FREQUENTLY ASKED QUESTIONS

Beta Unit Geological and Geophysical (G&G) Survey Permit

1. What is Beta Operating Company, LLC applying to do?

Beta Operating Company, LLC is applying to conduct a 3D seismic survey of the Beta Unit, consisting of Leases OCS-P 0296, 0300, 0301 and 0306, located in federal waters about eight miles offshore Huntington Beach, California.

2. What is a 3D seismic survey?

An explanation of oil and gas resource evaluation terms like "3D seismic survey" can be found <u>here.</u> Find out how these surveys are acquired and used on BOEM's <u>Geophysical</u> <u>Surveys</u> webpage.

 When is the survey scheduled to occur? Beta Operating Company, LLC has proposed to conduct their 3D seismic survey in the Fall of 2019.

4. How big an area will the survey cover?

The proposed 3D seismic survey will cover approximately 18.9 square miles (48.9 km²), an area roughly equivalent to just over two OCS lease blocks

5. How long will the survey last, if permitted?

From start to finish, the 3D seismic survey is expected to take approximately 6 weeks.

6. Has this type of survey been done before off California?

Various types of seismic surveys have been conducted offshore California. The last 3D seismic survey for oil and gas purposes in federal waters was conducted in 1995. The last 3D seismic survey for the Beta Unit was done in 1985.

- 7. Why is this survey needed, if surveys have already been done in the Beta Unit area? The proposed survey uses new technology that allows for better subsurface imaging for more efficient oil and gas production.
- Since the proposed survey includes areas outside but adjacent to the offshore leases, do they need to apply for a right-of-use and easement for these areas?
 No. However, the company must obtain a G&G permit because of the off-lease activities.

9. As the permitting federal agency, does BOEM have the final say on whether this survey can occur?

BOEM has the authority to make the final decision on whether to grant a permit for the proposed 3D seismic survey (see <u>30 CFR 550.101</u>). The decision will be made after evaluation of potential impacts and in a manner consistent with the Bureau's mission for the balanced, science-based management of oil and gas resources in federal waters.

10. Will BOEM conduct an environmental review of the proposed survey?

Yes. Because approving a G&G permit is considered a federal action, BOEM is required to complete an environmental review that is in compliance with the National Environmental Policy Act. Other relevant laws may require consultation with other federal agencies.

11. What potential impacts will BOEM analyze in its environmental review?

BOEM will analyze a wide range of potential survey impacts, including impacts to marine life and habitats, air quality, archeological resources as well as effects to the local economy.

12. Isn't the use of air guns in the ocean harmful to marine mammals?

Most marine mammals rely on sound to navigate and find food and seismic surveys may disturb marine mammals that are close to survey activities. BOEM and other regulatory agencies require steps be taken to minimize adverse impacts with procedures such as shutting down operations when certain species are too close and by using "ramp-up" survey techniques to warn and clear the area of animals. A number of <u>other mitigation</u> <u>measures</u> are also commonly used to protect marine life during survey activities.

13. Given the proposed survey includes deployment of hundreds of devices onto the seafloor, isn't it safe to say that large areas of ocean habitat will be negatively impacted?

Impacts to ocean habitats including the water column and seafloor will be addressed. The seafloor is a mix of many distinct sediment and habitat types that vary in space and with depth. The impact of placing temporary devices onto the seafloor depends greatly on the types of sediments and biological species present in that area. BOEM requires avoidance of unique and rare seafloor habitats, such as chemosynthetic or seep communities and rocky reefs that have slow growing and fragile corals and sponge species present.

Additional information:

BOEM's Typical Seismic Survey Mitigation Measures

Seismic Survey Mitigation Measures and Marine Mammal Observer Reports

U.S. Energy Information Administration's California Energy Profile