

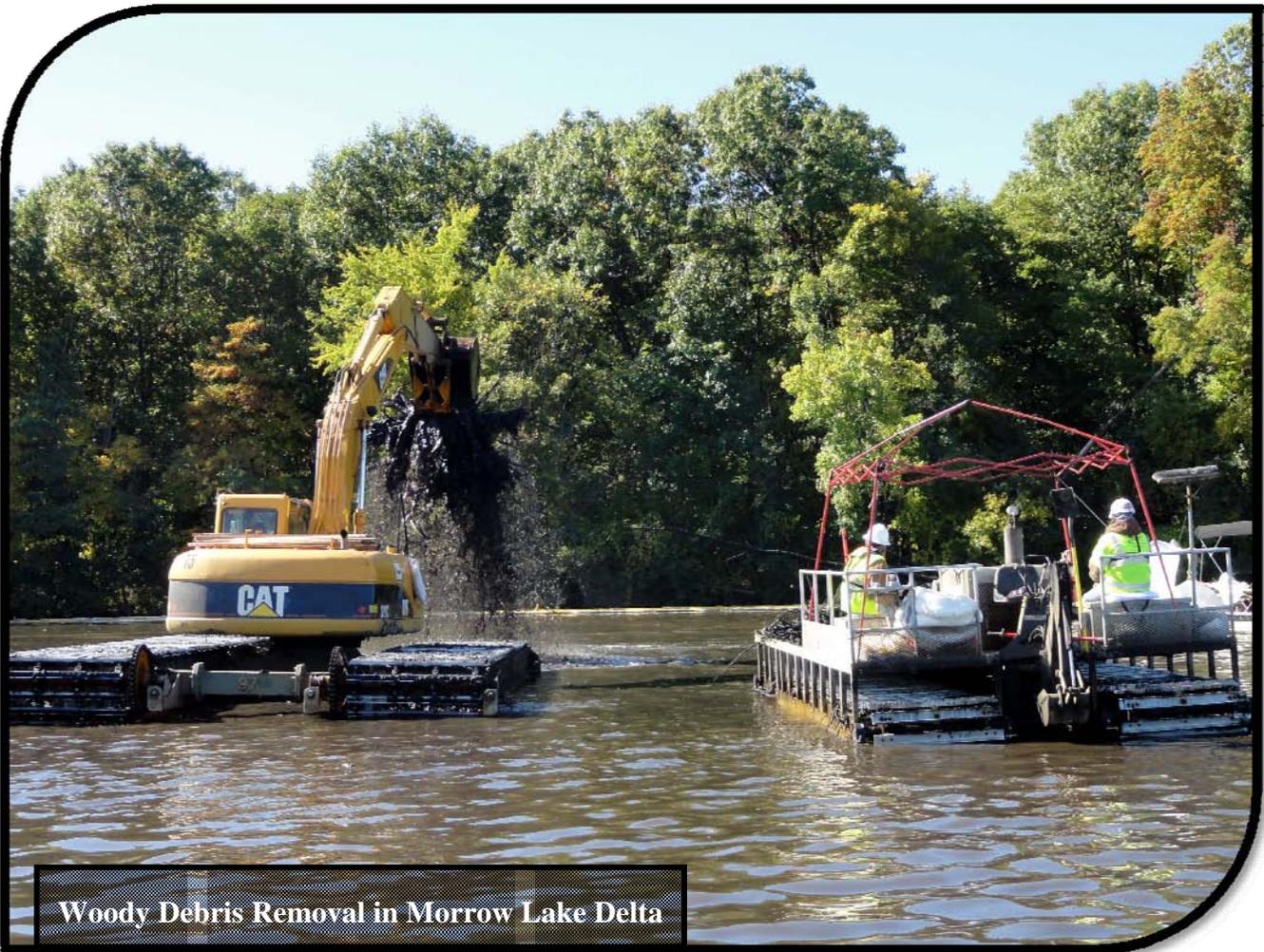
US EPA ARCHIVE DOCUMENT

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #118**



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

US EPA ARCHIVE DOCUMENT



Woody Debris Removal in Morrow Lake Delta

To: Susan Hedman, U.S. EPA Regional Administrator
James Sygo, MDEQ
Mark DuCharme, MDEQ
Mike Alexander, MDEQ
Lt. Barry Reber, Michigan State Police, Emergency Management
Linda Buzas, Kalamazoo County
Lt. Paul Baker, Kalamazoo County Sheriff's Office
James Rutherford, Calhoun County Public Health Department
Durk Dunham, Calhoun County Emergency Management
Mike McKenzie, City of Battle Creek
Cheryl Vosburg, City of Marshall
Christine Kosmowski, City of Battle Creek

From: Ralph Dollhopf, U.S. EPA, Federal On-Scene Coordinator

Date: 10/5/2011

Reporting Period: 0700 hours 9/26/2011 through 0700 hours 10/3/2011

1. Site Data

| | | | |
|-----------------------------|-----------|------------------------------|----------------|
| 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 |
| Demobilization Date: | | Completion Date: | |
| CERCLIS ID: | | RCRIS ID: | |
| ERNS No.: | | State Notification: | |
| FPN#: | E10527 | Reimbursable Account: | |

2. Previous Response Actions and Current Response Governance

- Previous response actions performed to date may be found in SITREPs #1 through #117.
- Governance for the project is provided by the U.S. Environmental Protection Agency (U.S. EPA) Federal On-Scene Coordinator (FOSC) and the Michigan Department of Environmental Quality (MDEQ). The structure of the response is the Incident Command System (ICS), with the FOSC serving as the Incident Commander (IC).
- The Operational Periods covered in this report are as follows:
 - 0700 hours on 9/26/2011 through 0700 hours on 9/29/2011
 - 0700 hours on 9/29/2011 through 0700 hours on 10/3/2011.

3. Operations Section

- This operational phase of the response consisted of the following Branches: 1) Response Action; 2) Control Point Management; 3) Environmental Compliance; 4) River Reopening; 5) Monitoring; 6) Talmadge Creek Remediation; 7) Air Operations; 8) Waste Management; and 9) Wildlife.

3.1 Response Action Branch

3.1.1 Submerged Oil Kalamazoo River and Delta/Morrow Lake Groups

- Submerged oil recovery teams conducted site preparation and recovery operations at sites identified throughout the Kalamazoo River during the Spring 2011 Reassessment, focusing on the Mill Ponds and sites between MP 21.0 and MP 36.5. Teams also conducted submerged oil recovery and woody debris removal in the Morrow Lake Delta and the Morrow Lake fan area.
- Submerged oil recovery teams resumed recovery operations between the Talmadge Creek/Kalamazoo River confluence and Ceresco Dam at sites identified during the Late Summer 2011 Reassessment.
- Submerged oil recovery and cleanup progress information is presented in Tables 1 and 2.

3.1.2 Overbank Surface Cleanup Group

- One team conducted oil recovery in overbank ponded areas including but not limited to MP 22.10. Post-recovery poling assessments were performed following recovery operations.
- Teams conducted tar patty recovery work activities in overbank areas from MP 10.25 to MP 16.75, pursuant to MDEQ work plans and permits.
- Overbank surface cleanup sites are included in the Outstanding Sites Characterization and Reconciliation (OSCAR) sites. Additional information is provided in Section 3.4.1.

3.1.3 Overbank Excavation Group

- One team continued demobilization from the staging area at MP 4.5 for former Islands E and F.

3.2 Control Point Management Branch

- Teams continued to install and enhance surface and subsurface containment as necessary. Hard boom, X-Tex curtain, and absorbent boom were installed at existing and new locations throughout the Kalamazoo River, the Morrow Lake Delta, and Morrow Lake. Teams also continued to perform sheen sweeps along the Kalamazoo River, the Morrow Lake Delta, and Morrow Lake.
- Boom information is presented in Table 3.

3.3 Environmental Compliance Branch

3.3.1 Operations and Maintenance (O&M) Inspections Group

- Teams continued inspections of control points, containment boom locations, and protective boom locations. Teams evaluated boom placement, boom effectiveness, and presence of accumulated visible oil or oil-saturated soils at sheening bank sites.
- Teams concluded assessing sheening bank sites on September 30, 2011. The necessary course of action has been determined and all sites requiring additional action have been transferred to the appropriate response group.

3.3.2 Site Characterization Group

- Teams conducted visual and ecological assessments of overbank sites from MP 8.0 to MP 19.25.
- Teams conducted NRDA Habitat Assessment and Floodplain and Shoreline Vegetation Assessment along Talmadge Creek and the Kalamazoo River.

3.3.3 Oil Recovery Effectiveness Evaluation Group

- Post recovery poling teams continued to evaluate effectiveness of submerged oil recovery techniques using qualitative evaluation methods.
- Teams continued to perform mid-recovery and post-recovery poling at submerged oil recovery locations throughout the Kalamazoo River, the Morrow Lake Delta, and Morrow Lake fan.
- Teams performed river velocity measurements at select locations.

3.4 River Reopening Branch

3.4.1 Outstanding Sites Characterization and Reconciliation (OSCAR) Group

- Personnel continued to consolidate and prioritize outstanding overbank ponded sites, O&M sites, sheening bank sites, and tar patty sites.
- Throughout the operational periods, teams conducted further assessments of OSCAR sites along the Kalamazoo River.
- OSCAR sites status information, as of October 3, 2011, is presented in Table 4.

3.4.2 River Poling Reassessment Group

- Teams continued Late Summer 2011 Reassessment poling in areas where submerged oil recovery activities were performed. Teams worked on locations from between MP 2.5 to MP 5.0, MP 6.5 to MP 15.0 and MP 16.5 to MP 22.0. Areas of light, moderate, and heavy submerged oil remain throughout these areas and were delineated for further recovery activities.

3.4.3 River Reopening Coordination Group

- The River Reopening Coordination Group continued to ensure all work is conducted in accordance with the proposed plan for opening segments of the Kalamazoo River.

3.5 Monitoring Branch

3.5.1 Water Quality Monitoring Group

- Enbridge continued to conduct turbidity, dissolved oxygen, and temperature monitoring throughout the Kalamazoo River, focusing on active submerged oil recovery work locations.

3.5.2 Air Monitoring and Sampling Group

- Enbridge continued to implement the 2011 Community Air Monitoring and Sampling Plan. Teams also conducted air monitoring and sampling at work area locations for worker safety and maintained an odor response team. No odor responses were conducted during the reporting period. EPA performed oversight of air monitoring and sampling plan implementation.
- Air sampling and monitoring information is provided in Tables 5 and 6.

3.5.3 Potable Water Sampling Group

- Teams continued sampling residential wells following the monthly and quarterly frequencies, in accordance with the MDEQ SAP. No potable water sampling was conducted during this reporting period.
- Samples collected as reported by Enbridge are provided in Table 5.

3.5.4 Surface Water and Sediment Sampling Group

- Enbridge continued soil, sediment, and surface water sampling in accordance with the MDEQ Sampling and Analysis Plan (SAP). Surface water samples are collected monthly from 9 locations along the Kalamazoo River and 18 locations on Morrow Lake. Sediment samples are collected quarterly from 2 locations along the Kalamazoo River and 1 location on Morrow Lake.
- Samples collected as reported by Enbridge are provided in Table 5.

3.6 Talmadge Creek Remediation Branch

3.6.1 Remedial Investigation Group

- Under direction of MDEQ, Enbridge continued defining the nature and extent of remaining crude oil impacts to the sediment, bank, and floodplain area of the Talmadge Creek. Teams conducted visual observations, conducted poling, collected soil and sediment cores from the banks of the Talmadge Creek, delineated floodplain areas, and collected groundwater samples from temporary wells.
- Enbridge continued to upgrade resource commitment for the remedial investigation activities at Talmadge Creek.

3.6.2 Remedial Action Group

- Enbridge continued mobilization, site preparation, and temporary road mat installation for remedial action at Talmadge Creek.

3.7 Air Operations Branch

- During the operational periods, five overflights were conducted for situational awareness.
- The overflight for October 1, 2011 was cancelled due to inclement weather.

3.8 Waste Management Branch

3.8.1 Decontamination Group

- Equipment and boom decontaminated during the operational periods are presented in Table 7.

3.8.2 Transportation and Disposal Group

- Teams continued to haul contaminated soil, water, media, and debris to staging areas for waste characterization and oil recovery sampling prior to offsite disposal.
- Quantities of oil and debris shipped off site during the reporting period are presented in Tables 8 through 11.

3.8.3 Waste Management Characterization Group

- Waste management characterization, manifesting, and coordination of transportation and disposal continued according to approved plans.

3.9 Wildlife Branch

- The Wildlife Branch continued to provide medical health assessment, treatment, and release of rehabilitated wildlife under US Fish and Wildlife Service (USFWS) direction.
- Throughout the operational periods, the Wildlife Branch conducted turtle trapping and release along the Kalamazoo River. Trapping information is presented in Table 12.

4. Planning

4.1 Situation Unit

- Situation Unit personnel observed and documented progress in all operational areas, and continued to assess areas of interest including locations of oil sheen, oil removal, and decontamination activities.

4.1.1 GIS Specialists

- GIS personnel continued to support operations with the generation of site maps.

4.2 Environmental Unit

- EPA personnel continued directing Enbridge efforts to estimate the quantity of submerged oil remaining as of Spring 2011.
- EPA continued coordination with USGS regarding the evaluation of the geomorphology of the Kalamazoo River.

4.2.1 Plans/Permitting Group

- Personnel continued to develop MDEQ plans and permit applications, focusing on permit applications for dry former overbank submerged oil sites and tar patty sites.

4.3 Documentation Unit

- Documentation Unit personnel continued organization and archiving of electronic and paper files.

4.4 Resource Unit

- Personnel continued to produce Incident Action Plans (IAPs), support the planning efforts of operations, and provide information to logistics in order to properly prepare and procure resources.

5. Command

5.1 Safety

- Safety personnel continued to conduct work site safety inspections, focusing on seasonal weather changes, traffic, and hazards associated with the opening of hunting season.
- On September 29, 2011 an airboat lost steering control and took on water after ending up on the riverbank.
- On September 29, 2011 two near misses occurred when a falling tree and a large branch fell, near two different airboats. Operations were terminated at this location due to high winds.

5.2 Public Information

- The Public Information Officer (PIO) coordinated media interviews and prepared for the upcoming availability session in Kalamazoo County on October 5, 2011.
- The number of public inquires reported by Enbridge for this period is presented in Table 13.

6. Landowner Environmental Issues

- Landowner environmental issues reported by Enbridge for the operational periods are presented in Table 14.

7. Finance

- The current National Pollution Funds Center (NPFC) ceiling is \$41.2 Million. Approximately 86.4% of the ceiling has been spent through October 2, 2011. The latest average 7-day burn rate was \$84,691 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 15.

8. Participating Entities

- The Multi-Agency Coordination (MAC) Group continues to meet weekly to discuss the progress of the response. Entities participating in the MAC include:
 - U.S. Environmental Protection Agency
 - Michigan Department of Environmental Quality
 - City of Battle Creek
 - City of Marshall
 - Calhoun County Public Health Department
 - Calhoun County Emergency Management
 - Kalamazoo County Health and Community Services Department

- Kalamazoo County Sheriff
- Enbridge (Responsible Party)
- For a list of cooperating and assisting agencies and the congressional presence, see SITREP #51 (Sections 3.2 and 3.3).

9. Personnel On-Site

- Staffing numbers for the entities and agencies active in the response are presented in Table 16.

10. Source of Additional Information

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

11. Clean-up Progress Metrics

Table 1 – Submerged Oil Recovery Progress for Spring 2011 Reassessment Sites (as of 10/2/2011)

| | |
|--|--------------|
| Sites Identified for Recovery Operations | 222 |
| Recovery Complete and Completeness Check Form Signed | 166 |
| Percent Complete | 74.8% |

Table 2 – Submerged Oil Recovery Progress for Late Summer 2011 Reassessment Sites (as of 10/2/2011)

| | |
|--|-------------|
| Sites Identified for Recovery Operations | 126 |
| Recovery Complete and Completeness Check Form Signed | 1 |
| Percent Complete | 0.8% |

Table 3 – Boom Information

| | September/October 2011 | | | | | | |
|-----------------------------------|------------------------|----------|----------|----------|----------|----------|----------|
| | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Total Surface Hard Boom (ft) | 43,425 | 43,425 | 43,725 | 42,175 | 42,875 | 42,875 | 42,875 |
| [Control Point Surface Hard Boom] | [29,750] | [29,750] | [29,750] | [29,450] | [30,900] | [30,900] | [30,900] |

Table 4 – OSCAR Site Status

| | |
|---|------------|
| Pending Review | 84 |
| Standard O&M Monitoring | 41 |
| Visual Assessment in Process or Pending | 16 |
| Site Plan Development (Action Beyond Normal Toolbox Required) | 6 |
| Site Plan Execution | 0 |
| Submerged Oil Recovery Execution (Using Toolbox Techniques) | 6 |
| Permitting (Administratively Complete Permit Application Submitted to MDEQ) | 0 |
| Consistent with EPA Order | 53 |
| Total Sites | 206 |

Table 5 – Samples Collected By Enbridge

| Sample Type | Total | September/October 2011 | | | | | | |
|------------------------------------|-------|------------------------|----|-----|----|----|----|----|
| | | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Surface Water | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Private Well | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Groundwater | 45 | 0 | 1 | 4 | 7 | 9 | 11 | 11 |
| Sediment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soil | 411 | 0 | 61 | 101 | 81 | 82 | 19 | 67 |
| Air (Community and Odor Complaint) | 133 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |

Table 6 – Real Time Air Monitoring Counts By Enbridge

| Monitoring Location | Total | September/October 2011 | | | | | | |
|---------------------|-------|------------------------|-----|-----|-----|-----|-----|-----|
| | | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Community | 1999 | 136 | 264 | 335 | 314 | 332 | 287 | 331 |
| Odor Response | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Work Area | 1026 | 0 | 216 | 176 | 162 | 160 | 140 | 172 |
| Tar Patty Study | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 7 - Equipment Decontamination

| Location/Media | Total | September/October 2011 | | | | | | |
|---------------------|-------|------------------------|-----|------|------|------|------|------|
| | | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Frac Tanks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vac Trucks-Tankers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roll-Off Boxes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yellow Iron (light) | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Yellow Iron (heavy) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jon Boats | 10 | 0 | 2 | 5 | 0 | 0 | 2 | 1 |
| Air Boats | 21 | 0 | 2 | 6 | 3 | 4 | 0 | 6 |
| Vehicles | 9 | 0 | 0 | 3 | 0 | 6 | 0 | 0 |
| Boom (feet) | 9161 | 0 | 900 | 1100 | 1400 | 1300 | 2150 | 1900 |
| Miscellaneous Items | 53 | 0 | 5 | 4 | 28 | 7 | 9 | 0 |

Table 8 - Soil and Debris Shipped Off Site (as of 10/2/2011)

| Waste Stream | Cumulative | Disposal Facility |
|--|------------|---|
| <i>Haz Soil (yd³)</i> | 19,644 | <i>Envirosafe (Oregon, OH)</i> |
| Non-Haz Soil & Debris (yd ³) (Excluding Ceresco Dredge) | 43,086 | Terra/C&C |
| <i>Non-Haz Soil & Debris (yd³) (Excluding Ceresco Dredge)</i> | 64,815 | <i>Westside Recycling (Three Rivers, MI)</i> |
| <i>Non-Haz Soil (yd³) (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) | 1,011 | EQ/Republic (Marshall, MI); C&C |
| Non-Haz Impacted Debris (ton) | 5,442 | |

Shaded and italicized items are discontinued waste streams.

Table 9 – Oil/Water Collected by Location (as of 10/2/2011)

| Location | Cumulative (gallons) |
|------------------------|-----------------------------|
| Division A | 5,356,315 |
| Division B | 4,868,279 |
| Division C | 1,891,406 |
| Division D | 121,106 |
| Division E | 52,631 |
| Decontamination | 2,088,085 |
| Site A | 316,464 |
| Other Locations* | 1,364,085 |
| Subtotal | 16,067,371 |
| Sludge** | 474,215 |
| Total Oil/Water | 16,541,586 |

* Wildlife Center Operations, Sediment Trap Cleaning, Hydro-Vacuuming.

** Sludge collected is tracked as a liquid waste inbound; however, after stabilization, the sludge is disposed of as solid waste. Therefore, the volume of sludge is not included within the cumulative oil/water totals. Stabilized sludge is included in the solid waste disposal metrics.

Table 10 - Liquid Shipped Off-Site (as of 10/2/2011)

| Stream | Destination Company | Destination Location | Cumulative Volume (gallons) † |
|-------------------------------|---------------------------------|-----------------------------|--------------------------------------|
| Non-Haz Water | Battle Creek POTW | Battle Creek, MI | 1,968,700 |
| Non-Haz Water | Dynecol | Detroit, MI | 913,642 |
| Non-Haz Water | Liquid Industrial Waste | Holland, MI | 444,307 |
| Non-Haz Water | Plummer | Kentwood, MI | 90,000 |
| <i>Hazardous Water</i> | <i>Dynecol</i> | <i>Detroit, MI</i> | <i>3,594,579</i> |
| <i>Oil</i> | <i>Enbridge Facility</i> | <i>Griffith, IN</i> | <i>766,288</i> |
| <i>Other Material</i> | | | <i>1,405,525</i> |
| <i>Treated Non-Haz Water</i> | <i>Liquid Industrial Waste</i> | <i>Holland, MI</i> | <i>370,200</i> |
| <i>Treated Non-Haz Water</i> | <i>Plummer</i> | <i>Kentwood, MI</i> | <i>4,976,140</i> |
| <i>Hazardous Water</i> | <i>Safety Kleen^a</i> | | <i>825</i> |
| <i>Treated Non-Haz Water*</i> | <i>Dynecol</i> | <i>Detroit, MI</i> | <i>150,700</i> |
| <i>Treated Non-Haz Water*</i> | <i>Battle Creek POTW</i> | <i>Battle Creek, MI</i> | <i>1,968,700</i> |
| Total | | | 16,649,606 |

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.

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

Table 11 - Oil/Water Remaining On-Site (as of 10/2/2011)

| Item | Cumulative (gallons) |
|--|-----------------------------|
| Oil/Water Collected | 16,067,371 |
| Oil/Water Shipped Off-Site | 16,060,601 |
| Total Oil/Water Remaining On-Site | 6,770 |

Table 12 – Wildlife

| Location/Media | Total | September/October 2011 | | | | | | |
|--|-------|------------------------|----|----|----|----|----|----|
| | | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Turtles in Captivity | 239 | 33 | 33 | 31 | 31 | 31 | 33 | 47 |
| Turtles Captured (Oiled) – Field Cleaned | 16 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| Turtles Captured (Oiled) – Admitted to Wildlife Center | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| Turtles Captured (Un-oiled) – Field Released | 73 | 10 | 10 | 0 | 0 | 1 | 5 | 47 |
| Turtles Released from Captivity | 27 | 0 | 0 | 0 | 0 | 2 | 14 | 11 |

Table 13 – Public Inquiries Received by EPA and Enbridge

| Location/Media | Total | September/October 2011 | | | | | | |
|--------------------------------------|-----------|------------------------|----------|----------|----------|----------|-----------|-----------|
| | | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| Marshall Community Center | 31 | 0 | 0 | 2 | 0 | 7 | 10 | 12 |
| Oil Spill Public Information Hotline | 11 | 0 | 0 | 1 | 0 | 2 | 3 | 5 |
| Website | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Public Inquiries | 42 | 0 | 0 | 3 | 0 | 9 | 13 | 17 |

Table 14 – Landowner Environmental Issues (as of 10/2/2011)

| Issues this Period | Issues Undergoing Evaluation | Issues Considered Addressed |
|--------------------|------------------------------|-----------------------------|
| 0 | 15 | 0 |

Table 15 - Financial Summary

| Item | Expended (Cumulative) (as of 10/02/2011) |
|--|---|
| ERRS Contractors | |
| EQM (EPS50802) T057 | \$ 1,199,522 |
| T060 | \$ 213,636 |
| LATA (EPS50804) T019 | \$ 1,161,082 |
| ER LLC (EPS50905) T040 | \$ 683,330 |
| Total ERRS Contractors | \$ 3,257,571 |
| Other Contractors | |
| Lockheed Martin (EPW09031) – TAGA Support | \$ 185,951 |
| T&T Bisso (EPA:HS800008) | \$ 882,087 |
| Total Other Contractors | \$ 1,068,038 |
| START Contractor – WESTON (EPS50604) | |
| T030-Response | \$ 18,012,092 |
| T032-Sampling | \$ 183,597 |
| T037-Doc Support | \$ 1,004,005 |
| Total START Contractor | \$ 19,199,694 |
| Response Contractor Sub-Totals | \$ 23,525,303 |
| EPA Funded Costs: Total EPA Costs | \$ 5,333,949 |
| Pollution Removal Funding Agreements – Total Other Agencies | \$ 1,823,682 |
| Sub-Totals | \$ 30,682,934 |
| Indirect Cost (16.00%) | \$ 4,909,269 |
| Total Est. Oil Spill Cost | \$ 35,592,204 |
| Oil Spill Ceiling Authorized by USCG | \$ 41,200,000 |
| Oil Spill Ceiling Available Balance | \$ 5,607,796 |

Shaded items are discontinued

Table 16 - Personnel On-Site

| Agency/Entity | September/October 2011 | | | | | | |
|---------------------------------|------------------------|------------|------------|------------|------------|------------|------------|
| | 2 | 1 | 30 | 29 | 28 | 27 | 26 |
| U.S. EPA | 0 | 3 | 4 | 5 | 5 | 5 | 6 |
| START | 2 | 46 | 48 | 46 | 46 | 46 | 46 |
| MDEQ | 0 | 11 | 11 | 9 | 3 | 4 | 4 |
| MDEQ Contractors | 0 | 9 | 12 | 13 | 13 | 12 | 12 |
| Calhoun County Public Health | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Calhoun County (CC) EM | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| City of Battle Creek | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| City of Marshall | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Village of Augusta | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kalamazoo County Public Health | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kalamazoo Sheriff | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| MDCH | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| USGS | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Michigan State Police EMD | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Enbridge – Operations | 23 | 66 | 138 | 143 | 149 | 143 | 152 |
| Enbridge – Talmadge Creek | 0 | 68 | 90 | 91 | 94 | 96 | 92 |
| Enbridge – Kalamazoo River | 19 | 372 | 399 | 401 | 411 | 404 | 397 |
| Enbridge – Frac Tank City/Decon | 0 | 45 | 54 | 59 | 54 | 47 | 44 |
| Enbridge – Security & Flaggers | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Enbridge – Wildlife and Comm. | 6 | 6 | 11 | 12 | 14 | 13 | 13 |
| Total | 57 | 633 | 774 | 794 | 797 | 778 | 773 |

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