

A. General Information

1. The activity will be conducted by:

EPI Group

Service Company Name
25 High Street, Cobham

Address
Surrey KT11 EDH, United Kingdom

City, State, Zip
+44 8702 40 66 99

Telephone/FAX Numbers
Richard.Thompson@epi.co.uk

E-Mail Address

For Beta Operating Company, LLC

Purchaser(s) of the Data
111 W. Ocean Blvd. Ste. 1240

Address
Long Beach, CA 90802

City, State, Zip
1-562-628-1539

Telephone/FAX Numbers
Bruce.Berwager@amplifyenergy.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):

Please refer to the attached Beta Unit Geophysical Survey

Project Description and Supporting Environmental Analysis

4. The expected commencement date is: September 2018

The expected completion date is: 6 weeks to complete - October 2018

5. The name of the individual(s) in charge of the field operation is:
Richard Thompson, Director of Marine Operations for EPI

May be contacted at:
Information provided below

Telephone (Local) +44 8702 40 66 99 (Marine) _____

Email Address: Richard.Thompson@epi.co.uk

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

Vessel Name (s)	Registry Number(s)	Radio Call Sign(s)	Registered Owner(s)
<u>M/V Clean Ocean</u>	<u>9202352</u>	<u>WDE7605</u>	<u>Metson</u>
<u>M/V Silver Arrow</u>	<u>9495533</u>	<u>WDE8275</u>	<u>Hornbeck</u>
<u>M/V Jab</u>	<u>338219566</u>	<u>Not Required</u>	<u>Theory</u>

7. The port from which the vessel(s) will operate is: Port of Long Beach

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

Furuno NAVNET Navigation & Oceanographic Suite

UnidenOceanus Radios (2), SEA225 SingleSide Band Radio

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 A Reflective 3D Seismic 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; 3) Distance and direction from a point of reference to area of Activity; 4) Label as "Public Information."

Please see Attached

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

1. The proposed operation: Geophysical Survey

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

b. Type of acquisition: (High Resolution Seismic, 2D Seismic, 3D Seismic, gravity, magnetic, CSEM, etc.)

3D Seismic

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,

c. Distance and direction from a point of reference to area of activity, and

d. Label as "Public Information."

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.).

Air gun array

4. Explosive charges will will not 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: Bruce Berwager

SIGNED  DATE December 7, 2017

TITLE Vice President of Operations-California

COMPANY NAME: Beta Operating Company, LLC

TO BE COMPLETED BY BOEM

Permit No. _____ Assigned by _____ Date _____
of BOEM

This application is hereby:

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

SIGNED _____ TITLE Regional Supervisor DATE _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT
Pacific OCS Region

(Insert Appropriate Regional Office)

NONEXCLUSIVE USE AGREEMENT FOR SCIENTIFIC RESEARCH
ON THE OUTER CONTINENTAL SHELF

- A. State the time and manner in which data and information resulting from the proposed activity will be made available to the public for inspection and reproduction, such time being the earliest practicable time.

The survey is being proposed for Fall 2018. The survey information is

proprietary information, however Beta has been in discussion(s) with several

Universities and may share information for the purposes of research

and development.

- B. Beta Operating Company, LLC (applicant) agrees that the data and information resulting from the proposed activity will not be sold or withheld for exclusive use.



(Signature of Applicant)
Bruce Berwager

(Type or Print Name of Applicant)
Vice President of Operations - California

(Title)
December 7, 2017

(Date)

Submit: Two originals, one digital copy, and one public copy (all with original signatures).