

# General Environmental Incident Summary

**Incident:** 1856      **Date/Time Notice:** 1/24/2013      1600      **DEM Incident No:**

**Responsible Party:** Alliance Pipeline, L.P.

**Date Incident:** 1/23/2013      **Time Incident:** 1500      **Duration:**

**County:** Burke      **Twp:** 162      **Rng:** 88      **Sec:** 32      **Qtr:** SE SW

**Lat:** 48.81438      **Long:** -102.12020      **Method:** Derived from TRS

**Location Description:** North side of U.S. Highway 52 at the crossing of Upper Des Lacs Lake. Approximately 5.3 miles east of Bowbells. Approximately 9.0 miles north of Kenmare.

**Submitted By:** Patrick Robblee

**Affiliation:**

**Address:**

**City:**

**State:**

**Zip:**

**Received By:**

**Contact Person:** Troy Meinke  
6385 Old Shady Oak Road  
Suite 150  
Eden Prairie, MN 55344

**Distance Nearest Occupied Building:** 0.5 Miles

**Type of Incident:** Drilling mud consisting of water and bentonite clay with small quantities of quartz, tridimite, and cristobalite

**Description of Released Contaminant:** Drilling mud consisting of water and BaraKade (bentonite clay with small quantities of quartz, tridimite, and cristobalite)

**Volume Spilled:** 20.00 gallons

**Ag Related:** No

**EPA Extremely Hazardous Substance:** No

**Reported to NRC:** Unknown

**Cause of Incident:**

The surface release of drilling mud occurred in association with installation of a natural gas pipeline (Alliance Pipeline's Tioga Lateral Project) beneath Upper Des Lacs Lake using the horizontal directional drill (HDD) construction method. The HDD method is a process that allows for trenchless construction across an area by drilling a hole below the depth of a conventional pipeline lay, and then pulling a prefabricated section of pipe through the hole. The method is sometimes used to avoid direct impacts on sensitive landscape features, such as waterbody crossings, or areas that otherwise present difficulties for standard pipeline construction. To begin the HDD process, a drill rig is placed on the entry side of the HDD and a small pilot hole is drilled along a predetermined path. The pilot hole is then progressively enlarged through a process called reaming. A reaming tool is installed at the end of the drill string on the exit side of the pilot hole, and then drawn back to the drill rig to enlarge the hole. Several passes with progressively larger reaming tools are sometimes required to enlarge the hole to a sufficient diameter to accommodate the pipeline. During this process, drilling fluid, or mud, consisting of a mix of water and bentonite clay, is circulated through the hole to remove drill cuttings and maintain the integrity of the hole. Once the reaming process is complete, a prefabricated segment of pipe is attached to the drill string on the exit side of the crossing, and pulled back through the hole toward the drill rig. The method was selected for the crossing of Upper Des Lacs Lake to avoid ground disturbing activities within the lake. The length of the HDD at this location is approximately 1 mile. Although the HDD method typically avoids impacts on water quality by

precluding disturbance of the bed and banks, an inadvertent release of drilling mud (sometimes referred to as a "frac-out") is possible if drilling fluids escape the drill hole and are forced through fractures in the subsurface substrate to the ground surface. This is what occurred for Alliance's crossing at Upper Des Lacs Lake. The release described in this report occurred subsequent to previous releases reported to the DOH on January 17, 2013. The material (approximately 20 gallons) released to the shoulder of U.S. Highway 52 and some flowed into ice in a backwater area of Des Lacs Lake adjacent to the highway. The drilling mud is comprised of non-toxic, industry-standard materials. The released material (drilling mud) consists of water and bentonite clay, with small quantities of quartz, tridymite, and cristobalite.

***Risk Evaluation:***

There are no immediate or long-term risks associated with the releases. The drilling mud poses no risks to the environment and no health risks.

***# of Fatalities:*** 0      ***# of Injuries:*** 0      ***Affected Medium:*** 04 - water and soil

***Potential Environmental Impacts:***

The drilling mud poses no risks to the environment. As noted above, Alliance has committed to work with FWS staff to prepare a plan for on-going monitoring and clean-up and for any contingencies that may be required in the event of a release to Upper Des Lacs Lake.

***Action Taken or Planned:***

At the time of the release, drilling activities were suspended, and construction crews worked to contain and clean-up the release. Silt fence was deployed to contain the release. Following adequate containment, drilling mud in liquid form was removed from the site by a vacuum truck. Frozen drilling mud on the ice was removed using a track-hoe with an extended arm and a bucket attachment. Once the material was contained and clean-up was in process, drilling activities resumed. As of this filing, approximately 90 percent of the 20 gallon release has been cleaned-up. The remainder, which is on the ice, will be removed when the ice thickens. The Environmental Incident report previously filed by Alliance on January 17, 2013 identifies other measures implemented by Alliance to reduce the potential for additional releases as drilling continues. Alliance notified DOH staff (Pete Wax and Kris Roberts) of the new release by email. Alliance additionally notified the FWS (Chad Zorn) of the new release.

***Wastes Disposal Location:*** The material removed from the release site has been recycled.

***Agencies Involved:*** FWS, ND DOT

***Updates***

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***Date:*** 1/24/2013    ***Status:*** Reviewed - Follow-up Required

***Author:*** Roberts, Kris

***Updated Volume:***

***Notes:***

It appears that this is the third incident involving this contaminant and this contract. Need to check this out.

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**Date:** 2/4/2013    **Status:** Inspection

**Author:** Stockdill, Scott

**Updated Volume:**

**Notes:**

Stockdill inspected location and talked with Alliance personnel on location.

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**Date:** 4/13/2016    **Status:** No Further Action Requested

**Author:** Stockdill, Scott

**Updated Volume:**

**Notes:**

NDDoH inspector Pete Wax inspected location. For further information, contact Pete Wax.