

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



MP 11.0 Excavation Work

Subject: SITREP # 85
Kalamazoo River/Enbridge Spill
Z5JS
Marshall, MI
Latitude: 42.2395273 Longitude: -84.9662018

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 Management.
 Mark DuCharme, MDNRE
 Mike McKenzie, City of Battle Creek
 Susan Hedman, U.S. EPA Regional Administrator
 James Sygo, MDNRE

From: Ralph Dollhopf, U.S. EPA, Federal On-Scene Coordinator
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Date: 02/08/2011

Reporting Period: 12:00 hours 01/31/2011 to 12:00 hours 02/07/2011

Introduction

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
Demobilization 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.

Response Status

Governance for the project is provided by the U.S. EPA Federal On-Scene Coordinator (FOOSC) and the Michigan Department of Natural Resources and the Environment (MDNRE). The Operational Period covered in this report is: 01/31/2011 12:00 to 02/07/2011 12:00.

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.

1.1.3 Long Term Operations and Maintenance (O&M)

Teams inspected O&M locations. In general, team activities included an inspection of containment boom to ensure proper placement and effectiveness. Additionally, winter O&M operations (i.e., frost driving, ice-road construction) continued. Teams performed inspection for readily visible contamination. A summary of significant actions for this period is presented in Table 1.

Table 1 – O&M Actions

Activity	Number of Locations	Location (MP)
Sheen and/or product observation	4	10.5, 11.00, 11.75, 15.00
Site Access Plans Approved	0	N/A
Excavation Work Plans Approved	4	9.00I1, 11.5R1, 11.75R1, 19.25L1
Aqua Barrier Installation	1	15.00
Frost Driving	3	11.25, 11.75, 15.00
Vegetation Removal	3	11.25, 11.75, 15.00
Dewatering; Preparation for Excavation	2	10.5, 11.00
Excavation	1	11.0

*Remedial Investigation Site under MDNRE oversight.

N/A- Not applicable because no plans were approved during this period.

Access road work occurred at MP11.25, MP11.75, and MP15.00 during this period. The excavation at MP11.0 R1 was completed. The planned excavation at MP10.50 was delayed due to flooding of the area from the snow storm that occurred on February 2, 2011. The installation of the aqua dam at MP11.75 was also delayed due to snow/ice. One aqua dam was installed at MP15.00 on February 4, 2011.

A summary of the quantity of sites in the O&M process is summarized in Table 2 (as reported by Enbridge unless otherwise indicated).

Table 2 – O&M Maintenance and Monitoring Areas

O&M Process	Area Status
	2/7/2011
Active	9
Monitoring	33
Recommended to Cleared	8
Signed Off	51

1.1.4 Drinking and Groundwater Studies

Drinking water well sampling of 38 wells was performed during this period by Enbridge under MDNRE and public health agencies oversight.

1.1.5 Decontamination

Equipment and boom that were decontaminated during this operational period are summarized in Table 3 (as reported by Enbridge unless otherwise indicated).

Table 3 - Equipment Decontamination

Location/Media	Total	February 2011						
		7	6	5	4	3	2*	1
Frac Tanks	1	1	0	0	0	0	0	0
Vac Trucks-Tankers	1	0	0	0	1	0	0	0
Roll-Off Boxes	0	0	0	0	0	0	0	0
Yellow Iron - Light	1	1	0	0	0	0	0	0
Yellow Iron - Heavy	2	2	0	0	0	0	0	0
Marine Vessels	0	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0	0
Boom (feet)	450	0	0	0	0	200	0	250

N/R = Not reported by Enbridge.

*- No decontamination operations occurred on 2-2-2011 due to inclement weather.

1.1.6 Additional Operations

Air Operations

- There were 2 over-flights for situational awareness during this operational period.
- Air Ops observed and documented O&M progress in all operational areas.
- Air Ops continued to investigate/report areas of interest, ice jams, oil mobilization, O&M and decontamination.

Environmental Compliance and Oversight

- Continued waste management characterization, documentation and coordination.
- Coordination with the MDNRE continues, particularly with regards to MDNRE concurrence of work contemplated by Enbridge in ecologically sensitive areas during winter operations.

Monitoring Branch

- Under MDNRE direction, performed potable water, groundwater, soil, sediment and surface water sampling in accordance with the existing U.S. EPA-approved Sampling and Analysis Plan (SAP), (adopted by MDNRE) and a reduced sampling frequency as approved by the MDNRE.
- Samples reported by Enbridge are provided in Table 4 (as reported by Enbridge unless otherwise indicated).

Table 4 – Samples Collected By Enbridge

Sample Type	Total	February 2011						
		7	6	5	4	3	2*	1
Surface Water	10	6	0	0	0	0	0	4
Private Well Samples	38	11	0	0	9	10	0	8
Groundwater Samples	0	0	0	0	0	0	0	0
Sediment Samples	18	14	0	0	0	0	0	4
Soil Samples	0	0	0	0	0	0	0	0

*- No samples were collected on 2-2-2011 due to inclement weather.

1.1.7 Landowner Environmental Issues

Landowner environmental issues for the referenced period are represented in Table 5 (as reported by Enbridge unless otherwise indicated).

Table 5 – Landowner Environmental Issues

Issues this Period	Issues Undergoing Evaluation	Issues Considered Addressed
0	10	0

1.1.8 Progress Metrics

All progress metrics in Section 1.3.6 are as reported by Enbridge unless otherwise indicated.

Table 6 - Boom and Aqua Dam Report

Metric	February 2011						
	7	6	5	4	3	2	1
# Locations	26	26	26	26	26	26	26
Boom Deployed (ft)	8,700	8,700	8,700	8,700	8,700	8,700	8,700
# Locations	8	7	7	7	7	7	7
Aqua Dam Deployed (ft)	870	770	770	770	770	770	770

Table 7 - Soil and Debris Shipped Off Site as of 2/7/2011

Waste Stream	Cumulative	Disposal Facility
Haz Soil (yd ³)	19,644	Envirosafe (Oregon, OH)
Non-Haz Soil & Debris (yd ³) (Excluding Ceresco Dredge)	64,815	Westside Recycling (Three Rivers, MI); Terra/C&C and EQ/Republic (Marshall, MI)
Non-Haz Soil (yd ³) (Ceresco Dredge Only)	5,562	
Haz Debris (yd ³)	12,075	EQ/Michigan Disposal (Wayne, MI) and Republic (Marshall, MI)
Non-Haz Household Debris (ton)	236	EQ/Republic (Marshall, MI)
Non-Haz Impacted Debris (ton)	1,563	

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 (as of 2/7/2011)

Location	Cumulative (gallons)
Division A	5,338,315
Division B	4,843,782
Division C	1,532,706
Division D	114,906
Division E	47,438
Decontamination	1,114,746
Other Locations*	982,440
Total	13,974,333

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

Table 9 – Oil/Water Separation 2/7/2011 (Enbridge Facility in Griffith, IN) (Gallons)

Item	Cumulative (gallons)
Oil	766,288
Other Material	1,405,525
Total	2,171,813

Table 10 - Oil/Water Remaining On-Site (Gallons) 2/7/2011

Item	Cumulative (gallons)
Oil/Water Collected	13,974,333
Oil/Water Shipped Off-Site	13,943,137
Oil/Water Remaining On-Site	31,196

Table 11 - Liquid Shipped Off-site as of 2/7/2011

Stream	Destination Company	Destination Location	Cumulative Volume (gallons) †
Hazardous Water	Dynecol	Detroit, MI	3,594,579
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
Non-Haz Water	Dynecol	Detroit, MI	35,800
Treated Non-Haz Water*	Dynecol	Detroit, MI	150,700
Treated Non-Haz Water*	Battle Creek POTW	Battle Creek, MI	1,968,700
Non-Haz Water	Battle Creek POTW	Battle Creek, MI	206,720
Sludge			467,660
Total			13,943,137

* 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.

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 Vernon Hills and/or Houston.

Documentation Unit

- Continued organization and archiving of electronic files.

Safety Reports

Cold weather (below freezing) has been continuously present and ice formation has been observed in slower moving portions of the river. Cold weather safety continues to be the emphasis. Safety inspections occurred throughout the operational area.

Workers are reminded to wear floatation device when working within 10 feet of the river and to wear appropriate PPE when using a chain saw, face shield, chaps, etc.

Liaison Officer

- Nothing to report.

Public Information Officers

The public information operation Battle Creek Community Center has been discontinued. Received public inquires are outlined in Table 12 as reported by Enbridge unless otherwise indicated.

Table 12 – Public Inquiries Received by EPA and Enbridge

Location/Media	Total	February 2011						
		7	6	5	4	3	2	1
Marshall Community Center	11	4	0	0	3	2	0	2
Oil Spill Public Information Hotline	19	7	0	0	1	7	1	3
Enbridge Response Website (www.response.enbridgeUS.com)	2	0	0	0	0	1	0	1
Total Public Inquiries	32	11	0	0	4	10	1	6

Finance Section

The current NPFC issued ceiling is \$27.6 Million. Approximately 89.2% of the ceiling has been spent through February 6, 2011. As of February 1, 2011, the latest weekday average burn rate was \$26,709 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

Item	Expended (Cumulative) as of 2/6/2011
ERRS Contractors	
EQM (EPS50802) T057	\$ 1,250,065
T060	\$ 204,905
LATA (EPS50804) T019	\$ 1,451,396
ER LLC (EPS50905) T040	\$ 723,669
Total ERRS Contractors	\$ 3,630,035
Other Contractors	
Lockheed Martin (EPW09031) – TAGA Support	\$ 150,000
T&T Bisso (EPA:HS800008)	\$ 1,255,000
Total Other Contractors	\$ 1,405,000
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 9,150,925
T032-Sampling	\$ 180,214
T037-Doc Support	\$ 524,068
Total START Contractor	\$ 9,855,207
Response Contractor Sub-Totals	\$ 14,890,242
EPA Funded Costs: Total EPA Costs	\$ 4,913,830
Pollution Removal Funding Agreements – Total Other Agencies	\$ 1,426,909
Sub-Totals	\$ 21,230,981
Indirect Cost (16.00%)	\$ 3,396,957
Total Est. Oil Spill Cost	\$ 24,627,938
Oil Spill Ceiling Authorized by USCG	\$ 27,600,000
Oil Spill Ceiling Available Balance	\$ 2,972,062

Response Actions to Date

Response Actions to date may be found in SITREPs #1 through #84.

Participating Entities

Multi-Agency Coordination Group

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

Cooperating and Assisting Agencies and Congressional Presence

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

Personnel On-Site

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

Table 14 - Personnel On-Site

Agency/Entity	February 2011						
	7	6	5	4	3	2*	1
U.S. EPA	6	2	3	4	4	0	4
START	9	4	6	10	12	0	12
Calhoun County Public Health	0	0	0	0	0	0	0
Calhoun County (CC) EM	0	0	0	0	0	0	0
City of Battle Creek	0	0	0	0	0	0	0
City of Marshall	0	0	0	0	0	0	0
Kalamazoo Sheriff	0	0	0	0	0	0	0
MDNRE	3	0	0	4	2	0	3
Michigan State Police EMD	0	0	0	0	0	0	0
NOAA – National Weather	0	0	0	0	0	0	0
USFWS	0	0	0	0	0	0	0
Enbridge – Operations*	14	0	0	17	18	0	19
Enbridge – Operations Contractor*	81	25	42	86	81	0	85
Enbridge – Field*	0	0	0	0	0	0	0
Enbridge – Field Contractors*	68	0	0	66	89	14	91
Total	181	31	51	187	206	14	214

*- Only security and wildlife staff worked on 2-2-2011 due to inclement weather.

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>.