

# ADEM

## Emergency Response Program

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## ADEM Emergency Response

- State of Alabama Emergency Operations Plan –  
ESF 10

*(Oil and Hazardous Materials Response):*

Designates ADEM as the lead agency in the response to an actual or potential release of oil, petroleum or hazardous materials resulting from a natural, manmade, or technological disaster.

- ADEM Emergency Response staff are tasked with responding to and ensuring any spill of petroleum or a hazardous material is properly managed and remediated to a pre-spill state to the closest extent feasible.
- ER Staff are on call 24-7, 365 days a year including all state holidays. Responders are Field Environmental Scientists that serve on a part time rotation



## ER Program - Responses State Wide (all four field offices)

- Total of **285** Responses for FY 2016 –
  - Air Responses: **25** = 9% of all responses
  - Water Responses: **30** = 10% of all responses
  - Land Responses: **230** = 81% of all responses
- Average **290** Responses Annually
- ER Program manages releases at the onset (Initial Emergency Phase); Transition the release to Water or Land Divisions for long-term monitoring and remediation on significant spills

## ADEM Emergency Response

- **ADEM Divisions:**

- Land Division

- Water Division

- Air Division

- Permits and Services

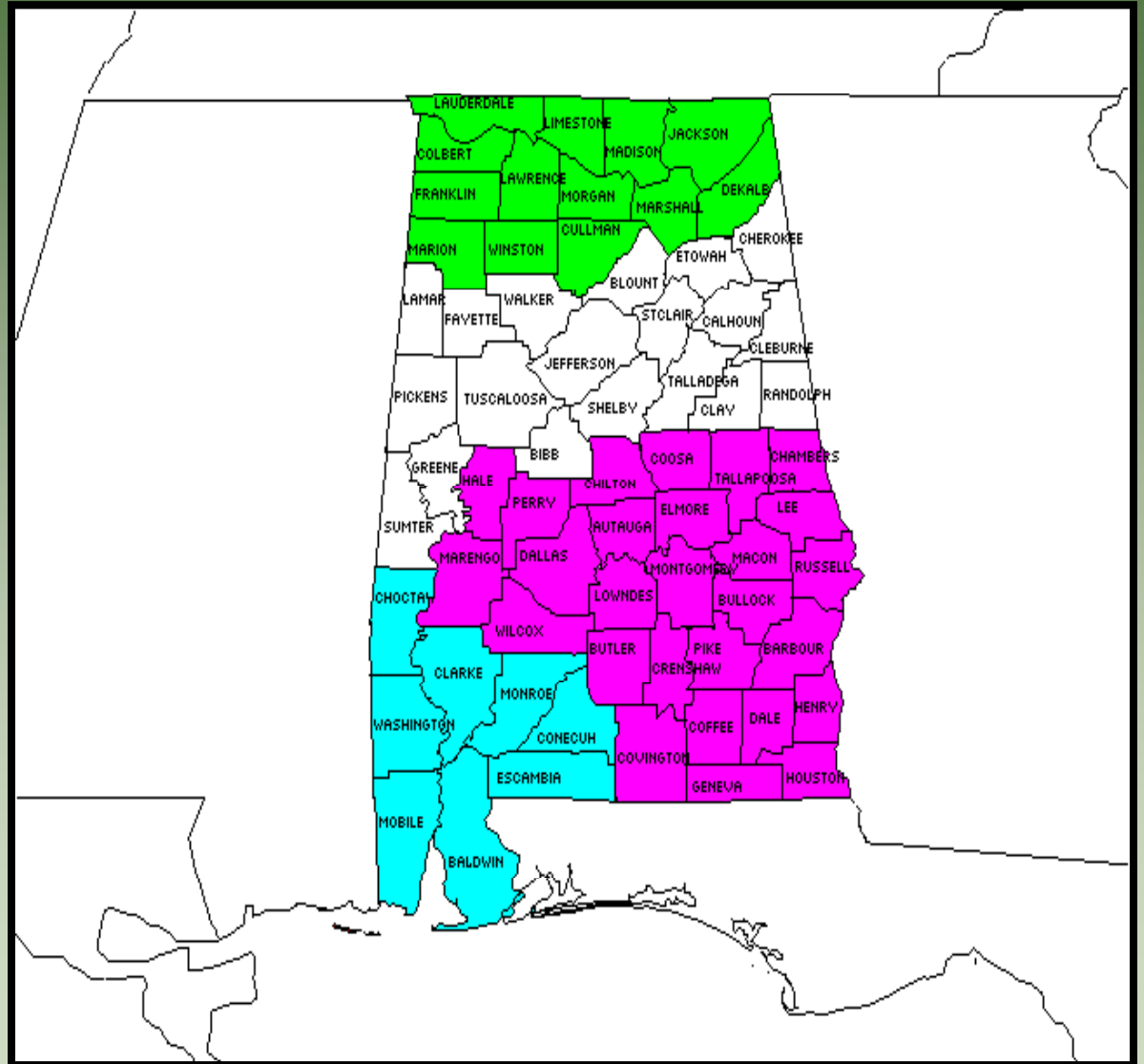
- \* Field Operations Division-

**Emergency Response Program**

# Field Offices and AOR's

## ADEM Emergency Response Coverage Areas

- **Decatur**  
(256) 260-5114
- **Birmingham**  
(205) 438-1080
- **Montgomery**  
(334) 850-6621
- **Mobile**  
(251) 581-0144



## Reportable Releases:

### -Petroleum based product:

*A spill of 25 gallons or greater to land. Land includes soil, asphalt, and concrete.*

*\*A spill of any amount that impacts or threatens to impact waters of the State. Waters of the State is defined as surface waters, groundwater and storm water drainage systems.*

### -Hazardous Materials:

*Dependant on the chemical / material per Table 302.4 located in 40 CFR 302.4 - EPCRA*

*Generally reported by quantity or pounds (lbs.)*

*(CFR = Code of Federal Regulations)*



## Who Can You Report To?

- National Response Center (NRC)  
(800) 424-8802
- Alabama Emergency Management Agency; State Warning Point (AEMA)  
(800) 843-0699
- Alabama Dept. of Environmental Management (ADEM)  
(334) 850-6621 – *ER 24 Hr Response Phone*

## How is ADEM Notified?

- **National Response Center (NRC)** -  
Generally via email and *Flash Fax*
- **Alabama Emergency Management Agency – AEMA**  
Communications Room notifies the appropriate Field Office depending on location of spill
- **The Responsible Party –**  
Can report directly to ADEM
- **General Public –**  
Concerned citizens





## Who is Responsible for Remediation of a Spill?

- The Responsible Party has ultimate accountability/liability in the event of a spill
- If the RP is unable or unwilling to respond, EPA may intervene through use of federal funds:
  - \* PRFA (*Pollution Removal Funding Authorization*)
  - \* LGR (*Local Government Reimbursement*)
  - \* OSLTF (*Oil Spill Liability Trust Fund*)

## Response for Impacts to Surface Water

- Identify any potential impacts to Drinking Water Intakes and Critical Habitat
- Protect structure and contain spill if possible
- Notifications are made by ADEM ER to:
  - ADEM Drinking Water Branch
  - County Emergency Management Agency
  - Local Water Municipalities (*if possible*)
  - National Response Center
  - EPA (*if applicable*)

## Scale of Responses

- **Daily (Routine)**
  - Truck and Transportation Wrecks
  - Public Complaints



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Waste Oil Tanker Roll-Over





**Fuel Tanker Roll-Over I-85 Shorter Exit Clean-up and Remediation**

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**ABC Transport Truck Accident I-65 near Clanton**







## Scale of Responses

- **Multiple Times per Year**
  - Train Derailments
  - Isolated Weather Related Events
  - Facility Related Spills







## Train Derailment Marengo County; Space Shuttle Solid Rocket Booster Segments



## Scale of Responses

- **Large Scale National Relevance Responses –**
  - Hurricanes (Katrina, Ivan)
  - Deep Water Horizon Gulf Oil Spill
  - April 27, 2011 Tornado Outbreak
  - Pickens County Bakken Oil Derailment
  - 2016 Colonial Pipeline Spill – Shelby County



## *Deepwater Horizon Facts*

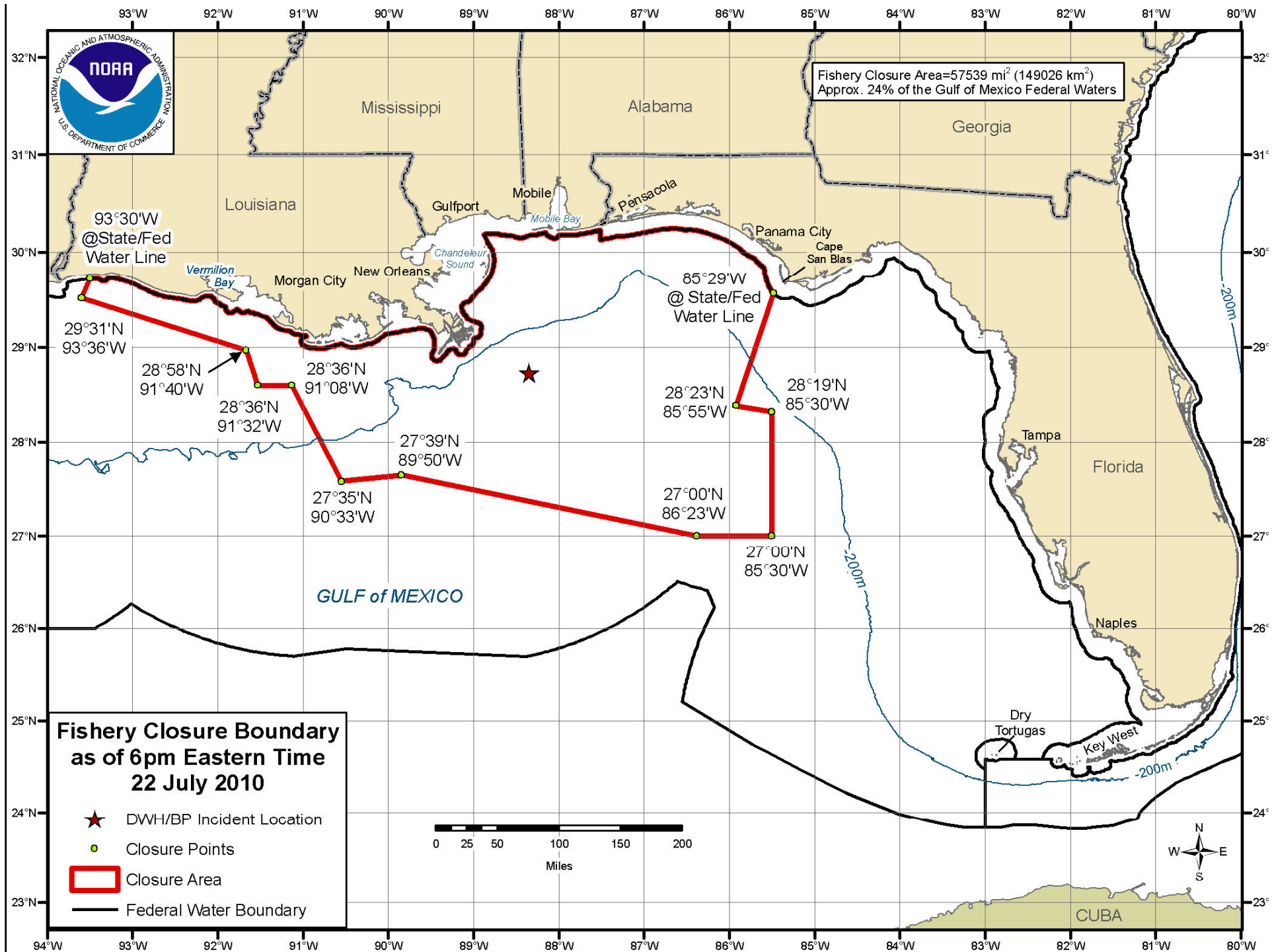
- Well depth: 5000 feet
- Blowout: April 20, 2010
- Capped: July 15, 2010
- Well flowed for 87 days
- 3.19 million barrels of oil (>130 million gals.)
- 1.4 million gals of dispersant
- Alabama landfall late May/early June
- 1313 miles of Gulf shoreline impacted
- 30% of oil still unaccounted for



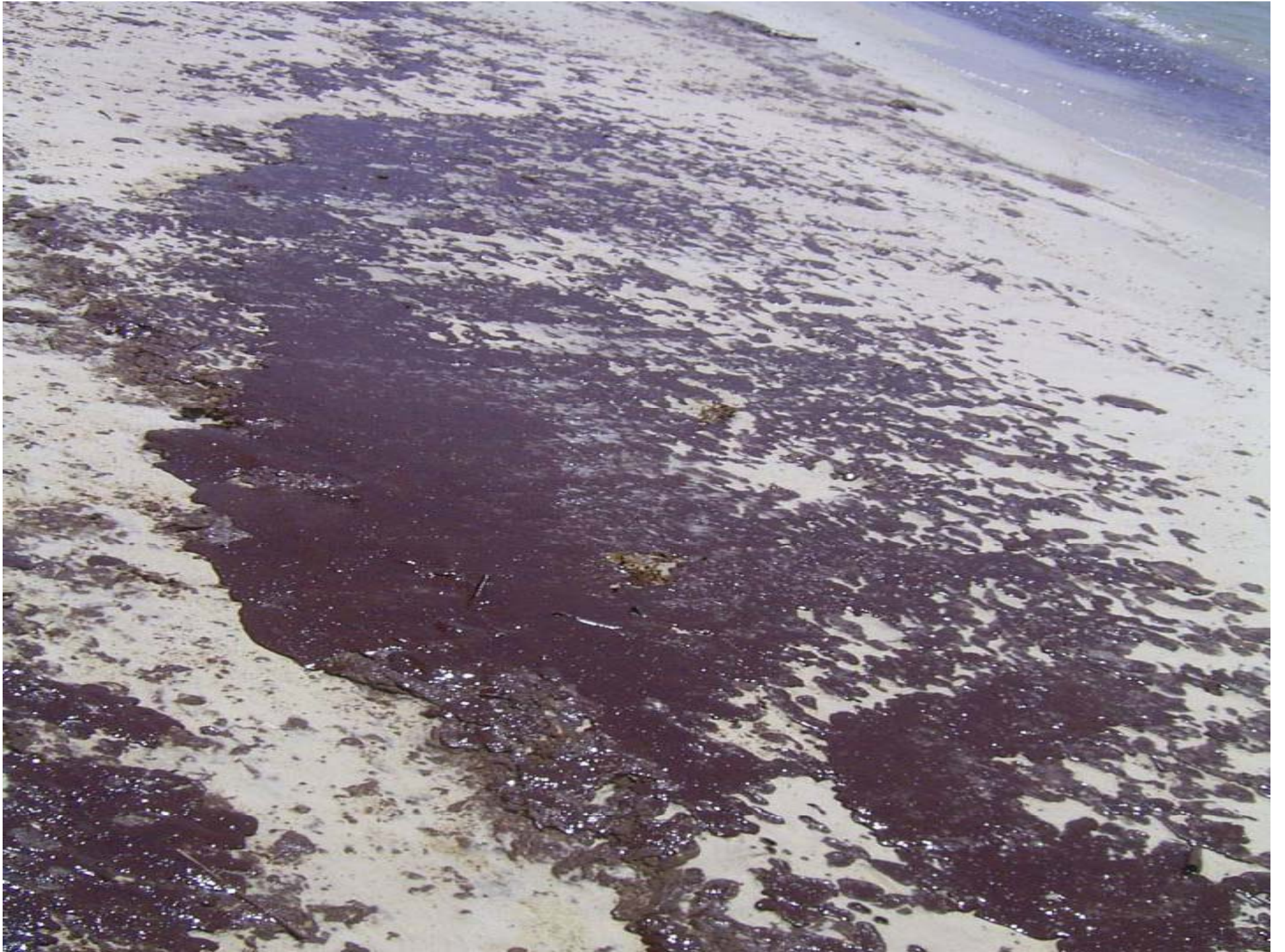
## *Deepwater Horizon Response*

- Largest man-made environmental disaster in US history and largest marine oil spill in history.
- First Spill of National Significance (SONS) in the US.
  - SONS: a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare of the environment, or the response effort, is so complex it requires extraordinary coordination of Federal, state, local, tribal and responsible party resources to contain and clean up the discharge.





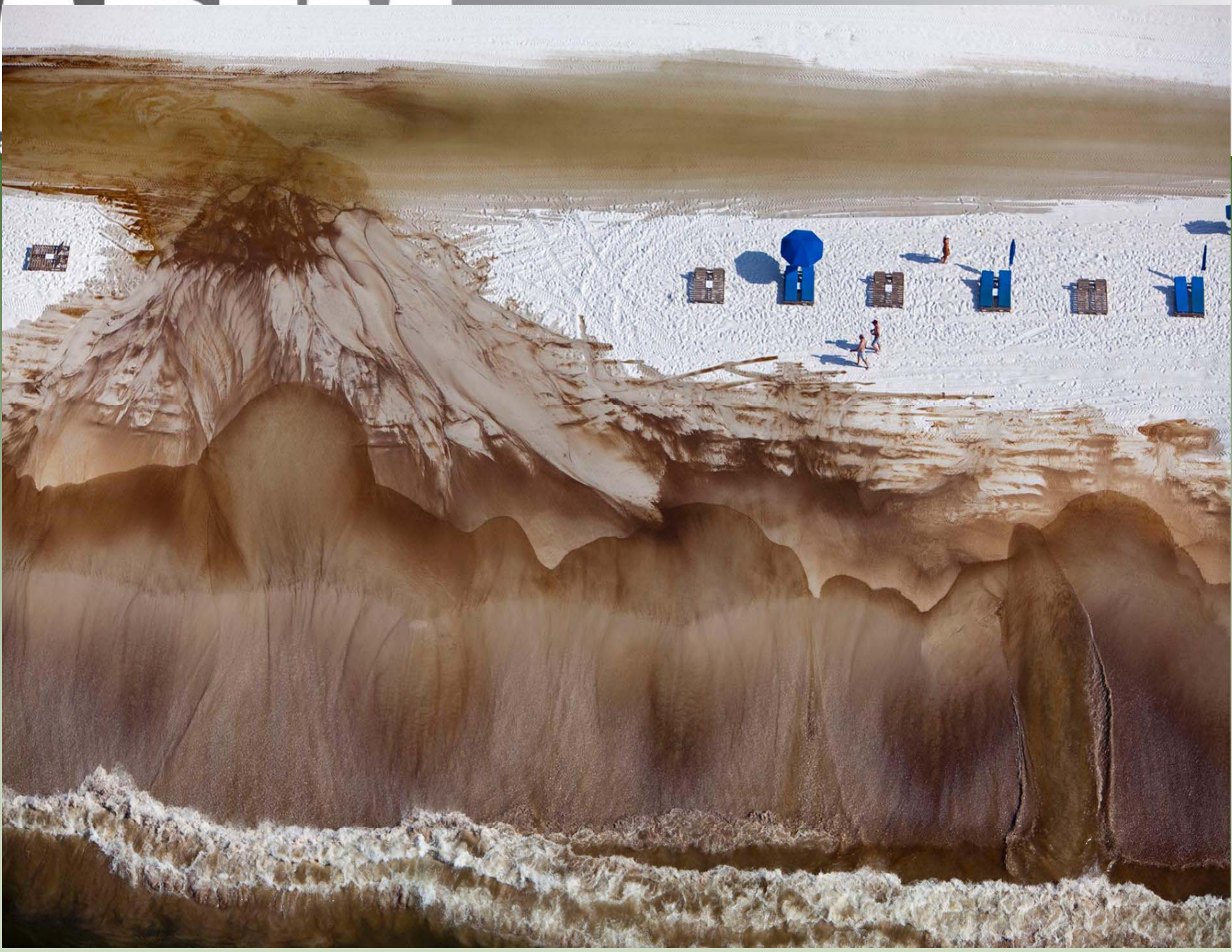






Tar deposits.

Al:



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DEEP WATER HORIZON/MISSISSIPPI CANYON 252

Alabama Unified Command Briefing

SFOC SITUATION REPORT  
# 0075  
Time: 1130 Date: 7/15/2010

## CONTENTS

SITUATION REPORT (SITREP) for the 48-hour Operational Period # 86

72 HOUR TRAJECTORY MAP	2
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Amount of Boom Deployed by Unified Command Statewide (feet): **615,700**

[Source: ICP Mobile Deepwater Horizon (MC-252) Situational Brief Operational Period 86: 15 July 2010]

- There are **674** independent vessels of opportunity (VOO) assigned to work Alabama waters. Of those, a total of **437** are working in surveillance and support functions and **237** are capable of skimming oil.

We have Ten (10) state agencies currently working the incident with a total of **four hundred fourteen (414)** personnel.

### **Alabama Department of Environmental Management (ADEM)-**

The Deepwater Horizon oil spill is primarily an environmental (ESF10) incident and therefore ADEM has been designated as the lead agency to coordinate the activities of all the state agencies that will be responding. **Seventeen (17)** personnel are working in Unified Command or support Unified Command and working within the Emergency Operations Center for Alabama. Technical staff are assigned to SCAT, boom strategy, aerial surveillance, local government support and sampling.

615,700 feet = 116.6 miles



ALBA2-054 through ALBA2-061

September 2, 2016

## Baldwin Co. Beaches September 2016



ALBA1-005 through ALBA1-010

September 2, 2016 and September 9, 2016



## Baldwin Co. Beaches September 2016



ALBA2-025 through ALBA2-034

September 3, 2016

# Historic Tornado Outbreak April 27, 2011



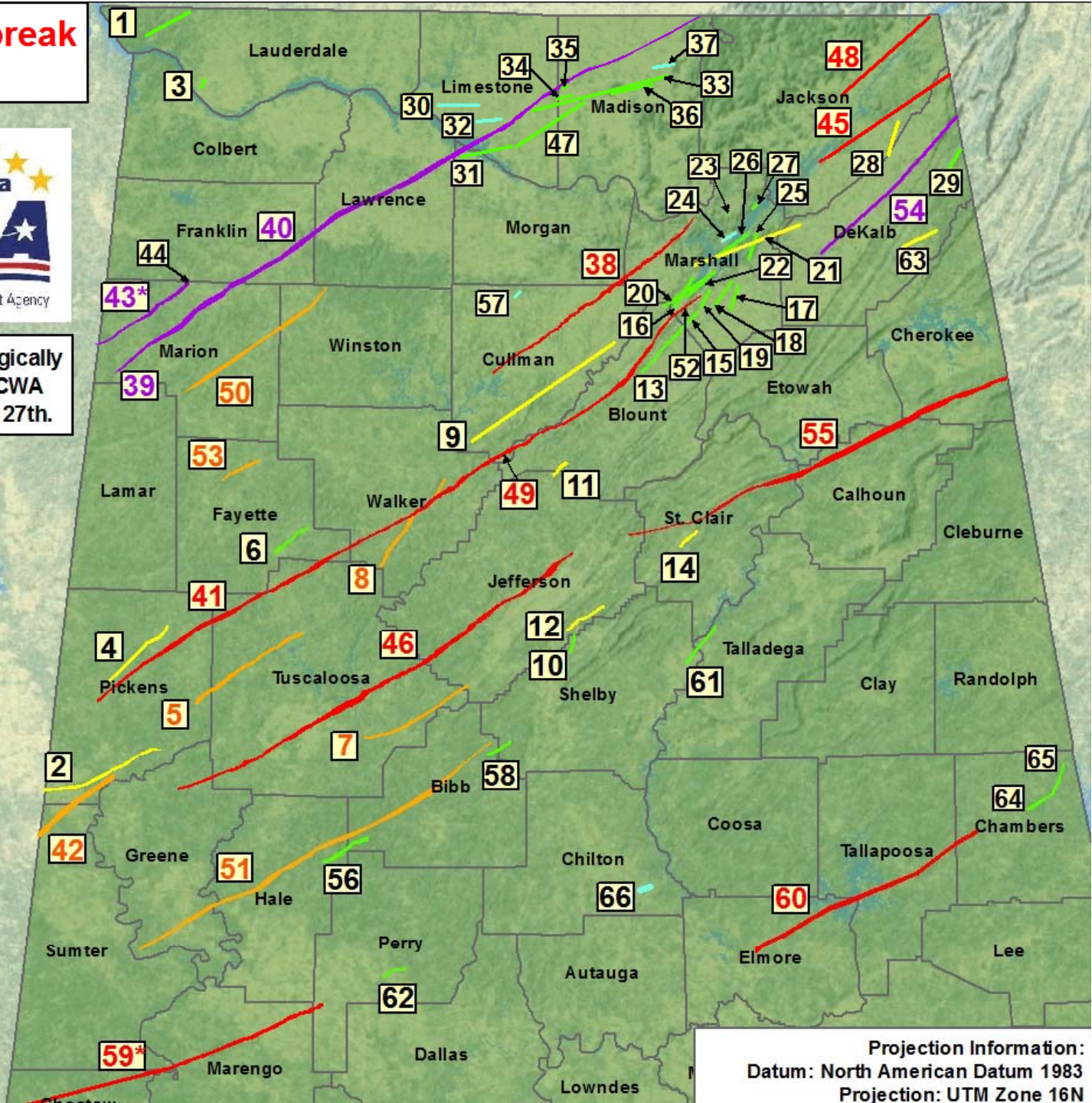
Tornadoes are numbered chronologically by time of touchdown in a given CWA beginning on the morning of April 27th.

## EF-Rating

- EF-5
- EF-4
- EF-3
- EF-2
- EF-1
- EF-0



0 5 10 20 30 40



Projection Information:  
Datum: North American Datum 1983  
Projection: UTM Zone 16N

# April 27, 2011 Tornadoes by the Numbers

- 62 tornadoes
  - Total path 1,177 miles long, 20 miles wide
- 247 fatalities
  - 19 counties
- 88,050 FEMA registrations
  - Over \$66 million in FEMA grants: Individuals and Households
  - Nearly \$75 million approved SBA loans
- >23,000 homes/apartments destroyed/heavy damage
- Debris
  - 10 million cubic yards identified
  - 90% removed in 90 days following April 27
- >700 state/mutual aid responders



Impacts to Lake Martin from storm debris, household chemicals and E-Debris



Impacts to Lake Martin from storm debris, household chemicals and E-Debris

**Thursday November 8, 2013 –  
12:05AM**

- Alabama & Gulf Coast Railway train derailed just south of Aliceville, AL
- No injuries reported
- 26 of 90 train cars derailed, 3 exploded sending flames hundreds of feet high, ignited surrounding cars (DOT 111)
- Transported North Dakota Bakken Shale crude oil from Amory, MS to Walnut Hill, FL

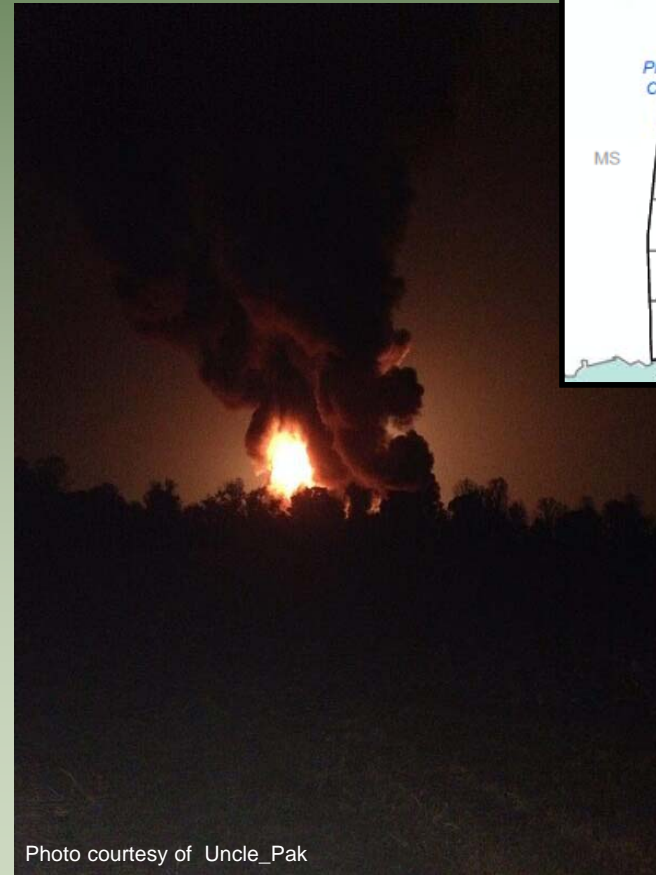


Photo courtesy of Uncle\_Pak





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# Pickens Co. Derailment

Aliceville, AL – November 8, 2013



WBMA/abc3340.com /REUTERS

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## Pickens Co. Derailment

Aliceville, AL – November 8, 2013



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Emergency Response

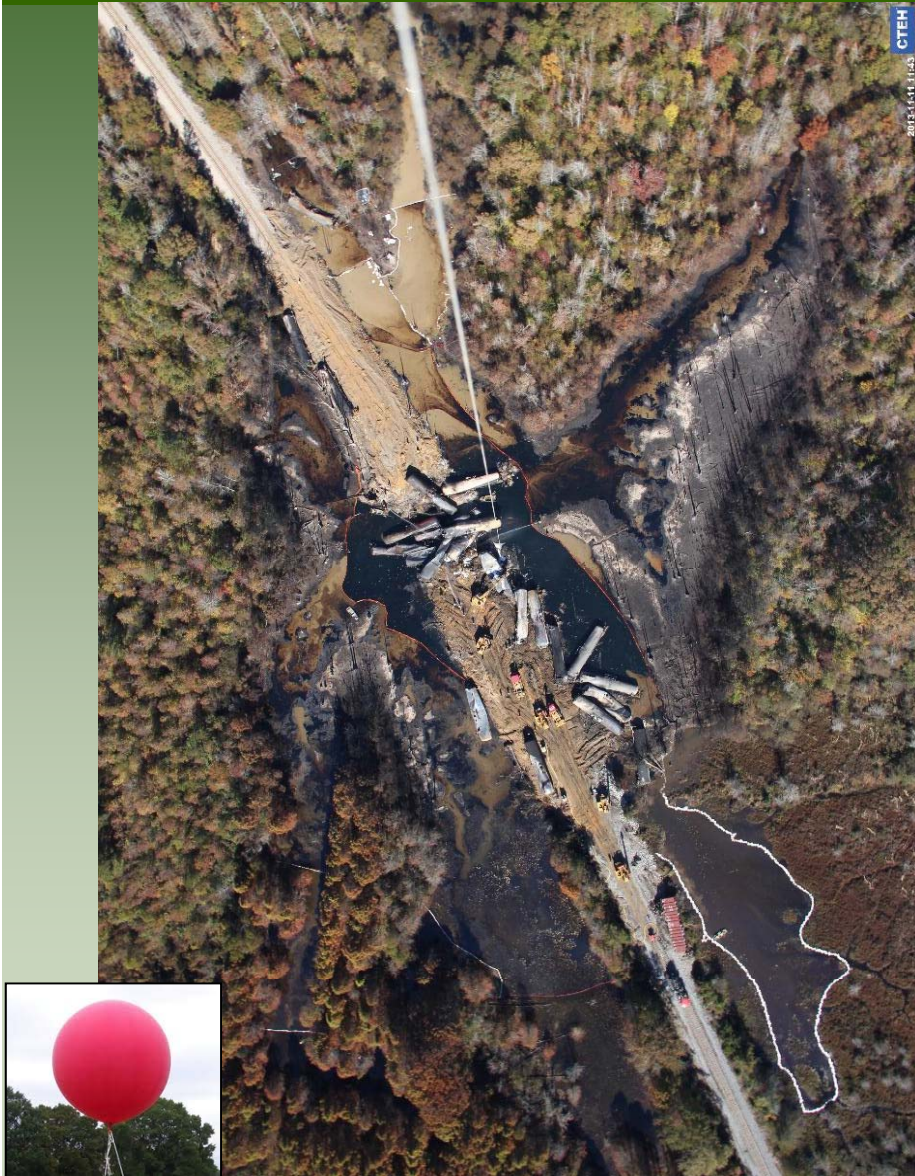




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# Pickens Co. Derailment

Aliceville, AL – November 8, 2013





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## **Colonial Pipeline Spill**

### **Pelham, Shelby County, Alabama**

- September 9, 2016 Colonial Pipeline reported a gasoline spill to the National Response Center from a 36” subsurface transmission line
- Gasoline seeped out of the ground and flowed 500 feet down-gradient into a pond (flows into Peel creek but currently contained to the pond)
- Initial report was 2000 gallons of gasoline released, after response was initiated it was updated and currently estimated between 252,000 gallons – 336,000 gallons (6000-8000 barrels)

- Incident Command Systems (ICS) was utilized:

Spanned to 700+ Response Personnel

ADEM

EPA

ADCNR

CTEH

Alabama EMA / Shelby County EMA

USCG – Gulf Strike Team

Local Responders ( Fire/Police/Health)

Colonial Pipeline (RP)



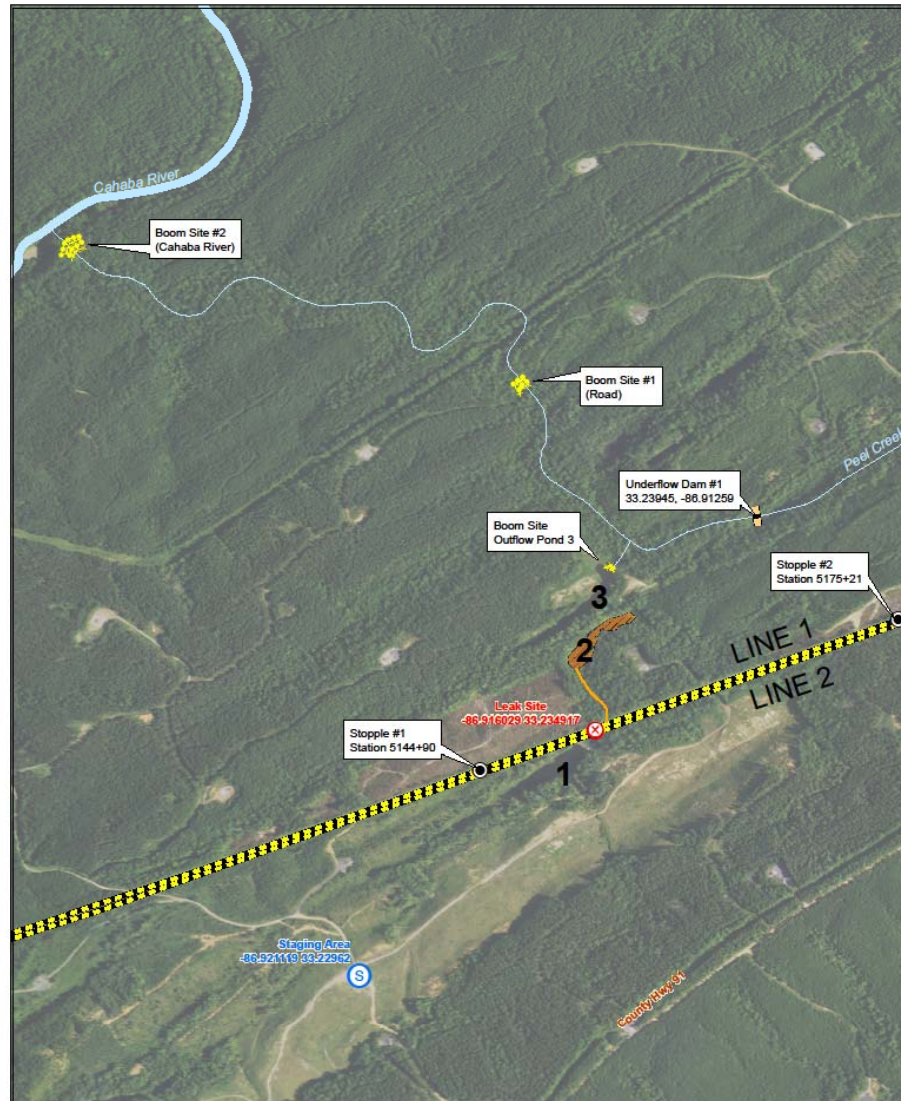
Alabama Department of Environmental Management

## **Colonial Pipeline Spill**

### **Pelham, Shelby County, Alabama**

#### **OPERATIONS**

- Pipeline was shutoff but continued to drain at a rate of approximately 3 gallons per minute for up to a week
- High level of explosive vapors were the greatest limiting factor to recovery operations (LEL levels remained near the 100% range for over a week)
- CTEH provided air monitoring services (LEL's, Benzene, VOC's)
- Work interruptions were continuous due to excess benzene and LEL readings
- Approximately 87,579 gallons of gasoline removed from Pond 2-356,118 gallons Petroleum Contact Water
- No significant rainfall has occurred at the site



**Legend**

- Colonial Pipeline
- Staging Area
- Leak Site
- Stopples

**Boom Type**

- Hard Boom
- Soft Boom
- Underflow Dam
- Spill Plume

CR 91 Event

Situation Status Map

Feet

0      950      1,900

9/11/2016 @ 08:50



Sept. 10: Impacted Pond 2 on left; Pond 3 on Right.



Sept. 10: Impacted Pond 2.

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Aerial photograph taken Sept. 18, Fuel confined to the upper 1/3 of the pond.

Pond 2 Collection point directly below the ravine.





Aerial showing reduction in fuel coverage and installation of protective shore boom.





Underflow dam construction on Peel Creek using 18" diameter pipes



Completed underflow dam in Peel Creek, approximately 200 feet southeast of the Cahaba River



On-Site Frac Tanks Holding Petroleum Contact Water



Initial Incident Command Post and ICS Unified Command Structure

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QUESTIONS?