NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 05 2018
RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

NAB1803756772 371115 **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: Rockcliff Operating New Mexico LLC	Contact: John Turner
Address: 1301 McKinney St, Suite 1300, Houston, TX 77010	Telephone No.: 903-643-3791
Facility Name : SCB Injection Facility	Facility Type: SWD (waterflood) Facility

Surface Owner: Jackie & Johnny Reid	Mineral Owner:	API No. 30-015-22404 (Donaldson Com A Well) Onsite. 30-015-35512 (SCB 23 #19 Injection Well) Onsite

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	23	23S	28E	1930	North	2303	West	Eddy

Latitude 32.2928490757674 Longitude -104.059085402287 NAD 83

NATURE OF RELEASE

109 bbls per email correction on 2/5/18

Type of Release: Produced Saltwater	Volume of Release: ~110 bbls	Volume Recovered: ~~110 bbls~~
Source of Release: Produced water storage tank	Date and Hour of Occurrence: 1/22/18, ~900 hrs	Date and Hour of Discovery 1/22/18, 1127hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? John Turner	Date and Hour: 1/23/18, 1120hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
The produced water storage tank overfilled and spilled approximately 110 bbls of produced water into the lined secondary containment. There was an electrical problem in the saltwater pump control box that did not allow the pump to start and transfer water. In addition, the callout system for high tank level malfunctioned and did not give lease operator notice. Electricians were called to fix both issues.

Describe Area Affected and Cleanup Action Taken.*
Vacuum truck removed free fluids from lined secondary containment. Rockcliff is currently evaluating this location due to two recent spills prior to this spill to develop a strategy for remedial action.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Mike Martin	OIL CONSERVATION DIVISION
Printed Name: Mike Martin	Approved by Environmental Specialist: Crystal Weaver
Title: Field Operations Manager	Approval Date: 2/6/18 Expiration Date: N/A
E-mail Address: mike.martin@rockcliffenergy.com	Conditions of Approval: see attached Attached ☒ 3RP-4605
Date: 2/05/18 Phone: 903-643-3791	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **2/5/18** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4805 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 3/5/18. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Weaver, Crystal, EMNRD

From: Weaver, Crystal, EMNRD
Sent: Monday, February 5, 2018 3:41 PM
To: John Turner; Bratcher, Mike, EMNRD
Cc: Mike Martin; Jamie Robinson
Subject: RE: SCB Injection Facility Form C-141

Hello all,

This initial C-141 form looks good. However, I will have to modify the bbls recovered cause even with a lined secondary containment at this facility because the liner is covered with fill material on top of the liner, it is unlikely that 100% of the fluid will be recovered by a vac truck. I am going to call this 110 bbls released, with 109 bbls recovered. Let me know if you disagree with this call.

For this release as long as no fluids made it out of the containment you will need to do this procedure:

When an Initial C-141 is submitted for a release that is stated to be fully contained within secondary lined containment, OCD is asking that operators provide a written statement within the Final C-141 (attesting to the integrity of the liner and stating that you yourself or another member of your organization ((that has been informed/educated on what to look for)) have inspected the liner, if any breaches or holes are discovered in the liner than a full delineation/remediation of that area will be required. Also if the containment involves any fill material OCD needs a statement on the Final C-141 form saying that all fill material was removed and replaced).

Aside from that request, OCD is also requesting for all operators to include two or 3 photos in the body of the email they send to us showing the condition of the battery before and after it was remediated/inspected. So what I mean by that is take the photos and drop them straight into the body of the email (just paste it right before where you have your signature block with your name and your title description). We want to ask all operators to include those since we have asked some of them to do so. So please if you could just drop us a few photos for this location, not as attachments but straight into the email, that would be awesome. One shot of the location sign and then like I said 2 or so more to represent how the battery/lined containment area looks pre and post.

Thanks,

Crystal Weaver
Environmental Specialist
OCD – Artesia District II
811 S. 1st Street
Artesia, NM 88210
Office: 575-748-1283 ext. 101
Cell: 575-840-5963
Fax: 575-748-9720

Weaver, Crystal, EMNRD

From: John Turner <John.Turner@Rockcliffenergy.com>
Sent: Monday, February 5, 2018 10:18 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc: Mike Martin; Jamie Robinson
Subject: SCB Injection Facility Form C-141
Attachments: SCB_Injection_Facility_NMOCD_C-141_2-05-18.pdf

Please find attached Form C-141, Release Notification and Corrective Action, for the release that occurred at Rockcliff Operating New Mexico LLC's SCB Injection Facility in Eddy County on January 22, 2018.

If you have any questions or concerns please do not hesitate to contact me.

Thank you,

John Turner
Rockcliff Energy, LLC
Sr. Environmental Specialist
342 Johnny Clark Rd
Longview, TX 75603
O: (903) 475-1865
C: (903) 261-4673
jturner@rockcliffenergy.com