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COLORADO

EnviroScan - DNR, OGCC <dnr\_ogcc.enviroscan@state.co.us>

## Fwd: Lone Pine - Pit Closure and E&P Waste Treatment Update for REM #7058 (Facility ID#112268 and 112269)

1 message

**Fischer - DNR, Alex** <alex.fischer@state.co.us>  
To: OGCC EnviroScan - DNR <ogcc.enviroscan@state.co.us>

Tue, Nov 11, 2014 at 10:27 AM

Please upload email and attachments to to REM 7058 and Pit Facility ID#112268 and 112269.

----- Forwarded message -----

From: **James Hix** <jhix@olssonassociates.com>  
Date: Tue, Sep 16, 2014 at 11:52 AM  
Subject: Lone Pine - Pit Closure and E&P Waste Treatment Update for REM #7058 (Facility ID#112268 and 112269)  
To: "Fischer, Alex (Alex.Fischer@state.co.us)" <Alex.Fischer@state.co.us>, "kris.neidel@state.co.us" <kris.neidel@state.co.us>  
Cc: "Curtis Ditzell (curtisd@cmproductionllc.com)" <curtisd@cmproductionllc.com>, "Teff, John (johnt@cmproductionllc.com)" <johnt@cmproductionllc.com>, "gradyc@cmproductionllc.com" <gradyc@cmproductionllc.com>, "Roger Freeman (roger.freeman@dgsllaw.com) (roger.freeman@dgsllaw.com)" <roger.freeman@dgsllaw.com>, "Gowen - DNR, Peter (peter.gowen@state.co.us)" <peter.gowen@state.co.us>

Alex and Kris,

Last Friday (09/12/14) CM Production had an inspection of the former produced water treatment system with Andrew Poirot – CDPHE WQCD inspector in Steamboat Springs, CO. CM Production has cut the discharge pipes and welded caps on the #3 pit (Facility ID#112267) and boots on the #4 discharge pipe. Mr. Poirot requested that CM Production also cut and weld caps on the discharge piping to the two lower pits (Facility ID#112268 and 112269). This work was finished over the weekend (09/13 and 09/14/2014). The photographs of the cut/capped discharge pipes are attached.

CM Production has constructed a road into pit #6 (Facility #112269) and built a sump to contain the water from which water can be pumped out. The pit base is beginning to dry out. CM Production also tried to build a road into pit #5 (Facility #112268) but the ground was too wet. Olsson Associates and CM Production collected a soil sample from pit #5 to assess the current site conditions. It appeared that the pit has a bentonite liner in the base.

Currently, I am working on the groundwater monitoring report for March and June 2014. The results for both sampling events show that groundwater was not impacted above the Table 910-1 groundwater concentration levels. Olsson personnel will conduct the 3<sup>rd</sup> quarter 2014 groundwater monitoring the week of September 22, 2014.

CM Production obtained an executed waste treatment agreement letter with the surface owner, Silver Spur Land and Cattle, (attached). CM Production and Olsson evaluated the possibility of additional hydrogen peroxide treatment of the impacted soils in the existing stockpile and the remaining pits; however at this time, CM Production will test land farming to reduce the DRO and benzo(a)pyrene in the soil stockpile. The bentonite

liners from pits #5 and #6 will be removed and soil samples will be collected from the base of each of the pits once the pits are dry enough to allow access. Bentonite and impacted soil will be treated in accordance with Rule 907 – Management of E&P Waste and the previously approved From 27 – Site Investigation and Remediation Workplan (May 2014). The soil samples will be submitted for the analysis of the Table 910-1 soil parameters.

James

James W. Hix, PG| **Olsson Associates**

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**Alex Fischer, P.G.**

**Environmental Supervisor, Western Colorado**



**COLORADO**  
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**3 attachments**

**Discharge lines 1.jpeg**





3373K



**Discharge lines 2.jpeg**  
4429K



**Executed Waste Treatment Letter of Agreement.pdf**  
229K

August 4, 2014

Silver Spur Land and Cattle, LLC  
PO Box 714  
Encampment, WY 82325

**RE: Surface Owner Approval to Land Treat Exploration and Production Waste at the Lone Pine Oil Field Production Facility SW ¼ SE ¼ Section 28, Township 9 North, Range 81 West, 6<sup>th</sup> Principal Meridian, Jackson County, Colorado.**

The letter agreement will serve as a follow up to the June 30, 2014, email from CM Production LLC's (CM Production) attorney and subsequent on-site meeting with CM Production and Silver Spur Land and Cattle, LLC (Silver Spur) personnel.

Under the supervision of the Colorado Oil and Gas Conservation Commission (COGCC), CM Production seeks permission from Silver Spur to land treat Exploration and Production Waste contaminated soils on location of the Lone Pine Field Production Facility.

#### **Proposed Land Treatment of Exploration and Production Wastes**

CM Production proposes to continue land treating the pile of existing Exploration and Production (E&P) Waste contaminated soil, left on location by the previous operator, as well as, excavate and land treat other E&P Waste contaminated soils as necessary. The land treatment process will continue until such time as the E&P wastes and impacted soils meet the COGCC Table 910-1 requirements for soil contaminant concentrations or the COGCC and Silver Spur approve a waiver of those requirements.

The proposed treatment area map and Table 910-1 accepted contaminant concentration levels are attached.

#### **Conditions of Approval**

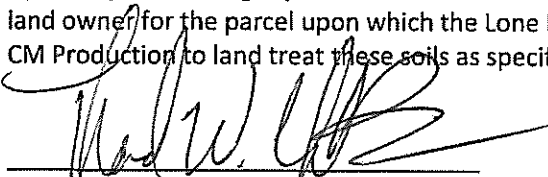
The treatment of contaminated soils may take place on the Lone Pine Oil Field Production Facility within the existing berm west of the main facility road that extends from the Spaulding #14 well location, north of the Spaulding #4 well location; inside pits #1, #2, #3, #4, and #5 (after emptied and dried) and the area west of the excavated pit and pit #3 as shown by the dotted outlines on Figure 1 of this document.

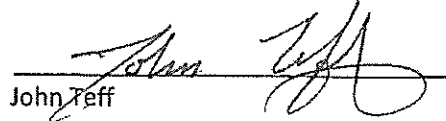
Treatment of all contaminated soils will be accomplished in a proper and environmentally acceptable manner consistent with and subject to COGCC regulations and approval.



**Surface Owner Approval to Land Treat E&P Wastes and Impacted Soils**

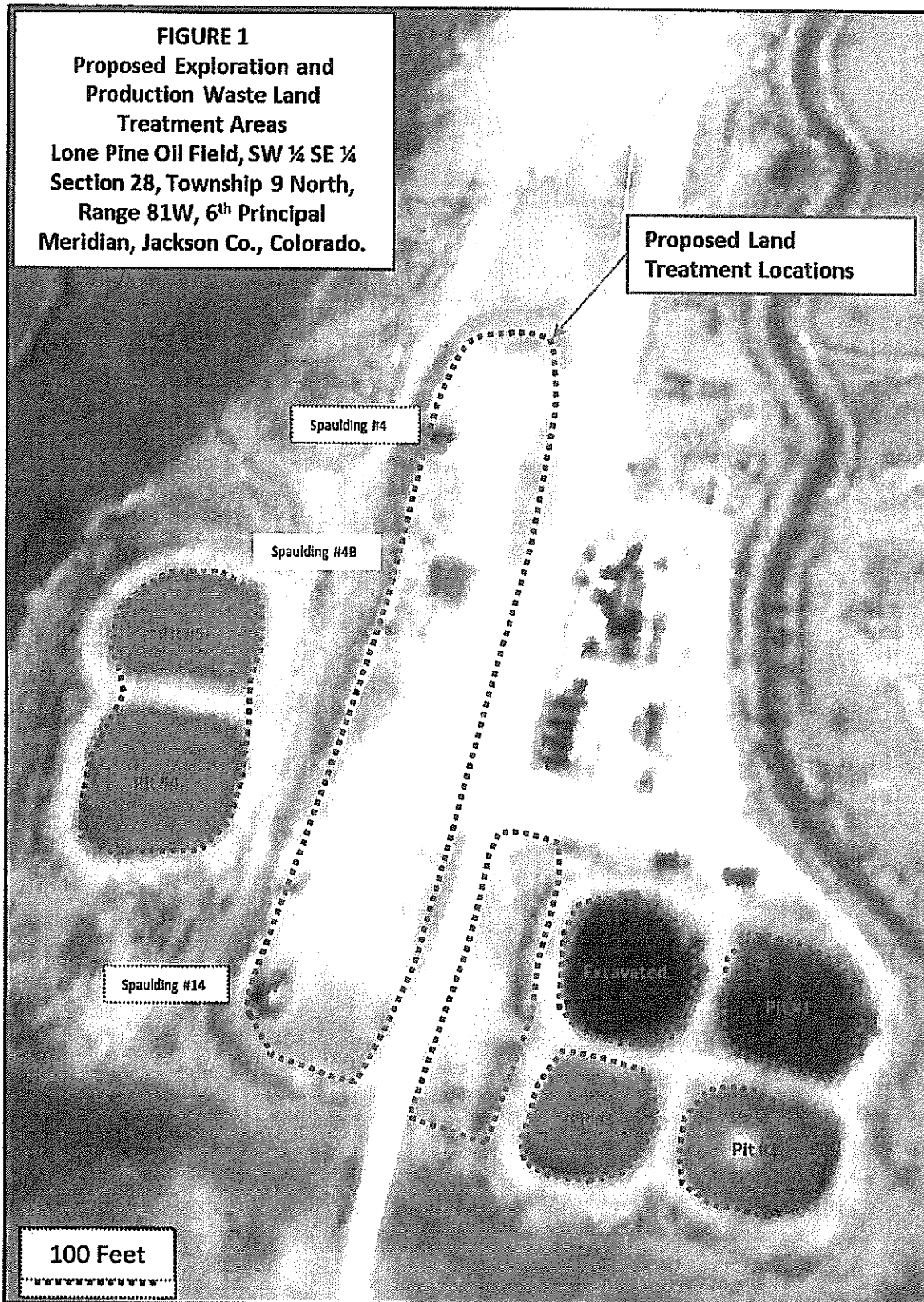
By signing below, I signify that I am the surface owner or an authorized representative of the surface land owner for the parcel upon which the Lone Pine Oil Field Production Facility is located. I authorize CM Production to land treat these soils as specified in this agreement.

  
\_\_\_\_\_  
Thad W York  
Silver Spur Land and Cattle, LLC  
General Manager  
9/3/2014  
\_\_\_\_\_  
Date:

  
\_\_\_\_\_  
John Teff  
Business Manager-CM Production, LLC  
8/13/14  
\_\_\_\_\_  
Date:



# FIGURES



# ATTACHMENTS

Table 910-1  
Concentration Levels

Contaminant of Concern	Concentrations
<b>Organic Compounds in Soil</b>	
TPH (total petroleum hydrocarbons) GRO or DRO	500 mg/kg
Benzene	0.17 mg/kg
Toluene	85 mg/kg
Ethylbenzene	100 mg/kg
Xylenes	175 mg/kg
Acenaphthene	1000 mg/kg
Anthracene	1000 mg/kg
Benzo(A)anthracene	0.22 mg/kg
Benzo(B)fluoranthene	0.22 mg/kg
Benzo(K)fluoranthene	2.2 mg/kg
Benzo(A)pyrene	0.022 mg/kg
Chrysene	22 mg/kg
Dibenzo(A,H)anthracene	0.022 mg/kg
Fluoranthene	1000 mg/kg
Fluorene	1000 mg/kg
Indeno(1,2,3,C,D)pyrene	0.22 mg/kg
Naphthalene	23 mg/kg
Pyrene	1000 mg/kg
<b>Inorganic Compounds in Soil</b>	
Electrical Conductivity (EC)	< 4 mmhos/cm or 2x background
Sodium Adsorption Ratio (SAR)	< 12
pH	6 to 9 standard units
<b>Metals in Soil</b>	
Arsenic	0.39 mg/kg
Barium	15,000 mg/kg
Cadmium	70 mg/kg
Chromium (III)	120,000 mg/kg
Chromium (VI)	23 mg/kg
Copper	3,100 mg/kg
Lead (inorganic)	400 mg/kg
Mercury	23 mg/kg
Nickel (soluble salts)	1,600 mg/kg
Selenium	390 mg/kg
Silver	390 mg/kg
Zinc	23,000 mg/kg







