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ENVIRONMENT DEPARTMENT**

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RYAN FLYNN  
Cabinet Secretary

BUTCH TONGATE  
Deputy Secretary

**Certified Mail - Return Receipt Requested**

May 22, 2015

Mr. Alex C. Brown, Town Manager  
P.O. Box 1188  
Silver City, New Mexico 88062

**RE: Major Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Silver City  
Wastewater Treatment Plant, NM0020109, April 29, 2015**

Dear Mr. Brown:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Problems noted during this inspection are discussed in the further explanations section of the inspection report. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas  
US Environmental Protection Agency, Region VI  
Enforcement Branch (6EN-WM)  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Bruce Yurdin  
New Mexico Environment Department  
Surface Water Quality Bureau  
Point Source Regulation Section  
P.O. Box 5469  
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Shelly Lemon at (505) 827-2819 or at [shelly.lemon@state.nm.us](mailto:shelly.lemon@state.nm.us).

Silver City WWTP  
May 22, 2015  
Page 2

Sincerely,

*/s/ Bruce Yurdin*

Bruce J. Yurdin  
Program Manager  
Point Source Regulation Section  
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail  
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail  
Raquel Douglas, USEPA (6EN-WM) by e-mail  
Gladys Gooden-Jackson, USEPA (6EN) by e-mail  
Tung Nguyen, USEPA (6WQ-PP) by e-mail  
Mike Kesler, NMED District III by e-mail



Form Approved  
OMB No. 2040-0003  
Approval Expires 7-31-85

### NPDES Compliance Inspection Report

#### Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3 N M 0 0 2 0 1 0 9 11 12 1 5 0 4 2 9 17 18 C 19 S 20 1					
Remarks					
M A J O R M U N I C I P A L W W T P					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 0 0 1 69	70 3	71 N	72 N	73	74 75 80

#### Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)  <b>SILVER CITY WASTEWATER TREATMENT PLANT:</b> 1660 FILAREE ROAD, SILVER CITY, NM 88061  GRANT COUNTY	Entry Time /Date April 29, 2015 9:10 am	Permit Effective Date <b>September 1, 2013</b>
	Exit Time/Date April 29, 2015 11:50 am	Permit Expiration Date <b>August 31, 2018</b>
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) <b>MR. MANNY OROSCO, PLANT OPERATOR, (575) 388-4981</b> <b>MR. CHRIS MARRUFO, LAB TECHNICIAN, (575) 534-6535</b>	Other Facility Data  <b>GPS:</b>  N 32° 42' 54" W -108° 14' 47"  <b>SIC 4952</b>	
Name, Address of Responsible Official/Title/Phone and Fax Number <b>MR. ALEX C. BROWN, TOWN MANAGER (575) 534-6358</b> P.O. BOX 1188 SILVER CITY, NM 88062	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

#### Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
U	Effluent/Receiving Waters	S	Laboratory	N	Storm Water	N	Other:

#### Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

PLEASE SEE REPORT FOR FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s) <b>MICHELLE LEMON</b> <i>/s/ Michelle Lemon</i>	Agency/Office/Telephone/Fax <b>NMED/SWQB 505-827-2819</b>	Date <i>May 22, 2015</i>
Signature of Management QA Reviewer <b>BRUCE YURDIN, PROGRAM MANAGER</b> <i>/s/ Bruce Yurdin</i>	Agency/Office/Phone and Fax Numbers <b>NMED/SWQB 505-827-2795</b>	Date <i>May 22, 2015</i>

## SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE  Y  N  NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES  Y  N  NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT  Y  N  NA

4. ALL DISCHARGES ARE PERMITTED  Y  N  NA

## SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.  Y  N  NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE: **All information (a – f) is not always on forms**  S  M  U  NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING **Exact location not always described**  Y  N  NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING  Y  N  NA

c) ANALYTICAL METHODS AND TECHNIQUES. **Need to update methods (see "Further Explanations")**  Y  N  NA

d) RESULTS OF ANALYSES AND CALIBRATIONS.  Y  N  NA

e) DATES AND TIMES OF ANALYSES.  Y  N  NA

f) NAME OF PERSON(S) PERFORMING ANALYSES.  Y  N  NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.  S  M  U  NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.  S  M  U  NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.  Y  N  NA

## SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

1. TREATMENT UNITS PROPERLY OPERATED.  S  M  U  NA

2. TREATMENT UNITS PROPERLY MAINTAINED.  S  M  U  NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.  S  M  U  NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.  S  M  U  NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. **Grit chamber gear box out of service.**  S  M  U  NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.  S  M  U  NA

**Only one Level 4 Operator. Lab Analyst is only a Level 1.**

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.  S  M  U  NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.  Y  N  NA

STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.  Y  N  NA

PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.  Y  N  NA

## SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?  Y  N  NA  
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?  Y  N  NA  
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?  Y  N  NA
10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?  Y  N  NA  
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?  Y  N  NA

## SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)  
 DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.  Y  N  NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.  Y  N  NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.  Y  N  NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.  Y  N  NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.  Y  N  NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE  Y  N  NA
- a) SAMPLES REFRIGERATED DURING COMPOSITING.  Y  N  NA
- b) PROPER PRESERVATION TECHNIQUES USED.  Y  N  NA
- c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.  Y  N  NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?  Y  N  NA

## SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)  
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.  Y  N  NA  
 TYPE OF DEVICE: **9-inch Parshall Flume (Primary) or 6-inch Parshall Flume**
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.  Y  N  NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.  Y  N  NA
4. CALIBRATION FREQUENCY ADEQUATE. (DATE OF LAST CALIBRATION 07/15/2014)  Y  N  NA  
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES.  Y  N  NA  
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.  Y  N  NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.  Y  N  NA
6. HEAD MEASURED AT PROPER LOCATION.  Y  N  NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.  Y  N  NA

## SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)  
 DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) **Yes, but permittee needs to update**  Y  N  NA

## SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED  Y  N  NA3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.  S  M  U  NA4. QUALITY CONTROL PROCEDURES ADEQUATE.  S  M  U  NA5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME.  Y  N  NA6. SPIKED SAMPLES ARE ANALYZED.     % OF THE TIME.  Y  N  NA7. COMMERCIAL LABORATORY USED.  Y  N  NA

LAB NAME **HUTHER AND ASSOCIATES, INC.**  
 LAB ADDRESS 1156 NORTH BONNIE BRAE, DENTON, TX 76201  
 PARAMETERS PERFORMED WHOLE EFFLUENT TOXICITY

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES).

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	NO	NO	NO	NO	NO	NONE	

RECEIVING WATER OBSERVATIONS: **Two failed WET tests. Facility may be accepting septage that is interfering with treatment.**  
**Effluent had no noticeable odors or noxious smells.**

## SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO).DETAILS: **Sludge taken to Southwest New Mexico Regional Landfill.****Facility is in the process of obtaining a belt press which will help dry sludge more efficiently and quickly.**1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.  S  M  U  NA2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.  S  M  U  NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: \_\_\_\_\_ (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED NO).1. SAMPLES OBTAINED THIS INSPECTION.  Y  N  NA

2. TYPE OF SAMPLE OBTAINED:

GRAB	COMPOSITE SAMPLE	METHOD	FREQUENCY
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3. SAMPLES PRESERVED.  Y  N  NA4. FLOW PROPORTIONED SAMPLES OBTAINED.  Y  N  NA5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.  Y  N  NA6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE.  Y  N  NA7. SAMPLE SPLIT WITH PERMITTEE.  Y  N  NA8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.  Y  N  NA9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.  Y  N  NA

**Compliance Evaluation Inspection  
Silver City Wastewater Treatment Plant  
NPDES Permit No. NM0020109  
April 29, 2015**

**INTRODUCTION:**

On April 29, 2015, Shelly Lemon of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Silver City Wastewater Treatment Plant (WWTP). The facility is classified as a major municipal discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0020109. The WWTP has a design capacity of 2.0 million gallons per day (MGD). The NPDES permit regulates the WWTP discharge to San Vicente Arroyo in Water Quality Segment 20.6.4.803 of the New Mexico Administrative Code (NMAC). This segment includes the designated uses of coldwater aquatic life, irrigation, livestock watering, wildlife habitat, and primary contact. Approximately one-quarter of a mile downstream of this discharge, San Vicente Arroyo is classified as ephemeral.

The NMED performs a certain number of inspections each year for the U.S. Environmental Protection Agency (USEPA), Region VI, in accordance with the federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representatives, observations made by NMED staff, and records and reports kept by the permittee and/or NMED.

Upon arrival at the facility, the inspector made introductions, stated the purpose of the inspection and presented credentials to Mr. Manny Orosco, Wastewater Operator, and Mr. Chris Marrufo, Lab Technician. The inspector and Mr. Orosco toured the facility, and Mr. Marrufo was present during the tour of the laboratory. At the end of the tour, the inspector conducted an exit interview with Mr. Orosco, and Mr. Marrufo to discuss preliminary findings of the inspection.

**TREATMENT SCHEME:**

Raw sewage arrives by gravity flow at the WWTP entrance works via two separate lines, one from Silver City proper and one from Maude Canyon (east of town). This facility also accepts septage at a dump station located at the south end of the plant. Septage is accepted on a limited basis and the plant also accepts grease trap waste and uses a drying bed for evaporation before sending the grease to the landfill.

Influent enters the plant at the primary lift station (influent pump station). The pump station has two screw pumps, one for influent, and one for return activated sludge (RAS) from the secondary clarifiers. All of the influent is directed to a primary automatic bar screen and grit chamber, then to a secondary bar screen chamber located adjacent to the entrance works. At the primary grit chamber, wastewater is lifted to a 12-inch Parshall flume and a sonic secondary measurement device where the influent flow is recorded. The plant has a call alarm system to notify the plant staff of high flow, low flow, and electrical problems at the plant.

Flow from the secondary grit chamber is directed through a splitter box where effluent is divided evenly between two primary clarifiers that operate in parallel. Sludge is collected by rotating scrapers and directed to a sump located in the center of the clarifiers. The collected sludge is then pumped to the aerobic digesters.

Flow continues to another splitter box prior to entering the anoxic basin component consisting of 2-bioselectors, and 4-anoxic basins. A bypass channel with side gates is operated to select which basins are used. The anoxic basins were designed for denitrification, to improve effluent quality. Recirculation speed can be adjusted to balance ammonia and nitrate in the secondary effluent.

Wastewater flows from the primary clarifiers to the aeration basins that have four mechanical brush aerators. From the aeration basin, flow enters a splitter box and is divided before entering two secondary/final clarifiers. Activated sludge that settles in these units is periodically pumped back as Returned Activated Sludge (RAS) or pumped out of the process to the sludge digesters. From the secondary clarifiers, flows are combined then routed to an Ultraviolet (UV) disinfection system that contains two UV drums. The treated effluent flows into the unused chlorine contact chamber. This chamber is now just being used as an equalization basin as effluent is released through the various paths that can be used.

### **SLUDGE HANDLING:**

Sludge is batch wasted from the bottom of the primary clarifiers, anoxic basins, and aerobic basin to an aerobic sludge digester. From the digester, sludge is drained to one of fourteen drying beds. Sludge in the beds is manually aerated to facilitate the drying process and increase the solids content prior to final disposal. Liquid from the drying beds is decanted and returned to the entrance works. The dried sludge is stored on site and then shipped to the Southwest New Mexico Regional Landfill for final disposal.

### **COLLECTION SYSTEM:**

There are approximately 4,200 residential and commercial connections and a roughly estimated 65 miles of sewer line. The age of the system varies. For example, the collection system includes sewer line from the 1960's to 70's. A sewer line along San Vicente Arroyo and Maude Canyon was added when the WWTP was relocated to the present location in the late 1970s. The lateral connection to the Rosedale area was added in the 1980s.

Root killer is used once or twice a year in problem areas. The Town of Silver City has a city grease ordinance that allows citations to be issued. Only one pump or lift station in the collection system is maintained by the Town of Silver City. The municipal two-pump lift station at Delk and US 180 does not have backup power or a supervisory control and data acquisition (SCADA) system, but does have a high level warning beacon. A second pump or lift station in the collection system is maintained by a developer.

## FURTHER EXPLANATIONS

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

### **Section B – Recordkeeping and Reporting Evaluation – Overall Rating of “Marginal”**

**Permit Requirements** for Recordkeeping and Reporting:

The permit requires in 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.*

40 CFR Part 136, Tables I.A and II.B list the following as approved analytical methods for regulatory compliance:

<i>Parameter</i>	<i>Methodology</i>	<i>EPA</i>	<i>Standard Methods</i>	<i>ASTM</i>	<i>USGS/AOAC/Other</i>
<i>Bacteria: 5. E. coli, number per 100 mL</i>	<i>MPN multiple tube, or</i>		<i>9221B.1-2006/ 9221F-2006</i>		
	<i>multiple tube/multiple well, or</i>		<i>9223 B-2004</i>	<i>991.15</i>	<i>Colilert® Colilert-18®</i>
	<i>MF single step</i>	<i>1603</i>			<i>mColiBlue-24®</i>
<i>9. Biochemical oxygen demand (BOD5), mg/L</i>	<i>Dissolved Oxygen Depletion</i>		<i>5210 B-2001</i>		<i>973.44, p. 17, I-1578-78</i>
<i>17. Chlorine-Total residual, mg/L</i>	<i>DPD-FAS</i>		<i>4500-Cl F-2000</i>		
<i>28. Hydrogen ion (pH), pH units</i>	<i>Electrometric measurement</i>		<i>4500-H<sup>+</sup> B-2000</i>	<i>D1293-99 (A or B)</i>	<i>973.41, I-1586-85</i>
<i>55. Residue—non-filterable (TSS), mg/L</i>	<i>Gravimetric, 103-105° post washing of residue</i>		<i>2540 D-1997</i>	<i>D5907-03</i>	<i>I-3765-85</i>

Part III.D.6 (Averaging of Measurements) and Part III.F.22 (Municipal Terms) of the permit state:

*Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean...*

*7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.*

*30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.*

The EPA Region 6 Reporting Requirements Handbook, Part H.2 states:

*...Always be sure to use the flow measurement determined on the day when sampling was done.*

The NPDES Reporting Requirements Handbook for EPA Region 6 advises:

***How do I calculate and report 7-day averages?***

*We recognize that calendar weeks and calendar months rarely coincide. Therefore, for the purpose of calculating and reporting 7-day averages, you should follow the process below:*

- a) Define your week (SUN-SAT, MON-SUN, etc.).*
- b) Calculate the averages of all sample data obtained for each week.*
- c) The highest calculated weekly average will be reported on the DMR for the month in which (1) the week ends or (2) the week begins, or (3) the month which contains the greatest number of days. It is the choice of the facility. However, the choice should be consistent month to month, year to year.*

**Findings** for Recordkeeping and Reporting Evaluation:

The inspector reviewed one month (February 2015) of the facility's lab and data records.

- The exact place of sampling, name of sampler, and/or name of analyst were sometimes lacking on the monitoring records. The permittee is required to document this content on its monitoring records.
- Although the monitoring records did indicate the analytical methods used, it appears that the forms are old and need to be updated. Most of the forms indicate Standard Methods, 18<sup>th</sup> Edition (published in 1992). Most of the current approved methods are from more recent editions. The permittee should ensure that they are using the applicable 40 CFR-approved methods and procedures, and that they are accurately documenting the method used on their analytical forms.
- There were two discrepancies with "Flow Readings" data entry – flows on 2/7/2015 and 2/8/2015 were erroneously entered into the worksheet. This resulted in incorrect daily discharges as well as inaccurate 7-day average discharge calculations and also adversely affected the loading calculations for BOD and TSS. Daily loads should be calculated by multiplying the discharge on the day of sampling (in MGD) by the concentration of the sample (in mg/L) and a conversion factor (8.34) to get a load in pounds per day (lbs/day):

Daily Load = flow on day of sampling (MGD) × concentration of sample (mg/L) × conversion factor (8.34).

The highest 7-Day Average loading for the month should be reported on the DMR. In addition, one TSS and two E. coli values were entered incorrectly on the lab's DMR calculation worksheet. As a result, several reported values were inconsistent with the actual calculated results. Please see Appendices A and B for details. The permittee should double check data entry as part of their QA/QC program and to ensure the appropriate and correct values are being recorded and reported.

**Section C – Operations and Maintenance – Overall Rating of "Marginal"**

**Permit Requirements** for Operations and Maintenance:

The permit requires, in part III.B.3, Proper Operation and Maintenance:

- a. 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. This provision requires the operation of backup and auxiliary facility or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*
- b. The permittee shall provide adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.*

The State of New Mexico Utility Operator Certification regulations state:

**20.7.4.13 PUBLIC WASTEWATER FACILITIES:**

A. In order to operate the various types of treatment processes at public wastewater facilities, the indicated level of certification shall be required:

<b>Type of Treatment Process</b>	<b>Population Served</b>				
	25 to 500	501 to 5,000	5,001 to 10,000	10,001 to 20,000	20,000+
<i>Raw wastewater lagoons</i>	SWW	WW1	WW1	WW1	WW1
<i>Aerated lagoons</i>	SWW	WW2	WW2	WW2	WW2
<i>Primary treatment</i>	SWW	WW2	WW2	WW2	WW2
<i>Primary treatment and oxidation ponds</i>	SWW	WW2	WW2	WW2	WW2
<i>Secondary treatment, trickling filter</i>	SWW	WW2	WW3	WW3	WW4
<i>Secondary treatment, aeration</i>	SWWA	WW3	WW3	WW4	WW4
<i>Physical-chemical treatment processes</i>	SWWA	WW3	WW3	WW3	WW4
<i>Advanced waste treatment process</i>	SWWA	WW3	WW4	WW4	WW4
<i>Phosphorous and nitrogen removal</i>	SWWA	WW3	WW3	WW4	WW4

C. In order to perform wastewater analysis for regulatory compliance at public wastewater facilities after January 1, 2011, the indicated level of certification shall be required:

<b>Level of Certification Needed</b>	<b>Type of Methodology Performed</b>
WWLT1	<i>Analyses involving colorimetry and commercially prepared reagents, including but not limited to Dissolved Oxygen (DO) and pH by probe, and commercially available test kits.</i>
WWLT2	<i>WWLT1 plus analyses involving other specific ion electrodes, titration, gravimetry, microbiology, media and standards preparation, including but not limited to Biochemical Oxygen Demand (BOD), fecal coliform, E.coli, residuals (Total Suspended Solids (TSS), Total Volatile Solids (TVS), Volatile Suspended Solids (VSS), etc.), Total Residual Chlorine (TRC) by titration, and Dissolved Oxygen by the Winkler method.</i>
WWLT3	<i>WWLT1 and WWLT2 plus analyses involving digestion, distillation, spectrophotometry, chromatography, reagents and standards preparation, live organisms, including but not limited to nitrogen (Nitrate (NO<sub>3</sub>), Ammonium (NH<sub>4</sub>), Total Kjeldahl Nitrogen (TKN)), trace metals, anions, and whole effluent toxicity.</i>
SWW, SWWA, WW1, WW2, WW3, WW4, WWLT1, WWLT2 or WWLT3	<i>TRC by the N-diethyl-p-phenylene-diamine (DPD) method, pH, Temperature and DO by probe.</i>

**Findings** for Operations and Maintenance:

- The grit chamber gear box was out of service.
- Two out of the four rotors were just replaced in the aeration basin. The color in the aeration basin was a rich dark brown similar to the digesters. Since the rotors were just replaced, some adjustment of operations to optimize and stabilize treatment processes is expected.
- Mr. Orosco is the only Level IV Operator at the plant. According to facility representatives, the facility also has onsite two Level II Operators, one Level I Operator, and one Level I Lab Tech. Given the type

of treatment process, population served, and lab analyses performed, the Silver City WWTP is required to have at least one Level IV Operator onsite to oversee operations and a Level II Lab Tech to perform BOD, TSS, and E. coli analyses for regulatory compliance purposes. It is highly advised that the City hire another Level IV Operator to be onsite in the event that Mr. Orosco cannot be at work. In addition, Mr. Marrufo needs to obtain his Level II Lab Tech certification since he is the Lab Manager/Analyst. Under current regulations, Mr. Marrufo does not hold the correct certification to run all required lab analyses.

- No written procedures were available for standard operating procedures or emergency treatment controls.

**Section G – Effluent/Receiving Waters – Overall Rating of “Unsatisfactory”**

**Permit Requirements** for Effluent/Receiving Waters:

The permit requires in Part I.A, Limitations and Monitoring Requirements:

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater from Outfalls 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
		Standard Units				
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM		MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	9		Daily	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted				
POLLUTANT	STORET CODE	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	00310	265	398	30	45	N/A	Once/week	6-Hr Composite
Total Suspended Solids	00530	265	398	30	45	N/A	Once/Week	6-Hr Composite
E. Coli Bacteria (*1)	51040	N/A	N/A	548	N/A	2507	Once/Week	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	19 ug/l	Daily	Instantaneous Grab (*2)
Total Copper (*3)	01042	0.39	N/A	44 ug/l	N/A	66 ug/l	Once/Month	24-Hr Composite

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7-Day NOEC) (*5)		30-DAY AVG MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Ceriodaphnia dubia		Report	Report	1/Quarter	24-Hr Composite
Pimephales promelas		Report	Report	1/Quarter	24-Hr Composite

Footnotes:

- \*1 See Appendix A of Part II of the permit.
- \*2 Percent removal is calculated using the following equation :  $\{[(\text{average monthly influent concentration} - \text{average monthly effluent concentration})] \div [\text{average monthly influent concentration}]\} \times 100$ .
- \*3 Colony forming units (cfu) per 100 ml.
- \*4 TRC shall be measured during periods when chlorine is used as either backup bacteria control or when disinfection of plant treatment equipment is required. Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*5 Monitoring and reporting requirements begin on the effective date of this permit. Compliance with the Whole Effluent Toxicity limitations is required on Permit Effective Date. See PART II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

Part I.D, Contributing Industries and Pretreatment Requirements, of the permit stipulates:

1. *The following pollutants may not be introduced into the treatment facility:*
  - a. *Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;*
  - b. *Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;*
  - c. *Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;*
  - d. *Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;*
  - e. *Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves the alternate temperature limit;*
  - f. *Petroleum oil, non-biodegradable cutting oil, or products of mineral origin in amounts that will cause interference or pass through;*
  - g. *Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and*
  - h. *Any trucked or hauled pollutants, except at discharge points designated by the POTW.*
2. *The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR Part 403.*
3. *The permittee shall provide adequate notice of the following:*
  - a. *Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and*
  - b. *Any substantial change in the volume or character of pollutants being introduced into the treatment works.*
  - c. *Any notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of such change in the quality or quantity of effluent to be discharged from the publicly owned treatment works.*

The permit requires in Part II.E, Whole Effluent Toxicity Testing (7-Day Chronic-NOEC Freshwater):

1. *SCOPE AND METHODOLOGY*
  - a. *The permittee shall test the effluent for toxicity in accordance with the provisions in this section.*
  - b. *The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sublethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.*
  - c. *This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.*
2. *PERSISTENT LETHAL AND/OR SUB-LETHAL EFFECTS*
  - a. *PART I TESTING FREQUENCY OTHER THAN MONTHLY*
    - i. *The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis,*

*the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.*

- ii. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED. If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.*
  - iii. IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED. If any two of the three additional tests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRESL) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required for failure to perform the required retests.*
  - iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.*
- b. PART I TESTING FREQUENCY OF MONTHLY*  
*The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.*

**Findings** for Effluent/Receiving Waters:

According to DMR data, there were no effluent violations for specified pollutants in Part I.A of the permit; however the effluent recently failed two (2) Whole Effluent Toxicity (WET) tests in February and August of 2014. Discussion with facility representatives indicate that acceptance of bad septage may be the cause. The permittee is reminded that they are responsible for any pollutant entering the facility that may cause interference. It is suggested that increased monitoring and/or a pretreatment survey be conducted to identify the cause of the recent WET failures.

In addition, the permit requires additional, monthly monitoring in the event of a WET failure (see Part II.E), which may lead to a Toxicity Reduction Evaluation (TRE) or Sub-Lethal Toxicity Reduction Evaluation (TRESL) depending on the results of the retests or for failure to perform the required retests (see Part II.E.5 of the permit).

**APPENDIX A:**

**FLOW DATA REVIEW**

- a. SILVER CITY WWTP – FEBRUARY 2015 FLOW READINGS WORKSHEET**
- b. FLOW CHECK – FEBRUARY 2015**

# Silver City WWTP - February FLOW Readings

2015  
February Flow Readings

DATE	INFLUENT	MGD	6" EFFLUENT	MGD	9" EFFLUENT	MGD	SCOTT PARK	MGD	DISCHARGE	6" Average	9" Average	(6"-9") MGD	7 DAY totals
1/31/2015	47416711	1.55	20955	0.00	2344002	0.88	25569754	0.44	1.32				
2/1/2015	47431164	1.51	20983	0.01	2352764	0.54	25374189	0.51	1.06				
2/2/2015	47446282	1.53	21040	0.01	2358171	1.03	25379288	0.16	1.20				
2/3/2015	47461566	1.37	21106	0.01	2368510	0.97	25380858	0.17	1.15				
2/4/2015	47475233	1.36	21172	0.01	2378195	0.89	25382558	1.07	1.03				
2/5/2015	47488861	1.26	21244	0.01	2387144	0.83	25384197	0.19	1.03				
2/6/2015	47501481	1.24	21313	0.31	2395485	0.42	25386123	0.55	1.28				
2/7/2015	47513911	1.20	24381	0.01	2399719	0.27	25391638	0.62	0.90				
2/8/2015	47525885	1.20	24451	-0.29	2402438	0.38	25397852	0.57	0.66				
2/9/2015	47537898	1.17	21514	0.01	2408203	0.28	25403592	0.60	0.89	0.05	0.7	0.76	
2/10/2015	47549604	1.24	21576	0.01	2409002	0.78	25409613	0.10	0.88				
2/11/2015	47561972	1.22	21641	0.01	2416830	0.82	25410566	0.09	0.92				
2/12/2015	47574182	1.26	21721	0.01	2425008	0.23	25411479	0.64	0.88				
2/13/2015	47586817	1.33	21791	0.01	2427352	0.34	25417876	0.60	0.95				
2/14/2015	47600148	1.08	21867	0.00	2430715	0.26	25423905	0.52	0.78				
2/15/2015	47610905	1.17	21913	0.01	2433334	0.84	25429084	0.03	0.87				
2/16/2015	47622558	1.23	21969	0.01	2441687	0.79	25429401	0.12	0.91				
2/17/2015	47634859	1.35	22030	0.01	2449537	0.42	25430584	0.47	0.90				
2/18/2015	47648357	1.34	22106	0.01	2453721	0.50	25435277	0.42	0.83				
2/19/2015	47660524	1.22	22167	0.01	2458693	0.27	25439521	0.58	0.86				
2/20/2015	47673922	1.32	22233	0.01	2461363	0.71	25445345	0.20	0.91				
2/21/2015	47687122	1.23	22310	0.01	2468442	0.32	25447330	0.56	0.89				
2/22/2015	47699451	1.14	22364	0.01	2471602	0.33	25452972	0.49	0.83				
2/23/2015	47710820	1.23	22435	0.01	2474923	0.47	25457873	0.41	0.88				
2/24/2015	47723154	1.39	22498	0.01	2479575	0.31	25461959	0.54	0.86				
2/25/2015	47750896	1.38	22585	0.01	2482692	0.48	25467309	0.48	0.97				
2/26/2015	47737101	1.29	22658	0.01	2487521	0.37	25472072	0.47	0.87				
2/27/2015	47763796	1.26	22724	0.01	2491203	0.33	25477004	0.49	0.81				
2/28/2015	47776362	1.21	22853	0.01	2494497	0.90	25481693	0.03	0.94				
3/1/2015	47788500	-4778.85	22918	-2.29	2503541	-250.35	25482008	-2548.20	-2800.85	-0.28	0.48	0.48	0.20
3/2/2015		0.00		0.00		0.00		0.00	0.00				0.0000

DATE	INFLUENT	MGD	6" EFFLUENT	MGD	9" EFFLUENT	MGD	SCOTT PARK	MGD	DISCHARGE	6" Average	9" Average	(6"-9") MGD	7 DAY totals
TOTAL		35.73		0.19		15.08		10.78					
AVERAGE		1.28		0.01		0.54		0.39					

DMR No. 11 30 DAY AVE 0.55 MGD  
 DMR No. 12 7 Day Ave 0.48 MGD  
 DMR No. 13 DAILY MAXIMUM 1.04 MGD

GLENN RANCH  
 9.68  
 0.35

**b. FLOW CHECK – FEBRUARY 2015**

day	6-in	mgd	9-in	mgd	TOTAL	7-DA AVG
1	20983	0.01	2352764	0.54	0.5464	
2	21040	0.01	2358171	1.03	1.0405	
3	21106	0.01	2368510	0.97	0.9751	
4	21172	0.01	2378195	0.89	0.9021	
5	21244	0.01	2387144	0.83	0.8410	
6	21313	0.01	2395485	0.42	0.4302	
7	21381	0.01	2399719	0.27	0.2789	0.72
8	21451	0.01	2402438	0.38	0.3828	
9	21514	0.01	2406203	0.28	0.2861	
10	21576	0.01	2409002	0.78	0.7893	
11	21641	0.01	2416830	0.82	0.8258	
12	21721	0.01	2425008	0.23	0.2414	
13	21791	0.01	2427352	0.34	0.3439	
14	21867	0.00	2430715	0.26	0.2665	0.45
15	21913	0.01	2433334	0.84	0.8409	
16	21969	0.01	2441687	0.79	0.7911	
17	22030	0.01	2449537	0.42	0.4260	
18	22106	0.01	2453721	0.50	0.5033	
19	22167	0.01	2458693	0.27	0.2736	
20	22233	0.01	2461363	0.71	0.7156	
21	22310	0.01	2468442	0.32	0.3234	0.55
22	22384	0.01	2471602	0.33	0.3372	
23	22435	0.01	2474923	0.47	0.4715	
24	22498	0.01	2479575	0.31	0.3204	
25	22585	0.01	2482692	0.48	0.4902	
26	22658	0.01	2487521	0.37	0.3748	
27	22724	0.01	2491203	0.33	0.3423	
28	22853	0.01	2494497	0.90	0.9109	0.46
1-Mar	22918	-	2503541	-	-	

	Actual	Reported	Check
<b>30-DA AVG</b>	0.55	0.55	ok
<b>7-DA AVG</b>	0.72	0.76	X
<b>DAILY MAX</b>	1.04	1.04	ok

\* Highlighted cells were transcribed incorrectly into "February Flow Readings" worksheet (see Attachment #1) resulting in incorrect flow calculations.

\* Outlined cells (in TOTAL column) are days when BOD and TSS were sampled - these flow values should be used for loading calculations.

**APPENDIX B:**

**DISCHARGE MONITORING REPORT (DMR) REVIEW**

- a. SILVER CITY WWTP – FEBRUARY 2015 LAB DMR CALCULATION WORKSHEET**
- b. FEBRUARY 2015 DMR CHECK**

# Silver City WWTP - Lab DMR Calculation Worksheet

DMR FEBRUARY 2015

DATE	BOD MG/L	BOD LB/DAY	ISS MG/L	ISS LB/DAY	FECAL	LOG	E. Coli	LOG	PH	FLOW MGD	BOD% REMOVAL	TSS % REMOVAL
2/2/2015	0.00	0.00	0.00	0.00	58.66	1.77	52.66	1.72	7.68			
2/4/2015	0.00	0.00	0.00	0.00	59.33	1.77	47.33	1.68	7.75			
2/6/2015	5.66	45.79	5.33	43.12	105.71	2.02	38.66	1.59	7.55	0.97	94.87%	92.59%
duplicate												
AVG		45.79		43.12	71.65	1.86	45.85	1.66				
		check of the antilog function=										
						71.65		45.85				
DATE	BOD MG/L	BOD LB/DAY	ISS MG/L	ISS LB/DAY	FECAL	LOG	E. Coli	LOG	PH	FLOW MGD	BOD% REMOVAL	TSS % REMOVAL
2/9/2015	0.00	0.00	0.00	0.00	24.86	1.40	12.97	1.11	7.56			
2/11/2015	0.00	0.00	0.00	0.00	25.00	1.40	11.35	1.05	7.53			
2/13/2015	2.29	14.90	4.50	29.27	34.00	1.53	22.16	1.35	7.75	0.78	96.63%	94.88%
duplicate												
AVG		14.90		29.27	27.65	1.44	14.83	1.17				
DATE	BOD MG/L	BOD LB/DAY	ISS MG/L	ISS LB/DAY	FECAL	LOG	E. Coli	LOG	PH	FLOW MGD	BOD% REMOVAL	TSS % REMOVAL
2/16/2015	0.00	0.00	0.00	0.00	38.66	1.59	22.70	1.36	7.53			
2/18/2015	0.00	0.00	0.00	0.00	131.42	2.12	110.00	2.04	7.56			
2/20/2015	2.98	10.44	4.50	15.76	41.30	1.62	32.00	1.51	7.66	0.42	94.67%	95.21%
duplicate												
AVG		10.44		15.76	59.42	1.77	43.07	1.63				
DATE	BOD MG/L	BOD LB/DAY	ISS MG/L	ISS LB/DAY	FECAL	LOG	E. Coli	LOG	PH	FLOW MGD	BOD% REMOVAL	TSS % REMOVAL
2/23/2015	0.00	0.00	0.00	0.00	78.23	1.89	70.00	1.85	7.74			
2/25/2015	0.00	0.00	0.00	0.00	36.66	1.56	28.00	1.45	7.72			
2/27/2015	5.25	21.45	5.33	21.78	21.11	1.32	25.00	1.40	7.64	0.49	94.38%	93.65%
duplicate												
AVG		21.45		21.78	39.27	1.59	36.59	1.56				
		30 DAY AVERAGE										
BOD MG/L	4.05	23.14	4.92	27.48	46.37	1.67	32.17	1.51				
											BOD% AVE	TSS % AVE
											95.14%	94.08%

**b. FEBRUARY 2015 DMR CHECK**

Date	Flow MGD	E. coli cfu/100mL	pH	TRC ug/L	BOD mg/L	BOD lbs/day	BOD %removal	TSS mg/L	TSS lbs/day	TSS %removal
2/2/2015	1.0405	52.66	7.68	-	-	-	-	-	-	-
2/4/2015	<b>0.9021</b>	47.33	7.75	-	5.66	<b>42.6</b>	94.9	<b>5.83</b>	<b>43.9</b>	<b>91.9</b>
2/6/2014	0.4302	38.67	7.55	-	-	-	-	-	-	-
AVG	-	46.2	7.66	-	5.66	42.58	94.88	5.83	43.86	91.90
2/9/2015	0.2861	12.97	7.56	-	-	-	-	-	-	-
2/10/2015	0.7893	-	-	0.00	-	-	-	-	-	-
2/11/2015	<b>0.8258</b>	11.35	7.53	-	2.29	<b>15.8</b>	96.6	4.50	<b>31.0</b>	94.9
2/13/2015	0.3439	22.16	7.75	-	-	-	-	-	-	-
AVG	-	15.5	7.61	0.00	2.29	15.77	96.63	4.50	30.99	94.89
2/16/2015	0.7911	22.70	7.53	-	-	-	-	-	-	-
2/18/2015	<b>0.5033</b>	110.00	7.56	-	2.98	<b>12.5</b>	94.7	4.50	<b>18.9</b>	95.2
2/20/2015	0.7156	32.00	7.66	-	-	-	-	-	-	-
AVG	-	54.9	7.58	-	2.98	12.51	94.68	4.50	18.89	95.24
2/23/2015	0.4715	<b>78.24</b>	7.74	-	-	-	-	-	-	-
2/24/2015	0.3204	-	-	0.00	-	-	-	-	-	-
2/25/2015	0.4902	<b>26.00</b>	7.72	-	-	-	-	-	-	-
2/26/2015	<b>0.3748</b>	-	-	-	5.25	<b>16.4</b>	94.4	5.33	<b>16.7</b>	93.7
2/27/2015	0.3423	25.00	7.64	-	-	-	-	-	-	-
AVG	-	43.1	7.70	0.00	5.25	16.41	94.39	5.33	16.66	93.65

\* **RED** values indicate differences between the lab analysis bench sheet and the DMR calculation worksheet (section "a" above)

ACTUAL	E. coli cfu/100mL	pH	TRC ug/L	BOD mg/L	BOD lbs/day	BOD %removal	TSS mg/L	TSS lbs/day	TSS %removal
30-DA AVG	32.3	-	-	4.05	21.82	95.14	5.04	27.60	93.92
7-DA AVG	-	7.53 (MIN)	-	5.66	42.58	-	5.83	43.86	-
DAILY MAX	110	7.75 (MAX)	0.00	-	-	-	-	-	-
REPORTED	E. coli cfu/100ml	pH	TRC ug/L	BOD mg/L	BOD lbs/day	BOD %removal	TSS mg/L	TSS lbs/day	TSS %removal
30-DA AVG	32.2	-	-	4.05	23.14	95.14	4.92	27.48	94.08
7-DA AVG	-	7.53 (MIN)	-	5.66	45.79	-	5.33	43.12	-
DAILY MAX	110	7.75 (MAX)	0.00	-	-	-	-	-	-
	<b>#1</b>				<b>#3</b>		<b>#2</b>	<b>#3</b>	<b>#2</b>

**NOTES:**

#1 E. coli results on lab sheets for 2/23/15 and 2/25/15 do not match the lab's DMR calculation worksheet (see section "a" above); therefore the "actual" and "reported 30-day averages are slightly different.

#2 The TSS concentration for 2/4/15 was entered incorrectly onto the lab's DMR calculation worksheet (see section "a" above). It was entered as 5.33 mg/L but should have been 5.83 mg/L.

#3 Flow values for loading calculations are not used correctly. Flow *on the day of sampling* should be used to calculate load. See Appendix A for more detail.

NMED/SWQB  
**Official Photograph Log**  
Photo #1

Photographer: Shelly Lemon	Date: 4/29/2015	Time: 9:25 hours
City/County: Silver City/Grant County		
Location: Silver City WWTP		
Subject: Primary Clarifier.		



NMED/SWQB  
**Official Photograph Log**  
Photo #2A and #2B

Photographer: Shelly Lemon	Date: 4/29/2015	Time: 9:50 / 10:30 hours
City/County: Silver City/Grant County		
Location: Silver City WWTP		
Subject: Aeration basin and aerobic digester. Notice similar color of wastewater.		

(a) Aeration Basin



(b) Aerobic Digester



NMED/SWQB  
**Official Photograph Log**  
Photo #3

Photographer: Shelly Lemon	Date: 4/29/2015	Time: 10:40 hours
City/County: Silver City/Grant County		
Location: Silver City WWTP		
Subject: Effluent Outfall – 9" (primary) Parshall flume and flow meter.		

