

August 30, 2004

Dear Oil and Gas Research Council Members,

Attached you will find a funding request for a project to be completed by the North Dakota Geological Survey.

Please accept this letter as a binding commitment on behalf of the North Dakota Geological Survey to complete the project as described in the application if the Commission approves the grant requested.

Sincerely,

Edward C. Murphy
Acting State Geologist

<http://www.state.nd.us/ndgs/>

Title Page

Oil and Gas Research Council

Project

“North American Prospect Expo”

North Dakota Geological Survey

8/30/04

\$5,000 Request

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Abstract

The proposed project entitled “North American Prospect Expo” is designed to provide information on current North Dakota oil and gas plays and studies to petroleum geologists, operators and venture capitalists attending the 2005 North American Prospect Expo.

Providing this information will encourage investment in North Dakota oil and gas prospects, resulting in increased drilling for oil and gas in the state.

Providing oil and gas companies with more information will hopefully encourage them to invest here rather than in other states.

The duration of the project is expected to be one month.

Total project cost is expected to be \$10,000.

The project work will be performed by two NDGS petroleum geologists.

Project Summary

The proposed project entitled "North American Prospect Expo" is designed to provide information on current North Dakota oil and gas plays and studies to petroleum geologists, operators and venture capitalists attending the 2005 North American Prospect Expo.

Providing this information will encourage use of other data on file with the NDIC and lead to increased investment in North Dakota oil and gas prospects, resulting in increased drilling for oil and gas in the state.

Providing oil and gas companies with more information will hopefully encourage them to invest here rather than in other states.

The duration of the project is expected to be one month.

Total project cost is expected to be \$10,000.

The project work will be performed by NDGS petroleum geologists who will prepare displays that highlight the Middle Bakken, Birdbear, and Ratcliffe plays currently underway in North Dakota. The materials will be displayed at a booth during the North American Prospect Expo January 26-28, 2005 in Houston Texas. In conjunction with the expo, one of the petroleum geologists will make a presentation to the Houston Geological Society on the Middle Bakken play.

Project Description

The proposed project entitled "North American Prospect Expo" is designed to provide information on current North Dakota oil and gas plays and studies to petroleum geologists, operators and venture capitalists attending the 2005 North American Prospect Expo January 26-28, 2005 in Houston Texas.

Providing this information will encourage use of the NDGS core library, use of other data on file with the NDIC, and increased investment in North Dakota oil and gas prospects. This should result in increased drilling for oil and gas in the state.

Since North Dakota competes with many other oil and gas producing states in attracting company investment, providing oil and gas companies with more information will hopefully encourage them to invest here rather than in other states. The duration of the project is expected to be one month with a total project cost of \$10,000.

The project work will be performed by NDGS petroleum geologists who will prepare displays that highlight the Middle Bakken, Birdbear, and Ratcliffe plays currently underway in North Dakota. The materials will be displayed at a booth during the Expo. In conjunction with the expo, one of the petroleum geologists will make a presentation to the Houston Geological Society on the Middle Bakken play. A second employee will attend in order to make certain the North Dakota booth is open at every opportunity.

Appendix 1 contains the registration form for booths at the 2005 North American Prospect Expo. Appendix 2 contains the floor plan for display booths at the 2005 North American Prospect Expo.

Standards of Success

Success will be assessed through the following measures:

1. Keeping records of contacts who stop at the display booth.
2. Monitoring NDGS website hits
3. Monitoring core library use for Middle Bakken, Birdbear, and Ratcliffe cores and samples.

Background

Budget limitations have prevented the NDGS from attending the largest prospect expo in the oil and gas industry.

Most of the states which compete with North Dakota for oil and gas investment have provided information booths about the geology and current plays in their state at this expo for many years.

The proposed project will make enough information available to petroleum geologists and investors to create interest in core library visits, prospect generation, and ultimately increased drilling for oil and gas in our state.

Qualifications

The project work will be performed by two NDGS petroleum geologists (Julie LeFever and Randy Burke). These geologists have almost 50 years experience working with display booths, prospect expos, and geological symposiums.

Pertinent References

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- LeFever, J.A. and R.D. LeFever, 2004, Log-to-Core Cross-Section - Middle Member Bakken: Poster Session, 12th Williston Basin Horizontal Well and Petroleum Conference, Minot, MN
- LeFever, J.A., 2002, Montana-North Dakota? Middle Member Bakken Play: 10th Williston Basin Horizontal Well and Petroleum Conference, Bismarck, ND
- LeFever, J.A., 2000, Drilling of oil bearing shales horizontally: the Bakken Formation - Successes and Failures: Proceedings for the PTTC Workshop on Tuscaloosa Marine Shale Play, Jackson, MS
- LeFever, J.A., Martiniuk, C.D., Dancsok, E.F.R., and P.A. Mahnic, 1992, Petroleum potential of the Middle Member, Bakken Formation, Williston Basin [abst, invited paper]: AAPG Bulletin, vol. 76, p. 1262.
- LeFever, J.A., Martiniuk, C.D., Dancsok, E.F.R., and P.A. Mahnic, 1991, Petroleum potential of the Middle Member, Bakken Formation, Williston Basin, in Christopher, J.E. and F.M. Haidl, eds., Sixth International Williston Basin Symposium: Saskatchewan Geological Society Special Publication No. 11, p. 74-94.
- LeFever, J.A., 1991, History of Oil Production from the Bakken Formation, North Dakota, in Hanson, W.B., ed., 1991 Guidebook to the Geology and Horizontal Drilling of the Bakken Formation: Montana Geological Society, p. 3-18.
- LeFever, J.A., 1990, History of Oil Production from the Bakken Formation, North Dakota, in Hansen, W.B., ed., Bakken Formation Short Course Study Notes No. 1 [abst]: Montana Geological Society, p. 20.
- LeFever, J.A., and S.B. Anderson, 1986, Structure and stratigraphy of the Frobisher-Alida and Ratcliffe intervals, Mississippian Madison Group, north-central North Dakota: North Dakota Geological Survey Report of Investigation No. 84, 17 p., 14 pls.
- Martiniuk, C.D., Young, H.R., and J.A. LeFever, 1995, Lithofacies and petroleum potential of the Birdbear Formation (Upper Devonian), southwestern Manitoba and North-Central North Dakota, in Hunter, L.D. Vern, and R.A. Schalla, eds., Seventh International Williston Basin Symposium 1995 Guidebook: Montana, North Dakota, and Saskatchewan Geological Societies, Billings, MT, p. 89-102.
- Pitman, J.K., Price, L.C., and J.A. LeFever, 2001, Diagenesis and fracture development in the Bakken Formation, Williston Basin; implications for reservoir quality in the middle member: U.S. Geological Survey Professional Paper 1653, 19p.
- Price, L.C., and J.A. LeFever, 1992, Does Bakken Horizontal Drilling Imply a Huge Oil-Resource Base in Fractured Shales?, in Schmoker, J.W., E.B. Coalson, and C.A. Brown, eds., Geological Studies Relevant to Horizontal Drilling: Examples from Western North America: Rocky Mountain Association of Geologists, Denver, CO., p. 199-215.
- Price, L.C., and J.A. LeFever, 1994, Dysfunctionalism in the Williston Basin: the Bakken/mid_Madison petroleum system: Bulletin of Canadian Petroleum Geology, vol. 42, no. 2, p. 187-219.

Value to North Dakota

It is anticipated that petroleum geologists, oil and gas operators, and venture capitalists will make use of the project results.

Petroleum geologists, operators, and venture capitalists will have access to NDGS petroleum geologists who will provide information on active North Dakota plays plus guidance on how to use other data on file with the NDIC and the North Dakota core library.

Since North Dakota competes with many other oil and gas producing states in attracting company investment in the state, providing geologists, oil and gas operators, and venture capitalists with more information will hopefully encourage them to invest in North Dakota here rather other states.

Management

The NDGS petroleum geologists are currently under the direct supervision of the applicant. Work schedules and priorities are reviewed weekly.

Timetable

NDGS geologists - complete Middle Bakken, Birdbear, and Ratcliffe studies
September - December 2004

NDGS geologists - travel to North American Prospect Expo in Houston Texas
January 2005

NDGS - monitor web site hits, core library visits, and information requests
February - August 2005

Budget

Grant Support

Travel and registration for two geologists to Houston, TX - \$5,000

Cost Share

NDGS Petroleum Geologists to study electric logs and core, create maps and cross-sections - \$5,000

The funding requested is necessary to achieve the project's objectives within the proposed timetable. If no funding or less funding is available than that requested the project's objectives are not attainable.

Matching funds

North Dakota Geological Survey - \$5,000

Confidential Information

None of the information in this application is of a confidential nature.

Patents and Rights to Technical Data

There are no patents or rights that the applicant wishes to reserve.

Tax Liability

I, _____, do hereby confirm that the North Dakota Geological Survey does not have an outstanding tax liability owed to the State of North Dakota or any of its political subdivisions.

 (Affiant's Signature)
 STATE OF _____)
)ss
 COUNTY OF _____)

On _____, _____, known to me to be the person described in and who executed the foregoing instrument, personally appeared before me and acknowledged that (s)he executed the same as a free act and deed.

 Notary Public
 Seal State of _____, County of _____
 My Commission expires _____

Appendix 1

NAPE Expo 2005	NAPE 2005 EXHIBITOR REGISTRATION	Presented by: AAPL and IPAA
	January 26-27, 2005 (Wednesday and Thursday) George R. Brown Convention Center Houston, Texas	
Company Information <i>The following information will be listed in the show guide. Limit one company per booth.</i>		
Company Name _____		
Mailing Address _____		
City/State/Zip/Country _____		
Telephone _____ Fax _____		
Key Contact Name _____		
Title _____		
E-mail _____ Web site _____		
Exhibitor Details <i>Please indicate below your company's purpose for exhibiting</i>		
<input type="checkbox"/> Show U.S. Prospects/Properties <input type="checkbox"/> Show International Prospects/Properties		
<input type="checkbox"/> Capital Provider <input type="checkbox"/> Other (provide details): _____		
VENDORS AND SERVICE PROVIDERS: Marketing and selling of products and/or services is not allowed in exhibitor booths. Companies interested in marketing or selling products/services are invited to register as a vendor/service provider. Please contact AAPL for a vendor registration form.		
Booth Information Booths are sold in 10'x10' increments. Please list booth location preferences: 1 st _____ 2 nd _____ 3 rd _____ (Visit www.napeonline.com to view floor plan. Assignment of preferences cannot be guaranteed.)		
<i>Each booth purchased includes the following:</i>		
<ul style="list-style-type: none">• Electronic Show Guide on CD (1 per exhibiting company)• 4 complimentary attendee passes for company representatives• Furnishings: 1 6-foot draped table, 2 chairs, 1 wastebasket, side and rear draping of booth		
Payment Price is \$900 per booth by Dec 3, 2004 Price is \$1200 per booth after Dec 3, 2004.		
# booths desired _____ @ \$ _____ = Total Due \$ _____		
Method of Payment: (make checks payable to AAPL)		
_____ Check _____ Money Order _____ Visa _____ MasterCard _____ American Express		
Credit Card No: _____ Expires: _____		
Name on Card: _____		
No refunds after January 5, 2005. Deadline for guaranteed listing in the NAPE Show Guide is December 3, 2004.		
<i>Your signature confirms your agreement to the above charges and to the DISCLAIMER AND SEC STATEMENT to be provided with your confirmation of registration; and, constitutes a release of the NAPE Expo, American Association of Professional Landmen, Independent Petroleum Association of America and all associated organizations and individuals from any liability arising from business or economic transactions resulting from your participation in the NAPE Expo. If, upon receipt of the DISCLAIMER AND SEC STATEMENT, you do not desire to attend, please advise the NAPE Expo within 10 days, and you will receive a full refund.</i>		
Signature (Required): X _____ Agreed to this _____ day of _____, _____		
Mail this form along with payment to: AAPL, 4100 Fossil Creek Blvd., Ft. Worth, TX 76137 Phone: 817.847.7700 / Fax: 817.847.7704 / www.napeonline.com		

Appendix 2

NAPE
Expo 2005

Home About NAPE Registration Schedule of Events
Deals Exhibitors Special Events Travel & Lodging

LEGEND
Unavailable Reserved

RIGHT-CLICK TO ZOOM

RESERVED FOR ENDORSERS

RESERVED FOR INTERNATIONAL PROSPECTS

MAIN ENTRANCE

The floor plan shows a grid of booths. A blue box highlights a section in the center, and a red box highlights a small booth in the lower-middle section. Various areas are labeled, including 'RESERVED FOR ENDORSERS' at the top, 'RESERVED FOR INTERNATIONAL PROSPECTS' on the left, and 'MAIN ENTRANCE' at the bottom. The legend indicates that orange squares represent 'Unavailable' booths and yellow squares represent 'Reserved' booths.