FORM 19 Rev 8/13

State of Colorado
Oil and Gas Conservation Commission

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Spill report taken by: GINTAUTAS, PETER
Spill/Release Point ID: 443306

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator No: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Person: Sam LaRue

Phone Numbers
Phone: (970) 336-3500
Mobile: (970) 515-1238
Email: Sam.LaRue@anadarko.com

INITIAL SPILL/RELEASE REPORT

Initial Spill/Release Report Doc# 400905110

Initial Report Date: 09/24/2015 Date of Discovery: 09/24/2015 Spill Type: Historical Release

Spill/Release Point Location:

Locationof Spill/Release: QTRQTR NENE SEC 14 TWP 3N RNG 67W MERIDIAN 6
Latitude: 40.230838 Longitude: -104.848619
`Municipality (if within municipal boundaries): County: WELD

Reference Location:

Facility Type: TANK BATTERY ☒ Facility/Location ID No 330941
☐ No Existing Facility or Location ID No.
☐ Well API No. (Only if the reference facility is well) 05- -

Fluid(s) Spilled/Released (please answer Yes/No):

Was one (1) barrel or more spilled outside of berms or secondary containment? Yes

*Secondary containment, **including walls & floor regardless of construction material**, must be sufficiently impervious to contain any discharge from primary containment until cleanup occurs.*

Were Five (5) barrels or more spilled? No

Estimated Total Spill Volume: use same ranges as others for values

Estimated Oil Spill Volume(bbl): 0 Estimated Condensate Spill Volume(bbl): Unknown
Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Produced Water Spill Volume(bbl): Unknown
Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drilling Fluid Spill Volume(bbl): 0
Specify:

Land Use:

Current Land Use: CROP LAND Other(Specify):
Weather Condition: 80's, Sunny.
Surface Owner: FEE Other(Specify):

Check if impacted or threatened by spill/Release (please answer Yes/No to all that apply):

Waters of the State ☒ Residence/Occupied Structure ☐ Livestock ☐ Public Byway ☐ Surface Water Supply Area ☐
As defined in COGCC 100-Series Rules

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered):

During tank battery construction activities, historical impacts were discovered beneath the produced water sump at the HSR-Ferme Farms-63N67W/14NENE production facility. Approximately 20 loads of impacted material were excavated and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal. Groundwater was encountered within the excavation at approximately 6 feet below ground surface (bgs). Approximately 20 barrels of groundwater were removed via vacuum truck and transported to a licensed injection facility for disposal. A groundwater sample (GW01) was subsequently collected on September 23, 2015, from the excavation area and submitted to Origins Laboratory for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by USEPA Method 8260C. Analytical results received on September 24, 2015, indicated that BTEX concentrations in groundwater sample GW01 were above the applicable COGCC Table 910-1 groundwater standards.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

Date	Agency/Party	Contact	Phone	Response
9/24/2015	County	Roy Rudisill	--Email	
9/24/2015	County	Troy Swain	--Email	
9/24/2015	Private	Land Owner	--Mail	

SPILL/RELEASE DETAIL REPORTS

#1 Supplemental Report Date: 09/30/2015

FLUIDS	BBL's SPILLED	BBL's RECOVERED	Unknown
OIL	0	0	☐
CONDENSATE			☒
PRODUCED WATER			☒
DRILLING FLUID	0	0	☐
FLOW BACK FLUID	0	0	☐
OTHER E&P WASTE	0	0	☐

specify:

Was spill/release completely contained within berms or secondary containment? NO Was an Emergency Pit constructed? NO

*Secondary containment, **including walls & floor regardless of construction material**, must be sufficiently impervious to contain any discharge from primary containment until cleanup occurs.*

A Form 15 Pit Report shall be submitted within 30 calendar days after the construction of an emergency pit

Impacted Media (Check all that apply) ☒ Soil ☒ Groundwater ☐ Surface Water ☐ Dry Drainage Feature

Surface Area Impacted: Length of Impact (feet): 30 Width of Impact (feet): 28

Depth of Impact (feet BGS): 6 Depth of Impact (inches BGS):

How was extent determined?

On September 23, 2015, historical impacts were discovered beneath the produced water sump during tank battery construction activities at the HSR-Ferme Farms-63N67W/14NENE production facility. Approximately 190 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for disposal. Excavation activities were guided in the field by screening soil for volatile organic compound (VOC) concentrations using a photoionization detector (PID). Four (4) soil samples were collected from the final extent of the excavation area at approximately 5 feet below ground surface (bgs). Soil samples were submitted to Origins Laboratory in Denver, Colorado for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) by USEPA Method 8260C, TPH - diesel and oil range organics (DRO and ORO) by USEPA Method 8015, electrical conductivity (EC), and pH. Analytical results indicated that constituent concentrations in soil samples collected from the final extent of the excavation area were below the applicable COGCC Table 910-1 standards. Groundwater was encountered within the excavation at approximately 6 ft. bgs. Approximately 20 barrels of groundwater were removed via vacuum truck and transported to a licensed injection facility for disposal. A groundwater sample (GW01) was subsequently collected on September 23, 2015, and submitted to Origins Laboratory for analysis of BTEX by USEPA Method 8260C. Analytical results indicated that benzene, toluene, and total xylenes concentrations in groundwater sample GW01 were above the applicable COGCC Table 910-1 groundwater standards. Following the initial sampling event, approximately 240 barrels of groundwater were additionally removed via vacuum truck and transported to a licensed injection facility for disposal.

Soil/Geology Description:

Sand.

Depth to Groundwater (feet BGS) 6 Number Water Wells within 1/2 mile radius: 26

If less than 1 mile, distance in feet to nearest Water Well 170 None ☐ Surface Water 1360 None ☐

Wetlands None ☒ Springs None ☒

Livestock 850 None ☐ Occupied Building 475 None ☐

Additional Spill Details Not Provided Above:

A second groundwater sample (GW02) was subsequently collected from the excavation on September 28, 2015, and submitted for laboratory analysis of BTEX. Analytical results indicated that the benzene concentration in groundwater sample GW02 remained above the applicable regulatory standard. Prior to backfilling the excavation, approximately 165 pounds of activated carbon were introduced to the groundwater table to mitigate aqueous phase hydrocarbon impacts. Soil and groundwater analytical results are summarized in Table 1 and Table 2, respectively. Sample locations are illustrated in Figure 2.

CORRECTIVE ACTIONS

#1 Supplemental Report Date: 09/30/2015

Cause of Spill (Check all that apply) ☐ Human Error ☐ Equipment Failure ☒ Historical-Unknown

☐ Other (specify)

Describe Incident & Root Cause (include specific equipment and point of failure)

Historical impacts were discovered during the replacement of the produced water sump at the HSR-Ferme Farms-63N67W/14NENE production facility. All associated fittings and equipment were working properly and showed no indication of leaking.

Describe measures taken to prevent the problem(s) from reoccurring:

The tank battery will be re-built with a geo-synthetic liner and a double-walled fiberglass produced water sump.

Volume of Soil Excavated (cubic yards): 190

Disposition of Excavated Soil (attach documentation) ☒ Offsite Disposal ☐ Onsite Treatment

☐ Other (specify)

Volume of Impacted Ground Water Removed (bbls): 260

Volume of Impacted Surface Water Removed (bbls): 0

REQUEST FOR CLOSURE

Spill/Release Reports should be closed when impacts have been remediated or when further investigation and corrective actions will take place under an approved Form 27.

Basis for Closure: ☐ Corrective Actions Completed (documentation attached)

☐ Work proceeding under an approved Form 27

Form 27 Remediation Project No:

OPERATOR COMMENTS:

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Print Name: Sam LaRue

Title: Senior HSE Representative Date: 10/02/2015 Email: Sam.LaRue@anadarko.com

COA Type	Description

Attachment Check List

Att Doc Num	Name
400908576	FORM 19 SUBMITTED
400909047	ANALYTICAL RESULTS
400909049	SITE MAP
400909068	TOPOGRAPHIC MAP

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date

Total: 0 comment(s)