

# National Transportation Safety Board

Office of Railroad, Pipeline and Hazardous Materials

Washington, DC 20594



PLD24FR001

## **ENVIRONMENTAL RESPONSE**

Group Chair's Factual Report

September 25, 2024

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## **A ACCIDENT**

Location: Gulf of Mexico, Louisiana  
Date: November 15, 2023  
Time: 19:00 (LTZ)  
01:00 (UTC)  
Operator: Panther Operating Company (wholly owned by Third Coast)  
Pipeline: Main Pass Oil Gathering System (MPOG)  
System Type: Off-shore transmission system  
Commodity: Crude Oil

## **B ENVIRONMENTAL RESPONSE GROUP**

Group Chair Elena Bozhko  
National Transportation Safety Board  
Washington, DC

Group Member Sara Moore  
Bureau of Safety and Environmental Enforcement  
New Orleans, LA

Group Member   
U.S. Coast Guard  
New Orleans, LA

Group Member Todd Rivera  
Third Coast  
Houston, TX

Group Member Nicklas Pavlovsky  
Third Coast  
Houston, TX

## **C SUMMARY**

For a summary of the accident, refer to the *Accident Summary* within the investigation docket.

## D FACTUAL INFORMATION

This report documents the facts, conditions, and circumstances relating to the environmental response to the release from the MPOG pipeline system in Main Pass 69 that began on the evening of November 15, 2023. While Unified Command activities responding to the accident continued until April 5, 2024, the scope of this report includes activities attempting to recover oil shortly after the accident. Additional information on the response to the accident can be found in *Human Performance and System Safety Group Chair's Factual Report*. Additional information on the pipeline system, failure location and evidence removal can be found in *Pipeline Operations and Integrity Management Group Chair's Factual Report*.

### 1.0 Description of the Operator

Third Coast Infrastructure, LLC ("Third Coast") is headquartered in Houston, Texas. Third Coast is an offshore focused midstream company whose operations are situated along the Gulf Coast and in the Gulf of Mexico.<sup>1</sup> Third Coast is the parent company to or operator for multiple entities, including but not limited to American Panther, LLC ("Panther"), Lighthouse Midstream Services, LLC ("Lighthouse"), and Main Pass Oil Gathering, LLC ("MPOG").<sup>2,3</sup> The company's assets include offshore crude oil and natural gas liquids pipelines, a deepwater floating production system, natural gas gathering and transmission pipelines, and gas processing plants.<sup>4</sup>

The Regional Oil Spill Response Plan (OSRP) used in the response efforts was approved under High Point Gas Gathering, LLC (HPGG). HPGG and MPOG are both wholly owned subsidiaries of Third Coast. The other entities included in the Regional OSRP under HPGG are also affiliated entities under Third Coast Infrastructure, LLC corporate umbrella.

Panther Operating Company, LLC has an assigned Pipeline and Hazardous Materials Safety Administration (PHMSA) OPID of 31994.

### 2.0 Accident Site

The crude oil spill (about 27,000 barrels or 1.1 million gallons) occurred in the waters of Gulf of Mexico southeast of the entrance to the Mississippi River in the Main

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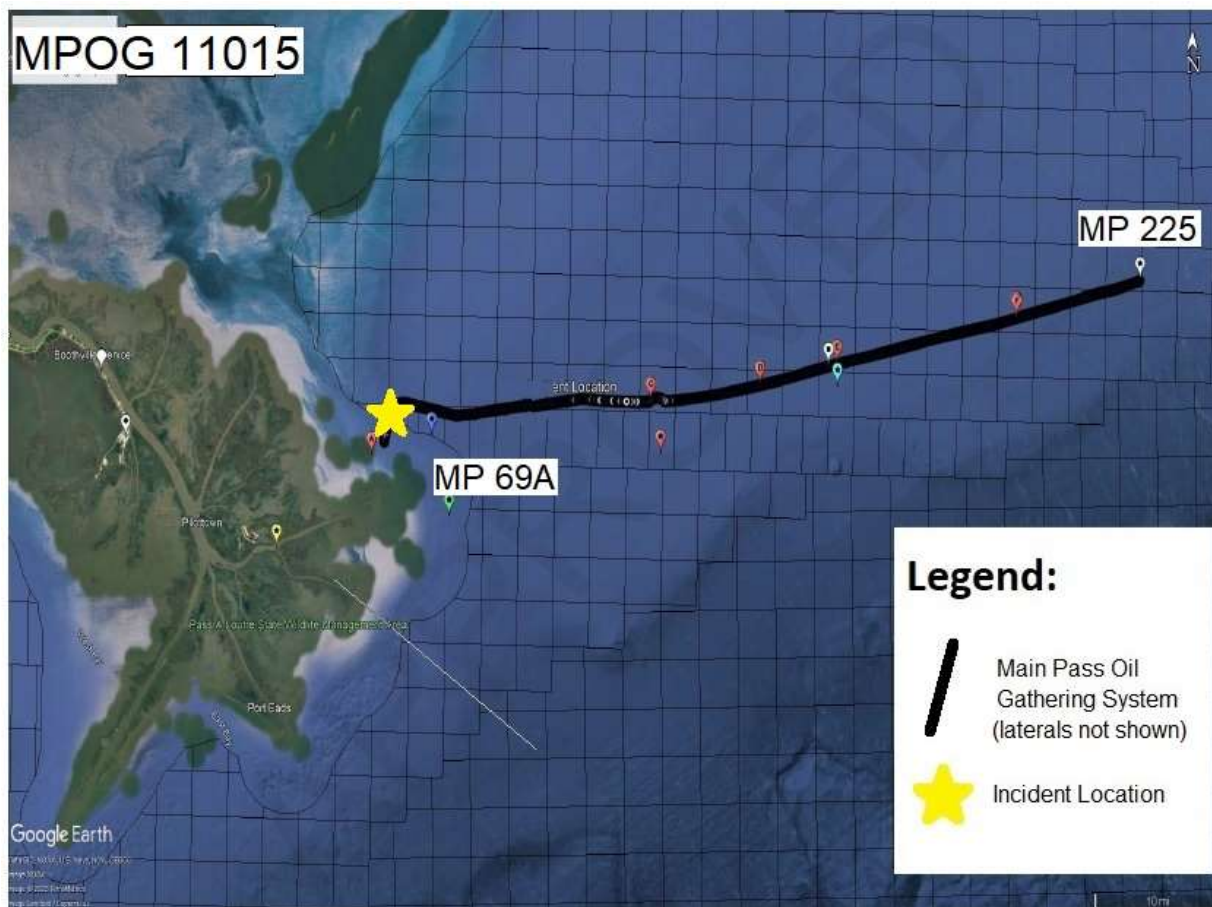
<sup>1</sup> <https://www.third-coast.com/about-us>

<sup>2</sup> [https://www.third-coast.com/files/ugd/d12b1c\\_6e7ed9f9b6bc4eb7b1d445da268ec0be.pdf](https://www.third-coast.com/files/ugd/d12b1c_6e7ed9f9b6bc4eb7b1d445da268ec0be.pdf)

<sup>3</sup> Third Coast owns MPOG.

<sup>4</sup> <https://www.third-coast.com/about-us>

Pass (MP) 69 lease block (Figure 1). This is an unusually sensitive area according to PHMSA regulations (see sections 7.0 and 11.0).<sup>5, 6</sup>



**Figure 1.** Pipeline overview map with incident location

### 3.0 Description of the Pipeline System

The MPOG pipeline system receives raw, unprocessed crude oil from seven offshore platforms and transports it to a custody transfer station in Plaquemines Parish, Louisiana (MP-69A). The MPOG pipeline system receives crude oil from six lateral pipelines connected to the offshore platforms, four of the laterals are independently owned and operated. The MPOG pipeline system is identified as an offshore transmission line Bureau of Safety and Environmental Enforcement (BSEE) pipeline segment #11015.

The MPOG pipeline is an 18-inch diameter subsea pipeline about 65.8 miles long, that runs from Main Pass (MP) 225 to MP 69A facility.<sup>7</sup> The pipeline is located

<sup>5</sup> [Title 49 Subtitle B Chapter I Subchapter D Part 195 Subpart A § 195.6](#)

<sup>6</sup> Gulf of Mexico Unusually Sensitive Area Map

<sup>7</sup> MPOG Facility Response Plan Pages

offshore at a depth of 20 to 300 feet. The total volume line capacity is 101,666 barrels.<sup>8</sup>

#### **4.0 Weather Conditions**

On November 15, 2023, northeast winds averaged around 25-30 knots, with gusts up to 45 knots.<sup>9</sup> Seas were rough, around 12 feet.<sup>10</sup>

On November 16, 2023, winds started off around 23 knots and then gradually decreased over the course of the day to around 15 knots. Seas were around 5 feet.

On November 17, 2023, east winds were at 5-8 knots, and seas were around 3-5 feet, occasionally up to 8 feet.

On November 18, 2023, winds were somewhat higher at 10-15 knots and seas were around 5 feet.

On November 19, 2023, winds were moderate at 5-10 knots and seas of 1-2 feet.

On November 20, 2023, winds were around 15 knots with gusts up to 20 knots.

#### **5.0 Oil Spill Response Operations**

##### **5.1 Incident Command Structure**

On November 16, 2023, the United States Coast Guard (USCG) and Third Coast set up the Incident Command Post (ICP) in Belle Chasse, Louisiana.<sup>11</sup> Third Coast retained Forefront Emergency Management (Forefront) for assistance.<sup>12</sup> On November 17, 2023, Unified Command was stood up and the Joint Information Center (JIC) was co-located with the ICP in Belle Chasse, Louisiana.<sup>13</sup> The Unified Command included a Federal On-Scene Coordinator (FOSC) from the USCG a State On-Scene Coordinator (SOSC) from the Louisiana Oil Spill Coordinator Office (LOSCO), and a Responding Party (RP) representative from MPOG.<sup>14</sup> Several additional agencies were also represented in the Unified Command, including PHMSA, BSEE, National Oceanic and Atmospheric Administration (NOAA), the Louisiana Department of Wildlife and Fisheries (LADWF), the Louisiana Department

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<sup>8</sup> MPOG Facility Response Plan Pages

<sup>9</sup> Coastal Waters Forecast November 10-19, 2023

<sup>10</sup> NOAA Oil Fate Analysis

<sup>11</sup> Incident Command Post - The field location at which the primary tactical level, on-scene incident command functions are performed based on [FEMA Incident Facilities](#)

<sup>12</sup> [Forefront Emergency Management](#)

<sup>13</sup> Unified Command - an application of the ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdiction, refer to [UC Technical Assistance Document](#).

<sup>14</sup> On November 21, 2023, USCG referred to Third Coast as the Responding Party in their press briefing; the failure location has not been determined at the time of the briefing.

of Environmental Quality (LDEQ, Forefront Emergency Management (Third Coast's contractor) the U.S. Fish and Wildlife Service (USFWS)).<sup>15</sup>

## **5.2 Initial Resources Deployed**

Third Coast deployed contracted Oil Spill Response Organizations (OSROs), Clean Gulf Associates (CGA) and Environmental Safety & Health Consulting Services (ES&H), to respond to the release. During the first 24-hours following the release, Third Coast mobilized the following assets (equipment was not deployed because of the unfavorable weather conditions):<sup>16</sup>

- Helicopter
- 2 CGA fast response skimmer vessels CGA-46' and 95'
- 2 ES&H barge boats (one with absorbent material, one with 2,000 feet of containment boom)
- 10,000 feet of 24-inch containment boom
- 10,000 feet of 18-inch containment boom
- A 53 foot trailer with absorbent material
- Full set of repair components for the 18-inch pipeline (staged in Houston)

## **5.3 Responding organizations**

### **5.3.1 USCG Actions**

All discharges or releases of oil or hazardous substances originating within the coastal zone, or substantial threats of such discharges or releases, are the responsibility of the USCG FOSC. The precise inland zone and coastal zone response boundary is agreed upon between the USCG's Eighth District office and the Environmental Protection Agency's (EPA) Region 6 office and is documented in a Memorandum of Agreement.<sup>17</sup> The area in which the incident occurred lies within the USCG Sector New Orleans FOSC's responsibility.

Soon after the NRC notification on November 16, 2023, the USCG Sector New Orleans diverted a USCG helicopter on a routine training flight to the incident location. The crew observed a brown sheen in the water. This information was relayed back to the Sector New Orleans Command Center. The investigation carried on throughout the day between the SOSC, the LOSCO, and the FOSC. During the evening hours, UC reviewed metering data provided by Third Coast that showed that the potential volume of crude oil, that could have been released from the pipeline

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<sup>15</sup> MPOG Executive Summary 11 16 2023 USCG Update.pdf

<sup>16</sup> ICS 201 Incident Briefing 11.16.2023 MPOG 11015 Incident

<sup>17</sup> [MOA between EPA, region 6 and USCG, 8th district](#)



was approximately 1.1 million gallons.<sup>18,19</sup> At this time, the RP, SOSC, and FOSC, began implementing the actions found within the Southeast Louisiana Area Contingency Plan, including notification of state partners, solidifying the Incident Command System (ICS), and activation of the Regional Response Team (RRT). Additionally, USCG Sector New Orleans continued to make notifications to their immediate chain of command.

As required by Section 7 of the Endangered Species Act (ESA), the FOSC was required to consult with both the USFWS and the National Marine Fisheries Service (NMFS) for an initial emergency consultation.<sup>20</sup> During this consultation, the FOSC proposed response actions that the Unified Command planned to use during the response that could potentially impact federally listed and protected species. The FOSC engaged with the USFWS and NMFS on best management practices via NOAA's Scientific Support Coordinator.

### **5.3.2 State and Local Agency Actions**

The LOSCO is authorized to administer the Louisiana Oil Spill Prevention and Response Act and direct all State response and cleanup operations resulting from unauthorized or threatened discharges of oil, affecting, or potentially affecting the land, coastal waters, or any other waters of Louisiana. LOSCO ensures that all agencies, responsible parties, as well as interested parties have a single point of reference with respect to the State's response efforts on oil spills. LOSCO serves as the SOSC for incidents involving oil and may appoint another agency to act as SOSC in its absence. LOSCO also serves as the State's lead trustee for natural resource damage assessments resulting from oil spills in Louisiana.<sup>21</sup>

In response to the incident, LOSCO conducted investigations alongside the FOSC and the RP. When the ICS went into effect, LOSCO became a member of the Unified Command alongside the FOSC (the Coast Guard) and RP.

The LDWF is responsible for the control, supervision, management, protection, and conservation of state wildlife including all aquatic life; control over the beds and bottoms of certain water bodies; and control, protection, management of certain land owned or managed by the state. The department maintains general, overall control, supervision, conservation, protection, and management authority over the wildlife of Louisiana, including all aquatic life. Additionally, their mission includes the protection, rescue, and rehabilitation of any oil impacted wildlife. For this incident, LDWF

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<sup>18</sup> Estimate of the volume of crude oil released

<sup>19</sup>This information was publicly released on November 20, 2023 by USCG at <https://www.news.uscg.mil/Press-Releases/Article/3593964/update-1-unified-command-monitors-responds-to-mpog11015-incident/>

<sup>20</sup> <https://www.fws.gov/service/esa-section-7-consultation>

<sup>21</sup> <http://losco.state.la.us/oilspill.html>

supported the SOSC and provided essential data on potential wildlife impacts and responded to reports of potential shoreline impacts across the Louisiana coastline.<sup>22</sup>

## 5.4 Timeline of the Oil Spill Response

A summary of oil observations made during overflights taken in response to the accident presented in Table 1. Timeline of Oil Spill Observations.<sup>23</sup> Additional response activities continued until April 5, 2024.

**Table 1.** Timeline of Oil Spill Observations

Date	Time	Summary
November 16, 2023	09:03	Initial sheen sighting and recoverable oil – MPOG personnel conducted overflight
	15:30	No sheen noted – MPOG, Forefront conducted overflight
	16:00	USCG reported size of the oil slick 15 miles long by 6 miles wide <sup>24</sup>
November 17, 2023	11:00	274 square miles of mostly silver sheen observed, with some black recoverable oil in linear patterns along a convergence boundary. Estimate 97% sheen and 3% black. – USCG, MPOG, Forefront conducted overflight
	15:45	Sheen observed, not enough fuel to quantify size and color – USCG, MPOG, Forefront conducted overflight
November 18, 2023	10:00	197 sq. miles (50% coverage) of mostly silver sheen, with some metallic patches (about 1.2 sq. miles) – USCG, MPOG, Forefront conducted overflight
	10:30	Sheen observed (37 miles x 5 miles, 10% barely visible; 15% silver; 20% light rainbow; 20% bright rainbow; 30% dull, 5% dark) – BSEE conducted overflight
	16:15	NOAA and Forefront conducted overflight, no sheen noted.
November 19, 2023	09:15	Sheen observed (46.5 sq. miles of silver sheen and 0.31 sq. mile of metallic sheen) – NOAA and Forefront conducted overflight
	13:00	Localized sheen and emulsified oil observed, no recoverable oil observed – USCG, NTSB, and Third Coast Contractor conducted overflight
November 20, 2023	10:30	Small silver sheen observed (about 200 sq. ft.) – NOAA and Forefront conducted overflight

On November 16, 2023, at 09:03, the Third Coast Qualified Individual (QI) was advised of an oil observation by an employee who made a helicopter observation of recoverable oil on water.<sup>25</sup> Third Coast conducted internal notifications to include activation of Forefront, Third Coast’s Incident Management Team (IMT). A combination of Third Coast and Forefront personnel conducted government agency

<sup>22</sup> <https://www.wlf.louisiana.gov/page/about-us>

<sup>23</sup> MPOG Oil spill 12 04 2023 USCG Update

<sup>24</sup> MPOG Executive Summary 11 16 2023 USCG Update

<sup>25</sup> [Title 49 Subtitle B Chapter I Subchapter D 194.5 Qualified individual](#)

notifications to the National Response Center (NRC), BSEE New Orleans District, PHMSA, BSEE Pipeline Section, Louisiana State Police Hazardous Materials Hotline, LDEQ, Plaquemines Parish Local Emergency Planning Committee, and LDWF. Both CGA and ES&H OSRO resources were activated, but unable to depart dock locations due to hazardous sea state (4-6 feet). Third Coast, Forefront, and USCG personnel established an ICP at the Forefront/ES&H office in Belle Chasse, Louisiana at approximately 13:00 hours. Support activities from Third Coast in Houston, Texas and from Forefront in Houma, Louisiana were also engaged for preliminary assessments and other preparations. Both Third Coast and the USCG Sector New Orleans conducted helicopter flights for observation; the Third Coast helicopter flew the length of the MPOG pipeline to try to discern a leak source and the USCG helicopter indicated apparent pollution in the Main Pass area, east of Plaquemines Parish. The Third Coast helicopter was unable to corroborate findings due to darkness.<sup>26</sup>

On November 17, 2023, additional IMT personnel arrived on-scene and Third Coast conducted an early morning overflight. Third Coast personnel noted sheen impact as far west as MP 265, with recoverable oil present primarily along a fresh/saltwater convergence boundary. CGA vessels were dispatched to recovery areas and ES&H personnel remained on standby (no shoreline impact had been discerned). Additional CGA assets were activated bring the total to three 95-foot Fast Response Vessels and two 46-foot Fast Response Vessels. The IMT reviewed strategies in the Southeast Louisiana Area Contingency Plan and BSEE open-water Environmental Sensitivity Index maps. ES&H had 42,000 feet of containment boom, three 53-foot trailers of absorbent boom, and 12 response vessels on standby in Venice, LA. The Unified Command was established at this time and received multiple Marine Pollution Surveillance Reports from NOAA, some of the reports suggesting the oil might be nearing the shoreline.<sup>27</sup> The reports were investigated with no shoreline impact observed.<sup>28</sup>

On November 18, 2023, estimated oil observed according to the calculation based on the observations was 444.53 bbls.<sup>29</sup> A total of 5 barrels of oily water/liquid were recovered between the motor vessel (M/V) J.L. O'Brien and M/V Breton Island between Friday, November 17th and 06:30 hours on the morning of November 18, 2023. CGA had five assets patrolling for recoverable oil. ES&H had 42,000 feet of containment boom, three 53-foot trailers of absorbent boom, and 12 response vessels on standby in Venice, Louisiana. Incident Command Post in full operation: USCG, BSEE, LDEQ, LOSCO, NOAA, Third Coast, and Forefront.

On November 19, 2023, Morning overflight documented a significantly reduced spill surface area. In addition, no recoverable oil (i.e. oil thickness above

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<sup>26</sup> MPOG Executive Summary 11 16 2023 USCG Update

<sup>27</sup> [NRC#1384566](#)

<sup>28</sup> MPOG Oil spill 12 04 2023 USCG Update

<sup>29</sup> Oil spill overflight estimate 11 18 2023

rainbow sheen) was discerned. Personnel did note what appeared to be weathered oil in the convergence line near Southwest Pass. Louisiana state officials conducted an aerial shoreline assessment and indicated a possible oil observation on a sandy beach west of Port Fourchon (this sighting was investigated on the surface on 11/21/2023 and it confirmed no oil was observed on beach). CGA had 5 assets patrolling for recoverable oil. ES&H had 42,000' of containment boom, (3) 53' trailers of absorbent boom, and 12 response vessels on standby in Venice, Louisiana. 19 oiled pelicans observed at Southwest Pass and South Pass jetties by Wildlife Response Services, Houston and LOSCO. Incident Command Post in full operation: USCG, BSEE, LDEQ, LOSCO, NOAA, Third Coast, and Forefront.<sup>30</sup>

On November 20, 2023, morning overflight documented that only a very minor silver sheen remained on the water (MC 485). One CGA fast response vessel to remain on-scene, and the other four CGA fast response vessels demobilized and were sent for decontamination at the Couvillion Dock and CGA Dock in Venice. ES&H began decontamination setup at these two docks. Incident Command Post in full operation: USCG, BSEE, LDEQ, LOSCO, NOAA, Third Coast, and Forefront. Recommendation to UC to reduce the footprint of the IMT persons at the Incident Command Post. Wildlife Branch activated.<sup>31</sup>

On November 21, 2023, Third Coast was down to one CGA Vessel, the M/V HI Rich. Three teams conducted shoreline and wildlife assessments:

- One team assessed Elmer's Island by foot (LOSCO and Forefront)
- One team assessed Grand Isle by foot (LOSCO, USCG, and Forefront)
- One team assessed Grand Terre and East Grand Terre Islands (east of Grand Isle) via boat (LOSCO and Forefront).<sup>32</sup>

There were no observations of oiled wildlife or oil on the ground.

On November 22, 2023, Forefront and NOAA conducted an overflight and made no oil observations.<sup>33</sup>

In the subsequent days, the environmental response shifted focus from on-water recovery efforts to leak location detection. There was no reports of oil reaching the shoreline.

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<sup>30</sup> Incident Status MPOG-11015 11 19 2023

<sup>31</sup> Incident Status MPOG-11015\_1 11 20 2023

<sup>32</sup> a) Incident Status MPOG-11015\_1 11 21 2023

b) Wildlife assessments summary LOSCO

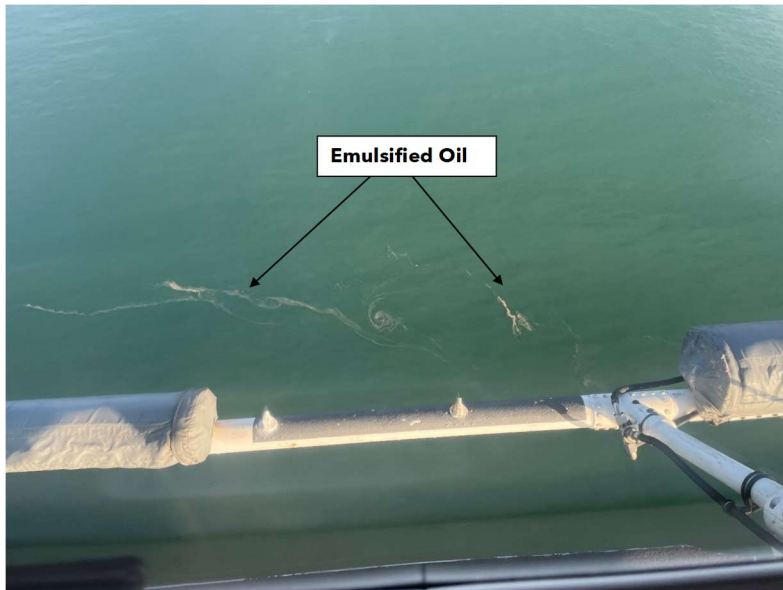
<sup>33</sup> <https://www.news.uscg.mil/Press-Releases/Article/3597507/update-2-unified-command-monitors-responds-to-mpog-11015-incident/>



**Figure 2.** Observation of oil spill during the morning overflight on November 16, 2023, by MPOG (photo courtesy of: MPOG)



**Figure 3.** Observation of oil spill during the morning overflight on November 17, 2023 (photo courtesy of: MPOG)



**Figure 4.** Emulsified oil observed during afternoon overflight on November 19, 2023.

## 5.5 Oil Spill Recovery Progress

A summary of oil recovery progress as reported in the USCG daily briefs is provided in Table 2.<sup>34</sup>

**Table 2. Oil recovery progress**

Date	Recovered Volume	Note
16 Nov 2023	None	Rough seas, 9-10-foot waves
17 Nov 2023	None	Rough seas hindered recovery efforts
18 Nov 2023	5 barrels total liquid skimmed	The 5 barrels of “recoverable oil” was a mixture of oil and sea water (oily water), the volume of oil in this mixture was not determined.
19 Nov 2023	Tar balls and Oil patties collected manually	Max amount collected is that of a single 5-gallon bucket. CGA M/V O’Brien recovered one oil globule manually with a sample kit for analysis.
20 Nov 2023	None	No recoverable oil observed
21 Nov 2023	None	No recoverable oil observed
22 Nov 2023 and thereafter	None	No additional volume recovered

## 5.6 Incident Command Documents

Unified Command prepared and released the following documents to be used on as needed basis, related to environmental response:

<sup>34</sup> Incident Status MPOG-11015\_1 11 21 2023, Incident Status MPOG-11015 11 19 2023

- Incident action plans: Many incident action plans were created for different stages of the response efforts, and covered time from 18:00 of November 17, 2023, to 17:59 of April 10, 2024.<sup>35</sup> Each plan included forms:
  - ICS - 202 Incident objectives
  - ICS-204 Assignment List
  - ICS-205A Communications plan
  - ICS-206 Medical Plan
  - ICS-208 Site Safety & Health Plan
- Decontamination Plan: The decontamination plan, dated November 19, 2023, was to be used for cleaning of contaminated items (vessels, barges, workboats, boom, tools, hoses, machinery and other gear and equipment, and personnel) to prevent migration of released materials off site.<sup>36</sup>
- Waste management plan: The waste management plan, dated November 19, 2023, was developed to ensure that the waste, generated as a result of the incident, was managed in an environmentally sound manner pursuant to applicable laws.<sup>37</sup>

## **6.0 NOAA Spill Trajectory Predictions**

NOAA completed five trajectory prediction presentations for the oil spill in the first two weeks of the response activities, that were shared with Unified Command.

### **6.1 13:00 November 16, 2023, Spill Trajectory**

The first projection issued by NOAA assumed that the release, reported at 9:10 am on November 16, 2023, is ongoing. The report looked at the winds and currents in the area, and projected that released oil move Southwest, and due to “buffering effects of the buoyant [Mississippi] River outflow, no shoreline impacts are expected”.

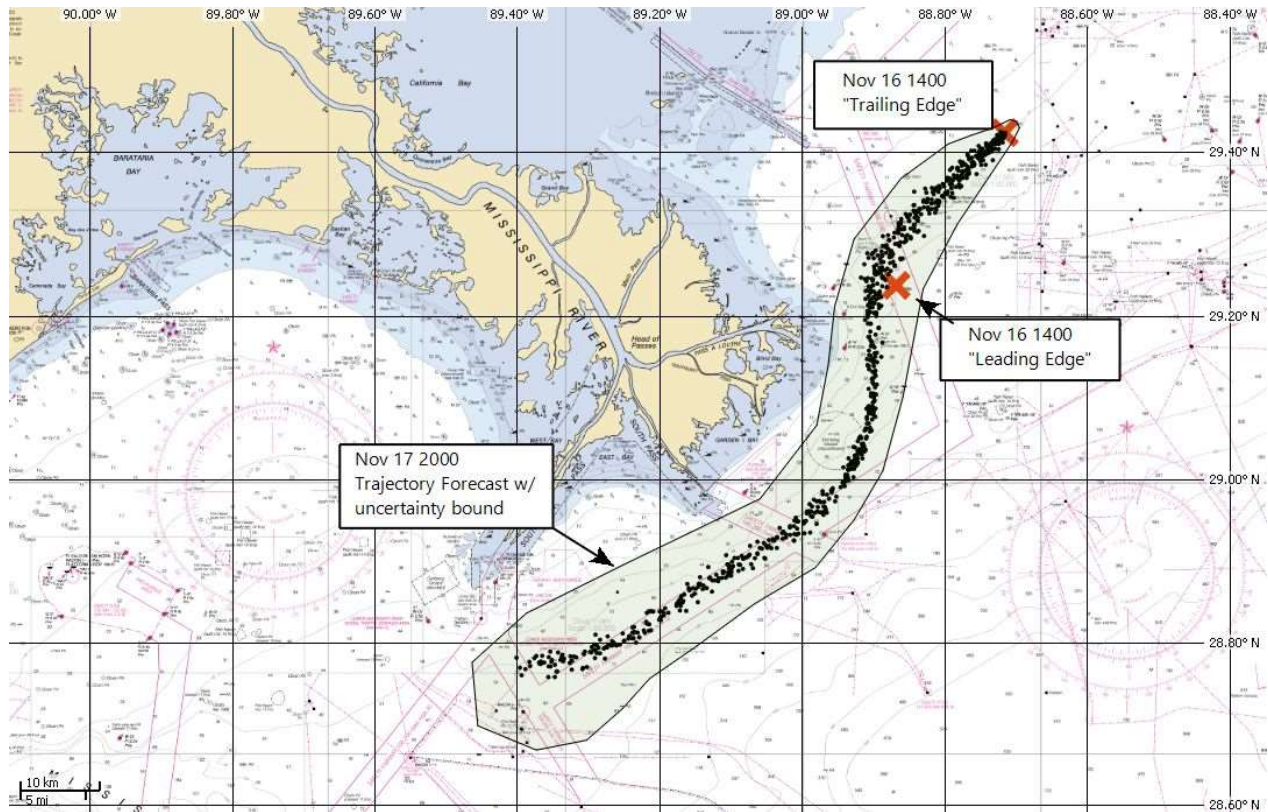
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<sup>35</sup> On April 5, 2024 at 12:27 the Unified Command has stood down (after successful pressure test on the pipeline) and turned over to PHMSA for depressurization and return to service.

<sup>36</sup> MPOG 11015 Decontamination Plan Approved

<sup>37</sup> MPOG Approved Waste Management Plan





**Figure 5.** - Trajectory prediction for 20:00 on November 17, 2023, where black dots are the modeled-predicted oil locations, leading and trailing edge coordinates are of an oil slick reported by overflight observations at 14:00 on 16-Nov-2023.<sup>38</sup>

## 6.2 22:30 November 16, 2023, spill trajectory<sup>39</sup>

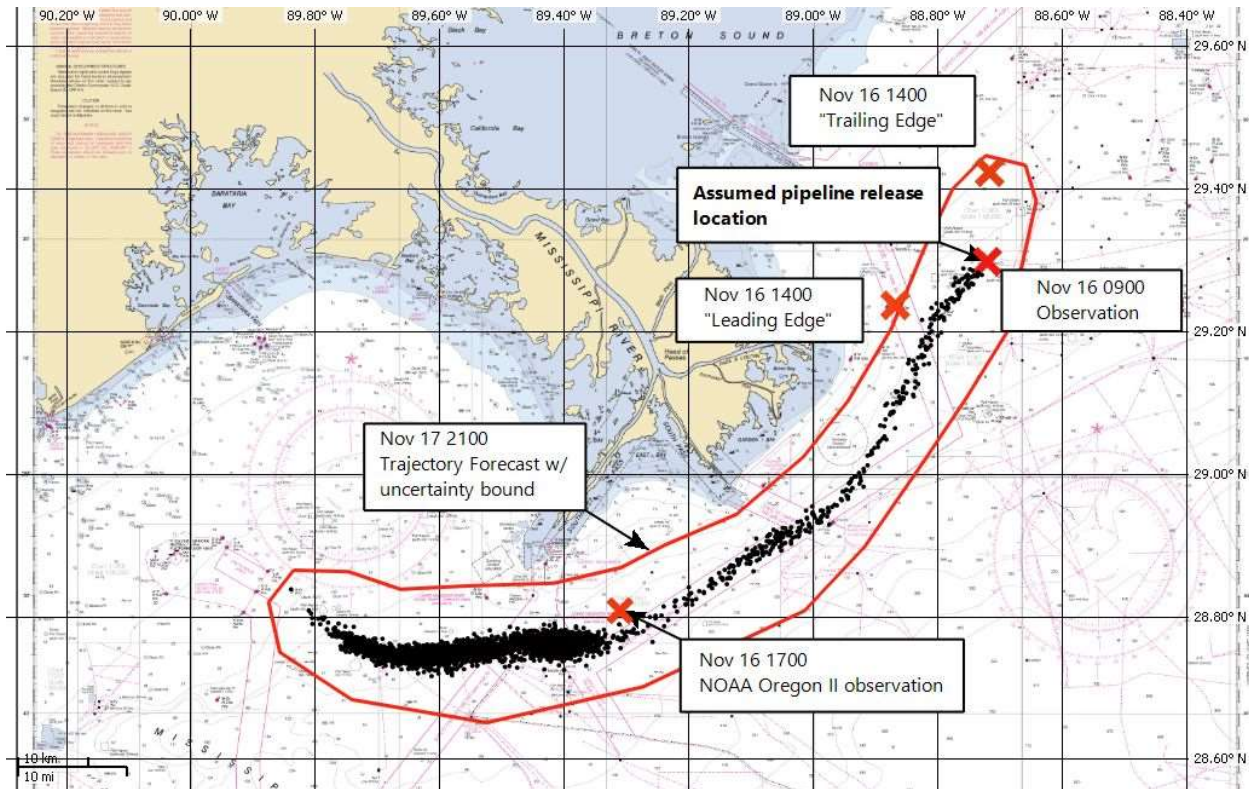
The prior spill trajectory was updated with an observation made by the NOAA science ship that was around the spill location on an unrelated mission. The ship scientists observed oil much further from the points of overflight observations and reported their findings to NRC and NOAA Scientific Support Coordinator in the Unified Command. Updated trajectory was provided to the Unified Command, showing oil movement Southwest of the location. In the projection, the release start time of 21:00 on November 15, 2023, and end time of 06:00 on November 16, 2023, were now identified.<sup>40</sup>

<sup>38</sup> NOAA Trajectory MPOG 11015 Incident 11 16 2023

<sup>39</sup> NOAA Trajectory MPOG 11015 Incident 111623 2100

<sup>40</sup> The spill time was updated by Third Coast in document "Estimate of the volume of crude oil released"





**Figure 6.** - Trajectory prediction for 21:00 on 17-Nov-2023, where black dots are the modeled-predicted oil locations, leading and trailing edge coordinates are of an oil slick reported by overflight observations at 14:00 on 16-Nov-2023.

### 6.3 13:30 November 17, 2023, spill trajectory<sup>41</sup>

Satellite imagery, provided by NESDIS (National Environmental Satellite, Data, and Information Service), indicated a potential slick south of the region between South Pass and Southwest Pass. Combined with overflight information, NOAA models forecasted that ocean currents will continue carry the oil to the west, while the north winds will tend to move it further offshore. The model at this time was assuming continuing release of oil from the pipeline. The model predicted the oil travelling Southwest and then north over the next several days but indicated possibility of land impact.

### 6.4 19:00 November 18, 2023, spill trajectory<sup>42</sup>

Continuing evaluations assumed that the release of oil stopped at 6:00 on November 16, 2023. Latest overflights found no sheens in the vicinity of the release, and a large region of sheens to the southwest of South West Pass, combined with satellites reports of oil moving in the same direction. Model predicted no shoreline impact in the next two days.

<sup>41</sup> NOAA Trajectory MPOG 11015 Incident 111723

<sup>42</sup> NOAA Trajectory MPOG 11015 Incident 111823

## **6.5 17:00 November 19, 2023, spill trajectory<sup>43</sup>**

The morning overflight found streamers of sheen (some rainbow and metallic) 40-50 miles southwest of Southwest Pass. The response vessels observed tarballs and sheen 40 miles to the east of that location, about 30 miles south of South Pass. There was some chance of shoreline impacts around South. However, shoreline impacts were forecasted to be from any remaining sheens and scattered tarballs.

## **6.6 18:30 November 21, 2023, spill trajectory<sup>44</sup>**

Over the last few days, oil observations from overflights and vessels have reported isolated regions of tarballs and sheens. The prepared trajectory focused on the movement of scattered tarballs over the next few days along with a summary of where shoreline impacts may have occurred to direct shoreline survey efforts.

Since no further surface oil observations were reported, NOAA provided no further spill trajectories.

## **7.0 Environmental Impact**

The coastline of the Gulf Coast is considered an unusually sensitive area by PHMSA. The NOAA Scientists Support Team prepared a summary of the area outlining resources at risk offshore from Barataria Bay to Atchafalaya Bay.<sup>45,46</sup> The species that were identified in the report included:<sup>47</sup>

- Green (FT), Kemp's ridley (FE), and leatherback (FE), and loggerhead (FT, LA ST) sea turtle, juveniles and adults of all four species may be present in nearshore and offshore areas year-round.
- Rice's whale (FE) are present and sperm whale (FE).
- Giant manta (FT) and oceanic whitetip shark (FT).

The Unified Command did not receive reports of impacts to the local community or public water intakes, nor did it observe or receive reports of observations of oil reaching land.<sup>48</sup>

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<sup>43</sup> NOAA Trajectory MPOG 11015 Incident 111923

<sup>44</sup> NOAA Trajectory MPOG 11015 Incident 112123

<sup>45</sup> ICS-232-OS Resources at Risk 11 18-20 2023

<sup>46</sup> These areas are West of the Mississippi River Delta and not adjacent to MP69.

<sup>47</sup> F = Federal; S = State; E = Endangered; T = Threatened

<sup>48</sup> MPOG Oil spill 12 04 2023 USCG Update

## 7.1 Marine Mammals

The spill location and trajectory were in high use areas for the following cetacean species: Atlantic spotted dolphin, beaked whales, blackfish (false and pygmy killer whales, melon-headed whale), bottlenose dolphin, pantropical spotted dolphin, pilot whale, Risso's dolphin, and spinner dolphin; and in low use areas for Clymene dolphin, Kogia spp. (dwarf and pygmy sperm whales), and striped dolphin. All cetacean species are present in the area year-round.

Cetaceans may not avoid surfacing in oil slicks. The primary risk of oil spills to cetaceans is inhalation of volatile compounds from fresh oil. Bottlenose dolphins exposed to oil during the Deepwater Horizon spill have shown hormonal abnormalities and high incidences of lung disease from inhaling the toxic components of oil.<sup>49</sup>

Rice's whale is a threatened species of whale that reside in the Gulf of Mexico and the only resident baleen whale in the Gulf.<sup>50</sup> During the response, an infographic and photos of the whales were distributed to the field response team for awareness.<sup>51</sup>

On November 17, 2023, NOAA research vessel transited near Southwest Pass on and traveled across a visual oil slick, also reported seeing dolphins that appeared normal.<sup>52</sup>

No marine mammals were reported to Unified Command as impacted by the oil spill.

## 7.2 Birds

Bird species potentially present in Gulf of Mexico waters in winter include seabirds (high probability), black-capped storm-petrel, Audubon's shearwater, band-rumped storm-petrel, black tern, bridled tern, brown booby, brown noddy, brown pelican, common tern, Cory's shearwater, great shearwater, gulls, magnificent frigatebird, masked booby, parasitic jaeger, royal tern, sandwich tern, sooty tern, Wilson's storm-petrel. Marine birds are likely to be in high concentrations in coastal/nearshore concentrations in winter months (December - February). Hundreds of thousands of scaup may be present in nearshore Gulf of Mexico waters at that time of year.

Birds are the species group at highest risk if surface sheens are released during sunken oil removal actions. Even small amounts of oil can adhere to bird

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<sup>49</sup> ICS-232-OS Resources at Risk 11 18-20 2023

<sup>50</sup> <https://www.fisheries.noaa.gov/species/rices-whale>

<sup>51</sup> [NOAA Rice's whale Infographic](#)

<sup>52</sup> NOAA Oil Fate Analysis

feathers, reducing insulation, water buoyancy, and water repellency, leading to sickness or death from hypothermia and/or drowning. Preening of oiled feathers can cause sickness or death in birds due to ingested oil.

Multiple brown pelicans were seen near Southwest Pass and waterfowl floating in, around the sheen, and in contact with the surface sheen on November 17, 2023.<sup>53</sup>

### **7.3 Fish/Invertebrates**

Species present in nearshore GOM waters include Atlantic sharpnose shark, blacknose shark, blacktip shark, bull shark, croakers, gag, goliath grouper, greater amberjack, kingfishes, king mackerel, menhaden, red drum, red grouper, red snapper, sandbar shark, scalloped hammerhead, scamp, sheepshead, Spanish mackerel, spinner shark, tiger shark, vermilion snapper, whale shark, brown shrimp (spawning), pink shrimp, and blue crab.

Fish and invertebrates are less likely to be affected by oil slicks in offshore areas. However, juvenile fish are at a greater risk from oil because of the shallow water habitats they occupy and their sensitivity to the toxic compounds.<sup>54</sup>

There were no observations made by Unified Command of oil-impacted fish.

### **7.4 Benthic Habitats**

There are many occurrences of structure-forming deep-sea corals (including black coral, gorgonian corals, sea pens, and stony branching coral) and sponges in the Gulf of Mexico. They create habitat for a host of other invertebrate species. There are also many occurrences of solitary deep-sea species of soft coral, stony coral, and stony cup coral in the area. Habitat is highly suitable for several mesophotic and deep sea coral taxa to the east and south of the Bird's Foot Delta. Sunken or dispersed oil in the water column may pose a threat to these resources.<sup>55</sup>

There were no observations made by Unified Command of oil-impacted Benthic Habitats.

### **7.5 Observed Wildlife Impact**

The only wildlife impact, documented by Unified Command, was to the pelicans on the loafing areas where they congregate on the jetties of the South and South West Passes. The evaluation of live birds is complicated by their ability to fly. The birds were approached from afar and evaluated using optical equipment.

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<sup>53</sup> NOAA Oil Fate Analysis

<sup>54</sup> ICS-232-OS Resources at Risk 11 18-20 2023

<sup>55</sup> ICS-232-OS Resources at Risk 11 18-20 2023



**Figure 7.** - Observed pelicans on the loafing areas (photo courtesy of: LOSCO)

When oil sticks to a bird's feathers, it causes them to mat and separate, impairing waterproofing and exposing the animal's sensitive skin to extremes in temperature. This can result in hypothermia in winter.<sup>56</sup> In addition to direct fouling, birds also may ingest oil when preening, consuming oil-contaminated food, water, or sediments.<sup>57</sup>

The birds with visual indications of oil or oil residue on their feathers had been counted.

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<sup>56</sup> <https://www.birdrescue.org/our-work/research-and-innovation/how-oil-affects-birds/>

<sup>57</sup> [BSEE Offshore Sensitive Species Profiles and Best Management Practices - GOM](#)





**Figure 8.** - A pelican with an oil line on its belly and ratty feathers, indicating oil sheen contact (photo courtesy of: LOSCO)



**Figure 9.** - Photo of an oiled bird, preening its feathers (in the background) (photo courtesy of: LOSCO)

19 oiled pelicans were observed by Wildlife Response Services and LOSCO on November 19, 2023:<sup>58,59</sup>

- 10 pelicans at South Pass jetties,
- 9 pelicans at South West Pass jetties.

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<sup>58</sup> ICS-209 MPOG-11015\_1 11 20 2023

<sup>59</sup> Wildlife assessments summary LOSCO

No attempt was made to treat the pelicans as all of them were flight-capable at the time of the observation, therefore their capture was not feasible.

## **8.0 Petroleum Crude Oil Description**

A raw unprocessed crude oil is a flammable liquid that exhibits a black to amber viscous appearance with a mild hydrocarbon or rotten egg odor. According to the HollyFrontier safety data sheet for petroleum crude oil, the specific gravity may range from 0.7 to 1. The material is composed of 0-1% of naphthalene, 1-5% of benzene and up to 100% crude oil. It is toxic to aquatic life with long lasting effects.<sup>60</sup>

Petroleum crude oil is an extremely flammable liquid. Crude oil vapors may cause flash fires or explosions. Fumes may cause eye and respiratory irritation. The material may be harmful or fatal if swallowed, may cause lung damage, overexposure may cause central nervous system depression. Benzene is a cancer hazard that can cause leukemia and other blood disorders.

Site Safety and Health plan (section ICS 208 of an Incident Action Plan) identified that atmosphere within a work area contained no known hazard, Level D (the minimum protection level) of personal protective equipment was required for the response personnel (coveralls, gloves, boots, safety glasses).

### **8.1 Crude Oil Sampling and Analysis**

Chemical analysis of the collected oil sample was requested by NOAA from a laboratory at Louisiana State University (LSU).

The analysis of the sample was done to confirm that the collected oil was very similar to other light sweet Louisiana crude oils, which then was used as a proxy for the oil fate forecasting. Because the collected oil matched TIC (Tentatively Identified Compounds) profile for MC-252, a reference standard for Louisiana crude oils, the oil was then presumed as coming from a local source and not being of a foreign origin oil.

Pipeline oil properties, based on the proving completed on November 7, 2023 (prior to the spill):<sup>61</sup>

Observed API density 36.2°  
Observed temperature 78.0° F  
% S&W (sediment and water) 0.100  
Uncorrected API density 36.2 °  
Base API density 34.8°

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<sup>60</sup> SDS for Crude Oil by HollyFrontier, that was used by UC during the response.

<sup>61</sup> Oil Properties from operator



**Figure 10.** - Third Coast crude oil in artificial sea water: small fraction sank to bottom of flask, prior to shaking. (photo courtesy of: NOAA, LSU).<sup>62</sup>

## 8.2 Oil Weathering Study

At NOAA's request, a benchtop oil weathering study was conducted at LSU by adding some of the source oil to artificial sea water at different salinity levels. When Erlenmeyer flasks were used, a small fraction of the oil sank to the bottom and did not return to the surface layer. However, when wide mouth beakers were used, no oil was observed sinking in the flask.<sup>63</sup>

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<sup>62</sup> Initial Chemistry report 3rd Coast Pipeline oil

<sup>63</sup> NOAA Oil Fate Analysis





**Figure 11.** - Laboratory tests with the source oil and different salinities and flask types (Erlenmeyer flask on the left, wide-mouth beakers in center and right). (photo courtesy of: NOAA/LSU).

### 8.3 NOAA Oil Fate Analysis

NOAA science team prepared an oil fate analysis summary on November 20, 2023.<sup>64</sup> The report forecasted the fate of the oil and probability of oil recovery.

At the time of the analysis, the location of the rupture was still not known. Calculations were based on the volume of up to 27,700 barrels of crude oil released, from the time of the rupture to when the section of pipeline was shut in.

For modeling NOAA used South Louisiana oil with API density of 33.7°, variable speed and wave heights, temperature of water of 76° F, spill rate of 3,000 barrels/hour for 9 hours.

Based on observations of oil on water and modeling analyses, upon reaching the ocean surface, the released oil began moving southwest towards the Mississippi River Delta. Offshore winds combined with the front associated with the freshwater outflow combined to reduce the threat of shoreline impacts. Over the following days the remaining observed floating sheens and tarballs spread west and south. No shoreline impacts were observed.

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<sup>64</sup> NOAA Oil Fate Analysis

Based on the chemical analysis, modeling, and previous experience with spills of this oil type, NOAA expected that a large fraction of the oil evaporates and disperses in the first few days after the release. After that, because of the calmer winds and seas, and the remaining oil likely spread into sheens with possible patches of emulsified oil and formed tarballs and patties. These tarballs and patties may not sheen and would therefore be hard to observe from the air. Some of the oil likely mixed with and was scavenged from the water column by suspended sediment and could eventually be deposited on the seafloor over a very large area.

The summary stated that part of the oil has likely dispersed (40- 50%) and evaporated (around 25-30%) due to high winds and high sea states in the first few days of the spill, ~10% been scavenged by sedimentation, leaving 10-20% floating on the water surface. The high winds / seas resulted in a large amount of dispersion and sedimentation.

Also, on November 19, 2023, NOAA, EPA, BSEE, and the Texas General Land Office participated in a discussion whether the response might be missing some recoverable volume of subsurface oil before demobilizing surface collection assets. The conclusion was that the oil was behaving as expected for a sweet Louisiana Crude oil released under heavy weather conditions, and recoverable quantities of subsurface oil were not reasonable to expect.

NOAA scientists advised the UC to focus on surface (e.g. satellites and aerial) and shoreline oil observations moving forward. The remaining subsurface oil was expected to be so widely and diffusely scattered throughout a large area/volume that Response-related subsurface assessment for recoverable oil was not warranted. Any subsurface oil was not expected to be concentrated in areas suitable for collection but was expected to be difficult to locate and likely difficult to detect above background. The Response was advised to be focused on surface and shoreline observations of oil, primarily in the form of sheen, tarballs, and tar patties.<sup>65</sup>

## **9.0 Incident Reporting**

Reports of the crude oil spill were received through both the NRC and NOAA.

### **9.1 National Response Center (NRC)**

The first report of the oil spill to NRC came in at 10:52 on November 16, 2023, from Third Coast reporting “an unknown amount of crude oil” was released from a pipeline into the Gulf of Mexico.<sup>66</sup> At 16:36 the USCG reported the spill to be “potentially” at 1.1 million gallons through National Command Center and at 23:42 EST the same day changed the certainty evaluation to “probable amount

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<sup>65</sup> Subsurface Oil Potential for Response Operations (MPOG 11015)

<sup>66</sup> [NRC report 1384438](#)

discharged".<sup>67,68</sup> During the same time frame, PHMSA and NTSB were in contact with Third Coast and were told that the spill is estimated to be 6 to 2270 barrels, "the 1.1 million gallons initially reported appears to be an error" or used for "planning purposes".<sup>69,70</sup>

In the 48-hr update to NRC, at 10:28 on November 18, 2023, Third Coast reported "the amount of crude oil released is still unknown" with estimated release volume to be 291 barrels. At the Unified Command, NOAA prepared oil spill trajectory of the release, dated "11.16.2023\_2300", stating that "RP now estimates the total release as 27,000 BBLs".<sup>71</sup>

NRC reports related to the oil spill are listed below, in Table 3.<sup>72</sup>

**Table 3. NRC Reports**

NRC #	Report Date, EST	Description	Reporting Party
1384438 <sup>73</sup>	16-Nov-23, 10:52	Caller states an unknown amount of crude oil was released from an underwater transmission pipeline into the Gulf of Mexico. The cause of the release is unknown at this time. The sheen associated with this release is indicated in the coordinates.	By Third Coast
1384485 <sup>74</sup>	16-Nov-23, 15:31	An 18-inch underwater pipeline was reported as having ruptured at the incident location approx. 19 miles offshore near the mouth of the Mississippi River. The maximum potential release for this incident is 1.1 million gallons of un-processed crude oil into the Gulf of Mexico. The pipeline is a sub-sea transfer pipeline that experienced a pressure differential drop. Most likely cause is pipe corrosion. The line has been shut-in and is confirmed secured at each end, but 67 miles of pipeline remain between isolation valves. Overflights have verified dark oily surface sheen over the presumed rupture location.	By USCG
1384489 <sup>75</sup>	16-Nov-23, 16:02	Caller is reporting an unknown sheen from an unknown source in the Gulf of Mexico at the coordinates provided. The sheen was observed during an overflight. Over Main pass block 69.	Anadarko Petroleum Corp

<sup>67</sup> [NRC report 1384485](#)

<sup>68</sup> CIC Report - POTENTAIL MAJOR OFFSHORE OIL SPILL - 16 NOV 2023

<sup>69</sup> NRC # 1384438 - Panther Operating Company\_ LLC - LA - Crude Oil - Offshore release email

<sup>70</sup> Update 3 RE\_ Pipeline Notification\_ Venice\_ LA\_ Crude oil release 11 16 2023

<sup>71</sup> NOAA Trajectory MPOG 11015 Incident 111623 2100

<sup>72</sup> All times in the table are Eastern Time Zone.

<sup>73</sup> [NRC report 1384438](#)

<sup>74</sup> [NRC report 1384485](#)

<sup>75</sup> [NRC report 1384489](#)

1384516 <sup>76</sup>	16-Nov-23, 20:51	Caller is reporting a NOAA research vessel was transiting through the coordinates provided and observed a large oil slick from an unknown source in the Gulf of Mexico. The slick was approximately 1.5 nautical miles in length. See NRC # 1384485 for additional details	NOAA
1384561 <sup>77</sup>	17-Nov-23, 12:30	Caller is reporting an unknown sheen from an unknown source on the Gulf of Mexico. Caller states this was discovered during an overflight of the area.	Anadarko
1384566 <sup>78</sup>	17-Nov-23, 13:04	<p>\\ NOAA/NESDIS MPSR Issued For: Gulf of Mexico \\</p> <p>Possible, unconfirmed oil was observed in satellite imagery.</p> <p>Report date: 11-17-2023  Report time: 1510 UTC  Region: Gulf Of Mexico  Sub region: n/a  Area/block: main pass 143  Image date: 11-17-2023  Image time: 1145 UTC  Data source: radarsat2  Mode: SCANSAR NARROW VV  Resolution: 25 meter  Area: 336.70 square kilometers  Confidence: high  Remarks: possible oil was observed in satellite imagery. This anomaly is unconfirmed as oil. The anomaly is believed to be remnant oil from a spill reported in NRC hotline 10652. The spill was very well defined across most of the extent with more diffuse portions closer to the Mississippi Delta. The trailing edge of the remnant oil was about 23 nm from the suspected point source originally reported in the hotline. The slick measured approx. 28.7 nm long and had a maximum width of 9 nm. The slick was oriented in agreement with ne winds that were 10-15 kts at the time of the image.</p> <p>Uncertainties: the slick likely extended beyond the image boundary, so a more precise measure of the slick's area was not possible. however, it's likely that more diffuse oil impacted the shoreline near Port Eads, LA.</p> <p>If you would like to share any feedback about this report or have questions, please contact the operational analyst at (301) 683-1403 or send to oceanmap@noaa.gov. Email alerts are available only for federal and state government officials</p>	NOAA/ NESDIS/ Satellite Analysis Branch

<sup>76</sup> [NRC report 1384516](#)

<sup>77</sup> [NRC report 1384561](#)

<sup>78</sup> [NRC report 1384566](#)

		involved in response efforts. Requests to be added to the email alerts should also be sent to oceanmap@noaa.gov. Please allow up to 2 business days to process the request.	
1384617 <sup>79</sup>	18-Nov-23, 10:28	<p>48HR PHMSA UPDATE TO NRC #1384438:</p> <ul style="list-style-type: none"> <li>- the amount of crude oil released is still unknown. Based on the initial sheen, it was estimated that the amount released was approx. 291 barrels.</li> <li>- approx. 7 barrels of liquid (mixture of oil and water) has been recovered using skimmers.</li> <li>- the only sheen reported is light metallic/silvery in color and is approx. 50 yards long by 50 yards wide with no recoverable oil visible.</li> <li>- there has been no land impact.</li> <li>- a media statement has been released.</li> <li>- the source of the release is still unknown; however there is no more product being released. The pipeline has been shut in and isolated.</li> <li>- incident command is still stood up.</li> <li>- ROV vessels are enroute to view the pipeline under the water.</li> <li>- response boats are on scene for cleanup operations.</li> <li>- location of current sheen indicated in incident location.</li> </ul>	By Third Coast
1384824 <sup>80</sup>	20-Nov-23, 22:20	<p>NOAA report  Report date: 11-21-2023<sup>81</sup>  Report time: 0230 UTC  Region: Gulf of Mexico  Sub region: n/a  Area/block: Mississippi Canyon 442  Image date: 11-20-2023  Image time: 1632 UTC (12:32 PM ET)  Data source: LANDSAT9  Mode: multispectral  Resolution: 30 meter  Area: 28.45 square kilometers  Confidence: HIGH  Report map/GIS files:  <a href="https://www.ospo.noaa.gov/products/ocean/marinepollution/">https://www.ospo.noaa.gov/products/ocean/marinepollution/</a>  Remarks: possible oil was observed in satellite imagery. This anomaly is unconfirmed as oil. The anomaly was likely linked to the hotline of the third coast midstream pipeline spill. The anomaly was of a silvery sheen with modest contrast with its surroundings, likely indicating a very thin thickness. It was 11nm long and about 1.7nm wide at its widest part. The wind at the time as from the s at about 17 knot.</p>	NOAA/ NESDIS/ Satellite Analysis Branch

<sup>79</sup> [NRC report 1384617](#)

<sup>80</sup> [NRC report 1384824](#)

<sup>81</sup> 2:30 UTC on 11-21-2023 is 10:30 PM ET on 11-20-2023

		Uncertainties: the modest contrast of the sheen with its surroundings, as well as the presence of the clouds, made it harder to mark out the exact boundary of the anomaly, especially at its eastern part.	
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## 9.2 NOAA Satellite Pollution Surveillance

NOAA’s Satellite Analysis Branch issued three NRC reports for the MPOG 11015 incident (refer to table 3). There were six satellite images that indicated presence of oil in the proximity of the MPOG line.<sup>82</sup>

- November 17, 2023, 10:10 NOAA reported that a suspected oil spill was observed (confidence “High”), it was very well defined across most of the extent with more diffuse portions closer to the Mississippi Delta.<sup>83,84</sup> The slick measured approx. 28.7 nm long and had a maximum width of 9 nm. The slick was extended beyond the image, so it was not fully captured.<sup>85</sup>
- November 17, 2023, 4:20 NOAA reported another possible oil observation done using satellite imagery with “high” confidence. The slick appeared broken up into multiple segments. They estimated surface area of possible oil slick to be 127.90 km<sup>2</sup> (49.38 mi<sup>2</sup>).<sup>86</sup>
- November 20, 2023, 21:30, NOAA observed possible oil on satellite imagery with “high” confidence. Some of the sheen was blocked out by the clouds, with estimated slick area to be 28.45 km<sup>2</sup>.<sup>87</sup>

On November 28, 2023, NOAA scientists reported that their satellite analysis did not detect obvious oil spills, despite optimal conditions.<sup>88</sup>

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<sup>82</sup> [NOAA 2023 Surveillance Reports](#)

<sup>83</sup> Here is below in this section is local time

<sup>84</sup> Available confidence level options are Low, Medium, Medium-High, High.

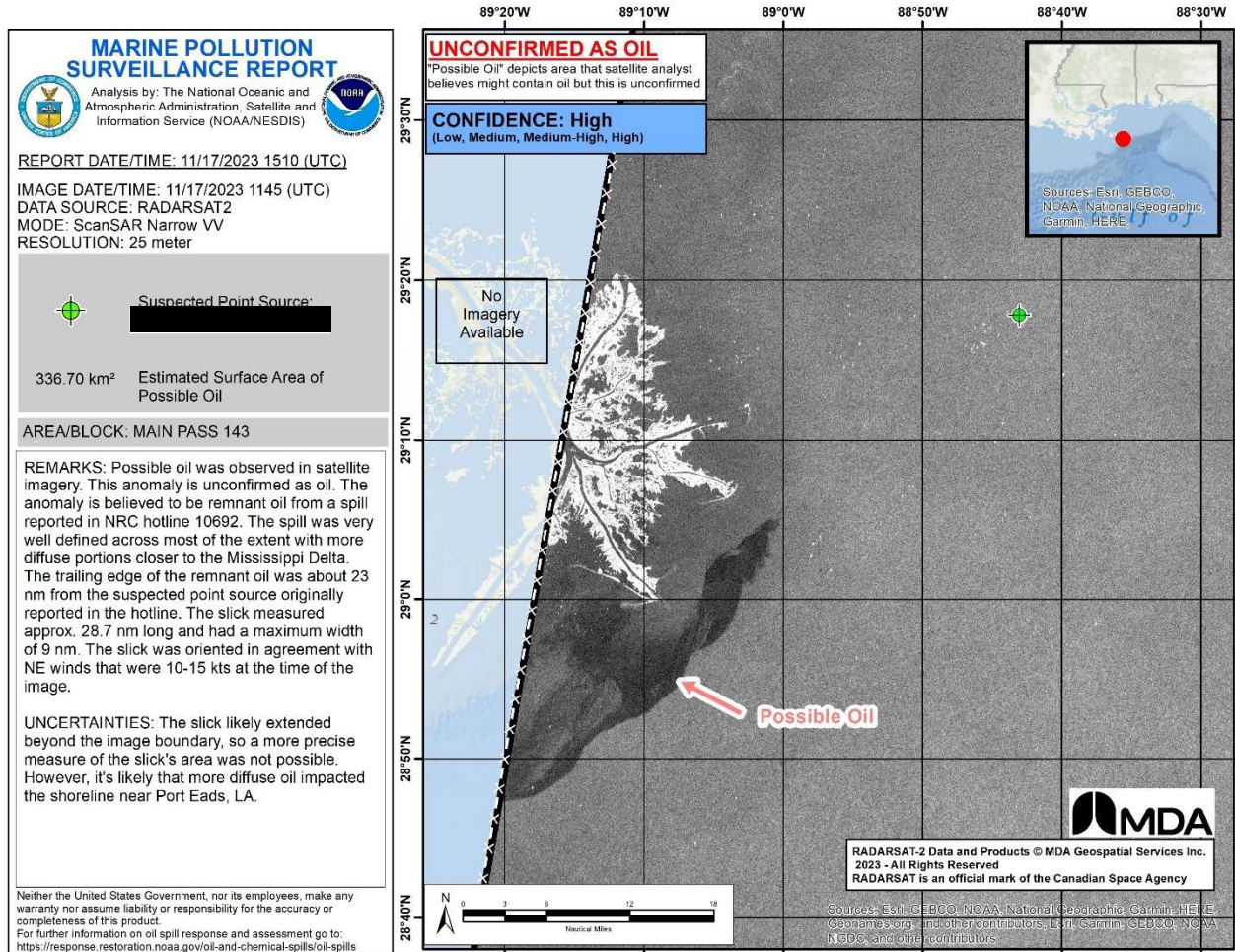
<sup>85</sup> [20231117\\_1145\\_RADARSAT2\\_OIL.jpg](#)

<sup>86</sup> [20231117\\_2354\\_SENTINEL1A\\_OIL.jpg](#)

<sup>87</sup> [20231120\\_1632\\_LANDSAT9\\_OIL.jpg](#)

<sup>88</sup> NOAA Marine pollution surveillance report 20231128





**Figure 12.** - First report of NOAA's Satellite Analysis Branch of the oil spill being observed on the satellite imagery on November 17, 2023.

## 10.0 Oil Spill Preparedness

The operator of the MPOG pipeline system maintained two separate response plans:

- Regional Oil Spill Response Plan by High Point Gas Gathering, L.L.C., submitted to BSEE, and
- Main Pass Oil Gathering System Facility Response Plan by Panther Operating Company, LLC, submitted to PHMSA.

The Regional Oil Spill Response Plan was utilized in the spill response. The operator was required to carry out the provisions of plan according to regulations.<sup>89</sup> Although the Facility Response Plan for MPOG line was submitted to PHMSA for

<sup>89</sup> [Title 30 Chapter II Subchapter B Part 254 Subpart A § 254.5](#)

review, BSEE retains sole authority over environmental protection requirements to include “oil spill planning, prevention, and response.”<sup>90</sup>

## **10.1 Regional Oil Spill Response Plan (BSEE Regulated)**

Regional Oil Spill Response plan, Gulf of Mexico Operations BSEE I.D. #03255 prepared by Forefront Emergency Management, Version Number 1-0 has 22 sections along with 11 appendixes that demonstrate High Point Gas Gathering, LLC approach to oil spill response within the Gulf of Mexico.<sup>91</sup> BSEE completed their review and approved the plan on February 1, 2023.<sup>92</sup>

- Section 1 is an Off-Site Source Recovery Program (OSRP) quick guide.
- Section 2 of the plan includes table of contents, revision, and acronyms table.
- Section 3 lists companies covered by OSRP and coverage area.
- Section 4 lists qualified individuals, incident management team and outlines incident command structure and duties.
- Section 5 covers spill response operations center location and communication methods.
- Section 6 describes spill detection and source identification and control.
- Section 7 contains reporting procedures, company and IC team contact information.
- Section 8 outlines reporting requirements in the event of the spill.
- Section 9 contains tables with contact information of available technical expertise.
- Section 10 addresses strategic response planning, incident action plan generation and operational planning.
- Section 11 outlines tools for spill assessment.
- Section 12 provides guidance on resource identification and prioritization for protection.
- Section 13 lists available resource protection methods.
- Section 14 covers mobilization and deployment methods.
- Section 15 specifies oil and oiled debris removal procedures.
- Section 16 details oil and oiled debris disposal procedures.
- Section 17 describes wildlife rescue and rehabilitation procedures.
- Section 18 has data on dispersants use.
- Section 19 covers in-situ burning process.

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<sup>90</sup> BSEE vs PHMSA oil spill response jurisdiction email

<sup>91</sup> MPOG Spill Response Plan Pages

<sup>92</sup> BSEE MPOG Plan Approval Letter 2023



- Section 20 mentions bioremediation method of recovery from oil spill.
- Section 21 provides documentation procedures.
- Section 22 outlines spill prevention measures for facilities located in State Waters.
- The plan has Appendixes A through K, with the Worst Case Discharge (WCD) Scenario calculations presented in Appendix H.

The plan lists Primary Incident Command Post to be located at 1730 Coteau Road, Houma, Louisiana (Forefront's Houma Office).<sup>93</sup> In the case of this incident, Forefront's Belle Chasse Office (2516 Engineers Road, Belle Chasse, Louisiana) was chosen for the Incident Command Post location due to the location of the incident and Sector New Orleans being the FOSC.

### **10.1.1 Worst-Case Discharge Calculations (Regional Oil Spill Response Plan)**

The Regional Oil Spill Response Plan covers numerous facilities operated by High Point Gas Gathering, L.L.C. and their subsidiaries (over 89 assets), including offshore transmission line segment# (PSN) 11015.

High Point Gas Gathering, L.L.C. currently owns and operates facilities and pipelines both within and beyond 10 miles seaward of the coastline. PSN 11015 was selected as the worst case discharge scenarios for Near and Far Shores. An "artificial leak" was to occur in Main Pass 69 area for the calculations. The worst-case discharge was calculated to be 593.56 barrels of oil, assuming response time for leak detection and shut down of 0.25 hours.

The volume for the Worst-Case Discharge for MPOG, as determined using the methods given in 30 CFR 254.47, is the sum of the pipeline system detection time to shutdown response time, the highest measured oil flow rate over the preceding 12-month period, and the total volume of oil that would leak from the pipeline after it is shut in.<sup>94</sup> For this location, the following assumptions and conditions exist:<sup>95</sup>

1. The sum of the pipeline system leak detection time to the shutdown response time has been estimated to be 0.25 hours.

Per BSEE, 0.25 hrs. is a valid time to be used for operators with a leak detection system (leak detection selection is marked as "yes" in Appendix A, table 2 of the plan).

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<sup>93</sup> MPOG Spill Response Plan Pages

<sup>94</sup> [Title 30 Chapter II Subchapter B Part 254 Subpart C § 254.47](#)

<sup>95</sup> MPOG Spill Response Plan Pages

2. The highest measured oil flow rate over the preceding 12-month period has been determined to be 1,187.50 barrels/hour (is 28,500 barrels/day ÷ 24 hrs.) The oil flow rate was calculated by taking the throughput volume of the pipeline 28,500 barrels/day and dividing it by 24 hours, getting 1,187.50 barrels/hour.

3. The total volume of oil that was calculated to leak from the pipeline after it is shut in has been determined to be 296.68 barrels. The plan states that this figure is obtained after considering the effects of hydrostatic pressure, frictional wall forces, gravity, the length of the pipeline segment, and tie-ins with other pipelines. The factors taken into consideration when determining the volume of oil that may leak after shut and corresponding calculations were not included with the plan.

With these assumptions in mind, the daily WCD for the pipeline is:  
[(0.25 Hours) x (1,187.50 Barrels/Hour)] + (296.68 Barrels) = 593.56 Barrels

According to the plan, Plaquemines, Louisiana is 31% likely to be impacted by oil within 30 days of the event.

## 10.2 Worst-Case Discharge Calculations in Facility Response Plan

Facility Response Plan, submitted for PHMSA review, is specific to pipeline segment# 11015 and has a calculated Worst Case Discharge (WCD) of 3,052 barrels.

The following calculations were used:<sup>96</sup>

$$\begin{aligned} \text{WCD} &= [(DT + ST) \times FR] + \text{Vol} \\ &= [(0.1 \text{ hrs.} + 0.25 \text{ hrs.}) \times 1,809.29 \text{ bbls./hrs.}] + 2,418.64 \text{ bbls} \\ &= 3,052 \text{ bbls} \end{aligned}$$

DT = maximum release discovery time (hrs.)  
= 0.1 hrs.

ST = maximum shutdown response time (hrs.)  
= 0.25 hrs.

FR = maximum flow rate (bbls/hrs.)  
= 43,423 bbls/day ÷ 24 hrs.)  
= 1,809.29 bbls/hrs.

Vol = line drainage volume (bbls)

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<sup>96</sup> MPOG Facility Response Plan Pages

$$\begin{aligned}
 &= 711,166 \text{ lbs.} \div 52.37 \text{ lbs./ft}^3 \\
 &= 13,579.64 \text{ ft}^3 \\
 &= 2,418.64 \text{ bbls}
 \end{aligned}$$

Discovery Time (DT) and Shutdown (ST) are established by the operator based on their operational practices, and not mandated by PHMSA. ST includes processing times for the pipeline shutdown (i.e. time it takes to completely close/turn an isolation valve from the moment the process was initiated). Flow rate (FR) is also provided by the operator, based on their knowledge of the pipeline.

Line drainage volume (Vol) was calculated using Pipeline Oil Spill Volume Estimator Pocket Guide, the advanced method.<sup>97</sup> The Guide was prepared under contract between the Minerals Management Service (MMS) and SINTEF Applied Chemistry in 2002. According to the guide, the advanced method is designed to “provide a more realistic volume for assisting in developing response strategies and revising incident action plans” during spill response. The method assumes “a single horizontal pipeline segment”.

### 10.3 Available Spill Response Resources

The plan provides lists of regional company and response contractors, with evidence of contracted availability of these OSROs to provide emergency responses to oil discharges (see Table 4).

**Table 4.** Lists of Regional Company and Response Contractors<sup>98</sup>

<b>CONTRACTUAL AGREEMENTS</b>			
High Point Gas Gathering, L.L.C. has secured, by contract, the necessary resources to respond to the worst-case discharge described in this response plan. These contracts include agreements with the following organizations:			
<b>Company</b>	<b>Service</b>	<b>Dates</b>	<b>Type of Agreement</b>
CGA	Equipment Provider	08/01/2022 – Self Renewing	Membership Agreement
ASI	Dispersant/Aircraft	08/01/2022 – Self Renewing	Membership Agreement
CGAS	Response Personnel	08/01/2022 – 08/01/2027	Membership Agreement
T&T	Mechanical Recovery	08/01/2022 – 08/01/2027	Membership Agreement
Forefront Emergency Management, L.P.	Incident Management Team	02/01/2020 – Self-Renewing	Retainer Contract
ES&H	Shoreline Protection	03/9/2022 – Self-Renewing	Letter of Intent
E3 OMI, LLC	Shoreline Protection	11/03/2022 – Self-Renewing	Letter of Intent
E3 Services, Inc.	Shoreline Protection	03/18/2022 – Self-Renewing	Letter of Intent
WCT	Wildlife Environmental Response	09/13/2017 – Self-Renewing	Letter of Intent

<sup>97</sup> [Pipeline Oil Spill Volume MMS 2002-003](#)

<sup>98</sup> MPOG Spill Response Plan Pages

## 11.0 Applicable Regulations

The MPOG pipeline system is regulated by PHMSA. PHMSA exercises its authority under the Pipeline Safety Act to prescribe and enforce minimum safety standards for pipeline facilities and pipeline transportation, including the transportation of natural gas and hazardous liquids by pipeline. Applicable PHMSA regulations are promulgated at 49 Code of Federal Regulations (CFR) Parts 190 through 199, which govern pipeline design, construction, operation, and maintenance, among other things.

BSEE is responsible for promulgating and enforcing regulations for the promotion of safe pipeline operations, protection of the environment, and conservation of the natural resources of the Outer Continental Shelf (OCS), in accordance with the Outer Continental Shelf Lands Act (OCSLA) and other statutes. Pursuant to OCSLA, BSEE is responsible for granting rights-of-way for the construction of certain pipelines and associated facilities on the OCS. BSEE is also responsible for reviewing and approving oil spill response plans submitted by owners and operators of offshore pipelines that "handle, store, or transport oil." BSEE's regulations are codified in Title 30 CFR (Mineral Resources).

PHMSA reapproved the MPOG pipeline system's Facility Response Plan on November 17, 2023. The plan is valid for five years and expires on November 17, 2028. BSEE approved the High Point Gas Gathering, L.L.C. Oil Spill Response Plan on February 1, 2023. The plan must be reviewed within the next two years and no later than February 1, 2025.<sup>99</sup>

The NRC is the sole federal point of contact for reporting oil and chemical spills. The NRC receives and relays notices of discharges or releases to the appropriate FOSC. In the case of the coastal zone, the USCG is predesignated FOSC. The cognizant regulations, which establish the criteria for reporting a spill to the NRC, are found in both 40 CFR § 300.125 and 33 CFR § 153.203.<sup>100,101</sup> Both regulations require that the person in charge of an onshore or offshore facility, commonly known as a responsible party, to immediately notify the NRC when a discharge of oil violating the Clean Water Act occurs. On November 16, 2023, at approximately 1000 local, Sector New Orleans was notified by the responsible party of the situation via NRC Report # 1344438.

### 11.1 Facility Response Plan Regulations, worst case discharge calculations

PHMSA regulations for facility response plan's worst case discharge calculations of onshore oil pipelines are codified in Title 49 CFR Subtitle B Chapter I

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<sup>99</sup> BSEE MPOG Plan Approval Letter 2023

<sup>100</sup> [Title 40 Chapter I Subchapter J Part 300 Subpart B § 300.125](#)

<sup>101</sup> [Title 33 Chapter I Subchapter O Part 153 Subpart B § 153.203](#)

Subchapter D Part 194 Subpart B (49 CFR § 194.105) "Worst case discharge."<sup>102</sup> In subsection (b), the worst-case discharge is defined as the largest volume, in barrels (cubic meters), of the following:<sup>103</sup>

*The pipeline's maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) in the response zone expressed in barrels (cubic meters); or*

*The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken. [...]*

## **11.2 Regional Oil Spill Response Plan, worst-care discharge calculations**

Based on MOU between DOT (PHMSA) and DOI (BSEE), BSEE is responsible for "reviewing and approving oil spill response plans submitted by owners and operators of offshore pipelines that handle, store, or transport oil."<sup>104</sup>

BSEE regulations for Oil Spill Response Plan's worst-care discharge calculations are codified in Title 30 CFR, Chapter II Subchapter B Part 254 Subpart C (30 CFR § 254.47) "Determining the volume of oil of your worst-case discharge scenario". Paragraph C applies to a pipeline facility's pipeline break. It requires operator consider three variables to calculate the release volume as follows:<sup>105</sup>

*Add the pipeline system leak detection time to the shutdown response time.*

*Multiply the time calculated (1) by the highest measured oil flow rate over the preceding 12-month period.*

*Add to the volume (2), the total volume of oil that would leak from the pipeline after it is shut in. Calculate this volume by taking into account the effects of hydrostatic pressure, gravity, frictional wall forces, length of pipeline segment, tie-ins with other pipelines, and other factors.*

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<sup>102</sup> [Title 49 Subtitle B Chapter I Subchapter D Part 194 Subpart A § 194.3](#)

<sup>103</sup> [Title 49 Subtitle B Chapter I Subchapter D Part 194 Subpart B § 194.105](#)

<sup>104</sup> [2020 Memorandum of Understanding Between DOT-PHMSA/DOI-BSEE for OCS Pipelines](#)

<sup>105</sup> [Title 30 Chapter II Subchapter B Part 254 Subpart C § 254.47](#)

## **12.0 History of Recent Oil Discharge Violations by Third Coast**

A review of USCG records indicate that Third Coast has been identified as a Responsible Party in five other oil discharge violations since 2020 (NRC Report #s 1279571, 1282980, 1285946, 1306217, 1340284).<sup>106</sup> Three discharges resulted in warnings, one resulted in a Notice of Violation, and one is pending enforcement. Four of these discharges were 15 gallons and less.

The most recent discharge involved pipeline segment number 11015. On June 30, 2022, USCG Sector New Orleans was notified by Third Coast about a drop in line pressure reading to zero, which potentially coincided with work being done on the line. Pipeline operators immediately initiated an emergency shut down of the pipeline. An incident management team was stood up in Belle Chase.

It was determined that the discharge occurred when a 120 foot long by 8-inch bypass line separated from PSN 11015 in MP 268. The estimated amount discharged was approximately 90.47 barrels of crude oil. A subsea pollution dome was placed over a damaged valve on the pipeline to collect oil until repairs could be made. On July 3, 2022, divers successfully installed a blind flange to completely isolate the pipeline section containing the damaged valve and the 8-inch bypass line to prevent further discharges. Overflights were conducted and did not locate any additional or unaccounted for oil. No shoreline impact was reported.

Submitted by:

Elena Bozhko  
Pipeline Accident Investigator

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<sup>106</sup> [NRC Report #s 1279571, 1282980, 1285946, 1306217, 1340284](#)