Oil Field Environmental Incident Summary

Incident: 20180102192012 Notice: 1/2/2018 19:20 Occurred: 1/2/2018 13:30

Responsible Party:ZAVANNA, LLCWell Operator:ZAVANNA, LLCWell Name:JAGUAR 1-22HField Name:STONY CREEK

Well File #: 18075

Facility ID #:

County: WILLIAMS
Twp Rng Sec Qtr: 155 100 16

Location Description:

Submitted By: Kimberly Gutierrez

Received By:

Contact Info: Kimberly Gutierrez

1200 17TH STREET STE 1100

DENVER CO 80202

Affected Medium: Topsoil
General Land Use: Pasture
Near. Occupied Bldg: 0.5 Mile
Nearest Water Well: 0.5 Mile
Type of Incident: Other
Release Contained: No
Reported to NRC: No

Spilled Units Recovered Units Followup Units

Oil

Brine 55 Barrels 28 barrels

Other

Oth Rel. Contaminant:

Date Inspected:

Clean Up Concluded: 1/31/2018
Written Report Recd: 2/13/2018

Risk Evaluation:

Topsoil

Areal Extent:

Currently being assessed

Potential Env. Impacts:

Currently being assessed

Action Taken/Planned:

Contacted Corcoran for clean up and contacted the NDIC & NDDH for clean up.

Wastes Disposal Location:

Corcoran

Other Agencies Involved:

Friday, October 2, 2020 Page 1 of 4

Updates

Date: 1/2/2018 Status: Reviewed - Follow-up Required No Further Action:

Author: O'Gorman, Brian

Notes:

According to the report, 55 barrels of brine was released and not contained. Further follow-up

needed.

Updated Volumes and Contaminant None at the time of this update

Date: 1/3/2018 Status: Inspection No Further Action: □

Author: DeVries, Taylor

Notes:

Inspection Date: 1/2/2018

Arrived on site at 1700. No crew was on site at the time. The release starts from the holding tanks and flows around the large earthen berm and flows out into the field. The snow has melted where the brine has impacted the soil.

Updated Volumes and Contaminant None at the time of this update

Date: 1/4/2018 Status: Inspection No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date: 1/3/2018

Arrived at 0900. Zavanna is on site and is putting together a clean up plan. A construction company is also on site to begin clean up. NDIC has inspected the brine contamination on pad. A call to one-call has been made and the company is waiting on other oil companies to come and mark their lines. Field electric conductivity readings show very high impacts. The soil is now soft in the 15 degree weather. Photos were taken and can be found in the report folder.

Updated Volumes and Contaminant None at the time of this update

Date: 1/5/2018 Status: Inspection No Further Action: □

Author: DeVries, Taylor

Notes:

Inspection Date: 1/4/2018

Arrived on site at 1100. A third party environmental consultant is on sight taking baseline samples. No excavation has been made, there is still hold up on the other companies to come and mark their lines. Follow-up next Monday to check on progress.

Updated Volumes and Contaminant None at the time of this update

Friday, October 2, 2020 Page 2 of 4

Date: 1/15/2018 Status: Inspection No Further Action:

Author: Schiermeister, Robin

Notes:

Arrived on site at 14:00 on 1-8-2018. It was cloudy with temperatures in the 30's. The area west of the well pad had been excavated to various depths, ranging from 5 inches in some places to 24 feet in others, and extended approximately 100 feet west. See photos of inspection, which have been added to the incident folder. Earth systems were taking samples the following day, so the area was being mapped out and a conductivity survey being conducted during the inspection. Further follow-up is needed.

Updated Volumes and Contaminant None at the time of this update

Date: 1/16/2018 Status: Inspection No Further Action: □

Author: Schiermeister, Robin

Notes:

Arrived on site at 9:02 on 1-10-2018. It was windy with temperatures in the teens. Arrived to see stockpiled contamination being removed. Talked to party representative who said that Earth systems stated they would finish sampling today and that all contamination had been removed. Since 1-8-2018, it appears that they excavated an additional 5 inches down and an additional 5 feet west. Then party representative verified with a conductivity probe that contamination had been removed. The excavated area will be backfilled with topsoil after confirmation samples are taken. An inspection will be needed in the spring to check for vegetation re-growth.

Updated Volumes and Contaminant None at the time of this update

Date: 3/21/2018 Status: Inspection No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date:

Arrived on location at 1530.

Excavated area has been backfilled. Return in summer months to check on reseeding and vegetation growth.

Updated Volumes and Contaminant None at the time of this update

Date: 6/13/2018 Status: Inspection No Further Action: □

Author: DeVries, Taylor

Notes:

Inspection Date: 6/13/2018 Photos taken and added to incident folder.

Arrived on location at 0945. Checked on the seeding. There is seed growth. The seedlings are still quite small but growing. There was some erosion in the area and Zavanna and I spoke of some options for erosion control. Further follow-up is needed throughout the next few years with vegetation regrowth.

Updated Volumes and Contaminant None at the time of this update

Friday, October 2, 2020 Page 3 of 4

Date: 8/8/2018 Status: Inspection No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date: 8/8/2018

Arrived on location with NDIC, Zavanna and Zavanna's environmental consultant for this site. The area where the release occurred has vegetation growing. This vegetation is mostly kochia, thistle and those types of species. But there are also some grain varieties growing that were planted by Zavanna. The plan is to mow the area where the spill occurred before some of those species go to seed. They will be removed and possibly reseed with the grain variety before winter.

Photos were taken and can be found in the report folder.

Updated Volumes and Contaminant None at the time of this update

Date: 6/13/2019 Status: Inspection No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date: 6/13/2019

Arrived on location at 1510. The area of concern is growing vegetation. It is not as lush as surrounding growth. More site visits are needed to ensure vegetation growth and overall health of the pasture.

Photos were taken and can be found in the report folder.

Updated Volumes and Contaminant None at the time of this update

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

Author: Torgerson, Brad

Notes:

Visited the Zavanna, LLC - Jaguar production location on 9/22/2020 at 11:00am - Sunny and 67 Degrees F. Walked the western edge of the facility and vegetation looked ok. No further follow-up relating to this incident appears to be necessary.

Updated Volumes and Contaminant None at the time of this update

Friday, October 2, 2020 Page 4 of 4