

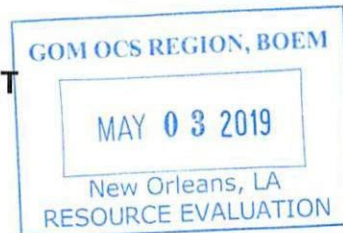
# PUBLIC

Attachment 1

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF OCEAN ENERGY MANAGEMENT

Atlantic 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)

CGG SERVICES (US)

Name of Applicant

10300 Town Park Drive

Number and Street

Houston, TX, 77072

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).

-----  
To be completed by BOEM

Permit Number:

E19-005

Date:

24 May 2019

**A. General Information**

1. The activity will be conducted by:

CGG CANADA SERVICES LTD

Service Company Name

2500 Meadowvale Blvd.

Address

Mississauga, ON L5N 5S2 Canada

City, State, Zip

905-812-0212

Telephone/FAX Numbers

david.miles@cgg.com

E-Mail Address

For CGG SERVICES (US)

Purchaser(s) of the Data

10300 Town Park Drive

Address

Houston, TX, 77072

City, State, Zip

832-351-4803

Telephone/FAX Numbers

jeff.rowe@cgg.com

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.**):  
Falcon airborne gravity gradient, gravity and magnetic data acquisition.

This Potential Field data collection is passive with no impact on the marine environment.

4. The expected commencement date is: June 2019

The expected completion date is: June 2020

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

May be contacted at:

2505 Meadowvale Boul., Mississauga, ON L5N 5S2 Canada

Telephone (Local) 905-812-0212 (Marine) n/a

Email Address: david.miles@cgg.com

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)
Basler BT-67 aircraft		C-GGSU	GGSU	CGG Canada Services

7. The port from which the vessel(s) will operate is:

8. Briefly describe the navigation system (vessel navigation only):

Real-Time DGPS, Radar Altimeter, Laser Scanner

**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 N/A - Airborne Survey

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".

N/A

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

1. The proposed operation: Airborne Geophysical Survey

a. Acquisition method (OBN, OBC, Streamer): Airborne

b. Type of acquisition: (High Resolution Seismic, 2D Seismic, 3D Seismic, gravity, magnetic, CSEM, etc.)  
Gravity gradiometry, gravity, magnetic data collect from an aircraft

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.).

No energy sources will be used. All data collection is passive.

4. Explosive charges will  will not  be used. If applicable, indicate the type of Explosive and maximum charge size (in pounds) to be used: N/A

Type N/A Pounds N/A Equivalent Pounds of TNT N/A

#### 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: Jeffrey D. Rowe  
SIGNED *Jeffrey D. Rowe* DATE 1 May 2019  
TITLE Vice President - Multi-Client GravMag  
COMPANY NAME: CGG Services (US) - Multi-Physics Group

#### TO BE COMPLETED BY BOEM

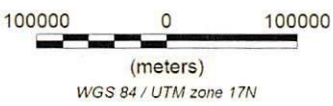
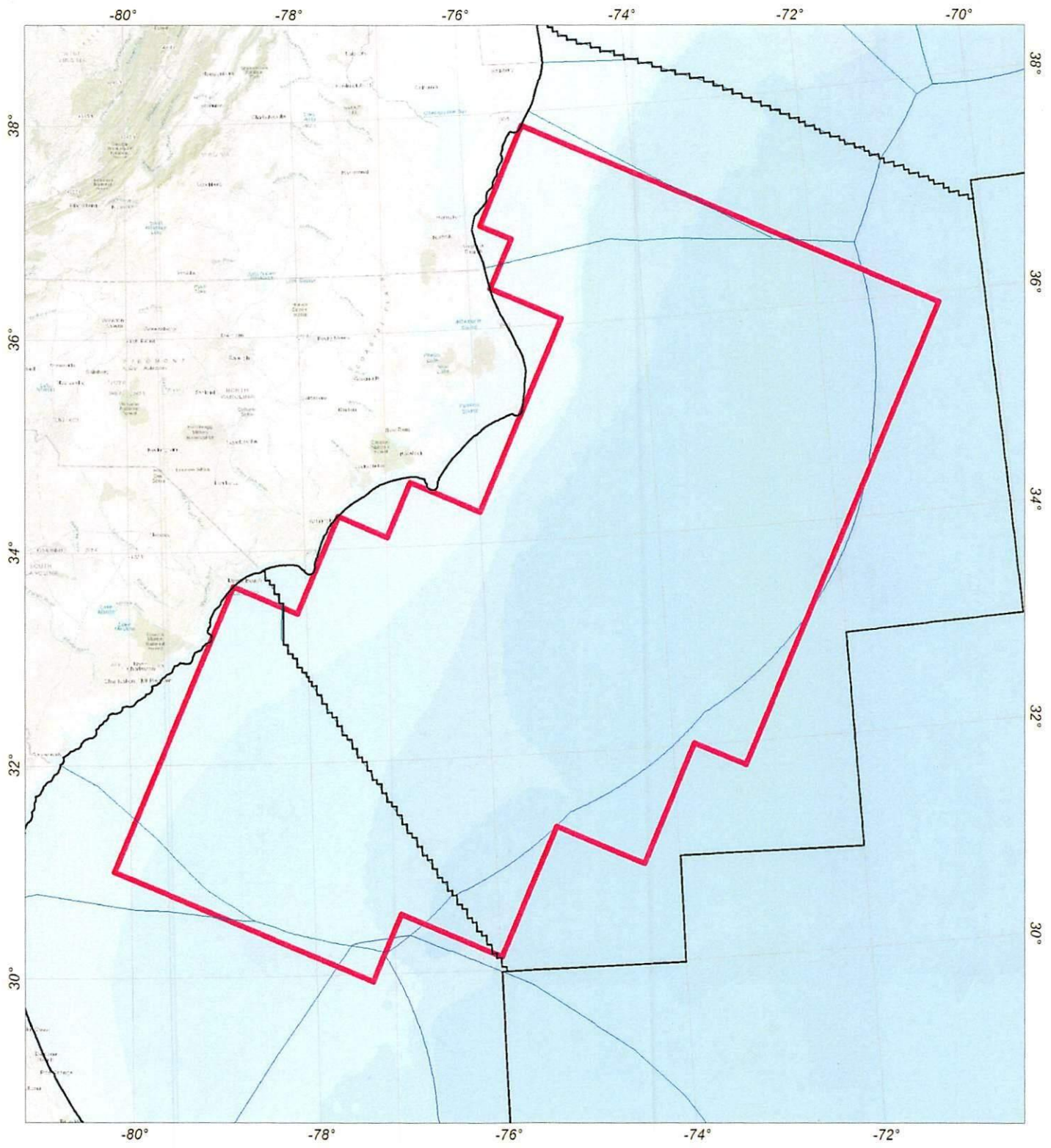
Permit No. E19-005 Assigned by *Terri C. Campbell* Date 29 May 2019  
of BOEM

This application is hereby:

- a.  Accepted  
b.  Returned for reasons in the attached

SIGNED *Matthew G. Wilson* TITLE Regional Supervisor DATE 6-10-2019





**Multi-Client 33474**  
**Offshore East Coast, USA**  
**Public Information**

