PUBLIC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

Gulf of Mexico OCS Region

(Insert Appropriate Regional Office)

APPLICATION FOR PERMIT TO CONDUCT GEOLOGICAL OR GEOPHYSICAL EXPLORATION FOR MINERAL RESOURCES OR SCIENTIFIC RESEARCH ON THE OUTER CONTINENTAL SHELF

(Section 11, Outer Continental Shelf Lands Act of August 7, 1953, as amended on September 18, 1978, by Public Law 95-372, 92 Statute 629, 43 U.S.C. 1340; and 30 CFR Parts 551 and 251)

Shell Offshore Inc.
Name of Applicant

701 Poydras, Room 2418
Number and Street

New Orleans, LA 70139
City, State, and Zip Code

Application is made for the following activity: (check one)

- ☐ Geological exploration for mineral resources
- ☐ Geological scientific research
- ☒ Geophysical exploration for mineral resources
- ☐ Geophysical scientific research

Submit: Original plus three copies, totaling four copies, which include one copy of the original, one digital copy, and one public copy (all with original signatures).

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To be completed by BOEM

Permit Number: L22-001 **Date:** 31-Jan-2022

A. General Information

1. The activity will be conducted by:

Magseis Fairfield	For Shell E&P Co.
Service Company Name	Purchaser(s) of the Data
9811 Katy Fwy Suite 1100	701 Poydras St., Rm. 2418
Address	Address
Houston, TX 77024	New Orleans, LA 70139
City, State, Zip	City, State, Zip
281-275-7613	832-933-5878
Telephone/FAX Numbers	Telephone/FAX Numbers
steve.mcintosh@magseisfairfield.com	vishram.rambaran@shell.com
E-Mail Address	E-Mail Address

2. The purpose of the activity is: ☒ Mineral exploration

☐ Scientific research

3. Describe your proposed survey activities (i.e., vessel use, benthic impacts, acoustic sources, etc.) and describe the environmental effects of the proposed activity, including potential adverse effects on marine life. Describe what steps are planned to minimize these adverse effects (mitigation measures). For example: 1) Potential Effect: Excessive sound level Mitigation; Soft Start, Protected Species Observers (PSO's), mammal exclusion zone or 2) Potential Effect: Bottom disturbance; Mitigation: ROV deployment/retrieval of bottom nodes) (use continuation sheets as necessary or provide a separate attachment. Label as **BOEM-0327 Section A General Information**.):

There will be no adverse effects on marine life. The use of airgun sources will follow NTL 2016-G02.

Additionally, the use of a Passive Acoustic Monitoring (PAM) should be implemented following NTL 2016-G02.

4. The expected commencement date is: June 1, 2022

The expected completion date is: December 31, 2022

5. The name of the individual(s) in charge of the field operation is:
Vishram Rambaran

May be contacted at:
150 N. Dairy Ashford Rd., Houston TX 77079

Telephone (Local) 832-933-5878 (Marine) see below

Email Address: vishram.rambaran@shell.com

Olympus Artimis Bridge: +47 70 08 16 66
Swanco Sword Bridge: +47 23 67 30 65

6. The vessel(s) to be used in the operation is (are):

Vessel Name (s)	Vessel Model	Registry Number(s)	Radio Call Sign(s)	Registered Owner(s)
MV Sanco Sword	Source Vessel	9662100 (IMO)	ZDNE7	Sanco Holdings AS
Olympic Artemis	ROV Vessel	9726217 (IMO)	LAFV8	Reach Subsea AS

7. The port from which the vessel(s) will operate is:
8. Briefly describe the navigation system (vessel navigation only):

dGPD

B. Complete for Geological Exploration for Mineral Resources or Geological Scientific Research

1. The type of operation(s) to be employed is: (check one)
   a. ☐ Deep stratigraphic test, or
   b. ☐ Shallow stratigraphic test with proposed total depth of _____, or
   c. ☐ Other _____
2. Attach a page-size plat showing: 1) The generalized proposed location for each test, where appropriate, a polygon enclosing the test sites may be used; 2) BOEM protraction areas, coastline, point of reference, OCS boundary/3-mile limit; 3) Distance and direction from a point of reference to area of Activity; and 4) Label as "**Public Information**".

C. Complete for Geophysical Exploration for Mineral Resources or Geophysical Scientific Research

1. The proposed operation: Seismic Survey
   a. Acquisition method (OBN, OBC, Streamer): OBN
   b. Type of acquisition: (High Resolution Seismic, 2D Seismic, 3D Seismic, gravity, magnetic, CSEM, etc.)
   4D monitor seismic survey
2. Attach a page-size plat showing:
   a. The generalized proposed location of the activity with a representative polygon;
   b. BOEM protraction areas, coastline, point of reference, OCS boundary/3- mile limit;
   c. Distance and direction from a point of reference to area of activity;
   d. Label as "**Public Information**"; and
   e. Submit relevant shape files needed to recreate the map as part of the required digital copy.

3. List all energy source types to be used in the operation(s): (Air gun, air gun array(s), sub-bottom profiler, sparker, towed dipole, side scan sonar, etc.).

Airgun Source Array

4. Explosive charges will [ ] will not [X] be used. If applicable, indicate the type of Explosive and maximum charge size (in pounds) to be used: _____

Type _____ Pounds _____ Equivalent Pounds of TNT _____

D. Proprietary Information Attachments

Use the appropriate form on page 9 for a "geological" permit application or the form on page 11 for a "geophysical" permit application. You must submit a separate Form BOEM-0327 to apply for each geological or geophysical permit.

E. Certification

I hereby certify that foregoing and attached information are true and correct.

Print Name: Tracy W. Albert

SIGNED Tracy W. Albert **DATE** 2/01/2022

TITLE Sr. Regulatory Specialist

COMPANY NAME: Shell Offshore Inc.

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TO BE COMPLETED BY BOEM

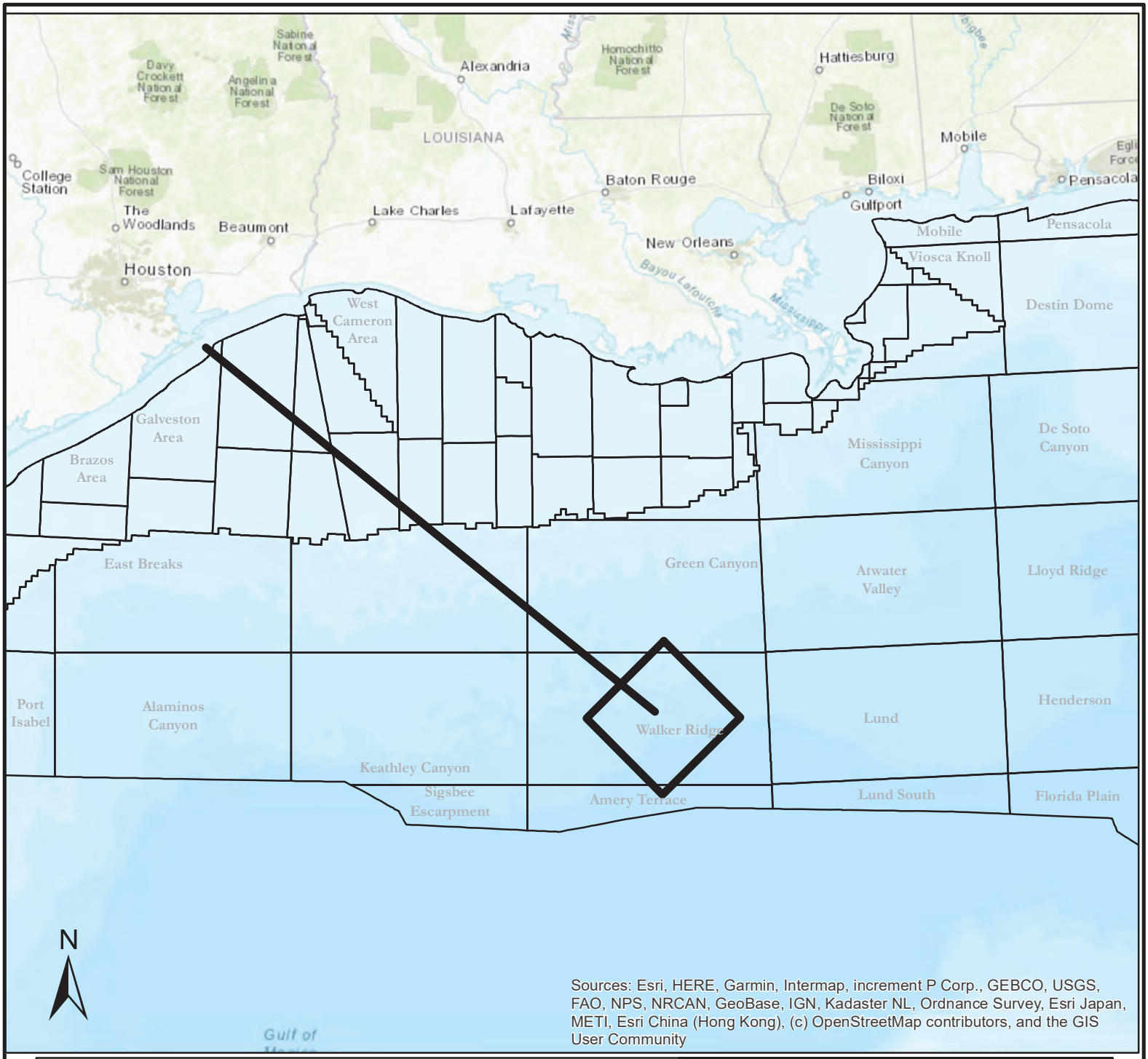
Permit No. L22-001 **Assigned by** Robert Mohollen **of BOEM** **Date** 07-Feb-2022

This application is hereby:

a. X Accepted

b. _____ Returned for reasons in the attached

SIGNED DONALD MACLAY Digitally signed by DONALD MACLAY Date: 2022.02.08 08:55:34 -06'00' **TITLE** For Regional Supervisor **DATE** 2/8/22



MAP INFORMATION

Legend

Protraction Areas

Manuvering Area

MAP SCALE

0 37.5 75 150 Miles

1:4,613,466

Print size: 8.5"x11" (ANSI A)

SHELL EXPLORATION & PRODUCTION COMPANY

Stones Survey PUBLIC INFORMATION

350 Miles from Port Galveston

GEODETIC PARAMETERS

Horizontal Coordinate Reference System
CRS name (ESRI): NAD 1927 BLM Zone 15N
CRS name (Shell): NAD27 / UTM zone 16N (ftUS) [1241_32066]
CRS code (EPSG): [32066]
Geodetic datum: North American 1927
Projection name: Transverse Mercator
Horizontal units: Foot US

Author: Brad Nolan | Date: 06 Apr 2021

Name: Stones_OBS_Planning_Map_ArcGIS

EP Catalog No.: N/A

RESTRICTED