

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Moon-Hines Flowline Spill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #15  
Response Actions Continue  
Moon-Hines Flowline Spill  
Eucutta, MS  
Latitude: 31.7561130 Longitude: -88.8549990

**To:** Jim Webster, USEPA R4 ERRB  
Ernie Shirley, MSDEQ

**From:** Leo Francendese, OSC

**Date:** 1/23/2014  
**Reporting Period:** 1/23/2014

## 1. Introduction

### 1.1 Background

|                                    |                                          |
|------------------------------------|------------------------------------------|
| <b>Site Number:</b>                | <b>Contract Number:</b>                  |
| <b>D.O. Number:</b>                | <b>Action Memo Date:</b>                 |
| <b>Response Authority:</b> OPA     | <b>Response Type:</b> Emergency          |
| <b>Response Lead:</b> PRP          | <b>Incident Category:</b> Removal Action |
| <b>NPL Status:</b>                 | <b>Operable Unit:</b>                    |
| <b>Mobilization Date:</b> 1/8/2014 | <b>Start Date:</b> 1/8/2014              |
| <b>Demob Date:</b>                 | <b>Completion Date:</b>                  |
| <b>CERCLIS ID:</b>                 | <b>RCRIS ID:</b>                         |
| <b>ERNS No.:</b>                   | <b>State Notification:</b>               |
| <b>FPN#:</b> E14421                | <b>Reimbursable Account #:</b>           |

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

The site is a tank battery, flowline and impacted unnamed tributaries and wetland. The operator is Moon-Hines-Tigrett located in Ridgeland, MS. The tank battery consists of 5 above ground storage (AST) tanks and associated pumps and piping.

##### 1.1.2.1 Location

The site is located at Latitude 88 deg 51 min 18 sec North and Longitude 31 deg 45 min 22 sec West in Wayne County, MS. The site is located in a rural area within several adjacent residential properties. It is surrounded on all sides by heavily wooded areas with small creeks, tributaries and wetland located down gradient of the site.

##### 1.1.2.2 Description of Threat

Small creeks, tributaries and wetland are located downgradient of the tank battery and flow generally West and Northwest away from the site. A discharge of oil has occurred to waters of the United States requiring immediate response actions. The oil discharged to an unnamed creek which is a tributary of Wagon Branch, which leads to Tampa Creek then to Little Eucatta Creek then to Eucatta Creek which is a tributary of the Chickasawhay River.

##### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Break occurred along a flowline located about 100 feet downgradient of the tank battery. Approximately 50 barrels of oil were discharged into approximately 2000 feet of small tributaries and wetlands. The spill source has been stopped and downgradient migration is currently being contained.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.2 Response Actions to Date

1/08/2014 thru 1/09/2014

RP representative are on site, initial resources activated and additional resources were added after initial response. RP contractors are on site collecting recoverable oil and conducting cleanup within the affected

wetlands. Approximately 78 response personnel are on scene. Heavy equipment, including vac trucks, dozer and trackhoe have been activated to assist with recovery operations.

The discharge is currently contained downgradient and stopped at its source.

OSC has requested additional DEQ support under a PRFA. This support will cover SCAT needs, as well as identifying resources at risk and operational/enforcement assistance as needed. OSC has also requested USCG GST logistics and operational support.

#### **1/10/2014**

RP representative has increased field personnel to approximately 118 people. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### ***Recovery Operations***

##### **Zone A:**

Tactic - Removal of recoverable oil using snares and absorbent pads  
Personnel - 20 workers  
Equipment used - 2 vacuum truck

Night Operations 1 vacuum truck and crew

##### **Zone B:**

Tactic - Removal of underbrush and debris  
Continued clearing and development of access road to impacted tributary and wetland  
Removal of recoverable oil using snares and absorbent pads,  
Personnel - 38 workers  
Equipment used - 1 vacuum truck

Night Operations 1 vacuum truck and crew

##### **Zone C:**

Tactic - Removal of oil using snares and absorbent pads  
Placed absorbent boom along creek  
Personnel - 23 workers  
Equipment used - NA

##### **Zone D:**

Tactic - Removal of oil using snares and absorbent pads  
Preparation for rain event  
Personnel - 12 workers  
Equipment used - NA

##### **Zone E:**

Tactic - Recon of area northwest (downgradient) of the current containment  
Removal of oil using snares and absorbent pads  
Personnel - 15 workers  
Equipment used - NA

#### ***Waste Management***

A frac tank has been added by the RP representative for collection of all recovered material.

All material removed from the impacted wetlands area are being staged in a central location for future disposal.

A waste management plan is being developed.

#### ***Health and Safety***

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

#### **1/11/2014**

During the early morning hours a 1" inch rain event occurred on site over a period of several hours. Early morning recon validated that containment held. Water levels rose significantly as a result of this rain event. Minimum of 1' and maximum of 3' rises were seen on site.

Field personnel onsite is approximately 107 people. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

RP added support in the form of 2 engineering consultants. These consultants are to liaison with the client's insurance company in addition to providing technical advice to the client.

RP continues to address and resolve any outstanding access issues.

## ***Recovery Operations***

### **Zone A:**

Tactic - Removal of recoverable oil using snares and absorbent has been tentatively completed for this area.

RP contractor began exploratory trench holes to define the extent of subsurface oil contamination surrounding the break in the flowline. Significant oil is leaching from this area.

Personnel - NA

Equipment used - Backhoe

Estimated % Complete - 75% complete for the removal of recoverable oil in Zone A.

Estimate does not include flowline blowout area excavation.

Night Operations 1 vacuum truck and crew

### **Zone B:**

Tactic - Developed trails to access oil

Removed oily leaves and vegetation

Removal of recoverable oil using snares and absorbent pads,

Personnel - Three teams with 49 workers

Equipment used - 2 vacuum trucks

Estimated % Complete - 10

Night Operations 1 vacuum truck and crew

### **Zone C:**

Tactic - Removal of oil using snares, absorbent pads and absorbent boom

Personnel - 11 workers

Equipment used - NA

Estimated % Complete - 15

Night Operations 1 vacuum truck and crew

### **Zone D:**

Tactic - Removal of oil using snares and absorbent pads

Personnel - 8 workers

Equipment used - NA

Estimated % Complete - 15

### **Zone E:**

Tactic - Reinforced boom at current containment with snares

Removal of oil using snares and absorbent pads

Completed the installation of oleophilic fabric fencing in front of the existing beaver dam.

Personnel - 33 workers

Equipment used - NA

Estimated % Complete - 25

## ***Waste Management***

Frac tank contents were disposed of at the Clarke Well, approved by MS Oil and Gas Board and supported by DEQ. Approximately 240 bbls of oily liquid was disposed of into the Clarke Well on January 11th. The total to date is approximately 910 bbls.

All material removed from the impacted wetlands area are being staged in a central location for future disposal.

A waste management plan is being developed.

## ***Health and Safety***

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

### **1/12/2014**

RP has secured 2 amphibious vehicles and one land clearing piece of equipment to assist with access to impacted areas, to help move people in and out of the impacted area and to remove bagged pads and snares containing recovered oil.

RP engineering consultants are developing a contingency plan for future rain events covering the entire impacted area. These consultants also collected GPS points establishing zone boundaries and defining the extent of the impacted area. Approximately 7.8 acres of area was impacted by the spill.

In anticipation of the upcoming rain event, an RP task force installed a series of strategically located oleophilic fabric fences in order to prevent downstream migration of recoverable oil. These fences are located throughout the zones and in locations that will facilitate the collection of recoverable oil after the rain event. In addition, the RP constructed an underflow dam and collection area immediately downstream of the breakpoint in the flowline. Significant recoverable oil is present in the saturated soil surrounding the

flowline. The RP is preparing an excavation plan for this area. Please see Fig. 2 in the document section for the locations of these measures.

RP continues to address and resolve any outstanding access issues.

Field personnel onsite is approximately 118 people. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

### **Recovery Operations**

#### **Zone A:**

Tactic - RP constructed an underflow dam between the blowout area and the impacted downstream area in order to prevent additional oil from migrating.  
RP contracted engineers began delineation of the extent of subsurface oil contamination surrounding the break in the flowline. Significant oil is leaching from this area.

Personnel - 4-5

Equipment used - Trackhoe

Estimated % Complete - 75% complete for the removal of recoverable oil in Zone A, not including what was

found around the pipe break.

Night Operations 1 vacuum truck and crew

#### **Zone B:**

Tactic - Developed trails to access oil  
Removed oily leaves and vegetation  
Removal of recoverable oil using snares and absorbent pads

Personnel - Three teams with 30 workers

Equipment used - 1 vacuum trucks

Estimated % Complete - 30

Night Operations 1 vacuum truck and crew

#### **Zone C:**

Tactic - Removal of oil using snares and absorbent pads

Personnel - 36 workers

Equipment used - 1 Vacuum truck

Estimated % Complete - 30

Night Operations 1 vacuum truck and crew

#### **Zone D:**

Tactic - Removal of oil using snares and absorbent pads

Personnel - 10 workers

Equipment used - 1 vacuum truck

Estimated % Complete - 70

#### **Zone E:**

Tactic - RP reinforced existing boom and snare at the beaver dam  
Completed the installation of oleophilic fabric fencing in front of the existing beaver dam.  
Removal of oil using snares and absorbent pads

Personnel - 33 workers

Equipment used - NA

Estimated % Complete - 90

**NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.**

### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 910 bbls. No disposal occurred on January 12th.

All material removed from the impacted area is being staged in a central location for future disposal.

A waste management plan is being developed.

### **Health and Safety**

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

**1/13/2014**

Throughout the course of the day a 1/2" inch rain event occurred on site. Observations throughout the day indicated that installed oleophilic fabric fencing was effective in capturing and removing oil in slow flowing

water or slow rising water areas. Water levels remained manageable due the long duration of the light rain event. Please see Fig. 2 in the document section of this website for the locations of these measures.

An amphibious vehicle with a land clearing attachment finished developing access to the impacted areas.

RP engineering consultants are developing a contingency plan for future rain events covering the entire impacted area. Approximately 7.8 acres of area was impacted by the spill.

The RP is preparing an excavation plan for the area around the blowout in the flowline. Significant recoverable oil is present in the saturated soil surrounding the flowline.

RP land management personnel were on site. RP continues to address and resolve any outstanding access issues.

Field personnel onsite is approximately 121 people. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

### **Recovery Operations**

#### **Zone A:**

Tactic - The team in this zone also worked in zones B and C.

Removed bags loaded with oily pads and snares.

Developed trails to remove bags loaded with oily pads and snares.

Personnel - 27

Equipment used - 1 vacuum truck

Estimated % Complete - 60% complete for the removal of recoverable oil in Zone A. This does not include

the expected excavation around the pipe break.

Night Operations 1 vacuum truck and crew

#### **Zone B:**

Tactic - Replaced snare and boom

Removal of recoverable oil using snares and absorbent pads.

Removed bags loaded with oily pads and snares.

Personnel - 32 workers

Equipment used - 1 vacuum truck

Estimated % Complete - 35

Night Operations 1 vacuum truck and crew

#### **Zone C:**

Tactic - Removal of oil using snares and absorbent pads.

Removed bags loaded with oily pads and snares.

Personnel - 36 workers

Equipment used - NA

Estimated % Complete - 50

Night Operations 1 vacuum truck and crew

#### **Zone D:**

Tactic - Began developing access to impacted areas using a small marsh buggy with a clearing and grubbing

attachment. (4 of the 35 workers were dedicated to this activity)

Removal of oil using snares and absorbent pads

Personnel - 35 workers

Equipment used - NA

Estimated % Complete - 85

#### **Zone E:**

Tactic - RP reinforced existing boom and snare at the beaver dam

Removal of oil using snares and absorbent pads

Personnel - 31 workers

Equipment used - NA

Estimated % Complete - 95

**NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.**

### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1080 bbls.

Approximately 170 bbls of oily water mix was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. Two roll off boxes filled with oily pads, snares, boom and PPE were taken to the Waste Management Pine Ridge Landfill located in Meridian, MS. To date a total of 16.26 tons of solid waste has been sent to the landfill.

A waste management plan along with a waste disposal profile was submitted to EPA.

## ***Health and Safety***

No air monitoring was conducted today due to rain.

No reported accidents on site to date.

### **1/14/2014**

Operations focused on removal of bagged pads and snares with recovered oil from the impacted area as well as maintenance of collection curtains. One amphibious vehicle (marsh buggy) towing an aluminum flatbottom boat was used to assist with the removal of bags and resource transportation. The removal of bags was conducted in zones B, C, D, and E.

Additional oleophilic fabric fencing was installed in strategic locations in order to prevent downstream migration of recoverable oil. Please see Fig. 2 in the document section of this website for the locations of these measures.

The second marsh buggy with a land clearing attachment finished developing access to the impacted areas.

RP began clearing and grubbing operations around the blowout area in preparation for removal of impacted soil.

RP engineering consultant's contingency plan for future rain events is being combined with an operations and maintenance plan. The plan will cover the next phase of operations after bulk removal of recoverable oil is accomplished. Approximately 7.8 acres of area was impacted by the spill.

The RP is preparing an excavation plan for the area around the blowout in the flowline. Significant recoverable oil is present in the saturated soil surrounding the flowline.

RP currently has a land management team onsite to handle access issues. RP continues to address and resolve any outstanding access issues.

Field personnel onsite is approximately 118 people. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

## ***Recovery Operations***

### **Zone A:**

Tactic - A team of 14 personnel in this zone also worked in zones B, C, D and E replacing and repairing oleophilic fabric fencing, boom and snares.  
Removed bags loaded with oily pads and snares.  
Began clearing and grubbing in preparation for removal of impacted soil near blowout area  
Personnel - 17 workers  
Equipment used - 1 vacuum truck and 1 trackhoe  
Estimated % Complete - 60% complete for the removal of recoverable oil in Zone A.  
This estimate does not include the excavation at the flowline blowout.

### **Zone B:**

Tactic - Source areas of oil near zone A were addressed.  
Removal of recoverable oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Personnel - 33 workers  
Equipment used - 1 vacuum truck  
Estimated % Complete - 35

### **Zone C:**

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Personnel - 34 workers  
Equipment used - 1 vacuum truck and 2 leaf blowers  
Estimated % Complete - 50

### **Zone D:**

Tactic - Completed developing access to impacted areas using a marsh buggy with a clearing and grubbing attachment. (4 of the 17 workers were dedicated to this activity)  
Removal of oil using snares and absorbent pads  
Removed bags loaded with oily pads and snares.  
Personnel - 17 workers  
Equipment used - NA  
Estimated % Complete - 85

### **Zone E:**

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares in zones B, C, D and E  
Personnel - 17 workers  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete - 95

**NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.**

### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1080 bbls. Approximately 360 bbls of oily water mix was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. Two roll off boxes filled with oily pads, snares, boom and PPE were taken to the Waste Management Pine Ridge Landfill located in Meridian, MS. To date a total of 4 rolloff boxes and 31.75 tons of solid waste has been sent to the landfill.

A waste management plan along with a waste disposal profile was submitted to EPA.

### **Health and Safety**

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

**1/15/2014**

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining sources areas such as root balls and sandy deposition flats.

Wetlands recovery operations focused on removal of bagged pads and snares with recovered oil from the impacted area as well as maintenance of oleophilic fabric fence. One amphibious vehicle (marsh buggy) towing an aluminum flatbottom boat was used to assist with the removal of bags and resource transportation. The removal of bags was conducted in zones B, C, D, and E. Maintenance of oleophilic fabric fencing was conducted in all zones. Please see Fig. 2 in the document section of this website for the locations of these measures.

Clearing and grubbing operations continued in the future excavation area in preparation for removal of impacted soil. The RP engineering consultants submitted an excavation plan which was approved by Unified Command. Please see documents section for details. The areal extent is estimated at 16000 sqft.

RP engineer consultants have provided technical information used to assist operations in managing rainfall events over the 7.8 acre impacted area. Containment is adequate for a 1.5" rain event over a 24 hour period. Events beyond 1.5" may require pump around water diversion measures. The consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

RP land management team has resolved remaining access with the 8 affected landowners.

Field personnel onsite total is approximately 132. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

### **Recovery Operations**

Zone A (Phase 1 - Bulk removal of recoverable oil):

Tactic - Reconstruction of the underflow dam to accept more flow

Flowlines were flushed back to the tank battery in preparation of the excavation

Removed bags loaded with oily pads and snares.

Continued clearing and grubbing in preparation for removal of impacted soil near blowout area.

Task force replaced and repaired damaged oleophilic fabric fence (14 People)

Personnel - 28 workers

Equipment used - 1 vacuum truck and 1 trackhoe

Estimated % Complete - 70% complete for the removal of recoverable oil in Zone A.

This estimate does not include the excavation at the flowline blowout.

Zone B (Phase 1 - Bulk removal of recoverable oil):

Tactic - Source areas of oil near zone A were addressed.

Removal of recoverable oil using snares and absorbent pads.

Removed bags loaded with oily pads and snares.

Moved recoverable oil to collection points using leaf blowers.

Task force replaced and repaired damaged oleophilic fabric fence (14 People)

Personnel - 33 workers

Equipment used - 1 vacuum truck and 1 leaf blower

Estimated % Complete - 50

Zone C (Phase 1 - Bulk removal of recoverable oil):

Tactic - Removal of oil using snares and absorbent pads.

Removed bags loaded with oily pads and snares and general housekeeping.

Task force replaced and repaired damaged oleophilic fabric fence (14 People)  
Personnel - 35 workers  
Equipment used - 2 leaf blowers  
Estimated % Complete - 60

Zone D (Phase 1 - Bulk removal of recoverable oil):

Tactic - Removal of oil using snares and absorbent pads  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (14 People)  
Personnel - varies  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete - 90

Zone E (Phase 1 - Bulk removal of recoverable oil):

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (14 People)  
Personnel - 17 workers  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete - 100

***NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.***

### ***Waste Management***

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. Approximately 260 bbls of oily water mix was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. Two roll off boxes filled with oily pads, snares, boom and PPE were taken to the Waste Management Pine Ridge Landfill located in Meridian, MS. To date a total of 6 rolloff boxes and 47.21 tons of solid waste has been sent to the landfill.

A waste management plan along with a waste disposal profile was submitted to EPA.

### ***Health and Safety***

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

**1/16/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority sources areas such as root balls and sandy deposition flats.

Wetlands recovery operations focused on removal of bagged pads and snares with recovered oil from the impacted area as well as maintenance of oleophilic fabric fence. One amphibious vehicle (marsh buggy) towing an aluminum flatbottom boat was used to assist with the removal of bags and resource transportation. The removal of bags was conducted in zones B, C, D, and E. Maintenance of oleophilic fabric fencing was conducted in all zones. Please see Fig. 2 in the document section of this website for the locations of these measures. Targeted use of low pressure stinger flushing is occurring in zones B and C in locations that are identified as priority areas. Early reconnaissance indicates that there are between 10 to 15 of these priority areas in zones B, C and D.

Excavation began in the flowline blowout location. This area covers approximately 16000 sqft. Please see the excavation workplan in the documents section for further detail. 21 loads of soil were sent to the landfill today.

RP engineer consultants have provided technical information used to assist operations in managing rainfall events over the 7.8 acre impacted area. Containment is adequate for a 1.5" rain event over a 24 hour period. Events beyond 1.5" may require pump around water diversion measures. The consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately 132. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

## **Wetlands Recovery Operations**

### **Phase 1 - Bulk removal of recoverable oil**

#### **Zone A**

Tactic - Task force replaced and repaired damaged oleophilic fabric fence  
Personnel - 14 workers  
Estimated % Complete - 90

#### **Zone B**

Tactic - Removal of recoverable oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Moved recoverable oil to collection points using leaf blowers.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 32 workers  
Equipment used - 1 vacuum truck, 1 leaf blower and one wash pump  
Estimated % Complete - 90

#### **Zone C**

Tactic - Removal of oil using snares and absorbent pads.  
Removal of oil covered leaves and vegetation.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 30 workers  
Equipment used - 2 leaf blowers  
Estimated % Complete - 90

#### **Zone D**

Tactic - Removal of oil using snares and absorbent pads.  
Removal of oil covered leaves and vegetation.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 26  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete - 90

#### **Zone E**

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 8 workers  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete - 100

### **Phase II Targeted Oil Removal in Priority Areas**

Preliminary reconnaissance indicates between 10 to 15 priority areas located in zones B,C and D. Limited personnel and equipment were used today employing the tactic of low pressure stinger flushing of priority areas such as root ball clusters. Detailed tracking of tactics, personnel, equipment and percent complete will begin as Phase I reaches 100 % completion and Phase II activity accelerates.

***NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.***

### **Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)**

Tactic - Reconstruction of the underflow dam to accept more flow.  
Began digging impacted soil near the flowline blowout.  
Hauled 21 loads of impacted soil to landfill. Total weight 223.45 tons  
Personnel - 24  
Equipment used - 2 trackhoes, 12 dumptrucks, 1 front end loader and 2 wash pumps.  
Estimated % Complete - 10

### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. No solid waste was sent to the landfill today. To date a total of 6 rolloff boxes and 47.21 tons of solid waste has been sent to the landfill.

21 loads of impacted soil were disposed of at the landfill. To date a total of 223.45 tons of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management workplan.

### **Health and Safety**

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed

for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

**1/17/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Wetlands recovery operations focused on removal of bagged pads and snares with recovered oil from the impacted area as well as maintenance of oleophilic fabric fence. One amphibious vehicle (marsh buggy) towing an aluminum flatbottom boat was used to assist with the removal of bags and resource transportation. The removal of bags was conducted in zones B, C, D, and E. Maintenance of oleophilic fabric fencing was conducted in all zones. Please see Fig. 2 in the document section of this website for the locations of these measures. Targeted use of low pressure stinger flushing is occurring in zones B and C in locations that are identified as priority areas. Reconnaissance indicates that there are between 10 to 15 of these priority areas in zones B, C and D.

Excavation continued in the flowline blowout location. This area covers approximately 16000 sqft. Please see the excavation workplan in the documents section for further detail. 30 loads of soil were sent to the landfill today.

RP engineer consultants have provided technical information used to assist operations in managing rainfall events over the 7.8 acre impacted area. Containment is adequate for a 1.5" rain event over a 24 hour period. The consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

A SCAT team member along with Operations Section Chief conducted a site investigation to review progress and anticipated operations. A report will follow.

Field personnel onsite total is approximately **132**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### **Wetlands Recovery Operations**

##### **Phase 1 - Bulk removal of recoverable oil**

##### **Phase 2 - Targeted Oil Removal in Priority Areas**

###### **Zone A**

Tactic - Mobile task force replaced and repaired damaged oleophilic fabric fence (8 people)

Using 2 inch wash pumps to flush oil trapped in root balls and sandy deposition flats to collection points.

Personnel -20 workers

Equipment used - 3 wash pump

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 90

###### **Zone B**

Tactic - Removal of recoverable oil using snares and absorbent pads.

Removed bags loaded with oily pads and snares.

Moved recoverable oil to collection points using leaf blowers.

Application of oil gator.

Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)

Using 2 inch wash pumps to flush oil trapped in root balls and sandy deposition flats to collection points

Personnel - 30 workers

Equipment used - 1 vacuum truck, 1 leaf blower and one wash pump

Estimated % Complete Phase 1 - 90

Estimated % Complete Phase 2 - 20

###### **Zone C**

Tactic - Removal of oil using snares and absorbent pads.

Removal of oil covered leaves and vegetation.

Removed bags loaded with oily pads and snares.

Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)

Personnel - 30 workers

Equipment used - 2 leaf blowers

Estimated % Complete Phase 1 - 90

Estimated % Complete Phase 2 - 20

###### **Zone D**

Tactic - Removal of oil using snares and absorbent pads.  
Removal of oil covered leaves and vegetation.  
Removed bags loaded with oily pads and snares.  
Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 26  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete Phase 1 - 90  
Estimated % Complete Phase 2 - 0

#### Zone E

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 8 workers  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 100

**NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.**

#### **Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)**

Tactic - Underflow dam operational, no issues.  
Continued digging impacted soil near the flowline blowout.  
Installed an upstream fresh water recovery sump for dewatering of the digging operation.  
Hauled 30 loads of impacted soil to landfill. Total weight **223.45** tons  
Personnel - 14  
Equipment used - 2 trackhoes, 17 dump trucks, 1 front end loader and 3 wash pumps.  
Estimated % Complete - **10**

#### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. No solid waste was sent to the landfill today. To date a total of 10 rolloff boxes and **47.21** tons of solid waste has been sent to the landfill.

30 loads of impacted soil were disposed of at the landfill. To date a total of **223.45** tons of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management workplan.

#### **Health and Safety**

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**1/18/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil  
Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Wetlands recovery operations focused on removal of bagged pads and snares with recovered oil from the impacted area as well as maintenance of oleophilic fabric fence. One amphibious vehicle (marsh buggy) towing an aluminum flatbottom boat was used to assist with the removal of bags and resource transportation. The removal of bags was conducted in zones B, C, D, and E. Maintenance of oleophilic fabric fencing was conducted in all zones. Please see Fig. 2 in the document section of this website for the locations of these measures. Targeted use of low pressure stinger flushing is occurring in zones B and C in locations that are identified as priority areas. Reconnaissance indicates that all of Zone B will require low flow flushing and stinger work. C and D total approximately 10 separate areas that will require such

techniques.

Excavation continued in the flowline blowout location. This area covers approximately 16000 sqft. Please see the excavation workplan in the documents section for further detail. 36 loads of soil were sent to the landfill today.

RP engineer consultants have provided technical information used to assist operations in managing rainfall events over the 7.8 acre impacted area. Containment is adequate for a 1.5" rain event over a 24 hour period. The consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

A second SCAT team report is uploaded and available in the documents section.

Field personnel onsite total is approximately **125**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### **Wetlands Recovery Operations**

##### **Phase 1 - Bulk removal of recoverable oil**

##### **Phase 2 - Targeted Oil Removal in Priority Areas**

###### **Zone A**

Tactic - Mobile task force replaced and repaired damaged oleophilic fabric fence (8 people)  
Using 2 inch wash pumps to flush oil trapped in root balls and sandy deposition flats to collection points.  
Application (tilling) of oil gator.  
Personnel -24 workers  
Equipment used - 3 wash pump  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 90

###### **Zone B**

Tactic - Removal of recoverable oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Moved recoverable oil to collection points using leaf blowers.  
Application of oil gator.  
Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Using 2 inch wash pumps to flush oil trapped in root balls and sandy deposition flats to collection points  
Personnel - 24 workers  
Equipment used - 1 leaf blower, one wash pump and 1 frac tank for fresh water flushing supply  
Estimated % Complete Phase 1 - 90  
Estimated % Complete Phase 2 - 20

###### **Zone C**

Tactic - Removal of oil using snares and absorbent pads.  
Removal of oil covered leaves and vegetation.  
Removed bags loaded with oily pads and snares.  
Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 20 workers  
Equipment used - 2 leaf blowers  
Estimated % Complete Phase 1 - 90  
Estimated % Complete Phase 2 - 20

###### **Zone D**

Tactic - Removal of oil using snares and absorbent pads.  
Removal of oil covered leaves and vegetation.  
Removed bags loaded with oily pads and snares.  
Mobile task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 26  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 0

###### **Zone E**

Tactic - Removal of oil using snares and absorbent pads.  
Removed bags loaded with oily pads and snares.  
Task force replaced and repaired damaged oleophilic fabric fence (8 People)  
Personnel - 0 workers  
Equipment used - 1 marsh buggy for bag removal  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 100

***NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.***

#### **Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)**

Tactic - Underflow dam operational, no issues.

Continued digging impacted soil near the flowline blowout.  
Installed an upstream fresh water recovery sump for dewatering of the digging operation.  
Hauled 36 loads of impacted soil to landfill. Total weight **TBD** tons  
Personnel - 14  
Equipment used - 2 trackhoes, 12 dump trucks, 1 front end loader and 3 wash pumps.  
Estimated % Complete - 80

### ***Waste Management***

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. 2 rolloffs were sent to landfill today. To date a total of 12 rolloff boxes and **est 120** tons of solid waste has been sent to the landfill.

36 loads of impacted soil were disposed of at the landfill. To date a total of **est 1675 (amended 1/20/14 with UC approval)** tons of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

### ***Health and Safety***

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**1/19/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Wetlands recovery operations focused on accelerating Phase 2 tactics of flushing and stinging. The amphibious vehicle (marsh buggy) was idle today. Zone A met 100% attainment today for Phase 1 and 2. The entirety of Zone B is being prepped for flushing/stinger tactics. Targeted use of low pressure stinger flushing is occurring in zones B, C and D. Zone E is 100% complete.

RP engineer consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately **52**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

### **Wetlands Recovery Operations**

**Phase 1 - Bulk removal of recoverable oil**

**Phase 2 - Targeted Oil Removal in Priority Areas**

#### **Zone A**

Tactic - Using 2 inch wash pump to move fresh water thru the zone for polishing.

Personnel - 2

Equipment used - 1 vac truck and 2 inch pump

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

#### **Zone B**

Tactic - Installation of frac tank header for flushing/stinger ops

Flushing with 2 inch pump and installation of 3 new fences in prep for larger Zone B flushing ops.

Removed bags loaded with oily pads and snares.

Application of oil gator.

10 personnel task force moved from Zones B, C and D removing vegetation and targeted flushing.

(self sustained group with own equipment ... portable 1" pump)

Personnel - 24

Equipment used - one wash pump, 1 frac tank for fresh water flushing supply and 1 vac truck to supply it.  
Estimated % Complete Phase 1 - 90  
Estimated % Complete Phase 2 - 20

#### Zone C

Tactic - 10 personnel task force moved from Zones B, C and D removing vegetation and executing targeted flushing (self sustained group with own equipment ... portable 1" pump)  
Personnel - 0  
Equipment used - 0  
Estimated % Complete Phase 1 - 90  
Estimated % Complete Phase 2 - 20

#### Zone D

Tactic - Flushing/stinger work on targeted areas.  
Recovery and bagging of flushed oil using pads and snares.  
10 personnel moved from Zones B, C and D removing vegetation and targeted flushing. (self sustained group with own equipment ... portable 1" pump)  
Personnel - 8  
Equipment used - 2 portable 1 inch pumps  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 0

#### Zone E

Tactic - None  
Personnel - 0  
Equipment used - 0  
Estimated % Complete Phase 1 - 100  
Estimated % Complete Phase 2 - 100

***NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.***

#### **Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)**

Tactic - Underflow dam operational, no issues.  
Excavation temporarily suspended today due to landfill closure.  
Personnel - 0  
Equipment used - 1 2" pump  
Estimated % Complete - 80

#### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. No rolloffs were sent to landfill today. To date a total of 12 rolloff boxes or **est 120** tons of solid waste has been sent to the landfill.

No soil disposal occurred today. To date a total of **est 538.21** tons of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

#### **Health and Safety**

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**1/20/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil  
Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Wetlands recovery operations focused on accelerating Phase 2 tactics of flushing and stinging. The amphibious vehicle (marsh buggy) was operational today. The entirety of Zone B is being prepped for flushing/stinger tactics. Tactics for Zone B Phase 2 commenced today. Targeted use of low pressure stinger flushing is occurring in zones C and D.

Excavation and disposal resumed.

RP engineer consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately **100**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### **Wetlands Recovery Operations**

##### **Phase 1 - Bulk removal of recoverable oil**

##### **Phase 2 - Targeted Oil Removal in Priority Areas**

###### **Zone A**

Tactic - Using 2 inch wash pump to move fresh water thru the zone for polishing.

Personnel - 1

Equipment used - 2 inch pump

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

###### **Zone B**

Tactic - Modified frac tank water delivery to maximize efficiency of water for flushing/stinger ops

Added fabric containment wings and circled 4 mudflats as part of flushing/stinger setup.

Removed bags loaded with oily pads and snares.

Wash pumps were used to conduct flushing/stinger operations.

Application of oil gator.

8 personnel task force moved from Zones B, C and D repairing and installing needed fabric

fencing.

Personnel - 35

Equipment used - 3 wash pump, 1 frac tank for fresh water flushing supply and 2 vac truck to supply it.

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 20

###### **Zone C**

Tactic - 8 personnel task force moved from Zones B, C and D repairing and installing needed fabric

fencing

Phase 1 tactics conducted in several hot spots.

Personnel - 16

Equipment used - None

Estimated % Complete Phase 1 - 90

Estimated % Complete Phase 2 - 60

###### **Zone D**

Tactic - Flushing/stinger work on targeted areas.

Recovery and bagging of flushed oil using pads and snares.

8 personnel task force moved from Zones B, C and D repairing and installing needed fabric

fencing

Personnel - 10

Equipment used - 3 portable 1 inch pumps

Estimated % Complete Phase 1 - 90

Estimated % Complete Phase 2 - 80

###### **Zone E**

Tactic - None

Personnel - 0

Equipment used - 0

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

***NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.***

#### **Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)**

Tactic - Removed underflow dam and replaced with smaller operations and maintenance dam.

Resumed excavation and disposal.

Personnel - 11

Equipment used - 1 2" pump, 2 excavators, forklift, dozer, 17 dump trucks

Estimated % Complete - 90

#### **Waste Management**

The total amount of disposed oily water mix at the Clarke Well to date is approximately 1440 bbls. No

liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. No rollofs were sent to landfill today. To date a total of 12 rolloff boxes or **est 120** tons of solid waste has been sent to the landfill.

Soil disposal occurred today. To date a total of **est 2400** tons of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

### ***Health and Safety***

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date

EPA ERRB R4 Health and Safety Officer conducted a field audit today.

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

### **1/21/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Zone D achieved 100% status for Phases 1 and 2 today. Zones B and C remain to be remedied.

Wetlands recovery operations focused on accelerating Phase 2 tactics of flushing and stinging. Targeted use of low pressure stinger flushing is occurring in zones B and C. The amphibious vehicle (marsh buggy) was operational today.

Removal and disposal of impacted soils was completed on 01/20/2014. Test pits around the flow-line leak area were dug on 01/20/2014. These areas are being evaluated to determine if there is any recoverable oil remaining in the soil. Excavation task is at 90%, awaiting backfill and restoration.

RP engineer consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately **100**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

### **Wetlands Recovery Operations**

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted Recoverable Oil Removal in Priority Areas

#### **Zone A**

Tactic - Using 2 inch wash pump to move fresh water thru the zone for polishing.

Personnel - 1

Equipment used - 2 inch pump

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

#### **Zone B**

Tactic - Removed bags loaded with oily pads and snares.

Wash pumps were used to conduct flushing/stinger operations.

Application of oil gator.

8 personnel task force moved from Zones B, C and D repairing and installing needed fabric fencing.

Personnel - 41

Equipment used - 3 wash pump, 1 frac tank for fresh water flushing supply and 2 vacuum truck to supply it.

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 20

#### Zone C

Tactic - 8 personnel task force moved from Zones B, C and D repairing and installing needed fabric fencing

Phase 1 tactics conducted in several hot spots.

Phase 2 tactic conducted throughout the Zone

Wash pumps were used to conduct flushing/stinger operations.

Personnel - 16

Equipment used - 2 portable 1 inch wash pumps

Estimated % Complete Phase 1 - 90

Estimated % Complete Phase 2 - 70

#### Zone D

Tactic - Flushing/stinger work on targeted areas.

Recovery and bagging of flushed oil using pads and snares.

8 personnel task force moved from Zones B, C and D repairing and installing needed fabric fencing

Personnel - 23

Equipment used - 3 portable 1 inch wash pumps

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

#### Zone E

Tactic - None

Personnel - 0

Equipment used - 0

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

*NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.*

#### Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)

Tactic - Smaller operations and maintenance dam remains in place.

Crews performed post excavation maintenance in various areas throughout the excavation.

Personnel - 3

Equipment used - 1 portable 2" pump, 1 forklift, 1 dozer

Estimated % Complete - 90

#### Waste Management

The total amount of disposed oily water mix at the Clarke Well to date is approximately **1440 bbls**. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. No rollofs were sent to landfill today. To date a total of 14 rolloff boxes for a total of **140 tons** of solid waste has been sent to the landfill.

No soil disposal occurred today. To date a total of **2676 tons** of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

#### Health and Safety

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

USEPA R4 ERRB Health and Safety recommendations were successfully incorporated into operations.

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

OSC requested an FPN ceiling increase of \$20,000 for a total of \$95,000.

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**1/22/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Significant progress was attained in Zones B and C.

Wetlands recovery operations focused on accelerating Phase 2 tactics of flushing and stinging. Targeted use of low pressure stinger flushing is occurring in zones B and C. The amphibious vehicle (marsh buggy) was operational today.

Removal and disposal of impacted soils was completed on 01/20/2014. Test pits around the flow-line leak area were dug on 01/20/2014. Test pits indicated insignificant recoverable oil and were closed. Excavation task is at 90%, backfill and grading commenced today.

RP engineer consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately **101**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### Wetlands Recovery Operations

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted Recoverable Oil Removal in Priority Areas

##### Zone A

Tactic - Using 2 inch wash pump to move fresh water thru the zone for polishing.

Personnel - 1

Equipment used - 2 inch pump

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

##### Zone B

Tactic - Removed bags loaded with oily pads and snares.

Wash pumps were used to conduct flushing/stinger operations.

Application of oil gator.

5 personnel task force moved from Zones B, C and repairing and installing needed fabric fencing.

Personnel - 28

Equipment used - 3 wash pump, 1 frac tank for fresh water flushing supply and 2 vacuum truck to supply it.

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 50

##### Zone C

Tactic - 5 personnel task force moved from Zones B, C and repairing and installing needed fabric fencing

Phase 1 tactics conducted in several hot spots.

Phase 2 tactic conducted throughout the Zone

Wash pumps were used to conduct flushing/stinger operations.

Personnel - 42

Equipment used - 2 portable 1 inch wash pumps

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 90

##### Zone D

Tactic - NA

Personnel - 0

Equipment used - 0

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

##### Zone E

Tactic - NA

Personnel - 0

Equipment used - 0

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

*NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.*

#### Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)

Tactic - Backfill and grading commenced today.

Personnel - 12

Equipment used - 1 portable 2" pump, 2 dozers, 1 excavator, 4 dump trucks

Estimated % Complete - 90

#### Waste Management

The total amount of disposed oily water mix at the Clarke Well to date is approximately **1440 bbls**. No

liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. 2 rollofs were sent to landfill today. To date a total of 16 rolloff boxes for a total of **152 tons** of solid waste has been sent to the landfill.

No soil disposal occurred today. To date a total of **2676 tons** of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

#### Health and Safety

Air monitoring to assure worker safety was conducted in all work areas with no elevated readings observed for CO, VOC's, H2S, LEL and Oxygen. Air monitoring will continue twice daily while operations are ongoing.

No reported accidents on site to date.

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

OSC requested an FPN ceiling increase of \$20,000 for a total of \$95,000.

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**1/23/2014**

Operations have been divided into 2 primary tasks:

1. Wetlands Recovery
2. Excavation

Wetlands recovery operations have been divided into two phases:

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted removal of recoverable oil from remaining priority areas such as root balls and deposition flats

Significant progress was attained in Zones B. Zones A, C, D, and E have completed Phase 1 and 2 operations.

Wetlands recovery operations focused on accelerating Phase 2 tactics of flushing and stinging. Targeted use of low pressure stinger flushing is occurring in Zone B. The amphibious vehicle (marsh buggy) was operational today.

Removal and disposal of impacted soils was completed on 01/20/2014. Excavation task is at 90%, backfill and grading continued today.

RP engineer consultants will continue to develop an operations and maintenance plan. This plan will be used once the two phases of mechanical recovery measures are completed in each of the zones.

Field personnel onsite total is approximately **70**. Personnel have been broken into teams and each team assigned a designated work area (zone). For Zone reference see Work Zones (Fig. 1) in the documents section of this webpage.

#### Wetlands Recovery Operations

Phase 1 - Bulk removal of recoverable oil

Phase 2 - Targeted Recoverable Oil Removal in Priority Areas

##### Zone A

Tactic - NA

Personnel - 0

Equipment used - NA

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

##### Zone B

Tactic - Removed bags loaded with oily pads and snares.

Wash pumps were used to conduct flushing/stinger operations.

Application of oil gator.

5 personnel task force moved from Zones B, C, D, and E repairing and installing needed fabric fencing.

Personnel - 19

Equipment used - 3 wash pump, 1 frac tank for fresh water flushing supply and 4 vacuum truck to supply it.

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 60

Zone C

Tactic - 5 personnel task force moved from Zones B, C, D, and E and repairing and installing needed fabric fencing.

20 personnel in C, D, and E removing remnants of response actions such as bags and equipment.

Applying and tilling oil gator.

Personnel - 19

Equipment used - NA

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

Zone D

Tactic - 5 personnel task force moved from Zones B, C, D, and E and repairing and installing needed fabric fencing.

20 personnel in C, D, and E removing remnants of response actions such as bags and equipment

Personnel - 0

Equipment used - NA

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

Zone E

Tactic - 5 personnel task force moved from Zones B, C, D, and E and repairing and installing needed fabric fencing.

20 personnel in C, D, and E removing remnants of response actions such as bags and equipment

Personnel - 0

Equipment used - NA

Estimated % Complete Phase 1 - 100

Estimated % Complete Phase 2 - 100

*NOTE ... Percent completes will rise and fall as the rain events occur with an overall uptrend as recoverable oil is removed. This effect is a byproduct of the natural flushing that occurs during rain events.*

Excavation Operations (includes clearing/excavation/disposal/backfill/revegetation)

Tactic - Backfill and grading continued today.

Personnel - 5

Equipment used - 1 portable 2" pump, 2 dozers, 1 excavator, 4 dump trucks

Estimated % Complete - 90

Waste Management

The total amount of disposed oily water mix at the Clarke Well to date is approximately **1440 bbls**. No liquid was disposed of today into the Clarke Well.

All material removed from the impacted area is being staged in a central location for future disposal. **1** rolloff was sent to landfill today. To date a total of 17 rolloff boxes for a total of **160 tons** of solid waste has been sent to the landfill.

Soil disposal completed. To date a total of **2676 tons** of impacted soil from the area around the flowline blowout has been removed and sent to the landfill.

Please see documents section for the approved waste management work plan.

Health and Safety

No reported accidents on site to date.

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

A written Notice of Federal Interest was issued to and signed by the RP representative. RP is Moon-Hines-Tigrett of Ridgeland, MS. Unified Command is in effect comprising EPA OSC, DEQ SOSC and RP rep. MS Oil and Gas representative is on scene.

**2.2 Planning Section**

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**2.3 Logistics Section**

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**2.4 Finance Section**

**Estimated Costs \***

|  | Budgeted | Total To Date | Remaining | % Remaining |
|--|----------|---------------|-----------|-------------|
|  |          |               |           |             |

| <b>Extramural Costs</b> |                    |                    |                    |               |
|-------------------------|--------------------|--------------------|--------------------|---------------|
| PRFA - MSDEQ            | \$42,000.00        | \$25,800.00        | \$16,200.00        | 38.57%        |
| TAT/START               | \$20,000.00        | \$15,600.00        | \$4,400.00         | 22.00%        |
| USCG - GST              | \$5,000.00         | \$4,000.00         | \$1,000.00         | 20.00%        |
| <b>Intramural Costs</b> |                    |                    |                    |               |
| USEPA - Direct          | \$15,000.00        | \$12,000.00        | \$3,000.00         | 20.00%        |
| USEPA - InDirect        | \$12,370.00        | \$12,370.00        | \$0.00             | 0.00%         |
|                         |                    |                    |                    |               |
| <b>Total Site Costs</b> | <b>\$94,370.00</b> | <b>\$69,770.00</b> | <b>\$24,600.00</b> | <b>26.07%</b> |

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

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## 3. Participating Entities

EPA  
USCG - GST  
MSDEQ  
MS Oil and Gas  
RP Contractors

## 4. Personnel On Site

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## 5. Definition of Terms

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## 6. Additional sources of information

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## 7. Situational Reference Materials

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