

June 14, 2005

Dear Oil and Gas Research Council Members,

Attached you will find a status report for the project entitled "Custom North Dakota ArcIMS Map Server" to be completed by the North Dakota Oil and Gas Division.

All project activities are now completed.

Sincerely,

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Project Summary

The project entitled “Custom North Dakota ArcIMS Map Server” was designed to develop customized user friendly ArcIMS search capabilities and database links to allow unskilled users to access printable maps and database information.

Custom search tools were created that allow users to quickly zoom to a 10-mile X 6-mile map by entering a section, township, and range. In addition a user can zoom to a map encompassing a field or unit and the 1-mile buffer by entering the field or unit name.

Subscription users can select a well on the map to link to a scout ticket with additional links to production, well file, logs, and core photos in electronic format. Selection of a field name provides links to the commission orders, case files, and audio files for that field.

A custom print utility was developed to produce high quality hard copy printouts of maps.

It is anticipated that oil and gas operators, working interest owners, royalty owners, overriding royalty owners, as well as representatives of State and Federal governmental agencies, and the general public, will make use of the project results. The ArcIMS tools provided will make it easier to do business in the state of North Dakota and to make more informed decisions about how our lands are developed for oil and gas operations.

Project Description

Custom ArcIMS search tools were created by Kadrmas, Lee and Jackson (KLJ) programmers and installed on NDIC Oil & Gas Division servers by agency employees.

These tools allow users to quickly zoom to a 10-mile X 6-mile location map by entering a section township and range. Additional search tools were developed that allow a user to zoom to a map encompassing a field or unit along with the 1-mile buffer by entering the field or unit name. Search tools were also developed that allow a user to input part of a well name, search the database for the well, and zoom to a 10-mile X 6-mile map around that well.

A custom print utility was developed to print high quality hard copies of these maps.

Subscription users are able to select a well and open a scout ticket with links to production, well file, logs, and core photos in electronic format. Selecting a field or unit name opens links to commission orders, case files, and audio files for that field.

Standards of Success

The ArcIMS search tools, print utilities, and links were tested by a group of industry, legal, and government users. Based on feedback from the test group, modifications were made to improve site design.

The final customized Arc IMS version has been made public after evaluation by the test group.

The success of this project in meeting the following standards in the OGRC policies will be assessed through monitoring access and usage logs, feedback from users who access the site, and search engine referrals:

- 1) Generate information and knowledge that will bring new oil and gas companies and industry investment to North Dakota.
- 2) Have a high potential for creating new oil and gas jobs, wealth, and tax revenues for North Dakota.
- 3) Effectively educate the general public about benefits and opportunities provided by the North Dakota oil and gas industry.
- 4) Preserve existing jobs and production levels.
- 5) Develop baseline information that will lead to other projects, processes, ideas, and activities.

Value to North Dakota

It is anticipated that oil and gas operators, working interest owners, royalty owners, overriding royalty owners, as well as representatives of State and Federal government agencies, and the general public, will make use of the project results. For example, operators and working interest owners now have access to a 24-hour mapping service for preparation of North Dakota Industrial Commission Oil and Gas Division hearing exhibits and for maps to be utilized for in-house presentations or to market prospects. Providing operators and working interest owners with such a mapping service has improved access to data on file with the NDIC and thereby made it easier to do business in the state of North Dakota. Since North Dakota competes with many other oil and gas producing states in attracting company investment, providing oil companies with more information is expected to encourage them to invest here rather than other states.

The proposed mapping service will allow royalty owners, overriding royalty owners and government agencies to become informed of permitted or drilling wells on their own lands or adjacent lands as well as any regulatory matters affecting those lands, such as field boundaries, spacing, pooling and unitization. This information will allow them to make more informed decisions about how they wish to see their lands developed for oil and gas operations. Many citizens have already been referred to this free service for tracking activity in their area.

Timetable

KLJ programmer wrote customized ArcIMS code – May through June 2004

OGIT programmer installed customized ArcIMS program – July 2004

OGIT programmer created database links – October 2004

Oil & Gas Division Engineer input horizontal well surveys – May 2004

ESRI training of OGIT personnel to maintain system – December 2004

KL&J programmer modified customized ArcIMS per testing – October 2004

OGIT programmer installed revised ArcIMS program – October 2004

Budget

The following funds have been expended to complete this project:

Grant Support

KL&J programmer to write customized ArcIMS code – \$7,000

Cost Share

OGIT programmer to install customized ArcIMS program – \$1,000

OGIT programmer to create database links – \$2,000

Oil & Gas Division Engineer to input horizontal well surveys – \$4,500

ESRI training of OGIT personnel to maintain system - \$2,760 (the trained employee has now left the agency and been replaced with an employee who has even more training and additional skills)

Matching funds

Oil & Gas Division Dept 405 General Fund - \$7,500

Oil & Gas Division Fund 317 - \$2,760