



# United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

Pacific OCS Region

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**February 3, 2020**

Ms. Penny Ruvelas  
Branch Chief, Protected Resources Division  
National Marine Fisheries Service (NMFS)  
501 West Ocean Boulevard, Suite 4200  
Long Beach, CA 98002-4213

Dear Ms. Ruvelas,

Following our receipt of your office's response on December 11, 2021 to our request for technical advice, this letter serves to request informal section 7 consultation pursuant to the Endangered Species Act (ESA), as amended. The Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) hereby submit our analysis and determination for the Santa Clara Unit (Platforms Grace and Gail) Conductor Cutting Program (the Project).

## **ACTION AREA**

Currently operated by Chevron, the Santa Clara Unit facilities are located within Federal Outer Continental Shelf (OCS) waters and include Platforms Grace (OCS P-217) and Gail (OCS P-0205) (Figure 1). The platforms are situated approximately 10-10.5 miles offshore Ventura County, California in the eastern portion of the Santa Barbara Channel.

## **PROPOSED ACTION**

The Project proposes to cut the conductors 15 feet (ft) (4.5 meters [m]) below the seafloor and recover each conductor to the deck of the Platforms. Prior to removal operations, the conductors will be cleaned of marine growth using divers with water jetting tools. In addition to diver operations, a water jetting ring will be attached to each conductor below the water line prior to jacking operations to continue removal of any attached marine growth on the lower sections of the conductors.

Abrasive material or mechanical cutting methods will be utilized to make the cuts from inside the conductor and through the outer casing(s). The abrasive material will be made up of Sharpshot© Iron Silicate Abrasives. The average initial conductor cut requires approximately seven hours, or approximately 3,500 lbs. of material for abrasive material cutting methodology and twelve to twenty-four hours for the mechanical cutting methodology (Table 1). Conductors will be recovered in multiple sections.



Figure 1: Location of Platforms Grace and Gail

At each Platform, cut conductor pipes will be pulled up using a casing jack or hydraulic hoist and then placed onto the Platform staging area(s) to be cut into smaller segments utilizing a mechanical cutting tool. Topside cuts will require approximately three hours each once the conductors have been lifted from the seafloor.

Table 1: Summary of Conductors Proposed for Removal

<b>Platform</b>	<b>Number of Conductors to be Cut</b>	<b>Conductor Length (ft)</b>	<b>Water Depth (ft)</b>	<b>Diameter (inches)</b>	<b>Cutting Duration (intermittent)</b>	<b>Cutting Mechanism</b>
Grace	38	398	318	24	11 days	High pressure abrasive
Gail	28	789	719*	24	8 or 28 days	High pressure abrasive or mechanical*

\*Given the depth of the platform, two cutting mechanisms are being considered

The cut pipe will be stacked on the Platform deck and then transferred to the OSV Adele Elise or similar vessel for transport to SA Recycling in the Port of Long Beach (POLB) or brought to Port Hueneme for trucking to Standard Industries in Saticoy, Ventura County, California. Once all well conductors on Platform Grace are completed in 2021, the Platform equipment and support vessels will be demobilized and will return to complete well conductor removal activities on Platform Gail in 2023. Proposed vessel operations are provided in Table 2.

Table 2: Summary of Proposed Vessel Operations

<b>Vessel</b>	<b>Length (ft)</b>	<b>Max. Speeds (kts)</b>	<b>Number of Trips</b>	<b>Route</b>
Crew transfer: <i>M/V Jackie C</i>	120	19	Same as current operations – 2/day	To and from Carpinteria (Casitas) Pier
Recycling: OSV <i>Adele Elise</i>	225	10.2	16 trips (avg 1/wk.)	Platform Grace to POLB OR Port Hueneme
			32 trips (avg 1/wk.)	Platform Gail to POLB OR Port Hueneme

The proposed activities, including mobilization and demobilization, are expected to take approximately 360 operational days to complete. Work at Platform Grace would take approximately 120 days (4 months), and removal at Platform Gail would take approximately 240 days (8 months). The conductor cutting and removal is targeted at Platform Grace in the 3<sup>rd</sup> quarter of 2021, following completion of well Temporary Abandonment (TA) prior to final removal (anticipated to be completed by the 1st quarter of 2021) and all required environmental reviews and permitting. Conductor cutting and removal is targeted at Platform Gail in the 2nd through 3<sup>rd</sup> quarter of 2023, following completion of well TA and all required environmental reviews and permitting.

The proposed well conductor cutting and removal program was designed to minimize the potential for adverse impacts to the surrounding marine environment. The Project will implement the following measures to ensure the potential for impacts are reduced to the extent feasible.

- Conductor cutting and removal activities have been scheduled in one phase at each Platform to minimize Project timing and associated impacts.
- Chevron has designed the Project to utilize internal conductor cutting methodologies to minimize potential noise impacts and potential discharges.
- Prior to transiting to and from POLB/POLA or Port Hueneme, the primary Project vessel will review the current whale presence rating within the Santa Barbara Channel shipping lanes using the online tools at Whalesafe.com. If the daily whale presence is reported to be above a medium rating within the transit corridor, then the vessel will transit at a reduced speed of 10 knots or less (11.5 mph or 18.5 km/h).
- Project vessels will utilize (or continue to utilize) the existing U.S. Coast Guard Traffic Separation Scheme (VTSS) and Joint Oil Fisheries Liaison Office (JOFLO) corridors within the Santa Barbara Channel to minimize the potential for vessel strikes.
- All project related crews will be provided the approved OCS operations training program which includes information regarding marine mammal species present in the project area. All vessel captains will also be provided copies of the procedures and reporting requirements when encountering marine wildlife during their vessel operations.
- In order to mitigate the potential impact to listed species from acoustic impacts the following monitoring plan will be required as a permit condition.
  1. Specific crewmembers will be assigned to conduct visual clearance for ESA-listed whales (blue, fin, sei or humpback whales).
  2. Crewmembers will:
    - a. Be trained with the Wildlife and Fisheries Training video generated by Pacific Offshore Operators, LLC;
    - b. Have visual acuity in both eyes (correction is permissible) enough to discern moving targets at the water's surface with ability to estimate target size and distance. Use of binoculars or spotting scope may be necessary;
    - c. The ability to communicate orally, by radio or in person, with project personnel to provide real time information on marine mammals observed in the area, as needed; and
    - d. Complete the form provided, as detailed as possible, describing conditions prior to, and after, the initial cut for **each** conductor, including any sighting event, during periods of visual clearance/inspection.
  3. Visual clearance includes:
    - a. 30-minute inspection of a 200 m clearance zone, made from the cutting site on the platform, seaward, to ensure no ESA-listed whales are within the clearance zone before initial cutting starts; and
    - b. 30-minute inspection of a 200 m clearance zone, after initial cutting has been completed, made from the cutting site on the platform, in a seaward arc, to detect if any ESA-listed whales were exposed to cutting activities.
  4. Clarification of various possible scenarios:

- a. If the 200 m zone is clear of ESA-listed whales for 30-minutes but initial cutting is delayed, for any reason, another 30-minute visual inspection/clearance of the 200 m clearance zone must be done;
  - b. If no ESA-listed whales are seen within the 200 m clearance zone, cutting can be started immediately, and continue until completion;
  - c. If an ESA-listed whale is sighted within the 200 m clearance zone, cutting will be delayed until the whale has moved more than 200 m away from the cutting site, at which time cutting may commence; and
  - d. If an ESA-listed whale is seen after the start of cutting, the crewmember assigned to visual duties must note the occurrence using the form provided but cutting may continue.
5. Reporting requirements:
- a. All forms will be submitted to the BSEE compliance officer within 30 days after completion of all conductor removal activities;
  - b. Any observations of injured or dead marine mammals, related or unrelated to the activities, will be immediately reported to NOAA's West Coast Region Stranding Hotline at 1-866-767-6114; and
  - c. Any observations of entangled marine mammals will be reported to the Entanglement Reporting Hotline at 1-877-767-9425 and/or the USCG: VHF Ch. 16.

## **SPECIES INFORMATION**

There are approximately 31 species of marine mammal species known to occur frequently in southern California waters surrounding the project area, including seven baleen whale, 19 toothed whale and dolphin species, five species of seals and sea lions, and the southern sea otter. In addition, leatherback and loggerhead sea turtles, scalloped hammerhead shark, steelhead trout, and green sturgeon are also listed species that may occur in the Project area. However, of these, NMFS concurred that only the species listed in Table 1 are likely to occur in the Project area (T. Coleman e-mail dated December 11, 2020). Detailed species descriptions, including state, habitat ranges, population trends and predator/prey interactions are provided in the Argonne National Laboratory report (Argonne National Laboratory, 2019) and the NMFS Letter of Concurrence for the Point Arguello Field Platforms Well Conductor Casing Removal Project (NMFS, 2020) and are hereby incorporated by reference.

## **ANALYSIS OF POTENTIAL IMPACTS**

BOEM has determined that noise and vessel strikes are the only potential impacting factors associated with the action and provided the following analysis.

### *Noise impacts*

The only sound source provided that has the potential to cause adverse effects to listed species for this project is a high-pressure abrasive grain cutting tool that will be lowered inside the

conductor pipe to cut it 15 ft below the mudline. This continuous sound source has a sound level in air of 92dBA re 20 $\mu$ Pa. For in water acoustics a conversion factor of 26 dB [ $20 \times \log(20/1)$ ] plus an addition of 35.5 dB, to account for water density and sound speed in water, results in a point sound source of 154 dB re 1  $\mu$ Pa @1m. Given that the cutting will occur 15 ft below the mudline there is an additional correction due to the attenuation of sound through the sediment. Studies of this attenuation for explosive removal techniques, which have a similar frequency content (Dzwilewski et al., 2003; Argo and Dzwilewski, 2019), show that the coupling efficiency of about 44% is expected for 24-inch diameter pipes. This is equivalent to an approximately -7 dB and results in a point sound source of (154-7) 147 dB re 1  $\mu$ Pa @1m. Jet cutting of a wellhead below the seabed in 264 ft of water on the north-west shelf of Australia produced a broadband source level of 189 dB re 1  $\mu$ Pa @1m (McCauley, 2004). Assuming spherical spreading the sound should reduce to 120 dB, the current threshold for level B harassment of marine mammals, between 22.3-100 meters. Considering that this point source will be approximately five m below the mudline, the isopleth is not expected to have a similar frequency content (Dzwilewski et al., 2003; Argo and Dzwilewski, 2019), show that the coupling efficiency of about 44% is expected for 24-inch diameter pipes. This is equivalent to an approximately -7 dB and results in a point sound source of (154-7) 147 dB re 1  $\mu$ Pa @1m. Jet cutting of a wellhead below the seabed in 264 ft of water on the north-west shelf of Australia produced a broadband source level of 189 dB re 1  $\mu$ Pa @1m (McCauley, 2004). Assuming spherical spreading the sound should reduce to 120 dB, the current threshold for level B harassment of marine mammals, between 22.3-100 meters. Considering that this point source will be approximately five m below the mudline, the isopleth is not expected to extend beyond 100 m above the sea floor. Given the sub-sediment cutting protocol and the small isopleth that will occur near the sea floor in 318 to 719 ft water depths, coupled with the fact that these large whales, fur seals and turtles are not known to be deep water benthic feeders, reduces the chances of these species entering the 120 dB isopleth. In addition, the monitoring protocol described above supports a determination that the potential for noise exposure is extremely low and therefore discountable (NMFS, 2020).

Table 3: ESA-Listed Species Likely to Occur in Southern California Waters

<b>Common Name</b>	<b>Scientific Name</b>	<b>Stock</b>	<b>Designated Habitat</b>	<b>ESA/MMPA Status</b>
Blue whale	<i>Balaenoptera musculus</i>	Eastern North Pacific	N/A	Endangered/Depleted
Fin whale	<i>Balaenoptera physalus</i>	California, Oregon, and Washington	N/A	Endangered/Depleted
Humpback whale	<i>Megaptera novaeangliae</i>	California, Oregon, and Washington (Central American DPS and Mexican DPS)	N/A	Endangered/Depleted
Sei whale	<i>Balaenoptera borealis</i>	Eastern North Pacific	N/A	Endangered/Depleted
Sperm whale	<i>Physeter macrocephalus</i>	California, Oregon, and Washington	N/A	Endangered/Depleted
Guadalupe fur seal	<i>Arctocephalus townsendi</i>	Mexico to California	N/A	Threatened/Depleted
Leatherback sea turtle	<i>Dermochelys coriacea</i>	Throughout range	77 FR 4169	Endangered
Loggerhead sea turtle	<i>Caretta</i>	North Pacific DPS	N/A	Endangered
Scalloped hammerhead shark	<i>Sphyrna lewini</i>	Eastern Pacific DPS	N/A	Endangered
Steelhead trout	<i>Oncorhynchus mykiss</i>	Southern California DPS and South-Central California DPS	65 FR 7764	Endangered Threatened
Green sturgeon	<i>Acipenser medirostris</i>	Southern DPS	74 FR 52299	Threatened

*Vessel strike*

Vessel operations will follow the normal operating procedures already in place for platform support vessels. All project related crews will be provided the approved OCS operations training program which includes information regarding marine mammal species present in the Project

area. All vessel captains will also be provided copies of the procedures and reporting requirements when encountering marine wildlife during their vessel operations. Project vessels will utilize (or continue to utilize) the existing U.S. Coast Guard VTSS and JOFLO corridors within the Santa Barbara Channel. Prior to transiting to and from POLB or Port Hueneme, the primary Project vessel will review the current whale presence rating within the Santa Barbara Channel shipping lanes using the online tools at Whalesafe.com. If the daily whale presence is reported to be above a medium rating within the transit corridor, then the vessel will transit at a reduced speed of 10 knots or less (11.5 mph or 18.5 km/h). BOEM has concluded that using these routes and practicing the abovementioned avoidance procedures with the additional reduced spatial and temporal overlap of the species minimizes the potential impacts from Project-related vessels. In addition, the number of additional vessel transits over the course of the proposed action, 48 round trips, compared to the Port of Long Beach, Draft Master Plan Air Emission Inventory (POLB, 2019) which states that 7000 vessel transits occur annually amounting to 19 transits per day, as well as the fact that there have been no reports of vessel strikes of large whales, Guadalupe fur seals, or sea turtles related to offshore oil and gas operations over the last 30+ years, suggests that the likelihood that these species would be struck as a result of vessel activity associated with the proposed action is extremely low, and discountable (NMFS, 2020).

BOEM has concluded that the potential impacting factors from the action may affect but are not likely to adversely affect (NLAA): blue whales (*Balaenoptera musculus*), fin whales (*B. physalus*), humpback whales (*Megaptera novaeangliae*), sei whales (*B. borealis*), sperm whales (*Physeter macrocephalus*), Guadalupe fur seals (*Arctocephalus townsendi*). Additionally for the following species BOEM has determined that there is little temporal and spatial overlap of the project action area with these species and therefore the actions are NLAA for leatherback sea turtles (*Dermochelys coriacea*), loggerhead sea turtles (*Caretta caretta*), scalloped hammerhead sharks (*Sphyrna lewini*), steelhead trout (*Oncorhynchus mykiss*), and green sturgeon (*Acipenser medirostris*). BOEM has determined no effect to any associated designated critical habitat (Table 4).



Table 4: Summary of NLAA Determinations for NMFS ESA-Listed Species for the associated activities

<b>Common Name</b>	<b>Scientific Name</b>	<b>Potential Impacting Factors</b>	<b>Critical Habitat Determination</b>	<b>Citation(s) for Listing Determinations</b>
Blue whale	<i>Balaenoptera musculus</i>	Vessel strike and sound	N/A	35 FR 18319; December 2, 1970
Fin whale	<i>Balaenoptera physalus</i>	Vessel strike and sound	N/A	35 FR 8491; June 2, 1970
Humpback whale (Central American DPS and Mexican DPS)	<i>Megaptera novaeangliae</i>	Vessel strike and sound	N/A	81 FR 62260; September 8, 2016
Sei whale	<i>Balaenoptera borealis</i>	Vessel strike and sound	N/A	35 FR 12024; December 2, 1970
Sperm whale	<i>Physeter macrocephalus</i>	Vessel strike and sound	N/A	35 FR 18319; December 2, 1970
Guadalupe fur seal	<i>Arctocephalus townsendi</i>	Vessel strike and sound	N/A	50 FR 51252; December 16, 1985
Leatherback sea turtle	<i>Dermochelys coriacea</i>	Vessel strike and sound	N/A	35 FR 8491; June 2, 1970
Loggerhead sea turtle	<i>Caretta caretta</i>	Vessel strike and sound	N/A	76 FR 58868; September 22, 2011
Scalloped hammerhead shark	<i>Sphyrna lewini</i>	Sound	N/A	79 FR 38213; July 3, 2014
Steelhead trout (Southern California DPS and South-Central California DPS)	<i>Oncorhynchus mykiss</i>	Sound	No effect	71 FR 43937; August 18, 1997; and 62 FR 43937; August 18, 1997
Green sturgeon	<i>Acipenser medirostris</i>	Sound	N/A	71 FR 17757; April 7, 2006

These determinations are supported by the letter of concurrence from NMFS for the similar Point Arguello Project (NMFS, 2020) and we seek your concurrence with our determinations for the Santa Clara Unit Program.

We thank you for your consideration and look forward to your response within 60 days of your receiving this request. Please contact Dr. Desray Reeb at [desray.reeb@boem.gov](mailto:desray.reeb@boem.gov), or 805-384-6396 for any questions related this request.

Sincerely,

Lisa Gilbane

Enclosure: Reference List

Reference List:

Argo, T. and Dzwilewski, P.T. 2019. Water Shock Environment and Resulting Isopleth for Explosive Removal of Offshore Structure: Underwater Calculator 3 (UWC3). US Department of the Interior, Bureau of Safety and Environmental Enforcement Report, Gulf of Mexico OCS Region. April 26, 2019.

Dzwilewski, P. D. and Fenton, G. 2003. Shock wave/sound propagation modeling results for calculating marine protected species impact zones during explosive removal of offshore structures. 2003-059. US Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region.

McCauley, R.D. 2004. Measurement of Underwater Noise Produced During Wellhead Cutting Operations and an Estimation of its Environmental Influence. Center for Marine Science and Technology, Curtin University. SEATRAC Underwater Engineering and Woodside Energy. CMST 412. Report R2003-20. PP. 16.

National Marine Fisheries Service (NMFS). June 23, 2020. Endangered Species Act Section 7(a)(2) Concurrence for the Point Arguello Field Platforms Well Conductor Casing Removal Project.

Port of Long Beach (POLB). 2019. Port of Long Beach, Draft Master Plan Air Emission Inventory. <http://www.polb.com/civica/filebank/blobload.asp?BlobID=15173> referenced October 30, 2019.