

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 # 64
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 Mgt.
Greg Danneffel, MDNRE
Mike McKenzie, City of Battle Creek
Leon Zupan, Enbridge
Susan Hedman, U.S. EPA Regional Administrator
Rebecca Humphries, MDNRE

From: Ralph Dollhopf, U.S. EPA Incident Commander
Stephen Wolfe, U.S. EPA On-Scene Coordinator
Jeff Kimble, U.S. EPA Deputy Incident Commander
Mark Durno, U.S. EPA Deputy Incident Commander

Date: 10/011/2010

Reporting Period: 0700 hours 10/09/2010 to 0700 hours 10/11/2010

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 Incident Objective and Command Emphasis

The following incident objectives and command emphasis are taken from the IAP for the Operational Period October 08, 2010, at 0700 to October 12, 2010, at 0700.

Incident Objectives

1. Ensure health and safety of the public and response and recovery personnel.

2. Ensure effective transition of regulatory oversight of the oil impacted areas from EPA to MDNRE jurisdiction as appropriate.
3. Maintain the isolation of the Kalamazoo River from up-gradient source area.
4. Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
5. Maintain effective unified communications with cooperating and assisting agencies and the public.
6. Perform remediation and restoration of all affected public and private areas of river and river systems.
7. Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
8. Protect threatened and endangered species and continue to recover and rehabilitate injured wildlife.
9. Continue to collect, coordinate, manage, and communicate environmental and public health data including maintenance of Joint Information Center function.

Command Emphasis

1. Maintain systematic and adequate DECON/demobilization of project resources.
2. Continue recovery of submerged oil and sediment in the Kalamazoo River with prioritization of the Ceresco Dam and Millpond areas.
3. Complete necessary grade restoration and stabilization work along Talmadge Creek in accordance with the approved plans.
4. Continue implementation of transition to long-term operation and maintenance of containment and submerged oil recovery.

2 Current Activities

2.1 Operations Section





2.1.1 Narrative

This operational phase of the response consists of: 1) Talmadge Creek Restoration; 2) Submerged Oil Recovery; 3) Long Term operations and Maintenance (O&M); 4) Drinking and Groundwater Studies; and 5) Decontamination.

2.1.2 Talmadge Creek Restoration

- Continued mat road removal and maintenance of sorbent booms and coconut logs.
- Restoration progress is outlined in Table 1 and is depicted in Figure 1 through Figure 5.

Table 1 - Division A and B Restoration Progress, Sections 1-10

Restoration Step		Percent Complete
1. Prepped		100%
2. Cleared		100%
3. Backfilled		100%
4. Restored		96%

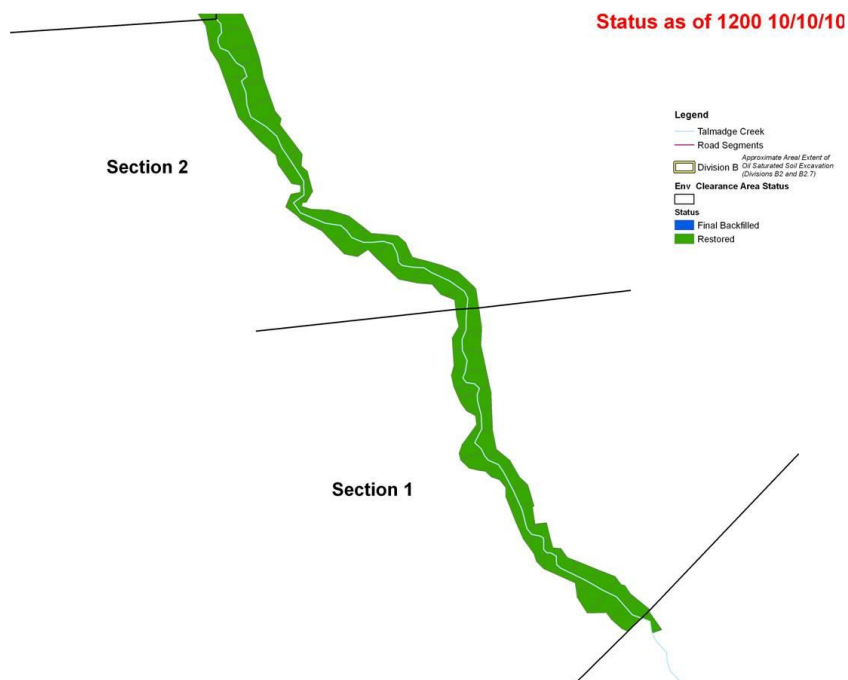


Figure 1 – Division A, Sections 1 and 2 (Location A4 to B2)

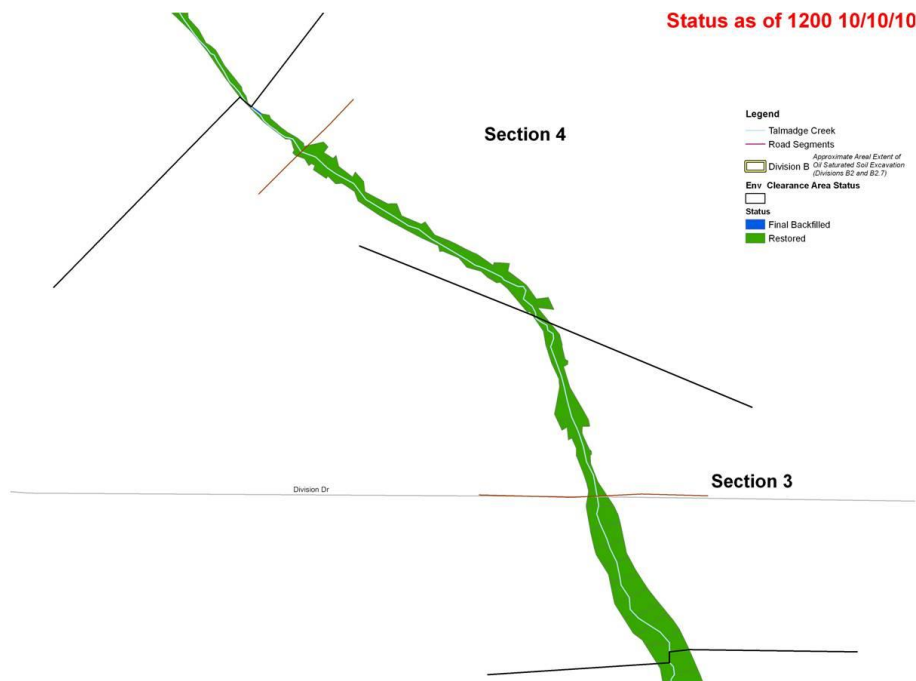


Figure 2 - Division B, Sections 3 and 4 (Location B2 to B2.5)

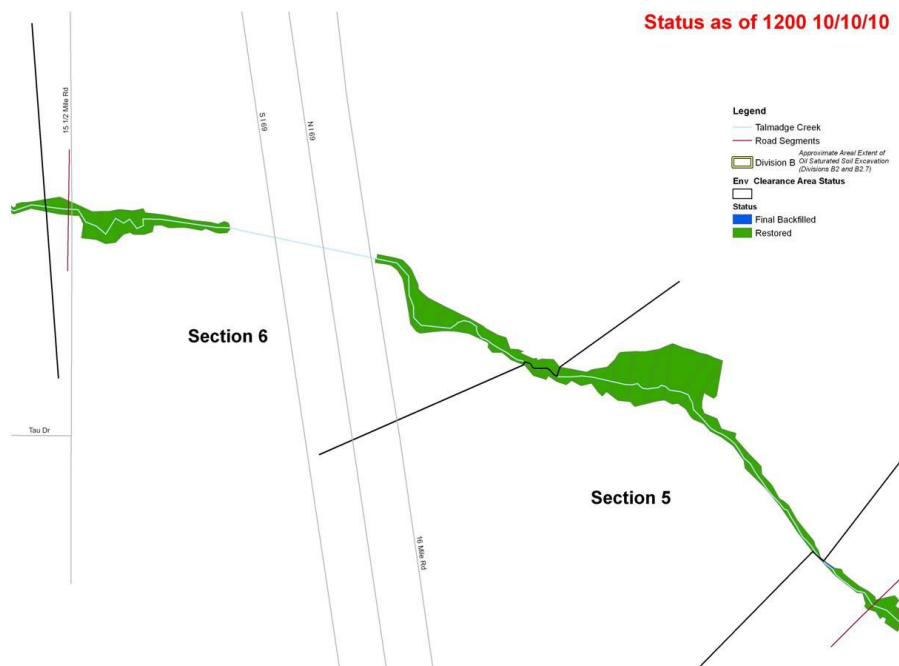


Figure 3 - Division B, Sections 5 and 6 (Location B2.5 to B4)

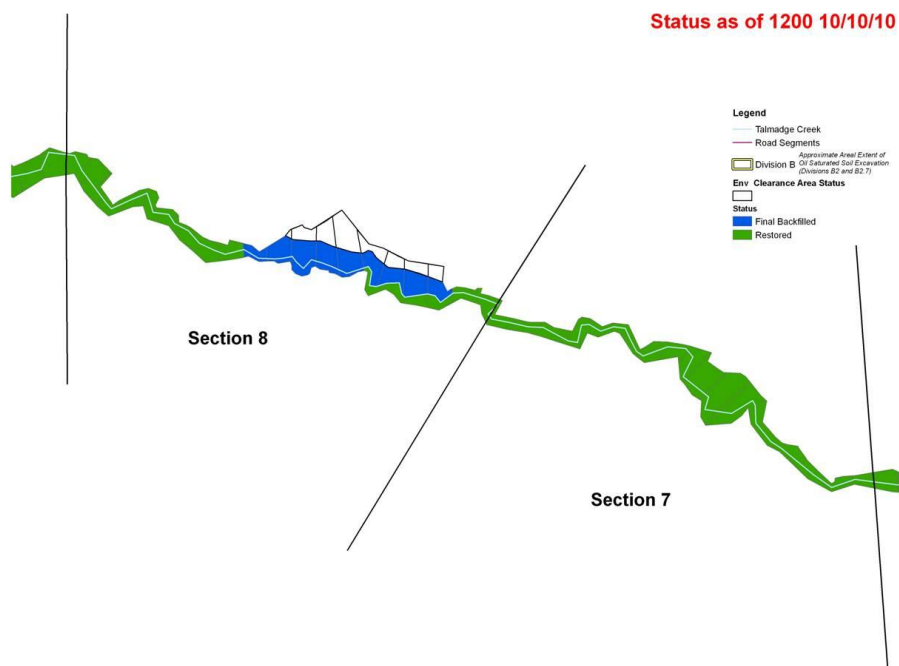


Figure 4 - Division B, Sections 7 and 8 (Locations B4 to B4.8)

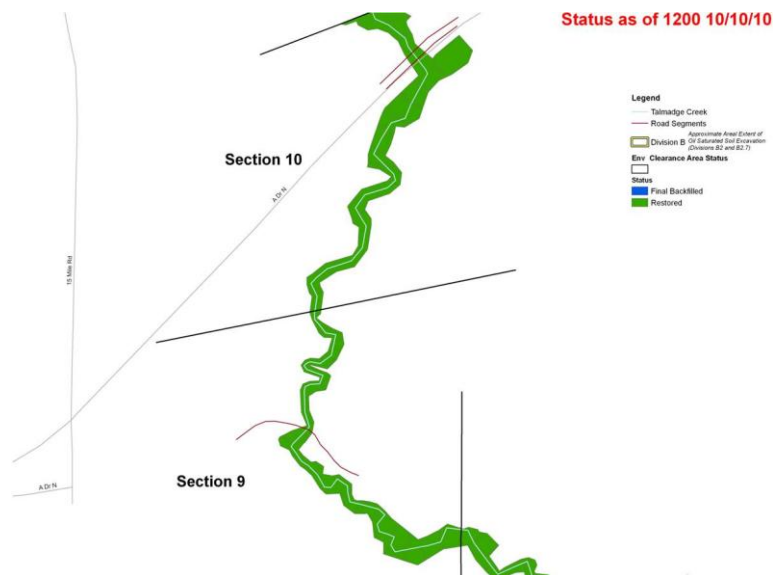


Figure 5 - Division B, Section 9 and 10 (Locations B4.9 to B5)

2.1.3 Submerged Oil Recovery

- Submerged Oil Site at MP26.25 turned over to O&M for further consideration.
- Ongoing aeration and shallow recovery operations are being conducted in the Ceresco Dam area, Mill Pond area, and in the Morrow Lake Delta.
- Observed product flowing in and around MP4.5 in Talmadge Creek. Pump-around/creek diversion operations and excavation of oil saturated soil along the creek banks and in the creek bed have commenced.

Submerged Oil Task Force (SOTF)

- Conducted poling operations in Division D, Mill Pond, and Morrow Lake to delineate areas of submerged oil.
- Conducted poling and collected sediment cores for analysis in Cells 1 through 3 at the south end of the Mill Pond area.
- The SOTF progress is outlined in Table 2.

Table 2 - Submerged Oil Task Force Progress

Submerged Oil Recovery Process	Percent Complete	Cumulative Sections Completed	
		10/10	10/9
Assessment	100%	20	20
Containment	100%	18	18
Work Plan	100%	18	18
Clean-up	57%	13	13
Inspection/Sign-Off	52%	12	12

Ceresco Dam Dredging Task Force

- Continued noise, air, and turbidity monitoring. No exceedances of noise or turbidity action levels were reported.
- 1 exceedance of the benzene action level was reported at 1100 on October 10 in the vicinity of the dredging operations at Ceresco Dam.

- Delivery of Dredge Three to the staging area at C1.
- The dredging progress is depicted in Figure 6.



Figure 6 - Ceresco Dam Dredging Progress

2.1.4 Long Term Operations and Maintenance (O&M)

- EPA Inspected O&M locations and relayed observations and recommendations to the RP.
- EPA observed an area burping submerged oil and tar balls approximately 300 feet upstream of the MP15.5L1 site along the RDB
- Prepared and signed close out documentation for 8 O&M sites.
- Conducted initial O&M Site Reconnaissance at Talmadge Creek.

Table 3 – O&M Maintenance and Monitoring Areas

O&M Process	Percent Complete	Cumulative Sections Completed	
		10/10	10/09
Active Site	100%	52	50
Monitoring	79%	41	39
Cleared	19%	10	11
Signed Off	10%	5	5

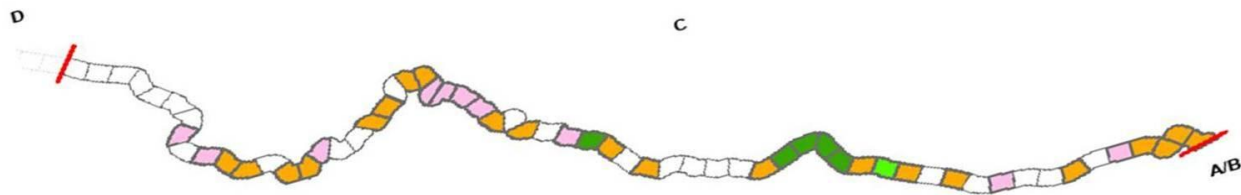


Figure 7 - Division C O&M Areas

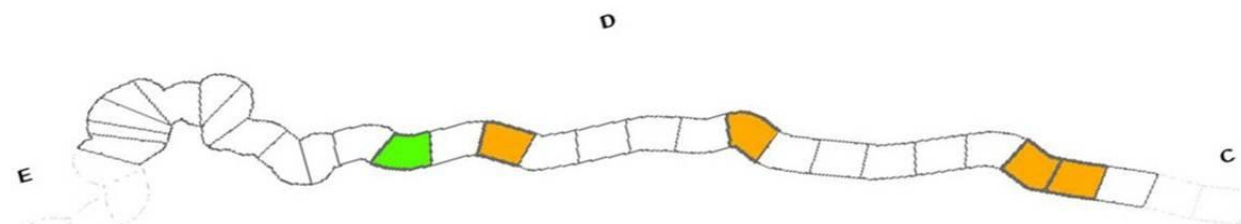


Figure 8 - Division D O&M Areas

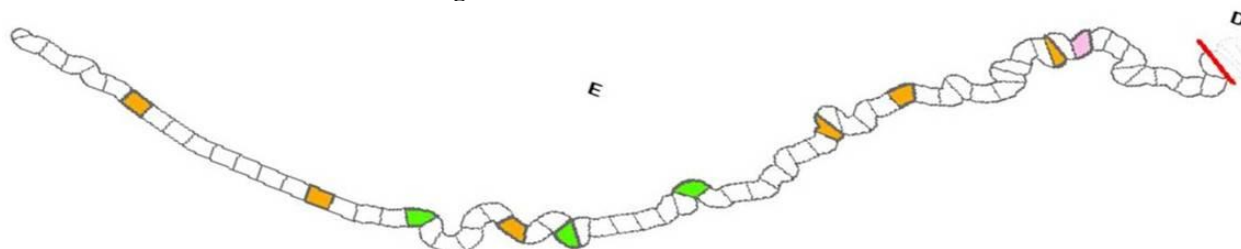


Figure 9 - Division E O&M Areas

2.1.5 Drinking and Groundwater Studies

- Completed installation of 7 monitoring wells on October 9 and 3 monitoring wells on October 10.
- Collected drilling water tank blank samples for VOC analysis.
- Enbridge addressed issues with well installation and development.

2.1.6 Decontamination

- Equipment and boom that was Deconed during this operational period is outlined in Table 4.

Table 4 - Equipment Decon Totals

	10/10	10/9
Frac Tanks	1	2
Vac Trucks-Tankers	1	1
Roll-Off Boxes	8	14
Yellow Iron - Light	0	0
Yellow Iron - Heavy	1	0
Marine Vessels	2	2
Vehicles	0	0
Daily Total	13	19
Boom (feet)	3,025	3,445

2.1.7 Additional Operations

Air Ops

- During this operational period, there were 2 overflights.
- Air Ops observed and documented cleanup progress in all operational areas.
- Air Ops continued to investigate areas of interest and report on hot spots, oil mobilization, O&M, and Decon.

Monitoring Branch

- Conducted real-time air monitoring near oil collection sites, excavation and dredging operations, the water treatment plant, the Ceresco Dam area, and in community areas. No readings in excess of background levels were reported.
- Samples reported by Enbridge are provided in Table 5.

Table 5 – Samples Collected By Enbridge

Sample Type	Number Collected	
	10/10	10/09
Tedlar Bag *	16	16
Mini SUMMA *	10	10
Surface Water	13	15
Private Well Samples	8	7 [†]
Groundwater Samples	0	0
Sediment Samples	2	4
Soil Samples	0	0
Sheen Samples	0	0
Other	0	0

* As observed by the EPA

† Estimated value.

- Sampling and monitoring events conducted by EPA personnel during this operational period are reported in Table 6.

Table 6 – Sampling and Monitoring Events by EPA as Reported in Scribe

Sample Type	Number Collected	
	10/10	10/09
Air Monitoring Results	62	36
Tedlar Bags	0	0
SUMMA canisters	0	0
Sediment	0	0
Surface Water	0	1

2.1.8 Progress Metrics

All progress metrics in Section 2.1.8 are as reported by Enbridge unless otherwise indicated.

Boom Report

Table 7 - Boom Report

	10/09	10/08
Number of Locations	19	19
Boom Deployed (feet)	118,389	120,949

Table 8 - Soil and Debris Shipped Off Site

Waste Stream*	Cumulative [†]	10/09	10/08
Haz Soil (yd ³) ^a	15,344	0	0
Non Haz Soil (yd ³) ^b	41,535	843	873
Haz Debris (yd ³) ^c	12,075	0	0
Non Haz Household Debris (ton)	50	0	2
Non Haz Impacted Debris (ton) ^c	1332	0	0

* 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).

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 9 –Oil/Water Collected by Location 10/09 0700

Location	Cumulative (gallons)
Division A	5,542,843
Division B	4,643,565
Division C	1,120,050
Division D	119,850
Division E	50,030
Decon	359,280
Other Locations*	264,583
TOTAL	12,100,201

* Includes Frac, DECON, and Wildlife Center.

Table 10 - Oil Water Separation 10/10

Enbridge Facility in Griffith, IN (gallons)	
Oil	758,756
Other Material	1,400,050
TOTAL	2,158,806

Table 11 – Oil/Water Remaining On-Site (Gallons)

Oil/Water Collected	12,100,201
Oil/Water Shipped Off-site	10,936,714
OIL/WATER REMAINING ON-SITE	1,163,487

Table 12 – Liquid Shipped Off-site

Oil/Water leaving Site	Destination	Quantity Shipped		
		Cumulative†	10/09	10/08
Haz Water	Dynecol, Detroit, MI	2,508,448	0	16,500
Oil/Water	Enbridge Facility, Griffith, IN	2,158,806	0	0
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	370,200	0	0
Treated Non Haz Water	Plummer, Kentwood, MI	3,795,535	10,000	70,000
Haz Water	Safety Kleen ^a	825	0	0
Treated Non Haz Water *	Dynecol, Detroit, MI	134,200	0	0
Treated Non Haz Water *	Battle Creek POTW	1,968,700	0	0
Totals		10,936,714	10,000	86,500

* 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.

2.2 Planning Section

Data Management Unit

- Map Tracker and SCRIBE database are now both functioning properly and have been updated.

2.3 Safety Reports

- No major incidents or safety concerns were reported during this operational period.
- Red flag fire alert is in effect for the response area.

2.4 Liaison Officer

- Engaged in ongoing coordination with cooperating and assisting agencies, the UC, Enbridge, and the PIO.

2.5 Public Information Officer

- Public inquires received during this operational period are outlined in Table 13.

Table 13 – Public Inquiries

Location/Media	Inquiries Received	
	10/09	10/08
Battle Creek Community Center	1	4
Marshall Community Center	3	6
Oil Spill Public Information Hotline	3	15
Enbridge Response Website (www.response.enbridgeUS.com)	1	0
Total Public Inquiries	8	25

2.6 Finance Section

- The current NPFC issued ceiling is \$21.6 Million. Approximately, 92.5% of the ceiling has been spent through October 09, 2010, with the latest burn rate of \$92,022 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 14.

Table 14 - Financial Summary (10/9)

ERRS Contractors		Est. Expended	Est Burn Rate (Latest Daily)
EQM (EPS50802)	T057	\$1,250,065	\$0
	T060	204,905	0
LATA (EPS50804)		1,451,396	0
ER LLC (EPS50905)		723,669	0
Total ERRS Contractors		\$3,630,035	\$0
Lockheed Martin (EPW09031) -TAGA Support		\$150,000	0
T&T Bisso (EPA:HS800008)		1,255,000	0
START Contractor			
WESTON (EPS50604)		6,838,213	49,989
Response Contractor Sub-Totals		\$11,873,248	\$49,989
EPA Funded Costs:			
Total EPA Costs		3,980,703	25,500
Pollution Removal Funding Agreements:			
Total Other Agencies		\$1,375,069	\$3,840
Sub-Totals		\$17,229,020	\$79,329
Indirect Cost (16.00%)		2,756,643	12,693
Total Est. Oil Spill Cost		\$19,985,663	\$92,022
Oil Spill Ceiling authorized by USCG		\$21,600,000	
Oil Spill Ceiling Available Balance		\$1,614,337	
Est. Percentage Spent		92.5%	

2.7 Response Actions to Date

- Response Actions to date may be found in Situation Reports #1 through #63.

3 Participating Entities

3.1 Unified Command

U.S. EPA
MDNRE
Michigan State Police Emergency
Management Division
City of Battle Creek

Calhoun County Public Health Department
Calhoun County Emergency Management
Kalamazoo County Sheriff
Enbridge (Responsible Party)

3.2 Cooperating and Assisting Agencies

ATSDR
Calhoun Conservation District
Calhoun County Commission
City of Kalamazoo
City of Marshall
Emmett Township
Fredonia Township
Kalamazoo County Office of Emergency
Management
Marshall Area Firefighters Ambulance
Authority
Marshall Police Department

Marshall Township Government and Fire
Department
Michigan Department of Agriculture
MDCH
NOAA
Oakland County HAZMAT/RRTN
PHMSA
USCG
U.S. Department of the Interior/USGS
USFW

3.3 Congressional Presence

State Representative Jase Bolger
State Representative Kate Segal
State Representative Ken Kurtz
State Representative Phil Browne
State Representative Phyllis Browne
State Representative Bob Geuck
State Representative Tanya Schuitmaker
State Senator Mike Nofs
U.S. Congressman Mark Schauer
U.S. Senator Carl Levin
U.S. Senator Debbie Stabenow

4 Personnel On Site

- Staffing numbers for the various entities and agencies active in the response are presented in Table 15.

Table 15 - Personnel On-Site

Agency/Entity	Number Reported	
	10/10	10/9
EPA	25	25
START	34	37
Calhoun County Public Health	1	1
Calhoun County (CC) Sheriff	5	5
City of Battle Creek	3	3
Kalamazoo Sheriff	2	2
MDNRE	15	15
Michigan State Police (MSP)	1	1
NOAA - National Weather	1	1
USFWS	1	1
Enbridge ICP	56	61
Enbridge ICP Contractor	262	294
Enbridge	8	8
Enbridge Contractors	610	658
Total	1,024	1,112

5 Source of Additional Information

5.1 Additional Information

For additional information, please refer to <http://www.epa.gov/enbridgespill>. For sampling analysis data, please see <http://response.enbridge.com/response/main.aspx?id=13168>.