

US EPA ARCHIVE DOCUMENT

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #88**



**KALAMAZOO RIVER/ENBRIDGE SPILL – REMOVAL
SITE # Z5JS
MARSHALL, MICHIGAN
LATITUDE: 42.2395273 LONGITUDE: -84.9662018**



MP-19.25: Continued Restoration After Soil Removal

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 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
 Tricia Edwards, U.S. EPA, On-Scene Coordinator
 Jeff Kimble, U.S. EPA, On-Scene Coordinator
 Stephen Wolfe, U.S. EPA, On-Scene Coordinator

Date: 03/01/2011

Reporting Period: 12:00 hours 02/21/2011 through 12:00 hours 02/28/2011

1. Site Data

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:	

2. Previous Response Actions and Current Response Governance

See SITREP #51 for a comprehensive description of preliminary operations. Previous response actions performed to date may be found in Situation Reports (SITREPs) #1 through #87.

Governance for the project is provided by the U.S. Environmental Protection Agency (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: 02/21/2011 12:00 through 02/28/2011 12:00.

As of 02/28/2011, the structure of the response has returned to the Incident Command System (ICS), with the FOSC serving as the Incident Commander (IC).

3. Operations

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

3.1 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, excavation) 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	8	Talmadge Creek B5, 2.25L2, 7.00R1, 8.50L1, 11.25R2, 11.50R1, 13.50L2, 17.00L1
O& M Plans Approved	1	Winter Water Management Plan
Excavation Work Plans Approved	0	
Aqua Barrier Installation	0	
Pre-Excavation Activities (i.e., dewatering)	0	
Excavation	0	

A summary of the quantity of sites in the O&M process as reported by Enbridge is summarized below.

Table 2 – O&M Maintenance and Monitoring Areas

O&M Process	Area Status
	2/28/2011
Active	0
Monitoring	42
Recommended to Cleared	8
Signed Off	51

3.2 Drinking and Groundwater Monitoring

Drinking water well sampling of 10 wells was performed during this period by Enbridge under MDNRE and public health agencies oversight.

3.3 Decontamination

Equipment and boom that were decontaminated during this operational period as reported by Enbridge is presented below.

Table 3 - Equipment Decontamination

Location/Media	Total	February 2011						
		28	27	26	25	24	23	22
Frac Tanks	3	1	0	0	1	1	0	0
Vac Trucks-Tankers	2	1	0	0	0	1	0	0
Roll-Off Boxes	0	0	0	0	0	0	0	0
Yellow Iron - Light	1	0	0	0	0	0	0	1
Yellow Iron - Heavy	2	0	0	0	0	0	1	1
Marine Vessels	1	0	0	0	0	0	1	0
Vehicles	6	0	0	0	0	1	2	3
Boom (feet)	350	0	0	0	0	200	0	150

N/R = Not reported by Enbridge.

3.4 Additional Operations

3.4.1 Air Operations

There were 3 over-flights for situational awareness during this operational period. Air Operations personnel observed and documented O&M progress in all operational areas; and continued to investigate/report areas of interest, ice jams, oil mobilization and decontamination.

3.4.2 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.

3.4.3 Monitoring Branch

Under MDNRE direction, potable water, groundwater, soil, sediment and surface water sampling were performed 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 below.

Table 4 – Samples Collected By Enbridge

Sample Type	Total	February 2011						
		28	27	26	25	24	23	22
Surface Water	13	2	0	0	0	6	0	5
Private Well Samples	10	10	0	0	0	0	0	0
Groundwater Samples	5	0	0	0	2	3	0	0
Sediment Samples	0	0	0	0	0	0	0	0
Soil Samples	32	0	0	0	2	8	16	6

4. Landowner Environmental Issues

Landowner environmental issues, as reported by Enbridge for this period are represented below.

Table 5 – Landowner Environmental Issues

Issues this Period	Issues Undergoing Evaluation	Issues Considered Addressed
0	12	0

5. Progress Metrics

Progress metrics reported in this section are as reported by Enbridge.

Table 6 - Boom and Aqua Dam Report

Metric	February 2011						
	28	27	26	25	24	23	22
# Boom Locations	33	33	33	34	33	31	28
Boom Deployed (ft)	13,450	13,450	13,450	13,450	13,450	10,500	9,750
# Aqua Dam Locations	17	17	17	17	17	17	17
Aqua Dam Deployed (ft)	1,815	1,815	1,815	1,815	1,815	1,815	1,815

NR = Not Reported by Enbridge

Table 7 - Soil and Debris Shipped Off Site as of 2/28/2011

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)	1,564	

Table 8 – Oil/Water Collected by Location (as of 2/28/2011)

Location	Cumulative (gallons)
Division A	5,338,315
Division B	4,843,782
Division C	1,532,706
Division D	121,106
Division E	47,438
Decontamination	1,197,072
Other Locations*	1,173,440
Total	14,253,859

* Decontamination Operations, Wildlife Center Operations, Sediment Trap Cleaning, Hydro-Vacuuming.

Table 9 – Oil/Water Separation 2/28/2011 (Enbridge Facility in Griffith, IN)

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

Table 10 - Oil/Water Remaining On-Site 2/28/2011

Item	Cumulative (gallons)
Oil/Water Collected	14,253,859
Oil/Water Shipped Off-Site	14,217,415
Oil/Water Remaining On-Site	36,444

Table 11 - Liquid Shipped Off-site as of 2/28/2011

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	101,078
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	415,720
Sludge			467,660
Total			14,217,415

* 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.

6. Support Operations

6.1 Planning

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 and paper files.

6.2 Safety

A fire occurred in the restroom temporary building at the Incident Command Center at approximately 4:00 a.m. on Monday, February 28, 2010. Several fire trucks from the City of Marshall responded to the incident and put the fire out. There were no injuries associated with the fire. The cause of the fire was determined to be a faulty heater and a replacement restroom temporary building is expected to arrive on Thursday, March 3, 2011.

Alternating warming and freezing trends were present throughout the operational period. Ice melt occurred and river levels rose. Changing weather conditions caused challenges to operations and emphasized the need for situational awareness of surroundings.

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. Safety inspections occurred throughout the operational area.

6.3 Public Information

The public information operation Battle Creek Community Center has been discontinued. The quantity of public inquires reported by Enbridge for this period is presented below.

Table 12 – Public Inquiries Received by EPA and Enbridge

Location/Media	Total	February 2011						
		28	27	26	25	24	23	22
Marshall Community Center	5	2	0	0	2	0	1	0
Oil Spill Public Information Hotline	2	0	0	0	0	1	0	1
Enbridge Response Website (www.response.enbridgeUS.com)	0	0	0	0	0	0	0	0
Total Public Inquiries	7	2	0	0	2	1	1	1

6.4 Finance

The current NPFC issued ceiling is \$27.6 Million. Approximately 90.7% of the ceiling has been spent through February 26, 2011. As of February 25, 2011, the latest weekday average burn rate was \$22,473 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented below.

Table 13 - Financial Summary

Item	Expended (Cumulative) as of 2/26/2011
ERRS Contractors	
EQM (EPS50802) T057	\$ 1,250,065
T060	\$ 204,905
LATA (EPS50804) T019	\$ 1,451,396
ER LLC (EPS50905) T040	\$
	<u>723,669</u>
Total ERRS Contractors	\$ 3,630,035
Other Contractors	
Lockheed Martin (EPW09031) – TAGA Support	\$ 150,000
T&T Bisso (EPA:HS800008)	<u>\$ 1,255,000</u>
Total Other Contractors	\$ 1,405,000
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 9,407,101
T032-Sampling	\$ 180,214
T037-Doc Support	<u>\$ 557,194</u>
Total START Contractor	\$ 10,144,509
Response Contractor Sub-Totals	\$ 15,179,544
EPA Funded Costs: Total EPA Costs	\$ 4,985,110
Pollution Removal Funding Agreements – Total Other Agencies	\$ 1,426,909
Sub-Totals	\$ 21,591,563
Indirect Cost (16.00%)	\$ 3,454,650
Total Est. Oil Spill Cost	\$ 25,046,214
Oil Spill Ceiling Authorized by USCG	\$ 27,600,000
Oil Spill Ceiling Available Balance	\$ 2,553,786

7. Participating Entities

A Multi-Agency Coordination (MAC) Group meets weekly regarding the progress of the response. Entities participating in the MAC include:

- 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)

For a list of cooperating and assisting agencies and the congressional presence, see SITREP #51 (Sections 3.2 and 3.3).

8. 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						
	28	27	26	25	24	23	22
U.S. EPA	4	2	4	3	4	4	4
START	9	3	10	10	11	11	10
Calhoun County Public Health	0	0	0	0	1	0	0
Calhoun County (CC) EM	0	0	0	0	1	0	0
City of Battle Creek	0	0	0	0	1	0	0
City of Marshall	0	0	0	0	1	0	0
Kalamazoo Sheriff	0	0	0	0	1	0	0
MDNRE	2	0	0	2	6	6	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	13	3	4	11	11	12	10
Enbridge – Operations Contractor	73	18	25	86	96	93	83
Enbridge – Field	0	0	0	0	0	0	0
Enbridge – Field Contractors	78	18	59	99	102	96	92
Total	186	44	102	211	235	222	202

*Enbridge Operations included with contractors as reported by Enbridge

9. 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>.