

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 # 75
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: 11/15/2010

Reporting Period: 0700 hours 11/8/2010 to 0700 hours 11/15/2010

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

As of 0700 on November 8, 2010, the project is no longer operating under the Incident Command System (ICS). Governance for the project is now provided by the Multi-Agency Coordination (MAC) Group. Additionally, an Operations Plan (OP) has replaced the Incident Action Plan (IAP).

The Operational Period covered in this report is: 11/8/2010 07:00 to 11/15/2010 07:00.

1.3 Operations Section

This operational phase of the response consists of: 1) Long Term Operations and Maintenance (O&M); 2) Drinking and Groundwater Studies; 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 visual inspection for readily visible contamination .

- A summary of significant actions/findings is presented below.
 - Observed sheen at 24 locations. Sorbent pads placed and maintained.
 - Bank flushing performed at 4 locations; sheen captured and collected.
 - New work plans submitted and approved for 5 locations.
 - Observed hydro vacuuming activities at 5 locations, monitoring will continue.
 - Additional excavation and scraping performed at 6 locations.
 - Installed French-drain on Island A.
 - Removed oiled vegetation at 1 location
 - Performed submerged oil recovery via agitation at 1 location.
 - Implement riverbank soil erosion restoration.
 - Maintained gabion baskets.
 - Inspected 35 submerged oil locations on Talmadge Creek and visible sheen or product was at 3 locations observed.
 - A single gabion basket was placed immediately upstream of MP-5.55 as a test to determine if submerged oil is moving and collecting in the depositional area of MP-5.55.

- 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
	11/15
Active	12
Monitoring	31
Cleared	0
Signed Off	50

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

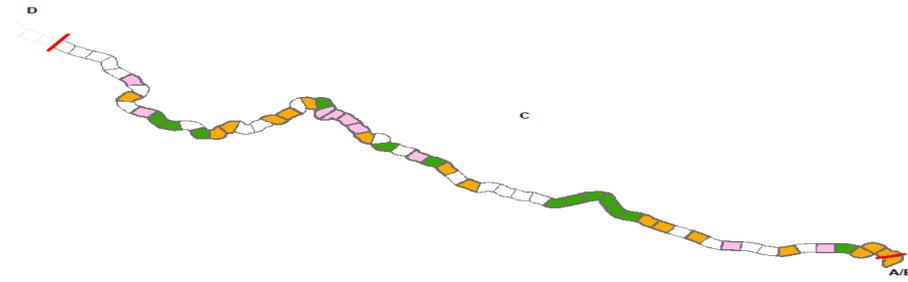


Figure 2 - Division D O&M Areas

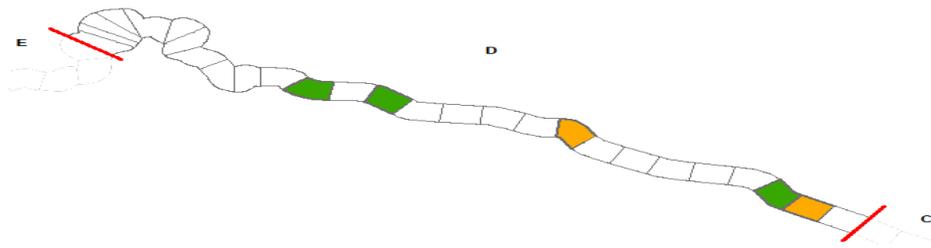
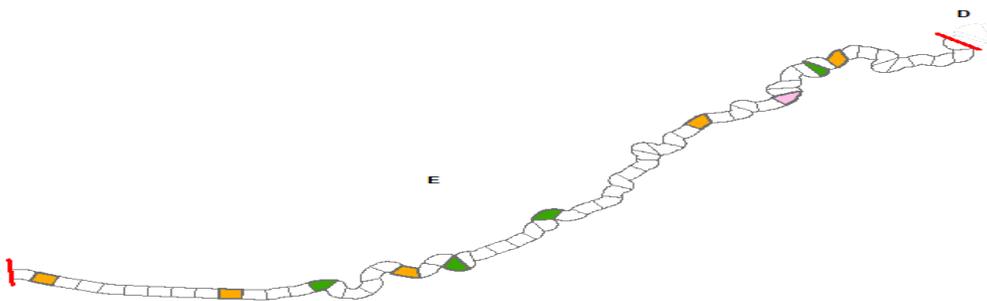


Figure 3 - Division E O&M Areas



1.3.2 **Drinking and Groundwater Studies**

The U.S. EPA provided comments on Enbridge’s October 30, 2010 Hydrogeologic Evaluation Report to the MDNRE for consideration in future MDNRE actions related to hydrogeologic studies related to this release.

Drinking water well sampling continued. A total of 158 wells are in the drinking water sampling program and a summary of the wells is presented below.

- 135 wells sampled at least twice
- 011 wells sampled once
- 012 wells not sampled yet due to access limitations

1.3.3 **Decontamination**

Equipment and boom that was decontaminated during this operational period is summarized in Table 2.

Table 2 - Equipment Decontamination

Location/Media	Totals	11/14	11/13	11/12	11/11	11/10	11/9	11/8
Frac Tanks	2	0	0	0	1	0	1	0
Vac Trucks-Tankers	3	0	1	1	0	0	1	0
Roll-Off Boxes	14	0	0	0	7	2	3	2
Yellow Iron - Light	0	0	0	0	0	0	0	0
Yellow Iron - Heavy	2	0	0	0	2	0	0	0
Marine Vessels	0	0	0	0	0	0	0	0
Vehicles	1	0	0	0	1	0	0	0
Daily Total	22	0	1	1	11	2	5	2

Boom (feet)	250	0	0	0	0	0	150	100
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1.3.4 Additional Operations

Air Operations

- During this operational period, there were 7 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

- Performed residential air monitoring and air sampling (30 locations – 10 each on November 8, 9, and 10; sampling stopped on November 11). No readings above background were recorded.
- Performed sediment and surface water sampling at Lake Morrow.
- Samples reported by Enbridge are provided in Table 3.

Table 3 – Samples Collected By Enbridge

Sample Type	Number Collected							
	Totals	11/14	11/13	11/12	11/11	11/10	11/9	11/8
Mini SUMMA	0	0	0	0	0	0	0	0
Surface Water	30	0	0	5	4	6	8	7
Private Well	21	0	0	6	9	0	1	5
Groundwater	0	0	0	0	0	0	0	0
Sediment	0	0	0	0	0	00	0	0
Ceresco	0	0	0	0	0	0	0	0
Soil Samples	101	0	0	0	26	75	0	0
Sheen Samples	0	0	0	0	0	0	0	0
Submerged Oil	0	0	0	0	0	0	0	0
Other	29	0	0	3	5	18	1	2

† Estimated value

- 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 (cumulative) as of November 15, 2010 are represented in Table 4.

Table 4 – Landowner Environmental Issues

Issues to Date	Issues Undergoing Evaluation	Issues Considered Addressed
106	39	67

1.3.5 Progress Metrics

All progress metrics in Section 2.1.5 are as reported by Enbridge unless otherwise indicated.

Table 5 - Boom Report

Metric	11/14	11/13	11/12	11/11	11/10	11/9	11/8
Number of Locations (L) and Islands (I)	12L; 4I	12L; 4I	10L; 4I	8L; 4I	8L; 4I	8L; 4I	8L; 4I
Boom Deployed (feet)		37,146	33,146	32,346	32,096	31,866	31,866

Table 6 - Soil and Debris Shipped Off Site as of 11/14

Waste Stream*	Cumulative [†]
Haz Soil (yd ³) ^a	19,644
Non Haz Soil (yd ³) ^{b, d}	61,206
Non Haz Soil (yd ³) ^{b, e}	5,562
Haz Debris (yd ³) ^c	12,075
Non Haz Household Debris (ton)	131
Non Haz Impacted Debris (ton) ^c	1,386

* 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 11/14)

Location	Cumulative (gallons)
Division A	5,332,559
Division B	4,823,225
Division C	1,446,142
Division D	114,832
Division E	47,408

Decon	753,797
Other Locations*	750,206
Total	13,268,169

* Includes Fractionation, Decontamination, and Wildlife Center.

Table 8 – Oil/Water Separation 11/14 (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	13,268,209
Oil/Water Shipped Off-Site	12,775,349
Oil/Water Remaining On-Site	26,043,558

Table 10 - Liquid Shipped Off-site as of 11/014

Stream	Destination Company	Destination Location	Cumulative Volume (gallons) †
Hazardous Water	Dynecol	Detroit, MI	3,136,971
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
Total			12,775,349

* 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

- Evaluating analytical data from water, sediment and waste sampling.

Data Management Unit

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

1.5 Safety Reports

A dead body, unrelated to the project, was found in the Kalamazoo River near MP 13.25 on November 13th. The local authorities responded to the situation and performed an investigation. A small section of the river was closed during the police investigation.

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

1.6 Liaison Officer

A project update was presented to the public on November 8, 2010. The presentation was given at the Burnham brook Community Center in Battle Creek, Michigan.

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	11/14	11/13	11/12	11/11	11/10	11/9	11/8
Battle Creek Community Center						5	0	4
Marshall Community Center		1				5	4	5
Oil Spill Public Information Hotline						12	9	8
Enbridge Response Website (www.response.enbridgeUS.com)	0	0	0	0	0	0	0	0
Total Public Inquiries								

1.8 Finance Section

The current NPFC issued ceiling is \$24.6 Million. Approximately, 91.3% of the ceiling has been spent through November 14, 2010, with the latest average burn rate of \$49,381 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 11/14
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	\$ 8,012,588
T032-Sampling	\$ 180,214
T037-Doc Support	\$ 86,865
Response Contractor Sub-Totals	\$ 13,314,702
EPA Funded Costs: Total EPA Costs	\$ 4,622,601
Pollution Removal Funding Agreements – Total Other Agencies	\$ 1,426,909

Sub-Totals	\$ 19,364,212
Indirect Cost (16.00%)	\$ 3,098,274
Total Est. Oil Spill Cost	\$ 22,462,486
Oil Spill Ceiling Authorized by USCG	\$ 24,600,000
Oil Spill Ceiling Available Balance	\$ 2,137,514

1.9 Response Actions to Date

Response Actions to date may be found in SITREPs #1 through #74.

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						
	11/14	11/13	11/12	11/11	11/10	11/9	11/8
U.S. EPA	8	8	11	15	14	15	14
START	27	28	28	30	29	29	24
Calhoun County Public Health	0	0	0	2	0	1	0
Calhoun Count (CC) EM	0	0	0	0	0	1	0
City of Battle Creek	0	0	0	2	0	0	0
Kalamazoo Sheriff	0	0	0	0	0	1	0
MDNRE	0	0	6	5	3	3	5
Michigan State Police EMD	0	0	0	1	0	1	0
NOAA – National Weather	0	0	0	0	0	0	1
USFWS	0	0	0	0	0	0	0
Enbridge – ICP	9	7	18	19	21	17	12
Enbridge – ICP Contractor	127	146	193	185	187	170	142
Enbridge	2	2	2	2	2	2	2
Enbridge Contractors	258	264	282	264	255	269	251
Total	431	448	540	525	511	509	451

* Estimated value. Actual not tabulated at time of report issuance.

4 Source of Additional Information

4.1 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>.