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NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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RYAN FLYNN
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ERIKA SCHWENDER
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

March 14, 2014

The Honorable David Venable, Mayor
Village of Cloudcroft
1560 James Canyon
Cloudcroft, NM 88317

Re: Village of Cloudcroft WWTP, Minor, Individual Permit; SIC 4952; NPDES Compliance Evaluation Inspection; NM0023370; March 11, 2014

Dear Mayor Venable:

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.

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:

Gladys Gooden-Jackson
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 Sarah Holcomb at 505-827-2798 or at sarah.holcomb@state.nm.us.

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
Gladys Gooden-Jackson, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Raquel Douglas, USEPA (6EN-WC) by e-mail
NMED District 1, William Chavez 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 3 3 7 0 11 12 1 4 0 3 1 8 17 18 C 19 S 20 1					
Remarks					
M U N I C I P A L W W T P					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 [] [] [] 69	70 2	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) Cloudcroft WWTP, Otero County, NM: On US Highway 82, just west of Cloudcroft. Before entering the village, there will be a turnoff to the plant on the right side of Hwy 82.	Entry Time /Date 1051 hours / 3-11-2014	Permit Effective Date 9-1-2012
	Exit Time/Date 1230 hours / 3-11-2014	Permit Expiration Date 8-31-2017
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Mr. Scott Powell, Water and Wastewater Operator (575) 682-2411	Other Facility Data N. 32° 57' 45.81" W. -105° 44' 45.70"	
Name, Address of Responsible Official/Title/Phone and Fax Number Mayor David Venable PO Box 317, Cloudcroft, NM 88317 (575) 682-2411	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> *	SIC 4952

Section C: Areas Evaluated During Inspection

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

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

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

1. Please see report for further details.

Name(s) and Signature(s) of Inspector(s) Sarah Holcomb /s/ Sarah Holcomb	Agency/Office/Telephone/Fax 505-827-2798	Date 3-14-2014
Signature of Management QA Reviewer Bruce Yurdin /s/ Bruce Yurdin	Agency/Office/Phone and Fax Numbers 505-827-2795	Date 3-14-2014

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 NO)

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. 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 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:.

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 YES)
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE 6" Parshall Flume and Ultrasonic Totalizing Meter

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 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 Y N NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. S M U NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. S M U NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. Y N NA

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

7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME Aqua Environmental Technical Lab Bio-Aquatic Testing, Inc.

LAB ADDRESS 103 Via Aguila, Ruidoso, NM 2501 Mayes Rd., Ste 100, Carrollton, TX 75006

PARAMETERS PERFORMED BOD, TSS, NH3 (influent and effluent) Whole Effluent Toxicity

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	None	None	None	None	None	Clear	

RECEIVING WATER OBSERVATIONS

SECTION H - SLUDGE DISPOSAL

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

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

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

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: Hauled (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 _____

3. SAMPLES PRESERVED. Y N NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. Y N NA

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

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

7. SAMPLE SPLIT WITH PERMITTEE. Y N NA

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

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

**Village of Cloudcroft WWTP
NPDES Permit No. NM0023370
Compliance Evaluation Inspection
March 11, 2014**

Further Explanations

Introduction

On March 11, 2014, Sarah Holcomb of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Village of Cloudcroft Waste Water Treatment Plant (WWTP) in Cloudcroft, Otero County, New Mexico.

The Cloudcroft WWTP is classified as a minor 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 NM0023370. This permit regulates the WWTP discharge to a dry canyon thence to Fresnal Canyon in Segment 20.6.4.801 of the Tularosa Basin 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 coldwater aquatic life, irrigation, livestock watering, wildlife habitat, public water supply and primary contact.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. 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 approximately 1051 hours on the day of this inspection, the inspector made introductions, explained the purpose of the inspection and presented her credentials to Mr. Scott Powell, Water and Wastewater Operator, Village of Cloudcroft. The inspector and Mr. Powell toured the facility and reviewed records. An exit interview to discuss preliminary findings was conducted with Mr. Powell, and with Mr. Jubal Hall, Maintenance Foreman, Village of Cloudcroft at approximately 1225 hours on the day of the inspection.

Treatment Scheme

The Cloudcroft WWTP consists of the headworks, fine filtration, a clarigester, trickling filter, secondary clarifier, chlorine contact chamber and dechlorination system. The original facility was built in the 1960s, and is long overdue for repair and/or replacement. A new Membrane Bioreactor (MBR) facility has been constructed at the site to replace the aging facility. The MBR was to go online in June of 2009 but there were problems with the concrete. The facility was then rescheduled to go online in the spring of 2010, but the project was placed on hold. The facility representative indicated at the time of this inspection that a new contractor has been hired, and repairs are being made to the facility in order to have the facility up and running by the end of 2014.

There are now a total of four lift stations in use. USA Big Blue Bio Blocks are suspended in the waste system at some of the lift stations to constantly introduce bacteria in order to control fats, grease, and oils. Influent enters the headworks, which were installed circa 2003. The headworks consist of a Microstrainer from Lakeside Equipment Corporation, which has a heating element to prevent freezing during the winter. Solids removed are transferred into plastic bags that are then sealed. Following the Microstrainer is an aerated grit chamber which removes grit periodically during the day via a grit auger to plastic bags. The grit is transported off-site to a local trash transfer station. A Baycor Fiber Tec Drum Screen has been

added and is in use, but will be replaced in addition to bringing the rest of the facility up to speed for use of the MBR system later this year. To measure the influent an Eastech Badger Ventage 2210 Ultrasonic Flow Meter with a 6" Parshall flume was installed, but is not currently in use.

The equalization (EQ) basin at this facility is not being used for treatment at this time. However, all flow entering the treatment plant passes through this basin with no retention before entering the circular clarigester for primary settling. During the facility's prior inspection by EPA, there was an uncovered pipe directing influent into the clarigester. The facility has now welded a cover to the pipe to avoid infiltration into the system. After leaving the clarigester, the flow is directed through a valve box and then to a covered trickling filter with rock media. Following the trickling filter, wastewater is sent to a circular secondary clarifier. Wasted sludge from the secondary clarifier is pumped back to the clarigester. After the water passes through the circular clarifier, it is sent through a serpentine chlorine contact chamber and is disinfected with liquid sodium hypochlorite. It is then sent through a 6" Parshall flume for measurement with a totalizer meter. After traveling through the flume, effluent is then dechlorinated with liquid sodium bisulfite and sent to the outfall. The sodium hypochlorite for chlorination and is housed in a small building attached to the laboratory. The sodium bisulfite is housed in a small shed next to the chlorine contact chamber.

Sludge

Waste sludge from the clarigester gravity flows into a sludge drain line and pit. A new pump station has been installed in the area of the SO₂ feed manhole and the solids are pumped through this station to a new loading area located at the top of the hill. The village located the loading station at the higher elevation so the trucks would not have to drive onto the plant grounds (via a steep hill) and get stuck in the mud during the winter months. The sludge is pumped approximately every two months by Ruidoso Septic Service and the solids are dried in sludge beds near the town of Carrizozo.

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 C – Operations and Maintenance Evaluation – Overall Rating of “Marginal”

The permit states in Part III.B.3.a, Proper Operation and Maintenance:

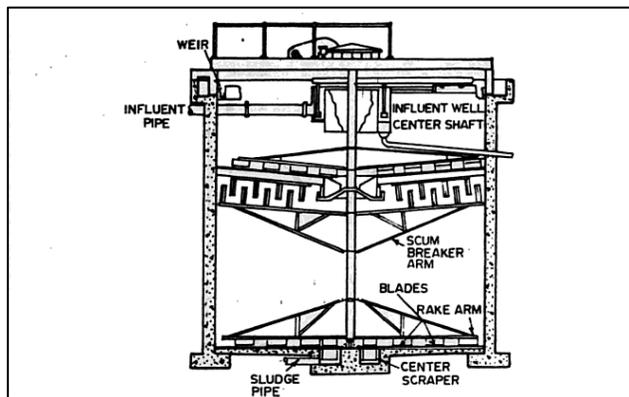
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality control procedures. This provision requires the operation of backup 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.

Findings for Operations and Maintenance:

Generally, a wastewater treatment facility is designed to operate for 20-30 years before needing to be upgraded or replaced. This facility was built in the 1960s and is showing its age. Many of the units are experiencing concrete spalling and cracking, and the secondary clarifier has been repaired with a welded steel ring around the rim to prevent further concrete damage. Other units have had small fixes such as this to prolong the life of the facility.

The facility operators are doing the best they can with the equipment they have and this effort should be commended. However, there were issues that were observed on site during this inspection that indicate a few units could be managed better.

A clarigester, being a modernized Imhoff tank, consists of two tank layers that incorporate a primary clarifier and an anaerobic digester. The collector at the bottom of the first chamber (serving as the primary clarifier) directs the settled materials to the lower chamber (serving as the digester). As digestion occurs, the gas bubbles rise to the surface and the clarigester is designed to keep the solids in the lower chamber. The center scraper located at the bottom of the chamber removes the waste activated solids from the chamber and directs it to the sludge pit. This unit appeared to be operating well at the time of the inspection. Repairs to the influent pipe to this unit had been performed (to avoid allowing infiltration) since the last EPA inspection.



The trickling filter located at this facility is cylindrical and uses a natural stone media. The zoogical film present on the media appeared to be healthy although there was a slight odor. Only two of the four available distribution arms were being utilized, and there is a passive air circulation system. The facility operator indicated that the wastewater is currently being recirculated through this unit. Increasing the recirculation may aid in decreasing odors from this unit, as well as providing more uniform sloughing of the media, which would also assist the settling process in the secondary clarifier.

The secondary clarifier was a 9 foot deep unit and at the time of the inspection contained a sludge blanket of approximately 18 inches. Solids were present in the clarifier and did not appear to be settling well. Pin floc or small particulates were floating around the entire unit. The clarifier was also experiencing short circuiting in numerous areas around the clarifier.

The serpentine chlorine contact chamber contained approximately 10 inches of sludge at the bottom of the chamber. There should not be sludge in this particular unit.

The operators discussed the effort to restart construction to finish the new Membrane Bioreactor (MBR) facility, originally scheduled to go online in 2009. The facility plans to have the unit start operation by the end of 2014. At that time, the contractor will spend approximately a month onsite with the operators going through troubleshooting and operation of the new facility.

Section D – Self Monitoring Evaluation – Overall Rating of “Unsatisfactory”

The permit states in Part I.A.1, Final Effluent Limits:

<i>EFFLUENT CHARACTERISTICS</i>	<i>DISCHARGE LIMITATIONS</i>		<i>MONITORING REQUIREMENTS</i>	
	<i>Standard Units</i>		<i>MEASUREMENT FREQUENCY</i>	<i>SAMPLE TYPE</i>
<i>POLLUTANT</i>	<i>MINIMUM</i>	<i>MAXIMUM</i>		
<i>pH</i>	<i>6.6</i>	<i>8.8</i>	<i>Two/month</i>	<i>Grab</i>

The permit states in Part III.C.4:

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.*

Findings for Self Monitoring:

During the onsite review of records, the inspector noticed that only one pH sample for the month of January 2014 had been taken, and none had been taken for the month of February 2014. The permit states that two effluent samples for analysis of pH are to be taken each month.

Section E – Flow Measurement Evaluation – Overall Rating of “Unsatisfactory”

The permit states in Part III.C.6, Flow Measurements:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement:

Facility staff indicated that the only time the effluent flow meter has been calibrated was in July 2012. The staff does not currently perform calibration checks on the meter to insure that the meter measures within 10% of true discharge rates. The operational staff indicated while the inspector was on site that they would change this and would perform checks periodically to insure the meter is reading as required. Flow measurements are critical to the rest of the data that the facility reports for compliance with the NPDES permit, and the inspector would like to stress the importance of ensuring that the flow meter is calibrated properly.

Discharge Monitoring Report Calculation Check

The DMR calculation check was conducted for the parameters of BOD, TSS and *E. coli* for the month of April 2013.

✓ = in agreement with calculation result submitted on facility's NetDMR.

BOD

<u>Date</u>	<u>BOD Result</u>
4-10-2013	20.4 mg/L
4-25-2013	22.7 mg/L

<u>Date</u>	<u>Flow rate</u>
4-10-2013	0.062680 MGD
4-25-2013	0.077210 MGD

Loading:

April's 30-day average :

4-10-2013: 20.4 mg/L x 8.34 x 0.062680 mgd = 10.66 lbs/day

4-25-2013: 22.7 mg/L x 8.34 x 0.077210 mgd = 14.62 lbs/day

Avg: $(10.66 + 14.62)/2 = 12.64$ lbs/day (This was reported as 12.7 lbs/day) ✓

April's 7-day average = 14.62 lbs/day (This was reported as 14.6 lbs/day) ✓

Concentration:

April's 30-day average = $(20.4 \text{ mg/L} + 22.7 \text{ mg/L})/2 = 21.55$ mg/L (this was reported as 21.6 mg/L) ✓

April's 7-day average = 22.7 mg/L (This was reported as 22.7 mg/L) ✓

TSS

<u>Date</u>	<u>TSS Result</u>
4-10-2013	96.4 mg/L
4-25-2013	11.6 mg/L

<u>Date</u>	<u>Flow rate</u>
4-10-2013	0.062680 MGD
4-25-2013	0.077210 MGD

Loading:

April's 30-day average :

4-10-2013: 96.4 mg/L x 8.34 x 0.062680 mgd = 50.39 lbs/day

4-25-2013: 11.6 mg/L x 8.34 x 0.077210 mgd = 7.47 lbs/day

Avg: $(50.39 + 7.47)/2 = 28.93$ lbs/day (This was reported as 29 lbs/day) ✓

April's 7-day average = 50.39 lbs/day (This was reported as 50.6 lbs/day) ✓

Concentration:

April's 30-day average = $(96.4 \text{ mg/L} + 11.6 \text{ mg/L})/2 = 54$ mg/L (this was reported as 21.6 mg/L) ✓

April's 7-day average = 96.4 mg/L (This was reported as 96.4 mg/L) ✓

E. coli

<u>Date</u>	<u>E. coli Result</u>
4-10-2013	103.9 cfu/100 mls
4-25-2013	<1 cfu/100 mls

<u>Date</u>	<u>Flow rate</u>
4-10-2013	0.062680 MGD
4-25-2013	0.077210 MGD

April's 30-day geomean :

$$\text{Ln } 103.9 \times \ln 1 = 4.643428898 / 2 = 2.321714449$$

Antilog 2.321714449 = 10.19 cfu/100 mls (This was reported as 10.2 cfu/100 mls) ✓

April's daily max: 103.9 cfu/100 mls (This was reported as 103.9 cfu/100 mls) ✓

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

Photographer: Sarah Holcomb	Date: 3-11-2014	Time: 1106 hours
City/County: Cloudcroft, Otero County		
Location: Village of Cloudcroft WWTP		
Subject: The facility's clarigester, which was built in the 1960s. Note the repair to the influent pipe located at the bottom of the photo next to the t-pipe.		



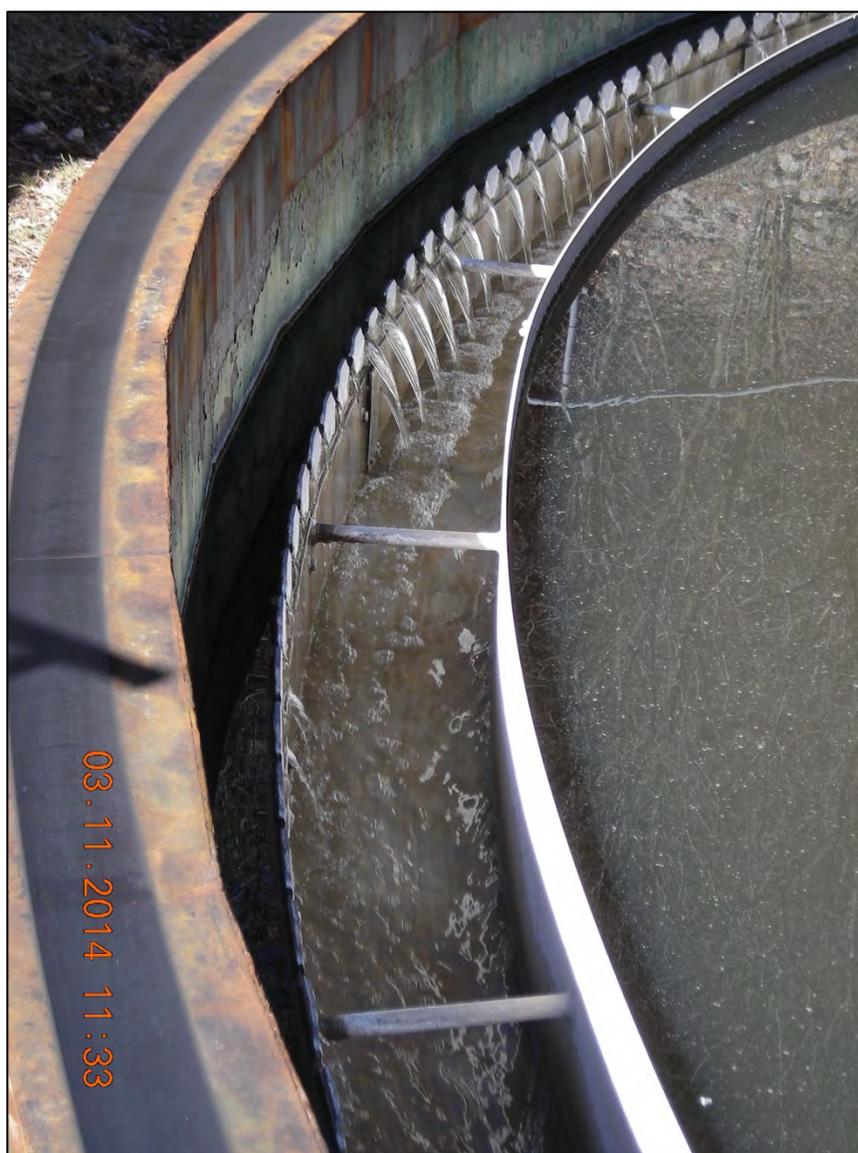
NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Sarah Holcomb	Date: 3-11-2014	Time: 1125 hours
City/County: Cloudcroft, Otero County		
Location: Village of Cloudcroft WWTP		
Subject: Interior of the facility's trickling filter. Only two distribution arms were functioning at the time of this inspection.		



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

Photographer: Sarah Holcomb	Date: 3-11-2014	Time: 1133 hours
City/County: Cloudcroft, Otero County		
Location: Village of Cloudcroft WWTP		
Subject: The facility welded a ring at the edge of the secondary clarifier to prevent further concrete spalling. There was some short circuiting occurring at the time of this inspection.		



**NMED/SWQB
Official Photograph Log
Photo # 4**

Photographer: Sarah Holcomb	Date: 3-11-2014	Time: 1140 hours
City/County: Cloudcroft, Otero County		
Location: Village of Cloudcroft WWTP		
Subject: There was approximately 10 inches of sludge in the facility's serpentine chlorine contact chamber.		



NMED/SWQB
Official Photograph Log
Photo # 5

Photographer: Sarah Holcomb	Date: 3-11-2014	Time: 1149 hours
City/County: Cloudcroft, Otero County		
Location: Village of Cloudcroft WWTP		
Subject: Outfall from the facility into Mexican Canyon.		

