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FINAL REPORT

Program/Project Title

**ALASKA OIL AND GAS EXPLORATION, DEVELOPMENT,
AND PERMITTING PROJECT**

Project Completion

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ABSTRACT

Alaska Oil and Gas Exploration, Development and Permitting Project

This is the final technical report for Project 15446, covering the grant period of October 2002 through March 2006. This project connects three parts of the oil exploration, development, and permitting process to form the foundation for an advanced information technology infrastructure to better support resource development and resource conservation.

Alaska has nearly one-quarter of the nation's supply of crude oil, at least five billion barrels of proven reserves.¹ The American Association of Petroleum Geologists report that the 1995 National Assessment identified the North Slope as having 7.4 billion barrels of technically recoverable oil and over 63 trillion cubic feet of natural gas. From these reserves, Alaska produces roughly one-fifth of the nation's daily crude oil production, or approximately one million barrels per day from over 1,800 active wells.²

The broad goal of this grant is to increase domestic production from Alaska's known producing fields through the implementation of preferred upstream management practices. (PUMP). Internet publication of extensive and detailed geotechnical data is the first task, improving the permitting process is the second task, and building an advanced geographical information system to offer continuing support and public access of the first two goals is the third task. Excellent progress has been made on all three tasks; the technical objectives as defined by the approved grant sub-tasks have been met. The end date for the grant was March 31, 2006.

¹ Department of Energy: "Future Oil Production for the Alaska North Slope" (2001)
http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/future_production_ans/alaska.pdf

² American Association of Petroleum Geologists: <http://dpa.aapg.org/gac/papers/npra.cfm>

Objectives

The key objectives are:

1. Create opportunities for companies to make new assessments of oil potential from improved organization and presentation of existing public well data.
2. Create a foundation for electronic permit review processes that is shared among related agencies and the public and results in 'smarter' projects approved in less time.
3. Use geography as an organizing principal to bring shared interests together to manage data logically, consistently and efficiently. This will streamline retrieval of critical land status and resource information for improved exploration, development and permitting.

Methods

This project uses the following methods:

1. Provide public subsurface geo-science and engineering information (e.g. well logs) on-line
2. Develop an on-line diagnostic to determine and access required permit applications.
3. Build web-based software for automating the mechanics of coordinated ACMP consistency reviews and storing permit information in a publicly accessible database.
4. Build a cooperative multi-agency geographic information system (GIS) for sharing land status and resources data to support oil and gas planning and permitting decisions.
5. Create an on-line customer identity management system that is shared among agencies.

Progress

Task 1, Publish Geo-Technical Information, has met the project goals and schedule. Task one deliverables with the exception of a volume of pre-1986 digital data were made available on-line October 1, 2004. Pre-1986 digital well logs were placed on-line in March 2006 following contractor delivery and agency quality control reviews. Internet posting was executed on the Alaska Oil and Gas Conservation Commission (AOGCC) [web site](#). The Commission has implemented an Internet-based "Well Production and Information System," a flexible, user-friendly way to select, view and download most of the AOGCC public data and documents. This system provides easy, worldwide access to Alaska's oil and gas information, and it broadens the marketplace for Alaskan oil and gas opportunities. Under the new system several types of public information are available, including a variety of data specific to oil and gas wells such as location, depth, production and injection volumes and rates can be searched and selected using spreadsheet-like and map-based (GIS) views. Image or text files of all of AOGCC's non-confidential, well files are also available for viewing or downloading. These files are the primary record for each Alaskan well, and they contain very detailed information on every aspect of each well. The well files have been scanned and converted to electronic image and text files. An image of each page can be displayed using an easy-to-use viewer. The text files allow searches using key words, which can locate information very quickly. Finally digital geologic and engineering data are associated with essentially all Alaskan oil and gas wells. Users may view our inventory of digital data and request specific data sets associated with any well. Some of these files can be quite large and require downloading through our separate FTP site.

Task 2, Automated Support for the Alaska Coastal Consistency Review Process. A Coastal Project Questionnaire was delivered during this project and is now under review by agency staff for release to the public. The questionnaire tracks profiles of existing permit holders (vs. new applicants); provides a geographic profile to users that address a number of questions previously required of the applicant (for example, are you in a coastal zone, are you on state land, etc); and serves as an efficient entry point for initiating the land use permit process with the Department of Natural Resources. The objective will be formally met when the CPQ Application is published and made available, with training sessions, for end users.

Task 3, Create a Shared Geographic Information System, was delivered per the plan. Enterprise GIS components went into production during the last quarter of 2003 and into the first quarter of 2004 utilizing the Oracle Spatial infrastructure. Support work for Task 1 and Task 2 continues. A distributed multi-agency GIS is part of Task 1 in support of geo-technical, well location, and lease boundary publication. A GIS supporting users search by well log is available through the [AOGCC web site](#), and extensive property rights information for both surface and sub-surface estates is available through the Department of Natural Resources. The GIS includes a copy of the completed North Slope anadromous fisheries data supported by this grant. The interactive [Alaska Mapper](#) application complements the Task 1 and Task 2 GIS efforts.

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EXPERIMENTAL

Not applicable. This project includes no experimental research data.

RESULTS AND DISCUSSION

Reporting period October 1, 2002 through March 31, 2006

The primary results for this project are (1) extensive Internet publication of the Alaska public geotechnical data by the Alaska Oil and Gas Conservation Commission (AOGCC); including well header, production and injection records, well files, well logs, and Commission Orders; this phase also provided for the electronic delivery and quality control of the pre-1986 well log data (previously paper-based public domain documents). Companies and members of the general public now access the site daily and download information used to evaluate leasing and production opportunities for both the North Slope and Cook Inlet; (2) the Coastal Consistency Review process was restructured by the Governor, new regulations were put in place, and an electronic form that simplifies the answering of permit related questions was developed and is undergoing final agency testing; and (3) a forward-looking geo-spatial infrastructure was developed under this grant, migrating the oil and gas spatial data from the limited range of files or directories (e.g. coverages) to a mature database environment under Oracle Spatial that supports the long-term integration of spatial data with business applications associated with oil and gas leasing, regulations, and permitting.

EXECUTIVE SUMMARY

A shared Geographic Information System was developed to improve public access to detailed geo-technical data; to better organize permit procedures and customer service; to electronically publish arctic fisheries information, and to create a sustainable infrastructure for extending geographic information systems in support of resource development, conservation, and management.

The Alaska Oil and Gas Conservation Commission is the repository for production and well information for Alaska's oil and gas wells. A major milestone for this group was the publication of the public domain geo-technical well data. The site is available at

<http://alaska.gov/aogcc/publicdb.htm>. This site addresses the Commission's mandate to provide the non-confidential portion of oil and gas well and production data to the public. Past practice has consisted of allowing members of the public to come to the Commission's office to view and copy the information. This site makes large volumes of information readily available through the Internet. Consequently, this project may increase interest and investment in Alaska's deposits.

The Office of Project Management and Permitting is responsible for Task 2. An interactive permit process that allows exchange between customers and agency staff over multiple sessions was constructed. The software uses a single login for companies that need multiple authorizations from state resource agencies. By entering project location information, the application automatically answers questions for the applicant there were previously time-consuming.

The DNR Land Records Information Section is responsible for Task 3. The goal to implement an enterprise level Geographic Information System among participating agencies was achieved. The GIS simplifies access to resource information and provides a kind of portal to underlying detailed information. The shared GIS system is now in use. The AOGCC site described above utilizes the shared GIS database created under this grant to support location and discovery of geo-technical information. Lease information and associated land status is maintained at the DNR land records site: <http://mapper.landrecords.info>. Using the same underlying database, an application in support of the AOGCC geotechnical data is now in production.

Task 1: Publish Geo-Technical Information

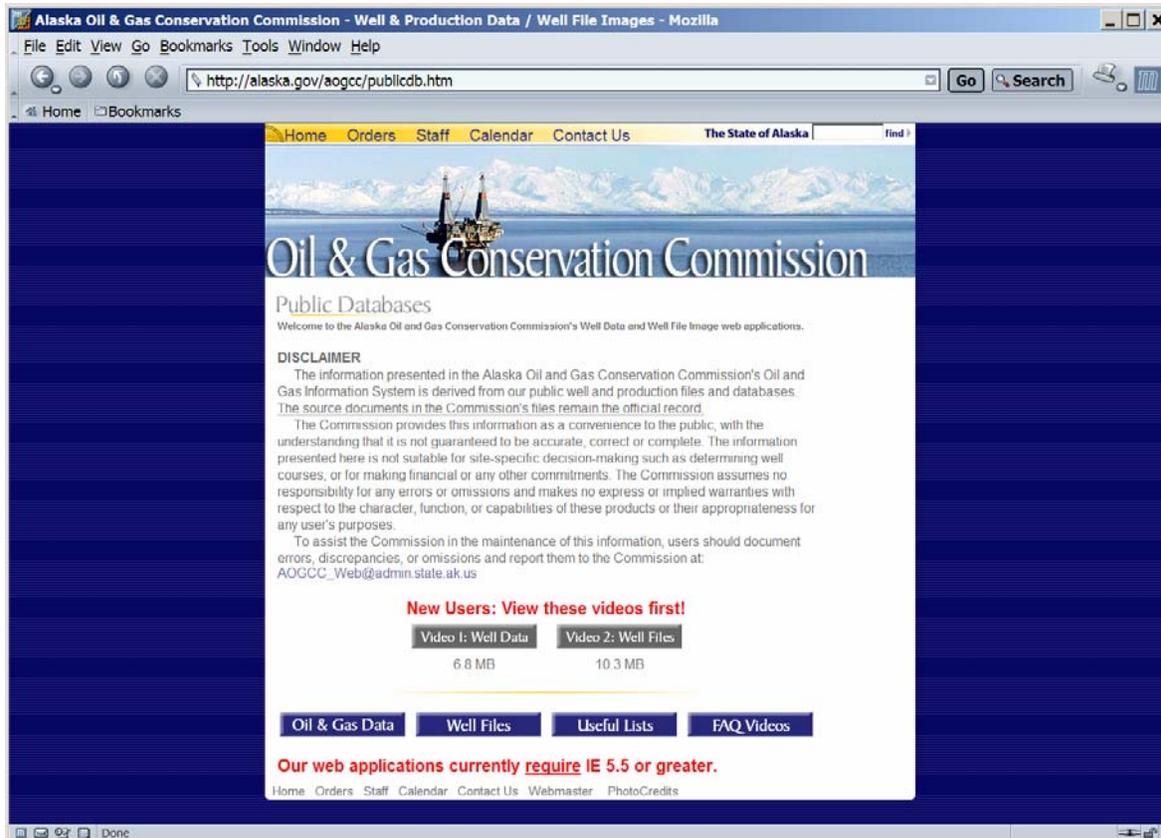
Robert Crandall, Senior Petroleum Geologist;

Alaska Oil and Gas Conservation Commission: 907-793-1230

The goals of Task 1 have been met and the seven tasks approved in the grant accomplished. In March 2006 the Alaska Oil and Gas Conservation Commission (“AOGCC” or “Commission”) published the digital well logs for the pre-1986 wells. On October 1, 2004, the Commission published a public access web site providing access to detailed well and production information. The web site has custom tutorials to guide new users through the appropriate sequences of various search methods. A GIS option allows map-based searches for well or production information. Recent work has developed the following additional tools and capabilities; 1) public access to a large library of early exploratory well digital data including wireline data, 2) integration of well and production databases with an extensive electronic document library, 3) development of an automated directional survey data loader, and 4) continuation of a public outreach project to educate AOGCC web site users

Figure 1: Detailed Alaska Well and Production Data are available at:

<http://alaska.gov/aogcc/publicdb.htm> First time users are encouraged to view the instructional videos.



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Task 1.1 - Deliver Directional Data On-line

The Commission has developed software to verify existing directional data and used this software to quality control approximately 95 percent of the existing, non-confidential directional surveys in preparation for public distribution. This information is available through either Internet retrieval of vendor-supplied surveys or by requesting on-line delivery of digital reports.

Task 1.2 – Load Well Header Data and Build Query Indexing System

Task 1.2 was functionally completed with the October 1, 2004 deployment of web applications that allow a user to access well header information using either a data-sheet interface or a GIS (map) interface. Users may view or download technical information on one or more specified wells including well production data, injection data, and completion information. Users may browse and download text documents from the subject well files and related administrative documents such as relevant Commission Orders. The data-sheet web application supports advanced compound searches using multiple criteria.

Figure 2: Sample of Well Header Query Indexing System via flexible search engine. Available through AOGCC website or directly at <http://aogweb.state.ak.us/weblink/>

The screenshot shows the LaserFiche Weblink search interface in a Mozilla Firefox browser. The search results are displayed in a table with the following columns: #, Document Name, API Number, Well Name, Lease Number, Geographic Area, On/Off Shore, Current Well Class, Current Well Status, Permit Approval Date, and Completion Date. The table lists 10 results, including wells like SWANSON RIV UNIT 34-10, SWANSON RIV UNIT 14-15, SWANSON RIV UNIT 22-23, SWANSON RIV UNIT 331-27, PRUDHOE BAY UNIT OWDW-SW, PRUDHOE BAY UNIT OWDW-SE, PRUDHOE BAY UNIT OWDW-NW, PRUDHOE BAY UNIT OWDW-NE, PRUDHOE BAY UNIT OWDW-C, and SOLDOTNA CK UNIT 32B-09.

#	Document Name	API Number	Well Name	Lease Number	Geographic Area	On/Off Shore	Current Well Class	Current Well Status	Permit Approval Date	Completion Date
1	100-145	50133101360000	SWANSON RIV UNIT 34-10	FEDA028405	COOK INLET BASIN	On	DEV	P&A		8/24/1957
2	100-146	50133101450100	SWANSON RIV UNIT 14-15	FEDA028406	COOK INLET BASIN	On	DEV	SUSP		7/25/1959
3	100-147	50133101510000	SWANSON RIV UNIT 22-23	FEDA028384	COOK INLET BASIN	On	EXP	P&A		11/21/1958
4	100-148	50133101560000	SWANSON RIV UNIT 331-27	FEDA028406	COOK INLET BASIN	On	SER	1GINJ		2/17/1958
5	100-238	50029218170000	PRUDHOE BAY UNIT OWDW-SW	ADL0028311	ARCTIC SLOPE	On	SER	WDSP1		1/14/1985
6	100-239	50029218180000	PRUDHOE BAY UNIT OWDW-SE	ADL0028311	ARCTIC SLOPE	On	SER	WDSP1		4/22/1985
7	100-240	50029218190000	PRUDHOE BAY UNIT OWDW-NW	ADL0028311	ARCTIC SLOPE	On	SER	WDSP1		1/9/1985
8	100-241	50029218200000	PRUDHOE BAY UNIT OWDW-NE	ADL0028311	ARCTIC SLOPE	On	SER	P&A		3/7/1978
9	100-242	50029218210000	PRUDHOE BAY UNIT OWDW-C	ADL0028311	ARCTIC SLOPE	On	SER	SUSP		6/23/1973
10	100-267	50133101270200	SOLDOTNA CK UNIT 32B-09	FEDA028997	COOK INLET	On	DEV	1-OIL		9/23/1990

Powered by LaserFiche Weblink version 6.16. LaserFiche is a registered trademark of Compulink Management Center, Inc. This copy is registered to: AOGCC - State of Alaska - Juneau, AK

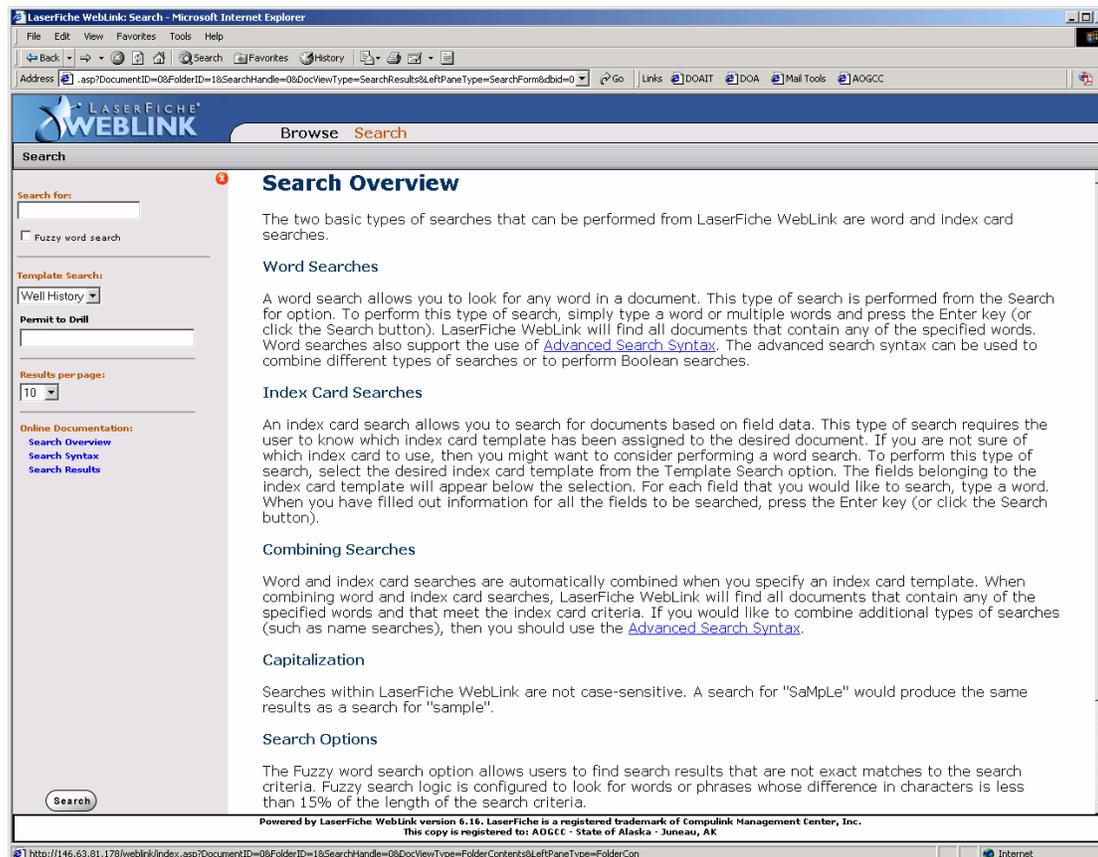
Reporting Period: October 1, 2002 through March 31, 2006

The Well Header Query Indexing System in Figure 2 above includes software links between the AOGCC image library and well-specific information including well header information contained in the Relational Database Management System (RBDMS) database. This software utilizes user-selected criteria from the RBDMS database to search for documents from the Commission's image library and is currently in a web deployable form. This tool is the final enhancement for the AOGCC data delivery project funded through this grant and was completed in the second quarter of 2006.

Task 1.4 – On-line Access to Well Files

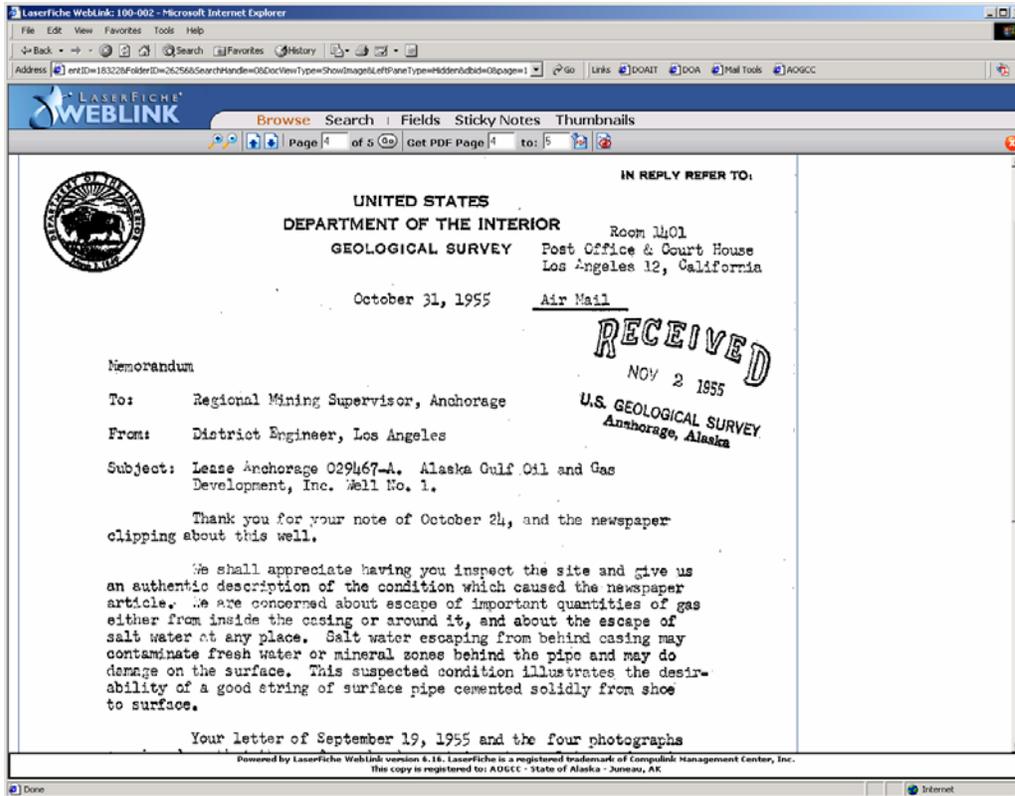
On October 1, 2004 approximately 6,000 well files containing over 1 million pages of optical character recognition (OCR'd) scanned text were made available to the public through the AOGCC's LaserFiche WebLink® web application. The application supports full text searches into the source documents. Scanned images of the pages in each public well history file can be viewed and, if desired, downloaded in Adobe PDF format. Figures 3 and 4 present examples of the information available through the well file document search application.

Figure 3: Well File Access Page



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Figure 4: Sample Well History File Page accessed from the well file search results. Over 1 million pages are stored, full-text indexed, and made publicly available over the Internet.



Task 1.5 – Web-Enable Digital Well Log Data

The AOGCC collection of digital well log data is available through the web, the user must identify and request delivery of data sets through the AOGCC FTP site. Data are typically delivered in the industry standard '.las' file format. The procedure for selecting and downloading this information has been significantly simplified and made more efficient with the work completed in the second quarter of 2006.

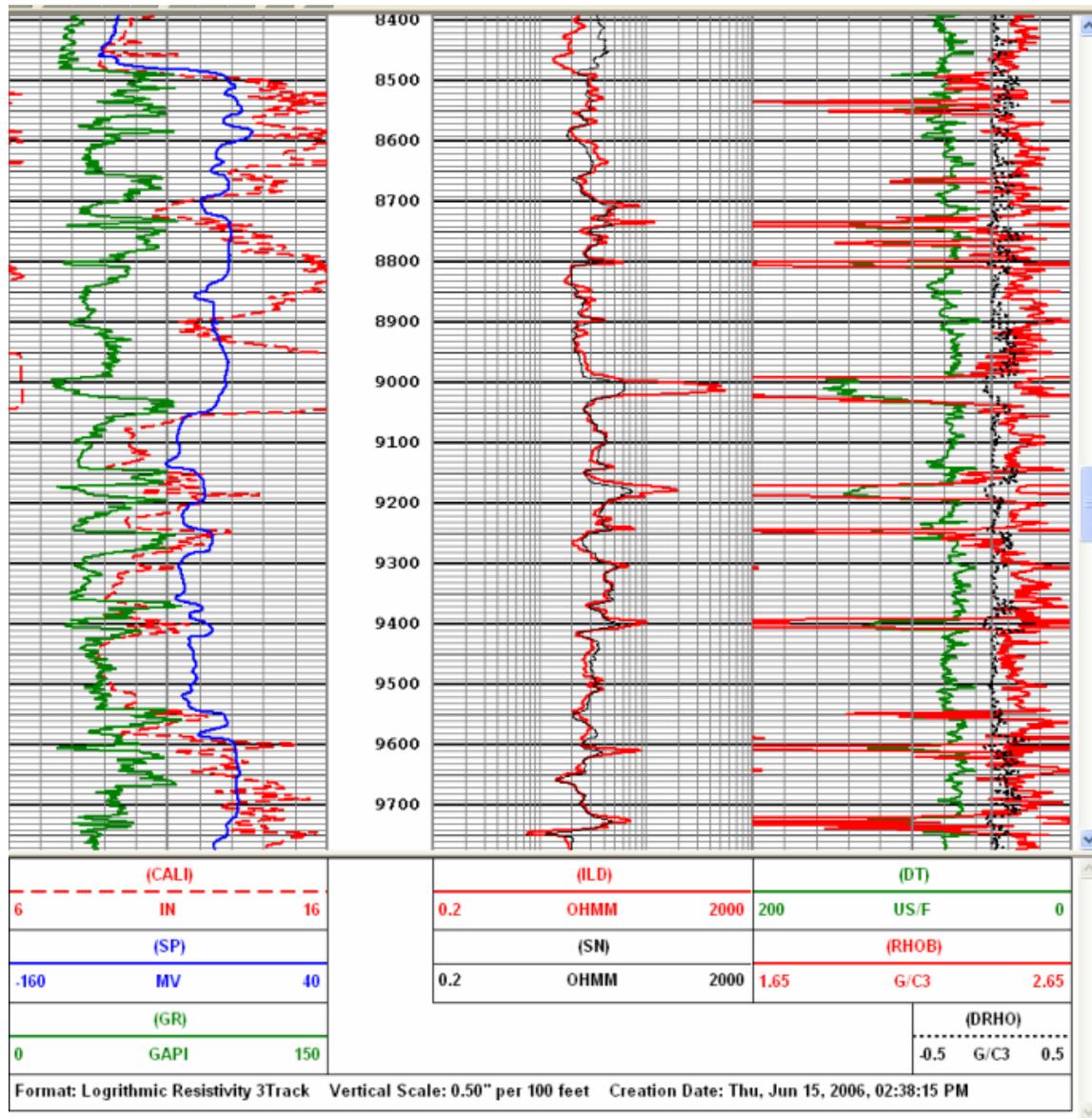
<http://www.state.ak.us/local/akpages/ADMIN/ogc/DigLog/diglogindex.shtml>

Task 1.6 – Purchase Pre-1986 Log Curves of Exploration and Development Wells

The Alaska Department of Natural Resources' Division of Oil and Gas executed a contract and has received the majority of the data. The data were posted to the AOGCC web site in the second quarter of 2006 following an internal quality control and review process.

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Figure 5: Sample well log data from Alaska's older exploratory wells; now available on the internet.



Task 1.7 – Web Publish Commission Orders

AOGCC's web site makes Commission Orders readily available to the public via a full text search document management system. The AOGCC's home page, at <http://www.AOGCC.alaska.gov> now contains links to available data including orders and decisions, which are available through an easy-to-use index page at <http://alaska.gov/aogcc/orders/ordindex.shtml>. This allows the user to quickly locate different categories of orders (Aquifer Exemption, Area Injection, Conservation, Disposal Injection, Storage Injection, or "Other" orders). Each order can be viewed on-line and can be easily saved by the user as an HTML or text file. Access to orders has been expanded with the

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new mapping and document management application that was commissioned on October 1, 2004.

Figure 6: Alaska Oil and Gas Conservation Commission Orders On-line.



Task 1 Status Summary

The AOGCC is the repository for production and well information for Alaska's oil and gas wells. An important part of the Commission's mandate is to provide the non-confidential portion of well and production data to the public. Past practice has consisted of allowing members of the public to come to the Commission's office to view and copy the information. The project goal, which has been accomplished, was to make that information more readily available through the Internet. AOGCC is changing business processes in state offices and in customer's offices by incorporating the inherent productivity of Internet based reporting, verification, database maintenance and user directed database queries as routine daily tasks.

Since the January 2006, 17.7 gigabytes of data have been transferred through the Commission's FTP site. In the time period covered by this grant, 12/31/2002 and 03/31/2006, the pages within the AOGCC directory are in the top 25 of the State's site hits.

TASK 2: Automated Support for the Alaska Coastal Consistency Review Process

Introduction

This task implements a web-enabled decision support application for Alaska Department of Natural Resources (DNR) authorizations, including Alaska Coastal Management Program (ACMP) reviews and State of Alaska resource authorizations of oil and gas exploration and development projects.

Task 2 defines specific steps to address permit streamlining issues. The solution is centered on a shared decision support environment to reduce project review cycle time. Task 2 improves data consistency and offers efficiency for gaining state agency approvals by reducing time-consuming menial work and addressing the lack of exchange between related permit efforts (e.g., data duplication). The goals for this solution are better decisions, fewer administrative appeals and the ability for industry to acquire permits and begin fieldwork in less time. A coastal management planning component will provide efficient review, approval and access to enforceable policies, which establish criteria for resource development activities within the state's coastal zone, where nearly all oil and gas activities occur.

Task 2 results in a new database application that supports issuance of an initial set of DNR authorizations, including ACMP consistency determinations and DNR land use permits (LUP). This includes: a newly revised electronic Coastal Project Questionnaire (CPQ), a document routinely required for oil and gas exploration and development projects (Task 2.1); two newly developed web-GIS applications for project planning and review using the multi-agency GIS described in Task 3 (Task 2.2); and an applicant/contact profile that permits sharing of common information (Task 2.4). This project will take State of Alaska permitting toward a user-centered design, offer industry better knowledge for project planning, and provide industry and agencies with a more efficient system for applying for and reviewing projects. ACMP project reviews are integral to ACMP's business processes and required for coastal development activities.

Task 2.1 Design, Develop and Implement Database and Software Application

The Coastal Project Questionnaire (CPQ) is the application form for the Alaska Coastal Management Program. The CPQ is primarily a diagnostic tool to determine the permits required from natural resource management agencies for activities within Alaska's coastal zone.

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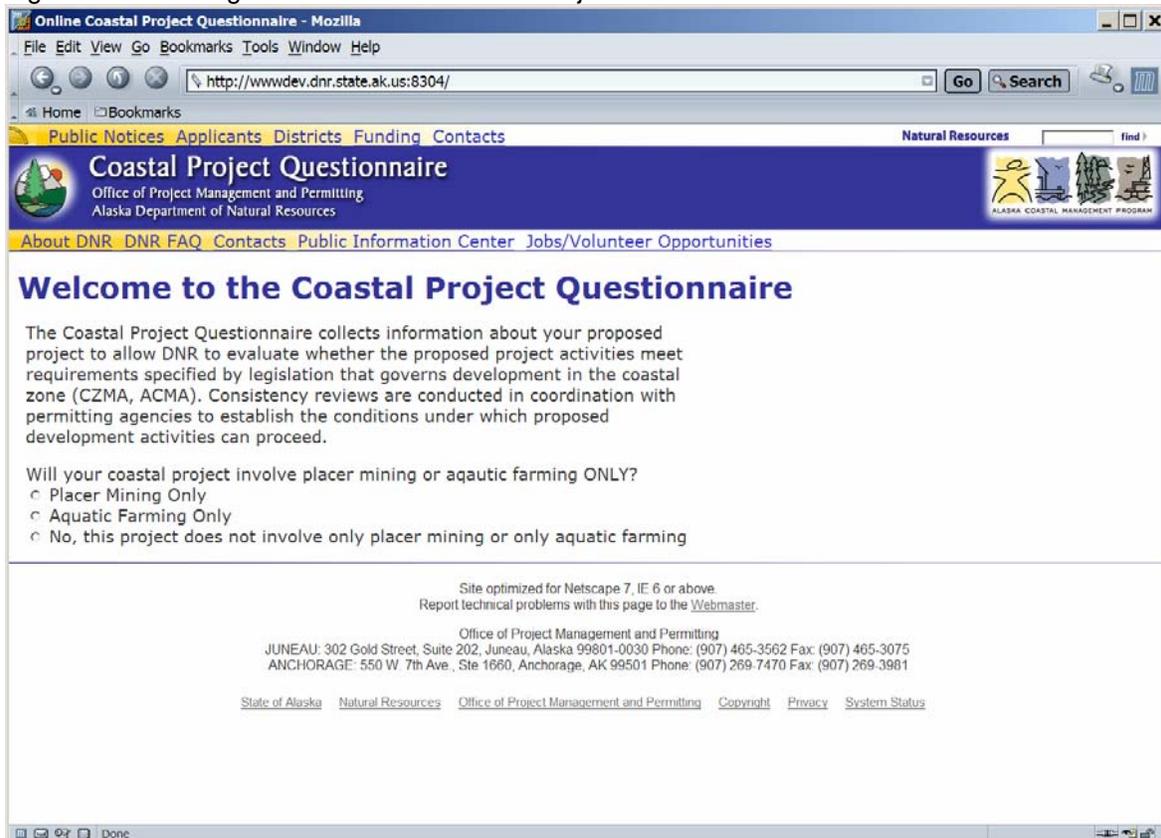
Figure 7: Excerpt from the Alaska Coastal Management Web Site; CPQ Instructions:

"The State of Alaska uses a multiple agency coordinated system for reviewing and processing all resource-related permits which are required for proposed projects in or affecting coastal areas of Alaska. This system, called "project consistency review," is based on the Alaska Coastal Management Program (ACMP) and is designed to improve management of Alaska's coastal land and water uses. Project proposals are reviewed to determine the project's consistency with the standards of the ACMP and enforceable policies of approved district coastal management programs."
<http://www.dnr.state.ak.us/acmp/Projects/pcpq.html>

The CPQ requirements analysis was completed by staff from the Office of Project Management and Permitting. Software development spanned three areas: automating the interview process, developing a MyAlaska authentication method to create shared applicant profiles, and using the geographic information system to simplify the process for end users and agency review staff by using location information to answer specific questions.

The CPQ application is in final test mode with the staff of the Office of Project Management and Permitting. The final product will be made available via the DNR home page under 'On-Line Services' following a trial evaluation with Industry representatives.

Figure 8: Initial Page of the On-Line Coastal Project Questionnaire



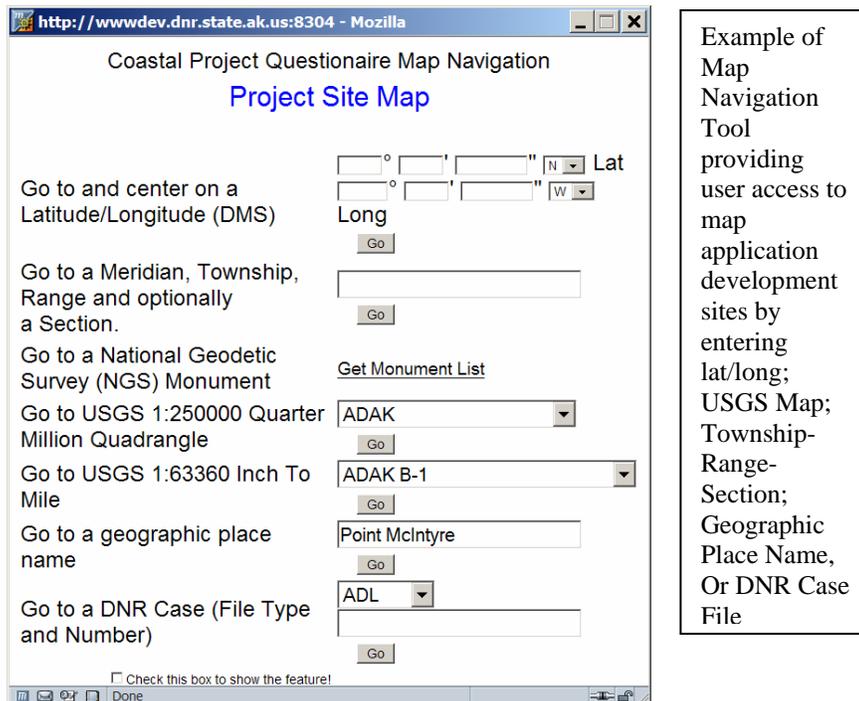
Task 2.2 – Build GIS Applications Using Data From Task 3 Multi-Agency GIS

A web-based GIS allows an applicant to identify a project's location (or submit project location data) using the Task 3 GIS. The system captures the applicant-identified project location data (such as minimum bounding rectangle or meridian, township, range, section) as part of the project record. The Location module answers geographic questions about the project location and pre-loads the form with the extracted data. The GIS determines if it is on state, federal or private land, which plan(s) will apply, whether an anadromous fish stream is located nearby, etc. This report is part of the final document output. The CPQ system makes calls developed as part of this deliverable to the multi-agency GIS. Using the back-end tools and stored location data, the GIS seamlessly responds with the requested data.

The public and other users will also be able to identify one or more areas, such as a rectangle, point, or polygon to determine active or past projects within the area. The software will rely on the multi-agency GIS (Task 3) to store the geographic data related to each project.

The GIS application supports applicants and project reviewers by allowing users to select the base map and data layers for an area of interest. The application will use available GIS data with metadata. Data will include anadromous fish streams, the coastal zone boundary, transportation, land status and other relevant spatial data.

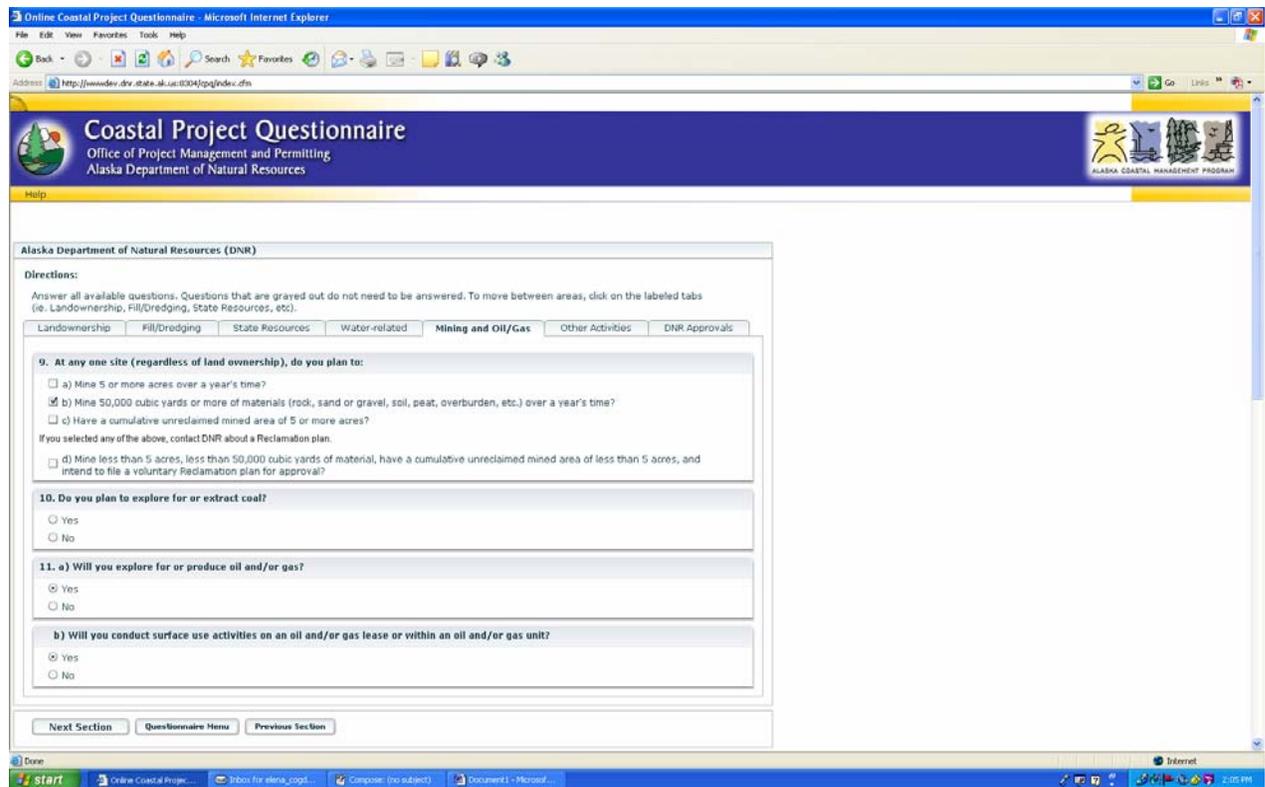
Figure 9: Navigation Tools for Moving to Project Specific Area in the Coastal Project Questionnaire.



Task 2.3 – Design and Develop Public Web Interface

The user interface to the CPQ is complete based upon the requirements information provided by the end-users and agency staff. The forms are designed to only allow a customer to answer those questions that need to be addressed based upon a logical sequencing of the questions. Portions not relevant to an applicant’s request remain inaccessible and are ‘grey-scaled’ to prevent unnecessary information from being collected. This helps to guide the applicant through the process and simplify the experience. Overall there are more than 200 possible questions to respond to, but the typical applicant will only be required to answer a small fraction of the total. The tab-based streamlined design provides the built-in navigation to assure users only address the relevant questions. A ‘Questionnaire Menu’ page provides a central location to identify which portions of the application are complete, and which portions require additional input.

Figure 10: Example page from the Coastal Project Questionnaire User Interface



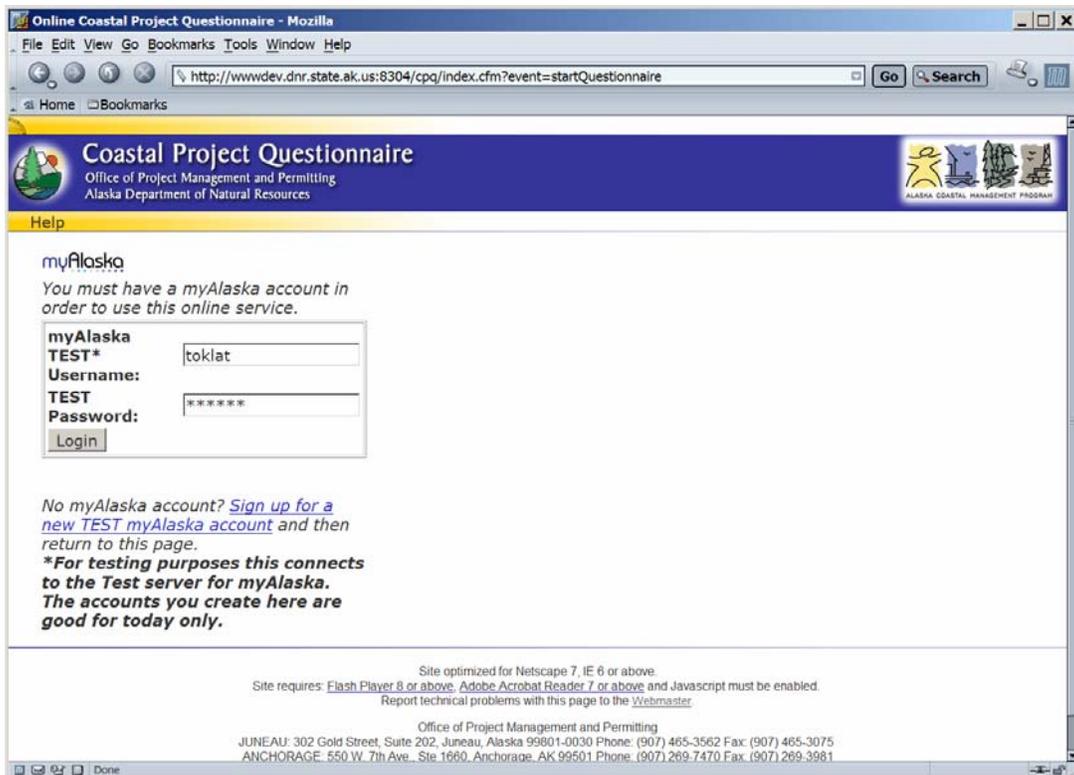
Task 2.4 – Coordinate with the New Shared Applicant Profile

The CPQ module uses the MyAlaska enterprise software application for authentication and optional customer contact data management. This allows applicants to use their

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MyAlaska username and password and to confirm whether or not they want to use their MyAlaska contact information to populate their CPQ and RAS contact attributes. The MyAlaska account is used by the Department of Environmental Conservation permitting staff, meaning that a single authentication for end users for more than one agency will be put into place.

The MyAlaska component uses the lightweight directory access protocol (LDAP). The application is moving forward toward a more open and flexible architecture. Federated identity is a relatively new concept of decentralized identity management and authentication that has a number of advantages, such as alleviating the need for a proxy component to accommodate multiple agencies. Federated identity technology will allow systems developed externally by contractors to work with myAlaska, and will help implement MyAlaska functionality to meet agency needs, and supports interaction between DNR applications and those of other state and federal agencies. DNR IT staff will continue to support the advances in the shared customer and multi-permit view of operations that were initially sponsored under this grant.



Task 3: Create a Shared Geographic Information System Among State Agencies

Task 3.1 Establish GIS Hardware and Commercial Software Infrastructure

Increasing demand on the Oracle production environment for serving geo-spatial data required a plan to address needed redundancy and extended user access. The Oracle-recommended solution is now being implemented via Real Application Cluster (RAC) architecture. A complete test environment has been created in preparation of the move into production and the test results have all been positive. The plan is to move the new RAC environment into production by September 31, 2006. This advancement provides the user community with 7*24 hour access to the Oracle database production mapping environment, and creates an increased capacity to serve complex data by doubling the CPU capacity. A technical training plan for the database administrator was executed. External software dependencies on earlier versions of Oracle have created a temporary delay in our efforts to migrate to Oracle 10g Spatial, specifically the Spatial Data Engine from Environmental Systems Research Institute requires upgrading. The Oracle 10g migration offers a number of end-user enhancements, and opens the door for efficient storage, indexing, and display of raster images to supplement the vector GIS databases.

Task 3.2 Define Shared GIS Policy Base

This grant successfully demonstrated the design and deployment of the shared GIS. The Alaska Oil and Gas Conservation Commission web site derives user specified data directly from the Department of Natural Resources extensive geo-spatial database stored in the Oracle Spatial Data Object geometry, across the state network – Enterprise GIS in action. This prevents duplication of extensive base map data, oil and gas leasing data, well location information, etc. This task is complete.

Task 3.3 Incorporate Existing Data

DNR Land Records Information Section technical staff populated commonly requested geospatial data to the Oracle Spatial database and programmed a simple user interface to provide public downloads of the GIS data automatically. Viewing, metadata access, and download tasks are accomplished in the context of a public access node of the National Spatial Data Infrastructure and the federal Geospatial One-Stop infrastructure, as defined by the Federal Geographic Data Committee, and maintained by the Alaska Department of Natural Resources. The GIS site is referenced as the Alaska State Geospatial Data Clearinghouse (ASGDC) for a conventional NSDI data view – i.e. metadata viewing and downloads; and is also registered as a more popular dynamic site of interactive mapping with end-user selected downloads as Alaska Mapper. Under the interactive site, registered customers can store custom view of a geographic location and monitor it for changes over time, for example lease tracking. In the future DNR may offer RSS feeds of selected areas to customers who wish to be notified of status changes in their areas of interest.

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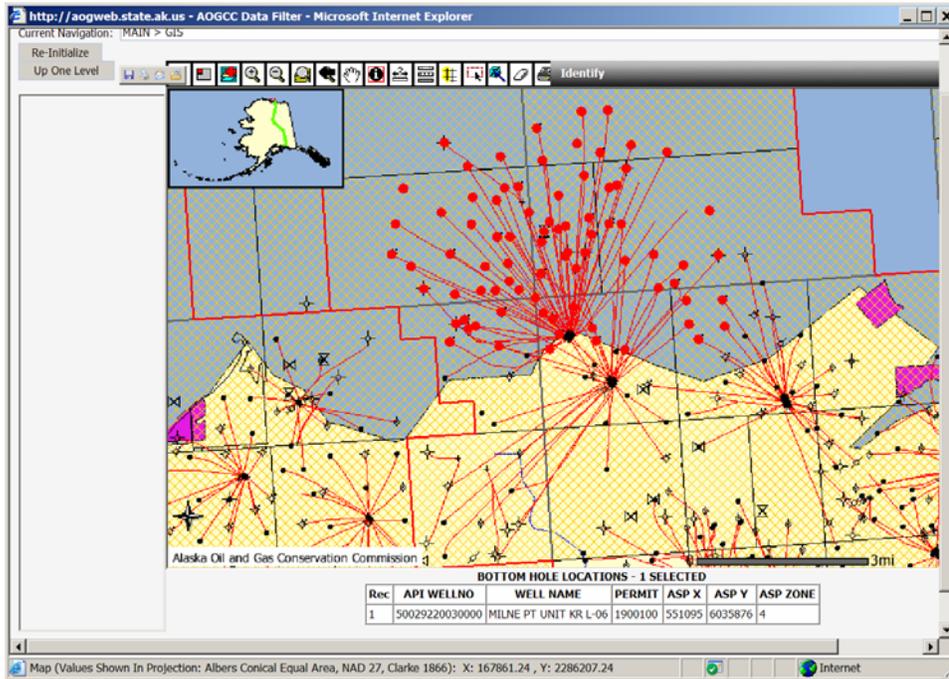
Tasks completed under this grant to support the shared GIS concept and expand the role of geography to provide public access to oil and gas records include:

- Loaded Oil and Gas data themes to the Oracle Spatial database to expand public access. Predefined maps of Mineral Estate property rights are readily available for viewing of current data stored in the database providing easy access to up-to-date oil and gas leasing data.
- Redesigned interactive map legends and default map presentation layers for determination of oil and gas property rights under the Alaska Mapper software application. On-line maps are now easier for customers to create, save, modify, or print. Query systems were expanded to include access to improved reporting on ownership percentages, and case transaction history.
- Added ability for end users to easily download open-source approved “shape files” for selected GIS data without charge. This is a popular feature with the public.
- Updated the ISO 19115 Topic Category theme keywords to select metadata records referenced by ASGDC. Concurrently verified FGDC –STD-001-1998 compliance.
- Imported newly updated metadata records (in xml format) into coverage and shapefile data sets . Created new export and zip files of each data set and copied to DNR ftp site, downloadable via link in metadata record posted on ASGDC site.
- Updated General Land Status data sets used for small scale maps. Updated associated metadata records and posted on ASGDC.
- Updated detailed Infrastructure and Hydrography data sets into GIS geo-database and published as TAB files on Alaska Mapper application.
- Updated geo-referenced BLM Master Title Plat updates to DNR network drive and published via Alaska Mapper application, provides view of federal land status.
- Maintained BLM Native Allotment data in GIS geo-database and DNR network drive; allotments are also displayed as part of the AOGCC GIS well log queries.
- Maintained PDF files of USGS topographical maps with ADF&G Fish Distribution Database information in the Arctic, Interior, and Southcentral Regions of Alaska.
- Maintained 2005 Fish Distribution Database GIS Data from ADF&G, assuring access to the task 3.6 work product.
- Provided user and technical support for Enterprise GIS, AOGCC, and ASGDC.

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GIS remains a work area. Automated means for generating well top hole / bottom hole location diagrams (“spider diagrams”) at the time the well data are released to the public domain by AOGCC remains an outstanding sub-task. This task is considered complete.

Figure 12: Example of web-based GIS search for well data at Point McIntyre. The GIS in turn links to the underlying geo-technical data.



Task 3.5 Application Interface Support for Consistency Review

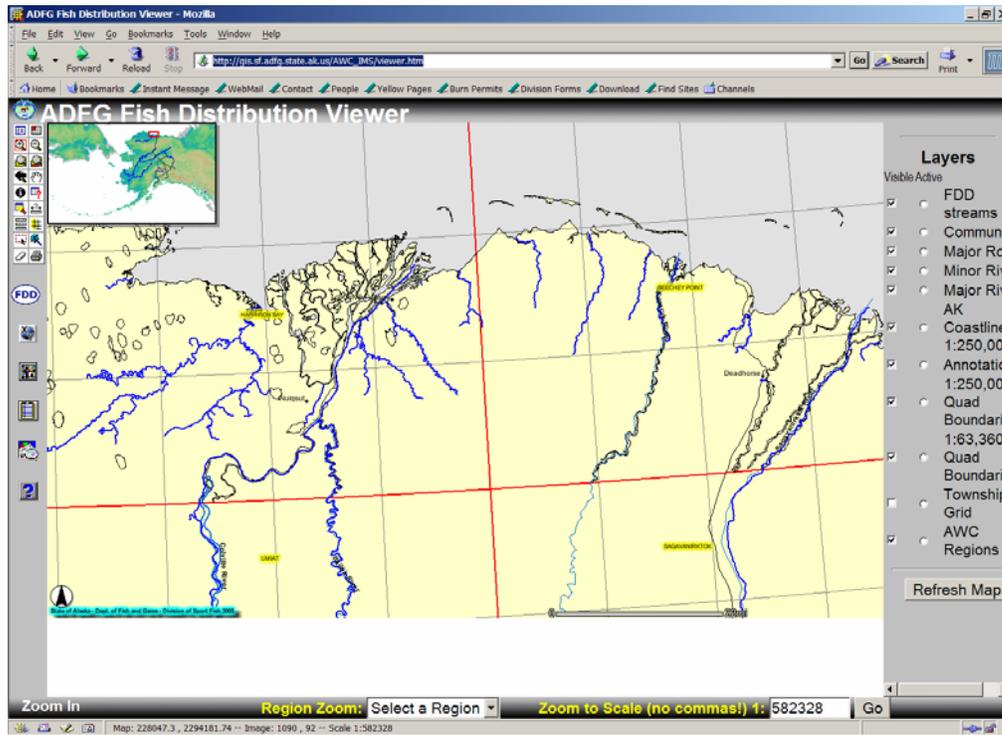
During this reporting period, the GIS team has led the effort on the MyAlaska implementation, the automated form generation, the GIS interface and reporting functions. A user is guided through the process to acquire a user-name and password. The Department of Environmental Conservation, another agency tied to permitting of Oil and Gas development projects has implemented a MyAlaska component as well for listing permits and making payments on-line. In the future the DNR permit and CPQ process will geographically tie to the ADEC MyAlaska registered permits providing customers with a single site to review the status of pending projects.

Task 3.6 Complete Fisheries Atlas.

Cartographers have finished all annotation for the Arctic region and those maps have been edited and corrected. The geo-database for the Interior Region has been created and the cartographers have completed annotation work on the maps. The fisheries atlas is now updated and in a fully electronic media available through the Alaska Department of Fish & Game Anadromous Streams web site. This task is complete. See the following figures for reference to the fisheries resources web site with example screens.

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Figure 13. Example of Annotated Fishery Data on the Alaska North Slope
http://gis.sf.adfg.state.ak.us/AWC_IMS/viewer.htm



Example of Detailed Fishery information available, Nuiqsut & Colville River Area.

