

ORGANIC GEOCHEMICAL DATA FOR ALTAMURA 1, AMAGUQ 2, FIN CK UNIT 1, IKPIKPUK TEST WELL 1, ITKILLIK UNIT 1, KAD RIV 1, KADLER ST 15-09-16, KOLUKTAK TEST WELL 1, MALGUK 1, MUSKOXEN 36-7-8, NARVAQ 1, SEQUOIA 1, SQUARE LK TEST WELL 1, WOLF CK 4, WOLF CK TEST WELL 3, AND WOLFBUTTON 25-6-9 WELLS, NORTH SLOPE, ALASKA

ConocoPhillips and Weatherford Laboratories

Geologic Materials Center Data Report 472

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DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS



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ORGANIC GEOCHEMICAL DATA FOR ALTAMURA 1, AMAGUQ 2, FIN CK UNIT 1, IKPIKPUK TEST WELL 1, ITKILLIK UNIT 1, KAD RIV 1, KADLER ST 15-09-16, KOLUKTAK TEST WELL 1, MALGUK 1, MUSKOXEN 36-7-8, NARVAQ 1, SEQUOIA 1, SQUARE LK TEST WELL 1, WOLF CK 4, WOLF CK TEST WELL 3, AND WOLFBUTTON 25-6-9 WELLS, NORTH SLOPE, ALASKA

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INTRODUCTION

This report presents biomarker GC–MS (ARO fraction), biomarker GC–MS (SAT fraction), MPLC, Rock-Eval/TOC, Soxhlet extraction, and whole-oil GC organic geochemical data from Altamura 1, Amaguq 2, Fin Ck Unit 1, Ikpikpuk Test Well 1, Itkillik Unit 1, Kad Riv 1, Kadler St 15-09-16, Koluktak Test Well 1, Malguk 1, Muskoxen 36-7-8, Narvaq 1, Sequoia 1, Square Lk Test Well 1, Wolf Ck 4, Wolf Ck Test Well 3, and Wolfbutton 25-6-9 wells, North Slope, Alaska. The data provide insight into the geochemical characteristics, thermal maturity, and potential hydrocarbon-source relationships of multiple North Slope wells, offering a foundational dataset that can support petroleum system evaluation and future research. A third-party agency conducted this work using material derived from GMC-housed samples. The results and interpretations have not undergone technical review and should not be cited as reviewed data or as an authoritative information source. These data are released as a Geologic Materials Center Report under an open end-user license and are available from the DGGs website (<https://doi.org/10.14509/31742>).

DATA PRODUCTS

The table below (table 1) lists well names standardized to match the Alaska Oil and Gas Conservation Commission (AOGCC) database (Alaska Oil and Gas Conservation Commission, 2024). However, the data collection provides files and documentation exactly as received from ConocoPhillips staff. In some cases, laboratory labeling differs from AOGCC records. We retain the original submittal labeling to preserve the integrity of the source materials.

Table 1. Well names and corresponding data files

Well Name	Analyses
Altamura 1	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction); MPLC
Amaguq 2	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction)
Fin Ck Unit 1	Rock-Eval/TOC
Ikpikpuk Test Well 1	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction)
Itkillik Unit 1	Soxhlet extraction; Whole-oil GC
Kad Riv 1	Rock-Eval/TOC; Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction)

Well Name	Analyses
Kadler St 15-09-16	Rock-Eval/TOC
Koluktak Test Well 1	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction)
Malguk 1	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction)
Muskoxen 36-7-8	Soxhlet extraction; Whole-oil GC
Narvaq 1	Soxhlet extraction; Whole-oil GC
Sequoia 1	Rock-Eval/TOC
Square Lk Test Well 1	Soxhlet extraction; Whole-oil GC; Biomarker GC–MS (ARO fraction); Biomarker GC–MS (SAT fraction); MPLC
Wolfbutton 25-6-9	Soxhlet extraction; Whole-oil GC
Wolf Ck Test Well 3	Soxhlet extraction; Whole-oil GC
Wolf Ck 4	Soxhlet extraction; Whole-oil GC

ACKNOWLEDGMENTS

The Alaska Geologic Materials Center (GMC) connects the state's largest geologic collections to research, industry, and education communities, fostering greater geologic understanding, increased awareness of economic opportunities, and stimulating public interest and knowledge in Alaska's geologic history. The GMC data archive provides analytical and interpretive data resulting from third-party testing of material borrowed from samples housed at the Alaska Geologic Materials Center. Simone Montayne and GMC staff coordinated this data release.

REFERENCES

Alaska Oil and Gas Conservation Commission, 2024, AOGCC public data resources: Alaska Oil and Gas Conservation Commission database, accessed December 31, 2025, at <https://www.commerce.alaska.gov/web/aogcc/Data.aspx>