

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Kalamazoo River/Enbridge Spill - Removal POLREP-SITREP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V



Subject: SITREP #14
Kalamazoo River/Enbridge Spill
Z5JS
Marshall, MI
Latitude: 42.2395273 Longitude: -84.9662018

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From: Ralph Dollhopf, U.S. EPA Incident Commander
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Date: 08/08/10

Reporting Period: 1900 hours 08/07/10 to 1900 hours 08/08/10 1900

1. Introduction

1.1 Background

1.1.1 Site History

Background Information

Site Number: Z5JS	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority: OPA	Response Type: Emergency
Response Lead: PRP	Incident Category: Removal Assessment
NPL Status: Non NPL	Operable Unit:
Mobilization Date: 7/26/2010	Start Date: 7/26/2010
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#: E10527	Reimbursable Account #:

1.1.2 Incident Category

Emergency Response -- Pipeline Rupture

1.1.3 Site Description

A 30-inch pipeline ruptured, releasing crude oil (NRC report of 19,500 barrels) into a culvert leading to Talmadge Creek. Talmadge Creek is a tributary to the Kalamazoo River. The response site is along the Kalamazoo River running from Marshall, Michigan to Battle Creek, Michigan. The Kalamazoo River is bordered by marshland and developed properties for the approximate 30 mile stretch of the response site.

1.1.4 Preliminary Removal Assessment/Removal Site Inspection Results

Approximately 30 miles of the Kalamazoo River have been impacted. The Kalamazoo River experienced flooding before and after the spill. The river levels have fallen and stranded oil in some backwaters and wetlands. Talmadge Creek has been boomed off at the confluence to the Kalamazoo River. Containment and absorbent boom has been deployed along the Kalamazoo River and Talmadge Creek. Containment and absorbent boom have also been deployed in Morrow Lake.

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

Enbridge is the RP.

On July 27, 2010, EPA issued an Administrative Order under section 311(c) of the Clean Water Act to Enbridge. Enbridge is actively addressing all the deliverables of the Order including but not limited to: drafting an overall site work plan; health and safety plan; and sampling and analysis plan.

1.2 Incident Objectives and Command Emphasis

Incident Objectives

- 1) Ensure health and safety of the public and of response & recovery personnel.
- 2) Maintain the isolation of Talmadge Creek and Kalamazoo River from the source area.
- 3) Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
- 4) Maintain effective unified communications with cooperating & assisting agencies and the public.
- 5) Perform remediation & restoration of all affected public & private areas of river & river systems

- 6) Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
- 7) Identify threatened species & continue to recover & rehabilitate injured wildlife.
- 8) Set up an effective claims process and information centers in Marshall.
- 9) Maintain Joint Information Center function.
- 10) Establish a process to collect, coordinate, manage and communicate environmental and public health data.
- 11) Obtain input from DNRE, NOAA, USGS to help establish protocols to guide cleanup of environmentally impacted areas.

Command Emphasis

- 1) Continue efforts to remove oil from pipeline release zone.
- 2) Emphasize efforts for shore cleanup and sheen management including Ceresco Dam.
- 3) Maintain continuous comprehensive on-water/analytical sheen monitoring, investigation, reporting and recovery at Morrow Lake.
- 4) Analytically characterize stagnant water pools between river and Baker Estates.
- 5) Monitor hotline and community outreach effectiveness.
- 6) Increase effectiveness of IAP briefing and use by Operations personnel.
- 7) Begin transition of EPA logistics/procurement functions to Enbridge.
- 8) Implement Documentation Unit procedures.
- 9) Initiate transition of IAP 204 development from EPA to Enbridge.

1.3 Strategic Considerations

- 1) The Science Team and SCAT will work with Operations to ensure a good progression of clean up recommendations for operational planning of bank and floodplain cleanup activities.
- 2) Safety Officers will continue to elevate site-wide Health and Safety practices in accordance with the approved HASP.
- 3) Operations will emphasize the importance of review of the IAP by field staff to ensure that operational objectives are achieved.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The response site extends from the pipeline break to the dam at the end of Morrow Lake and has been geographically divided into five Divisions, A to E, with Division A starting at the pipeline break and ending at Morrow Lake in Division E. The Divisions are split

into two Branches, with the East Branch covering Divisions A and B and The West Branch covering Divisions C, D and E. The Divisions are further broken down into collection points that are denoted by division letter then collection point number (i.e. C3 refers to collection point three within Division C).

River Branch East Divisions A and B

EPA

In Division A, EPA and START conducted air monitoring for VOCs, LEL and benzene. EPA observed continued work around the pipeline including: dewatering operations, excavation of contaminated soil and taking inventory of damaged and oiled trees.

In Division B, EPA conducted oversight of the construction of mat roads adjacent to the creek, excavation of the creek shoreline and collection of oil at collection points near location B1. EPA noted that oil globules emerged from the creek after sediment was disturbed. EPA observed skimming operations in locations B4 and B4.7. EPA noted that Division B was experiencing higher levels of oil in the water downstream during bank excavation in location B1. Enbridge added a flume to location B1.5.

The USCG team conducted observations at locations B1, B2, B3, B4, B4.7 and B5. USCG observed excavators moving along the creek removing oiled soil; skimmers were in operation at location B1. USCG observed brushing of oil on the sides of the creek, placement of a skimmer, and the use of trash pumps to flush out the brushed areas to skimmers near locations B2 and B3.

Enbridge

In Division A, Enbridge conducted oil collection at the release site by use of vacuum tankers and removed contaminated soil to containment and disposal site. Enbridge continued implementation of the cut-out and repair plan and completed pipe investigation 50 feet upstream and downstream of the cut points. Enbridge continued work on the connection, fit-up, and welding of the repair section. Cleanup activities were conducted starting at Talmadge Creek in Division A and working downstream towards location B1, scraping oily vegetation and surface soils with an excavator. All cleanup activities were conducted in accordance with SCAT recommendations.

In Division B, Enbridge continued oil collection at the boom containment sites with a vacuum truck and replaced contaminated boom as required. Enbridge continued laying swamp mat road along Talmadge Creek downstream of Division Road. Enbridge conducted cleanup activities starting at B2 and working downstream, scraping oily creek bank vegetation and surface soil on Talmadge Creek. Enbridge placed material at the containment site. All cleanup activities were conducted in accordance with SCAT recommendations.

River Branch West

EPA

In Division C, EPA observed removal of vegetation on the embankment at location C1 in preparation for shoreline operations. At location C1, EPA observed the collection of oily vegetation and the use of a high suction vacuum truck to clean oil from around lily pads. Four hundred gallons of oily water were collected at location C3. EPA observed continued boom maintenance, vac truck operations and skimming.

EPA contractors re-positioned and maintained containment boom and replaced contaminated sorbent boom at location C0. EPA conducted oversight of its contractors during boom maintenance, removal, and staging for decontamination.

The USCG team conducted observations in Division C. At location C1, USCG observed the collection of oily vegetation and the use of a high suction vacuum truck to clean oil from around lily pads. At location C4, USCG observed crews cleaning up loose oily debris along the shoreline without any cutting.

In Division D, EPA observed skimming operations and monitoring & decontamination of boom at locations D1, D2, D2.5, D3. START conducted air monitoring at boom locations D0.5, D1, D2, D2.5, D3, and D5. Air monitoring results (H₂S, VOC, CO, and LEL) at each location were non-detect and O₂ levels were within acceptable range.

EPA contractors reconfigured boom to improve diversion and removed excess boom. Crews continued bagging oiled vegetation and debris collected in the diversion areas near location D2.5. EPA conducted oversight of the containment boom maintenance, removal and staging for decontamination.

In Division E, EPA observed skimming, oil aeration, and boom monitoring.

EPA contractors re-positioned & maintained containment boom and replaced contaminated sorbent boom near location E3. EPA conducted oversight of continued containment boom maintenance, removal and staging for decontamination.

Enbridge

In Division C, Enbridge used three boats to collect oiled lily pads. Fourteen (14) boats were used for boom maintenance and cleanup. Crews started shoreline cleanup on an area past the dam, including the use of snare boom.

In Division D, Enbridge adjusted booms to get better deflection near location D1. The skimmer was collecting approximately 90% water. Horseshoe booms were removed at location D2.

In locations E1 and E3, Enbridge operated underwater aerators. Enbridge completed booming of the island by location E4. Boom maintenance was also performed.

Morrow Lake Task Force

Two boat crews surveyed the lake for sheen. One area of sheen was observed at location E3 and pads were used to clean up the sheen.

Branch Operations

EPA and other Enbridge Operations have a Shoreline Branch, Monitoring Branch, Wildlife Branch and Air Ops Branch that conduct activities in all the Divisions. EPA also conducts Monitoring Branch operations.

Shoreline Branch

In Division B, crews in locations B2 through B5 collected a total of 215 bags of oiled debris, 11,450 gallons of oily water, and 50 feet of sorbent boom.

In Division C, crews in locations C0.5 & C1 collected and removed 89 bags of oiled debris, 6,200 gallons of oily water, and deployed 5,000 feet of sorbent boom in location C1. In location C2, crews collected 1,600 gallons of oily water and replaced 40 feet of sorbent boom. In location C4, 100 bags of oiled debris were collected and 200 feet of sorbent boom were replaced. In location C5, crews replaced 900 feet of sorbent boom and 900 feet of hard boom, as well as decontaminating four boats. In location C6, crews deployed 150 individual “pom-pom” sorbents and collected 10 bags of oiled debris.

In Division D, crews in location D2 replaced and disposed of 350 feet of sorbent boom and continued to remove product through the use of a drum skimmer and a vacuum truck.

Monitoring Branch

EPA

A total of 32 air samples were reported as being collected during the August 7, 2010 sampling period and sent to the laboratory for analysis.

Enbridge

Focused programs have been implemented around the Baker Estates trailer park, the Ceresco dam, Morrow Lake and the leak site. Enbridge collected 35 surface water samples, 25 potable water samples, 5 sediment samples, 16 24-hour grab air samples, 4 air mini-summa samples, 18 air grab samples and 21 passive dosimeter samples. Bitumen Flakes were sampled near location D3. Additionally, real-time monitoring for benzene and VOCs continued.

Wildlife Branch

USFWS worked with the Wildlife Branch to address wildlife impacts. The wildlife center continued to receive many animals collected along the Kalamazoo River. To date there are 164 animals in live care, the majority of which are Canada Geese and turtles. Nine turtles were released in Wilder Creek.

Air Ops Branch

Four over flights were conducted and no sheen was observed on Morrow Lake.

SCAT

SCAT teams surveyed D3 to D0.5, and 13 miles of area E

Boom Report

	Enbridge	EPA	TOTALS
Number of Locations	32	5	37
Boom Deployed (feet)	67,319	81,085	148,404
Oil/Water Recovered (bls- est) cumulative	35,022	1,689	36,711

2.2 Planning Section

The Environmental Unit reached an agreement with Entrix (Enbridge contractor) for management of SCAT GPS data. The SCAT coordinator attended the Tactics Meeting and received the Shoreline Cleanup Plan for Area C1 from the Enbridge SCAT Coordinator including maps of Area C1.

EU attended the Science Team meeting where the SAP, Remediation Plan for Downstream Impacted Areas, Source Area Remediation Plan and QAPP were reviewed.

The DMU compiled data collected by the SCAT teams to allow operational maps to be developed to support clean up operations. The DMU implemented QA/QC procedures for the Scribe database and assessed adding air and surface water benchmarks to the Scribe database.

The DMU has processed site pictures and developed a method for sharing the pictures with Unified Command Staff.

2.2.1 Anticipated activities for next reporting period

In the next operational period, EPA anticipates performing the same activities as in the previous operational period.

2.2.2 Issues

A re-occupancy strategy for the evacuation zone has been drafted and was presented to the Unified Command. Summa 24-hour air samples will be collected in a subsection of the zone to confirm that the re-occupancy criteria of 6 ppb has been met.

2.3 Logistics Section

Logistics, working along with Finance, continued to plan for moving the UCP to the old State Farm Site located at 820 Mann Road Marshall, MI from the current Walters Elementary School location.

2.4 Finance Section

The current NPFC issued ceiling (based on EPA requests) is \$6 million. Approximately 95% of the ceiling has been spent through August 07, 2010; with a burn rate of \$527,000 per day. These cost summaries only reflect EPA expenditures for the incident.

	Est Expended (\$)	Est Burn Rate (\$)
EQM	953,847	76,249
LATA	859,795	111,443
ER LLC	571,508	54,964
ERRS Contractors	2,385,150	242,656
WESTON START	1,057,734	121,302
Federal & Other Agencies	1,597,651	104,281
Sub-Totals	5,040,535	468,239
Indirect Costs (12.6%)	635,107	58,997
Est Total Oil Spill	5,675,642	527,238

2.5 Safety Officer

There were three minor motor vehicle incidents with no injuries reported today.

Enbridge continued to provide continuous on-site safety officers for Divisions A and B, with a roving safety officer to cover Divisions C/D/E.

MIOSHA and Federal OSHA continued to provide oversight in areas B through E.

2.6 Liaison Officer

The Liaison Officer established streamlined procedures for submittal of comments and input on the remedial work plans for the source release area and the downstream impacted areas from assisting and cooperating agencies not named to the Multi-Agency Science Team. These plans are being reviewed and revised by the Science Team and must be finalized and submitted for approval to the Unified Command.

2.7 Information Officer

2.7.1 Public Information Officer

Oil Spill Response Hotline (888-363-8632)—Incoming Calls

TOTAL CALLS: 1

A single caller was referred to the EPA's contractor website.
(<http://www.epa.gov/epahome/contracts.htm>)

PIO Activities

JIC staff monitored the media and media/public phone bank.

2.9 Response Actions to Date

Containment boom, sorbent boom, skimming equipment, vacuum trucks and other equipment have been used to support oil collection and removal along Talmadge Creek and the Kalamazoo River. Recovered material is being temporarily stored on-site. Tanker trucks are transporting the material to a facility owned by the RP with available storage in Griffith, Indiana.

EPA, ERT, START and RP contractors, with the support of the ERT Mobile Lab, have monitored and sampled air quality along the river and throughout multiple residential areas. A heavy emphasis was placed on specific monitoring for benzene as it is a recognized contaminant of concern for this response.

Water samples were collected for analysis from surface water, river and lake water columns, and private drinking wells along the length of the impacted areas of the Kalamazoo River. Water samples were also taken downstream of the Morrow Lake Dam. Validated analytical sampling results are now being posted to the public incident website (<http://www.epa.gov/enbridgespill/data/datawater.html>).

The USCG Atlantic Strike Team is on-scene to provide assistance with RP and contractor oversight. USCG District 9 staff is on site working with the Incident Management Team.

NTSB and USDOT-PHMSA are on-site conducting an investigation of the pipeline incident and are working with the appropriate State, Local, and Federal agencies. Enbridge has been given permission from NTSB to excavate the pipeline break. Enbridge removed the affected area of pipe, following the cut out/repair plan, and completed a pipe investigation (50 feet upstream and downstream of the cut points) on August 7, 2010.

The voluntary evacuation issued by CCPH in consultation with MDCH and ATSDR remains in effect for several residences located immediately downstream of the spill site along the Talmadge Creek, up to its confluence with the Kalamazoo River. This voluntary evacuation was based on review of air monitoring results for benzene around oil collection areas. The evacuation recommendation has been reduced. A re-occupancy strategy for the evacuation zone has been drafted and was presented to the Unified Command.

A Contingency Plan for Morrow Lake has been developed in case oil moves past the lake.

EU distributed copies of Enbridge plans to the Science Team for review. Plans included: Sampling and Analysis Plan including figures, Remediation Plan for Downstream Impacted Areas, Source Area Remediation Plan, and the Quality Assurance Project Plan.

3. Participating Entities

3.1 Unified Command

United States Environmental Protection Agency	Calhoun County Public Health Department
Michigan Department of Natural Resources and Environment	Calhoun County Emergency Management
Michigan State Police Emergency Management Division	Kalamazoo County Sheriff Enbridge (Responsible Party)

3.2 Cooperating and Assisting Agencies

Cooperating Agencies

51st Civil Support Team Michigan National Guard	Fredonia Township Fire Department
Agency for Toxic Substances and Disease Registry	Kalamazoo County Office of Emergency Management
Allegan County Emergency Management	Kalamazoo Public Safety
American Red Cross	Kalamazoo Watershed Council
Augusta Police Department	Marshall Township Government and Fire Department
Calhoun Conservation District	Marshall Police Department
Calhoun County	Michigan Dept of Community Health
Calhoun County Treasurers Office	Michigan Dept of Agriculture
Calhoun Greenation District	MIOSHA
City of Battle Creek	NOAA
City of Kalamazoo	OSHA
City of Marshall	Natural Resource Group
Federal Energy Regulatory Commission	National Transportation Safety Board

Pipeline Hazardous Materials Safety
Administration
U.S. Coast Guard

US Department of the Interior US
Geological Survey
U.S. Department of Transportation
US Fish & Wildlife Service

Congressional Presence

State Representative Jase Bolger
State Representative Kate Segal
State Representative Ken Kurtz
State Representative Phil Browne
State Representative Phyllis Browne
State Representative Bob Geuck

State Representative Tanya Schuitmaker
State Senator Mike Nofs
U.S. Congressman Mark Schauer
U.S. Senator Carl Levin
U.S. Senator Stabenow

4. Personnel On Site

These numbers reflect all EPA numbers and On-River only for Enbridge.

Personnel	Numbers reported for 8/7/2010	Numbers reported for 8/6/2010
Enbridge	39	52
Enbridge Contractors	912	818
EPA	57	64
ERRS	108	109
USCG	18	19
USFWS	13	13
START	69	62
Total	1216	1137

5. Definition of Terms

ATSDR Agency for Toxic Substances and Disease Registry
CCPH Calhoun County Public Health
CHD County Health Department
CIC Community Involvement Coordinator
CST Civil Support Team
CTEH Center for Toxicology and Environmental Health
CWA Clean Water Act
DMU Data Management Unit
DNRE Department of Natural Resources and Environment
DOC Department of Commerce
EPA Environmental Protection Agency
ERRS Emergency and Rapid Response Contractor
ERT Emergency Response Team

FOB	Field Observers
FPN	Federal Project Number
GC/MS	Gas Chromatograph/Mass Spectroscopy
GIS	Geographical Information System
HASP	Health and Safety Plan
IAP	Incident Action Plan
IN	Indiana
JIC	Joint Information Center
LEL	Lower Explosive Limit
LNO	Liaison Officer
MDCH	Michigan Department of
MDNRE	Michigan Department of Natural Resources and Environment
MI	Michigan
MSPEMD	Michigan State Police Emergency Management Division
NRC	National Response Center
NOAA	National Oceanic and Atmospheric Administration
NTSB	National Transportation Safety Board
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSLTP	Oil Spill Liability Trust Fund
PCB	Polychlorinated Biphenyls
PHMSA	Pipeline and Hazardous Materials Administration
PIO	Public Information Officer
RP	Responsible Party
SCAT	Shoreline Contamination Assessment Team
SOP	Standard Operating Procedure
START	Superfund Technical Assessment and Response Team
USCG	United States Coast Guard
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
VOCs	Volatile Organic Compounds

6.2 Reporting Schedule

SITREPs have been created daily and will continue until the Incident Commander establishes a different reporting schedule.