

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #204



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

US EPA ARCHIVE DOCUMENT



Morrow Lake Delta Dredge Pad Construction Activities (04/24/2014)

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From: Jeffrey Kimble, U.S. EPA, Federal On-Scene Coordinator

Date: 05/13/2014

Operational Periods: 0700 hours 04/14/2014 through 0700 hours 04/21/2014
0700 hours 04/21/2014 through 0700 hours 04/28/2014

Reporting Period: 0700 hours 04/14/2014 through 0700 hours 04/28/2014

1. Site Data

Site Number:	Z5JS	Response Type:	Emergency
Response Authority:	OPA	Incident Category:	Removal Action
Response Lead:	RP	NPL Status:	Non-NPL
Mobilization Date:	7/26/2010	Start Date:	7/26/2010
FPN#:	E10527		

2. Operations Section

- The organizational response structure consisted of the following Divisions/Groups: 1) Water Operations; and 2) Mill Ponds; 3) Morrow Lake; and 4) Waste Management.

2.1 Water Operations Group

- Inspection of the E4 Containment System silt curtains was conducted on April 15 – 18, 2014 and confirmed that the curtains were firmly seated on the river bottom, completing the installation process.
- CSD sampling and removal was conducted from April 14 - 17, 2014.
- Walling tube installation was completed on April 23, 2014.
- No sheen responses were conducted during this reporting period.

2.2 Mill Ponds Division

- Dredge preparations at the Mill Ponds impoundment began on April 28, 2014.

2.3 Morrow Lake Division

- On April 14, 2014, Enbridge began construction of the dredge pad for continued sediment removal actions at Morrow Lake and the Morrow Lake Delta. Activities included topsoil removal, construction of a berm along the eastern side of the pad, access road and parking area construction, and grading.
- Enbridge continued air monitoring for particulates daily throughout the reporting period. U.S. EPA also conducted periodic perimeter air monitoring for particulates around the dredge pad perimeter throughout the reporting period.
- Pre-dredge bathymetry was completed on April 17, 2014.

2.4 Waste Management Division

- On April 30, 2014, Enbridge began shipping oiled sediment from the 2013 dredging operations that had been staged in geotextile bags at the Mill Ponds Dredge Pad. Sediment was shipped to an approved off-site disposal facility.
- Cumulative quantities of soil, debris, and liquid shipped off-site during the response are presented in Tables 1 and 2.
- The cumulative quantity of recovered oil has been estimated using actual waste stream volumes, analytical data, and physical parameters of oil-containing media. A summary of the estimated volume of recovered oil is presented in Table 3.

3. Planning Section

3.1 Situation Unit

- During the reporting period, overflights were conducted on April 16 and 24, 2014 to document all operational areas and river flooding conditions. Photographs were taken and distributed to project participants in a Situation Update photograph log and during the Consolidated ICS Meeting.

3.2 Environmental Unit

- U.S. EPA, USGS, and the U.S. Army Corps of Engineers held weekly meetings to discuss Hydrodynamic Model (HDM) activities. Development of the HDM and sediment transport model continued throughout the reporting period.

3.3 Documentation Unit

- The Documentation Unit continued organizing and archiving electronic and paper files for post-incident use.

3.4 Resource Unit

- The Resources Unit continued to support production of the Incident Action Plan (IAP), supported the planning efforts of operations, and provided information to Logistics personnel in order to properly prepare and procure resources.

4. Command

4.1 Safety Officers

- Enbridge safety personnel continued conducting work-site safety inspections and implementing the plan for integration of public safety and worker safety on the Kalamazoo River.
- The USCG is providing the U.S. EPA with on-site support by monitoring safety throughout all active work areas.

4.2 Public Information

- The number of public inquires reported by Enbridge for this period is presented in Table 5.

5. Finance

- The current National Pollution Funds Center (NPFC) ceiling is \$69.25 million. Approximately 87.9% of the ceiling has been spent through April 27, 2014. The latest average 14-day burn rate was \$14,037 per day. These cost summaries reflect only U.S. EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 6.

6. Scientific Support Coordination Group (SSCG)

- No activities were conducted during this operational period.

7. Participating Entities

- U.S. EPA and MDEQ continued to meet bi-weekly with a group of stakeholders to discuss how to continue to effectively communicate, share information about site progress, and receive feedback about the communication needs of the local communities. During this reporting period, the Stakeholder group met on April 17, 2014.
- For a list of cooperating and assisting agencies, 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 7.

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/>.

10. Clean-up Progress Metrics

Table 1 - Soil and Debris Shipped Off Site (as of 04/27/2014)

Waste Stream	Cumulative	Disposal Facility
<i>Haz Soil (yd³)</i>	19,644	<i>Envirosafe (Oregon, OH)</i>
Non-Haz Soil (yd ³)	239,630	SET/C&C
Non-Haz Soil (yd ³)	4,476	SET/Ottawa County Farms
Non-Haz Soil (yd ³)	14,673	SET/WM Westside
<i>Non-Haz Soil & Debris (yd³) (Excluding 2010 Ceresco Dredge)</i>	64,815	<i>Westside Recycling (Three Rivers, MI)</i>
<i>Non-Haz Soil (yd³) (2010 Ceresco Dredge Only)</i>	5,562	<i>EQ/Republic (Marshall, MI)</i>
<i>Haz Debris (yd³)</i>	12,075	<i>EQ/Michigan Disposal (Wayne, MI) and Republic (Marshall, MI)</i>
Non-Haz Household Debris (ton)	2,262	SET/C&C
Non-Haz Impacted Debris (ton)	14,571	

Shaded and italicized items are discontinued waste streams.

Table 2 - Liquid Shipped Off-Site (as of 04/27/2014)

Stream	Destination Company	Destination Location	Cumulative Volume (gallons)†
Non-Haz Water	Liquid Industrial Waste	Holland, MI	1,557,407
Non-Haz Water	Plummer	Kentwood, MI	866,009
<i>Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	981,792
<i>Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	1,143,280
<i>Hazardous Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	3,594,579
<i>Oil Other Material</i>	<i>Enbridge Facility</i>	<i>Griffith, IN</i>	766,288 1,405,525
<i>Treated Non-Haz Water</i>	<i>Liquid Industrial Waste</i>	<i>Holland, MI</i>	370,200
<i>Treated Non-Haz Water</i>	<i>Plummer</i>	<i>Kentwood, MI</i>	4,976,140
<i>Hazardous Water</i>	<i>Safety Kleen^a</i>		825
<i>Treated Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	150,700
<i>Treated Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	1,968,700
Total			17,781,445

Shaded and italicized items are discontinued waste streams.

† Cumulative quantities may not reconcile with previous reports (due to auditing).

a New Age lab water and methanol mix generated by mobile laboratory.

Table 3 – Estimated Recovered Oil (as of 04/28/2014)

Waste Stream Containing Recovered Oil	Destination Company	Destination Location	Estimated Oil Volume in Waste Stream (gallons)
Soil - Sediment Impacted Soil & Debris	C&C Landfill	Marshall, MI	25,504
	Envirosafe/ Westside RDF	Oregon, OH	278,665
<i>Geotube Sediment - (Impacted Sediment)</i>	<i>Envirosafe/ Westside RDF</i>	<i>Oregon, OH</i>	<i>1,298</i>
Debris - (Roll Off Boxes with Impacted Sorbents, boom, pads, plastic, PPE, vegetation, and biomass)	EQ Michigan	Belleville, MI	57,095*
<i>Frac Tank City - Influent to Carbon Filtration System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	<i>8,109</i>
Frac Tank City - Water	Dynecol	Detroit, MI	46,183
	Liquid Industrial Waste Services, Inc.	Kentwood, MI	
	Plummers Env. Inc.	Holland, MI	
	BC POTW	Battle Creek, MI	
<i>Ceresco Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	<i>90</i>
<i>A-1 Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	<i>9</i>
Oily Water - RPP	Enbridge Facility	Griffith, IN	766,288
Total			1,183,242

Shaded and *italicized* items represent discontinued waste streams.
 * Total updated for analytical received after report generation

Table 4 – Samples Collected By Enbridge

Sample Type	Total	April 2014													
		26	25	24	23	22	21	20	19	18	17	16	15	14	13
Surface Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Well	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Groundwater	49	0	7	4	4	4	4	0	0	0	7	5	6	8	0
Sediment	40	0	0	0	0	0	0	0	0	0	0	14	10	16	0
Soil	27	0	0	0	3	4	0	0	0	0	6	8	4	2	0
Product	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 5 – Public Inquiries Received by Enbridge

Location/Med	April 2014															
	25	24	23	22	21	20	19	18	17	16	15	14	13	12		
Marshall Community Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Oil Spill Public Information Hotline	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Website	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Public Inquiries	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Table 6 - Financial Summary (as of 04/27/2014)

Item	Expended (Cumulative)
ERRS Contractors	
<i>EQM (EPS50802)</i> T057	\$ 1,199,522
T060	\$ 213,636
<i>LATA (EPS50804)</i> T019	\$ 1,161,082
<i>ER LLC (EPS50905)</i> T040	\$ 683,330
Total ERRS Contractors	\$ 3,257,571
Other Contractors	
<i>Lockheed Martin (EPW09031) – TAGA Support</i>	\$ 198,379
<i>Lockheed Martin (EPW09031) -Biodegradability Study</i>	61,917
<i>T&T Bisso (EPA:HS800008)</i>	\$ 882,087
Total Other Contractors	\$ 1,142,383
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 37,748,180
Community Relations	\$ 114,563
T032-Sampling	\$ 161,045
T037-Doc Support	2,074,674
Total START Contractor	\$ 40,098,462
Response Contractor Sub-Totals	\$ 44,505,088
U.S. EPA Funded Costs: Total U.S. EPA Costs	\$ 6,948,176
Pollution Removal Funding Agreements	
Total Other Agencies	\$ 3,637,081
Indirect Cost (16.00%)	\$ 3,520,519
Indirect Cost (8.36%)-payments after 10/1/2011	\$ 1,310,859
Indirect Cost (10.15%)-payments after 10/1/2012	\$ 1,352,799
Cost Documentation/Billing Admin Fee (2.93%)*	\$ 624,313
Total Est. Oil Spill Cost	\$ 60,880,241
Oil Spill Ceiling Authorized by USCG	\$ 69,250,000
Oil Spill Ceiling Available Balance	\$ 8,369,759

Shaded and *italicized* items are discontinued

* Effective on EPA Enbridge costs billed to USCG for bills issued after 6/5/12.

Table 7 - Personnel On-Site

Agency/Entity	April 2014													
	27	26	25	24	23	22	21	20	19	18	17	16	15	14
U.S. EPA	0	0	1	2	2	2	2	0	0	0	4	3	3	3
START	0	1	10	10	11	8	9	0	0	4	8	12	12	12
MDEQ	0	0	2	2	3	3	3	0	0	3	7	1	3	3
MDEQ Contractors	0	0	1	3	3	1	1	0	0	0	2	2	3	3
Other Agencies	0	2	2	2	2	2	2	2	2	3	3	3	2	2
Enbridge –Water Ops*	2	2	5	5	7	7	7	2	2	7	12	15	15	12
Enbridge – Mill Ponds*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge –Delta/Morrow Lake*	0	44	54	48	46	48	45	0	20	26	32	29	30	25
Enbridge – Waste Management*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge – Office Support*	1	9	42	40	45	48	42	1	9	22	42	43	42	42
Total	3	58	117	112	119	119	111	5	33	65	110	108	110	102

*Enbridge Operations and Field include Enbridge and contractors as reported by Enbridge