

Environmental Studies Program: Ongoing Study

Title	Retrospective Synthesis of Historical Alaska OCS Oil and Gas Activities (AK-22-06)
Administered by	Alaska Regional Office
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Procurement Type(s)	Contract
Conducting Organization(s)	AECOM Technical Services, Inc.
Total BOEM Cost	\$299,933.33
Performance Period	FY 2022–2024
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PICOC Summary	
<i><u>Problem</u></i>	Quantitative information about historical Alaska Outer Continental Shelf (OCS) oil and gas exploration, development, and production activities (historical Alaska OCS activities) is not readily available for SMEs to validate lease sale exploration and development (E&D) scenarios or for geospatial and temporal evaluation of impact producing factors in National Environmental Policy Act (NEPA) analyses.
<i><u>Intervention</u></i>	This study will collate, quantify, and synthesize information about individual historical Alaska OCS activities, including various related parameters, and their geospatial and temporal footprints.
<i><u>Comparison</u></i>	The synthesis will enable prompt access to information, understanding of how historical Alaska OCS activities relate to the current activities in Alaska, as well as provide validation for E&D scenario levels of activities.
<i><u>Outcome</u></i>	A synthesis of historical Alaska OCS activity information will improve access, supply context, and support integrated geospatial and temporal assessments of potential future impacts.
<i><u>Context</u></i>	All Alaska OCS Areas

BOEM Information Need(s): Collating and synthesizing information on historical Alaska OCS activities and associated parameters will support the validation of BOEM’s E&D scenarios for future NEPA analyses, quantify levels of historical impact producing factors, and contribute to a better understanding of the spatial and temporal scope of past, present, and reasonably foreseeable activities for evaluating impacts.

Background: BOEM uses information regarding historical Alaska OCS activities and their associated impact producing factors to evaluate potential impacts that may be associated with Alaska OCS oil and gas exploration, development, and production activities. In BOEM’s NEPA assessments, impact producing factors are correlated with a range of parameters, such as the number, timing, location, water

depth, well cellar depth, and results of wells drilled; discharges; facility types; and aircraft/vessels/vehicles utilized, including transportation routes used and the number and frequency of trips. Much of the historical information is contained within Environmental Studies Program monitoring reports (e.g., Burden et al. 1985, Dames & Moore, 1978; Kevin Waring and Associates 1985; Northern Resource Management 1980) and operator reports submitted to BOEM or its predecessors. BOEM's Alaska Resource Evaluation section has collated information on the 107 Alaska OCS wells drilled. However, it is difficult to find and synthesize activity information in a timely manner to answer questions related to historical Alaska OCS activities.

Objectives: This study will examine and compile information about historical Alaska OCS activities and associated parameters between 1979 and 2021. Specific objectives include:

- Quantify historical Alaska OCS activity information and relevant parameters for verification or validation of E&D scenarios.
- Establish a dataset of temporal and spatial information from historical Alaska OCS activities in the marine environment to inform identification of relevant impact producing factors for NEPA assessments.
- Develop a detailed written synthesis of Alaska historical oil and gas activity to inform SMEs and capture and curate institutional knowledge for NEPA assessment.

Methods: Researchers will conduct a detailed review, compile, and collate available information about historical Alaska OCS activities and associated parameters to establish a framework of consistent data elements for synthesis and analysis. Information that addresses the aforementioned objectives gathered from peer-reviewed literature, reports, and summary documents will be synthesized into a geodatabase as well as a report. Researchers will craft concise statements that can be easily and readily used in future environmental analyses to describe the levels of levels of leasing, oil and gas exploration and development, infrastructure, and activities in context with proposed activities to support future planning and decision-making.

Specific Research Question(s):

1. What are the levels of historical Federal OCS oil and gas activities, and can they be used as input to or validation of E&D Scenarios used in NEPA assessments?
2. What are the levels and spatial and temporal distribution of historical Alaska OCS activities and related parameters compared to activities on existing leases?

Current Status: Awarded

Publications Completed: None

Affiliated WWW Sites: <http://www.boem.gov/akstudies/>

References:

Burden PL, Feldman ML, Barloon KL. 1985. Monitoring OCS Activity in The Bering Sea. OCS Study MMS 85-0027/Technical Report 114. Prepared by Patrick Burden & Associates and Dames & Moore for USDO, MMS, Alaska OCS Office. 193 pp. + Appendices.

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Dames & Moore. 1978. Monitoring Petroleum Activities in the Gulf of Alaska and Lower Cook Inlet Between April 1975 and June 1978. Anchorage (AK): U.S. Department of the Interior, Bureau of Land Management, Alaska OCS Office. 82 pp. Report No.: Technical Report 17.

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Kevin Waring Associates. 1985. Monitoring Oil Exploration Activities in the Beaufort Sea. OCS Study MMS 84-0060/Technical Report 107. Anchorage, AK: Prepared for USDO, MMS, Alaska OCS Office. 193 pp. + Appendices. <https://espis.boem.gov/technical%20summaries/1688.pdf>

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