

“Bakken Production Optimization Program – 2.0”

Submitted by:

Energy Environmental Research Center (EERC)

- Request for - \$6,000,000; Total Project Costs - \$13,280,000**
Project Duration: 3 years

PROJECT DESCRIPTION

- 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.

TECHNICAL REVIEWERS' RATING SUMMARY

Technical Reviewer

Statement	Weighting Factor	<u>G-40-04A</u>	<u>G-40-04B</u>	<u>G-40-04C</u>	<u>Average Weighted Score</u>
Objectives	9	4	3	5	36
Achievability	7	4	2	5	25
Methodology	8	4	4	3	29
Contribution	8	5	4	5	37
Awareness / Background	5	5	5	4	23
Project Management	3	3	4	4	11
Equipment / Facilities	2	3	3	4	6
Value / Industry- Budget	4	4	3	4	14
Financial Match – Budget	4	4	3	4	14
Average Weighted Score		208	172	216	198
Maximum Weighted Score				250 possible points	

TECHNICAL REVIEWER TOTALS

- ◎ G-40-04A

Average Weighted Score: **208 out of 250**

FUND

- ◎ G-40-04B

Average Weighted Score: **172 out of 250**

FUND

- ◎ G-40-04C

Average Weighted Score: **216 out of 250**

FUND

DIRECTOR'S RECOMMENDATIONS

To Fund in the amount of \$6,000,000 with \$2 million each year of the three-year contract.