U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
PDC Energy Oil Spill - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #2**
Progress
PDC Energy Oil Spill
Z5NH
Beverly, OH
Latitude: 39.6159881 Longitude: -81.6669809

To:
Andrew Maguire, EPA
Mark Johnson, ATSDR
Valencia Darby, Department of Interior
Todd Goeks, NOAA
Laurie Lee, NOAA
Craig Butler, Ohio EPA
Kevin Clouse, Ohio EPA
Scott Shane, Ohio EPA
Wayne Babcock, U.S. Department of Interior
Robert Burr, U.S. Department of Interior
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Sam Borries, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
Isalee Coleman, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
HQ EOC, U.S. EPA
Sherry Fielding, U.S. EPA
Charlie Gebien, U.S. EPA
John Glover, U.S. EPA
Mick Hans, U.S. EPA
Sharon Jaffess, U.S. EPA
Luke Jones, U.S. EPA
Matt Mankowski, U.S. EPA
Thomas Marks, U.S. EPA
Mike Ribordy, U.S. EPA
Ellen Riley, U.S. EPA
Annette Trowbridge, U.S. Fish & Wildlife
Jake Glascock, Ohio DNR
Freddie Thompson, USCG
Shelly Lam, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 5/8/2014
Reporting Period: 5/6/14 - 5/7/14

1. Introduction

1.1 Background

Site Number:	Z5NH	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	5/4/2014	**Start Date:**	5/4/2014
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:	E14519	**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response - OPA

1.1.2 Site Description

The site is a wet gas/natural gas oil production well (Well Site Palmer 44-20) north of Beverly, Ohio. Wet gas is a mix of crude oil and condensate.

On Sunday May 4, 2014, PDC Energy reported a 100 barrel spill of drilling mud (75% synthetic oil blend) into an unnamed creek near Beverly, OH. In addition to the drilling mud, an unknown amount of wet gas was also released. The spill was a result of a mechanical failure of a well head during a horizontal drilling operation intended for hydraulic fracturing in the Utica Shale formation to extract wet gas and natural gas. Upon discovery of the discharge, drilling operations were stopped and PDC Energy implemented their emergency response plan. The incident management specialist contractor, Wild Well Control (WWC), was notified of the situation and mobilized to the discharge site. WWC arrived on site within six hours of mobilization.

The oil production well pad is situated on a man-made earthen platform, with steep embankments to the north, east, and south. As a result of the well head failure, drilling fluid discharged out of the well boring and onto the surface of the drilling pad and down gradient into storm-water control drainage ditches adjacent to the north, east, & south perimeters of the well pad and to an unamed creek downstream of the ditches. The unnamed creek flows for ¾ mile before leading to Cow Run Creek, and Cow Run Creek flows for a mile before leading to Olive Creek. Olive Creek then flows for a mile before meeting with the Muskingum River a tributary of the Ohio River.

A pocket of unexpected natural gas was encountered during the drilling leading to over-pressurization of the casing leading to the failure of the well head and release. Natural gas was also released causing an explosive atmosphere leading to dangerous working conditions and the evacuation of 7 residents from 3 homes adjacent to the site.

1.1.2.1 Location

1010 Center Bend Rd
Beverly, Morgan County, Ohio

1.1.2.2 Description of Threat

Oil has been released into an unnamed creek that is a tributary to the Muskingum River, a navigable waterway.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see earlier POLREPs for information prior to this operational period.

EPA, Ohio EPA, PDC and Clean Harbors developed a cleanup approach to address the condensate downstream of the first containment earthen dam. Flowing condensate has been identified in the sediment materials of the unnamed tributary under the earthen clay dam. Immediately downstream of the first containment dam, a pumping basin was excavated down to a confining layer (limestone) and sealed with clay on the downstream side. Condensate is skimmed from the sump into a frac tank and a three inch trash pump transfers water from the pumping basin to the upstream site of the first containment dam. In addition to the pumping basin, the first containment dam has been improved with more compacted clay material. Accessibility, topography, and benzene concentrations have impeded response operations.

As of 10:00 p.m. on 5/7/2014 the natural gas release has diminished completely, and benzene concentrations are no longer influencing the work on the pad, work has continued on fixing the well. The voluntary evacuation has been lifted for the three homes located within the direct vicinity of the well, only two residents of one home have returned. The process of fixing the well involved placing a packer and introducing more drilling mud to suppress natural gas from releasing so the well head can be fixed. This was monitored closely, containment and recovery equipment are staged for a quick response should another release occur. PDC Energy is still developing on what to do with the well, either prepare it for reuse or plug and abandon (P&A).

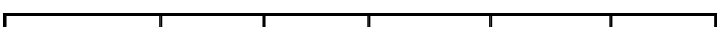
2.1.2 Response Actions to Date

Two containment dams and one pumping basin have been constructed to keep oil contained. 339 barrels of oil/water mixture has been recovered so far. Sorbent booms and pads are in place and are changed out regularly when saturated. 100 feet of containment boom is in place upstream of the farthest downstream containment dam.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

A Notice of Federal Interest was issued to PDC Energy on 5/5/2014.

2.1.4 Progress Metrics



Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

Remove debris in creek to prepare for flushing activities
Oil Recovery in creek, sediment ponds and drainage ditches
Air Monitoring on pad and off-site

2.2.1.1 Planned Response Activities

Air Monitoring
Recovery of borehole and well head repair.

2.2.1.2 Next Steps

Plan for long term remediation.

2.2.2 Issues

Accessibility to impacted creek and environment.
Concentrations of Benzene may impact recovery efforts.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

START TDD - $20,000
FPN - $50,000

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA, Ohio EPA, PDC Energy

3.2 Cooperating Agencies

US Fish & Wildlife Service
Ohio Department of Natural Resources

4. Personnel On Site

1 - EPA OSC
2 - Tetra Tech START
1 - Ohio EPA OSC
75-100 - PDC Energy and contractors

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/PDCEnergyBeverly

6.2 Reporting Schedule

7. Situational Reference Materials

No information available at this time.