

Assessment of Transitional North Slope Oil Reservoirs

FY2018 Request:

\$750,000

Reference No:

61663

AP/AL: Appropriation

Project Type: Research / Studies / Planning

Category: Natural Resources

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Fabienne Peter-Contesse

Estimated Project Dates: 07/01/2017 - 06/30/2022

Contact Phone: (907)465-2422

Brief Summary and Statement of Need:

This project leverages United States Geological Survey (USGS) federal grant funding to stimulate future oil development on the North Slope. The project will produce the new science and data needed for assessing undiscovered, technically recoverable oil and gas resources in transitional permeability tight sandstones. This will promote exploration investment and new discoveries of conventional and unconventional reservoirs.

Funding:	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
1002 Fed Rcpts	\$750,000	\$750,000	\$750,000				\$2,250,000
Total:	\$750,000	\$750,000	\$750,000	\$0	\$0	\$0	\$2,250,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

No prior funding history.

Project Description/Justification:

Recent estimates of undiscovered, technically recoverable resources in the Arctic Alaska petroleum province (onshore and offshore) by the U.S. Geological Survey (USGS) include nearly 40 billion barrels of oil and other petroleum liquids, and more than 200 trillion cubic feet of natural gas. These volumes do not include transitional permeability tight sandstones, which are considered to have significant oil and gas potential and could add significantly to these totals. Despite this potential, the geology of these sandstones is poorly known. As discovery of conventional fields decrease, these resources will come into focus as the next phase of oil development on the North Slope. Understanding the size and distribution of these resources will bring industry focus on the opportunity for development, which is crucial for long-term North Slope oil production. This work will provide necessary data for assessing undiscovered, technically recoverable oil and gas resources in transitional permeability tight sandstones.

This project was developed in conjunction with Division of Oil & Gas geologists and USGS Energy Resources Program staff. Federal funds are currently included in the Senate markup of the USGS Federal Fiscal Year 2018 budget for this work.

This project will produce the new science and data needed for assessing undiscovered, technically recoverable oil and gas resources in transitional permeability tight sandstones. This will promote exploration investment and new discoveries of conventional and unconventional reservoirs. This information will be available to the public as peer-reviewed maps and reports.

Previous drilling in the eastern National Petroleum Reserve in Alaska and on state lands east of the Colville River has resulted in several commercial discoveries in conventional reservoirs. Numerous, previously sub-commercial exploration wells have encountered thick successions of tight rocks with abundant oil and gas shows. Given the widespread occurrence of tight formations across the North Slope and new completion techniques, it is reasonable to infer that sizable volumes of light oil and gas could be produced from transitional permeability sandstones or unconventional reservoirs in these types of rocks. New data field mapping, analyses, and interpretation are needed to characterize the geometry, distribution, and characteristics of these reservoirs. This will catalyze discoveries of conventional reservoirs, and to help ensure success in finding and producing resources from lower permeability rocks on the North Slope.

Budget Detail:

Line Item	Amount
1000 – Personal Services	\$450,000
2000 – Travel (mainly field work)	\$75,000
3000 – Services (helicopter and analytical)	\$200,000
4000 – Commodities (fuel, field supplies)	\$25,000
5000 – Capital Outlay	\$0.0
7000 – Grants	\$0.0
Total Project	\$750,000

Position Detail:
All are existing positions located in Fairbanks.

(10-X013)
Petroleum
Geologist I, PFT
(10-2133)

Geologist IV, PFT
(10-2016) Geologist IV, PFT
(10-2227) Geologist III, PFT
(10-2124) Geologist II, PFT
(10-2035) Geologist II, PFT