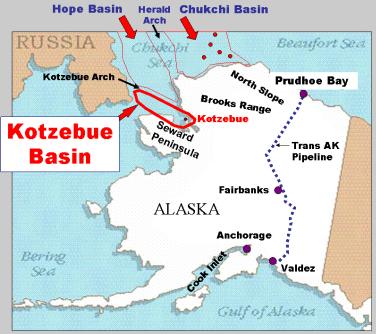


NANA Regional Corporation Hydrocarbon Exploration Efforts November 20, 2015

Lance Miller, Ph.D. VP Natural Resources

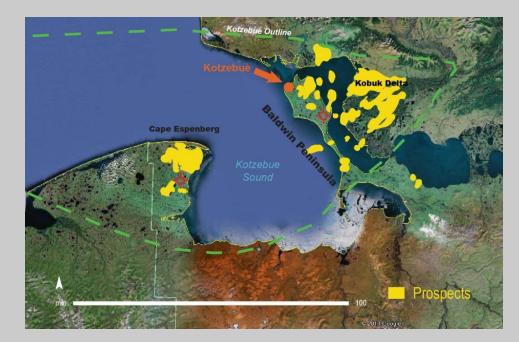


Alaska — Kotzebue Basin Hydrocarbon Potential NANA Regional Corporation



- NANA seeking partners to appraise Fee Lands, 2.2 million mineral acres
- Two wells drilled by Chevron in 1974, 1500 mi of seismic
- 30 prospects/leads
- No known resources
- Assessment ongoing

- Kotzebue Basin, onshore and offshore in NW Alaska, it is one of the major sedimentary basins of North America
- >20,000 feet of Cretaceous and Tertiary basin-fill
- Comparable in size Cook Inlet Basin





NANA

 At NANA, our mission is to improve the quality of life for our more than 13,800 lñupiat shareholders by maximizing economic growth, protecting and enhancing our lands, and promoting healthy communities with decisions, and behaviors guided by our lñupiat llitquisiat; which is our traditional value system.



Need for Energy

- Residents in NW Alaska are paying between \$6 and \$11 per gallon for gasoline
- Natural gas could help the sustainability for mineral development
- Lower energy cost through natural gas will offer sustainable solutions to the rural economy



Northwest Arctic Borough Pricing – September 2015

		Stove	Propane	Kwh (1-	KwH
	Gasoline/G	Oil/G	/23G	500)	(500-700)
Kotzebue	\$5.99	\$5.65	\$198.28	\$0.18	\$0.45
Ambler	\$10.75	\$11.00	\$285.00	\$0.21	\$0.61
Kobuk	\$10.03	\$9.53	\$270.00	\$0.21	\$0.60
Shungnak	\$10.50	\$9.00	\$330.00	\$0.21	\$0.60
Kiana	\$6.50	\$6.00	\$270.00	\$0.20	\$0.57
Noorvik	\$6.72	\$6.23	\$278.00	\$0.20	\$0.57
Selawik	\$7.75	\$7.50	\$264.55	\$0.20	\$0.52
Buckland	\$6.80	\$6.80	\$271.00	\$0.20	\$0.48
Deering	\$6.75	\$6.75	\$285.00	\$0.32	\$0.71
Kivalina	\$5.74	\$5.85	\$285.00	\$0.20	\$0.56
Noatak	\$9.99	\$9.99	\$311.00	\$0.21	\$0.75

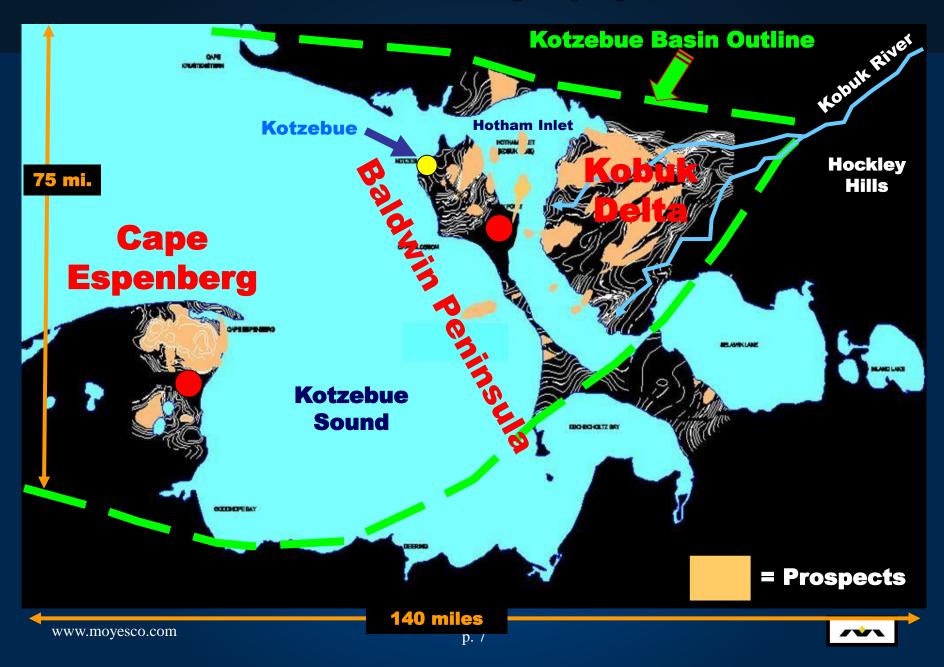
Kotzebue Oil and Gas Project History

Chevron

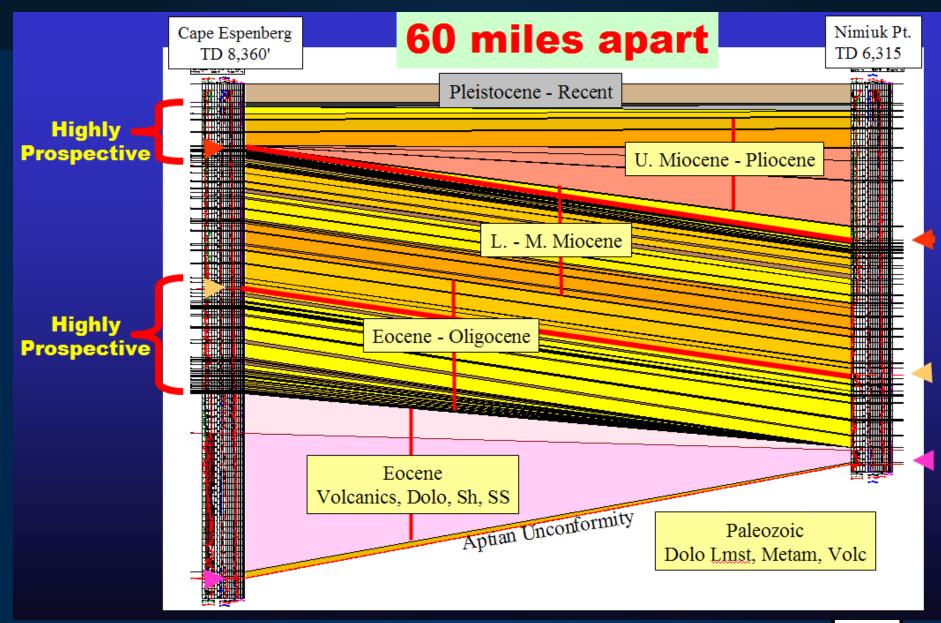
- Extensive regional seismic studies, 1970-1974
- Two wells drilled in 1974 & 1975,
- Chevron lost interest once it determined it was a gas prone basin (oil was the company's focus)
- NANA Consultant Intera Report 1993-1995
 - Postulated oil prone sources and potential for gas
 - Relatively high risk for exploration for relatively small field sizes ignoring local market needs
 - Yet showed gas potential
- Trio Petroleum
 - Exploration Agreement and Option to lease dated 2008
 - Firm well commitments in every year commencing April 1, 2010
 - No wells drilled agreement terminated 2011 after failing to fund drilling
- NANA Consultant Moyes & Co.
 - Retained August 2012 to provide technical and commercial assistance
 - Assembled existing data, Reprocessed seismic data
 - Evaluating technical and commercial issues
 - Attracted company for on-site reviews in 2014



Local Geography

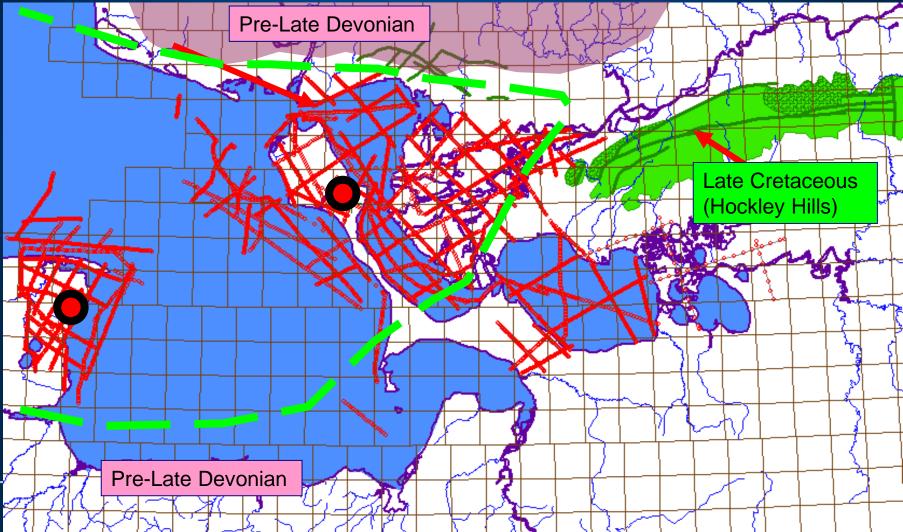


Primary Reservoir Targets

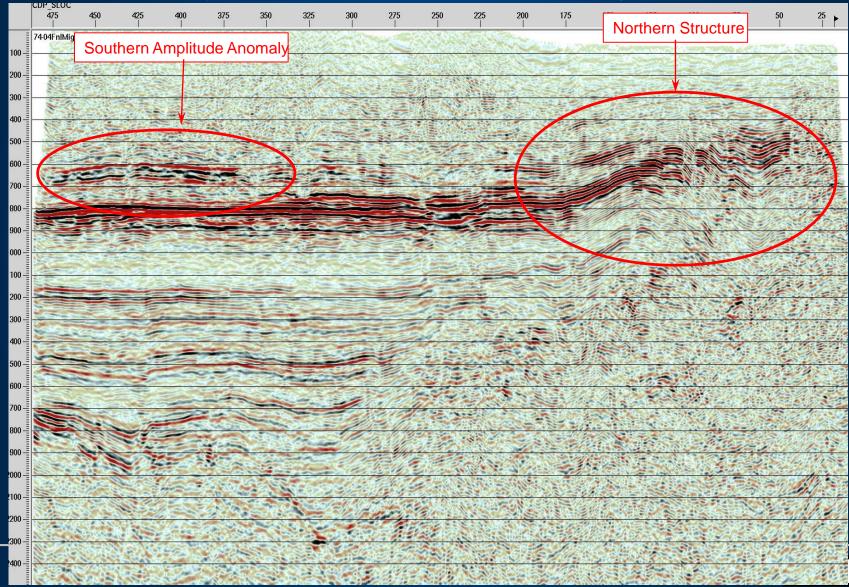


Exploration History and Data

- SOCAL (now Chevron): frontier exploration early to mid 1970s
- 1500 miles 2D seismic, gravity and aeromagnetic data
- Outcrop and subsurface studies and two stratigraphic test wells 1974



Line 74-04 Relative Amplitude FD Post-stack Migration





How and why "de-risk" the geology of the basin

- Companies want to see more geological information.
- Seismic work is required to lower the risk.



TODAY – Advancing the basin

- We support .023 as is for both drilling and seismic.
- We support extending middle earth (0.025) drilling credits until 2022.



Next Steps

- Finding partners is challenging (State incentives definitely help).
- Continue to evaluate self-funding seismic work.
- Continue to work with interested parties on data review for potential funding.
- Aim for seismic work in 2016-2017.
- Thank you to the legislature for your efforts supporting initiatives that could lower the cost of energy in rural Alaska.