Case Study – Spill Response
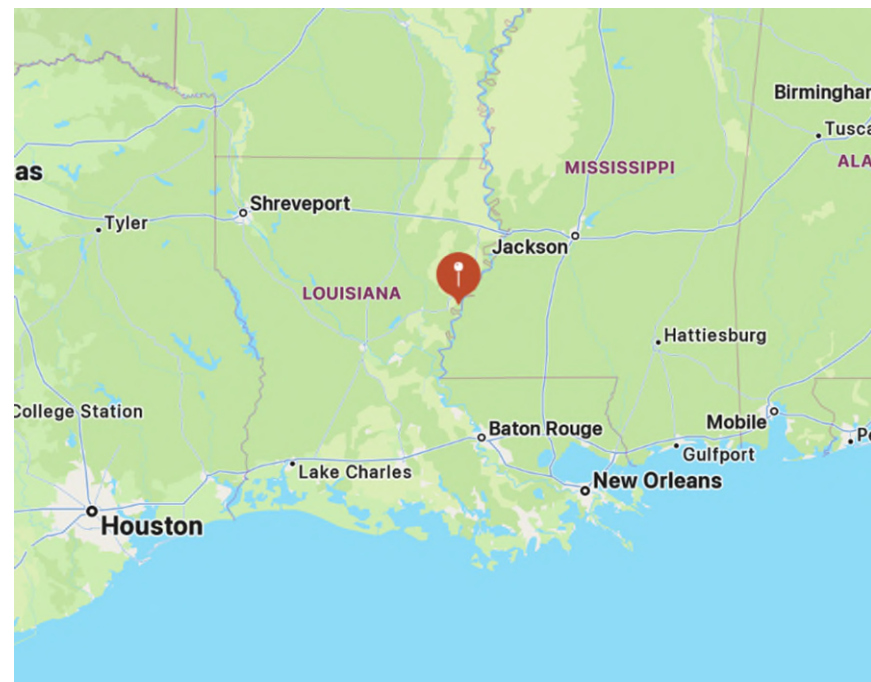## *June 2023, Natchez, Mississippi*

Overview

- Scenario

- Challenges

- Initial Actions

- Operational Challenges

- Logistical Challenges

- Political Challenges

- Closing

Scenario

- Tow was southbound on Lower Mississippi River, approximately 20 miles south of Natchez, MS.
- Around 8 pm on June 10, 2023, while making periodic rounds on tow, crew noticed cargo escaping from #2 starboard cargo tank.

- Escaping cargo (heavy black oil) rapidly increased in flow.
- Approximately 100 bbls escaped with roughly 50 bbls making it to water.

Challenges

- Heavy & persistent oil product

- Impacted shorelines of TWO states (MS and LA)

- Remote/rural region with limited facilities

- Summer weather (100+ degree temps, thunderstorms)

- Dynamic river conditions

Initial actions

- Secure source

- Activate VRP

- Make notifications

- Deploy spill response supplies

- Establish Incident Command Post

- Stand up Unified Command

Operational challenges…

Summertime in southern Mississippi

- Cleanup effort primarily "manual labor" (shovels & bags)
- Heat indexes 110+ degrees
- Daily "pop up" thunderstorms

94 °F	A 30 percent chance of showers and thunderstorms, mainly between 1pm and 4pm. Sunny, with a high near 93. Heat index values as high as 102. Southwest wind 5 to 10 mph. **Chance of Precipitation(%):** 30% **Wind:** SSE at 1 mph
96 °F	Sunny, with a high near 95. Heat index values as high as 109. Southwest wind 5 to 10 mph. **Chance of Precipitation(%):** 0% **Wind:** SSW at 9 mph

Mitigation measures

- Adjusted work hours in the field
- Registered nurse/EMT in the field
- Real-time weather radar constantly displayed in ICP
- Ice…ice…and more ice!

Operational challenges…

What are we cleaning? And to what extent?

- Iron oxide "sheens"

- Bi-lingual "picture guide book"

Sand

OK-Leave it

15 CM

- No oil larger than 2 centimeters (~3/4 of an inch) in diameter (a pinky fingernail) and at more than 1-5% coverage within the oiled band

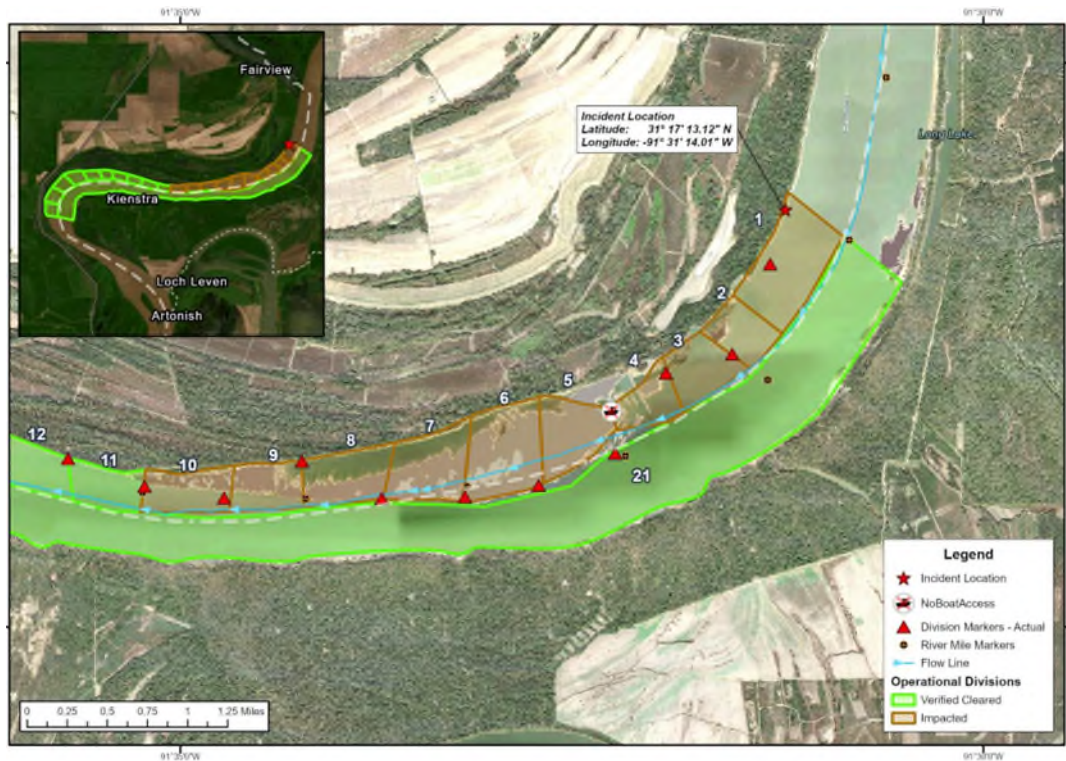- No oiled wrack. Wrack that is NOT oiled should NOT be removed.

Cleanup.

Clay

Operational challenges...

What are we cleaning? And to what extent?

- ½ mile grids w/UC "sign offs" for endpoints

Logistical challenges...

- Snow/beach shovels in Northeast Louisana...in June?

- 150+ workers in field....restrooms?

- Cellular signals....can you hear me now?

- Meal delivery in the field...

- Ice....ice....ice!

- "We need a drone..."

- Only accept CASH?

Political/Regulatory challenges…

Respect the local community…

- Annual Fishing Tournament
- Caution before wiping out donut and ice inventories
- Congestion & "dirty" foot traffic at ICP (i.e. Hampton Inn)
- Need security? Hire local…
- Need food? Buy local…

Establish cooperative rapport with FOSC & SOSC…

- USCG required precise "spill numbers/volumes"
- Build plans together (Transit Plan, Site Safety, Demob)
- Achieve consensus on "end points" (how clean is clean?)

If all else fails...