

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



Flag Raising at the ICP

**Subject: SITREP # 72  
Kalamazoo River/Enbridge Spill  
Z5JS  
Marshall, MI  
Latitude: 42.2395273 Longitude: -84.9662018**

US EPA ARCHIVE DOCUMENT

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**Date:** 10/28/2010

**Reporting Period:** 0700 hours 10/25/2010 to 0700 hours 10/28/2010

**1 Introduction**

**1.1 Background**

**1.1.1 Site History**

**Background Information**

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

**1.1.2 Preliminary Site Inspection and Response Activities**

See SITREP #51 for a comprehensive description of preliminary operations.

**1.2 Incident Objective and Command Emphasis**

The following incident objectives and command emphasis are taken from the IAP for the Operational Period October 24, 2010, at 0700 to October 28, 2010, at 0700.

Incident Objectives

1. Ensure health and safety of the public and response and recovery personnel.
2. Ensure effective transition of regulatory oversight of the oil impacted areas from EPA to MDNRE jurisdiction as appropriate.

3. Maintain the isolation of the Kalamazoo River from all the up-gradient source areas.
4. Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
5. Maintain effective unified communications with cooperating and assisting agencies and the public.
6. Perform remediation and restoration of all affected public and private areas of river and river systems.
7. Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
8. Protect threatened and endangered species and continue to recover and rehabilitate injured wildlife.
9. Continue to collect, coordinate, manage, and communicate environmental and public health data including maintenance of Joint Information Center function.

#### Command Emphasis

1. Continue recovery of submerged oil and sediment in the Kalamazoo River with prioritization of the Morrow Lake Delta area.
2. Complete the implementation of the long-term booming configuration
3. Continue work in all active O&M sites.
4. Confirm readiness for project management/MAC transition effective November 1.
5. Maintain systematic and adequate Decon/demobilization of project resources.

## **2 Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

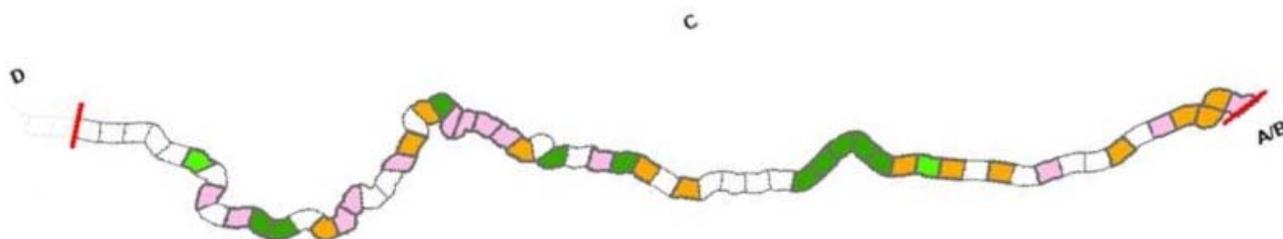
This operational phase of the response consists of: 1) Long Term Operations and Maintenance (O&M); 2) Drinking and Groundwater Studies; and 3) Decontamination.

#### **2.1.2 Long Term Operations and Maintenance (O&M)**

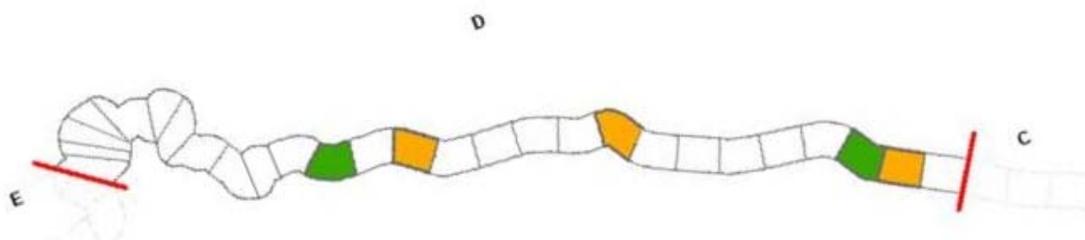
- Vacuuming of sheen upstream of the Ceresco Dam.
- Hot flushing on the RDB upstream of the Ceresco Dam.
- Began soil excavation and clean-up at MP 4.25 LDB, commonly referred to as the Lilly Pad Area.
- Continued dewatering and clean-up operations at Island A.
- Continued boom removal from Ceresco Dam and Morrow Lake Delta.
- EPA inspected O&M at 31 locations and relayed observations and recommendations to Enbridge.
- The O&M process is documented in Table 1 and Figures 1-3.

**Table 1 – O&M Maintenance and Monitoring Areas**

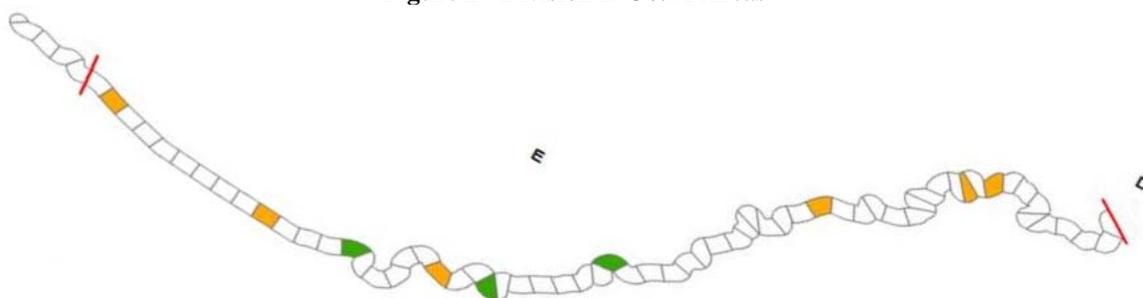
O&M Process	Area Status
	10/27
Active	13
Monitoring	40
Cleared	0
Signed Off	37



**Figure 1 - Division C O&M Areas**



**Figure 2 - Division D O&M Areas**



**Figure 3 - Division E O&M Areas**

**2.1.3 Drinking and Groundwater Studies**

- Continuing preparation of the final groundwater report.

**2.1.4 Decontamination**

- Equipment and boom that was Deconned during this operational period is outlined in Table 2.

**Table 2 - Equipment Decon Totals**

	<b>10/27</b>	<b>10/26</b>	<b>10/25</b>
Frac Tanks	0	0	2
Vac Trucks-Tankers	0	0	3
Roll-Off Boxes	0	0	0
Yellow Iron - Light	0	0	0
Yellow Iron - Heavy	0	0	0
Marine Vessels	1	0	17
Vehicles	0	0	1
<b>Daily Total</b>	<b>1</b>	<b>0</b>	<b>23</b>

<b>Boom (feet)</b>	<b>250</b>	<b>0</b>	<b>600</b>
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**2.1.5 Additional Operations**

Air Ops

- During this operational period, there was 1 overflight.
- Air Ops observed and documented cleanup progress in all operational areas.
- Air Ops continued to investigate areas of interest and report on hot spots, oil mobilization, O&M, and Decon.

Environmental Compliance and Oversight

- Prepared waste management area close-out plans.
- Continued waste management characterization, documentation, and coordination.

Monitoring Branch

- Conducted real-time air monitoring near excavation and Geotube operations and in community areas. No readings in excess of background levels were reported during this operational period.
- Samples reported by Enbridge are provided in Table 3.

**Table 3 – Samples Collected By Enbridge**

Sample Type	Number Collected
	10/25 - 10/27
Mini SUMMA *	10
Surface Water	18
Private Well Samples	19
Groundwater Samples	5
Sediment Samples	-
Ceresco Dewatering Samples	2
Soil Samples	-
Sheen Samples	-
Other	0

\* As observed by the EPA with data reported for one day previous to the period presented  
 † Estimated value.

- Sampling and monitoring events conducted by EPA personnel during this operational period are reported in Table 4.

**Table 4 – Sampling and Monitoring Events by EPA as Reported in Scribe**

Sample Type	Number Collected
	10/25 – 10/27
Air Monitoring Results	35
SUMMA canisters	-
Sediment	-
Surface Water	-

Landowner Environmental Issues

Landowner environmental issues as of October 27, 2010 are represented in Table 5.

**Table 5 – Landowner Environmental Issues**

Issues to Date	Issues Undergoing Evaluation	Issues Considered Addressed
17	3	14

**2.1.6 Progress Metrics**

All progress metrics in Section 2.1.7 are as reported by Enbridge unless otherwise indicated.

Boom Report

**Table 6 - Boom Report**

	10/26
Number of Locations	19
Boom Deployed (feet)	72,589

**Table 7 - Soil and Debris Shipped Off Site as of 10/26**

Waste Stream*	Cumulative <sup>†</sup>
Haz Soil (yd <sup>3</sup> ) <sup>a</sup>	15,344
Non Haz Soil (yd <sup>3</sup> ) <sup>b</sup>	55,451
Haz Debris (yd <sup>3</sup> ) <sup>c</sup>	12,075
Non Haz Household Debris (ton)	81
Non Haz Impacted Debris (ton) <sup>c</sup>	1,332

\* Information for water (other than daily quantity shipped) is reported in other tables below. Quantity awaiting disposal is estimated.

† Due to the auditing of waste manifests, cumulative quantities may not reconcile with previous reports.

a. Haz soil (benzene impacted) is being transported to Envirosafe (Oregon, OH).

b. Non Haz soil is being sent to Westside Recycling (Three Rivers, MI) and EQ/Republic (Marshall, MI).

c. Roll-off boxes containing waste sorbents, boom, pads, plastic, PPE, and oiled vegetation and biomass are being sent to EQ facility (Michigan Disposal) in Wayne, MI and Republic (Marshall, MI).

Oil/Water Recovery Tracking:

Note: Some of the values in the tables below have been audited and reconciled by Enbridge and may not correlate with previously reported values.

**Table 8 - Oil water collected by location 10/27 0700**

Location	Cumulative (gallons)
Division A	5,569,643
Division B	4,981,965
Division C	1,460,150
Division D	123,690
Division E	50,530
Decon	475,510
Other Locations *	518,083
<b>TOTAL</b>	<b>13,179,571</b>

\* Includes Frac, DECON, and Wildlife Center.

**Table 9 - Oil water Separation 10/26**

Enbridge Facility in Griffith, IN (gallons)	
Oil	766,288
Other Material	1,405,525
<b>TOTAL</b>	<b>2,171,813</b>

**Table 10 - Oil/Water Remaining On-Site (Gallons)**

Oil/Water Collected	13,179,571
Oil/Water Shipped Off-Site	12,185,051
<b>OIL/WATER REMAINING ON-SITE</b>	<b>994,520</b>

**Table 11 - Liquid Shipped Off-site as of 10/26**

Oil/Water leaving Site	Destination	Quantity Shipped
		Cumulative †
Haz Water	Dynecol, Detroit, MI	2,819,888
Oil/Water	Enbridge Facility, Griffith, IN	2,171,813
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	370,200
Treated Non Haz Water	Plummer, Kentwood, MI	4,702,925
Haz Water	Safety Kleen <sup>a</sup>	825
Treated Non Haz Water *	Dynecol, Detroit, MI	150,700
Treated Non Haz Water *	Battle Creek POTW	1,968,700
<b>Totals</b>		<b>12,185,051</b>

\* Treated Non Haz Water no longer sent to this location.  
 † Cumulative quantities may not reconcile with previous reports (due to auditing).  
 a. New Age lab water and methanol mix generated by mobile laboratory.

**2.2 Planning Section**

Environmental Unit

- Evaluating analytical data from groundwater and waste sampling.

**2.3 Safety Reports**

No major incidents or safety concerns were reported during this operational period. Safety inspections occurred throughout the operational area. The site has had no OSHA reportable incidents since October 6, 2010.

**2.4 Liaison Officer**

- Nothing to report.

**2.5 Public Information Officers**

- Received public inquires as outlined in Table 12. Community centers closed on October 26 due to weather considerations.

**Table 12 – Public Inquiries Received by EPA and Enbridge**

Location/Media	Inquiries Received		
	10/26	10/25	10/24
Battle Creek Community Center	NR	5	3
Marshall Community Center	NR	8	1
Oil Spill Public Information Hotline	NR	18	1
Enbridge Response Website (www.response.enbridgeUS.com)	NR	0	0
<b>Total Public Inquiries</b>		<b>31</b>	<b>5</b>

**2.6 Finance Section**

- The current NPFC issued ceiling is 24.6 Million. Approximately, 87.2% of the ceiling has been spent through October 26, 2010, with the latest burn rate of \$43,930 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 13.

**Table 13 - Financial Summary**

		Expended (Cumulative) as of 10/26
<b>ERRS Contractors</b>		
EQM (EPS50802)	T057	\$ 1,250,065
	T060	\$ 204,905
LATA (EPS50804)		\$ 1,451,396
ER LLC (EPS50905)		\$ 723,669
<b>Total ERRS Contractors</b>		\$ 3,630,035
Lockheed Martin (EPW09031) - TAGA Support		
		\$ 150,000
T&T Bisso (EPA:HS800008 USCG:HSCG8410A800008)		
		\$ 1,255,000
<b>START Contractor</b>		
WESTON (EPS50604)		\$ 7,638,200
<b>Response Contractor Sub-Totals</b>		\$ 12,673,235
<b>EPA Funded Costs:</b>		
<b>Total EPA Costs</b>		\$ 4,402,611
<b>Pollution Removal Funding Agreements:</b>		
<b>Total Other Agencies</b>		\$ 1,421,189
<b>Sub-Totals</b>		\$ 18,497,035
Indirect Cost (16.00%)		\$ 2,959,526
<b>Total Est. Oil Spill Cost</b>		\$ 21,456,560
Oil Spill Ceiling authorized by USCG		\$ 24,600,000
<b>Oil Spill Ceiling Available Balance</b>		\$ 3,143,440

**2.7 Response Actions to Date**

- Response Actions to date may be found in SITREPs #1 through #71.

**3 Participating Entities**

**3.1 Unified Command**

U.S. EPA	Calhoun County Public Health Department
MDNRE	Calhoun County Emergency Management
Michigan State Police Emergency Management Division	Kalamazoo County Sheriff
City of Battle Creek	Enbridge (Responsible Party)

**3.2 Cooperating and Assisting Agencies and Congressional Presence**

For a list of cooperating and assisting agencies and the congressional presence, see SITREP #51.

**4 Personnel On-Site**

- Staffing numbers for the various entities and agencies active in the response are presented in Table 14.

**Table 14 - Personnel On-Site**

Agency/Entity	Number Reported		
	10/27	10/26	10/25
EPA	15	17	19
START	25	27	27
Calhoun County Public Health	1	1	1
Calhoun County (CC) EM	2	2	2
City of Battle Creek	2	2	2
Kalamazoo Sheriff	2	2	2
MDNRE	2	4	6
Michigan State Police EMD	1	1	1
NOAA - National Weather	1	1	1
USFWS	0	0	0
Enbridge ICP	29	31	24
Enbridge ICP Contractor	235	246	215
Enbridge	3	7	7
Enbridge Contractors	391	465	473
<b>Total</b>	<b>709</b>	<b>806</b>	<b>780</b>

**5 Source of Additional Information**

**5.1 Additional Information**

For additional information, please refer to <http://www.epa.gov/enbridgespill>. For sampling analysis data, please see <http://response.enbridge.com/response/main.aspx?id=13168>.