

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, May 25, 2005

From: Wally Cooper

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R6 PolRep OPA, Response and Prevention Branch Lamonica Collins, USEPA
USCG NPFC, USCG - NPFC

Subject: POLREP 2
(FPN E05625) Jackson Well Service - Underwood A
Oil City, LA
Latitude: 32.7271343
Longitude: -93.9432880

POLREP No.:	2	Site #:	N/A
Reporting Period:		D.O. #:	N/A
Start Date:	12/1/2004	Response Authority:	OPA
Mob Date:		Response Type:	
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Assessment
CERCLIS ID #:	N/A	Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#	E05625		

Site Description

Site Location

The Jackson Well Service – Underwood A abandoned oil production facility (EPA ID E05625) is located in the Caddo Pine Island Oil and Gas Field (Field ID 2152), approximately 1.5 miles southeast of Oil City in Section 17, Township 20 North, Range 15 West (Sec17, T20N, R15W) of Caddo Parish, Louisiana at Latitude 32.7227783 N and Longitude -93.9427071 W. There are approximately twenty residences located within a one-mile radius of the facility. The facility is accessed from the northwest via an unnamed dirt oil field road. There are no security features restricting access to the facility.

Site Description

The facility consisted of seven above ground storage tanks (AST), two secondary containment areas (CONT), one oil-impacted area (OA), and seven production wells. One welded steel tank, identified as AST1, and one welded steel gun barrel tank, identified as AST2, were located inside of a 45-foot by 35-foot secondary containment area, identified as CONT1. One welded steel tank, identified as AST3, was located inside of a ten-foot moat containment area, identified as CONT2. CONT2 was located adjacent to and south of CONT1. One bolted steel tank, identified as AST4, was located adjacent to and southeast of CONT2 and lacked secondary containment. One bolted steel gun barrel tank, identified as AST5, and two bolted steel tanks, identified as AST6 and AST7, were located northwest of CONT1 and lacked secondary containment means. One oil-impacted area, identified as OA1, was located adjacent to and southwest of AST4.

The facility serviced seven production wells, identified as Underwood A Well No. 001 (SN 052317), No. 002 (SN 052991), No. 003 (SN 053779), No. 004 (SN 055015), No. 005 (SN 054781), No. 006 (SN 055016), No. 007 (SN 054780), and were located approximately 350 feet northwest, 640 feet west-northwest, 300 feet southwest, 480 feet east, 400 feet north, 640 feet northeast, and 20 feet southwest of the facility, respectively. The Louisiana Department of Natural Resources (LDNR) records list all of these wells as orphaned.

Description of Threat

Drainage from the facility flows east into an unnamed tributary of Caddo Lake. Caddo Lake is navigable

“in fact” and subject to interstate commerce. The Caddo Lake surface water intake near Mooningsport is located approximately 4 miles downstream. The facility is surrounded by wooded lowlands followed by an unnamed tributary of Caddo Lake to the east. There are no fences, gates, signs or other security features restricting access to the facility. Endangered and Threatened species potentially located within the parish include the Bald Eagle, Least Tern - interior population, and Pallid Sturgeon.

Based on the Phase I SA data there are approximately 66 bbl of oil and oil emulsion that meets the definition of "oil" as defined by Section 1001(23) of OPA, 33 U.S.C § 2701(23). In addition, a significant volume of oil-impacted soil is believed to be associated with facility.

A failure of the storage and process containers through corrosion, vandalism or force majeure has the potential to release a harmful quantity of oil within the meaning of Section 311 (b)(3) of the CWA, 33 U.S.C. § 1321(b)(3), and 40 CFR § 110.3(b), into the site drainage.

The EPA Region 6 FOSC has determined from the Phase I SA data and standard EPA threat analysis protocols, which are consistent with the criteria for determination of a substantial threat of discharge found in the U.S.C.G. NPFC Users Guide, July 2002 that this facility meets the basic threat criteria. A Phase II SA will be conducted to make a final determination of substantial threat of discharge.

Previous Actions

The LDNR referred the Jackson Well Service – Underwood A facility for EPA review in December of 2004.

Current Activities

The facility was visited on April 17, 2005, and a Phase I SA was conducted at that time. LDNR CES Randy McLaughlin provided the USACE contractors access to conduct on-site activities.

During the Phase I SA, the general condition of the facility was evaluated, containers were gauged to determine the volume of oil and oil emulsion present, and a preliminary assessment of threat to navigable waters of the U.S. was documented using established EPA protocols. This action was taken at the request and on the behalf of the EPA Region 6.

AST1 through AST7 were gauged and their condition was documented. All of the containers were deemed inadequate due to rust and corrosion, predominately around the bases. AST1 and AST4 were also starting to delaminate and oil-impacted soil occurred at the base of the tanks providing evidence of previous leakages. While gauging AST2 the USACE Contractor was unable to break through the first foot of oil emulsion in order to check for water in the tank. AST3 was starting to delaminate and water pooled around the base of the tank had a slight sheen. AST5, AST6, and AST7 were out of service and staged on their sides northwest of CONT1. All three tanks were split, rusted and corroded, but contained residual oil. Two drums were located directly south and directly west of AST3. These drums were deteriorated and possessed only residual material.

CONT1 served as secondary containment measures for AST1 and AST2 and was deemed to be inadequate due to a complete breach near its southwest corner. The berms were deteriorating due to vegetation and lack of maintenance. Inside CONT1, oil-impacted soil occurred at the base of the tanks. CONT2 was located south of CONT1 and contained AST3. CONT2 was breached, which reduced its capacity to the moat surrounding the base of the tank. Oil-impacted soil was documented in CONT2 surrounding the base of AST3. The breach in the northwest corner of CONT2 allowed drainage to reach adjacent waterways.

OA1, located between SN 054780 and AST4, provides evidence of a previous release at the facility.

The wellheads for SN 052317, SN 055016, SN 055015, SN 054781, SN 054780, SN 053779, and SN 052991 were located and documented in corroded condition. Oil-impacted soil was documented in association with SN 052317, SN 055016, SN 053779, SN 054780 and SN 052991.

Based on gauging and field observations, the following volumes of non-hazardous oilfield waste (NOW) were estimated to be present at the facility. AST1 through AST7 contained approximately 66 barrels (bbl) of oil and oil emulsion. The contents of these containers were documented as NOW and were not

sampled. CONT1, CONT2, and OA1 were not sampled, however based upon field observations are believed to contain a significant amount of oil-impacted soil that is estimated to exceed the one percent (%) oil and grease (O&G) concentration limit found in Louisiana Administrative Code, Title 43, Part XIX, Section 313 (LAC43.XIX.313).

Next Steps

USACE contractors will conduct a Phase II SA including collection of soil corings, samples and conducting field chemistry test as required. The results of the corings, sample analysis and field test will be used to confirm the presence of oil contamination, and to provide a preliminary determination of the extent of contamination and volume of contaminated materials.

POLREP No. 3 will advise of RP actions, the results of the Phase II SA, and the EPA OSC intentions for this abandoned facility.

Key Issues

Enforcement

All previous enforcement efforts by LDNR have produced no timely or technically appropriate responsible party (RP) actions, as evident by the current conditions at the facility. The wells previously identified in this report as associated with this facility, Underwood A Well No. 001 (SN 052317), No. 002 (SN 052991), No. 003 (SN 053779), No. 004 (SN 055015), No. 005 (SN 054781), No. 006 (SN 055016), were reported by LDNR as last operated by Jackson Well Service (Operator code 2953). LDNR records indicate these wells have been orphaned. EPA will formally offer the RP the opportunity to conduct the necessary mitigation actions to abate any potential sources of release at the site through issuance of a Notice of Federal Interest (NOFI). If the RP declines to participate, or fails to timely respond to notice, EPA plans to proceed with an OSLTF financed cleanup action. The RP is clearly advised via the notice procedure they may be subsequently held liable for the cost of government funded cleanup actions. Further, a deed and title search will be ordered to identify any other potential responsible parties (PRPs).

response.epa.gov/E05625