

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 #14
Replugging Efforts of Abandoned Oil Well Continues
Beaver Creek Bridge Crude Oil Spill
Z4ZB
Glasgow, KY
Latitude: 36.9914130 Longitude: -85.9861300

To: Jim McGuire, USEPA R4 ERRB
Thomas M. McCrossen, NPFC

From: Perry Gaughan, OSC

Date: 2/27/2015

Reporting Period: 2/23/2015 through 3/06/2015

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 (KDEP) 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) on Feb 26th (see Polrep #13 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 23rd through Saturday, Feb 28th 2015

Milling operations at the Harrison No. 2 well continued over the last week. Well operations extended from a depth of 444' to 485' as of Thursday, Feb 26th. The rotary turntable bearing went out on Thurs Feb 26th which required replacing Friday morning. Drilling mud continues to be used during milling operations in an effort to increase milling efficiency and to seal subsurface oil/water pathways to Beaver Creek.

Monday, March 2nd through Friday, March 6th 2015

After the oil well service subcontractor finished overhauling and installing the rotary turntable on Monday March 2nd, milling operations continued the following day. On Tuesday and Wednesday, milling continued to a depth of 504 feet. The Glasgow, Ky area received heavy rain on Wednesday morning which led to flash flooding and a rapid rise in Beaver Creek. This forced the ERRs crew to move support equipment around the drill rig. Later that evening temperatures dropped below freezing and one inch of sleet was followed by eight inches of snow. Operations were shut down on Thursday because of icy conditions and Friday because of freezing temperatures of 1°F.

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

2.4.1 Narrative

The NPFC approved an additional \$350,000 on Feb 26th 2015 to continue site operations. Approx \$130,000 committed to ERRs contractors during FY 2014 cannot be utilized by the OSC and will be deobligated by EPA contracts and returned to NPFC during FY 2015.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$1,097,301.77	\$997,000.00	\$100,301.77	9.14%
TAT/START	\$70,000.00	\$65,000.00	\$5,000.00	7.14%

Contingency	\$107,203.23	\$0.00	\$107,203.23	100.00%
Intramural Costs				
USEPA - InDirect	\$225,495.00	\$195,495.00	\$30,000.00	13.30%
Total Site Costs	\$1,500,000.00	\$1,257,495.00	\$242,505.00	16.17%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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.