



Leasing, Unitization, and Participating Areas

Senate Resources Committee

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Division of Oil and Gas



Overview



- Three primary management stages through the life of oil and gas exploration and development are
 - Leasing
 - Oil and gas mineral rights
 - Development
 - Units through unitization
 - Participating Areas through drilling



Leasing



- Primary mechanism by which the State grants exclusive rights to explore and develop the oil and gas mineral rights of the State to private parties
 - Competitive bidding
 - Terms and conditions have varied over time
 - Tracts are generally 3x3 miles, except in prime shale areas



State of Alaska Areawide Lease Sales



Schedule, Areas, Total Acreage

Spring

Cook Inlet

~4.2 million acres

Alaska Peninsula

~5.8 million acres

Fall

North Slope Foothills

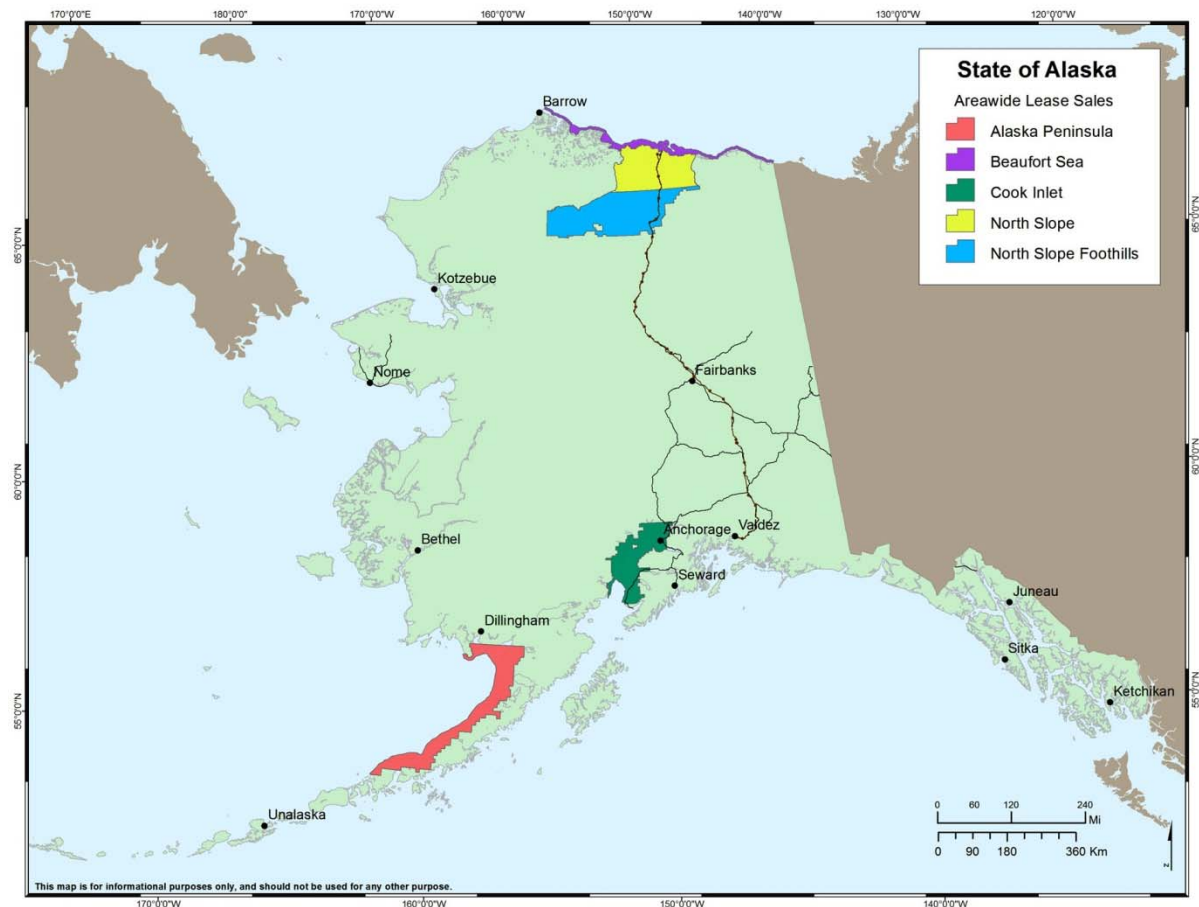
~7.6 million acres

North Slope

~5.1 million acres

Beaufort Sea

~2.0 million acres





North Slope leasing Terms and Conditions



Year			
Year	Primary Term	Rental Rate	Min bid/acre
1998-2001	7 years	\$1/acre, increasing by \$.50 annually until \$3/acre	\$5
2001-2004	7 years	\$1/acre, increasing by \$.50 annually until \$3/acre	\$10
2005	10 years	\$1/acre, increasing by \$.50 annually until \$3/acre	\$5
2006-2010	7 or 5 years depending on geographic location	\$1/acre, increasing by \$.50 annually until \$3/acre	\$10
2011-2012	10 years	<u>Primary acreage:</u> \$10/acre years 1-7, \$250/acre years 8-10*	\$25*

*Not applicable to lands adjacent to federal leases

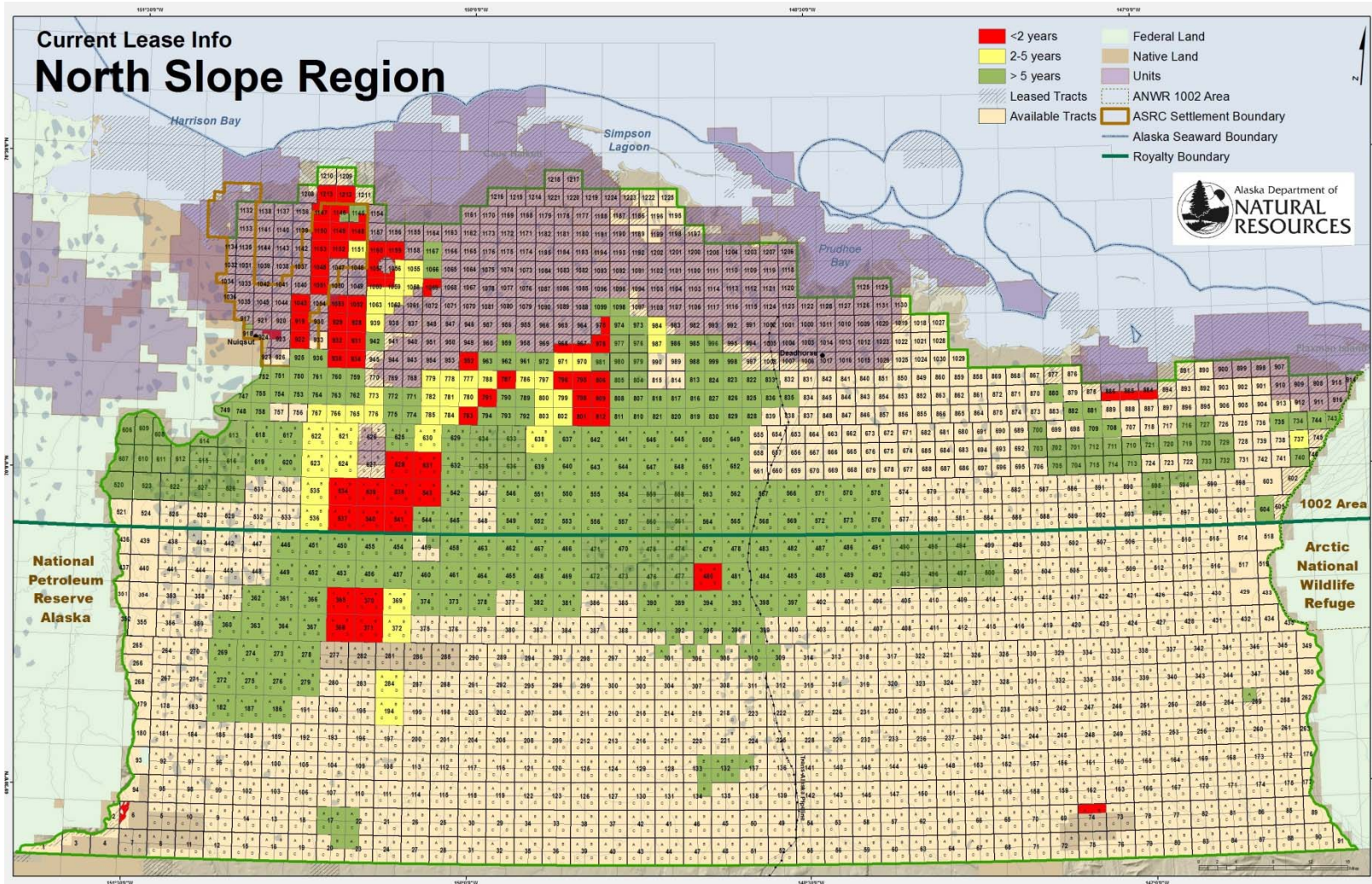


Why change lease terms?

- Shorter-term leases may leave operators with insufficient time to adequately explore and delineate prior to lease expiration.
- This may lead operators to request relief through unitization.
 - ✓ New North Slope unit applications since 2010: **8**
 - ✓ New North Slope unit applications including leases within five years of expiring: **8**
- Allowing reasonable time for operator to drill promotes development of state resources.
- **BUT** unitization without drilling is not a way to extend lease term
 - jeopardizes the state's interest
 - does not promote competition.



Lease Expiration





Lease extensions



- Leases can only be extended beyond the initial term through
 - Unitization
 - Certified wells
 - A well certified capable of producing in paying quantities, regardless of being on production
 - Actual sustained production
 - Actively drilling a well



Unitization



- Mechanism to join contiguous leased tracts together into a unit in order to
 - protect the interests of all parties, including the state
 - ensure proper reservoir management, and
 - enhance recovery of reserves



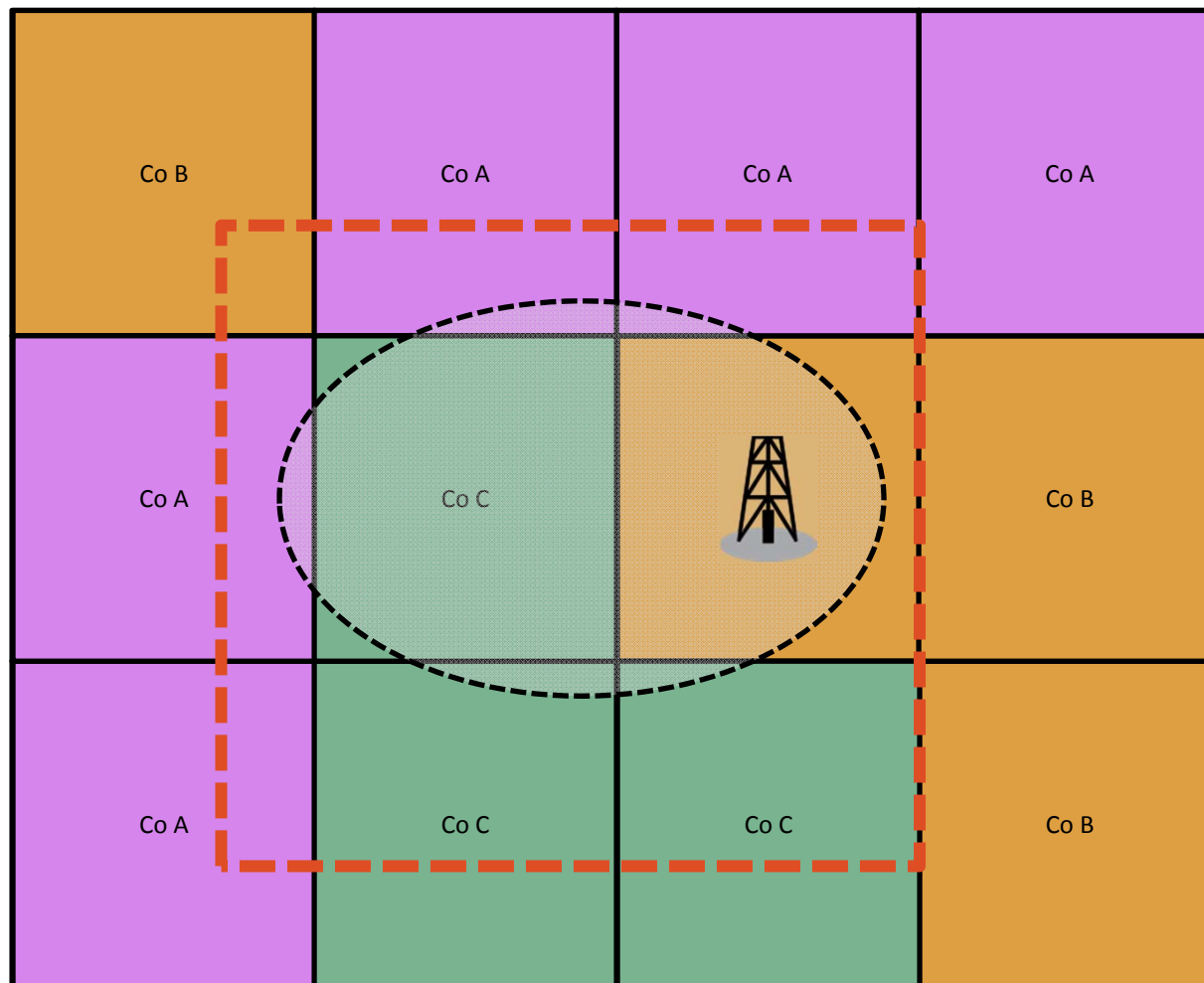
Unitization

(AS 38.05.180 & 11 AAC 83.303):

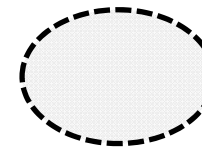
- Unitization is about **managing the resource**
 - Purpose (DNR Criteria for Unitization)
 - Conserve all natural resources, including all or part of an oil or gas pool, field, or like area
 - Promote prevention of economic and physical waste; and
 - Provide for the protection of all parties of interest, including the state
 - DNR also required to consider
 - Environmental cost and benefit of unitization
 - Geological & engineering characteristics of reservoir
 - Prior exploration activities
 - Economic cost and benefit to the state
 - Other relevant factors, including mitigation measures
 - Operator's application must demonstrate
 - Trapping mechanism
 - Reservoir defined by drilling



Unitization



Tract Boundaries



Delineated Reservoir



Proposed Unit Boundary



Unitization



- Unitization is used for efficient development of the reservoirs that are identified during primary term.
- It is **not**:
 - For conducting seismic work
 - For activities which can be conducted on a lease by lease basis
 - To allow a single owner time to pursue all acreage
- Unit expires by law five years from formation **unless**:
 - Sustained production achieved
 - Participating area formed
 - Existence of a well certified capable of producing in paying quantities



Unitization



- Opportunity for State to negotiate reasonable work commitments during unit approval process
 - Longer terms to allow companies to get to production
 - Negotiate assurance that operator will drill well commensurate with unit approval
 - Performance bond
 - Require complete, test, plug and abandon
- Opportunity for State to negotiate revisions to commitments during plan of exploration approval process
 - Units formed based on commitment to drill
 - Operator requests extension to drill by date after unit approved
 - Default and cure process provides operator and state with
 - extension of time to fulfill obligation without terminating unit and
 - protects state's interest to ensure development of unitized acreage or terminate unit



Participating Area (PA)

A sub-set of a Unit specifically identifying reservoir limits at various depths with sustained production.

- A PA is formed once the unitized reservoir is on “sustained production”
 - Separate PA required for each reservoir
 - PAs allocate production amongst tracts (Allocation Factors) on a particular basis: Acres, Oil in Place, and/or Recoverable Reserves



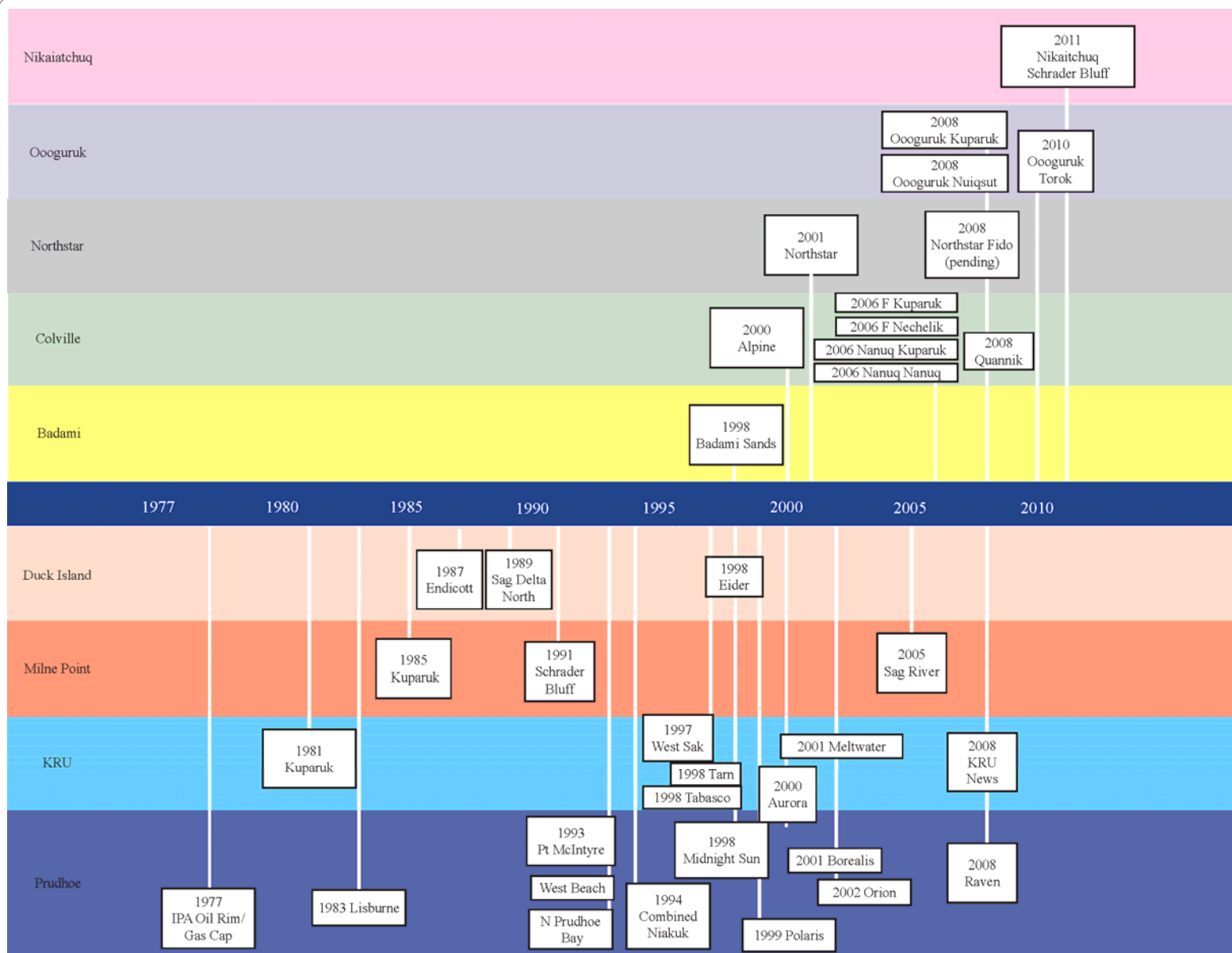
Participating Area (PA)



- PA may include only the land capable of producing or contributing to production of hydrocarbons in paying quantities
 - North Slope: 18 State Units, 38 PAs
- PA must be contracted to exclude acreage incapable of contributing to production of hydrocarbons in paying quantities

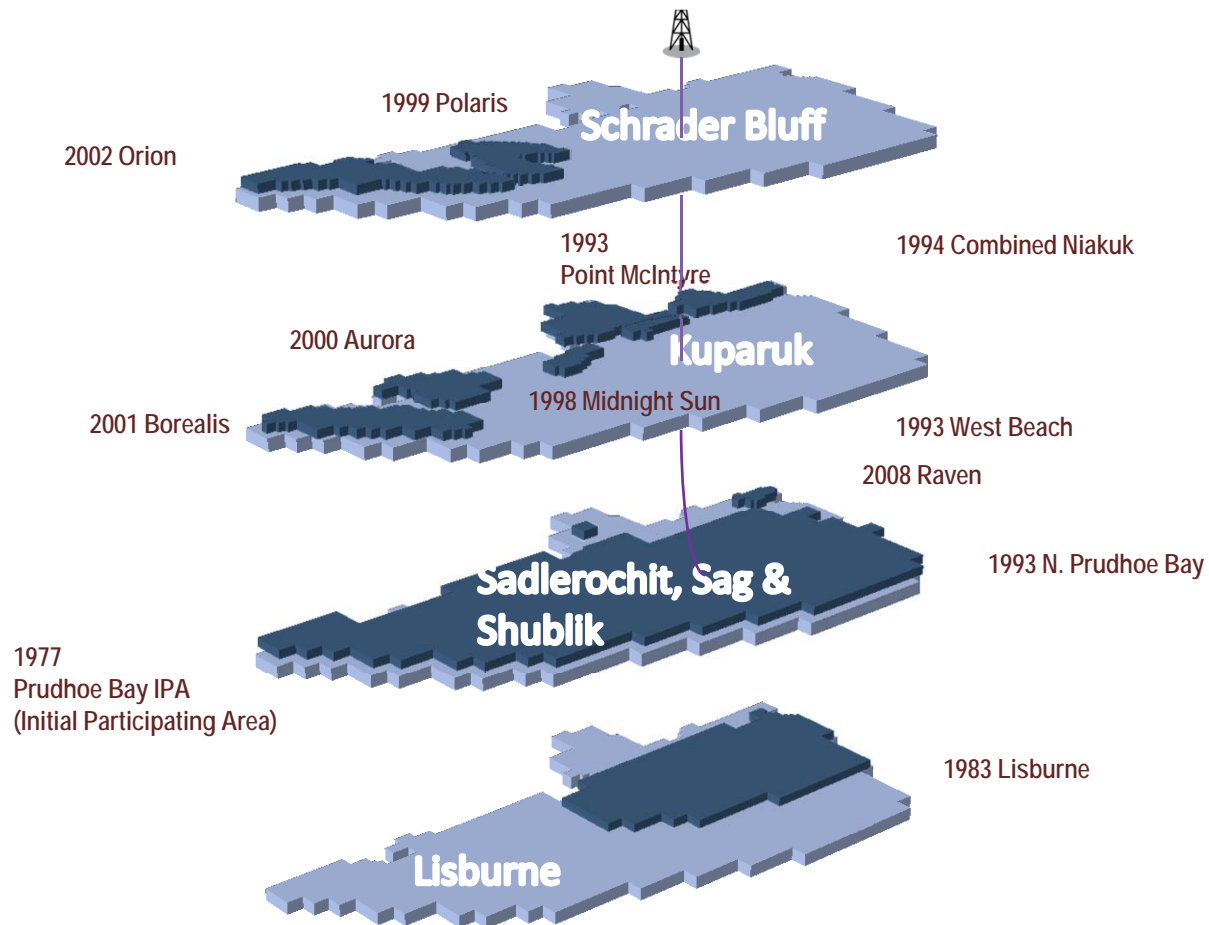


North Slope PAs





Prudhoe Bay Unit





Parting Points

- State manages an effective:
 - areawide leasing program,
 - the unitization process, and
 - reservoirs on Participating Area level
- All for continued exploration, accelerated development, and prudent sustained production