UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: **POLREP #2**
Final POLREP
E17621 - Spike Drilling Tank Battery Oil Spill

Damon, TX
Latitude: 29.3060170 Longitude: -95.6681250

To: Reggie Cheatham, Office of Emergency Management
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From: Roberto Bernier, FOSC
Date: 6/29/2017
Reporting Period: 11 -13 June 2017

1. Introduction

1.1 Background

Site Number:		**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	
NPL Status:		**Operable Unit:**	
Mobilization Date:	6/9/2017	**Start Date:**	6/4/2017
Demob Date:		**Completion Date:**	7/1/2017
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:	E17621	**Reimbursable Account #:**	

1.1.1 Incident Category
Oil Spill and Discharge. RP lead Emergency Response.

1.1.2 Site Description
The facility is an inactive tank battery consisting of 4 tanks, 2 for produced water and 2 for crude oil with no secondary containment around the tanks. The incident was not reported to the NRC. On June 9, almost a week after the spill, a game warden with TX Parks & Wildlife call the EPA-R6 Emergency Management Branch and requested assistance with the response.

1.1.2.1 Location
The tank battery is located near the end of Knolle Road, Damon, Fort Bend County, Texas (latitude 29.306017, longitude -95.668125). The area is rural with scattered residences. The closest residence is 1200 feet to the east of the tanks.

1.1.2.2 Description of Threat
The spill pathway is overland to a drainage swale and west to roadside ditches along Knolle Road and an unnamed creek. The unnamed creek discharges to Cow Creek, then to Turkey Creek, a tributary to the Brazos River. The crude oil followed the spill pathway approximately 0.6 miles before it entered Cow Creek. Approximately 4 miles of Cow Creek was impacted. Oil staining was observed on the banks of Cow Creek to where it meets turkey Creek within 3.3 miles of the Brazos River that flows into the Gulf of New Mexico. Cow Creek flows year around and is a waters of the United States.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
START arrived on site the afternoon of June 9, with the FOSC arriving in the morning of June 10. The spill occurred through a failed fitting on one of the produced water tanks. The spill initially impacted the adjacent hay field and surface drainage features to the west of the tank battery. Rain fall on the evening of June 4th caused the spilled oil travel through the drainage ditches, an unnamed creek, and into Cow Creek. Approximately 4.3 miles of Cow Creek have been impacted and still had pockets of oil . The impact is from the culvert where the spill entered the creek to the confluence with Turkey Creek. The RP's response contractor was currently washing and flushing the banks of Cow Creek and the drainage upstream from the creek, and collecting oil from the hay field. The majority of the affected soil in the hay field had been scraped and staged by the tank battery to later determine the best course of action in consultation with the State.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
On Sunday June 4, 2017, a spill occurred releasing an estimated 130 Barrels of crude oil and 130 barrels of produced water. The spill impacted the field and drainages to the west of the tank battery. That evening heavy rains moved oil into Cow Creek.

2.1.2 Response Actions to Date

A response contractor has been retained by RP representatives. They have added booms along the entire affected path of the discharge to prevent oil from traveling further downstream. Sixteen loads of oil water mixture has been removed and sent to a disposal facility and 2 roll off boxes have been filled with impacted soil. Pockets of free oil is being removed from the field with vacuum trucks as it seeps to collection points. The banks of the unnamed creek and Cow Creek are being washed to move oil to collection points. Four collection points have been established in Cow Creek and one in the unnamed creek.

As of June 10, the contractor has increased the number of response personnel to 83, mostly to address the remaining oil staining on the banks and recover a few pockets of weathered oil along the impacted length of creek. At this time the main activity is washing and flushing the creek banks to prevent additional oil bleeding from stained vegetation. The banks are at a 45 degree or less angle and lined with mowed grass, thus easily accessible by the crews. Although pockets of oil remain in the creek, the main impact appears to be oil stained grass on the creek banks between 6" to as wide as 2 feet in at least 2 to 3 miles of creek (bathtub ring effect). The oil stained grass is scattered in creek sections with some weathered oil scattered in small pockets at various locations. In anticipation of heavy rains, a barrier berm is being built on the field at the tank battery site to prevent runoff that could come into contact with contaminated soil from reaching the drainage ditch that leads into the creek. The field is where the majority of the free oil was initially recovered. A soil remediation plan is being developed by the TX Railroad Commission (TRRC) who regulates oil and gas production in the state.

On June 11, response crews return to the unnamed creek that connects the roadside ditches to Cow Creek (upper portion of the spill pathway) to resume recovery operations from scattered pockets of oil. This activity was put on hold for about a day to focus the available resources on Cow Creek. After trying to flush the section with fresh water to move the remaining oil to a collection point proved inefficient, the crews utilized absorbent pads to remove the remaining fresh oil. In addition, the stained vegetation believed to be the source of the oil continuing to re-appear in pockets was manually removed and bagged for disposal. Washing of the banks on Cow Creek continued in the most downstream portions with recovery of residual emulsified oil on a few small pockets at two of the collection points. Throughout the day, the FOSC met representatives from the TX Railroad Commission, TX Fish & Wildlife, and the Fort Bend County Drainage District to exchange expectations and discuss progress. All partnering agencies agreed that oil recovery operations were almost completed and that the response could move into a maintenance phase. The FOSC discussed the soil remediation plan for the field around the tank battery with the TRRC and the RP and all agreed to move forward.

As of June 12, the response contractor had significantly reduced the number of resources and was preparing the re-set booms on the creek for a maintenance phase. A crew returned to the unnamed creek to continue removing any oil still trapped in the vegetation. After another assessment of the affected field, ditches and the affected length of the creek, the FOSC demobed from the site but tasked START to return the next day for a final site walk and to document the initial phase of the soil remediation activities.

On June 13, the oil impacted soil stockpiled by the tank battery was spread out and treated with DISPLEX^{tm}, a non-toxic, biodegradable organic solvent and hydrocarbon breaker. In addition, a crew returned to the unnamed creek to complete the removal of a few small pockets of trapped oil within the vegetation in the creek. START demobed from the site.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The responsible party is the owner and/or operator of the tank battery identified as Spike Drilling & Operating LLC, out of Connecticut

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Oil & Produced Water	soil & water	2,080 bbls			XX
Contaminated Soil	soil	30 cu/yds			XX

2.2 Planning Section

2.2.1 Anticipated Activities

None, the EPA team demob from the site and the TRRC will oversee the soil remediation activities.

2.2.1.1 Planned Response Activities

The RP will keep resources available in case any recoverable oil is found. The response is moving into a maintenance phase.

2.2.1.2 Next Steps

Maintenance phase by leaving booms in place and collecting any accumulated oil at collection points from expected bleeding effect. A soil remediation plan is in place and coordinated by with the TRRC.

2.2.2 Issues

None

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Texas Railroad Commission
Texas Parks and Wildlife
Fort Bend County Emergency Manager
Fort Bend County Environmental District
Fort Bend County Drainage District

4. Personnel On Site

EPA FOSC - 1
EPA START - 2
TRRC - 1
TX P&W - 1
Fort Bend Co. Drainage District - 2

RP Response Contractor - 42

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

https://response.epa.gov/site/sitrep_profile.aspx?site_id=12235&counter=28805

6.2 Reporting Schedule

7. Situational Reference Materials

No information available at this time.