

June 1, 2013 Leak on Kuhn's Pad.

On June 1, 2013, CNX Gas was in the process of fracturing the B Well on the Kuhn's pad when a leak occurred at a plumbing union. During the effort to repair the leak, a recycled water line was inadvertently over-pressured which resulted in a spill of approximately 100 gallons outside of pad containment. Employees immediately initiated emergency spill response actions which included containment and collection of discharged water via a vacuum trailer. Soil in the affected area was excavated and removed via roll-off boxes and replaced with fresh material. After clean-up was complete the recycled water line was reassembled in containment and pressure tested for use. Reporting of the spill and cleanup were promptly reported to the Pa DEP.

Summary of actions taken by MAWC in response to CNX Gas fracturing fluid spill

On June 1, 2013 CNX was in the process of fracturing the B Well on the Kuhn's Pad when a leak occurred in the recycled water line as described in Joe Zoka's report (shown above).

On July 3, 2013 Members of MAWC (Jack Ashton, Mark Stoner, and Chris Light) visited the site to ensure that proper cleanup had taken place to everyone's satisfaction. Samples of water on the ground both near the site of the leak and further down the hill near the fresh water storage tank were taken and analyzed by Mr. Stoner for Chlorides, namely. Both of these samples showed Chloride levels over 2000 ppm indicating that the cleanup efforts in this incident were not complete. These numbers were reported to Mr. Dave Atkins at the Kuhn's pad promptly.

During the visit, it was noted by MAWC that the transfer line was laid from the tanks on the Sweeney Plant side of the Pad around the perimeter of the Pad outside of the containment atop the embankment. It was suggested that this line be relocated to inside the embankment and encapsulated in some form of containment.

This work was completed on June 4th. The excess water sampled by MAWC was excavated and found to have not been completely cleaned up originally. Clean-up crews from McCutcheon completed the excavation and sampling to their satisfaction and completed the cleanup by vacuum truck and backhoe. No water was evident subsequent to the second cleanup effort. The newly re-laid lines were pressure tested and fracturing continued as soon as appropriate. (as reported)

Test Results from Site after Clean-up

The Soil Samples shown below show confirmation of the cleanup of the recycled water spill starting at the inlet of the Culvert and follow the road down to the bottom. Based on the lab results shown below the affected area has been remediated.

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|--------------------------|-----------|------|------|--|
| Background Sample | Chlorides | 3.4 | mg/l | Samples Collected on June 5, 2010 results shown are with |
| Confirmation 1 | Chlorides | 15.8 | mg/l | |
| Confirmation 2 | Chlorides | 12.5 | mg/l | |
| Confirmation 3 | Chlorides | 6.3 | mg/l | |
| Confirmation 4 | Chlorides | 5.0 | mg/l | |

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|---|-----------|-----------------|------|---|
| Confirmation 5 | Chlorides | 4.0 | mg/l | culvert in-place and soils removed |
| Background Sample 1 | Chlorides | Non Detect (ND) | mg/l | Samples Collected on June 10, 2013 results shown are with culvert removed and additional soil removed from the affected area. |
| Confirmation Sample 2 Culvert Area | Chlorides | ND | mg/l | |
| Confirmation Sample 3 | Chlorides | ND | mg/l | |
| Confirmation Sample 4 | Chlorides | ND | mg/l | |
| Confirmation Sample 5 | Chlorides | ND | mg/l | |
| Confirmation Sample 6 | Chlorides | 3.8 | mg/l | |
| Confirmation Sample 7 | Chlorides | ND | mg/l | |
| Confirmation Sample 8 | Chlorides | 5.3 | mg/l | |
| Confirmation Sample 9 | Chlorides | ND | mg/l | |
| Confirmation Sample 10 | Chlorides | ND | mg/l | |
| Confirmation Sample 11 | Chlorides | ND | mg/l | |
| Confirmation Sample 12 | Chlorides | 5.1 | mg/l | |