

NM OIL CONSERVATION

ARTESIA DISTRICT

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

MAY 04 2017

Form C-141
Revised August 8, 2011

RECEIVED Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Fasken Oil and Ranch	Contact: Aaron Pachlhofer, P.G.
Address: 6101 Holiday Hill RD, Midland, TX 79707	Telephone No.: 432-687-1777
Facility Name: Gossett "20" No. 3H Battery	Facility Type Tank Battery

Surface Owner: Ronald D. Houghtaling	Mineral Owner: State
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LOCATION OF RELEASE

API = 30-015-39349

Unit Letter I	Section 20	Township 20-S	Range 25-E	Feet from the 2250	North/South Line South	Feet from the 150	East/West Line East	County Eddy
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Latitude 32.558197° Longitude -104.499148°

NATURE OF RELEASE

Type of Release: Oil, Produced water	Volume of Release: 3 oil, unk water	Volume Recovered: 3 oil, 20 water
Source of Release: Sight glasses on vessels	Date and Hour of Occurrence 4/12/17 23:00	Date and Hour of Discovery 4/13/17 8:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD Artesia Mike Bratcher	
By Whom? Vince Hancock	Date and Hour: 4/13/17 14:05 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Sight glasses on vessels broken due to large hail during storm. Release stopped on discovery. Fluids removed. 3 barrels of oil were released, but an unknown amount of water was released, 2 inches of rain were recorded during the storm that caused the spill. 20 barrels of water were recovered from the containment.

Describe Area Affected and Cleanup Action Taken.*

Affected area confined primarily to inside of battery firewall. Small area of overspray on top of battery firewall and into pasture. Clean up planned for 4/21/17.

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:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Pachlhofer, P.G.	Approved by Environmental Specialist: <i>Cynthia Wen</i>	
Title: Environmental Coordinator	Approval Date: 5/9/17	Expiration Date: N/A
E-mail Address: aaronp@forl.com	Conditions of Approval: <i>see attached</i>	Attached ☒
Date: 3/28/17 Phone: 432-687-1777		

* Attach Additional Sheets If Necessary

** Amended C-141 2RP-4176*

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 4/17/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4176 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 2 office in ARTESIA on or before 5/17/2017. 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), 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: Aaron Pachlhofer <aaronp@forl.com>
Sent: Thursday, May 4, 2017 2:09 PM
To: Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD
Subject: RE: Fasken Oil and Ranch * Gossett "20" #3H Battery release on 4/12/17 * 2RP-4176
Attachments: C-141 updated.pdf; well report.pdf; Gossett spill area.JPG

Crystal,

You were quite right. It is private surface. Attached is a revised C-141 with the property owner listed.

Also attached is a well report for depth to water and the nearest water wells. The requested searched radius was 2,000 meters. It appears that the nearest well is located around 2,000 feet away (630 meters), and that well has a depth to water of 314 feet. A well further away shows a depth to water of 80 feet, but the location of the well would need to be confirmed—I plot this well in the middle of a well pad that is approximately 20 to 25 feet lower (by USGS topo) than the elevation of my battery where the spill occurred. I feel that this point is very important because this area has a lot of topographic relief.

Finally, I have attached an image of the spill area with an outline of the affected area overlain. Both sample locations are noted.

Regarding a plan for clean up:

Please refer to the image for both sampling locations. It is quite clear that chlorides are not an issue. This spill occurred during the middle of a violent storm that deposited approximately 2 inches of rain (and large hail) during it's short duration--the ground was already saturated when the spill occurred. Regardless, I am trying to determine how saline the produced water is at this battery.

The issue at hand is the small amount of oil that was lost. The spill was contained within the battery, except for a small 5' x 10' mist that stained vegetation but not the ground. Inside the firewall is pea gravel that that has a fair amount of oil on it. The area at S-2 is the low point inside the battery where the oil settled as the fluids were vacuumed from the contained after the spill was discovered.

According to my sample results, there is not an issue below 1' (not including pea gravel thickness). Fasken will remove and dispose (or attenuate on onsite) the pea gravel and any heavily stained soil below the pea gravel. Since we have samples below 5,000 mg/kg TPH and less than 10 mg/kg BTEX further sampling is not needed.

I will forward pictures of the removal and replacement of the pea gravel (and addition of clean soil as needed). As noted above, we would like to allow the waste material to remediate onsite. It will be placed on plastic and turned periodically to help natural attenuation.

If you like, I am happy to meet you onsite, just let me know when I can meeting you there...probably about a 30 minute drive from Artesia....

Thanks,



Aaron Pachlhofer, P.G.
Environmental Coordinator
Fasken Oil and Ranch, Ltd.