

General Environmental Incident Summary

Incident: 5642 **Notice:** 2/25/2018 1340 **Occurred:** 2/25/2018 0800

DEM Incident No:

No Further Action: ☒

Responsible Party: USG Bakken Midstream

County: Divide

Twp Rng Sec Qtr: 163 101 15

Lat Long + Method: 48.95100 -103.79400 Calculated

Location Description: DeWitt Produced Water Gathering System. The produced water leak is about 3 miles north of Fortuna at approximately 0.5 miles east of Hwy 85 and 106th Street NW.

Submitted By Info: Rachel Trainer
Employee
601 Travis St
Suite 1900
Houston TX 77002

Received By Info:

Contact Info: Richard Wightman
1500 14th Street West
Suite 270
Williston ND 58801

Affected Medium: 03 - soil

Near. Occupied Bldg:

Type of Incident: Pipeline Leak

Release Contained: No

Reported to NRC: No

Contaminant: Produced Water

Volume of Release: 200 barrels

Duration of Release: 1 hours

Agriculture Related: No

EPA Extremely Hazardous Substance: No

Number of Fatalities: 0

Number of Injuries: 0

Cause of Incident:

A plug pushed out of a proved blind flange on the produced water gathering system.

Risk Evaluation:

There are no immediate risks to safety or health.

Potential Env. Impacts:

There is shallow soil impact by the produced water. The produced water impacted the surface soil for about 30 feet to the southeast and then 500 yards to the northwest of the release point. The frozen ground is keeping the produced water from absorbing quickly.

Action Taken/Planned:

The system was shutdown and the pump secured. Stealth Environmental was called out to start the removal of the produced water and the produced water contaminated soil.

Wastes Disposal Location:

Other Agencies Involved:

Updates

Date: 2/25/2018 **Status:** Reviewed - Follow-up Required

Author: Stockdill, Scott

Notes:

According to the incident summary, this spill impacted areas not associated with exploration and production. Follow-up is necessary.

Updated Volume: None at the time of this update

Date: 2/26/2018 **Status:** Inspection

Author: Stockdill, Scott

Notes:

Arrived on location 4:51 2/26/2018. Photos taken and added to incident folder.

Spill originated from riser SW of Well, flowing downhill several hundred feet before terminating in low area. Currently there is a bulldozer, backhoe and front end loader prepping site to minimize the impact of run on from area snowfall melting.

Riser Location: 48.963543°, -103.793671°

More follow-up is necessary to ensure proper cleanup.

Updated Volume: None at the time of this update

Date: 2/27/2018 **Status:** Inspection

Author: Stockdill, Scott

Notes:

Arrived on location 9:12 2/27/2018. Photos taken and added to incident folder.

Cleanup crew on location with hydrovac cleaning impacted soil around header/riser. Backhoe is currently excavating an area in the impact zone for temporary disposal of impacted hydrovac slurry. Meeting with company contractor regarding impacted material around riser/header. More work is necessary to ensure proper cleanup.

Test pits near the lower end of the impact area have confirmed impacts down to 5' BSG. Responsible party is going to send a work plan regarding cleanup.

More follow-up is necessary to ensure proper cleanup.

Updated Volume: None at the time of this update

Date: 3/3/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... I appreciate your phone call yesterday afternoon. The USG Midstream Bakken I Project Manager is Gary Wegner (701.651.8130). Working for Mr. Wegner on the remediation plan is Golder led by Adam Plonsky (701.301.7500). The company environmental representative is Mike Stewart (816.914.4684) who will be on location in North Dakota tomorrow.

As requested, I will provide you weekly updates on the progress of the clean-up of the produced water release.

Progress as of March 2, 2018:

The snow cover has been removed from the release area and put into roll-off boxes. The impacted area has been marked off and a road established around the perimeter to prevent driving through the contaminate soil and spreading it. There have been a total of 21 core samples taken over the last 3-4 days. We expect the results back next week.

Timber mats were delivered to the site yesterday and will be used for the loaders to drive on to prevent contamination spread as they remove the soil for disposal. We are set-up to dispose of the soil at R360's Smokey Butte location in Fortuna.

Work at the site is on hold today while the expected storm passes. Once conditions are improved the process of removing the new snow cover will start followed by the contaminated soil removal.

We would like to set up a meeting with you and Bill Suess later in the week to go over our proposed remediation plan. Are you available the morning of Friday, March 9th? If so, please send me the time that is most convenient for you.

Please let me know if you need any additional information. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/5/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Both Bill and I are open on Friday at any time. Is there a time that works out better? ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/5/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Does 9AM work? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/5/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Central time yes ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/5/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Perfect. I will send out at notice. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/8/2018 **Status:** Inspection

Author: Torgerson, Brad

Notes:

On 3/8/2018 at 9:30 am - Sunny and -4 Degrees F - visited the USG Bakken Midstream DeWitt produced water gathering system release site north of Fortuna. Met with a Goulder Associates representative who was consulting USG on assessment and clean-up activities. It appeared snow had been removed from above the produced water release area and salt impacted soil was being excavated/removed and transported for final disposal, according to the consultant, to the Smoky Butte Landfill. The consultant indicated the extent of the salt impacted area had been delineated and the consultant estimated approximately 20,000 cubic yards of salt impacted soil would need to be removed from the site. According to the consultant, the leak started out as a surface release that penetrated the soil vertically downward and the release also ran down the hill slope to the north approximately a few hundred yards. Further follow-up appears to be necessary. Left the site at 10:25 am. Photos taken and added to incident folder.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence

Author: Stockdill, Scott

Notes:

Conference call with responsible party and cleanup contractor to go over soil bores and proposed cleanup plan for site. Responsible party and contractor are going to submit a work plan for review, along with current findings.

More follow-up is necessary to ensure proper cleanup.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Attached, please find a map showing proposed locations for supplemental soil borings discussed during our call this morning. Proposed borings include:

- One boring in an un-impacted location advanced to 40 feet below ground surface (ft-bgs) to confirm soil profile at depth;
- One boring within the impacted area advanced to a minimum of 30 ft-bgs complete the vertical delineation; and
- One boring to the northeast of borehole B8 to confirm horizontal delineation boundaries, if time allows.

Please let us know as soon as possible if you have any concerns with this approach. Boring activities are currently planned to begin tomorrow morning (March 10th, 2018). ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... What day are you looking at doing borings? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from the responsible party.

"... Tomorrow. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Ok, I don't have any issues with the borings. If you have any questions feel free to ask. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Okay. Thank you.

We will let you know what we find. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... What is the distance in that B19 boring and the proposed one? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... The proposed boring is approximately 20 feet up-gradient of boring B19. Boring B19 was advanced to 20 feet below ground surface (ft-bgs), and the proposed boring will be advanced to 40 ft-bgs. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Attached is a delineation map for your reference during today's call at 9 AM ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Thanks for the clarification. It looked further on the map. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/9/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Let me know if you have any other questions. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/12/2018 **Status:** Inspection

Author: Kangas, Kathleen

Notes:

03.12.2018 Arrived onsite at 2:45pm. 30 degrees F, wind SSE 5mph. Photos taken and added to incident folder.

Met representatives from Golder and Nextera Energy and discussed remediation. A backhoe is onsite still excavating soil at the top of the hill. 3 borings have been done. Surveyor is onsite. The affected area is pastureland and the land owner has been notified. The work plan should be to NDDoH spill response team by the end of this week. This area is located East and uphill off the access road for the Christiansen SWD.

Updated Volume: None at the time of this update

Date: 3/16/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... The soil removal efforts are going as planned per our conversation with you on March 9th. There have been 9,150 tons of soil removed and disposed of at the Smokey Butte and 13 Mile landfills as of yesterday, March 15th. We expect that there is an additional 3,700 tons of soil left to be removed and disposed. The soil removal is expected to be complete by Monday. The operations have switched to nighttime and early morning hours (approximately 1AM to 11 AM) to ensure the surface soil is frozen providing a safe surface on which to run the heavy equipment.

Attached is our Corrective Action Plan for the DeWitt Gathering System produced water release. Can you please review the attached plan and let us know if we are approved to move forward with it. We would like to start backfilling the excavation as soon as possible per the plan.

We look forward to your reply and as always if you have any questions please let me know. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... You can continue with the backfilling of the excavation related to the release that occurred on the 25th of February, 2018. Your work plan is sound, however with the large amount of contaminants that are being left in place, we would like to see the installation and implementation of recovery wells/sumps in the area described as CA Area 2 particularly in the area of between the borings B19 to B14. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Would you have any availability tomorrow morning, Tuesday, March 20th at 9 AM or Wednesday, March 21st at 10:30 AM to discuss the plan and your requested course of action?

Please let me know if either day and time works for you or if there is another date/time that you would like to schedule a call. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... His meeting runs till ten so I think we could probably schedule it. ..."

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Perfect. I will send out a meeting notice. Thank you. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/20/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

No content in the email body.

Full email and attachments in the incident summary.

Updated Volume: None at the time of this update

Date: 3/20/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... It will just be me on the call today. Bill had something come up late last night. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/20/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Is there another time that would work better for both of you? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/20/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Tomorrow and Thursday are open. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/20/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Okay. I will reschedule it for tomorrow morning. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/21/2018 **Status:** Inspection

Author: DeVries, Taylor

Notes:

Inspection Date: 3/21/2018

Arrived on location at 1350. There was no one working onsite at the time of this inspection. The excavation is now approximately 500+ yards long and 50+ yards across. The depths range from about 3 ft by the riser, up to 8 ft in other locations. Bags of bentonite clay are on location. Photos were taken and can be found in the report folder.

Updated Volume: None at the time of this update

Date: 3/21/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Would it be possible to get the shapefile used to make the map with the delineation and soil borings? I would like to be able to place the wells as accurately as possible. ..."

Full email in incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/21/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Does this file work? Let me know if you need anything else. ..."

Full email and attachments in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Do you have time for a quick call? We have a quick proposed change we would like to run by you. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... Bill is in a conference call till four. What are you thinking? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... We want to discuss using a GCL layer in place of the clay. We are having difficulty sourcing the clay for the 18" layer. We thought we had a source, but it was delivered with rocks. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... That's not an issue, go ahead. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Thank you, Mr. Stockdill. Please let me know if you think of any questions. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... If you could send me a link or photo or a reference to the type of material you are using. There is a lot of different types of material out there and I am just curious...."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/23/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Adam prepared the following explanation for the change in our March 16th plan to go from a 18" clay layer to use of GCL. This should help to answer any questions you may have concerning the GCL specs and the installation.

Due to issues obtaining a sufficient quantity of high quality clay during winter months, USG is evaluating the suitability of an engineered geo-synthetic clay liner (GCL) as a low permeability cover for this remediation effort. A technical data sheet for the proposed GCL product (attached) shows a hydraulic conductivity value of 5×10^{-11} m/s (5×10^{-9} cm/s), indicating the GCL should be sufficiently restrictive to prevent infiltration of stormwater into impacted materials left in-place. Discussions with the manufacturer have also indicated the material would be effective for our intended use.

Currently, one 6-inch lift of clean, compacted clay has been installed over impacted materials to be left in-place. If the GCL will be utilized instead of the initially proposed 18-inch compacted clay cap, installation will include:

- Surface preparation to remove large rocks and other potentially damaging objects from the compacted clay subgrade;
 - Installation of GCL panels across the area of remaining impacts in accordance with manufacturer recommendations for installation, overlap, and seaming (see attached layout);
 - Application of 8-10 inches of sand over the GCL to act as a drainage layer;
 - Backfill, regrading, and surface reclamation as described in the CA Plan submitted to the NDDH on March 16, 2018;
 - Implementation of a site monitoring plan to ensure remedial efforts were effective.
- o A written monitoring plan will be submitted to the NDDH prior to implementation. ..."

Full email and attachments in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... If you want to set up a meeting to go over the dry well/recovery well proposal, there is time available with Bill and Karl tomorrow morning. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from Responsible party.

"... How does 9:30 AM look for you? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to Responsible party.

"... Can we switch it to 8:30? ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Sure, I will set up a conference call notice..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Can you please send us a copy of the map you have been working on prior to our meeting tomorrow? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... I have attached a map for the approximate proposed well locations. We are looking at a total depth for the wells of 24' and screened 5' to 24'. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/26/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Thank you. I will forward it on to those attending the meeting tomorrow. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 4/4/2018 **Status:** Inspection

Author: Stockdill, Scott

Notes:

Arrived on location 2:51 4/4/2018. Photos taken and added to incident folder.

Excavation currently being backfilled by heavy equipment. Crews onsite expect earthwork to continue for the next few days, at which time seeding will take place.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 4/11/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from Consultant for responsible party.

"... Attached for your review, please find a formal monitoring plan developed for the USG Midstream Bakken I produced water remediation site near Fortuna. To ensure the remedial work was successful, USG plans to begin monitoring the site as early as May of this year.

Please don't hesitate to contact me if you have any questions. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 4/12/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... This is the most up to date monitoring plan. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 4/12/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... Is this your most up to date monitoring plan? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 4/16/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... I have reviewed your plan. Monitoring the vegetation will not be sufficient.

If the landowner doesn't wish for there to be monitor wells on location I suggest you incorporate a series of electromagnetic surveys into your monitoring plan. An EM survey will accurately determine if the remaining contamination in the soil profile is moving throughout time. I suggest you conduct no less than three surveys in the next five years. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 5/2/2018 **Status:** Inspection

Author: Washek, Sandi

Notes:

Arrived onsite at 10:30am; weather was sunny with wind out of the NE at 10 miles/hr. Photos taken and added to incident folder.

The trench has been filled in and the hillside located SE of the pad has been leveled. Straw mats for soil erosion control has been added to the hillside. There are areas where soil grading and planting for vegetation remediation are still needed, which are mostly in the staging area and on the access road to the impacted site.

Additional follow-up needed.

Updated Volume: None at the time of this update

Date: 5/8/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from Consultant for responsible party.

"... Please see attached for an updated monitoring plan that includes the EM surveys requested in your email below. The monitoring will be conducted over a 5 year period beginning in Spring of 2018. We appreciate your review and welcome any additional feedback on the proposed monitoring plan. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 5/22/2018 **Status:** Inspection

Author: Stockdill, Scott

Notes:

Arrived on location 1:08 5/22/2018.

Impact area has heavy erosional matting in place over the area with the largest slope. Main impact area has been reseeded and some new grass is coming through the erosional matting.

Follow-up in late summer/early fall to check on vegetation.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 6/29/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Corrective Action Closure Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432). The Corrective Action Closure Report documents the remedial actions taken by USG Midstream Bakken I to address environmental impacts related to the produced water release.

USG Midstream Bakken I will be conducting ongoing monitoring activities as described in the Environmental Monitoring Plan submitted to the NDDoH on May 8, 2018 until incident closure is granted by the NDDoH. The first monitoring event occurred in the Spring 2018 and a monitoring report will be submitted to the NDDoH in the coming weeks. An EM survey was also conducted as part of the first monitoring event, so we will provide that data with the report.

Please feel free to contact me if there are any questions or comments related to corrective actions taken at this site. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 8/27/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Spring 2018 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 10/22/2018 **Status:** Inspection

Author: Schiermeister, Robin

Notes:

Arrived on the well pad at 10:31 on 10-18-2018. It was sunny with temperatures in the 40s. The initial release occurred at the pipeline riser northeast of the site. Since the excavation, the area has been backfilled with erosion control in mind. It has also been reseeded. Walked over to the pipeline riser and saw that there is actively growing vegetation all down the hillside, until the bottom of the hill where the vegetation appears scraped. There is another area further west than this that has a lack of vegetation as well; however, not related to the spill. A visit will have to be made in the spring to check for vegetation regrowth on the bottom of the hill.

Updated Volume: None at the time of this update

Date: 11/2/2018 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Fall 2018 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 7/23/2019 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"...On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Spring 2019 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432). ..."

Full email in report folder along with attachments.

Updated Volume: None at the time of this update

Date: 7/23/2019 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Spring 2019 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 8/1/2019 **Status:** Inspection

Author: Stockdill, Scott

Notes:

Arrived on location 3:09 8/1/2019.

Vegetation has mostly recovered in impact area. Recent EK surveys show impacts moving underground.

Contact company regarding cleanup.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 11/20/2019 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant with Fall 2019 Monitoring Report.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Fall 2019 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432). ..."

Full email and attachments in the report folder.

Updated Volume: None at the time of this update

Date: 11/20/2019 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, Golder Associates is issuing the attached Fall 2019 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to responsible party.

"... It appears that bill is in a meeting tomorrow at 9:00 is there another time that works? ..."

Full email in incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 3/19/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from responsible party.

"... Does 10:30 AM tomorrow or Wednesday work? Adam is out of the office tomorrow afternoon. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 6/1/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, LLC, we are issuing the attached Spring 2020 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 6/2/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... On behalf of USG Midstream Bakken I, LLC, we are issuing the attached Spring 2020 Biannual Monitoring Report for the DeWitt produced water release that occurred near Fortuna, ND on February 25, 2018 (incident #20180226145432).

Please feel free to contact me if there are any questions or comments related to this monitoring event. ..."

Full email and attachments in the report folder.

Updated Volume: None at the time of this update

Date: 6/2/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Thanks Scott. All accounts show that the site is doing well. After your visit this summer, perhaps we could discuss closing out this incident. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 6/2/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... I need to head up there to do an inspection to see how things are progressing. If I have any concerns or questions I will contact you. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 8/17/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Hope you're staying well. I was wondering if you've had a chance to visit this site yet? We are hopeful to close out this incident without further monitoring due to how well the site has been reclaimed. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 8/17/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Sounds good, thanks for the quick reply. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 8/17/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... I have yet to get out that way. I hope to the next field week I have. ..."

Full email in the incident folder.

More follow-up is necessary

Updated Volume: None at the time of this update

Date: 9/21/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Just curious if you've had a chance to visit this site yet. Our client would like to request final closure if everything is looking in good shape. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/22/2020 **Status:** Inspection - No Action Required

Author: Stockdill, Scott

Notes:

Arrived on location 9/22/2020.

No sign of contaminants or contamination. Vegetation is doing well in the impact area.

No onsite follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/22/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Thanks Scott. I look forward to hearing from you after the site inspection. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/22/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... Actually heading up there today. Yes hopefully everything looks good and I can issue a no further action. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/23/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Sure thing. I'll get back to you in a few days with the overlay figure and with the client contact. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/23/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... Sounds great. Just saw your automatic reply, so there is no rush or timeline. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/23/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

".. Oh I do need one other thing. Could you get me an overlay the two EK surveys on top of one another so I can review if they has been any movement in the contamination that was left in place. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/23/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... The site looks good, vegetation is doing well. After a review of my documentation I will be issuing a NFA letter. Who is the current contact with USG Bakken to send it too? ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/29/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... Overlaying the 2018 and 2019 EM survey results onto each other is proving a little tricky to portray clearly, so I'm attaching two figures for your reference. One is the 2018 survey shown in color with 2019 survey shown in contours, while the other is the 2019 survey shown in color with the 2018 survey shown in contours. Hopefully you can use these to tell that things impacts appear to be stable where we capped them. These have the same viewport scales, so you should be able to flip them back and forth to see how the results compare to each other.

Let me know if this gets what you're looking for or if we need to come up with another idea for overlaying these on each other...."

Full email and attachments in the incident folder.

More follow up is necessary.

Updated Volume: None at the time of this update

Date: 9/29/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... I'm going to get with our GIS folks to try and make this clearer. ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 9/29/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for responsible party.

"... I've attached two figures for your reference. One is the 2018 survey shown in color with 2019 survey shown in contours, while the other is the 2019 survey shown in color with the 2018 survey shown in contours. You can see from this data that lateral migration does not appear to be occurring. These have the same viewport scales, so you should be able to flip them back and forth to see how the results compare to each other. This data, combined with the established vegetation across the site, supports the request for closure on this incident.

Unless otherwise directed by you, we are going to assume that vegetation monitoring this fall is not required. Please let me know if you need anything else. ..."

Full email and attachments in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 10/5/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... Contamination appears to be stable and not moving. Did you ever determine who the contact for the No further action would be? Is it still Rachel Trainor? ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 10/5/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email from consultant for Responsible party.

"... Yes, Rachel Trainer. ..."

Full email in the incident summary.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 10/5/2020 **Status:** Correspondence - More Follow-up Required

Author: Stockdill, Scott

Notes:

Email sent to consultant for responsible party.

"... thanks ..."

Full email in the incident folder.

More follow-up is necessary.

Updated Volume: None at the time of this update

Date: 10/6/2020 **Status:** Correspondence - No Action Required

Author: Stockdill, Scott

Notes:

Documentation Review.

Review of documentation, surveys and samples indicates that the remaining contamination is remaining stable and not moving. Onsite inspections show that vegetation has recovered and is doing well.

No Further action is necessary.

A NFA letter will be issued.

Updated Volume: None at the time of this update

Date: 10/6/2020 **Status:** Correspondence - No Action Required

Author: Stockdill, Scott

Notes:

Scott Stockdill sent a No Further Action letter dated October 6, 2020.

Updated Volume: None at the time of this update

Date: 10/6/2020 **Status:** Correspondence - No Action Required

Author: Stockdill, Scott

Notes:

Closure Letter Emailed to Responsible party and Consultant.

"... The North Dakota Department of Environmental Quality (NDDEQ) has determined that remedial activity conducted at the referenced site has been satisfactorily completed for the release that occurred on February 25, 2018. Therefore, it is the Department's opinion that no further action is needed at this time in regards to Incident Number 5642.

This does not absolve the Responsible Party from any additional releases that may have occurred at this location. In addition, this does not absolve the Responsible Party of any potential enforcement action that may be pending.

This determination is based on current site conditions. If in the future, additional information indicates a change in the environmental status of the property, additional assessment and/or remediation may be required by the NDDEQ. This letter does not, however, convey a liability release under Section 23.1-04-04 of the North Dakota Century Code. ..."

Full email and attachments in the incident folder.

No follow-up is necessary at site.

Updated Volume: None at the time of this update