

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 # 56**
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
Jim Sygo, MDNRE
Connie Gibson, Calhoun County Sheriff's Office
Cheryl Vosburg, City of Marshall
David Chung, U.S. EPA
Jason El-Zein, U.S. EPA
Michael Chezik, U.S. Department of Interior
Linda Nachowicz, U.S. EPA
OSLTF USCG, USCG
Bruce Vanotteren, MDNRE
Brian Pierzina, PHMSA Central Region

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: 09/25/2010

Reporting Period: 0700 hours 9/23/2010 to 0700 hours 9/25/2010

1 Introduction

1.1 Background

1.1.1 Site History

Background Information

Site Number: Z5JS

D.O. Number:

Response Authority: OPA

Response Lead: PRP

NPL Status: Non NPL

Mobilization Date: 7/26/2010

Demob Date:

CERCLIS ID:

ERNS No.:

FPN#: E10527

Contract Number:

Action Memo Date:

Response Type: Emergency

Incident Category: Removal Action

Operable Unit:

Start Date: 7/26/2010

Completion Date:

RCRIS ID:

State Notification:

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 September 24, 2010, at 0700 to September 27, 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. Continue recovery of submerged oil and sediment in the Kalamazoo River and Morrow Lake with prioritization of the Mill Pond area.
2. Emphasize the completion of sign-off packages, submittal and EPA review for Divisions A5/A6, B and C.
3. Complete necessary grade restoration and stabilization work along Talmadge Creek in accordance with approved plans.
4. Planning for transition to long-term operation and maintenance of containment and submerged oil recovery.
5. Implement systematic DECON/demobilization of project resources.
6. Finalize messaging and tactics on project status and next steps for public awareness.

2 Current Activities

2.1 Operations Section

2.1.1 Narrative

See SITREP #51 for a comprehensive description of the operational area.

The current operational phases of the response consist of: 1) Talmadge Creek Restoration; 2) Shoreline and Overbank Cleanup; 3) Decontamination and Disposal; 4) Submerged Oil Cleanup; and 5) Operations and Maintenance (O&M).

2.1.2 Talmadge Creek Restoration

The restoration phase of the response is being tracked using a four step process:

1. Prepped - Six hour trench /pit observation and EPA evaluation of trench/pit and preparation in progress. Forty-eight hour observation trench/pit where applicable.
2. Cleared - EPA evaluation completed and section ready for backfill.
3. Backfilled - Initial backfill/stabilization completed. Forty-eight hour observation trench/pit where applicable.
4. Restored - Section complete.

Division A and B

- Most sites are in the backfill step with EPA observing test pits for free product when applicable.
- Bypass pumping continued at Location A6 to allow operations to align the creek to match the restoration plan.
- Contaminated sediment removal and dewatering continued at Location B3. The area has been divided into 50 foot cells for remediation.
- EPA and Coast Guard officials toured the progress in Divisions A and B.

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

Restoration Step		Percent Complete
1. Prepped		100%
2. Cleared		100%
3. Backfilled		60%
4. Restored		23%



Figure 1 - Division A, Sections 1 and 2 (Locations A5 to A6)



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



Figure 3 - Division B, Sections 5 and 6 (Locations B2.7 to B4)

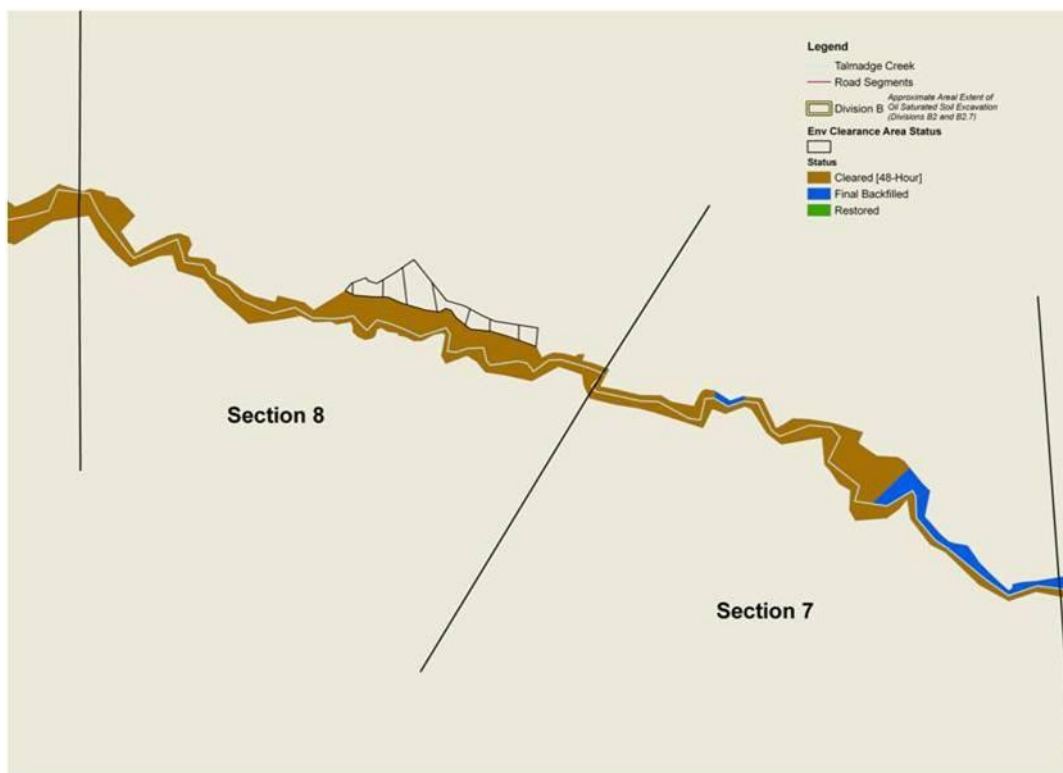


Figure 4 - Division B, Sections 7 and 8 (Locations B4 to B4.5)



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

2.1.3 Shoreline and Overbank Cleanup

The shoreline and overbank cleanup actions for this response are guided by a five step:

1. Shoreline Cleanup and Assessment Techniques (SCAT) assessments completed.
2. Operations cleanup completed.
3. Enbridge/EPA inspection completed.
4. SCAT re-assessment.
5. EPA Division Supervisor sign-off.

Division C

- Enbridge continues to address overbank cleanup, hot spots, and boom maintenance.
- Cleanup operations at Island E (MP 4.25) have been completed.
- Hot shot crew working near MP 9.75.
- Scraping of Island A (MP 3.0) and island adjacent to Island A occurred.

Table 2 - Division C

Shoreline and Overbank Cleanup Step	Percent Complete	Number of Sites
SCAT Assessment Completed (Step 1)	100%	61
Operations Cleanup Completed (Step2)	100%	61
Enbridge/EPA Inspection Completed (Step 3)	100%	61
SCAT Re-Assessment Completed (Step4)	100%	61
EPA Division Supervisor Sign-Off (Step 5)	98%	60

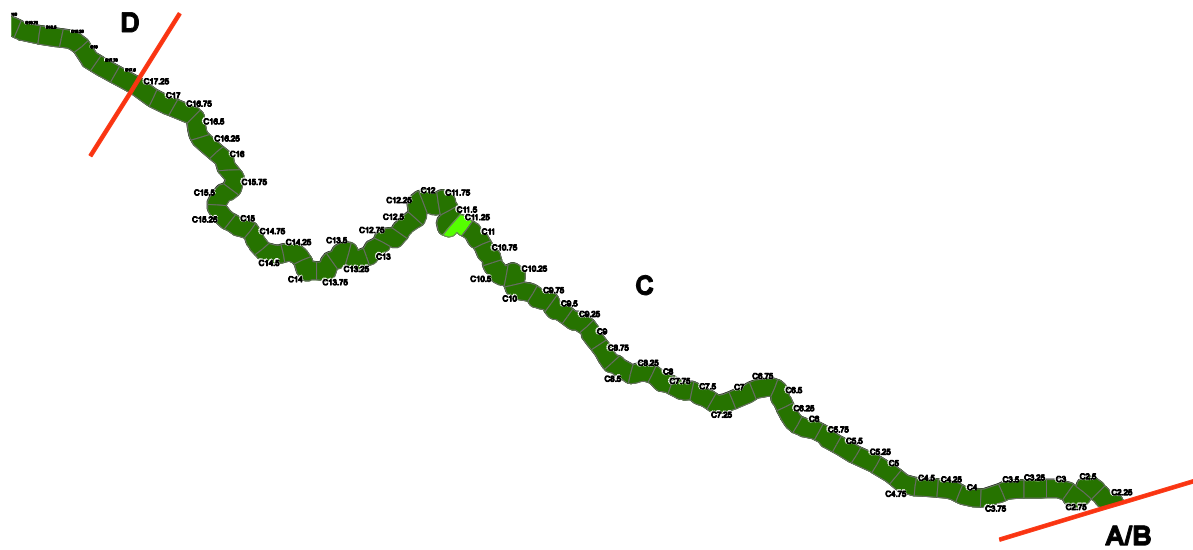


Figure 6 - Division C

Divisions D and E

- Continued maintenance of Gabion baskets and boom.

Table 3 - Divisions D and E

Shoreline and Overbank Cleanup Step	Percent Complete	Number of Sites
SCAT Assessment Completed (Step 1)	100%	91
Operations Cleanup Completed (Step2)	100%	91
Enbridge/EPA Inspection Completed (Step 3)	100%	91
SCAT Re-Assessment Completed (Step4)	100%	91
EPA Division Supervisor Sign-Off (Step 5)	100%	91

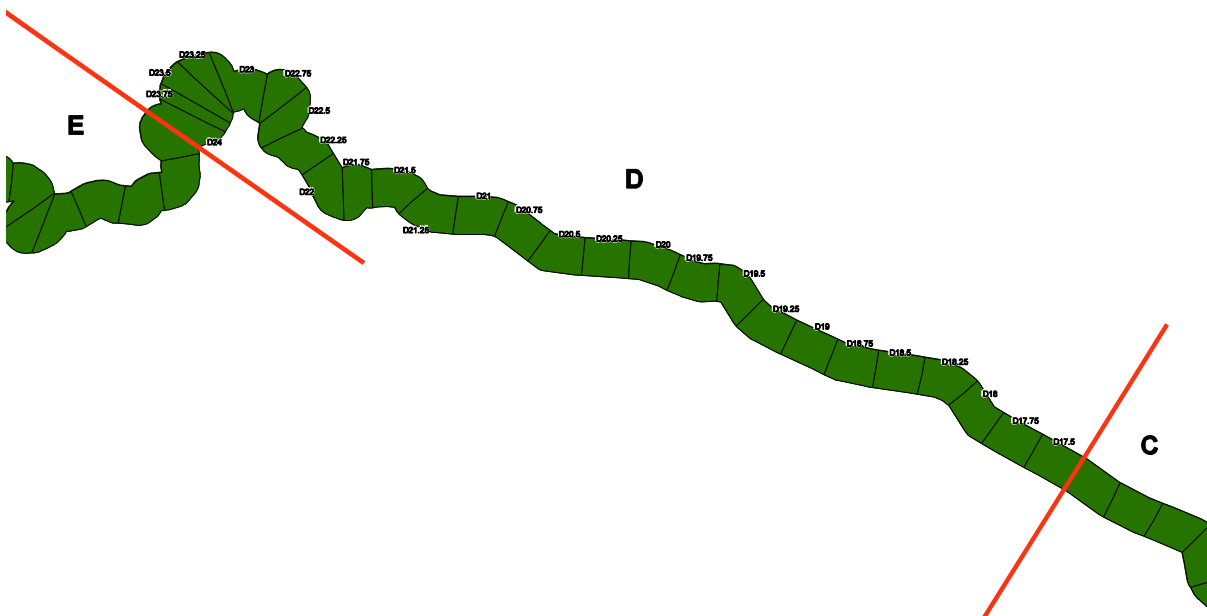


Figure 7 - Division D

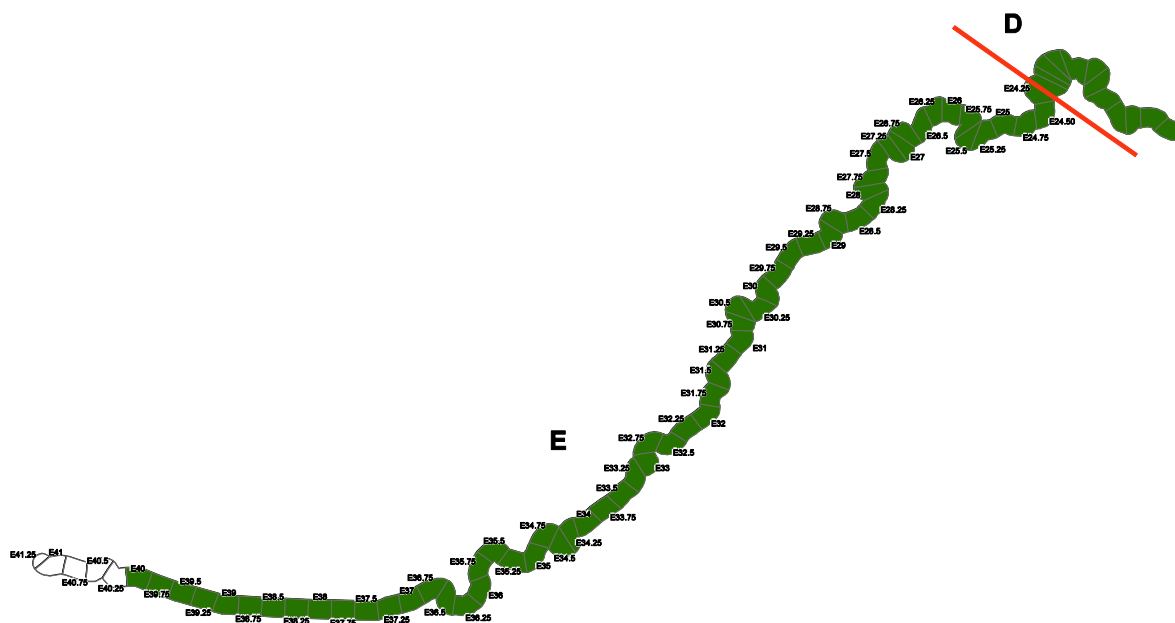


Figure 8 - Division E

2.1.4 Decontamination and Disposal

DECON Branch

- Visited decontamination sites in Division A, B and C to observe decontamination activities and completed decontamination checklists at each location.
- There are currently 4 large decontamination locations (the Division A soil staging area, Frac City, the Division B soil staging area and C0.5) that provide decontamination for large equipment and boating operations. There are also decontamination locations at B2, B3, B4, B4.6/7, C0, C3.2 and E0.5

Transportation and Disposal Group

- Coordinated with Enbridge Planning for briefing to IC on transportation and disposal.
- Observed field activities in Divisions A and B including soil staging and soil mixing operations.
- Observed soil containment Area B excavation and mat chipping. Also observed debris and soil loading at this location.
- Observed oil/water processed at Frac City shipped to the Griffith Facility.

2.1.5 Submerged Oil Cleanup

Submerged Oil Task Force (Talmadge Creek and Divisions C, D, and E)

- Continued assessing the locations with poling (236) and core sampling (37) techniques as well as continued ecological assessments.
- Containment has been placed at 18 of the 18 identified submerged oil locations.
- In Talmadge Creek, crews are raking sediment to release trapped product.
- Conducted aeration operations to prepare a clean area for Amphibex dredge to enter the river.
- Conducted aeration activities at locations with sufficient water depth at MP 14.75 and MP 33.25.
- Partitioned oxbow at MP 28.25 into grids to prepare for aeration activities.

Table 4 - Submerged Oil Cleanup Status

Submerged Oil Cleanup	Percent Complete	Number of Sites	Total at Completion
Assessment	100%	20	20a
Containment	100%	18	18
Work Plan	100%	18	18
Cleanup	22%	4	18
EPA Division Supervisor Sign-Off (Step 5)	0%	0	18
a- After assessment, it may be determined that submerged oil is not present or that no further activity is required.			

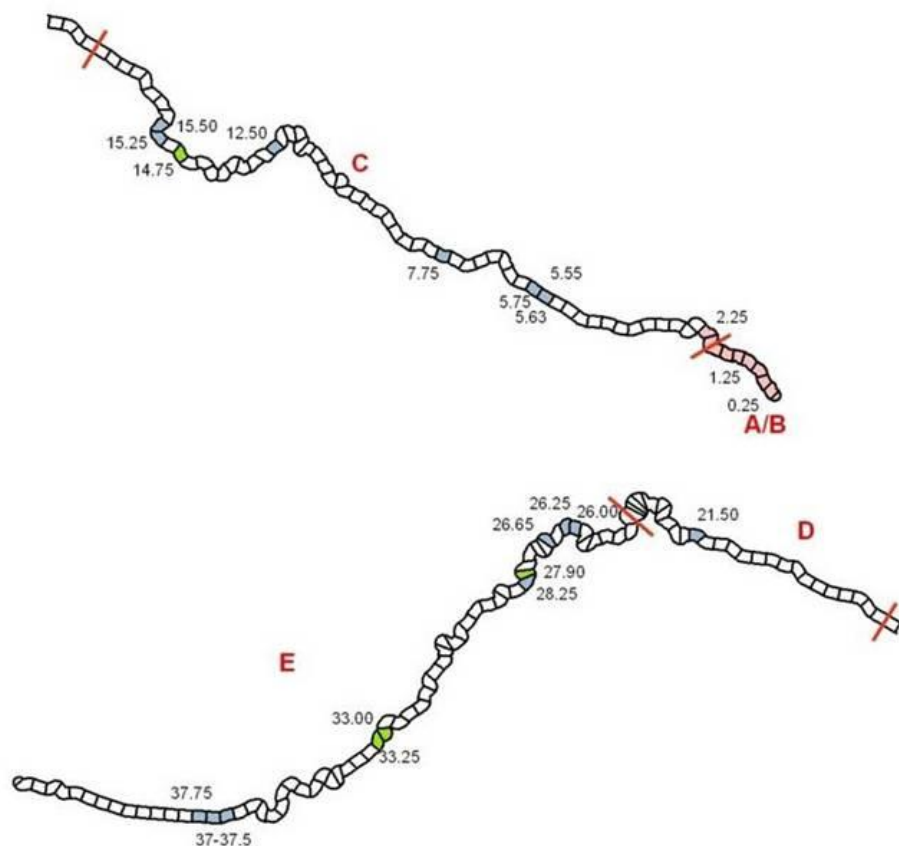


Figure 9 - Submerged Oil Cleanup Sites

2.1.6 Operation and Maintenance

Division D and E

- Continued inspections of potential O&M locations to inform short term plan development process.

The Long-Term Operation and Maintenance Plan is being developed by Enbridge for EPA review.

2.1.7 Additional Operations

EPA, USCG and Enbridge Operations have Branches that conduct activities in all Divisions: Technical Services Group, Environmental Compliance and Oversight, Wildlife Environmental/Damage Assessment, Air Operations and Monitoring.

Technical Services Group

- Continued evaluations of different cleanup techniques for submerged oil within the Mill Pond area.

Environmental Compliance and Oversight Branch

- Enbridge continued waste management characterization, documentation, and coordination and implementation of source contamination removal, verification, and backfilling in Talmadge Creek.

Wildlife Environmental Damage Assessment Branch

- As of September 23, 2010, the wildlife center reported approximately 302 animals in captivity and 1462 animals released.

Air Ops Branch

- During this operational period there were 3 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

Enbridge reported the following:

- Focused air sampling programs continued around the Baker Estates Mobile Home Park, Daycare, Ceresco Dam, and the work areas. Tedlar bag air samples, 24-hour summa mini-can samples, grab samples, and passive dosimeter samples were collected as well as real-time air monitoring samples.
- Ongoing real time monitoring for benzene and VOCs in work areas.

Table 5 – Samples Collected

Sample Type	Number Collected 9/23	Number Collected 9/24
Air Monitoring	Not Reported by Enbridge	Not Reported by Enbridge
Surface Water	18	3
Vertical Water Column Samples	0	0
Private Well Samples	0	0
Sediment Samples	10	1
Sheen Samples	0	0
Other	0	8
Soil Samples	0	4

EPA reported the following actions or observations:

- No new activities. Continued oversight of Enbridge water sampling team.

Table 6 – Samples Documented in SCRIBE

Media	Sample Type	Number Collected 9/23	Number collected 9/24
Air	Summa Canister	0	0
Air	Tedlar Bags	0	0
Air	Monitoring Locations	13	12
Surface Water	Grab	2	0
Sediment	Grab	0	0

SCAT

SCAT operations are complete.

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

Date	9/22	9/23
Number of Locations	25	25
Boom Deployed (feet)	127,621	128,328

Soil and Debris Waste Tracking

Table 8 - Soil and Debris Waste Tracking

Waste Stream*	Quantity Shipped On 9/22	Quantity Shipped On 9/23	Cumulative Quantity Shipped†
Haz Soil (yd3) a	0	0	15,344
Non Haz Soil (yd3) b	1080	1080	28264
Haz Debris (yd3) c	0	0	12,075
Non Haz Debris (ton) c	1	12	1,337

* 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 (Benzene)-impacted soil is being sent 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 9/23/10 0700

Location	Cumulative Total Collected (gallons)
Division A	5,345,493
Division B	4,288,555
Division C	935,150
Division D	119,850
Division E	50,030
DECON	206,060
Other Locations*	215,283
TOTAL	11,160,421

* Includes Frac, DECON, and Wildlife Center.

Table 10 - Oil water Separation 9/24/10

Oil-Water - Enbridge Facility in Griffith, IN Facility (gallons)	
Oil	737,293
Other Material	1,393,612
TOTAL	2,130,905

Table 11 - Oil/Water Volume Summary (Gallons)

Oil/Water Collected	11,160,421
Oil/Water Shipped Off-site	9,533,163
OIL/WATER REMAINING ON-SITE	1,627,258

Table 12 – Liquid Shipped Off-site

Oil/Water leaving Site	Destination	Daily Quantity Shipped (Gallons)9/22	Daily Quantity Shipped (Gallons)9/23	Cumulative Quantity Shipped (Gallons)†
Haz Water	Dynecol, Detroit, MI	26,500	20,619	2,347,598
Oil/Water	Enbridge Facility, Griffith, IN	24,700	23,399	2,130,905
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	0	0	370,200
Treated Non Haz Water	Plummer, Kentwood, MI	110,000	131,500	2,580,735
Haz Water	Safety Kleen a	0	0	825
Treated Non Haz Water *	Dynecol, Detroit, MI	0	0	134,200
Treated Non Haz Water *	Battle Creek POTW	0	0	1,968,700
Totals		161,200	175,518	9,533,163

* Treated Non Haz Water no longer sent to this location.

† Due to the auditing of waste manifests, cumulative quantities may not reconcile with previous reports.

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

2.2 Planning Section

Data Management Unit/GIS Unit

- Continued to process surface water data, importing preliminary and validated analytical results into Scribe, and continued to process maps as requested.
- Continued to complete hot spot mapping.
- Continued developing tools to export KMLs automatically.

Environmental Unit

- The ENV reviewed changes to the Submerged Oil Aeration SOP and provided comments.
- ENV is continuing to support discussions on the amendment to the Sampling and Analysis Plan for groundwater assessment with Enbridge, the monitoring branch, and the state.

2.2.1 Anticipated Activities for Next Reporting Period

In the next operational period, Operations anticipates transitioning to focused cleanup activities to finalize shoreline and overbank activities in Talmadge Creek and the Kalamazoo River and continue submerged oil cleanup. Hot spots will continue to be addressed as identified.

2.2.2 Public Health

No new activities were reported.

2.3 Logistics Section

Logistics sections continued coordination on operation of ICP including demobilization of underutilized trailers.

2.4 Safety Reports

- Several deviations from the site specific health and safety plan were noted during the cleanup efforts at Island E (MP 4.25) in Division C. These were immediately pointed out to Enbridge and corrected.
- EPA site safety notified the supervisor of a contractor without PPE at Location E4.5. Issue was addressed immediately.
- EPA site safety notified of a worker not wearing high visibility vest at Location C3.7. Issue was addressed immediately.
- Roll-off-boxes need to be vented to eliminate hydrogen sulfide for transportation to disposal destination.
- UTV's were determined to be unsafe for towing trailers. Only appropriate rated vehicles are to be used for towing.

2.5 Liaison Officer

- The LNO engaged in ongoing coordination with assisting and cooperating agencies, the Environmental Advisory Group, and local stakeholders.
- The LNO briefed the UC on the status of the National Historic Preservation Act consultation process.

2.6 Information Officer

The Public Information Office reported the following activities:

- Coordinated speaker for Marshall Middle School.
- Media Inquiry Line (877-440-7157)
Calls received during last reporting period: 0

Enbridge reported the following call volume and community center visits:

- Oil Spill Public Information Hotline (800-306-6837)
Calls received during last reporting period: 58
- Community Center Visits: Battle Creek 13
Marshall 17

Enbridge reported that it received 2 inquiries from its www.response.enbridgeUS.com website.

2.7 Finance Section

The current NPFC issued ceiling was \$21.6 million. Approximately 83.5% of the ceiling had been spent through September 24, 2010 (see burn rates below). These cost summaries reflect only EPA-funded expenditures for the incident.

Table 13 - FPN E10527 - Enbridge Pipeline Oil Spill

ERRS Contractors		Est. Expended	Est Burn Rate (9/22/10)	Est Burn Rate (9/23/10)

EQM (EPS50802)	T057	\$1,250,065	0	0
	T060	242,834	1,600	1,600
LATA (EPS50804)		1,451,396	0	0
ER LLC (EPS50905)		723,669	0	0
ERRS Contractors		\$3,667,964	\$1,600	\$1,600
Lockheed Martin (EPW09031)		150,000	0	0
TNT Bisso		1,149,000	27,000	27,000
START Contractor				
WESTON (EPS50604)		5,966,474	68,739	70,166
Response Contractor Sub-Totals		\$10,933,438	\$97,339	\$98,766
EPA Funded Costs:				
Total EPA Costs		3,474,503	45,800	45,586
Pollution Removal Funding Agreements:				
Total Other Agencies		\$1,143,040	\$8,460	\$8,460
Sub-Totals		\$15,550,981	\$151,599	\$152,812
Indirect Cost (16.00%)		2,488,157	24,256	24,450
Total Est. Oil Spill Cost		\$18,039,138	\$175,855	\$177,262

2.8 Response Actions to Date

Response Actions to date may be found in Situation Reports #1 through #55.

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

Table 14 - Personnel On Site

Agency/Entity	Numbers Reported 9/23	Numbers Reported 9/24
EPA	36	34
START	43	43
Calhoun County Public Health	3	3
Calhoun County (CC) Sheriff	6	6
City of Battle Creek	3	3
Kalamazoo Sheriff	2	2
MDNRE	6	11
Michigan State Police (MSP)	1	1
NOAA - National Weather	2	2
USCG	3	3
USCG Contractor *	10	10
USFWS	0	0
Enbridge ICP	86	91
Enbridge ICP Contractor	425	424
Enbridge	31	27
Enbridge Contractors	1068	1115
Total	1725	1775

*previously not reported

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>.

5.2 Reporting Schedule

SITREPs are now being created every other day and will continue until the UC establishes a different reporting schedule.