



**ASSESSMENT OF BIOLOGICAL TRANSECTS  
THROUGH ROCK SHELF AREA  
SANTA YNEZ UNIT (SYU)**

**Preliminary**

**SUBMITTED BY**



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## EXECUTIVE SUMMARY

- ExxonMobil Production Company (ExxonMobil) contracted marine archaeologists from C & C Technologies, Inc. (C&C) to conduct an archaeological assessment of unidentified sonar contacts, seafloor survey of geophysical survey data gap areas, and other seafloor features within the Santa Ynez Unit using a Remotely Operated Vehicle (ROV) between November 17 and 22, 2011.
- A Shelf Break Rock Area survey was added to the scope of work on November 17, 2012
- The ROV survey through the Shelf Break Rock Area was conducted on November 21, 2011.
- The Shelf Break Rock Area survey was conducted between anomaly investigations of Targets T41 and T42.
- The Shelf Break Rock Area survey started at the State/Federal Line, 540 feet south of Target T41.
- The Shelf Break Rock Area survey ended 104 feet north of Target T42.
- The Shelf Break Rock Area survey consisted of three connected transect lines covering a total distance of 1,815 feet.

## ROV SURVEY OF SHELF BREAK ROCK AREA

ExxonMobil Production Company (ExxonMobil) contracted C & C Technologies, Inc. (C&C) to provide a clarification report for the biological transects run through the “Shelf Break Rock Area.” The Shelf Break Rock Area survey was conducted while ExxonMobil was in the field conducting an archaeological assessment of unidentified sonar contacts and seafloor survey of geophysical survey data gap areas (Data Gap Surveys) in support of the Santa Ynez Unit (SYU) Offshore Power System Reliability-B (OPSRB) Project, offshore Las Flores Canyon, California (Illustration No. 1). The field work was conducted using a Remotely Operated Vehicle (ROV) between November 17 and 22, 2011 (Church 2012) under the requirements established in the United States Department of the Interior, Bureau of Ocean Energy Management (BOEM) and Bureau of Safety and Environmental Enforcement (BSEE) ROV\_2005\_1 "Remotely Operated Vehicle (ROV) Investigations of Unidentified Magnetic Anomalies and/or Sidescan Sonar Targets: Methodological Guidelines." An ROV survey plan was submitted and accepted by the BOEM/BSEE prior to beginning field operations. The Shelf Break Rock Area survey was not covered under the survey plan. BSEE/BOEM requested additional investigation within the Shelf Break Rock Area for biological purposes after field operations began on November 17, 2011.

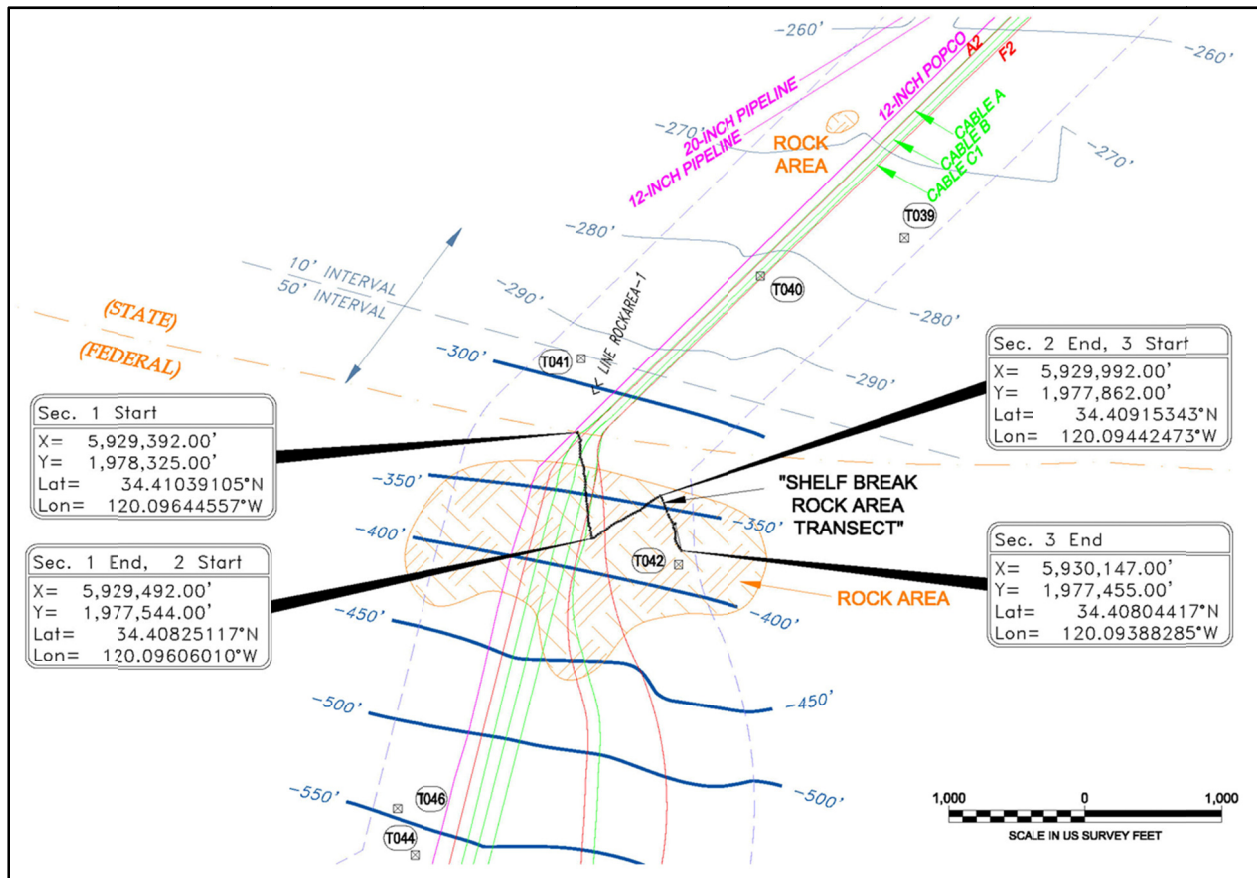
The Shelf Break Rock Area is located approximately 1.5 nautical miles northeast of Platform Hondo and between isobaths -340 to -450 feet. Three connected transects (Segments 1-3) were run through the Shelf Break Rock Area to document the current condition of the seafloor. The Shelf Break Rock Area was conducted between anomaly investigations of Targets T41 and T42.

The last Target investigated before the Shelf Break Rock Area transect began was Target 41. The investigation of Target T41 ended at 1530 hours on November 21, 2011. The ROV returned to the cage to prevent tether entanglement and facilitate a quicker transit to the start point of the Shelf Break Rock Area transect. The transect survey began at 1551 hours on November 21, 2011. Section 1 of the transect started at the State/Federal waters demarcation point approximately 200 feet north of the Shelf Break Rock Area and 540 feet south of Target T41 to insure the transect covered the northern edge of the Shelf Break Rock Area. Section 1 was run south-southeast on an average heading of 173° for 787 feet. Section 2 continues from the southern end of Section 1 running northeast on an average heading of 58° for 592 feet. Section 3 continues from the northern end of Section 2 running southeast on an average heading of 159° for 436 feet. The transect ended 104 feet north of Target T-42 at 1638 hours on November 21, 2011. Section 3 was planned to end at Target T42, but the tether became entangled and the transect survey was ended to clear the tether. The ROV returned to the cage after clearing the tether and the ship and ROV transited to the Target T42 location. The investigation of Target T42 began at 1704 hour on November 21, 2011.

The transect sections covered a 1,815 foot long zig zag path through the Shelf Break Rock Area. The endpoint coordinates of each transect section are listed in the following table.

**Shelf Break Rock Area Transect Table**

Designation	Date / Time	ROV positions (USBL) California Zone V, NAD 83						
		Section	(Local)	Easting	Northing	Latitude	Longitude	USBL Depth
1 Start	11/21/2011 15:52:31			5,929,392'	1978325'	34.4103910° N	120.09644557° W	-301'
1 End, 2 Start	11/21/2011 16:11:11			5,929,492'	1977544'	34.40825117° N	120.09606010° W	-369'
2 End, 3 Start	11/21/2011 16:23:15			5,929,992'	1977862'	34.40915343° N	120.09442473° W	-336'
3 End	11/21/2011 16:35:46			5,930,147'	1977455'	34.40804417° N	120.09388285° W	-365'



**Illustration 1. Shelf Break Rock Area.**

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## REFERENCES

- Church, Robert A. 2012. Archaeological Assessment Of ROV Anomaly And Geophysical Survey Data Gap Areas Supporting The Santa Ynez Unit (SYU) Offshore Power System Reliability-B Project (OPSRB) [Survey Period: November 17 and 22, 2011, 2011]. Prepared by C & C Technologies, Inc. for ExxonMobil Production Company
- BOEM. 2005. ROV\_2005\_1, "Remotely Operated Vehicle (ROV) Investigations of Unidentified Magnetic Anomalies and/or Sidescan Sonar Targets: Methodological Guidelines," Department of Interior Bureau of Ocean Energy Management (BOEM).