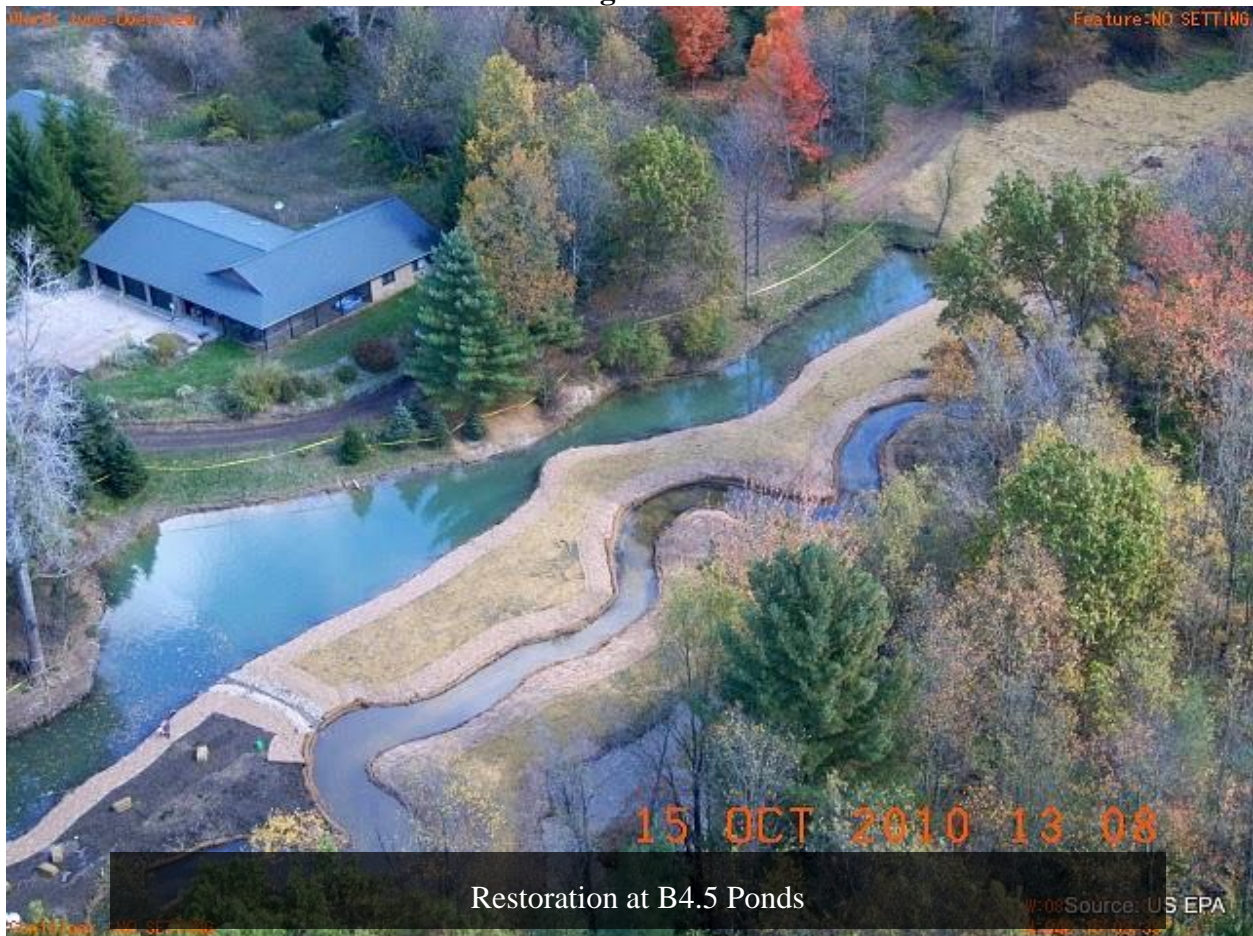


US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Kalamazoo River/Enbridge Spill - Removal POLREP-SITREP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V



Subject: SITREP # 67
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: 10/17/2010

Reporting Period: 0700 hours 10/15/2010 to 0700 hours 10/17/2010

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 12, 2010, at 0700 to October 16, 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 all the up-gradient source areas.
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 area, Mill Pond area, and Morrow Lake Delta area.
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 removal of berms in Division A.
- Continued mat road removal and maintenance of sorbent booms and coconut logs.
- Completed mat road removal in Locations A1 and A2.
- Restoration is reported as complete as outlined in Table 1 and 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		100%

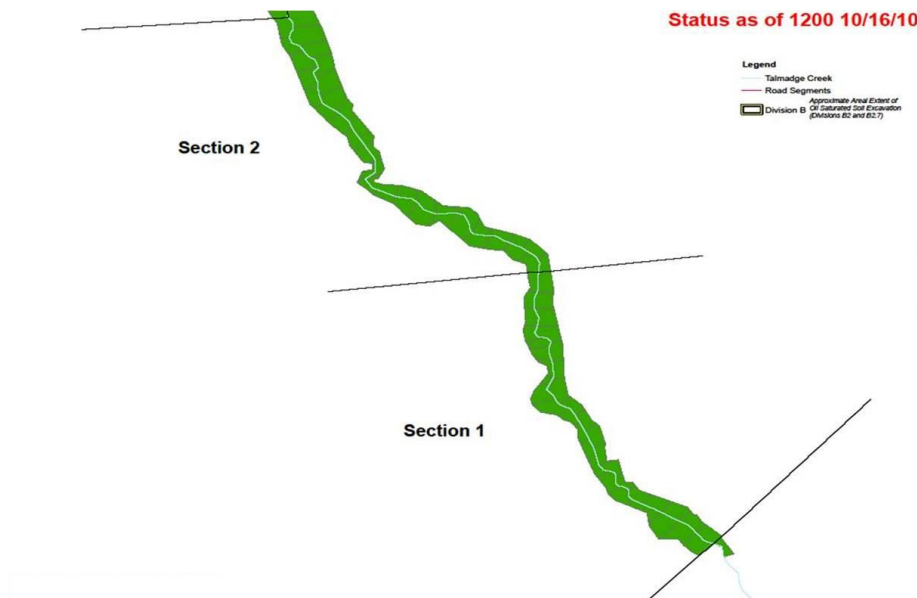


Figure 1 – Division A, Sections 1 and 2 (Locations A4 to B2)

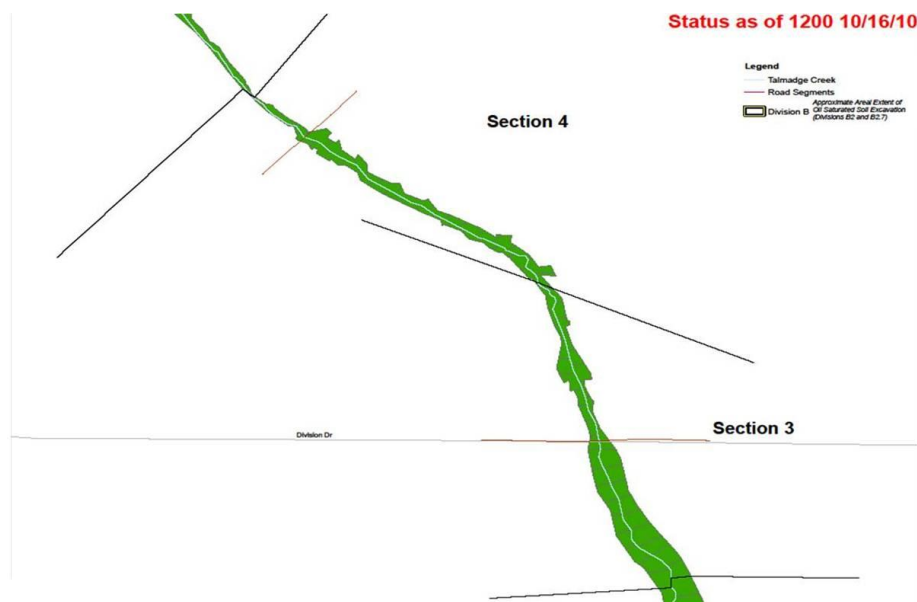


Figure 2 - Division B, Sections 3 and 4 (Locations B2 to B2.5)

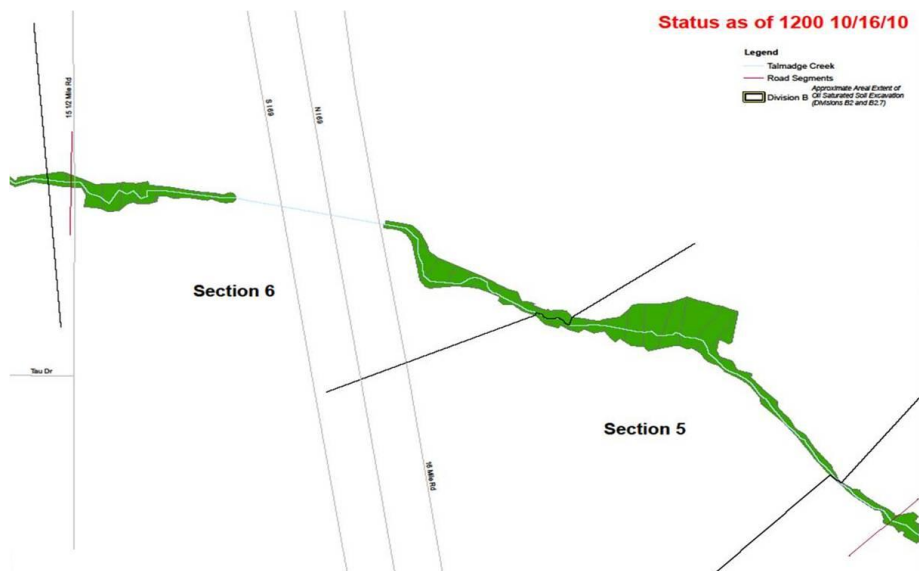


Figure 3 - Division B, Sections 5 and 6 (Locations B2.5 to B4)

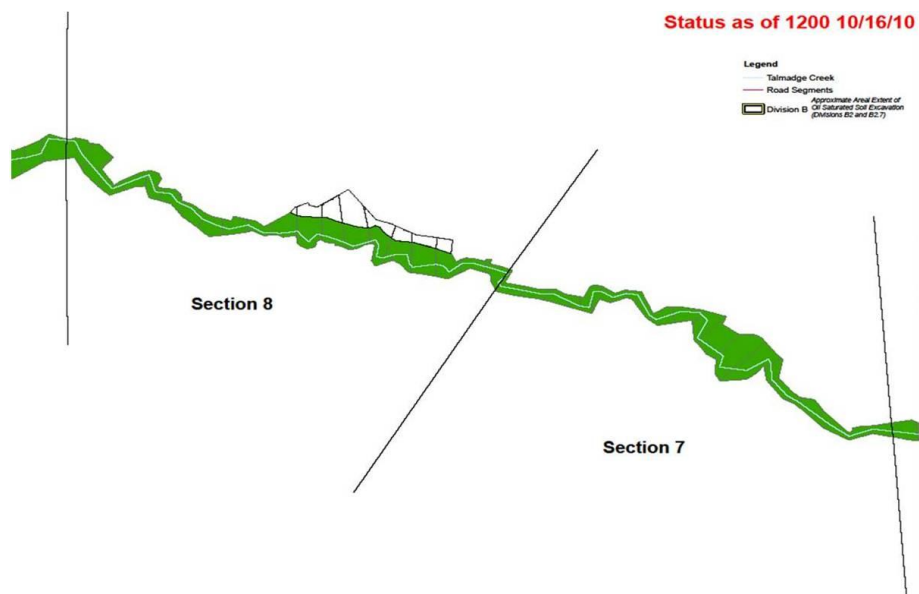


Figure 4 - Division B, Sections 7 and 8 (Locations B4 to B4.8)

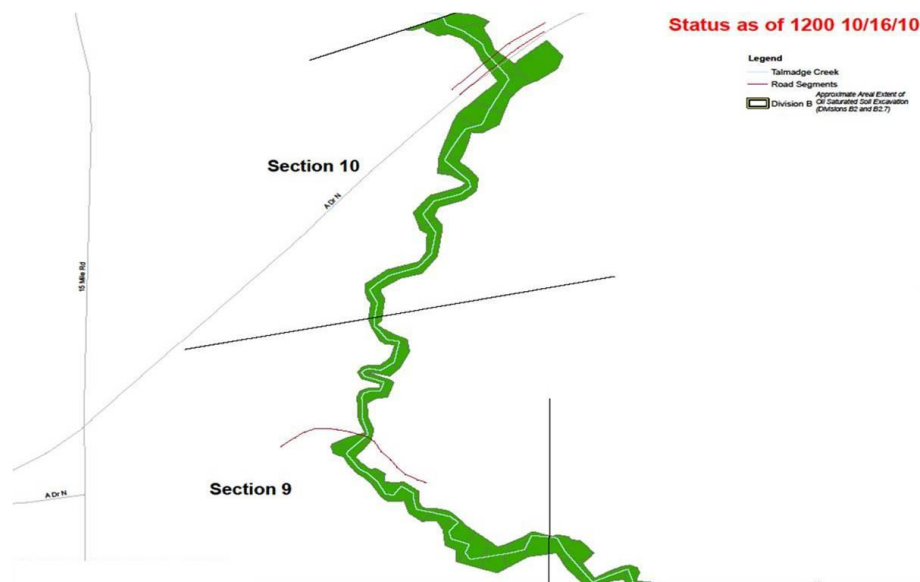


Figure 5 - Division B, Sections 9 and 10 (Locations B4.9 to B5)

2.1.3 Submerged Oil Recovery

Submerged Oil Recovery Task Force (SOTF)

- Continued aeration, flushing, and shallow recovery operations in the Ceresco Dam area, at MP12.5, in the Mill Pond area, and in the Morrow Lake Delta.
- Completed submerged oil recovery operations at MP26.25. Area has been inspected and signed off on.
- Completed recovery at MP5.75N and MP5.8. Awaiting EPA approval and sign-off.
- The SOTF progress is outlined in Table 2.

Table 2 - Submerged Oil Task Force Progress

Submerged Oil Recovery Process	Percent Complete	Cumulative Sections Completed	
		10/16	10/15
Assessment	100%	20	20
Containment	100%	18	18
Work Plan	100%	18	18
Clean-up	74%	17	15
Inspection/Sign-Off	57%	13	13

Ceresco Dam Dredging Task Force

- Continued noise, air, and turbidity monitoring. No exceedances of background levels were reported during this operational period.
- Began dredging operations in 5.75NW with the third dredger.
- The dredging progress is depicted in Figure 6.



Figure 6 - Ceresco Dam Dredging Progress

2.1.4 Long Term Operations and Maintenance (O&M)

- Continued removal of sediments within Talmadge Creek at Location B2.
- Prepared waste management close out plans.
- Continued pump around and excavation within Talmadge Creek at Location B4.5.
- EPA inspected O&M locations and relayed observations and recommendations to the RP.
 - Observed oil and sheen behind the island at MP14.0011.
- Deployed sorbent boom at MP20.5 to capture sheen off LDB near sewage outfall.

Table 3 – O&M Maintenance and Monitoring Areas

O&M Process	Cumulative Sections Completed	
	10/16	10/15
Active Site	52	52
Monitoring	39	39
Cleared	11	11
Signed Off	8	6

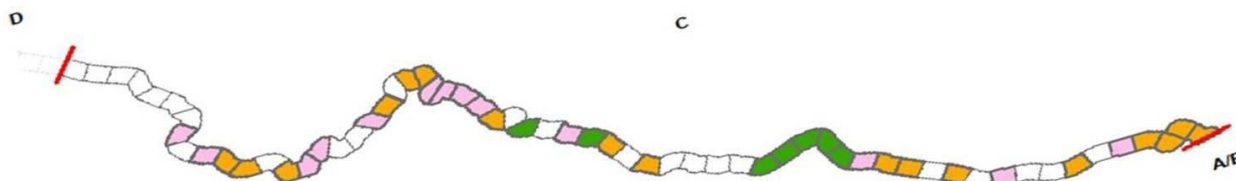


Figure 7 - Division C O&M Areas

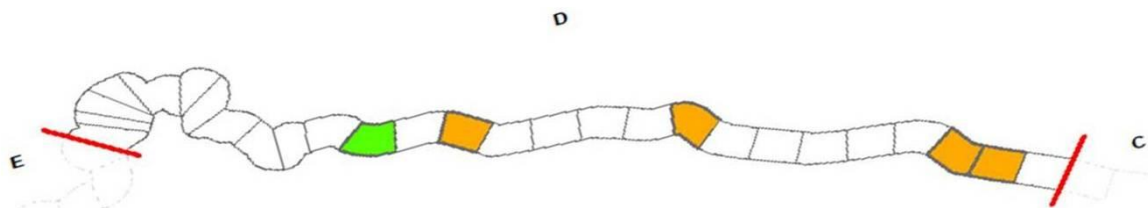


Figure 8 - Division D O&M Areas

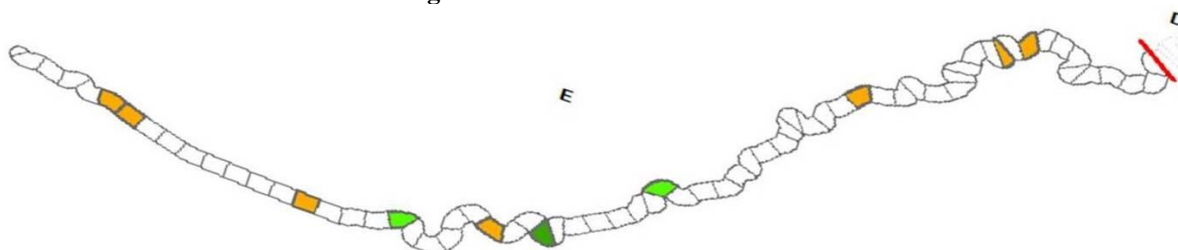


Figure 9 - Division E O&M Areas

2.1.5 Drinking and Groundwater Studies

- Conducted groundwater samples using low-flow sampling techniques in TA-2, TA-6, and TA-7.
- Collected surface water samples from TA-1, TA-2, TA-3, and TA-7.

2.1.6 Decontamination

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

Table 4 - Equipment Decon Totals

	10/16	10/15
Frac Tanks	4	3
Vac Trucks-Tankers	3	1
Roll-Off Boxes	4	2
Yellow Iron - Light	-	-
Yellow Iron - Heavy	7	-
Marine Vessels	-	1
Vehicles	-	1
Daily Total	18	8

Boom (feet)	2,350	2,850
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2.1.7 Additional Operations

Air Ops

- During this operational period, there were 3 overflights.
- During this operational period, EPA conducted two flights of the response area.
- 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.

Environmental Compliance and Oversight

- Implemented remedial investigation of Divisions A1 through A4.

Monitoring Branch

- Conducted real-time air monitoring near excavation and dredging operations and in community areas. No readings in excess of background levels were reported during this operational period.
- Samples reported by Enbridge are provided in Table 5.

Table 5 – Samples Collected By Enbridge

Sample Type	Number Collected	
	10/16	10/15
Tedlar Bag *	32	32
Mini SUMMA *	9	10
Surface Water	18	21
Private Well Samples	13	5
Groundwater Samples	-	-
Sediment Samples	4	11
Ceresco Samples	11	-
Soil Samples	-	-
Sheen Samples	-	-
Other	-	-

* 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	
	10/16	10/15
Air Monitoring Results	102	109
Tedlar Bags	-	-
SUMMA canisters	-	-
Sediment	-	-
Surface Water	1	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

	10/15	10/14
Number of Locations	18	18
Boom Deployed (feet)	113,139	110,439

Table 8 - Soil and Debris Shipped Off Site

Waste Stream*	Cumulative [†]	10/15	10/14
Haz Soil (yd ³) ^a	15,344	0	0
Non Haz Soil (yd ³) ^b	48,389	360	1,234
Haz Debris (yd ³) ^c	12,075	0	0
Non Haz Household Debris (ton)	64	0	0
Non Haz Impacted Debris (ton) ^c	1,332	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 10/15 0700

Location	Cumulative (gallons)
Division A	5,549,193
Division B	4,811,765
Division C	1,367,550
Division D	119,850
Division E	50,530
Decon	396,360
Other Locations [*]	294,783
TOTAL	12,590,031

* Includes Frac, DECON, and Wildlife Center.

Table 10 - Oil water Separation 10/16

Enbridge Facility in Griffith, IN (gallons)	
Oil	766,288
Other Material	1,405,525
TOTAL	2,171,813

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

Oil/Water Collected	12,590,031
Oil/Water Shipped Off-Site	11,458,811
OIL/WATER REMAINING ON-SITE	1,131,220

Table 12 - Liquid Shipped Off-site

Oil/Water leaving Site	Destination	Quantity Shipped		
		Cumulative†	10/15	10/14
Haz Water	Dynecol, Detroit, MI	2,652,148	32,000	48,000
Oil/Water	Enbridge Facility, Griffith, IN	2,171,813	-	-
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	370,200	-	-
Treated Non Haz Water	Plummer, Kentwood, MI	4,160,925	89,000	103,480
Haz Water	Safety Kleen ^a	825	-	-
Treated Non Haz Water *	Dynecol, Detroit, MI	134,200	-	-
Treated Non Haz Water *	Battle Creek POTW	1,968,700	-	-
Totals		11,458,811	121,000	151,480

* 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

Environmental Compliance and Oversight

- Continued remedial investigation in Division A.

2.3 Safety Reports

- No major incidents or safety concerns were reported during this operational period.

2.4 Liaison Officer

- Engaged in ongoing coordination with cooperating and assisting agencies, the UC, Enbridge, and the PIO. Continues coordinating issues of local concern to property owners.

2.5 Public Information Officer

- Received public inquires as outlined in Table 13.
- Conducted tour and interview for Battle Creek Enquirer reporter on October 15.

Table 13 – Public Inquiries

Location/Media	Inquiries Received	
	10/15	10/14
Battle Creek Community Center	8	4
Marshall Community Center	11	4
Oil Spill Public Information Hotline	11	14
Enbridge Response Website (www.response.enbridgeUS.com)	0	2
Total Public Inquiries	30	24

2.6 Finance Section

- The current NPFC issued ceiling was raised from \$21.6 Million to 24.6 Million. Approximately, 83.8% of the ceiling has been spent through October 15, 2010, with the latest burn rate of \$101,847 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

		Est. Expended (Cumulative)		Estimated Burn Rate	
ERRS Contractors				10/15	10/14
EQM (EPS50802)	T057	\$ 1,250,065	\$ -	\$ -	
	T060	\$ 204,905	\$ -	\$ -	
LATA (EPS50804)		\$ 1,451,396	\$ -	\$ -	
ER LLC (EPS50905)		\$ 723,669	\$ -	\$ -	
Total ERRS Contractors		\$ 3,630,035	\$ -	\$ -	
Lockheed Martin (EPW09031) -TAGA Support		\$ 150,000	\$ -	\$ -	
T&T Bisso (EPA:HS800008 USCG:HSCG8410A8000)		\$ 1,255,000	\$ -	\$ -	
START Contractor					
WESTON (EPS50604)		\$ 7,164,913	\$ 55,639	\$ 53,636	
Response Contractor Sub-Totals		\$ 12,199,948	\$ 55,639	\$ 53,636	
EPA Funded Costs:					
Total EPA Costs		\$ 4,164,543	\$ 28,320	\$ 30,200	
Pollution Removal Funding Agreements:					
US FWS		\$ -	\$ -		
Total Other Agencies		\$ 1,398,949	\$ 3,840	\$ 3,840	
Sub-Totals		\$ 17,763,440	\$ 87,799	\$ 87,674	
Indirect Cost (16.00%)		\$ 2,842,150	\$ 14,048	\$ 14,855	
Total Est. Oil Spill Cost		\$ 20,605,590	\$ 101,847	\$ 101,702	
Oil Spill Ceiling authorized by USCG		\$ 24,600,000			
Oil Spill Ceiling Available Balance		\$ 3,994,410			
		83.8%			

2.7 Response Actions to Date

- Response Actions to date may be found in Situation Reports #1 through #66.

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	
	10/16	10/15
EPA	25	26
START	31	35
Calhoun County Public Health	1	1
Calhoun County (CC) Sheriff	2	2
City of Battle Creek	2	2
Kalamazoo Sheriff	2	2
MDNRE	7	3
Michigan State Police (MSP)	1	1
NOAA - National Weather	1	3
USFWS	1	1
Enbridge ICP	51	52
Enbridge ICP Contractor	305	302
Enbridge	6	5
Enbridge Contractors	659	722
Total	1,094	1,157

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>.