



NEW MEXICO
ENVIRONMENT DEPARTMENT



Surface Water Quality Bureau

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.nmenv.state.nm.us

RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

ERIKA SCHWENDER
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

March 6, 2014

Mr. Warren Thompson, President
Ranchland Utility Company
Post Office Box 28039
Santa Fe, New Mexico 87592

**Re: Ranchland Utility Wastewater Treatment Plant; Minor; Individual Permit; SIC 4952;
Compliance Evaluation Inspection; NPDES Permit NM0030368; February 25, 2014**

Dear Mr. Thompson:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) 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.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to 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)
Fountain Place
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

Ranchland Utility Company

March 6, 2014

Page 2

If you have any questions about this inspection report, please contact Sandra Gabaldon at (505) 827-1041 or at sandra.gabaldon@state.nm.us.

Sincerely,

/s/ Bruce J. 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
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson (6EN-WC) by e-mail
NMED District II, 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 3 0 3 6 8 11 12 1 4 0 2 2 5 17 18 C 19 S 20					
Remarks					
M I N O R W W T P					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 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) Ranchland Utilities Take I-25 south from Santa Fe to Madrid Exit. Turn left on Rancho Viejo Blvd. Go approximately 1.5 miles, turn right on Avenida del Sur and go to Avenida Nu PO. Turn right and proceed to WWTP. SANTA FE COUNTY	Entry Time /Date 0900 / 02-25-2014	Permit Effective Date 08-01-2013
	Exit Time/Date 1115 / 02-25-2014	Permit Expiration Date 07-31-2018
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Leonard Quintana, Certified Operator, (505) 470-3697 Cass Thompson, cass@ranchoviejo.com	Other Facility Data SIC 4952 35°35'22.56" N -106°01'28.65" W	
Name, Address of Responsible Official/Title/Phone and Fax Number Warren Thompson, President Ranchland Utility Company Post Office Box 28039 Santa Fe, NM 87592	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	U	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	M	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	M	Laboratory	N	Storm Water	N	Other:

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

1. Permit has a typographical error in Part I, Effluent Limitations. EPA has been contacted and requested to correct the error.
2. Please see checklist and further explanations of report.

Name(s) and Signature(s) of Inspector(s) /s/ Sandra Gabaldon Sandra Gabaldon, Environmental Scientist/Specialist	Agency/Office/Telephone/Fax NMED/Surface Water Quality Bureau/827-1041	Date 03/06/2014
Signature of Management QA Reviewer /s/ Bruce J. Yurdin Bruce Yurdin, Program Manager	Agency/Office/Phone and Fax Numbers NMED/Surface Water Quality Bureau/827-2795	Date 03/06/2014

RANGLAND UTILITIES

PERMIT NO. NM0030368

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS S M U NA (FURTHER EXPLANATION ATTACHED YES)
 DETAILS: Typographical error has been found in Part I, Effluent Limitations of the permit. EPA has been notified.

- 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. S M U NA (FURTHER EXPLANATION ATTACHED YES)
 DETAILS:

- 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Y N NA
- 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. S M U NA
 - a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING Y N NA
 - b) NAME OF INDIVIDUAL PERFORMING SAMPLING Y N NA
 - c) ANALYTICAL METHODS AND TECHNIQUES. 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. S M U NA (FURTHER EXPLANATION ATTACHED YES)
 DETAILS:

- 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 S M U NA
- 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. S M U NA
- 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 YES).
 DETAILS: See further explanations for 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 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. 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 YES)
 DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) Y N NA

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED Y N X NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. (pH) O S O M X U NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. X S M U NA

5. DUPLICATE SAMPLES ARE ANALYZED. 0% OF THE TIME. Y X N NA

6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME. Y N X NA

7. COMMERCIAL LABORATORY USED. X Y N NA

LAB NAME SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. BIO AQUATIC TESTING, INC.

LAB ADDRESS 3310 Win Street, Cuyahoga Falls, OH 44223 2501 Mayes Road, Suite 100; Carrollton, TX 75006

PARAMETERS PERFORMED BOD, TSS, E. Coli Biomonitoring

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

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

RECEIVING WATER OBSERVATIONS

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. X S M U NA (FURTHER EXPLANATION ATTACHED NO.).
 DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. X S M U NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. X S M U NA

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

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED).

1. SAMPLES OBTAINED THIS INSPECTION. Y N X NA

2. TYPE OF SAMPLE OBTAINED
 GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____

3. SAMPLES PRESERVED. Y N X NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. Y N X NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. Y N X NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. Y N X NA

7. SAMPLE SPLIT WITH PERMITTEE. Y N X NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. Y N X NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. Y N X NA

Compliance Evaluation Inspection
Ranchland Utilities Water Reclamation Facility
NPDES Permit No. NM0030368
February 25, 2014

Introduction

A Compliance Evaluation Inspection (CEI) was conducted at the Ranchland Utilities Water Reclamation Facility, located in Santa Fe, New Mexico on May 8, 2012 by Ms. Sandra Gabaldón, accompanied by Mr. Daniel Valenta, of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). This facility is classified as a minor private domestic discharger under the federal Clean Water Act (CWA), Section 402. This facility is regulated under the National Pollutant Discharge Elimination System (NPDES) permit program, and is assigned NPDES permit number NM0030368. The facility design flow is 0.375 million gallons per day (MGD).

The Ranchland Utilities Water Reclamation facility discharges into the Canada del Rancho, thence to Arroyo Hondo, thence to Cienega Creek, thence to the Santa Fe River. The receiving waters of this facility are designated as NMAC 20.6.4.98 (*State of New Mexico Standards for Interstate and Intrastate Surface Waters*). The designated uses of this segment include: livestock watering, wildlife habitat, marginal warmwater aquatic life and primary contact.

The inspectors arrived at the Ranchland Utilities Water Reclamation Facility at 0900 hours and conducted an entrance interview with Mr. Leonard Quintana, Level IV Operator. The inspector made introductions, presented her credentials, and discussed the purpose of the inspection with Mr. Quintana. An exit interview to discuss preliminary findings of the inspection was conducted with Mr. Quintana and Mr. Cass Thompson, Vice-President, on site.

The NMED performs a specific number of CEI's annually for the United States Environmental Protection Agency (USEPA). The purpose of this inspection is to provide the USEPA with information to evaluate the permittee's compliance with their NPDES permit. The enclosed inspection report is based on verbal information supplied by the permittee's representatives, observations made by the NMED inspector, and a review of records maintained by the permittee, commercial laboratories, and/or NMED. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative Further Explanations section of the report.

Treatment Scheme

There are approximately 1500 homes currently served by the wastewater treatment facility. Two lift stations bring the influent into the headworks which consist of an auger for grit removal. The grit removed is taken to the Rio Rancho landfill for final disposal. From the headworks, flow continues to the Biolac basin which is a synthetically lined basin with wave-oxidation fine bubble diffusers. On this date, three diffusers were malfunctioning. The Biolac system uses moving aeration chains which improve the mixing efficiency of the basin. From the Biolac basin, flow enters one of two circular clarifiers. At the time of the inspection, one clarifier was on-line. Influent then travels to the discfilter for polishing. There are two discfilters, one used, and the other on stand-by. Flow then goes through the Ultraviolet system for disinfection. Then, it is discharged through a Parshall flume to a holding

pond where it is later used for irrigation on land application sites located within the Rancho Viejo development area or is directly discharged. On this day, the facility was discharging its effluent.

Sludge:

The aerobic sludge digester has a capacity of 85,000 gallons. The digester receives WAS from the clarifier and is digested and gravity thickened. Supernatant from the sludge digester is returned to the influent wet well.

A private contractor hauls digested sludge to a septage/sludge receiving station operated by the City of Santa Fe Wastewater Treatment Facility. The city completes additional treatment of the sludge prior to final surface disposal/composting.

Compliance Evaluation Inspection
Ranchland Utilities Water Reclamation Facility
NPDES Permit No. NM0030368
February 25, 2014

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 A – Permit

It was noted during this inspection that the permit has a typographical error in Part I, Effluent Limitations for E. coli. The permit limits are stated as 126 cfu/100 ml for the 30-day geometric mean and 410 cfu/100 ml for the daily maximum. These are incorrect. The correct limitations should be 206 cfu/100 ml for the 30-day geometric mean and 940 cfu/100 ml for the daily maximum, as per the fact sheet. EPA has been contacted.

Permit became effective August 1, 2013 and expires at midnight on July 31, 2018.

Section B – Recordkeeping and Reporting – Overall Rating “Marginal”

Permit requires in Part I, Section B Schedule of Compliance:

- a. *The permittee shall submit a progress report outlining the status of the activities during the months of January, April, July and October until compliance is achieved as stated.*

Findings for Section B – Recordkeeping and Reporting:

The operator was unaware that he was required to submit progress reports to EPA and NMED for their compliance schedule to determine toxicity. The operator stated that he will comply with the requirements of the permit and submit the progress reports as needed.

Section C – Operations and Maintenance – Overall Rating of “Unsatisfactory”

Permit requires in Part III, Section 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 or 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 back or auxiliary facilities 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.*

Findings for Section C - Operation and Maintenance:

The biolac system has floating solids as well as noticeable grease. Three of the fine bubble diffusers were malfunctioning.

The automatic dial alarm system was not functioning properly during this inspection. The inspector requested the operator to manually trigger the alarm and it did not call the operator's cell telephone nor did the beacon light function. The operator did notify the inspector a few days later stating that the wires were checked and tightened and the alarm system was now functional.

Mr. Quintana, level IV operator, is the only certified operator on site. The operator stated that he is currently training Marcus Ortiz, who has no certification. The operator did state that they are contracted with Magnum Environmental to help with operational duties. However, the operator from Magnum Environmental is certified at a Level II. A certified Level III operator is required for this facility.

The facility has a generator on site. However, this generator does not provide power to the entire facility if there is a power failure. The generator provides power to one lift station (there are two lift stations), the blowers and barscreen.

The operator stated that there are limited spare parts. There is no inventory list of spare parts available.

The totalizer is placed in an improper location; the totalizer is located in the wrong position relative to the primary device. It is placed close to the discharge point in an area of turbulence.

Section D – Self-Monitoring – Overall Rating “Marginal”

Permit requires in Part III, C.5 Monitoring Procedures:

- a. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified 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 measurement and shall maintain appropriate records of such activities.*

Findings for Self-Monitoring:

The permittee stated that they are following 40 CFR 136 requirements for pH. However, it was noted that the permittee is only using a one point calibration for their compliance sample. 40 CFR 136 requires a calibration of two points with a check of the third. This was explained to the operator. The operator stated that he will start doing the calibrations as required by the methodology.

The permittee has a contracted laboratory, Summit Environmental Technologies, Inc., that performs TSS, BOD and E. coli for the permittee. However, the laboratory does not provide the actual time that these parameters are analyzed. It provides only the date. The actual time is crucial in verifying the holding times for each parameter, especially E. coli which has a holding time of six hours.

Section F – Laboratory – Overall rating of “Marginal”

Permit requires in Part III, C.5 Monitoring Procedures:

- a. An adequate analytical quality control program, including the analysis 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.*

Findings for Laboratory:

It appears that the permittee has failed to do 10% duplicate sampling as part of their quality control procedures. The purpose of laboratory control procedures is to ensure high-quality analyses by the use of control samples, control charts, reference materials, and instrument calibration. The permittee must initiate and maintain controls throughout the analysis of samples. Specifically, each testing batch must contain at least one blank, standard, duplicate, and spiked (as applicable) sample analysis. When a batch contains more than 10 samples, every tenth sample should be followed by a duplicate and a spike (as applicable).

DISCHARGE MONITORING REPORT CALCULATION CHECK

NOVEMBER 2013
(FACILITY STARTED DISCHARGING SECOND WEEK IN NOVEMBER)

E. Coli

Sample Dates:	11/13/2013	11/20/2013	11/26/2013		Data reported on DMR
E. coli (#100ml)	<1.0 MPN	<1.0 MPN	<1.0 MPN		
Daily Max					<1.0
30-day Average: Log of colonies per 100 mL Add all logs and divide by number of samples. Geometric Mean is antilog.	$\text{Log}(1.0) + \text{log}(1.0) + \text{log}(1.0) = 0$ $0 + 0 + 0 = 0/3 = 0$ Antilog $0 = 1^*$				<u>10.0</u>

*Does not match what was reported on DMR (10 MPN/100 ml)

BOD

Sample Date:	Daily Flow (MGD)	BOD (mg/l)	Calculated Daily Load
11/12/2013	0.1372	8.1	$(0.1372)(8.34)(8.1) = 9.268$
11/19/2013	0.0506	18	$(0.0506)(8.34)(18) = 7.596$
11/25/2013	0.1458	13	$(0.1458)(8.34)(13) = 15.808$
Calculated Monthly Average (Loading):	$9.268 + 7.596 + 15.808 = 32.672 / 3 = 10.891$ lbs/day		
Calculated Monthly Average (Conc.):	$8.1 + 18 + 13 = 39.10 / 3 = 13.03$ mg/L		
Reported on DMR	10.9 lbs/d 30-D Avg.; 18.6 lbs/d 7-D Avg. 13.0 mg/L 30-D Avg.; 18 mg/L 7-D Avg.		

TSS

Sample Date:	Daily Flow (MGD)	TSS (mg/l)	Calculated Daily Load
11/12/2013	0.1372	9.0	$(0.1372)(8.34)(9.0) = 10.298$
11/19/2013	0.0506	12.0	$(0.0506)(8.34)(12.0) = 5.064$
11/25/2013	0.1458	6.0	$(0.1458)(8.34)(6.0) = 7.296$
Calculated Monthly Average (Loading):	$10.298 + 5.064 + 7.296 = 22.658 / 3 = 7.553$ lbs/day		
Calculated Monthly Average (Conc.)	$9.0 + 12.0 + 6.0 = 27/3 = 9$ mg/L		
Reported on DMR	7.6 lbs/d 30-D avg.; 12.4 lbs/d 7-D avg. 9.0 mg/L 30-D avg.; 12.0 mg/L 7-D avg.		

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Daniel Valenta	Date: February 25, 2013	Time: 0950 hours
City/County: Santa Fe / Santa Fe		State: New Mexico
Location: Ranchland Utilities		
Subject: Biolac aeration pond.		



NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Daniel Valenta	Date: February 25, 2014	Time: 0950 Hours
City/County: Santa Fe / Santa Fe		State: New Mexico
Location: Ranchland Utilities		
Subject: East clarifier		

