



United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

In Reply Refer To: GM 235D

September 11, 2020

Ms. Cindy Kunkel
Murphy Exploration & Production Company - USA
9805 Katy Freeway, Suite G-200
Houston, LA 77024

Dear Ms. Kunkel,

Reference is made to the following plan:

Control No. S-7997
Type Supplemental Exploration Plan
Received January 30, 2020 amended February 10, May 21, July 2 and 27, 2020
Lease(s) OCS-G 32504, Block 432, Green Canyon Area (GC)

You are hereby notified that the approval of the subject plan has been granted as of September 11, 2020, in accordance with 30 CFR 550.233(b)(1).

This approval includes the activities proposed for Subsea Wells J, K, L, M, N, and O.

In accordance with 30 CFR 556.901(d), additional security may be required for your proposed activities. Prior to conducting activities in which you need to obtain approvals and/or permits described in 30 CFR 550.281(a) from the appropriate District Manager or BSEE Regional Supervisor, you must contact BOEM Risk Management Operations Group by email at boermog@boem.gov to determine if additional security is required and comply with any demand for this security.

In response to the request accompanying your plan for a hydrogen sulfide (H₂S) classification, the area in which the proposed drilling operations are to be conducted is hereby classified, in accordance with 30 CFR 250.490(c), as "H₂S absent."

Exercise caution while drilling due to indications of shallow gas, faulting, and shallow water flow.

You must comply with the following species protective measures in all activities conducted pursuant to the plan:

- **COMPLIANCE WITH BIOLOGICAL OPINION TERMS AND CONDITIONS AND REASONABLE AND PRUDENT MEASURES:** This approval is conditioned upon compliance with the Reasonable and Prudent Measures and implementing Terms and Conditions of the Biological Opinion issued by the National Marine Fisheries Service

(NMFS) on March 13, 2020. This includes mitigation, particularly any appendices to Terms and Conditions applicable to the plan, as well as record-keeping and reporting sufficient to allow BOEM and BSEE to comply with reporting and monitoring requirements under the Biological Opinion; and any additional reporting required by BOEM or BSEE developed as a result of Biological Opinion implementation. The NMFS Biological Opinion may be found here:

<https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico>. The Appendices and protocols may be found here: <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.

- **SUPPORT BASES AND VESSEL TRANSIT ROUTES:** Approval of your plan is conditioned upon your use of the support bases and vessel transit routes as described in your plan. BOEM/BSEE must be notified at least 15 days prior to any vessel route changes that require transit of the Bryde's Whale area, and you must receive prior approval for that transit from BOEM/BSEE.
- **MARINE TRASH AND DEBRIS AWARENESS AND ELIMINATION:** The applicant will follow the guidance provided under Appendix B. Gulf of Mexico Marine Trash and Debris Awareness and Elimination Survey Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the National Oceanic and Atmospheric Administration (NOAA) Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **VESSEL-STRIKE AVOIDANCE/REPORTING:** The applicant will follow the guidance provided under Appendix C. Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **SEISMIC SURVEY OPERATION, MONITORING, AND REPORTING GUIDELINES:** The applicant will follow the guidance provided under Appendix A. Seismic Survey Mitigation and Protected Species Observer Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **MOON POOL MONITORING AND REPORTING:** A moon pool has been identified during review of your plan submittal. If any sea turtle or other marine mammal is detected, you are required to contact NMFS at nmfs.psoreview@noaa.gov and BSEE at protectedspecies@bsee.gov for additional guidance and incidental report information.

The following measures regarding moon pools shall also be taken by the applicant:

- Use of a moon pool requires regular monitoring while open to the water column and if a vessel is not underway. Regular monitoring means 24 hour video monitoring with at hourly recurring checks for at least five minutes of the video feed, or at hourly recurring visual checks of the moon pool for at least five minutes by a dedicated crew observer with no other tasks during that visual check. If water conditions are such that observers are unable to see within a meter of the surface, operations requiring the

lowering or retrieval of equipment through the moon pool should be conducted at a rate that will minimize potential harm, if safety permits.

Closing the Hull door:

- Should the moon pool have a hull door that can be closed, then prior to closure the moon pool must be monitored continuously by a dedicated crew observer with no other tasks, prior to closure and following closure to ensure that no individual Endangered Species Act (ESA) listed species is trapped within the hull closed moon pool doors. If visibility is not clear to the hull door from above (e.g., turbidity or low light), 30 minutes of monitoring is required prior to hull door closure.
- Moon pools with hull doors should attempt to keep doors closed when no activity is occurring within the moon pool, unless the safety of crew or vessel require otherwise. This will prevent animals from entering the confined area.

Movement of the vessel (without closed hull door) and equipment deployment/retrieval:

- Prior to movement of the vessel and/or deployment/retrieval of equipment, the moon pool must be monitored continuously for a minimum of 30 minutes, by a dedicated crew observer with no other tasks, to ensure no ESA listed species are present in the moon pool area.
- If an ESA listed species is observed in the moon pool, the vessel must not be moved and equipment must not be deployed or retrieved, to the extent practicable, unless the safety of crew or vessel requires otherwise. NMFS must be contacted immediately at nmfs.psoreview@noaa.gov. If the observed animal leaves the moon pool, the operator may commence activities.
- Should an ESA listed species be observed in a moon pool prior to activity commencement, recovery of the animal or other actions specific to the scenario may be required to prevent interaction with the animal. Operators shall not take such action except at the direction of and after contact with NMFS.
- Should an interaction with equipment or entanglement/entrapment of any ESA listed species occur (e.g., the animal cannot or does not leave the moon pool on its own volition), the interaction must be reported immediately. Any observation of a leatherback sea turtle within a moon pool, regardless of whether interaction with equipment or entanglement/entrapment is observed, must be reported immediately to the ESA Section 7 biologist at 301-427-8413 (nmfs.psoreview@noaa.gov). For minimum reporting information to include, see bullet list below.
- **ENTANGLEMENT AND ENTRAPMENT MONITORING AND REPORTING:**
Any interaction with equipment or entanglement/entrapment of any ESA listed species (i.e., the animal cannot or does not leave the pool of its own volition) must be reported immediately. For assistance with marine mammals and sea turtles contact the stranding network listed at www.fisheries.noaa.gov/report and contact BSEE at protectedspecies@bsee.gov for additional guidance on continued monitoring requirements, recovery assistance needs (if required), and incidental report information. Other ESA listed species (e.g., giant manta ray) should be reported to relevant state agency wildlife lines, the ESA Section 7 biologist, and BSEE at protectedspecies@bsee.gov.
- Any observation of a leatherback turtle (regardless of whether interaction with equipment or entanglement/entrapment is observed) must be reported immediately using contact information above.
- Any observation of a leatherback turtle (regardless of whether interaction with equipment or entanglement/entrapment is observed) must be reported immediately using contact information above.

- The vessel should not be moved and equipment should not be deployed or retrieved to/from the pool, to the extent practicable, until NMFS and BSEE are contacted and provide input on how to proceed.
- Any ESA listed species observed within a moon pool that then leaves the moon pool of its own volition should be reported within 24 hours to NMFS at nmfs.psoreview@noaa.gov and BSEE at protectedspecies@bsee.gov.
- If the observed animal is no longer observed in the moon pool, monitoring should take place for at least 30 minutes to ensure it has left the moon pool. After 30 minutes, activities may commence.
- **SEA TURTLE RESUSCITATION GUIDELINES:** The applicant will follow the guidance provided under Appendix J. Sea Turtle Handling and Resuscitation Guidelines found in the Biological Opinion issued by the NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **SLACK-LINE PRECAUTIONS AND REPORTING REQUIREMENT:** If operations require the use of flexible, small diameter (< 1 inch) nylon, plastic, or fiber lines to support operations (with or without divers), operators and contractors must reduce the slack in the line to prevent accidental entanglement of ESA listed species. The following measures are required (noting that diver safety is paramount, and the following measures should be followed only in cases where they do not jeopardize human safety).
 - Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping.
 - The lines must remain taut.
 - A line tender must be present at all times during dive operations and must monitor the line(s) the entire time a diver is in the water.

Should the line tender and/or diver become aware of any ESA listed species entanglement, the following protocols must be followed as soon as safety permits.

Should an ESA listed species interaction result in entanglement, entrapment and/or injury occur, the interaction must be reported immediately or after diver safety (if present) is ensured.

For assistance with marine mammals contact the number(s) below:

Marine Mammals	
State Stranding Network	Telephone
Texas	(800) 962-6625
Louisiana	(504) 235-3005
Mississippi	(888) 767-3657
Alabama	(877) 942-5343
Florida	(888) 404-3922

* Note: If you do not receive a response, go to the following website to ensure the listed number is correct:
<https://www.fisheries.noaa.gov/report>.

For assistance with sea turtles contact the number(s) below:

Sea Turtles	
State Stranding Network	Telephone
Texas	(361) 949-8173 x 226
Louisiana	(844) 732-8785
Mississippi	(228) 369-4796
Alabama	(866) 732-8878
Florida	(888) 404-3922

* Note: If you do not receive a response, go to the following website to ensure the listed number is correct:

<https://www.fisheries.noaa.gov/report>.

Assistance with other ESA listed species (e.g., giant manta ray, oceanic whitetip shark, or Gulf sturgeon) should contact the ESA Section 7 biologist at (301) 427-8413 (nmfs.psoreview@noaa.gov) and report all incidents to takereport.nmfs@noaa.gov.

After the appropriate stranding networks have been contacted for assistance, you may contact BSEE at protectedspecies@bsee.gov for questions or additional guidance on recovery assistance needs (if still required), continued monitoring requirements, and incidental report information which at minimum is detailed below.

Within 24 hours of any event or observation, notify NMFS at nmfs.psoreview@noaa.gov and BSEE at protectedspecies@bsee.gov with the following information:

1. Time, date, water depth, and location (latitude/longitude) of the first discovery of the interaction;
2. Name, type, and call sign of the vessel (or platform) in which the event occurred;
3. Size and location of moon pool within vessel (e.g., hull door or no hull door);
4. Equipment being utilized at time of interaction;
5. Species identification (if known) or description of the animal involved;
6. Approximate size of animal;
7. Condition of the animal during the event;
8. Photographs or video footage of the animal;
9. Stranding network line that was contacted for assistance;
10. General narrative and timeline describing the events that took place;
11. Whether activities in the moon pool were halted or changed upon observation of the animal; and
12. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

These measures are designed to promote environmental protection, consistent environmental policy, compliance with environmental laws, and safety.

If you have any questions or comments concerning this approval, please contact Chiquita Hill at (504) 736-2668.

Sincerely,

for Bernadette Thomas
Regional Supervisor
Office of Leasing and Plans