

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Chevron-Willard Bay Oil - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VIII

**Subject:** POLREP #6  
Progress Polrep  
Chevron-Willard Bay Oil

Box Elder, UT  
Latitude: 41.3777102 Longitude: -112.0414925

**To:**  
**From:** Curtis Kimbel, OSC  
Joyel Dhieux, OSC  
**Date:** 4/30/2013  
**Reporting Period:** 4/3/2013 - 4/30/2013

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	Z8EP	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	OPA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	3/18/2013	<b>Start Date:</b>	3/18/2013
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>	E13807	<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency Response, Oil  
Major Inland Spill  
RP Lead

#### 1.1.2 Site Description

On March 18, 2013, at 2045 MDT Chevron Pipeline notified the NRC that they had a break in an 8" transmission line near Box Elder, Utah. The report indicated that a "significant" amount of diesel fuel had been discharged into a ditch that runs adjacent to, and then into Willard Bay Reservoir, which borders on the Great Salt Lake. The pipeline break was due to a cracked seam, and is located roughly 1/4 mile to the east of the reservoir shoreline. The cracked seam in the pipeline is approximately 74 inches in length. **Chevron currently estimates that approximately 485 bbls were released from the cracked seam.** This estimate is lower than the approximately 600 - 650 bbls originally estimated.

Chevron Pipeline took immediate action to secure the pipeline and shortly thereafter initiated countermeasures. Most of the diesel fuel was trapped behind a series of check dams and boom placed throughout the ditch. Containment boom was placed along the shoreline of Willard Bay Reservoir to keep the diesel from entering the main body of the reservoir. Vacuum trucks began removing diesel on the evening of March 18, 2013, and countermeasures continue.

Unified Command, including US EPA, state of Utah, and Chevron Pipeline, was established on Tuesday, March 19, 2013. UDEQ Drinking Water, Utah DNR, BOR, and FWS arrived on site Tuesday, March 19, 2013.

##### 1.1.2.1 Location

The pipeline break occurred approximately 1/4 mile to the east of the Willard Bay Reservoir, located adjacent to Willard Bay in the northeast portion of the Great Salt Lake. The spill site is within Willard Bay State Park located approximately eight miles north of the city of Ogden.

##### 1.1.2.2 Description of Threat

Diesel fuel accumulated in a drainage ditch and wetland area adjacent to Willard Bay Reservoir. Although initial response actions by Chevron appear to have contained most of the diesel fuel discharge, some fuel did reach the Willard Bay Reservoir shoreline. Booms were placed approximately 10 feet from the shoreline in an effort to contain the diesel and preclude it from entering the main water body of the Willard Bay Reservoir. In addition to being a supply of fresh drinking water, the Willard Bay Reservoir and adjoining shoreline provides critical habitat for migratory birds and waterfowl. The spill site is within Willard Bay State Park which is a popular destination for camping, fishing, boating and outdoor recreation.

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Significant amounts of diesel fuel have been discharged into a wetland area, and some has reached the edge of the shoreline of Willard Bay Reservoir. Boom placed along the shoreline at a distance of approximately 10 feet from shore appears, via visual inspection, to have contained fuel from entering the main water body of Willard Bay Reservoir. The shoreline remains very shallow as it departs from the wetland at a depth of several inches for some distance before reaching the main water body of Willard Bay Reservoir.

**Sampling results reveal trace amounts of hydrocarbons outside of the containment boom. However, concentrations of hydrocarbons both inside and outside of the containment boom have been decreasing since March 23, 2013. There have been no detections above drinking water standards in Willard Bay Reservoir. The state of Utah will continue to post sampling results to their website (See: <http://www.deq.utah.gov/locations/willardbay/willardbay.htm>).** Several additional sampling locations outside of the boom have been identified for daily sampling. The samples are taken approximately 30 feet from the shoreline at a water depth between 12 - 18 inches.

Six beavers were captured by Utah Department of Natural Resources and are being rehabilitated at the Wildlife Rehabilitation Center of Northern Utah in Ogden. The beavers were soiled with diesel fuel and required cleaning. **The Utah Department of Natural Resources expects to release the beavers to the wild in mid-May.** Other observed wildlife include nonpoisonous snakes, rodents, as well as deer. Migratory fowl have been observed in Willard Bay outside of the site. **Seven deceased birds, five mammals, 1574 fish, seven amphibians, one reptile and three crustaceans have been recovered.** The majority of the deceased fish were identified as three-fin stickleback, a non-native invasive species. All effected wildlife are collected by Utah Department of Natural Resources personnel.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Response Actions to Date

Chevron Pipeline brought in several well equipped response contractors. Crews worked 24 hours a day at the site. The spill site was divided into five areas, each with its own team and section manager. Several hard booms and check dams were placed along the drainage ditch leading to Willard Bay Reservoir with underflow dams installed in strategic areas. As of March 27, 2013, 2,070 feet of boom had been deployed. The boom placed in Willard Bay as a last line of defense remains in place as clean-up activities near completion.

Crews actively used vacuum trucks to recover diesel fuel. The collected fuel/water or fuel/soil mix was taken to Chevron's refinery in North Salt Lake City for quantification and processing. The amount of diesel recovered by the vacuum trucks has decreased since the first week of the spill.

Bulk diesel recovery resulted in significantly reduced quantities of product and was augmented with low volume flushing to move material to areas where it can be removed via skimming. Clipping, cutting and bagging of contaminated vegetation was completed based on feedback from the Shoreline Cleanup and Assessment Technique (SCAT) Team. State and federal partners working with Chevron Pipeline agreed on a work plan for Divisions 1, 2, 3 and 5 employing a flush, cut and bag approach along with minimal excavating in areas approved by Utah DNR. A work plan for the wetland area in Divisions 3 and 4 was approved March 26, 2013. The plans were designed to remove as much residual diesel from the impacted wetland and shoreline areas as possible, while minimizing the damage the response efforts cause to the area. These activities will be followed by a re-vegetation/rehabilitation effort.

A french drain and monitoring wells were installed along the beach to collect and assess diesel that may be moving through the sand and gravel banks towards the bay. Free product was detected in several of the monitoring wells suggesting that a pocket of diesel may be trapped in the beach and moving towards the reservoir. Based on this sampling data, the Unified Command approved a plan to excavate the contaminated section of the beach and replace the area with clean sand. The contaminated beach area has been excavated and refilled. In addition, contaminated soils were strategically removed from one of the wetland ponds with Unified Command approval.

At the request of Tribal partners, the Bureau of Reclamation provided an archeologist to oversee any excavation at the site to ensure any Native American artifacts and/or unmarked burial sites are not disturbed. According to reports from the local Tribe, two sets of skeletal remains have been discovered in the past near Willard Bay State Park.

**As of April 30, 2013, Chevron estimates cleanup efforts have collected 482 bbls of diesel. There is an estimated 3 bbls of diesel remaining. This estimate has fluctuated as Chevron re-calibrated the estimation methodology and separately accounted for the diesel that was directly removed from the pipeline section.** Specifically, Chevron revised the estimate down from 644 bbls previously reported. The discrepancy is due to readings recorded before recovered material had properly settled in collection tanks. A revised measurement plan that allows product to settle for 24 hours before measurement is now in place. Chevron will also confirm measurements at their Salt Lake City refinery, where the material

is being shipped. After further observation of diesel settling in the tanks for an additional 24 hours (48 hours total), it was determined that 24 hours is sufficient settling time to get an accurate measurement based on the time it takes material to separate.

A sampling protocol has been implemented in which UDEQ Division of Water Quality will take custody of samples, deliver them to the lab, analyze/QC the data, and provide data to the public. On March 22 Unified Command reviewed the sampling plan based on initial results to increase sampling locations outside of the booms within Willard Bay Reservoir and to incorporate groundwater sampling into the plan. The sampling results are being made available to the public through the UDEQ. A longer term sampling plan is under development with the UDEQ.

**On Friday, April 26, 2013, the Unified Command approved a plan to install water control structures in order to refill the wetlands to their previous capacity. The water control structures will replace the beaver dams that were removed due to contamination and are necessary to maintain the existing wetlands. In addition, the Unified Command approved a wetland vegetation and re-seeding plan.**

On Saturday, March 23, Chevron completed initial repair work on the damaged portion of the pipeline under direction from DOT and the State. Under direction of PHMSA, the pipeline began flowing at 80 percent capacity on Sunday, March 31, 2013. **Chevron completed a hydrostatic test of the pipeline on April 29, 2013. The pipeline failed the spike test. Additional repairs and testing of the pipeline will be required.**

Six beavers have been captured, five of which were soiled with diesel fuel. The beavers were transported to the nearby Ogden Wildlife Rehabilitation for observation and cleaning. The wildlife rescue center is cautiously optimistic that all of the beavers will recover. Utah DNR has continued to assess beaver lodges within the park to determine if additional offspring or adults have been affected or abandoned. **Utah DNR expects to release the beavers to the wild by mid-May. The beavers will not be released back to the Willard Bay site.**

Incident Action Plan for operational period 4 has been approved by Unified Command and runs from **April 1 0700 to May 1, 2013 0700. A new Incident Action Plan will be developed for operational period 5 from May 1 to May 31, 2013.**

#### **2.1.2 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

Chevron Pipeline owns the pipeline in question and is furnishing the majority of response assets for the spill response.

### **2.2 Planning Section**

#### **2.2.1 Anticipated Activities**

##### **2.2.1.1 Planned Response Activities**

Crews will continue recovering diesel-contaminated materials as the clean-up phase nears completion. Water control structures approved by the Unified Command will be installed. The wetlands will be refilled to prior water levels and replanted. Groundwater and surface water sampling will continue.

##### **2.2.1.2 Next Steps**

Unified Command has developed the mitigation plan, sampling plan and wildlife plan in conjunction with Unified Command partners while continuing current operations. A site restoration plan is under review by the Unified Command, State and Federal partners.

**A new 30 Day IAP cycle will begin on Wednesday May 1, 2013. OSC Kimbel and OSC Dhieux continue to monitor the site from Denver. Beginning April 29, 2013, the Unified Command is meeting twice a week via conference call.**

Willard Bay Parks and Rec personnel placed buoys in the reservoir to keep boat traffic clear of the site and will monitor the area with a patrol boat during daylight hours. The picnic areas and marina located adjacent to the site will remain closed to the public.

##### **2.2.2 Issues**

Because of the high value habitat the area provides, coupled with the fast approaching Spring migratory bird nesting season, response efforts must be expedited with care so as to minimize damage to habitat. The Unified Command is working with affected Natural Resource Trustees to develop the proper path to this end.

### **2.3 Logistics Section**

NA

### **2.4 Finance Section**

No information available at this time.

### **2.5 Other Command Staff**

#### **2.5.1 Safety Officer**

START and Chevron contractors are providing general health and safety monitoring. To date there are no significant incidents to report.

#### **2.5.2 Liaison Officer**

Many participating agencies (see roster next section) and stakeholders are providing input to the spill response.

#### **2.5.3 Information Officer**

EPA PIO Matthew Allen was deployed to the site to assist with media and public information efforts. EPA PIO Allen returned to Denver on March 28, 2013, and continues to be engaged.

### **3. Participating Entities**

#### **3.1 Unified Command**

EPA, UDEQ, and Chevron Pipeline are running Unified Command

#### **3.2 Cooperating Agencies**

Utah DEQ  
Utah DNR  
Utah Parks and Recreation  
BOR  
DOI  
US FWS  
DOT PHMSA

### **4. Personnel On Site**

EPA	0 (OSC Dhieux and OSC Kimbel are monitoring the site from Denver.)
START	0
Chevron	65
UDEQ	3
UDNR	4
BOR	2
FWS	1
PHMSA	0

### **5. Definition of Terms**

No information available at this time.

### **6. Additional sources of information**

#### **6.1 Internet location of additional information/report**

EPA  
[www.epaossc.org/chevronwillardbayoil](http://www.epaossc.org/chevronwillardbayoil)

UT DEQ  
<http://www.deq.utah.gov/locations/willardbay/willardbay.htm>

#### **6.2 Reporting Schedule**

The next Polrep will be provided when additional information is available.

### **7. Situational Reference Materials**

No information available at this time.