbutte.com</u> <u>wastewater@cityofelephantbutte.com</u>	Condition Upon Receipt	
Permit No. (PWSS/NPDES/DP/LWP): <u>NM0030864</u>		☒ Intact Container	☒ Chilled / Cool Temp
Sample Location (address): <u>1001 Sunset Ridge Rd</u>		☒ Sufficient Volume	Preservative:
Sample Site (ex: wellhead): <u>BARSCREEN- INFLUENT</u>		☒ Labeled	Chain Of Custody & Seal
Date Collected: <u>4-9-18</u>	Time Collected: <u>11:14</u>	Test(s) Requested	
Collected By: <u>T.M. Crawford</u>	Transported By: <u>T.M. Crawford</u>	Alkalinity	Manganese (Mn)
Type of System	Sample Type	Ammonia (NH ₃ -N)	Minerals: Ca, K, Mg, Na
☒ Community/Municipal	Drinking water	☒ BOD (5-day)	☒ Nitrate (NO ₃ -N)
☐ Industrial/Commercial	Agricultural water	☐ COD	☐ Nitrite (NO ₂ -N)
☐ Non-Community	☒ Wastewater	☒ Chloride (Cl ⁻)	pH/Temp.
☐ Private	Monitoring well	Chlorine (Cl ₂)	Phosphate (PO ₄ -P)
Other(specify):	Other(specify):	Color (Pt-Co units)	Sulfate (SO ₄)
Special Testing Panels		Copper (Cu)	Sulfide (S ²⁻)
Water Quality: pH, TDS/Cond./Salinity, Hardness, Turbidity		Fluoride (F ₂)	☒ TKN
Taste&Odor: Alkalinity, Sulfide/Sulfate, Iron, Manganese		Hardness (as CaCO ₃)	TDS/Cond/Salinity
Contaminates: Copper, Lead, Phosphate, Nitrate		Iron (Fe)	☒ TDS Gravimetric
Septic Tank Check: BOD, TSS, TKN, NH ₃ -N, NO ₃ -N, NO ₂ -N		Lead (Pb)	☒ TSS Gravimetric
Comments		Other (specify):	

12695 Leasburg St. Pk. Rd.
Las Cruces NM

Aqua Environmental Testing Lab, LLC dba

AETLab NM Lab # 1201

Phone: 575-526-0871

Fax: 575-526-0871

E-mail: aetlab@windstream.net

CHEMICAL ANALYSIS SUBMITTAL & CUSTODY FORM

Lab personnel will complete shaded areas. Clients please fill in and check all other areas as needed.		Lab Sample Number(s): <u>LC040918 - C2</u>	
System Name: <u>City of Elephant Butte</u>		Date Received: <u>4-9-18</u>	Time Received: <u>1405</u>
Contact Person: <u>Jesse Cole</u>		Received By: <u>JAC</u>	Analyzed By:
Mailing Address: <u>PO Box 1080 Elephant Butte, NM 87935</u>		Client ID:	Sample Matrix:
Phone/Fax: <u>575-744-9163</u>	E-mail: <u>publicworks@cityofelephantbutte.com</u> <u>wastewater@cityofelephantbutte.com</u>	Condition Upon Receipt	
Permit No. (PWSS/NPDES/DP/LWP): <u>NM0030864</u>		☒ Intact Container	☒ Chilled / Cool Temp
Sample Location (address): <u>1001 Sunset Ridge Rd</u>		☒ Sufficient Volume	Preservative:
Sample Site (ex: wellhead): <u>UV trough Effluent</u>		☒ Labeled	Chain Of Custody & Seal
Date Collected: <u>4-9-18</u>	Time Collected: <u>11:03</u>	Test(s) Requested	
Collected By: <u>T.M. Crawford</u>	Transported By: <u>T.M. Crawford</u>	Alkalinity	Manganese (Mn)
Type of System	Sample Type	Ammonia (NH ₃ -N)	Minerals: Ca, K, Mg, Na
☒ Community/Municipal	Drinking water	☒ BOD (5-day)	☒ Nitrate (NO ₃ -N)
☐ Industrial/Commercial	Agricultural water	☐ COD	☐ Nitrite (NO ₂ -N)
☐ Non-Community	☒ Wastewater	☒ Chloride (Cl ⁻)	pH/Temp.
☐ Private	Monitoring well	Chlorine (Cl ₂)	Phosphate (PO ₄ -P)
Other(specify):	Other(specify):	Color (Pt-Co units)	Sulfate (SO ₄)
Special Testing Panels		Copper (Cu)	Sulfide (S ²⁻)
Water Quality: pH, TDS/Cond./Salinity, Hardness, Turbidity		Fluoride (F ₂)	☒ TKN
Taste&Odor: Alkalinity, Sulfide/Sulfate, Iron, Manganese		Hardness (as CaCO ₃)	TDS/Cond/Salinity
Contaminates: Copper, Lead, Phosphate, Nitrate		Iron (Fe)	☒ TDS Gravimetric
Septic Tank Check: BOD, TSS, TKN, NH ₃ -N, NO ₃ -N, NO ₂ -N		Lead (Pb)	☒ TSS Gravimetric
Comments:		Other (specify):	

Aqua Environmental Testing Laboratory

NM Lab # 0701 - 103 Via Aguila Ruidoso NM 575-336-1107 aetlab@windstream.net
 NM Lab #1201 - 12695 Leasburg St Pk Rd Las Cruces NM 575-526-0871 aetlab1201@centurylink.net

WASTEWATER ANALYSIS REPORT

Client: City of Elephant Butte Attn: Jesse Cole PO Box 1080 Elephant Butte, NM 87935		Phone: 575-740-8791 Fax: 575-744-4493 Email: wastewater@cityofelephantbutte.com jezzy@yahoo.com
Date Collected: 4-9-18/1114	Date Received: 4-9-18/1405	Lab Sample No.: LC040918-C1
Collected By: Jesse Cole	Received By: Josh Alderete	Sample Matrix: WW
Sample Location: Elephant Butte WWTP	System/Sample Type: Community Wastewater	NPDES No.: NM0030864
Sample Site: Barscreen- Influent	Client I.D.: COEB	Report Date: 4-19-18

Parameter	Result	Method Used	Method Reference	Detection Limit	Date Analyzed	Analyst
Total Suspended Solids	158 ppm ¹	Gravimetric	2540-D**	2.5 ppm	4-10-18	CJG
B.O.D. ¹	245 ppm ²	I.S.E. ⁴	5210-B**	2.0 ppm	4-11_16-18	CJG

¹B.O.D. = Biochemical oxygen Demand (5-Day, 20° C)

²ppm = parts per million = mg/L

³BDL = Below Detection Limit

⁴I.S.E. = Ion Selective Electrode

⁵MPN/100 mL = CFU/100 mL for reporting purposes. Colilert-18 used.

If no positive (fluorescent) wells are observed, the colony count is reported as <1 MPN/100 mL.

*US EPA Method

**Standard Methods for the Examination of Water and Wastewater, 21st Edition, 2005.

Data Reviewed By: _____

Date: 4-19-18

Month: May 2018

City of Elephant Butte

DMR Worksheet

DATE	Effluent flow	BOD mg/L	BOD lbs	TSS mg/L	TSS lbs	E-Coli	CFU/100mls	pH
	in MGD	from lab	calc	from lab	calc	GEO AVG CALC		
1	0.05142		0		0			7.45
2	0.04934		0		0	<	1	7.33
3	0.04706		0		0			
4	0.05638		0		0			7.43
5	0.0575		0		0			
6	0.08043		0		0			
7	0.06575		0		0			7.45
8	0.05231		0		0			7.49
9	0.04594		0		0	<	1	7.43
10	0.04635		0		0			7.45
11	0.05015		0		0			7.36
12	0.05337		0		0			
13	0.05752		0		0			
14	0.06041	9.59	4.831628046	4.67	2.352836598			7.42
15	0.04815		0		0			7.54
16	0.05837		0		0			7.34
17	0.04898		0		0			7.46
18	0.05105		0		0			7.44
19	0.03095		0		0			
20	0.08357		0		0			
21	0.03933		0		0			7.45
22	0.07915		0		0			7.5
23	0.0558	8.88	4.13250336	2	0.930744			
24	0.05154		0		0			7.42
25	0.05114		0		0			
26	0.07078		0		0			
27	0.07241		0		0			
28	0.0895		0		0			
29	0.09141		0		0			7.44
30	0.06327		0		0			7.45
31	0.05089		0		0			
	AVERAGE	9.59	4.83162805	4.67	2.3528366			7.54
	0.058394194	9.235	4.4820657	3.335	1.6417903	<	1	7.33
		BOD		TSS				
		%Removal		%Removal				
	from lab mg/l	269		140				
	% removal	96.5669145		97.617857				
	LEGEND							
	=average							
	=7 day max							
	=30 day min							
	=cal geo mean							



5961
CITY OF ELEPHANT BUTTE
 P. O. Box 1080
 Elephant Butte, New Mexico 87935
 (575) 744-4892
 FAX (575) 744-4493
"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* Tim Crawford / <i>Marcus Ortega</i>	
Collection Date* 3-13-2018 <i>5-2-18</i>	Collection Time* 10:20 <i>8:57</i>	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg <i>5-0</i>	Yellow Sm 0	Fluor. Lg 0
			Fluor. Sm 0
			MPN INDEX <1
Analyst	Confirmed by <i>Jesse Cole</i>	Verification	
Notes:	Sample Temperature:	°C	Sample Turbidity: NTU / TRC: ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.



5961
CITY OF ELEPHANT BUTTE

P. O. Box 1080
Elephant Butte, New Mexico 87935
(575) 744-4892
FAX (575) 744-4493

"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme
Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* Tim Crawford / <i>Marcus Ortega</i>	
Collection Date* 3-13-2018 <i>5-9-18</i>	Collection Time* 10:20 <i>8:38</i>	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg <i>53</i>	Yellow Sm 0	Fluor. Lg 0
			Fluor. Sm 0
			MPN INDEX <1
Analyst	Confirmed by <i>Jesse Cole</i>		Verification
Notes:	Sample Temperature:	°C	Sample Turbidity: NTU / TRC: ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.

DATE	Effluent flow	BOD mg/L	BOD lbs	TSS mg/L	TSS lbs	E-Col	CFU/100mls	pH
	in MGD	from lab	calc	from lab	calc	GEO	AVG CALC	
1	0.03149		0		0	<	1	7.46
2	0.06161		0		0			
3	0.07035		0		0			
4	0.08179		0		0			7.39
5	0.01108	7.07	0.653318904	4.67	0.431541624			7.45
6	0.09107		0		0			7.46
7	0.10197		0		0			7.44
8	0.05322		0		0	<	1	7.42
9	0.06176		0		0			
10	0.04291		0		0			
11	0.11291		0		0			7.4
12	0.03816		0		0			7.43
13	0.08347		0		0			7.46
14	0.05709		0		0			7.43
15	0.03274		0		0			7.44
16	0.1016		0		0			
17	0.08442		0		0			
18	0.08386		0		0			7.39
19	0.06354		0		0			7.43
20	0.03599		0		0			7.49
21	0.08606		0		0			
22	0.06965		0		0			7.42
23	0.07995		0		0			
24	0.0749		0		0			
25	0.08218		0		0			
26	0.06832		0		0			
27	0.08531	9.36	6.659503344	2	1.4229708			
28	0.05861		0		0			7.4
29	0.0013		0		0			
30	0.09514		0		0			
31	0.08784		0		0			
	AVERAGE	9.36	6.65950334	4.67	1.4229708			7.49
	0.06742871	8.215	3.65641112	3.335	0.9272562		1	7.39
		BOD		TSS				
		%Removal		%Removal				
	from lab mg/l	210		184				
	% removal	96.0880952		98.1875				
	LEGEND							
	=average							
	=7 day max							
	=30 day min							
	=cal geo mean							



5961
CITY OF ELEPHANT BUTTE

P. O. Box 1080
Elephant Butte, New Mexico 87935
(575) 744-4892
FAX (575) 744-4493

"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* <i>Marissa O</i>	
Collection Date* 6-1-18	Collection Time* 8:00	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg 1	Yellow Sm 0	Fluor. Lg 0
			Fluor. Sm 0
			MPN INDEX <1
Analyst	Confirmed by <i>Jesse Cole</i>		Verification
Notes:	Sample Temperature:	°C	Sample Turbidity: NTU / TRC: ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.



5961
CITY OF ELEPHANT BUTTE

P. O. Box 1080
Elephant Butte, New Mexico 87935
(575) 744-4892
FAX (575) 744-4493

"New Mexico's Diamond in the Desert"

Sample form and data sheet for E-coli using 22nd edition standards Method 9223-B. Enzyme Substrate Test page 9-93 thru 9-94

System Name City of Elephant Butte- Sierra County Regional WWTP North Area		PWSS/NPDES/DP/LWP # NPDES# NM0030864 DP #1594	
Contact person, mailing address, and telephone number (to convey results) Jesse Cole- PO Box 1080 Elephant Butte, NM 87935- wastewater@cityofelephantbutte.com Jezzys@yahoo.com 575-740-8791			
Regulatory Agency, Contact Person, and Address (to receive report) EPA Region 6			
Collection Location* (Physical Address): 1001 Sunset Ridge Rd	Collection Site* (e.g. WWTP Outfall) UV trough- EFFLUENT	Collected By* Marcus O	
Collection Date* 6-8-18	Collection Time* 8:00	Transported By	
ENUMERATION RESULTS			
		Time in incubator-	Time out-
Positive Well Count	Yellow Lg 0	Yellow Sm 2	Fluor. Lg 0
			Fluor. Sm 0
			MPN INDEX <1
Analyst	Confirmed by Jesse Cole	Verification	
Notes:	Sample Temperature:	°C	Sample Turbidity: NTU / TRC: ppm

All samples and tests done using 22nd edition standard methods for the examination of water and wastewater. All QA/QC is strictly adhered to and records are on file with the City of Elephant Butte's wastewater department.