APPROVED
By Olivia Yu at 3:19 pm, Mar 15, 2018

March 14, 2018

NMOCD District I
Olivia Yu
1625 N French Dr.
Hobbs, NM 88240

NMOCD approves of the proposed delineation plan for 1RP-4981.

RE: 1RP-4981
J.H. Day Tank Battery
Unit K, Section 6 – T22S – R36E
API: 30-025-08809

Dear Ms. Yu,

M & M Energy would like to submit the following assessment and delineation proposal for our J.H. Day Tank Battery as referenced above.

Background:

The free water knockout valve froze diverting all produced water and hydrocarbons to the heater treater. Some fluids were released to the HT vent line which ruptured causing a leak spilling into the berm which overflowed onto the lease road.

A search of the New Mexico State Engineer's Office (NMOSE) online water well database for water wells within the vicinity indicated a water well to be located in NW NE SW of Section 6 T32S-R36E with a water depth of 195 feet.

Delineation Proposal:

Based on initial site assessment, the impact is located in a linear direction from the tank battery berm down to the lease road and then down the lease road for approximately 500 feet. The area from the spill point to a point beyond possible impact will be delineated horizontally to determine the total areal extent. Upon results of horizontal measurements subsequent vertical delineation will be assessed to determine depth of impact with depth intervals not to exceed five (5) feet. Once the area has been thoroughly delineated, a corrective action plan will be submitted to the NMOCD for consideration and approval.

Mohr Titration Method will be utilized to delineate the impacted area for chlorides. Field delineation data will be submitted with the corrective action plan. Laboratory analytical data will be submitted on samples for chlorides, BTEX and TPH C6-C36 (GRO, DRO and MRO) per NNMOCD COA's.

Request:

M & M Energy hereby request approval to begin delineation activities.

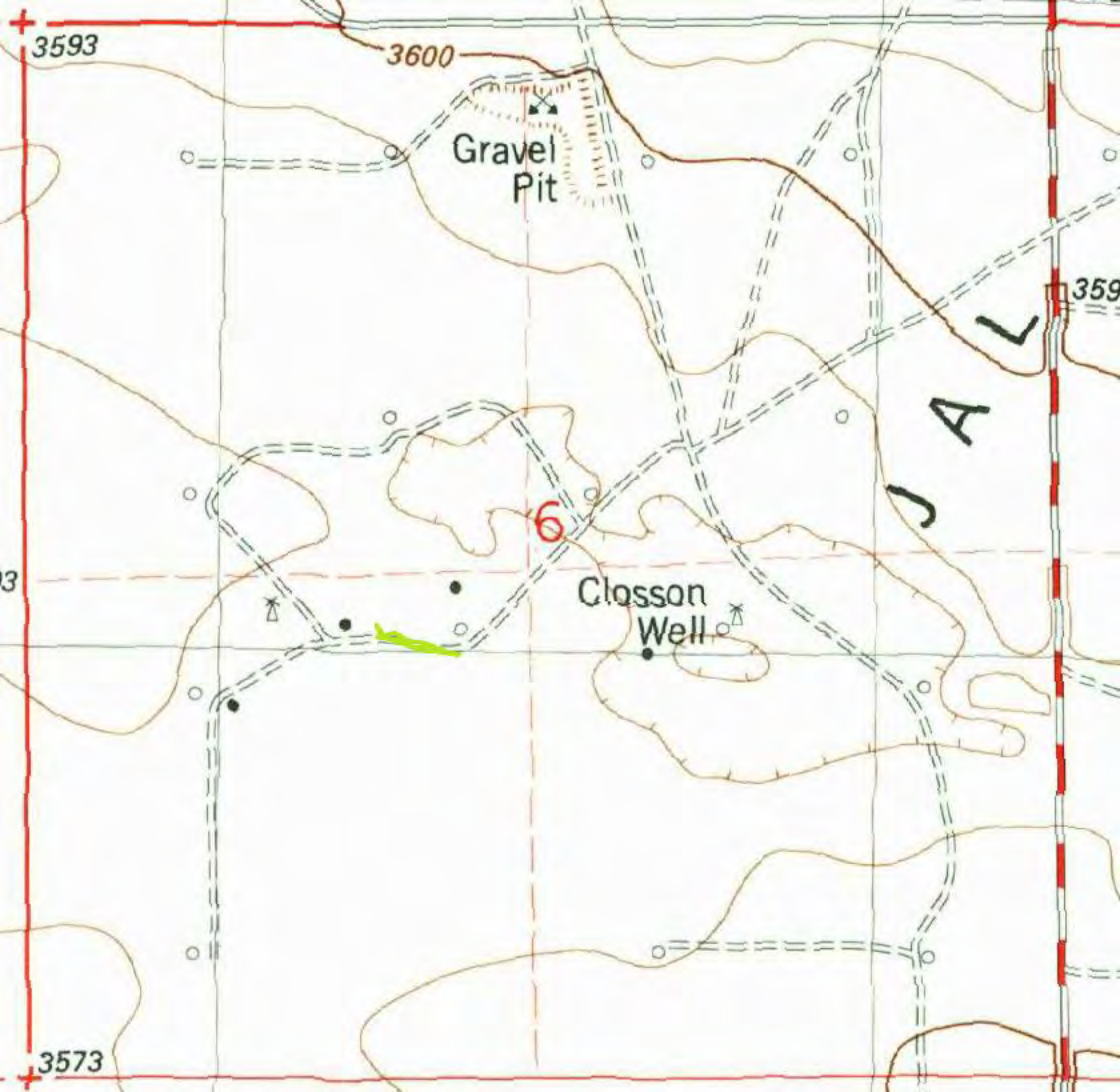
Sincerely,

Micheal McGhee

ATTACHMENTS:

1. Digital Photo with Affected Area
2. USGS Topographic Map of Sec 6
3. NMOSE Water Data Report
4. NMOCD C-141
5. USGS Topographic Map of Entire Area

File Edit View Tools Add Help


3593
3600
Gravel Pit
359
JAL
6
Closson Well
3573

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00469	1	2	3	06	22S	36E	659127	3588245*

Driller License: 208 **Driller Company:** VAN NOY, W.L.

Driller Name: VAN NOY, W.L.

Drill Start Date: 01/28/1969 **Drill Finish Date:** 02/07/1969 **Plug Date:**

Log File Date: 02/12/1969 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 8.00 **Depth Well:** 220 feet **Depth Water:** 195 feet

Water Bearing Stratifications:	Top	Bottom	Description
	210	215	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	204	220

***UTM location was derived from PLSS - see Help**

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

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	M & M Energy, LLC	Contact	Micheal McGhee
Address	2409 Ella Lee Lane, Houston, TX 77019	Telephone No.	713-304-1695
Facility Name	Day # 1 Tank Battery	Facility Type	Tank Battery

Surface Owner	Tivis Ranch, LLC	Mineral Owner	Numerous Private Individuals	API No.	30-025-08809

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	6	22S	36E	1910	FSL	1910	FWL	LEA

Latitude 32.4199219 **Longitude** -103.3050461 NAD83

NATURE OF RELEASE

Type of Release: SPILL	Volume of Release: 20	Volume Recovered: 20
Source of Release: Busted flow line	Date and Hour of Occurrence: 8am	Date and Hour of Discovery: 10am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? To operator	
By Whom? Pumper	Date and Hour: 10:30am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 4:16 pm, Mar 02, 2018

Describe Cause of Problem and Remedial Action Taken.*

Valve on freewater knockout froze, all fluid diverted to heater treater overwhelming capacity, overflow diverted to vent line which ruptured.

Describe Area Affected and Cleanup Action Taken.*

fluids spilled into TB containing wall and partially overflowed onto adjacent road. Vacuum truck was called to remove fluids and backhoe was used to remove dirt on road to TB containment wall and road repaired with caliche

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:

Printed Name: Micheal McGhee

Title: Managing Partner

E-mail Address: mmcghee01@yahoo.com

Date: 3/2/2018 Phone: 713-304-1695

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 3/2/2018 Expiration Date:

Conditions of Approval: see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-4981 nOY1806158874 pOY1806159344

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _3/2/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4981__ 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 _1_ office in __Hobbs____ on or before _4/2/2018_. 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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OIL CENTER QUADRANGLE
NEW MEXICO–LEA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 OIL CENTER 15' QUADRANGLE

5349 III SW (MONUMENT SW) | 5349 III SE (MONUMENT SOUTH) | 5349 I SW (HOBBS SW)

103°22'30" | 103°15'
32°30'
27'30"
25'
22'30"
3596 000mN
3595
3594
3593
3592
3591
3589
3588
3587
3586
3585
3584 000mN
T 21 S
T 22 S
53 000mE
54
55
56
20'
57
R 35 E
58
59
R 36 E
60
17'30"
61
62
830 000 FEET
64 000mE
MONUMENT 9 MI.
EUNICE 6 MI.
EUNICE 8 MI.
22 MI. TO U.S. 62 AND 180
22 MI. TO N.MEX. 128
5348 IV NW (SAN SIMON RANCH)
5348 I NW (EUNICE)
5348 IV SW (SAN SIMON SINK)
5348 I SW (RATTLESNAKE CANYON)
(EAST LAKE) 5348 IV SE
(EUNICE) 5348 I NW
540 000 FEET
510 000 FEET

Oil Center
Star Well
Amerada Well
White Tank
Murphy Tank
Sheep Tank
Scharbrough Well
Phillips Well
Conoco BM 3649
Substa
Shell Well
Gravel Pit
Gas Well
Kily Well
Gypsy Well
Closson Well
Dry Lake
Knowles Well
Urssey Tank
North Lake
Rock Lake Reservoir
Water Tank
Radio Tower
R Tr
Oil Well
Drill Hole
Well
BM 3576
BM 3581
BM 3570
BM 3617
BM 3586
BM 3578
BM 3549
BM 3544
BM 3574
BM 3556
PIPELINE
JEEP TRAIL
SAN SIMON OIL FIELD
JAL OIL FIELD
MONUMENT

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1977. Field checked 1978. Map edited 1984

Projection and 10,000-foot grid ticks: New Mexico coordinate system, east zone (transverse Mercator)
1000-meter Universal Transverse Mercator grid, zone 13
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 9 meters south and 44 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

MN
GN
0°54'
16 MILS
9½°
169 MILS
UTM GRID AND 1984 MAGNETIC NORTH DECLINATION AT CENTER OF MAP DIAGRAM IS APPROXIMATE

SCALE 1:24 000
1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

NEW MEXICO
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route | U. S. Route | State Route

OIL CENTER, N.MEX.
NE/4 OIL CENTER 15' QUADRANGLE
32103-D3-TF-024
1984
DMA 5348 IV NE-SERIES V881

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1984