

**Contract No. G-040-080**  
**“Bakken Production Optimization Program - 2.0”**  
Submitted by: Energy & Environmental Research Center  
Principal Investigator: John A. Harju

**PARTICIPANTS**

<b>Sponsor</b>	<b>Cost Share</b>
Marathon Oil Company	\$ 7,280,000 (In-kind)
North Dakota Industrial Commission/OGRC Funding	\$ 6,000,000 (cash)
Total Project Cost	\$13,280,000

Project Schedule – 3 years  
Contract Date – December 14, 2016  
Start Date – November 1, 2016  
Final Report: November 1, 2019

Project Deliverables:

Quarterly Report:	January 15, 2017
Quarterly Report:	April 15, 2017
Quarterly Report:	July 15, 2017
Annual Report:	October 15, 2017
Quarterly Report:	January 15, 2018
Quarterly Report:	April 15, 2018
Quarterly Report:	July 15, 2018
Annual Report:	October 15, 2018
Quarterly Report:	January 15, 2019
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**OBJECTIVE/STATEMENT OF WORK:**

The EERC proposes a 3-year extension of the existing and highly successful Bakken Production Optimization Program (BPOP) to continue addressing emerging threats and issues to petroleum production in North Dakota. The goal of the project is to employ a “system of systems” approach to enhance overall production efficiency, recognizing that improved coordination among various design factors (reservoir management, well design, surface processing, gas management, waste management) can lead to significant improvements in resource recovery efficiency.

Some of the activities that would be considered under BPOP 2.0 include Rich-Gas EOR; Refrac Optimization; Produced Fluid Characterization; Fugitive Emissions; Hydrocarbon Sampling; Reservoir Performance Modeling; Water Injection Reservoir Assessments; Facility Process Modeling; Aromatic/Aliphatic Study; Site Equipment Survey; Regulatory Review; Assessment of Stormwater Management Practices; Saltwater Disposal Capacity Modeling; and High-Value Minerals in Produced Fluids.

Expected results include increased well productivity and economic output of North Dakota’s oil and gas resources, decreased environmental impacts of wellsite operations, and reduced demand for infrastructure construction and maintenance. Specific results will include improved resource recovery efficiency, reduced land use impacts, increased royalties and tax revenue from harnessed associated gas and natural gas liquid streams, and increased revenue from added product streams captured earlier in the well life cycle.

**STATUS**

Contract has been executed.