State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

OIL CONS. DIV DIST. 3 Form C-141 Revised April 3, 2017

Subm**AUGo2** To 2017 priate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action													
							ГOR			Final Repor			
						Contact Clara Cardoza							
						Telephone No. 505-564-0733 Facility Type Gas Well							
Surface Owner BLM Mineral Owner B							BLM (NM-010063 API No.30-045-07514						
				LOCA	ATION	OF REI	LEASE						
Unit Letter D	Section 17				North/ North	South Line	East/West Line West		County San Juan				
Latitude_36.6667213 Longitude108.0327835 NAD83													
NATURE OF RELEASE Type of Release Lube Oil (Historic) Volume of Release Unknown Volume Recovered none													
Source of Release Lube Oil (Historic)							Volume of Release Unknown Volume Recovered Date and Hour of Occurrence Date and Hour of D					7	
							Unknown August 15, 2017 3:00 p.m.						
Was Immediate Notice Given?						If YES, To Whom? NMOCD (V Fields) and BLM (W Thomas)							
By Whom? Clara Cardoza						Date and Hour August 16, 2017 7:45 am & 7:40 respectively							
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse. n/a							
If a Watercou	urse was Im	pacted, Descr	ibe Fully.'	*									
On August 1	5, 2017 dur	em and Reme ing reclamation	on of Luce	rne A 1 historic c	ontamina	ation was dis	covered.					** <u>.</u>	
Hilcorp Ener	gy will deli	neate by exca	vation to r	emove the impac									
regulations a public health should their o or the environ	ll operators or the envi operations h nment. In a	are required t ronment. The nave failed to a	o report an acceptance adequately OCD accept	nd/or file certain r ce of a C-141 rep v investigate and r	release no ort by the remediate	otifications a NMOCD m e contaminati	knowledge and u nd perform correc arked as "Final R on that pose a thre the operator of n	tive acti eport" d eat to gr	ions for rele oes not reli ound water	eases which eve the open , surface wa	may e rator o iter, hu	ndanger f liability ıman health	
						OIL CONSERVATION DIVISION							
Clarder Cargo						Approved by Environmental Specialist:							
Printed Name: Clara Cardoza										\bigcirc			
Title: Environmental Specialist						Approval Da	te: 8/23/1		Expiration	Date:			
E-mail Address: <u>ccardoza@hilcorp.com</u>						Conditions of Approval: Sample For Attached X							
Date: 08/16/2			one: 505/5	64/0733		TPH (NR	0- GRG- MRD	IORG)	Btex	-	_		
Attach Addi	tional She	ets If Necess		1517235			Remediation	mu	st sta	-at			
						B	my Nov 1	7,20	7				

Operator/Responsible Party,

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 III office in Aztec on or before $\frac{10/A_{--}}{A_{--}}$. 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

Smith, Cory, EMNRD

From:Smith, Cory, EMNRDSent:Wednesday, August 23, 2017 11:03 AMTo:'Clara Cardoza'Cc:Fields, Vanessa, EMNRD; whitney thomas (I1thomas@blm.gov)Subject:RE: Initial C-141 Lucerne A 1Attachments:C-141 Conditions Lucerne A1.pdf

Clara,

OCD has approved your C-141 the conditions of approval below are also attached to your C-141

- Notify OCD prior to starting remediation activities 72 Hours but no more than one week
- Notify OCD at least 24 hours prior to collecting any confirmation soil samples
- Sample excavation for TPH (GRO-DRO-MRO/ORO) BTEX, and Benzene
- Remediation must commence no later than November 17, 2017

OCD approval does not relieve HilCorp of any additional requirements imposed by other regulatory agencies.

If you have any additional questions please give me a call.

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

From: Clara Cardoza [mailto:ccardoza@hilcorp.com] Sent: Wednesday, August 16, 2017 9:04 AM To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; whitney thomas (I1thomas@blm.gov) <I1thomas@blm.gov> Cc: Smith, Cory, EMNRD <Cory.Smith@state.nm.us> Subject: Initial C-141 Lucerne A 1

Attached please find the initial C-141 for the historic contamination on the Lucerne A 1. The hard copy will follow in the mail.

Please let me know if you have any questions or require additional information.

Thank you,

Clara M Cardoza Environmental Specialist 505-564-0733 (O) 505-793-2784 (C)