NM OIL	CONSEF	RVATION
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ARTESIA DISTRICT

District I 1625 N. French District II			State of I Energy Minerals a			f New Mex s and Natura	JA	N 1 0	2017	Form C-141 Revised August 8, 2011		
811 S. First St., <u>District III</u> 1000 Rio Brazo <u>District IV</u> 1220 S. St. Fran	s Road, Azte	c, NM 87410		1220	Sout	ervation Div th St. France	Su	EOBP	approproc	priate District Office in with 19.15.29 NMAC.		
1220 5, 51, 116	C13 D1., Dail	u i c, i i i i i i i i i i i i i i i i i				re, NM 875		ation				
Release Notification and Corrective Action OPERATOR Initial Report Final Report												
							huck Johnston			ат кероп	Final Report	
Address: 40	01 Penbro	ok Suite 201	Odessa,			Telephone No. 432-202-4771						
Facility Na	me: Horse	Creek Com	#002			Facility Type: Well Site						
Surface Owner Mineral Owner						API No. 30-005-61335					-61335	
				LOCA	TIO	N OF REI	LEASE					
Unit Letter E	Section 11	Township 05 S	Range 24E	Feet from the 1930	Nort	h/South Line North	Feet from the 660	East/W West	Vest Line	County Chaves		
Latitude_33.8888512 Longitude104.3996964												
Type of Rele	ana Dadua	ad Watas		NAT	URE	COF REL	EASE Release: Unknov		Volume	Recovered		
Source of Re							Iour of Occurrenc				biscovery 12-20-2016	
Was Immedi	Was Immediate Notice Given?				II:47 n.m. by field inspector							
By Whom?						Date and Hour:						
Was a Watercourse Reached?				If YES, Volume Impacting the Watercourse.								
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken, Appears (to be c	corrosion on w	ellhead and casing	g valve l	eak.			
				en. Approximatel rea. Once determi							A backhoe and soil	
regulations a public health should their o or the environ	I operators or the environment operations h nment. In a	are required t ronment. The ave failed to a	o report ar acceptanc idequately ICD accep	is true and completed ad/or file certain re- te of a C-141 report investigate and re- tance of a C-141 r	lease It by the media	notifications a he NMOCD m ite contaminati	nd perform correct arked as "Final Re on that pose a thre	tive action eport" de cat to gre	ons for rel bes not rel ound wate	cases which leve the op r, surface v	th may endanger berator of liability water, human health	
Signature:	Signature: Chipht				OIL CONSERVATION DIVISION Signed By Approved by Environmental Specialist							
Printed Name	e: Chuck Jo	hnston				Approved by						
Title: EHS /	Operations	Specialist				Approval Date: 1217 Expiration Date: N/A						
E-mail Addro	zss: cjohnst	on@vnrllc.co	n	<u> </u>		Conditions of	Approval:			Attache	zd IX	
Date: 1-6-20	016			Phone:432-202-47	771		Secas	Hal	ind		\frown	
Attach Addi	tional She	ets If Necess	ary								2RP-4071	

Operator/Responsible Party,

The OCD has received the form C-141 you provided on $\frac{1/10}{11}$ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number $\frac{2RD-4D1}{11}$ 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 2 office in ACTESSIA on or before 2/10/17. 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

Bratcher, Mike, EMNRD

From:	Chuck Johnston <cjohnston@vnrllc.com></cjohnston@vnrllc.com>
Sent:	Tuesday, January 10, 2017 12:32 PM
То:	Weaver, Crystal, EMNRD; Bratcher, Mike, EMNRD
Subject:	Horse Creek Com #002 C-141
Attachments:	Horse Creek Com #002 C-141.pdf

Crystal, please find the C-141 for the Horse Creek Com #002. Our foreman said it appears to about a 15 ft. X 15 ft. area at the wellhead that is stained from produced water. He said the leak appears to be on the surface casing valve but there is no pressure or water when the valve is open. The crew is make repairs to the well and a backhoe and soil testers will check for depth of contamination before remediating the soil. Let me know if you have any questions.

Chuck Johnston EHS / Operations Specialist 432-202-4771 Cell 432-248-8154 Office

