

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #183



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

US EPA ARCHIVE DOCUMENT



Ceresco Dam Dredge Pad (June 28, 2013)

To: Susan Hedman, U.S. EPA Regional Administrator
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 Tiffany Eichorst, City of Battle Creek
 Cheryl Vosburg, City of Marshall
 Christine Kosmowski, Calhoun County Water Resources Commissioner

From: Ralph Dollhopf, U.S. EPA, Federal On-Scene Coordinator
Date: 07/12/2013
Reporting Period: 0700 hours 06/17/2013 through 0700 hours 07/01/2013
Operational Periods: 0700 hours 06/17/2013 through 0700 hours 06/24/2013
 0700 hours 06/24/2013 through 0700 hours 07/01/2013

1. Site Data

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

2. Operations Section

- From 0700 hours on 06/17/2013 through 0700 hours on 06/24/2013, the organizational response structure consisted of the following Branches: 1) Submerged Oil; 2) Containment; 3) Waste Management; and 4) Dredge Infrastructure.
- From 0700 hours on 06/24/2013 through 0700 hours on 07/01/2013, the organizational response structure consisted of the following Branches: 1) Environmental Field Teams; and 2) Dredge Operations.

2.1 Submerged Oil Branch

2.1.1 Submerged Oil Science Group

- Sheen net samples were collected following laboratory agitation of legacy contamination sediment cores collected from the proposed dredge areas. Sheen samples are being sent to Ann Arbor Technical Services for Line 6B oil fingerprinting analysis.
- The Spring 2013 Submerged Oil Reassessment continued from June 17 through June 23, 2013.
- Quarterly sediment trap bathymetry surveys continued from June 17 through June 23, 2013, pursuant to the Sediment Trap Monitoring and Maintenance Plan.
- Monthly E4.0 Containment System bathymetry was completed on June 21, 2013.

2.1.2 Submerged Oil Compliance Group

- On June 17, 2013, Enbridge submitted revised MDEQ dredging permit applications for Ceresco, MP 13.90 – 15.70 (Mill Ponds), Morrow Lake Delta, MP 10.40 Sediment Trap, and MP 21.50 Sediment Trap to incorporate MDEQ comments.
- On June 18, 2013, Enbridge submitted a revised MDEQ dredging permit application for Ceresco to incorporate MDEQ comments.
- As of the close of the reporting period, all 5 dredge permit applications are posted for public comment by MDEQ.

2.2 Containment Branch

2.2.1 Containment Compliance Group

- No activities were conducted during the operational periods.

2.2.2 Containment Recovery Group

- Enbridge monitored and maintained 725 feet of surface hard boom at the Ceresco Dam control point; 125 feet of surface hard boom at the MP 15.25 South Mill Ponds control point; and 4,900 feet of surface hard boom and 2,750 feet of subsurface half-curtain at the E4.0 Containment System.
- Pursuant to the Emerging Oil Management Program (EOMP), Enbridge and U.S. EPA continued to track the location, response, and sheen differentiation test results (when necessary) of sheen and/or oil globules in the main channel and overbank areas. Observations of sheen and/or oil globules were reported back to Operations Section Chiefs for response, if appropriate. No sheen differentiation tests were conducted during the operational periods. Refer to Table 1 for sheen differentiation testing information and to Section 3.1 for locations of oil sheen and glob observations.
- Management of oil sheen and/or globules continued. Thirty sheen responses were conducted during the operational periods; twenty-two of these were at the Ceresco impoundment. Refer to Table 2 for a summary of sheen responses by day.

2.3 Waste Management Branch

- Cumulative quantities of soil, debris, and liquid shipped off-site during the response are presented in Tables 3 and 4.
- 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 5.

2.4 Dredge Infrastructure Branch

- Setup of administrative and oversight facilities, and infrastructure for dredge support areas continued at the C0.4 launch, Ceresco Dredge Pad, MP 10.4 sediment trap, C5 launch, Mill Pond Dredge Pad, E3.5 launch and staging area, E4 launch, and Morrow Lake Dredge Pad. Setup activities included access roadway improvements, construction of gravel parking areas, installation of barrier fencing, mobilization of temporary office trailers, and installation of temporary power and internet.

- Dredge pad construction began at Ceresco Dredge Pad, MP10.4 sediment trap, Mill Ponds Dredge Pad, and Morrow Lake Dredge Pad.

2.5 Environmental Field Teams Branch

2.5.1 Environmental Science Group

- Quarterly sediment trap bathymetry surveys and poling continued from June 24 through June 30, 2013, pursuant to the Sediment Trap Monitoring and Maintenance Plan.
- The Spring 2013 Submerged Oil Reassessment was completed on June 23, 2013.
- Walling tube sampling and reinstallation was conducted from June 24 through 28, 2013.
- Monthly E4.0 Containment System poling was conducted from June 24 through 27, 2013.

2.5.2 Water Operations Group

- Containment and sheen management activities reported in Section 2.2.2 continued from June 24 through June 30, 2013.

2.6 Dredge Operations Branch

- Dredge pad, staging area, and administrative facility construction activities reported in Section 2.4 continued from June 24 through June 30, 2013

3. Planning

3.1 Situation Unit

- Situation Unit personnel conducted field observations and overflights to document all operational areas, including the locations and integrity of CSDs, buoys and sediment trap structures; and locations of oil sheen and/or globules. During the operational periods, an overflight was conducted on June 28, 2013. See Section 2.2.2 for additional details regarding the EOMP.
- During the operational periods, oil sheen and/or globules were observed at:
 - Ceresco Dam impoundment at multiple locations between MP 4.5 and MP 5.89 on June 17 – 22 and 24 - 29;
 - Mill Ponds impoundment at multiple locations between MP 14.35 and MP 15.65 on June 17 – 22, 24, 27, and 29;
 - Multiple locations between MP 21.5 and MP 36.5 on June 17 – 22 and 24 - 29;
 - Morrow Lake Delta and/or Neck on June 17 – 22 and 24 - 29;
 - Morrow Lake North and/or South Coves on June 17 – 22 and 24 - 29; and
 - Morrow Lake on June 17, 21, 22, and 27.
- Photographs were taken and distributed to project participants during the weekly Consolidated ICS Meetings.

3.2 Environmental Unit

- U.S. EPA, USGS, and the U.S. Army Corps of Engineers held weekly meetings to discuss upcoming Hydrodynamic Model (HDM) activities.
- Enbridge's Management of Public River Access During Dredging Operations Work Plan (May 17, 2013) is in review with U.S. EPA.
- On May 30, 2013, U.S. EPA transmitted comments to Enbridge regarding its Legacy Contamination Data Gap Evaluation Work Plan (May 17, 2013). On June 7, 2013 Enbridge resubmitted the plan in response to U.S. EPA's comments. The revised plan is in review with U.S. EPA.

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.

4.2 Public Information

- The number of public inquires reported by Enbridge for this period is presented in Table 7.

5. *Finance*

- The current National Pollution Funds Center (NPFC) ceiling is \$59.8 million. Approximately 90.9% of the ceiling has been spent through June 30, 2013. The latest average 14-day burn rate was \$28,308 per day. These cost summaries reflect only U.S. EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 8.

6. *Scientific Support Coordination Group (SSCG)*

- No activities were conducted during this operational period.

7. *Participating Entities*

- On June 21, 2013, the Multi-Agency Coordination Group decided to discontinue holding regular meetings.

- 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.
- 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 9.

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 – Sheen Differentiation Test Results

Description	Total	June 2013													
		30	29	28	27	26	25	24	23	22	21	20	19	18	17
Sheen Tests Performed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Results Indicated Petroleum Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Results Indicated Biogenic Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inconclusive Test Results	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2 – Sheen Responses

Total	June 2013													
	30	29	28	27	26	25	24	23	22	21	20	19	18	17
30	0	1	3	4	4	2	2	0	3	2	2	1	2	4

Table 3 - Soil and Debris Shipped Off Site (as of 6/30/2013)

Waste Stream	Cumulative	Disposal Facility
<i>Haz Soil (yd³)</i>	19,644	<i>Envirosafe (Oregon, OH)</i>
Non-Haz Soil (yd ³) (Excluding Ceresco Dredge)	78,549	SET/C&C
<i>Non-Haz Soil & Debris (yd³)</i> (Excluding Ceresco Dredge)	64,815	<i>Westside Recycling (Three Rivers, MI)</i>
<i>Non-Haz Soil (yd³)</i> (Ceresco Dredge Only)	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)	1,837	SET/C&C
Non-Haz Impacted Debris (ton)	7,220	

Shaded and italicized items are discontinued waste streams.

Table 4 - Liquid Shipped Off-Site (as of 6/16/2013)

Stream	Destination Company	Destination Location	Cumulative Volume (gallons)†
Non-Haz Water	Liquid Industrial Waste	Holland, MI	1,445,157
Non-Haz Water	Plummer	Kentwood, MI	620,526
<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</i>	<i>Enbridge Facility</i>	<i>Griffith, IN</i>	766,288
<i>Other Material</i>			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			17,423,712

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 5 – Estimated Recovered Oil (as of 7/1/2013)

Waste Stream Containing Recovered Oil	Destination Company	Destination Location	Estimated Oil Volume in Waste Stream (gallons)
Soil Impacted Soil & Debris	C&C Landfill	Marshall, MI	14,072*
	Envirosafe/ Westside RDF	Oregon, OH	278,665
<i>Geotube Sediment - (Impacted Sediment)</i>	<i>Envirosafe/ Westside RDF</i>	<i>Oregon, OH</i>	1,298
Debris - (Roll Off Boxes with Impacted Sorbents, boom, pads, plastic, PPE, vegetation, and biomass)	EQ Michigan	Belleville, MI	34,603*
<i>Frac Tank City - Influent to Carbon Filtration System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	8,109
Frac Tank City - Water	Dynecol	Detroit, MI	46,176**
	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>	90
<i>A-1 Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	9
Oily Water - RPP	Enbridge Facility	Griffith, IN	766,288
Total			1,149,310

Shaded and italicized items represent discontinued waste streams.

* Total updated for information received after report generation.

**Not all analytical is available at the time of report generation.

Table 6 – Samples Collected By Enbridge

Sample Type	Total	June 2013													
		30	29	28	27	26	25	24	23	22	21	20	19	18	17
Surface Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Well	22	0	0	0	0	0	0	0	0	0	0	0	9	13	0
Groundwater	5	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Sediment	45	0	0	1	17	22	1	0	0	0	1	0	2	1	0
Soil	102	0	0	5	9	11	8	17	0	0	17	10	8	9	8
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	155	0	16	17	14	21	25	16	0	11	12	8	4	11	0

Table 7 – Public Inquiries Received by Enbridge

Location/Med	June 2013														
	28	27	26	25	24	23	22	21	20	19	18	17	16	15	
Marshall Community Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oil Spill Public Information Hotline	0	2	0	0	0	0	0	0	1	0	0	0	0	1	
Website	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Public Inquiries	0	2	0	0	0	0	0	0	1	0	0	0	0	1	

Table 8 - Financial Summary (as of 6/30/2013)

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>	31,554
<i>T&T Bisso (EPA:HS800008)</i>	\$ 882,087
Total Other Contractors	\$ 1,112,020
START Contractor – WESTON (EPS50604)	
T030-Response	32,805,559
Community Relations	\$ 114,563
T032-Sampling	\$ 184,992
T037-Doc Support	\$ 1,932,452
Total START Contractor	\$ 35,037,566
Response Contractor Sub-Totals	\$ 39,432,737
U.S. EPA Funded Costs: Total U.S. EPA Costs	\$ 6,467,484
Pollution Removal Funding Agreements	
Total Other Agencies	\$ 2,897,081
Indirect Cost (16.00%)	\$ 3,598,252
Indirect Cost (8.36%)-payments after 10/1/2011	\$ 1,310,859
Indirect Cost (10.15%)-payments after 10/1/2012	\$ 789,165
Cost Documentation/Billing Admin Fee (2.93%)*	\$ 461,608
Total Est. Oil Spill Cost	\$ 54,361,788
Oil Spill Ceiling Authorized by USCG	\$ 59,800,000
Oil Spill Ceiling Available Balance	\$ 5,438,212

Shaded and *italicized* items are discontinued

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

Table 9 - Personnel On-Site

Agency/Entity	June 2013													
	30	29	28	27	26	25	24	23	22	21	20	19	18	17
U.S. EPA	0	0	3	4	5	4	4	0	0	5	3	5	4	4
START	0	3	17	19	19	17	18	0	12	22	23	24	22	18
MDEQ	0	0	3	3	3	2	3	0	0	8	3	3	3	3
MDEQ Contractors	0	0	0	2	2	2	2	0	0	1	3	3	3	3
Other Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge – Kalamazoo River*	0	6	23	24	17	16	19	0	0	14	21	16	20	21
Enbridge – Containment*	2	6	11	11	6	9	9	0	6	9	11	9	9	11
Enbridge – Submerged Oil*	58	63	98	116	125	116	107	2	74	102	97	105	94	85
Enbridge – Waste Management*	0	1	2	2	2	2	2	0	2	2	2	2	2	2
Enbridge – Security*	0	1	1	1	1	1	1	-	-	-	-	-	-	-
Enbridge – Dredge Infrastructure*	0	2	6	6	6	6	2	0	0	0	0	0	0	0
Enbridge – Marshall Office*	9	26	46	46	53	49	53	0	17	47	57	54	53	52
Total	69	108	210	234	239	224	220	2	111	210	220	221	210	199

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