

# Oil Field Environmental Incident Summary

**Incident:** 20160810084848      **Date/Time of Notice:** 08/10/2016 08:48  
**Responsible Party:** DENBURY ONSHORE, LLC  
**Well Operator:** DENBURY ONSHORE, LLC  
**Well Name:** CHSU ERICKSON 14-22NH 15  
**Field Name:** CEDAR HILLS      **Well File #:** 13965  
**Date Incident:** 8/9/2016      **Time Incident:** 11:10      **Facility ID Number:**  
**County:** BOWMAN      **Twp:** 131      **Rng:** 105      **Sec:** 22      **Qtr:**  
**Location Description:** 1000 feet North, 200 feet West

**Submitted By:** Mark VanGrinsven      **Received By:**  
**Contact Person:** mark vangrinsven  
5320 LEGACY DR  
PLANO, TX 75024-3127

**General Land Use:** Pasture      **Affected Medium:** Topsoil

**Distance Nearest Occupied Building:** 1000 Feet  
**Distance Nearest Water Well:** 1000 Feet

**Type of Incident:** Pipeline Leak

**Release Contained in Dike:** No      **Reported to NRC:** No  
**Spilled    Units                      Recovered    Units                      Followup    Units**

**Oil**

<b>Brine</b>	<b>4000</b>	<b>Barrels</b>	<b>3700</b>	<b>Barrels</b>	<b>3700</b>	<b>barrels</b>
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**Other**

**Description of Other Released Contaminant:**

This was a mixture of Source water and production water.

**Inspected:**      **Written Report Received:** 1/11/2017      **Clean Up Concluded:** 8/19/2016

**Risk Evaluation:**

Field tests showed chlorides ranging from 700ppm to 2000ppm. Fluids are being recovered via vacuum trucks

**Areal Extent:**

1/4 mile as the crow flies to the North West and 2 miles along a winding creek bed

**Potential Environmental Impacts:**

Fluids remained in a dry creek bed. Standing fluids will be recovered and impacted areas will be flushed with fresh water

**Action Taken or Planned:**

Four dikes were constructed along the flow line of the creek bed to capture standing fluids. Standing fluids are being recovered via vacuum trucks and impacted areas will be flushed with fresh water.

**Wastes Disposal Location:** Recovered water was hauled to water storage tanks

**Agencies Involved:**

**Updates**

**Date:** 8/10/2016    **Status:** Inspection

**Author:** Schiermeister, Robin

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

Arrived on location at 9:30, 8-10-2016.

Met with company representative who explained that there was a pipeline break where 4,000 barrels of brine were released, flowing downhill to a dry creek that flows through the land below. The company representative said that the brine was pumped out of the creek. However, before they could flush the creek with water, it rained on August 10, 2016. The company representative and company contractors believe that this was sufficient and have tested the water of the creek for contaminants. The Quantab Chloride Test Strips shown by the contractor did not show significant contamination. Further Quantab Chloride Test Strip tests were taken upstream and downstream (N46°9'33.887"W-103°47'56.511") with approximately a half mile between sites showing results of 247 parts per million (ppm) and 413 ppm, respectively. Following the creek bed, five soil dams were built with the third one partially destroyed from the rain. Samples of water were taken from these locations with an extra one taken 1 mile along the creek bed. Below is a list of locations from where water samples were taken:

- 1 mile along creek bed (N46°9'33.887"W-103°47'56.511")
- 1.7 miles along creek bed (N46°9'41.837"W-103°47'4.501")
- 2 miles along creek bed (N49°9'41.335"W-103°48'8.51") near third dam
- 3 miles along creek bed (N49°9'41.874"W-103°48'4.49") near fifth dam

The background and the locations where the water samples were taken were tested with a conductivity probe as well. The background was around 500 to 600 microsiemens consistently following the creek bed for 3 miles. Below is the list of locations where probe readings of the water samples were taken:

- 1 mile along creek bed (N46°9'33.887"W-103°47'56.511") - 3.1 millisiemens
- 1.7 miles along creek bed (N46°9'41.837"W-103°47'4.501") - 2.32 millisiemens
- 2 miles along creek bed (N49°9'41.335"W-103°48'8.51") near third dam - 2.33 millisiemens
- 3 miles along creek bed (N49°9'41.874"W-103°48'4.49") near fifth dam - 2.52 millisiemens

Soil samples were also taken at the above locations, with another sample taken at the actual break of the pipeline. At the break of the pipeline there was a reading of 3.55 millisiemens.

Further follow-up is required.

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**Date:** 8/10/2016    **Status:** Reviewed - Follow-up Required

**Author:** Crowdus, Kory

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

Release impacted areas off location. Follow-up is required.

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**Date:** 11/4/2016    **Status:** Inspection

**Author:** Martin, Russell

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

11/3/2016 at 18:30, on location. Due to lack of remaining daylight, could not walk entire creekbed. Will request report from responsible party.

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**Date:** 12/16/2016    **Status:** Correspondence

**Author:** Martin, Russell

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

Received update on cleanup. Responsible party has received lab results for sampling conducted; will be sending results to the NDDoH. Topsoil will be replaced at line excavation and reseeded, as well as in the creek where dams were constructed, at landowner request. More follow-up required next summer to document recovery of vegetation and effectiveness of remediation.

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**Date:** 12/29/2016 **Status:** Correspondence

**Author:** Martin, Russell

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

Received follow-up report on incident from responsible party.