

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Beaver Creek Bridge Crude Oil Spill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #12
Replugging Efforts of the Abandoned Oil Well Continues
Beaver Creek Bridge Crude Oil Spill

Glasgow, KY
Latitude: 36.9914130 Longitude: -85.9861300

To:
From: Perry Gaughan, OSC
Date: 2/16/2015
Reporting Period: 02/09/2015 through 02/22/2015

1. Introduction

1.1 Background

Site Number:	Z4ZB	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	OPA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	9/19/2014	Start Date:	9/19/2014
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:	E14459	Reimbursable Account #:	

1.1.1 Incident Category

Region 4 Emergency Response and Removal Branch (ERRB) responded to a continuous release of crude oil along a one half mile section of Beaver Creek three miles west of Glasgow, Kentucky. Response efforts were initially requested by Kentucky Dept Environmental Protection (KDPE) and are being performed under the OSC's Oil Pollution Act authority.

1.1.2 Site Description

The spill Site is along the flood plain of a 50 acre farm three miles west of Glasgow. Crude oil continues to emanate from a creek bank into a 100 yard section of Beaver Creek in a remote section of the creek. Approximately a one half mile stretch of the creek has been impacted. The spill is located immediately south of a recent interchange construction by Kentucky DOT along the Louie B. Nunn Expressway between Interstate 65 and Glasgow, Ky.

1.1.2.1 Location

The spill is located along Beaver Creek on a 50 acre farm along State Route 1297 where it runs under the Louie B. Nunn Expressway.

1.1.2.2 Description of Threat

The crude oil release is emanating from the Harrison No. 2 abandoned oil well 80 feet from Beaver Creek. There are two additional abandoned oil wells on the flood plain but test trenching operations conducted in December of 2014 confirmed the source as the Harrison No. 2 well. According to Kentucky Oil and Gas, this well was most likely improperly plugged in the mid 1980's.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA working with Kentucky DEP and the property owner has located three former well locations along the Harrison flood plain adjoining Beaver Creek east of Glasgow. Kentucky DOT has recently built an interchange on the L. Nunn Expressway on an 8 acre parcel of the farm upgradient of the creek.

The Harrison No. 2 well was initially uncovered and cemented on October 3rd by EPA and ERRs contractors (reference Polrep #3). However, test trenching operations near the well in December 2014 indicated that oil was continuing to flow from the well. Based on the latest well operations during Feb 2015, the cast iron bridge plug placed on Oct 1st 2014 was most likely set on bad, corroded casing which resulted in the plugging failure.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Based on the continuing release of crude oil to Beaver Creek, the OSC requested and received additional funding from the National Pollution Fund Center (NPFC) in mid January 2015 (see Polrep #10 OPA 90 Funding Request). Emphasis during the most current replugging operation were centered around the removal of 2" production tubing and metal debris from 200-600 feet. The oil producing zone has been reported to be the Leeper formation at a depth of 600 feet.

Monday, Feb 9th through Friday, Feb 13th 2015

Milling operations to remove production tubing and metal debris at the abandoned oil well continued through Friday, Feb 13th. Well milling operations extended from a depth of 335' to 444'. Milling bits are changed out every day and a half of operations to improve milling efficiency. Drilling mud continues to be used during milling operationsto increase milling efficiency and in an effort to seal subsurface oil/water pathways to Beaver Creek.

Monday, Feb 16th through Friday, Feb 20th 2015

A severe winter storm dumped 12 inches of snow on Glasgow, Kentucky on Monday, Feb 16th and wind chill temperatures through the week were forecasted to be below 0°F. The OSC consulted with ERRs response manager and the oil well service subcontractor and elected to temporarily shut down operations because of the weather.

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

The OSC is working with Kentucky Oil and Gas in identifying previous drillers in the area. Once identified, EPA will pursue normal responsible party liability and request plugging records by operators. Wells in this area of Kentucky date back to 1930's to 1940's. Wells in an area of Boyds Creek less than ten miles from this site date back to 1865 (Civil War).

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Continue removal/ milling through the 2" production tubing from 200 to 600 feet and place a new cast iron bridge plug at the oil producing zone. The well will be cemented from 600 feet to land surface.

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Kentucky DEP, Kentucky Oil and Gas, Kentucky DOT

4. Personnel On Site

ERRs (CMC Inc.) - 1 response manager, 1 equipment operator, 3 laborers.

Barnett and Smith (Oil well service subcontractor) - 1 rig operator/ supervisor, 2 oil rig laborers.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.