<u>District I</u> 625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 311 S. First St., Artesia, NM 88210 <u>District III</u> 000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 220 S. St. Francis Dr., Santa Fe, NM 87505	Energy Mineral Oil Conse 1220 Sou	N State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505			MOIL CONSERVATION ARTESIA DISTRICT Form C-141 JAN 1 2017 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.		
R	elease Notificatio			Actio	n		
NAB1701352947		<b>OPERA</b>	ГOR		🛛 Initia	Il Report 🔲 Final Repo	
Name of Company Devon Energy Prod		+ · · ·	att Nettles, Pr		Foreman	· · · · · · · · · · · · · · · · · · ·	
Address 6488 Seven Rivers Hwy Artesi	a, NM 88210		No. 575-513-	5767			
Facility Name Cooter 16 State Com 5H		Facility Ty	pe Oil				
Surface Owner State Mineral		ner State			<b>API No</b> 30-015-37875		
	LOCATIO	ON OF RE	LEASE				
Unit Letter OSection 16Township 25SRang 29E		th/South Line South	Feet from the 2310	e East/	West Line East	County Eddy	
Latitude	: N 32.1236382		Longitude: V	W -103.9	883423		
	NATUR	E OF REL			1		
Type of Release Oil & Produced water	Type of Release Oil & Produced water		Volume of Release 28 BBLS ( & 7 BBLS PW		Oil Volume Recovered 28 BBLS Oil & 2 BBLS PW		
Source of Release			Hour of Occu	rrence	Date and	Hour of Discovery	
Heater treater			@ 11:30am		1/7/2017 @ 11:30am		
Was Immediate Notice Given?	No Not Require	d OCD-Mik					
By Whom? Leonard Aguilar, Assistant Prod			Hour 1/7/2017	@ 5:00m	m		
Was a Watercourse Reached?			If YES, Volume Impacting the Watercourse				
Yes		N/A					
If a Watercourse was Impacted, Describe I N/A	Fully.*						
<b>Describe Cause of Problem and Remedial</b>		a relation of 29	BBLS oil and '	7 BBLS p	roduced wat	er from the heater treater. All	
wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Action</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r	and the heater was isolate <b>on Taken.*</b> duced water was released er treater remained inside emained on the pad. Liner	d to prevent fu from heater tre lined containm was checked fo	rther release. ater into lined c ent, the remaini or holes, no hol	ing 5 BBL es were fo	S produced	water was on the pad. None of	
wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Actio</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r 28 BBLS oil and 2 BBLS produced water. A I hereby certify that the information given ab regulations all operators are required to repor public health or the environment. The acceps should their operations have failed to adequa or the environment. In addition, NMOCD ac	and the heater was isolate <b>on Taken.*</b> duced water was released er treater remained inside l emained on the pad. Liner n environmental agency with ove is true and complete to t and/or file certain released tance of a C-141 report by tely investigate and remedia coeptance of a C-141 report	d to prevent fu from heater tre lined containm was checked fu ill be contacted the best of my notifications a the NMOCD n iate contaminat	ater into lined c ent, the remaini or holes, no hol- for remediation whowledge an and perform cor- narked as "Fina- ion that pose a we the operator	ng 5 BBL es were fo n. d understa rective ac l Report" threat to g of respons	S produced bund in the l and that purs tions for rele does not reli ground water sibility for c	water was on the pad. None of iner. Vacuum truck recovered want to NMOCD rules and eases which may endanger ieve the operator of liability c, surface water, human health ompliance with any other	
A gasket on the fire tube on the heater treater wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Actio</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r 28 BBLS oil and 2 BBLS produced water. A I hereby certify that the information given ab regulations all operators are required to repor public health or the environment. The accept should their operations have failed to adequa or the environment. In addition, NMOCD actor federal, state, or local laws and/or regulations Signature: Sarah Gallegos-Troubs	and the heater was isolate on Taken.* oduced water was released er treater remained inside emained on the pad. Liner n environmental agency with ove is true and complete to t and/or file certain release tance of a C-141 report by tely investigate and remedit coeptance of a C-141 report s.	d to prevent fu from heater tre lined containm was checked fu ill be contacted the best of my notifications a the NMOCD n iate contaminat	ater into lined c ent, the remaini or holes, no hol- for remediation whowledge an and perform cor- narked as "Fina- ion that pose a we the operator OIL CO	ng 5 BBL es were fo n. d understa rective ac l Report" threat to g of response	S produced bund in the l and that purs tions for rele does not reli ground water sibility for c	water was on the pad. None of iner. Vacuum truck recovered want to NMOCD rules and eases which may endanger ieve the operator of liability c, surface water, human health ompliance with any other DIVISION	
wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Actio</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r 28 BBLS oil and 2 BBLS produced water. A I hereby certify that the information given ab regulations all operators are required to repor public health or the environment. The accep should their operations have failed to adequa or the environment. In addition, NMOCD ac federal, state, or local laws and/or regulations Signature: Sarah Gallegos-Troub	and the heater was isolate on Taken.* oduced water was released er treater remained inside emained on the pad. Liner n environmental agency with ove is true and complete to t and/or file certain release tance of a C-141 report by tely investigate and remedit coeptance of a C-141 report s.	d to prevent fu from heater tre lined containm was checked fo ill be contacted the best of my notifications a the NMOCD n fate contaminat t does not relie	ater into lined c ent, the remaini or holes, no hol- for remediation whowledge an and perform cor- narked as "Fina- ion that pose a we the operator OIL CO	ng 5 BBL es were fo n. d understa rective ac l Report" threat to g of respons <b>NSERV</b> By	S produced bund in the l and that purs tions for rele does not reli ground water sibility for c	water was on the pad. None of iner. Vacuum truck recovered want to NMOCD rules and eases which may endanger ieve the operator of liability c, surface water, human health ompliance with any other DIVISION	
wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Actio</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r 28 BBLS oil and 2 BBLS produced water. A I hereby certify that the information given ab regulations all operators are required to repor public health or the environment. The accept should their operations have failed to adequate or the environment. In addition, NMOCD action federal, state, or local laws and/or regulations Signature: Sarah Gallegos-Troub Printed Name: Sarah Gallegos-Troublefield	and the heater was isolate on Taken.* oduced water was released er treater remained inside emained on the pad. Liner n environmental agency with ove is true and complete to t and/or file certain release tance of a C-141 report by tely investigate and remedit coeptance of a C-141 report s.	d to prevent fu from heater tre lined containm was checked fo ill be contacted the best of my notifications a the NMOCD n fate contaminat t does not relie	ther release. ater into lined c ent, the remaining for remediation where the operator on that pose a where the operator OIL CO Signed of the second of the second Signed	ng 5 BBL es were fo n. d understa rective ac l Report" threat to g of respons <b>NSERV</b> By	S produced bund in the l and that purs tions for rele does not reli ground water sibility for c	water was on the pad. None of iner. Vacuum truck recovered muant to NMOCD rules and eases which may endanger ieve the operator of liability c, surface water, human health ompliance with any other DIVISION	
wells producing into this facility were shut in <b>Describe Area Affected and Cleanup Actio</b> Approximately 28 BBLS oil and 7 BBLS pro BBLS produced water released from the heat the released fluid left location and all fluids r 28 BBLS oil and 2 BBLS produced water. A I hereby certify that the information given ab regulations all operators are required to repor public health or the environment. The accept should their operations have failed to adequate or the environment. In addition, NMOCD actor federal, state, or local laws and/or regulations Signature: Sarah Gallegos-Trouble Printed Name: Sarah Gallegos-Troublefield Title: Field Admin Support E-mail Address: Sarah.Gallegos-Troublefield	and the heater was isolate <b>on Taken.*</b> bduced water was released er treater remained inside l emained on the pad. Liner n environmental agency with ove is true and complete to t and/or file certain release tance of a C-141 report by tely investigate and remedit cceptance of a C-141 report s. Hefield	d to prevent fu from heater tre lined containm was checked fo ill be contacted the best of my notifications a the NMOCD n iate contaminat t does not relie	ther release. ater into lined c ent, the remaining the remediation with the remaining the remediation with the remediation the remediation with the remediation with th	ng 5 BBL es were fo n. d understa rective ac l Report" threat to g of respons <b>NSERV</b> By	S produced bund in the l and that purs tions for rela does not reli ground water sibility for c	water was on the pad. None of iner. Vacuum truck recovered muant to NMOCD rules and eases which may endanger ieve the operator of liability c, surface water, human health ompliance with any other DIVISION	

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/1/1/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 3RP-4014 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 <u>division-approved corrective action</u> 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  $\underline{\mathcal{I}}$  office in  $\underline{\mathcal{HEESM}}$  on or before  $\underline{\mathcal{IIIII}}$ . 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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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