

Oil Field Environmental Incident Summary

Incident: 20120816031215 **Date/Time of Notice:** 08/16/2012 02:50

Responsible Party:

Well Operator: ZAVANNA, LLC

Well Name: NELSON 3-10 1H

Field Name: LONG CREEK

Well File #: 20085

Date Incident: 8/14/2012 **Time Incident:** 20:00

Facility ID Number:

County: WILLIAMS

Twp: 153

Rng: 99

Sec: 3

Qtr: L 2

Location Description: Areas north and south of drill pad.

Submitted By: Don Calson

Received By:

Contact Person: Don Calson
1200 17TH STREET STE 2000
DENVER, CO 80202

General Land Use: Cultivated

Affected Medium: Topsoil

Distance Nearest Occupied Building:

Distance Nearest Water Well:

Type of Incident: Blowout

Release Contained in Dike: No

Reported to NRC: No

	Spilled	Units	Recovered	Units	Followup	Units
Oil	400	barrels	200	barrels		
Brine	400	barrels	200	barrels		
Other	0	barrels	0	barrels		

Description of Other Released Contaminant:

Inspected:

Written Report Received:

Clean Up Concluded:

Risk Evaluation:

None.

Areal Extent:

~1/4 mileX 1/4 mile sections both north and south of pad.

Potential Environmental Impacts:

None.

Action Taken or Planned:

Unable to stab TIW valve. RU injection lines and pumped down annulus until flow was reduced enough to allow stabbing a joint of tubing into the top of the tubing string with a TIW valve that was then closed. The well was displaced with 600 bbls of produced water.

Wastes Disposal Location: Majority of oil is to be reclaimed by vacuuming up with vac trucks. Water was disposed of at commercial disposal sites.

Agencies Involved:

Updates

Date: 8/16/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Fair amount of issues.

- 1) Due to wind direction changes and high pressures during the release, what didn't land on the pad went in two directions – NW and SE. More oil in the mist to the NW, and more water to the SE.
- 2) Both mist plumes went $\frac{3}{4}$ to a mile from the location.
- 3) Both directions dropped mist across drainages that merge and flow to the E-NE and end up in Long Creek and then the lake.
- 4) Crop land in both directions. Oats and wheat to the SE, and I think hay field(?) to the NW.
- 5) Misted wheat and oats will likely not be viable for either sale or feed.
- 6) Clean Harbors equipment staging area (while waiting for their building to be built) is 500 feet due west of the location, and was not touched. They are now (unless something changed after 5:30 when they started talking price) Zavana's clean up contractor.
- 7) Clean Harbors lead is TJ, who was at the exercise in June. Pretty gun-ho guy, with a bag full of answers.
- 8) Upshot is as follows:
- 9) All impacted vegetation is going to be mowed and removed, then soil sampling to confirm that the mist was caught by the vegetation.
- 10) Absorbent booms will be installed in the drainage downstream where they all come together, as well as several locations within the heaviest impact areas.
- 11) Zavana is acknowledging that all the impacted crop will become theirs (their land man will start that negotiation).
- 12) Mist impact delineation is highest priority. I surprised all with a way too simple method of delineation – take white paper, fold it over some vegetation, slide it from bottom to top, and see if oil comes off on the paper. That just floored them. But they like it, and will use it to get perimeter. Everything inside with perimeter will be cut and removed, including wheat and oats.

Date: 8/17/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Basic Work Plan in and approved.

Absorbent booms set in drainages as precaution against rain washing oil off vegetation/soil and running.

Vegetation cutting and collection beginning.

Still working on plan for final stabilization of the well (very little risk, as the well is under control).

Initial delineation of mist impact area complete, but expansion possible/likely.

Date: 8/18/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Mist impact delineation expanded due to visible wilting/browning of vegetation.

Land owners cooperating by providing and manning mowing/raking/baling equipment.

Report from Clean Harbors:

MAJOR EVENTS

Vegetation removal was completed on the North side of the pad along both side of the county road

Contaminated soil immediately south of pad was windrowed as is ready for removal

Transferable oil has been removed from approximately 2.5 miles of fence line

Visual oiling survey has been completed in the heavily impacted areas. GPS based map has been created.

Work Orders have been signed by landowners where all active operations are taking place

Formal report is being created for the event

30 round bales of vegetation have been recovered from Hagen property south of pad- approximately 30,000-36,000 pounds

120 bags of vegetation were recovered from hand work

Date: 8/20/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Vegetation removal going well. Some areas had sparse vegetation and may need amendments after sampling results come in.

Well was formally finally shut in this afternoon after the rods were removed. It was well under control with valving before, but now the rods are out and they can go about repairs and re-working for production.

Reporter met me there this pm from the Forum (out of Williston). Photos and story. Hope she was impressed as I am with the speed and willingness to move clean up along fast on the part of Zavana. I will be meeting Zavana and Liberty folks in the morning for the formal hand over of clean up to the new kid on the block (for Zavana/Liberty).

Date: 8/21/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Here is the latest, and the map showing the vegetation cutting area.

Some areas yet to cut, due to rocky conditions. They will be using a brush-hog on a skid steer, then a side delivery rake before baling.

6 soil samples in highest impact areas for chloride screening plus 1 background taken today. Expect results by mid-day tomorrow. Vegetation just north of the rig and in the wheat fields to the south pretty sparse considering, so some of the oil/salt likely made it to the soil. Had them do worst case sampling first before planning a more comprehensive regime. If the heavy areas aren't bad, then.....

By end of day, area of mist impact had been expanded to include wheat fields to the SE across the road, and they were being cut for disposal. Baled impacted vegetation was being moved to central staging area on plastic until shipped to landfill.

Draw just SE of well will be cut by brush hog, raked and baled, as it is too rocky for sickle mowers/swathers.

Although very minimal, wipe sample shows mist extent as far as 1.4 miles to the south. Grain bin there left recognizable, but very faint oil/dust residue on paper wipe. Will not expand vegetation disposal area beyond what they have now, as the fields beyond current area are either pasture or already harvested.

Some expansion of vegetation removal to the NW is possible, but waiting to see if vegetation wilts. Land owner is concerned and watching. Mist to NW was reported as far as 1 mile (oil specks on pickup windshield on first day).

Date: 8/30/2012 **Status:** Correspondence

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Company contact submitted soil sampling grid plan. Independent soil scientist will be overseeing sampling and will handle sample submittal and interpretation of results.

Date: 9/30/2012 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Onsite inspection and reception of the soil analytical results. Impact noted, but light. Recommendation was to irrigate the impacted hillside in a way to prevent runoff, but to flush excess salt below the root zone. Expect 2 year impact to be slight. No further inspection necessary unless landowner concerns.

Date: 6/15/2013 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Land owner concerns in impact area to the north of the Nelson. Remediation efforts were not completed when replacing soil and left both soil windrows and large rocks. Also noxious weed growth. Met with company and landowner. Company will resolve the issues by workin with landowners daughter to determine a safe herbicide to use and will level out the windrows and remove the large rocks.

Date: 8/7/2013 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

8-7-13 - 10:30 telephone call with Zavanna and landowner Ron Girwin. Gillian reported that she had sent a remediation binder with all information from cleanup to Mr. Girwin in March, but management had vetoed copy to DoH unless specifically requested. Request now in, and advised that this type of report is required in the future.

Spoke with Mr. Girwin by phone this date. He is unsatisfied with a couple issues left over from the response work. Apparently absorbent booms were never changed out, and are now overgrown. Soil stockpiles were brought in and placed on his property and are still there. He requested additional soil samples collected from northern portion of impact property and was denied. He requested that he be notified when contractors wanted access to his property and though he was called, they just wanted to go on even when he was not available to accompany them.

Gillian is in ND this week, and is willing to meet with both myself and Mr. Girwin on location. Plan is for Thursday 8/8/13.

Date: 8/8/2013 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

8/8/13 - 08:30 on location for meeting with adjacent, impacted landowner Ron Girwin and his daughter Kris, Gillian and Andrew from Zavanna, and Chris Rodgers from Absorbent and Safety Solutions to address concerns and issues not completed from the blowout impacts. Mr. Girwin's concerns: 1) He wants to be there when anyone is on his property, otherwise he feels it is trespassing. 2) The topsoil brought in last year was; A) not weed free, and B) not spread, but left in belly-dump rows, and C) has large rocks in it. 3) Lath marking sampling locations were not removed from his field.

Negotiated solutions: 1) Absorbent will make appointments to meet Mr. Girwin anytime they need access. 2) Spray the indicated 4 acre parcel and soil windrows with roundup to address the weed problem (either Absorbent, or a contractor of Mr. Girwin's choice). 3) Spread the windrows out, and 4) remove rocks. 5) Re-seed to alfalfa either this fall and spray for weeds next spring, or wait and seed in the spring after a pre-emergent herbicide is put down. Chris Rodgers and Kris Girwin will work together to determine the best option and get buy-off from Mr. Girwin.

Zavanna and Absorbent will keep DoH informed of progress, and Mr. Girwin will contact me if he has any further concerns.