

PRELIMINARY FINDINGS AND DETERMINATION BADAMI ROYALTY MODIFICATION

Legislative Budget and Audit Committee



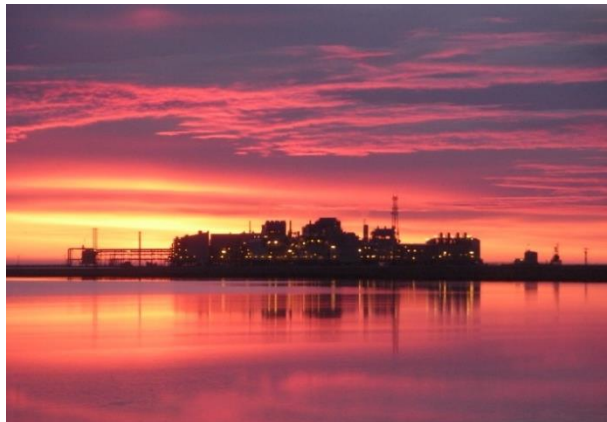
Presented by:

John Crowther, Deputy Commissioner, Department of Natural Resources

Derek Nottingham, Director, Division of Oil & Gas

Jhonny Meza, Commercial Section Manager, Division of Oil & Gas

August 2, 2023



EXECUTIVE SUMMARY



- Savant Alaska, LLC, operator of the Badami Unit, submitted a royalty modification application to DNR in 2021.
- The application to reduce royalty is intended to prolong the economic life of the unit as per barrel costs were increasing due to declining production.
- DNR engaged in an extensive review and analysis process of confidential financial and production information provided by the applicant.
- DNR concluded that, absent additional production from new drilling, increasing per barrel costs at Badami would likely result in the unit reaching the end of the economic field life.
- DNR has recommended a royalty modification mechanism based on monthly revenues.
- DNR analyses showed that royalty modification would extend the life of the field with an expected increase in revenue to the State.

OUTLINE OF PRESENTATION



- State of Alaska Royalty Modification - Relevant Statutes and History
- Badami Unit Background- Location, Acreage, Lease Information, and Production History
- DNR Analysis of Savant Application:
 - Meeting Statutory Criteria
 - DNR Royalty Modification Analysis - Scenario Modeling and Pipeline Tariffs Results
- Granting Royalty Modification is in the Best Interests of the State:
 - Quantified Benefits
 - Unquantified Indirect Benefits
- DNR Royalty Modification Mechanism
- Terms of Proposed Royalty Modification

STATE OF ALASKA ROYALTY MODIFICATION- RELEVANT STATUTES



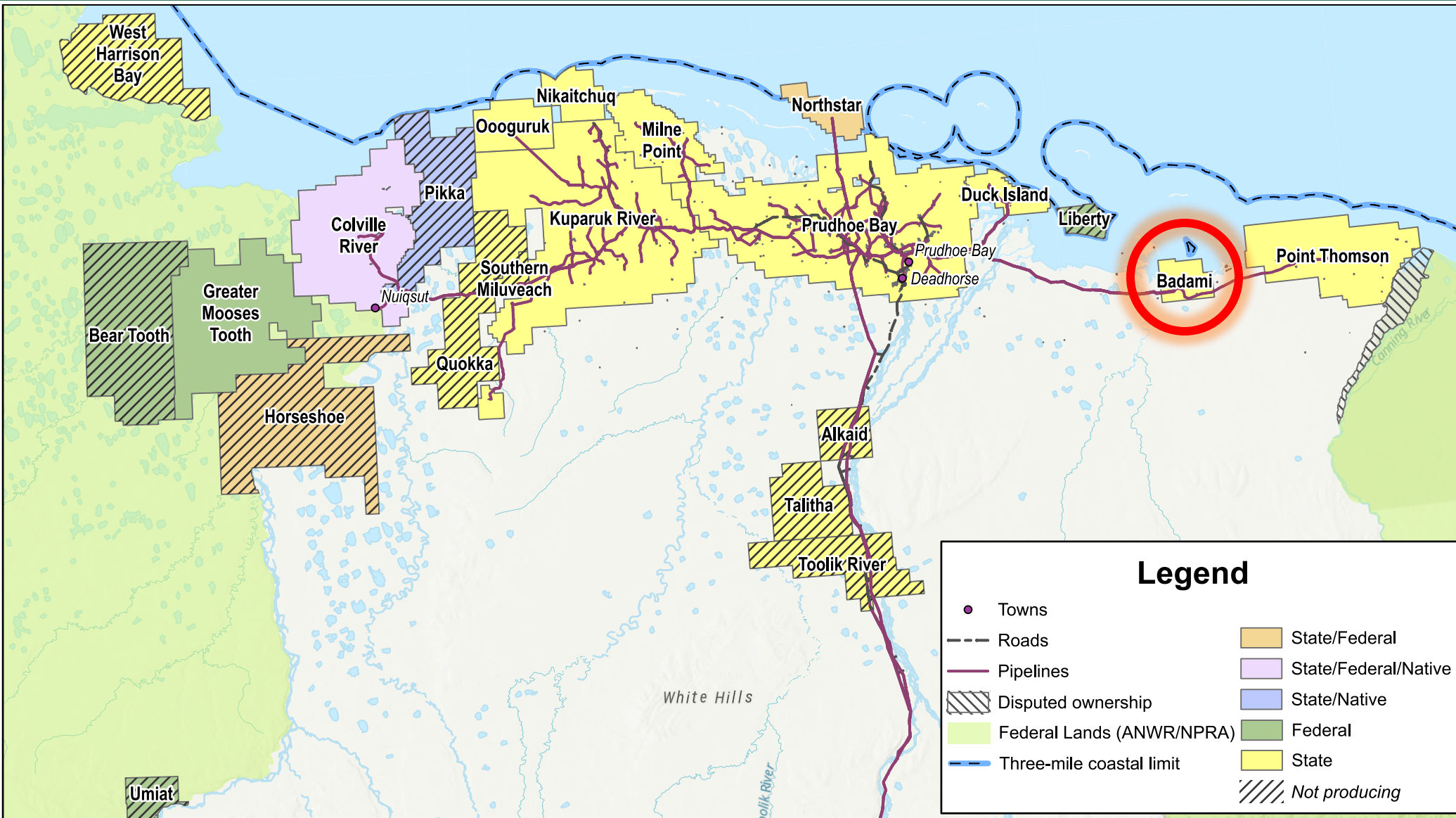
- The commissioner:
 - AS 38.05.180(j)(1)(B): may provide modification of royalty “to prolong the economic life of an oil or gas field or pool as per barrel or barrel equivalent costs increase or as the price of oil or gas decreases, and the increase or decrease is sufficient to make future production no longer economically feasible.”
 - AS 38.05.180(j)(4)(B) “may not grant a royalty reduction ... under 1(B) of this subsection...of less than three percent ...”
- The lessee needs to:
 - AS 38.05.180(j)(2): “make a clear and convincing showing that a modification of royalty” meets the statutory requirements and “is in the best interest of the state.”
- AS 38.05.180(j)(3): The royalty modification mechanism “... shall be based on a change in the price of oil or gas and may also be based on other relevant factors such as a change in production rate...”

STATE OF ALASKA ROYALTY MODIFICATION- HISTORY



Year	Lessee	Field or pool	Outcome
1995	BP	Milne Point	Denied
1997	Unocal	10 Cook Inlet platforms	Application withdrawn
1999	Phillips	1 Cook Inlet platform (Tyonek Deep)	Application withdrawn
2005	Pioneer and Eni	Oooguruk (Kuparuk and Nuiqsut)	Granted
2006	Kerr-McGee and Eni	Nikaitchuq and Tuvaag	Denied
2007	Chevron (Unocal)	Fields in West Cook Inlet (Ivan River and Stump Lake)	Application withdrawn
2008	Eni	Nikaitchuq (Schrader Bluff)	Granted
2014	Caelus	Oooguruk (Nuna Torok)	Granted
2021	Oil Search	Pikka	Application withdrawn

BADAMI UNIT BACKGROUND- UNIT LOCATION ON NORTH SLOPE



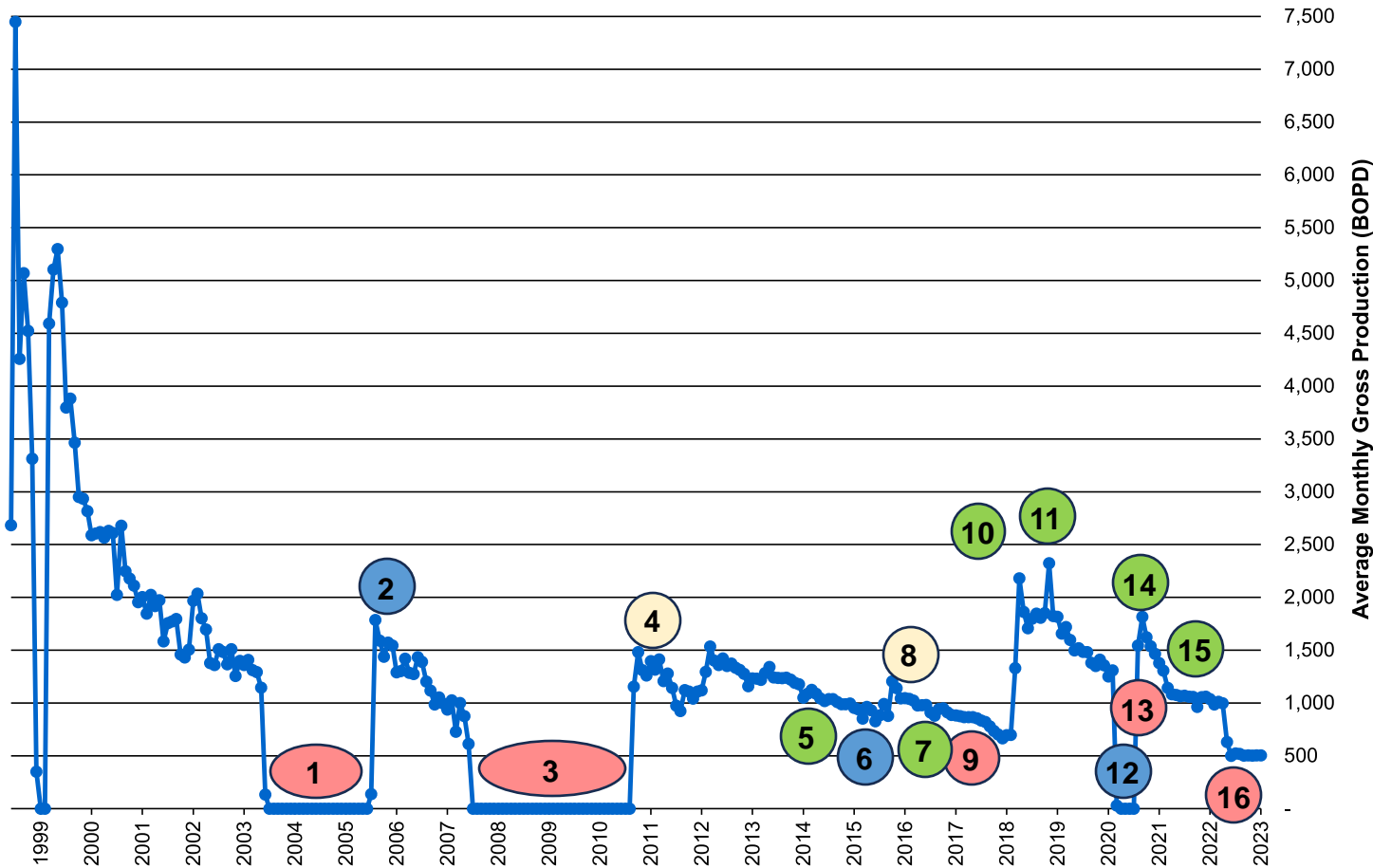
Key Features:

- Badami Unit further away from key infrastructure.
- Due to remote location, harder to transport resources and equipment.
- Important for existing and potential developments surrounding the Badami Unit.

BADAMI UNIT BACKGROUND- PRODUCTION HISTORY



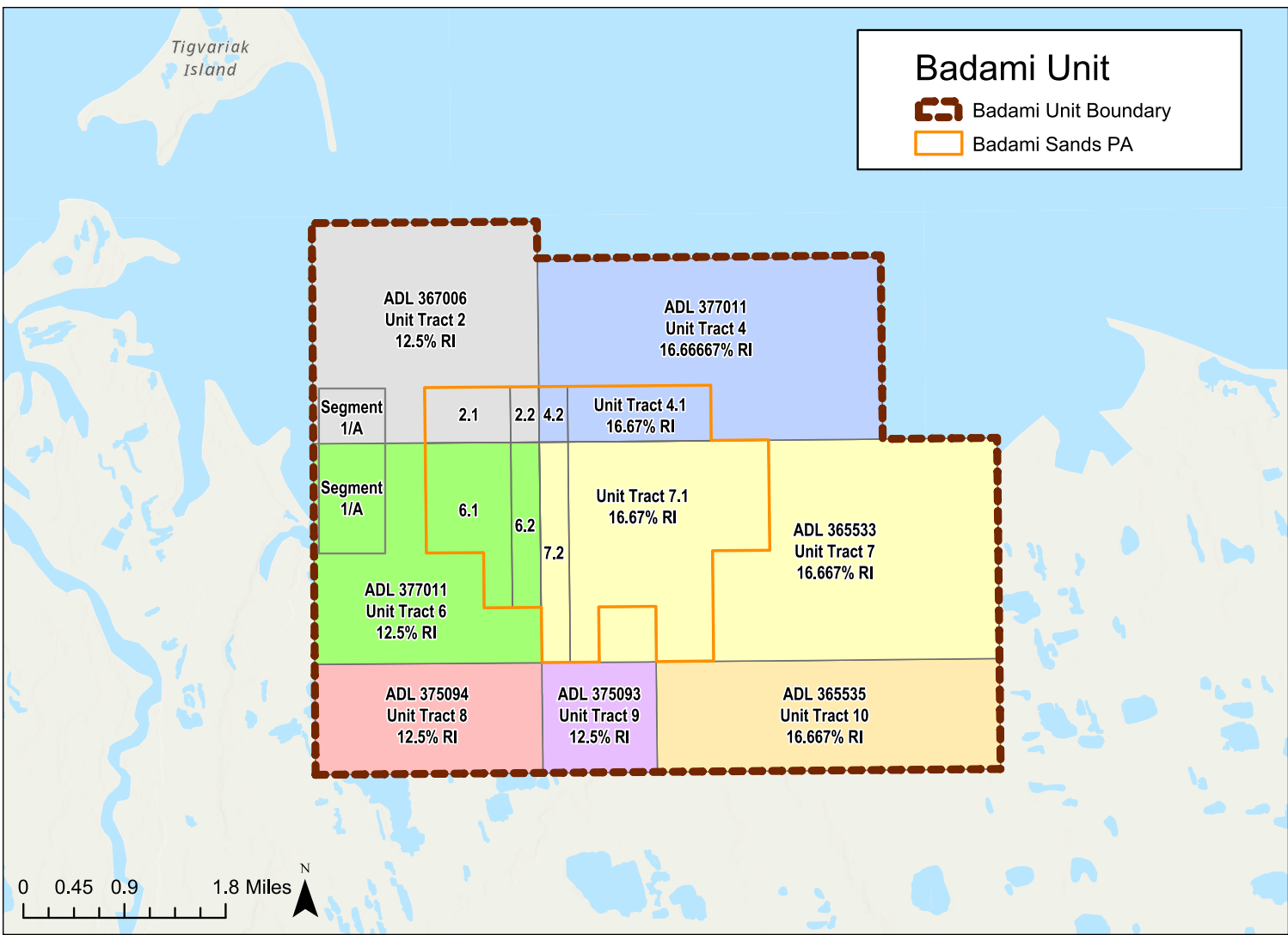
Badami Oil Production



- Badami facilities designed for 35,000 barrels of oil per day (bopd). Expected peak production was 30,000 bopd, but actual production declined to 1,400 bopd in 2003.
- BP Exploration (Alaska) (BP) suspended operations from 2003-2005 and 2007-2011.
- Badami reservoir has always been challenging to develop due to compartmentalization.
- Historically shown very steep declines (around 15–20% average; 30–50% after periods of flush production, gas lift, and perforations).
- **If not for B1-07 well in 2018, Badami may have been at end of field life earlier.**

1	2003 BP field shut-in	5	2014 B1-11 perf adds	9	2017 B1-16 ESP failure	13	2020 Badami warmstack (MAY–OCT)
2	2006 Oil prices rise	6	2015 facility optimization	10	2018 B1-07 Starfish start	14	2021 Badami restart (+50% production)
3	BP field shut-in	7	2016 B1-36 perf adds	11	2019 B1-16 gas lift	15	2021 B1-07 gas lift
4	Savant unit purchase	8	2016 Glacier unit purchase	12	2020 turnaround	16	2022 B1-07 shut-in

BADAMI UNIT BACKGROUND- ACREAGE AND LEASE INFORMATION



Unit Tract Royalty Rate Details

ADL	Unit Tract	Royalty Rate
375094	8	12.500%
375093	9	12.500%
367006	2	12.500%
	2.1	12.500%
	2.2	14.585%
367011	6	12.500%
	Tract Operation	12.500%
	Tract Operation	12.500%
	6.1	12.500%
	6.2	14.585%
377011	4	16.66667%
	4.1	16.67%
	4.2	14.585%
365533	7	16.667%
	7.1	16.67%
	7.2	14.585%
365535	10	16.67%

No overriding royalty interests present in Badami leases

DNR ANALYSIS OF SAVANT APPLICATION-MEETING STATUTORY CRITERIA I



- **The applicant made a clear and convincing showing that the requested royalty modification meets the requirements of AS 38.05.180.**
- Savant:
 - Provided sufficient technical and financial information per AS 38.05.180(j)(6)
 - DNR examined cash flows models, financial statements, and production profiles; held multiple meetings with Savant.
 - Savant provided DNR information both initially and during the review and analysis process.
 - DNR kept apprised of changes in circumstances in the unit.
 - Demonstrated the per-barrel costs increase will make future production uneconomic per AS 38.05.180(j)(2)
 - The increase in per-barrel costs is mainly due to declining production for current wells.
 - Lease operating expenditures and general and administrative costs expected to remain relatively constant and not change with production.
 - DNR reviewed current and historical data for Badami to verify expectations for the short-term future.

DNR ANALYSIS OF SAVANT APPLICATION-MEETING STATUTORY CRITERIA II



- Savant:
 - Demonstrated that royalty modification would prolong the economic life of Badami Unit per AS 38.05.180(j)(1)(B).
 - Savant application showed an extension of 1 to 3 months.
 - Savant proposed a royalty modification mechanism that was based on production only.
 - It did not meet the requirement per AS 38.05.180(j)(3) because it did not include oil price.
 - DNR royalty modification expected to extend field life by 6 to 7 months.
 - The modification mechanism is based on monthly revenues.
 - DNR model accounted for multiple price, production and possible shutdown scenarios.
- **Modification is in the best interests of the State per AS 38.05.180(j)(2)**
 - DNR modification extends life of field; generates revenues, both State and local; offers indirect benefits.
 - Savant application offered extension to field life but did not result in increased revenues for the State.

DNR ANALYSIS OF ROYALTY MODIFICATION- SCENARIO MODELING KEY RESULTS



DNR Modeling Results

State Benefits	Measurement of Interest (compared to not granting royalty modification)	Scenario Profile Considered 10 Most Likely Scenarios
Field Life Extension	Average Extension	7.2 months
	Scenarios without Extension	0%
	Highest Extension of Field Life	10 months
	Earliest Shutdown with Modification	February 2026
	Most Likely Shutdown with Modification	September 2026
	Earliest Shutdown without Modification	August 2025
	Most Likely Shutdown without Modification	January 2026
State Revenues	Average State Revenue Gains	\$145,000 <ul style="list-style-type: none"> Badami field: (\$373,000) Estimated savings from delaying pipeline tariff increases: \$518,000
	State Revenue Range	(\$663,000) - \$983,000

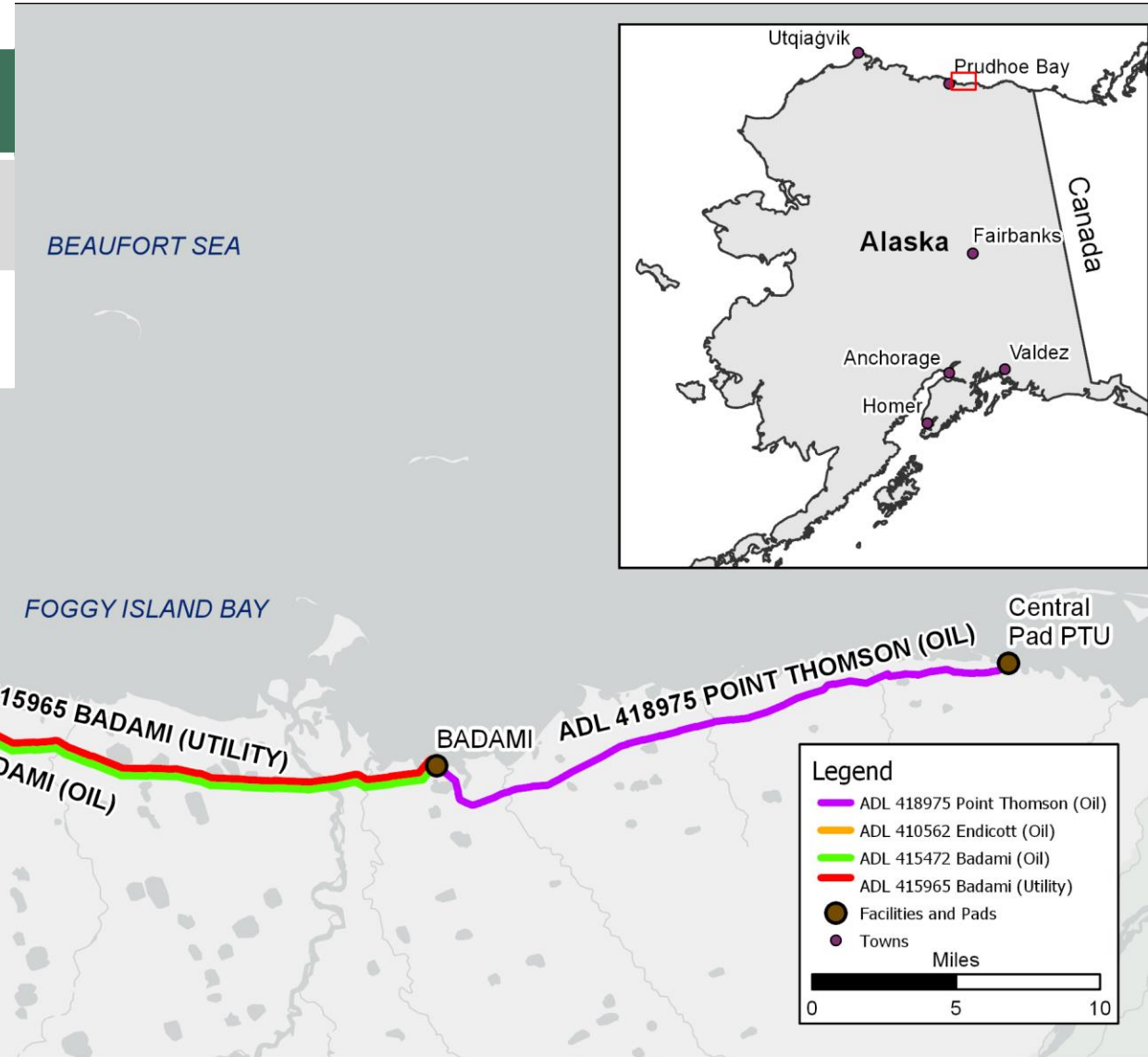
- Field life expected to be extended on average by 6 to 7 months.
- Highest expected extension was 10 months for most likely scenarios.
- In general, higher prices and more forward-looking Savant shutdown horizons resulted in longer extensions to field life.
- Extension to field life accompanied by expected increases in revenues to the State.
- Average expected revenues to the State approximately \$145,000
- Local governments expected to see additional \$540,000 in property tax revenue.

DNR ANALYSIS OF ROYALTY MODIFICATION- MODELING PIPELINE TARIFFS



Estimated Savings from Delaying Pipeline Tariff Increases

State Savings	Shut-down Delay	Royalty Savings	Production Tax Savings	Total Savings
Average (50% Cost of Service increase for Endicott and Badami Pipelines, TAPS COS constant)	1 Month	\$22,000	\$52,000	\$74,000
	7 Months	\$154,000	\$364,000	\$518,000



TAPS = Trans Alaska Pipeline System
 COS = Cost of Service
 PTU = Point Thomson Unit
 MPI = Main Production Island
 SDI = Satellite Development Island

QUANTIFIED BENEFITS- MODELING REVENUE RESULTS

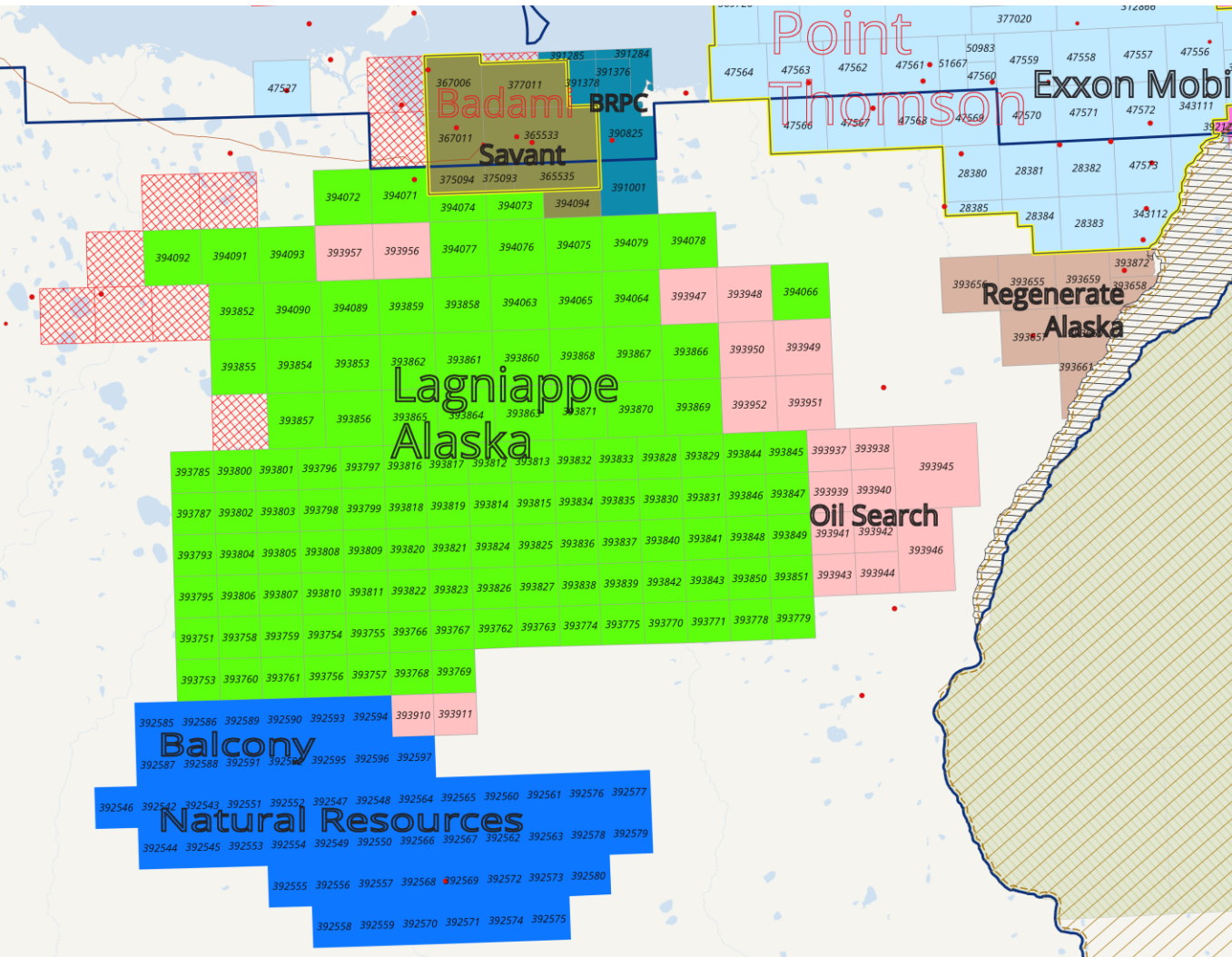


On average, the State gains revenue in the modeled scenarios

- While royalty revenues are reduced as the royalty rate is lowered, the State gains additional production tax and property tax revenues.
- Extending the life of Badami, and its production throughput, delays pipeline tariff increases, increasing State tax and royalty revenues on other oil.
- Overall, combined increases from tax and tariff revenues more than offset reductions in royalty revenue.

Total State and Local Revenues	Scenario Profile Considered 10 Most-likely Scenarios
Average impact in production taxes	\$316,000
Average impact in property taxes	\$600,000 (North Slope Borough Share: \$540,000 State of Alaska Share: \$60,000)
Average impact in royalty	(\$750,000)
Average pipeline tariff savings	\$518,000
Total average State revenues	\$145,000

- Explorers have obtained strategic positions around Badami: Lagniappe Alaska, LLC, Oil Search (Alaska), LLC, and Balcony Natural Resources, Inc.
- Extending field life and preserving existing infrastructure may be beneficial for new developments.
- DNR analysis shows that presence of oil and gas infrastructure increases interest in surrounding lease sales.
- Any developments surrounding Badami may result in increased throughput through the Badami pipeline system, lowering tariffs.



UNQUANTIFIED INDIRECT BENEFITS



Future Investment Potential

- Without new capital investment drilling, Badami will be near the end of its economic field life.
- Extending field life maintains options for possible future development and delays dismantlement, removal, and restoration (DR&R) costs; royalty relief will phase out if revenues increase due to additional drilling/production (price, etc.).

Environmental and Social Impacts

- Extending the life of Badami potentially allows for future exploration and development with less additional infrastructure construction.
- Savant has a proven track record of safety and compliance at Badami; Savant has 20 employees at Badami with additional contractors.

DNR ROYALTY MODIFICATION MECHANISM



DNR Royalty Modification Monthly Thresholds

Calendar Year	Monthly Threshold
2023	\$1,400,000
2024–2029	\$1,300,000

- DNR grants royalty reduction, via a mechanism based on price and production (i.e., actual monthly revenue generated by the sale of crude oil from Badami).
 - Monthly Thresholds are based on projections for lease operating expenses, field maintenance & supply, general and administrative expenses, taxes, and royalty payments, allocated monthly.
 - If Monthly Revenue **is greater than or equal to** Monthly Threshold, then the royalty rate is unchanged.
 - Royalty rate reduced only if Badami:
Monthly Revenues **is less than** Monthly Thresholds
 - Royalty rate reduced so that the benefit from royalty reduction plus the monthly revenue equals the Monthly Threshold.
 - Minimum royalty rate is 3 percent.
 - Subject to routine DNR royalty audit.

TERMS OF PROPOSED ROYALTY MODIFICATION



- Royalty modification will only apply to the seven leases included in the Badami Unit.
- DNR shall have the right to obtain expense invoices & financial/accounting records from Savant every six months.
- DNR shall have the right, upon notice to Savant, to terminate the royalty modification in whole or in part.
- Royalty modification shall expire on December 31, 2030, unless terminated previously by DNR.
- Royalty modification may not be assigned by Savant to another lessee without written approval of DNR Commissioner.
- Royalty modification shall not be applied retroactively; commences on effective date of Final Determination.

QUESTIONS?



Joe Byrnes
Legislative Liaison
Department of Natural Resources
907-465-4730
Joe.Byrnes@alaska.gov