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NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

July 9, 2012

Mr. Juan Lopez, President
Abiquiu MDWCA & MSHA
P.O. Box 133
Abiquiu, New Mexico 87510

Re: **Minor Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; Abiquiu MDWCA; NM0024830; June 26, 2012**

Dear Mr. Lopez,

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.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the Further Explanations section of the inspection report. The main problems were found in the area Record Keeping & Reporting, Facility Site Review, Self-Monitoring Program, Operations & Maintenance, and Sludge Handling/Disposal. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify in writing, both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Diana McDonald
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Allied Bank Tower
1445 Ross Avenue
Dallas, Texas 75202-2733

Program Manager
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 me at (505) 827-2575 or daniel.valenta@state.nm.us.

Sincerely,

/s/Daniel Valenta

Daniel Valenta
Environmental Scientist/Specialist
Surface Water Quality Bureau

Cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
Samuel Tate, USEPA (6EN-AS) by e-mail
Carol Peters, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Hannah Branning, USEPA (6EN-WC) by e-mail
NMED District II by e-mail
Mike Coffman, NMED Utility Operator Certification Office, by e-mail
Robert George, NMED GWQ 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	4	8	3	0	11	12	1	2	0	6	2	6	17	18	C	19	S	20	1						
Remarks																																		
M			I			N			O			R			W			W			T			P										
Inspection Work Days						Facility Evaluation Rating						BI		QA		-----Reserved-----																		
67						70						71		72		73		74		75		80												

Section B: Facility Data

Name and Location of Facility Inspected <i>(For industrial users discharging to POTW, also include POTW name and NPDES permit number)</i> Abiquiu Wastewater Treatment Plant Take US 84/285 from Espanola to Bode's store on the right side of the road. Facility is located directly behind the store (take the road before Bode's store, gravel road, stay left). Rio Arriba County		Entry Time /Date 1055/June 26, 2012		Permit Effective Date October 1, 2011	
		Exit Time/Date 1305/June 26, 2012		Permit Expiration Date September 30, 2016	
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Antonio Martinez/Operator/505-670-9370 Yvonne Lehman/Sampling Tec./505-614-5224				Other Facility Data LAT 36.72276 N LONG -108.29934 W SIC 4952	
Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Juan Lopez, P.O. Box 133, Abiquiu, NM 87510/President Abiquiu MDWCA & MSWA/505-585-4361					
				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
U	Records/Reports	U	Self-Monitoring Program	U	Sludge Handling/Disposal	N	Pollution Prevention
U	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)

1. SEE REPORT AND FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s) DANIEL VALENTA /s/Daniel Valenta		Agency/Office/Telephone/Fax NMED/SWQB 505-827-2575	Date 7/9/2012
Signature of Management QA Reviewer RICHARD E. POWELL /s/Richard Powell		Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-0418	Date 7/9/2012

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS S M U NA (FURTHER EXPLANATION ATTACHED *No.*)
 DETAILS:

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
Values for TRC were at times reported in mg/l not ug/l.
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. S M U N
- 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
Clarifier basin aerated same as aeration basin. Aeration basin 11 ft deep, sludge depth 7 ½ feet.
2. TREATMENT UNITS PROPERLY MAINTAINED. S M U NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. **No backup power in place.** S M U N
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. **No backup or alarm system in place.** S M U NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE. **No, sand filters not functional at this time.** S M U NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **Operator has a level three certification.** 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?
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?

Y N NA
 Y N NA
 Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?

Y N NA
 Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.

S M U NA (FURTHER EXPLANATION ATTACHED Yes).

DETAILS:

Reported TRC values may not be representative of true discharge.

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

V-notch weir

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 _____)

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)

Y N NA

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
4. QUALITY CONTROL PROCEDURES ADEQUATE.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
5. DUPLICATE SAMPLES ARE ANALYZED. <u>10</u> % OF THE TIME.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
6. SPIKED SAMPLES ARE ANALYZED. <u> </u> % OF THE TIME.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
7. COMMERCIAL LABORATORY USED.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
LAB NAME <u> </u> Hall Environmental Analysis	Bio-Aquatic Testing, Inc
LAB ADDRESS <u> </u> 4901 Hawkins NE, Albuquerque, NM 87109	2501 Mayes Rd. Ste 100, Carrollton, TX 75006
PARAMETERS PERFORMED <u> </u> BOD, TSS.	WET TEST

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. S M U NA (FURTHER EXPLANATION ATTACHED No.)

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	N0	N0	Cloudy	N0	YES	Pale gray	Slight Smell

RECEIVING WATER OBSERVATIONS: **Discharge outfall into river could not be observed due to high water level. Effluent at the v-notch weir appeared to be cloudy with some pin flock discharging to outfall.**

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED No.)
 DETAILS: **Sludge stored on site, piles in uncontained, unlined areas (see photo 5).**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.	<input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> 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.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____	
3. SAMPLES PRESERVED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
4. FLOW PROPORTIONED SAMPLES OBTAINED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
7. SAMPLE SPLIT WITH PERMITTEE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA

**Compliance Evaluation Inspection
Abiquiu Wastewater Treatment Facility
NPDES Permit No. NM0024830
June 26, 2012**

Introduction

On June 26, 2012, Daniel Valenta of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Abiquiu Wastewater Treatment Plant (WWTP). The Abiquiu WWTP has a design flow capacity of 0.04 MGD (million gallons per day) and is classified as a minor 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 NM0024830. This permit regulates the WWTP discharge to the Rio Chama in segment 20.6.4.116 according to the *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC*. This segment includes the designated uses of irrigation, livestock watering, wildlife habitat, coldwater aquatic life, warmwater aquatic life, and secondary contact.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, 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 the NMED inspector, and records and reports kept by the permittee and/or NMED.

Upon arrival at the WWTP at 1055 hours on June 26, 2012, the inspector conducted an entrance interview with Ms. Yvonne Lehman, Operator. The inspector presented credentials and explained the purpose of the inspection. The Inspector and Ms. Lehman conducted a tour of the facility. An exit interview was conducted with Ms. Lehman at the facility at approximately 1300 hours on June 26, 2012 to present the preliminary findings of the inspection. Mr. Antonio Martinez, Operator, was contacted by phone on June 27, 2012 to discuss the inspection and preliminary finding.

Treatment Plant Description

The Abiquiu WWTP serves a residential population of approximately 125 in addition to a restaurant. The activated sludge package plant is situated at ground level and consists of a bar screen, an aeration basin, a clarifier, chlorine contact chamber, sludge digester, and a sand filter. The facility also includes two sludge drying beds and a sand filter.

Wastewater influent directly enters the facility via gravity flow with two main collection lines converging on-site into a single pipe, which directs flow into the headworks. Influent passes through a 1-inch gapped bar screen that is manually cleaned when necessary. From the headworks, influent flows into a narrow (approximately 2' wide) aeration channel with two blowers that provide diffused air through a series of tubing situated at the bottom of the unit. The blowers are set on a timer that can be adjusted. A series of baffles are installed in the aeration trough to increase detention time.

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Following the aeration basin, wastewater enters a single clarifier equipped with a surface skimmer through which 50% of floatable solids are routed via an air lift pump to an aerated digester and 50% is sent back to the aeration trough. An aerator has been added to the clarifier and when operating mixes the effluent with the solids. When the Operator Mr. Martinez was asked about this he said it prevents a thick layer of scum from forming on the surface. At the present time the clarifier aerator engages at the same intervals as the pump in the aeration trough.

Return Activated Sludge (RAS) from the clarifier is also equally split between the digester and the aeration trough. The digester is primarily intended to further treat the floatable solids (largely consisting of grease) and a slot in the digester wall allows return flow of RAS into the aeration channel. Effluent from the clarifier flows over a V-tooth weir, through a chlorine tablet box and into the chlorine contact chamber.

The chlorine contact chamber consists of metal baffles with staggered slots that extend to the base of the unit that serve to increase the detention time of effluent. After passing through the final slot, the effluent flows over a V-notch weir and into a smaller basin where PVC pipes with holes have been installed. Dechlorination tablets are put in the tubes. At the bottom of the basin is the outlet, the plant does not appear to be designed for dechlorination and the present system improvised (see photo 2).

After the dechlorination basin, a manually operated valve allows the operator to either route the effluent directly to the outfall pipe or to a sand filter where it undergoes further treatment prior to discharging. The former operator placed the sand filter in service for three consecutive weeks, after which, effluent was diverted to the outfall for the following two week period while the sand filter dried. Accumulated solids were then raked off and placed in the drying beds.

Solids Management

Solids from the digester are pumped to one of two drying beds. Both beds have underdrains and the collected wastewater is pumped to the headworks. On the day of the inspection piles of sludge were placed on bare soil with no controls to prevent storm water or groundwater contamination. Sludge has been stockpiled onsite this way for years (see photo 4).

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Further Explanations

Section B – Recordkeeping and Reporting: “Unsatisfactory”

Part II. B (24-Hour Oral Reporting: Daily Maximum Limitation Violations) of the permit states:

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, and concurrently to NMED and Ohkay Owingeh within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

*E. coli Bacteria
TRC*

Reviewing back records for one year:

- For the month of July 2011, there was one exceedance in TRC.
- For the month of October 2011, there was one exceedance in E Coli and two in TRC.
- For the month of November 2011, there was two exceedance in TRC.
- For the month of December 2011, there was two exceedance in TRC.
- For the month of January 2012, there was one exceedance in TRC.
- For the month of March 2012, there was one exceedance on E coli.

Reviewing reported information in NMED SWQB files, no documentation of the Permittee’s non-compliance reports were found.

Part I. Page 2 (Section A. Limitations and Monitoring Requirements)

NPDES PERMIT No. NM0024830							Page 2 of PART I		
Total Suspended Solids, % removal, minimum	TBD	≥ 85% (*7)	N/A	N/A	N/A	N/A	N/A	Once/Month	Calculation (*7)
E. coli Bacteria	51040	N/A	N/A	N/A	47 (*3)	88 (*3)	N/A	Once/Month	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	3 µg/l	N/A	Five/Week (*2)	Instantaneous Grab (*4)

The permit requires testing for and reporting TRC. Five samples should be taken during the week and the maximum value reported. TRC maximum values are to be reported in ug/l. It does not appear the conversion from mg/l to ug/l was always completed before reporting the information on DMR’s. The chlorine meter reads samples in mg/l.

Abiquiu Wastewater Treatment Facility
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Section C – Operations and Maintenance Evaluation – Overall rating of “Unsatisfactory”

The permit requires, in Part III.B.3.a, 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.”

Findings for Operation and Maintenance:

- This facility serves about 125 residences and a restaurant. The headworks is fitted with a bar screen to remove solids from the influent, however, the bar screen is spaced wide enough (1” openings) that many solids proceed into the rest of the plant. **This is a repeat finding of the April 2011 Inspection.**
- The aeration unit is 11 feet deep and per the operator and on site operating notes is now filled to 7 ½ ft with solids. A sludge blanket is normally around 20% of the chamber.
- An aeration pump is in place in the clarifier and is activated at the same time intervals as the aeration treatment unit. This aeration action remixes any settling that may have occurred. The effluent appeared the same in the aeration unit and the clarifier. When the aerator is activated in the clarifier it produces waves that push floating material and scum over the clarifier teeth. This then flows to the chlorine contact chamber and to the discharge line.
- On June 29, 2012 (two days after this inspection) a separate inspection of this facility was conducted by Mr. Robert George and Mr. Brad Reid of the NMED-Ground Water Quality Bureau (GWQB). On this inspection, GWQB staff noted that the package plant aeration system was turned off and that the visual condition of the secondary clarifier and effluent was very poor. Mr. George is a New Mexico certified Level IV wastewater operator who provided on-site assistance and training to utilities throughout the state for many years while working for New Mexico State University. A dissolved oxygen (DO) test was performed by the operator (Mr. Tony G. Martinez) on the mixed liquor contents of the aeration basin and indicated that < 0.1 mg/L of dissolved oxygen existed at the time. Per the New Mexico Wastewater Systems Operator Certification Study Manual, it is recommended that a minimum dissolved oxygen level of 1.0 mg/l be maintained for extended aeration activated sludge processes such as this. Mr. Martinez explained that he had been directed to run the aeration system on a timed cycle to save on the cost of electricity by the Abiquiu MDWCA President, Mr. Juan Lopez. Mr. Martinez could provide no technical basis for the aeration blower on/off cycle that he was employing. From the color/smell of the secondary clarifier and effluent, it was Mr. George’s opinion that the biological process was dead due to a lack of aeration.

Abiquiu Wastewater Treatment Facility
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- The facility does not appear to be designed for dechlorination. To complete this task two PVC pipes filled with dechlorination tablets have been placed in the downside chamber where flow is measured. Only the effluent entering the holes drilled into the PVC pipes contacts the dechlorination tablets, (see photo 2). The effluent drains from the chamber at the bottom thus there is no standing contact pool.

- The facility has no standby power. Because this is a small facility and staff is not present onsite for long periods of time, it is important to have some sort of an alarm system for notification of power failures or other problems at the plant. The facility is not fenced off so the public can enter the facility. The facility should construct a fence around the components of the WWTP so that this is not a possibility in the future. The facility is responsible for any non-compliance, even if it is caused by outside influences. **This is a repeat finding of the April 2011 Inspection.**

- A sand filter is the final treatment phase of the facility. At the present time the sand filter has become clogged and does not drain. It is now filled with standing water, (see photo 3). The sand filter has been bypassed and thus a pipe carries the effluent approximately 640 ft to discharge to the Rio Chama.

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A review of DMR's indicated a reoccurring challenge controlling the TRC levels. A TRC sample and analysis needed to be completed on the day of the inspection. A review of the process was observed. All the values in the above sheet are in mg/l.

- Column 1. First a sample was taken at the v-notch weir (see photo 2). This sample determines the TRC level of chlorine introduced into the water for disinfection.
- Column 2. The effluent flows from the v-notch weir onto the chamber with the PVC tubes and dechlorination tablets and out the bottom of the chamber. A sample is taken from a manhole not far from the dechlorination chamber, (manhole 1). If the sample shows no TRC the permit required sample is taken from another manhole a little further away, (manhole 2). If TRC is measured, additional dechlorination tablets are thrown into the dechlorination chamber, not the PVC tubes.
- Column 3. A short break, 10 to 15 minutes, another sample is taken (manhole 1). If it shows zero for TRC then the permit required sample is taken from (manhole 2).
- Column 4. Permit required sample is taken from (manhole 2). This sample is measured for TRC and reported.

The above SOP appears to be a method for making sure that what is being tested for is not there before the test. The effluent being sampled may not be representative of what is being discharged. The operator performing the above sampling process has been instructed to follow this SOP. Sample measurements documented in column 2 may be closer to a representative sample than those in column 4. The above TRC sample form was provided to the facility. The Operator reported the facility has been using this sampling process since the middle of 2010.

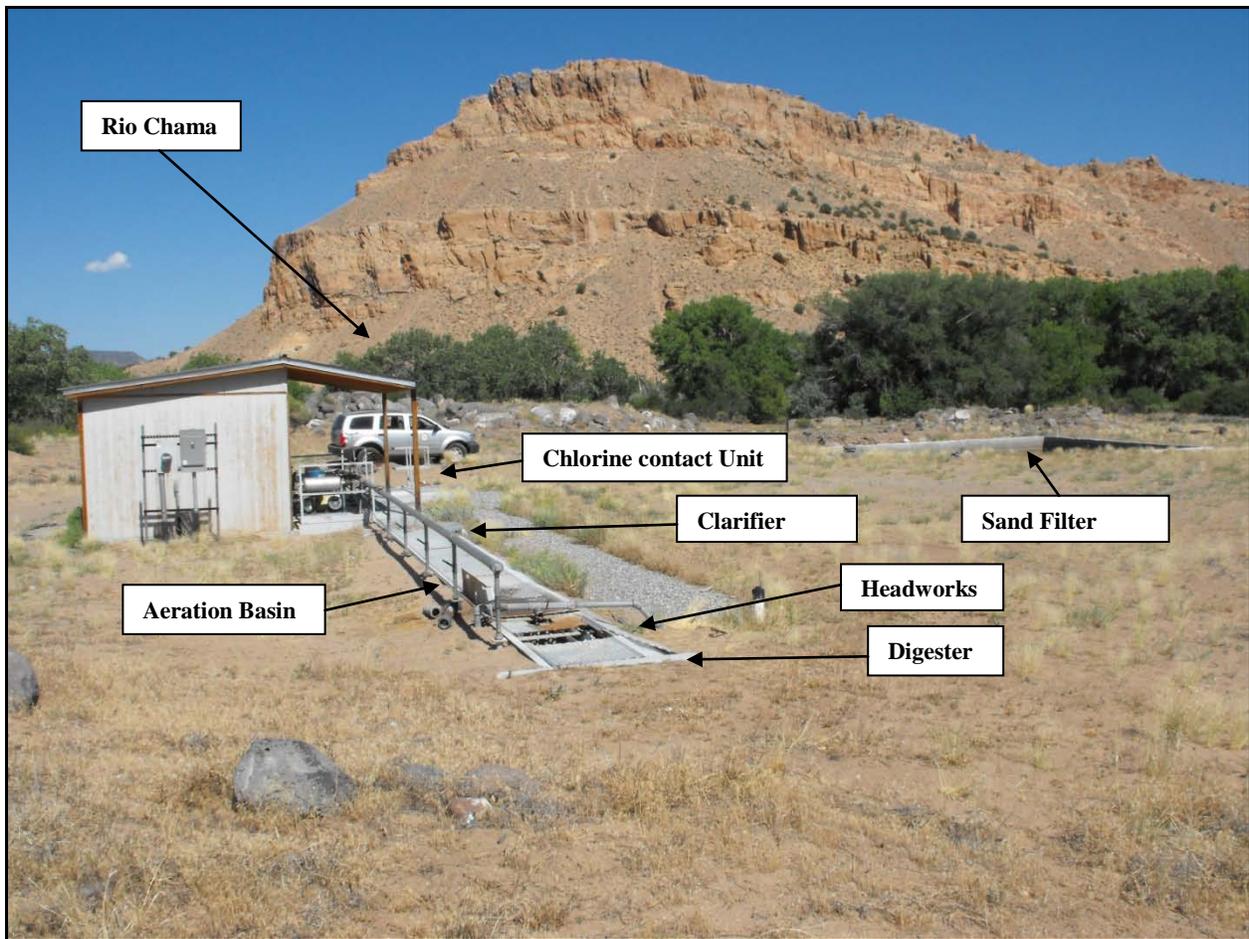
Due to the overlap of Process Control and Reportable Results, sampling data reported on DMR's for TRC values may be in question.

NMED/SWQB

Official Photograph Log

Photo # 1

Photographer: Daniel Valenta	Date: 6/26/2012	Time: 1005
City/County: Abiquiu/ Rio Arriba		
Location: Behind the store located at 21196 U.S. 84 Abiquiu, NM 87510, facing west.		
Subject: Waste Water Treatment facility in Abiquiu, New Mexico		



NMED/SWQB

Official Photograph Log

Photo #2

Photographer: Daniel Valenta	Date: 6/26/2012	Time: 1020
City/County: Abiquiu/ Rio Arriba		
Location: Behind the store located at 21196 U.S. 84 Abiquiu, NM 87510, facing north.		
Subject: V-notch flow measurement, effluent flowing onto PCV pipes with dechlorination tablets. Effluent then exits at the bottom of the chamber to discharge to river or sand filter.		



NMED/SWQB

Official Photograph Log

Photo # 3

Photographer: Daniel Valenta	Date: 6/26/2012	Time: 1026
City/County: Abiquiu/ Rio Arriba		
Location: Behind the store located at 21196 U.S. 84 Abiquiu, NM 87510, facing west.		
Subject: Sand filter unit, has stopped draining and effluent sits stagnate.		



NMED/SWQB

Official Photograph Log

Photo #4

Photographer: Daniel Valenta	Date: 6/26/2012	Time: 1033
City/County: Abiquiu/ Rio Arriba		
Location: Behind the store located at 21196 U.S. 84 Abiquiu, NM 87510, facing north.		
Subject: Sludge from drying beds, left in piles around the containment area.		



NMED/SWQB

Official Photograph Log

Photo # 5

Photographer: Daniel Valenta	Date: 6/26/2012	Time: 1047
City/County: Abiquiu/ Rio Arriba		
Location: Behind the store located at 21196 U.S. 84 Abiquiu, NM 87510, facing northwest.		
Subject: Discharge outfall into the Rio Chama.		

