

# Oil Field Environmental Incident Summary

**Incident:** 20140805125954      **Date/Time of Notice:** 08/05/2014 12:59

**Responsible Party:** Taqa North

**Well Operator:** TAQA NORTH USA, INC.

**Well Name:** RIVAL MADISON UNIT 22R

**Field Name:** RIVAL

**Well File #:** 14561

**Date Incident:** 8/4/2014      **Time Incident:** 13:25

**Facility ID Number:**

**County:** BURKE

**Twp:** 163

**Rng:** 92

**Sec:** 34

**Qtr:** NE NE

**Location Description:** This is the main injection line from Battery 3 to injection wells. Line leaked on edge of slough. Closest well is the Rival Madison Unit 22R

**Submitted By:** Casey Elm

**Received By:**

**Contact Person:** Wes Bell  
7400 E Caley Ave Ste 200  
WAS:PRIMEWEST PETROLEUM, INC  
Centennial, CO 80111

**General Land Use:** Other - Described Above

**Affected Medium:** Soil and Water

**Distance Nearest Occupied Building:**

**Distance Nearest Water Well:**

**Type of Incident:** Pipeline Leak

**Release Contained in Dike:** Unknown

**Reported to NRC:** Yes

|  | Spilled | Units | Recovered | Units | Followup | Units |
|--|---------|-------|-----------|-------|----------|-------|
|--|---------|-------|-----------|-------|----------|-------|

Oil

|       |     |         |  |  |  |  |
|-------|-----|---------|--|--|--|--|
| Brine | 100 | Barrels |  |  |  |  |
|-------|-----|---------|--|--|--|--|

Other

**Description of Other Released Contaminant:**

**Inspected:**

**Written Report Received:**

**Clean Up Concluded:**

**Risk Evaluation:**

Brine water escaping into surface water

**Areal Extent:**

**Potential Environmental Impacts:**

Surface water, vegetation and soils

**Action Taken or Planned:**

Isolated line and notified all government agencies. Clean up impacted area

**Wastes Disposal Location:**

**Agencies Involved:**

**Updates**

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**Date:** 8/5/2014    **Status:** Inspection

**Author:** Roberts, Kris

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

8/5/14 - 13:00 approximately, on location. Release into a very large prairie pothole slough. Environmental consultant on location evaluating and constructing a response plan. Company has vacuum trucks and work crew to recover as much salt water as possible and to clean up residual oil that also escaped at the leak location. Environmental consultant will be mapping extent of contamination and submitting a work plan to the NDDoH.

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**Date:** 9/10/2014    **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 9:25, off site 9:55, mostly cloudy, 37 degrees, wind 10 mph NE. Crew on site. Wetland divided into north and south halves by road. Spill on north half. Connection between two appears to be blocked by plugging culverts. Staff and rain gauges in both, as well as adjacent wetlands. Water barriers in north wetland to the northwest and south wetland to the southeast. Pumping water from north wetland into a series of frac tanks. From frac tanks to injection well approximately 1/4 mile to the east. Pumping an average of 1,100 barrels a day.

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**Date:** 10/14/2014 **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 8:10, off site 10:00. Partly cloudy with wind south at 5 mph and 39 degrees. Met with Brent Baumann (Tetrtech) and Paul Bourget (TAGA) and reviewed progress on assessment and remediation activities. Assessment activities are continuing to fill in missing data gaps (primarily testing for chlorides and measuring specific conductance). Results to date have been supplied to the NDDoH and updated regularly. Additional sampling planned to characterize subsurface soil condition. Remediation pumping is active and ranges from an estimated 400 to 1000 barrels/day. Sump and pump is located in north wetland. Impacted waters are contained with barrier fence. Water from south wetland flowing into north wetland. North wetland has been noticeably drawn down.

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**Date:** 3/17/2015 **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 12:00, off site 13:50, clear, light winds, cool. Site looks clean and tidy for the winter shutdown. Intended to sample from multiple areas, but the ice was too thin to walk on. Collected three samples from the north wetland. Will return when ice is thawed.

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**Date:** 5/28/2015    **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 11:30, 70 degrees, wind 5 mph NE, 100% overcast. Inspected site. Manifold is in south ditch. Constructed of PVC and attached to pump, this manifold is designed to pull waters from the south road ditch north and east to injection well. Pump attached to manifold in south ditch was not operating at time of inspection; however, pump on north side of road was running, and I believe these are connected. Site is clean and tidy. Scattered thin sheen(s) in north wetland along both 103rd Street and 86th Avenue. Cattails on edge of roadway and outside barrow ditch are starting to green up. The majority of cattails are either still dormant or dead. Many aquatic and shoreline birds (i.e., ducks, grebes, ibis, sandpipers, avocets) using wetland. Did not see any invertebrates or mammals, but did see muskrat tracks. Collected photographs and three sets of water quality samples: (1) near pump on north side of 103rd St NW (48.90883 102.5938); (2) near pump south side of 103rd St NW (48.90877 102.59147); and (3) 50 meters north of 103rd St NW on pipeline (48.90946 102.59142). Collected field meter readings of specific conductance, pH, temperature and dissolved oxygen. Specific conductance ranged from 3298 (east side of 86th Avenue NW) to 9113 (north side of 103rd Street NW). Dissolved oxygen was low (2.91 and 2.1 mg/L) in the south and north ditch of 103rd Street NW, respectively. Dissolved oxygen was in healthy concentrations in the other three locations, ranging from 6.60 to 9.43 mg/L. Off site 14:14.

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**Date:** 1/27/2016    **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 09:30, off site 11:00. 43 degrees, 25-40 mph wind, clear. Met with TAQA representatives Wes and Brian on site to discuss 2016 restoration effects.

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**Date:** 4/13/2016 **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 11:00. 48 degrees, SE wind at 10 mph, clear. Nearest water is the wetland. North wetland 90 percent dry and south approximately 50 percent dry. Pump and associated equipment on site. A large majority of the cattails in the north wetland have been harvested. Site is clean and well maintained. More follow-up required. Off site 11:20.

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**Date:** 11/16/2016 **Status:** Inspection

**Author:** Wax, Pete

**Updated Oil Volume:**

**Updated Salt Water Volume:**

**Updated Other Volume:**

**Updated Other Contaminant**

**Notes:**

On site 07:33. Light wind from the west, 39 degrees, overcast. Inspected wetland recovery. Collected photographs. Initial impression is that the wetland is recovering. New growth of cattails is encouraging. Measured conductivity in water and sediments in east, north and south ditches. Measurements of water ranged from 4,350 microsiemens per centimeter (us/cm) in east ditch to 18,640 us/cm in north ditch. Sediments measure from 2,570 us/cm. Total results of water and sediments are recorded in field book. Collected one water sample at the highest conductivity location to be analyzed for Group 190. Off site 08:38.