District I 1625 N. French Dr., Hobbs, NM 88240 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico **Energy Minerals and Natural Resources**

Form C-141 Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in accordance with 19,15,29 NMAC.

Release Notification and Corrective Action													
						<b>OPERA</b>	Initial Report  Fina				Final Repo		
Name of Company: COG Operating LLC									bert McNeill				
Address: 600 West Illinois Avenue, Midland TX 79701									-683-7443				
Facility Name: MACHO NACHO STATE #002H						Facility Typ		Well					
Surface Owner: State Mineral Owner:								API No. 30-025-39883					
LOCATION OF RELEASE													
Unit Letter   Section   Township   Range   Feet from the   North						h/South Line	East/We	st Line	County				
H 07 24S 33E 1870'					North 330' East			st	t Lea				
<b>Latitude</b> 32.2343559 <b>Longitude</b> 103.6039429													
NATURE OF RELEASE													
Type of Release:						Volume of Release:			Volume Recovered:				
Oil						50bbls			45bbls				
Source of Release: Wellhead						Date and Hour of Occurrence: 11-18-2016 06:30 am			Date and Hour of Discovery: 11-18-2016 06:30 am				
Was Immediate Notice Given?						If YES, To Whom?							
						d Ms. Lynch -NMOCD / Ms. Groves - SLO							
By Whom? Rebecca Haskell						Date and Hour: Fri 11/18/2016 2:18 PM							
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.							
☐ Yes ⊠ No													
If a Watercourse was Impacted, Describe Fully.*													
Describe Caus	Describe Cause of Problem and Remedial Action Taken.*												
Polish rods broke causing the stuffing box to blowout. Replace polish rods and packing on the well.													
roush roas broke causing the stuffing box to blowout, Replace polish roas and packing on the well.													
Describe Area	Affected a	and Cleanup A	Action Taken	i.*									
This release	occurred o	n the nad and	over sprayed	l into the nastu	ire. Coi	ncho will have	the spill site samp	oled to deli	ineate anv	nossible o	ontami	ination from	
							for approval prior					nation nom	
							knowledge and und perform correct						
							arked as "Final R						
							ion that pose a thre						
				nce of a C-141	report	does not reliev	e the operator of	responsibi	lity for co	mpliance v	vith any	y other	
federal, state,	or local lav	ws and/or regu	ilations.				OIL COM	CEDVA	TION I	DIVICIO	)NI		
Signature:		1/2/2	OIL CONSERVATION DIVISION										
		_	trater dyrich										
Printed Name	:	Robert	Grubbs Jr.			Approved by	Environmental S	pecialist:		0			
Title:	Se	enior HSE Co	ordinator			Approval Da	te: 11/23/201	6 Ex	piration D	ate: 1/2	3/201	7	
E-mail Addres	ss:	rgrubbs@	concho.com			Conditions o							
						Please see attached directive			Attached				
Date: Nove	ember 21, .	2010	Phone:	432-083-7	445	1 100000				1			

\* Attach Additional Sheets If Necessary

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## Operator/Responsible Party,

The OCD has received the form C-141 you provided on 11/21/2016 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP 4520 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 1 office in Hobbs on or before 12/23/2016. 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