

Describe Area Affected and Cleanup Action Taken.*

Waterflood "recycled" water with minor amounts of solids and oil; sheet flowed over parts of the pad and sprayed over parts of the well pad and onto off-pad sand dune area vegetation. See attached footprint map constructed by BLM person (S.Tucker) who was on site during emergency response actions.

Per BLM's request Agua Sucia (AS) using a backhoe back dragged and scraped all saturated soils from the well pad and transported 10-12 yards over to the main battery and will be disposed of at an approved OCD facility. AS then vacuumed out a livestock water tank and doubled washed with clean fresh water and placed back in service. Per BLM's instruction, AS washed off plants that had an obvious stain on the leaves, (mostly Shin Oak) in the area. Some staining still remains and more washing will be completed per BLM instructions.

BLM and AS agree that the best method for this site, especially since groundwater is not an issue, is to "Bush Hog" the most impacted area to create a ground mulch and add an 8-8-8 winter fertilizer. This will be done as soon as AS can obtain the equipment for this operation. Other lightly coated areas will be monitored for plant survival next spring.

The injection well piping was repaired and new pressure gauge installed. See Photo

The delineation plan is being included in the report due OCD by Nov. 30, 2017.

Special Notes:


During the piping repair the well gauge apparently malfunctioned and was noted to be reading high. Mr. Jim Griswold-OCD had called concerning a notification issue and indicated that AS may be operating over pressure. He was informed via E-mail that this well was not operating over pressure. See Attached E-mail Correspondences.

In addition, the initial call was reported this as a gas leak and dead cattle were noted. This was also rebuked as this was a water leak and the dead carcass had been there for quite some time and the local rancher was aware of it. -Attached is a Photo of cow.

The Anonymous "Hunter" who has a 918 prefix telephone # apparently had readily available the telephone numbers of the OCD/BLM and AS number of Louis Edgett. When Mr. Edgett tried calling him he hung up on him. We also have tried calling the rancher and he will not respond either.

We also recommend that OCD and BLM enter into a "MOU" to clearly spell out agency responsibilities.

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:		<u>OIL CONSERVATION DIVISION</u>	
		Approved by Environmental Specialist: Accepted for Record NMOCD District 2	
Printed Name: Wayne Price-Price LLC			
Title: AS Consultant		Approval Date: 11/30/17	Expiration Date: N/A
E-mail Address: wayneprice77@earthlink.net		Conditions of Approval: <i>See Attached</i>	Attached <input checked="" type="checkbox"/> <i>2RP-4505</i>
Date: November 29, 2017 Phone: 505-715-2809			

- Attach Additional Sheets If Necessary

Please attach this amended report to the original C-141 previously submitted on Nov 12, 2017 and file in OCD records.
Please provide a 2RP # as soon as possible.

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 11/29/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4505 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 12/29/2017. 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

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