

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 # 77
Kalamazoo River/Enbridge Spill
Z5JS
Marshall, MI
Latitude: 42.2395273 Longitude: -84.9662018

US EPA ARCHIVE DOCUMENT

To: Lt. Paul Baker, Kalamazoo County Sheriff's Office
 James Rutherford, Calhoun County Public Health Department
 Durk Dunham, Calhoun County Emergency Management
 Brian Whitsett, Michigan State Police, Emergency Mgt.
 Mark Ducharme, MDNRE
 Mike McKenzie, City of Battle Creek
 Susan Hedman, U.S. EPA Regional Administrator
 Rebecca Humphries, MDNRE

From: Ralph Dollhopf, U.S. EPA Incident Commander
 Jeff Kimble, U.S. EPA Deputy Incident Commander
 Mark Durno, U.S. EPA Deputy Incident Commander
 Stephen Wolfe, U.S. EPA On-Scene Coordinator

Date: 11/29/2010

Reporting Period: 0700 hours 11/22/2010 to 0700 hours 11/29/2010

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 Action
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 Preliminary Site Inspection and Response Activities

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

1.2 Response Status

Governance for the project is provided by the U.S. EPA Federal On-Scene Coordinator (FOSC) and the Michigan Department of Natural Resources and the Environment (MDNRE). The Operational Period covered in this report is: 11/22/2010 07:00 to 11/29/2010 07:00. Only limited monitoring occurred between November 24 and November 28 due to the Thanksgiving Holiday. Full O&M operations resumed on November 29th.

1.3 Operations Section

This operational phase of the response consists of: 1) Long Term Operations and Maintenance (O&M); 2) Drinking/Groundwater Monitoring; 3) Decontamination; and 4) Other Operations.

1.3.1 Long Term Operations and Maintenance (O&M)

Teams inspected O&M locations. In general, team activities included an inspection of sorbent material (boom, pads and/or pom-pom) to ensure proper placement and effectiveness, as well as inspection for readily visible contamination.

- A summary of significant actions/findings is presented below.
 - Observed sheen at 23 locations. Sorbent pads placed and maintained.
 - Bank flushing performed at 4 locations; sheen captured and collected.
 - New work plans submitted and/or approved for 1 location.
 - Observed hydro vacuuming activities at 2 locations, monitoring will continue.
 - Additional excavation and scraping performed at 1 location.
 - Performed submerged oil recovery via agitation/flushing at 4 locations.
 - Implemented riverbank soil erosion restoration.
 - Maintained gabion baskets.

- 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
	11/29
Active	12
Monitoring	33
Cleared	1
Signed Off	49

Figure 1 - Division A, B, C O&M Areas

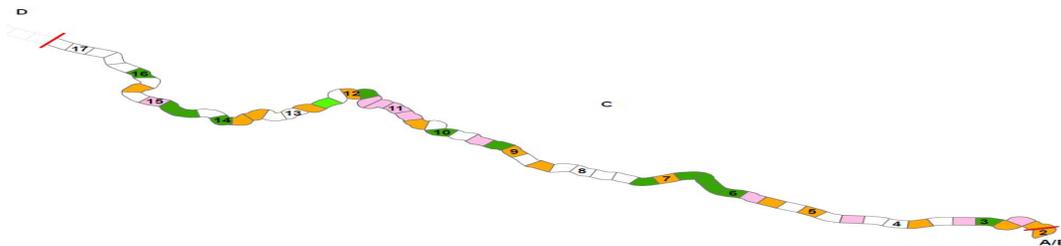


Figure 2 - Division D O&M Areas

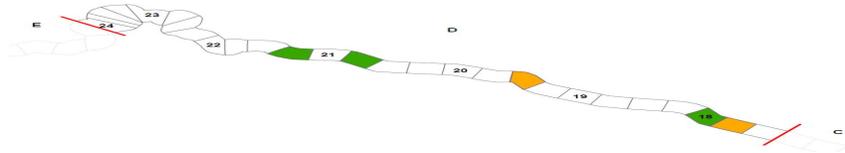
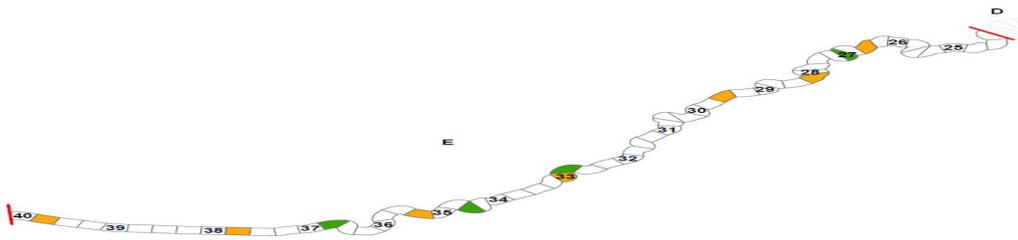


Figure 3 - Division E O&M Areas



1.3.2 Drinking and Groundwater Studies

Drinking water well sampling was not performed during this period.

1.3.3 Decontamination

Equipment and boom that were decontaminated during this operational period are summarized in Table 2.

Table 2 - Equipment Decontamination

Location/Media	Totals	11/28	11/27	11/26	11/25	11/24	11/23	11/22
Frac Tanks	0	0	0	0	0	0	0	0
Vac Trucks-Tankers	0	0	0	0	0	0	0	0
Roll-Off Boxes	0	0	0	0	0	0	0	0
Yellow Iron - Light	1	0	0	0	0	0	1	0
Yellow Iron - Heavy	4	0	0	0	0	0	4	0
Marine Vessels	0	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0	0
Daily Total	5	0	0	0	0	0	5	0
Boom (feet)	0							

1.3.4 Additional Operations

Air Operations

- During this operational period, there were 2 over-flights.
- Air Ops observed and documented O&M progress in all operational areas.
- Air Ops continued to investigate/report areas of interest, oil mobilization, O&M, and decontamination.

Environmental Compliance and Oversight

- Continued waste management characterization, documentation, and coordination.

Monitoring Branch

- Under MDNRE direction, performed sediment and surface water sampling at Lake Morrow in accordance with the existing U.S. EPA-approved Sampling and Analysis Plan (SAP) and a reduced sampling frequency as approved by the MDNRE.
- Samples reported by Enbridge are provided in Table 3.

Table 3 – Samples Collected By Enbridge

Sample Type	Number Collected							
	Totals	11/28	11/27	11/26	11/25	11/24	11/23	11/22
Surface Water	24	0	0	0	0	0	14	10
Private Well	0	0	0	0	0	0	0	0
Groundwater	3	0	0	0	0	0	3	0
Sediment	0	0	0	0	0	0	0	0
Ceresco	0	0	0	0	0	0	0	0
Soil Samples	12	0	0	0	0	0	12	0
Sheen Samples	0	0	0	0	0	0	0	0
Submerged Oil	0	0	0	0	0	0	0	0
Other	8	0	0	0	0	0	4	4

NR – Not Reported

Air samples via Summa canisters are no longer being collected.

- EPA personnel did not perform any sampling and monitoring events during this operational period, and is only sampling when requested.

Landowner Environmental Issues

Landowner environmental issues for the referenced period are represented in Table 4.

Table 4 – Landowner Environmental Issues

Issues this Period	Issues Undergoing Evaluation	Issues Considered Addressed
3	2	1

1.3.5 Progress Metrics

All progress metrics in Section 1.3.5 are as reported by Enbridge unless otherwise indicated.

Table 5 - Boom Report

Metric	11/28	11/27	11/26	11/25	11/24	11/23	11/22
Number of Locations	36	36	36	36	36	36	36
Boom Deployed (feet)	42,896	42,896	42,896	42,896	42,896	42,396	42,166

NR = Per Enbridge, data not recorded

Table 6 - Soil and Debris Shipped Off Site as of 11/23

Waste Stream*	Cumulative [†]
Haz Soil (yd ³) ^a	19,644
Non Haz Soil (yd ³) ^{b, d}	63,195
Non Haz Soil (yd ³) ^{b, e}	5,562
Haz Debris (yd ³) ^c	12,075
Non Haz Household Debris (ton)	151
Non Haz Impacted Debris (ton) ^c	1,419

* 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).

d. Excludes dredge spoils from Ceresco.

e. Includes only dredge spoils from Ceresco.

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 7 – Oil/Water Collected by Location (as of 11/23)

Location	Cumulative (gallons)
Division A	5,334,939
Division B	4,837,625
Division C	1,500,099
Division D	114,832
Division E	47,408
Decon	850,230
Other Locations*	796,206
Total	13,481,339

* Includes fluids stored in Fractionation Tanks which was generated from Decontamination Operations, Wildlife Center Operations, Sediment Trap Cleaning, Hydro-Vacuuming activities.

Table 8 – Oil/Water Separation 11/23 (Enbridge Facility in Griffith, IN) (Gallons)

Oil	766,288
Other Material	1,405,525
Total	2,171,813

Table 9 - Oil/Water Remaining On-Site (Gallons)

Oil/Water Collected	13,481,339
Oil/Water Shipped Off-Site	13,440,289
Oil/Water Remaining On-Site	41,050

Table 10 - Liquid Shipped Off-site as of 11/23

Stream	Destination Company	Destination Location	Cumulative Volume (gallons) †
Hazardous Water	Dynecol	Detroit, MI	3,346,951
Oil/Water	Enbridge Facility	Griffith, IN	2,171,813
Treated Non-Haz Water	Liquid Industrial Waste	Holland, MI	370,200
Treated Non-Haz Water	Plummer	Kentwood, MI	4,976,140
Hazardous Water	Safety Kleen ^a		825
Treated Non-Haz Water*	Dynecol	Detroit, MI	150,700
Treated Non-Haz Water*	Battle Creek POTW	Battle Creek, MI	1,968,700
		Sludge	454,960
		Total	13,440,289

* 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.

1.4 Planning Section

Environmental Unit

- Nothing to report.

Data Management Unit

- Continued importing preliminary and validated analytical results into Scribe, exporting daily briefings; and processing and printing maps as requested.
- Database management is being done in Houston.

Documentation Unit

- Completed sorting and coding of paper documents.
- Commenced organization of electronic files.

1.5 Safety Reports

No safety concerns were reported during this operational period. Safety inspections occurred throughout the operational area.

1.6 Liaison Officer

Nothing to report.

1.7 Public Information Officers

Received public inquires as outlined in 11.

Table 11 – Public Inquiries Received by EPA and Enbridge

Location/Media	Inquiries Received							
	Total	11/28	11/27	11/26	11/25	11/24	11/23	11/22
Battle Creek Community Center	6	0	0	0	0	0	2	4
Marshall Community Center	5	0	0	0	0	0	1	4
Oil Spill Public Information Hotline	11	0	0	0	0	0	0	11
Enbridge Response Website (www.response.enbridgeUS.com)	5	0	0	0	0	0	5	0
Total Public Inquiries	27	0	0	0	0	0	8	19

1.8 Finance Section

The current NPFC issued ceiling is \$27.6 Million. Approximately 83.3% of the ceiling has been spent through November 24, 2010, with the latest average burn rate of \$42,535 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented in 12.

Table 12 - Financial Summary

Item	Expended (Cumulative) as of 11/24
ERRS Contractors	
EQM (EPA 50802) T057	\$ 1,250,065
T060	\$ 204,905
LATA (EPA 50804)	\$ 1,451,396
ER LLC (EPS 50905)	\$ 723,669
Total ERRS Contractors	\$ 3,630,035
Lockheed Martin (EPW 09031) – TAGA Support	\$ 150,000
T&T Bisso (EPA:HS 800008 USCG:HS CG8410A 800008)	\$ 1,255,000
START Contractor – WESTON (EPS 50604) T030-Response	\$ 8,230,229
T032-Sampling	\$ 180,214
T037-Doc Support	\$ 254,421
Response Contractor Sub-Totals	\$ 13,699,899
EPA Funded Costs: Total EPA Costs	\$ 4,704,601
Pollution Removal Funding Agreements – Total Other Agencies	\$ 1,426,909
Sub-Totals	\$ 19,831,409
Indirect Cost (16.00%)	\$ 3,173,025
Total Est. Oil Spill Cost	\$ 23,004,435
Oil Spill Ceiling Authorized by USCG	\$ 27,600,000
Oil Spill Ceiling Available Balance	\$ 4,595,565

1.9 Response Actions to Date

Response Actions to date may be found in SITREPs #1 through #76.

2 Participating Entities

2.1 Multi-Agency Coordination Group

U.S. Environmental Protection Agency	City of Battle Creek
Michigan Department of Natural Resources and the Environment	Calhoun County Public Health Department
Michigan State Police Emergency Management Division	Calhoun County Emergency Management
	Kalamazoo County Sheriff
	Enbridge (Responsible Party)

2.2 Cooperating and Assisting Agencies and Congressional Presence

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

3 Personnel On-Site

Staffing numbers for the various entities and agencies active in the response are presented in 13.

Table 13 - Personnel On-Site

Agency/Entity	Personnel Count						
	11/28	11/27	11/26	11/25	11/24	11/23	11/22
U.S. EPA	0	0	0	0	4	9	10
START	2	2	2	2	6	27	26
Calhoun County Public Health	0	0	0	0	0	1	0
Calhoun Count (CC) EM	0	0	0	0	0	1	0
City of Battle Creek	0	0	0	0	0	1	0
City of Marshall	0	0	0	0	0	1	0
Kalamazoo Sheriff	0	0	0	0	0	0	0
MDNRE	0	0	0	0	0	6	4
Michigan State Police EMD	0	0	0	0	0	1	0
NOAA – National Weather	0	0	0	0	0	0	0
USFWS	0	0	0	0	0	0	0
Enbridge – Operations	3	3	3	6	8	11	11
Enbridge – Operations Contractor	23	19	17	91	165	155	155
Enbridge – Field	0	0	0	2	3	1	1
Enbridge – Field Contractors	25	25	14	172	251	264	264
Total	53	49	36	273	437	478	471

4 Source of Additional Information

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