U.S. DEPARTMENT OF ENERGY

SEMI-ANNUAL REPORT

Program/Project Title

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

Reporting Period

April 1, 2003 through September 30, 2003

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ABSTRACT

Alaska Oil and Gas Exploration, Development and Permitting Project

This is the second technical report, covering the period from April 1, 2003 through September 30, 2003. This project brings together three parts of the oil exploration, development, and permitting process to form the foundation for a more fully integrated information technology infrastructure for the State of Alaska.

The geo-technical component is a shared effort between the State Department of Administration and the US Department of Energy. The Alaska Oil and Gas Conservation Commission is rapidly converting high volumes of paper documents and geo-technical information to formats suitable for search and retrieval over the Internet.

The permitting component is under the lead of the DNR Office of Project Management and Permitting. A web-based system will enable the public and other review participants to track permit status, submit and view comments, and obtain important project information on-line. By automating several functions of the current manual process, permit applications will be completed more quickly and accurately, and agencies will be able to complete reviews with fewer delays. Structural changes are taking place in terms of organization, statutory authority, and regulatory requirements.

Geographic Information Systems are a central component to the organization of information, and the delivery of on-line services. Progress has been made to deploy the foundation system for the shared GIS based on open GIS protocols to the extent feasible.

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

1 DOE Energy Information Administration: <http://tonto.eia.doe.gov/oog/info/state/ak.asp>

2 American Association of Petroleum Geologists: <http://www.aapg.org/divisions/dpa/npra/html>

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 faster and ‘smarter’ 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 coastal management program 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 remains on track to meet goals and schedule. Initial geotechnical publications with GIS capability are planned for production in early 2004.

Task 2 is modified by the Governor’s structural changes to the permitting process. These changes strengthen the overall goal of improved permitting but will require additional time to implement the software and procedures defined by the grant.

Task 3 remains on track. Enterprise GIS components are planned for rollout in the last quarter of 2003 and into the first quarter of 2004. Carryover work, particularly in support of Task 2, is expected to occur in FY05.

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EXPERIMENTAL

Not applicable. This project includes no experimental research data.

RESULTS AND DISCUSSION

For the Reporting period April 1, 2003 and September 30, 2003:

TASK 1 - GeoTechnical

1. AOGCC web site updated, progress toward the goal of geo-technical data publication: <http://www.aogcc.alaska.gov/>
2. Over 5500 well history files, field files, commission orders, and other documents have been scanned and index. Testing distribution with in-house system.
3. Front end GIS system prototyped and approved for implementation.
4. Negotiation with producers for pre-1986 log curves nearing completion.

TASK 2 - Permitting

1. New statute passed in last legislative session (2nd quarter 2003) implementing reform of coastal management program consistency review process.
2. Initial work on regulations following new statutory direction has begun.
3. Amended Software Requirements Specification document is being developed under contract reflecting statutory changes.

Task 3 – GIS Integration

1. Basis for multi-agency GIS moves into production, primary data layers include current state land status, (including current status of state oil and gas leases); state basemap, and access to anadromous water catalog data (salmon streams etc). <http://mapper.landrecords.info>
2. Initial load of scientific and technical publications made available to the public using both text and map based search criteria. Site will expand references. See <http://maps.akgeology.info>
3. GIS Policy work advances new governance structure for the state as part of enterprise IT plan implementation. Standards work advancing in 1st quarter 2004.
4. Arctic Region Anadromous Waters Catalog data compiled by ADFG, project on track for mid 2004 completion.

EXECUTIVE SUMMARY

Geography serves a unifying principle in this grant application. A shared Geographic Information System is being 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. An important part of the Commission's mandate is to provide the non-confidential portion of our 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. Our Task 1 project goal is to make that information more readily available through the Internet.

The Office of Project Management and Permitting is responsible for Task 2. Coastal management governance was modified by the Governor and Legislature. Administrative and structural changes were made to the State's permitting process. These changes strengthen the overall goal of improved permitting but will require additional time to implement the software and procedures defined by the grant. The Governor's transfer of staff and projects into the Department of Natural Resources should result in enhanced integration. A project extension of at least 12 months will be needed to accommodate these structural changes. A new statute has passed, regulations are now pending.

The DNR Land Records Information Section is responsible for Task 3. The goal is to implement an enterprise level Geographic Information System among participating agencies as a shared tool for adding efficiency. During this reporting period, meetings and plans materialized into tangible products that were delivered. A new production database server and web application server cluster were deployed, thus firmly establishing a GIS Hardware and Commercial Software Infrastructure housed by the Alaska Department of Natural Resources. A production GIS application is now available at <http://mapper.landrecords.info> with on-line access to oil and gas lease information, and other DNR land records. The Alaska Department of Fish and Game will publish an electronic copy of the Anadromous Waters Catalog for the Arctic Region as part of this overall effort.

Technical Status

TASK 1: Publish Geo-Technical Information

Task 1.1 - Deliver Directional Data On-line

The Alaska Oil and Gas Conservation Commission (Commission or AOGCC) 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. A GIS front-end has been prototyped for the oil producing basins.

Figure 1: Oil and Gas Producing Basins of Alaska

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

Software was developed to download well header information to the Commission's subsurface application software. The Commission also developed software links between our 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. The application will provide the means for creating compound searches using more than one criterion. A contractor is being selected to build the web interface program. Once in production, the Commission will update the database as part of on-going operations.

Our goal is to allow users to select wells based on well specific information including header information or on geographic information using a map based interface. See Task 3 technical summary for more information on the GIS.

Task 1.3 – Web-Enable Well Production and Injection Records

Production and injections records are now organized within RBDMS, where they are readily available to the Commission staff. Web-enablement contracting is in progress.

Task 1.4 – On-line Access to Well Files

A current total of 5529 well history files, administrative and field files, and commission orders (over 822,000 pages) have been scanned in bi-tonal format and placed on-line within the Commission. Scanning of color and oversized documents will begin in the next month. Public access to this data is dependent on purchasing, enabling, and configuring a public server. The architecture, security, and technical specifications for the public server have been compiled and implementation is underway.

Task 1.5 – Web-Enable Digital Well Log Data

Digital data are formatted for distribution. Software allowing selection of data and automation of delivery is under development.

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

The Commission, in-conjunction with the Alaska Department of Natural Resources' Division of Oil and Gas, will purchase digital well log data for 389 pre-1986, exploratory and development wells. Making information from these wells available to the public is important to expanding participation in Alaska's oil and gas industry. Conoco-Phillips Alaska, Inc. has offered to donate digital well log data for some, if not all, of these wells. The number of wells we will ultimately buy data for is contingent on the scope of the Conoco-Phillips donation. Negotiations have been slower than expected but progress continues to be made. This data acquisition sub-task is a key element of the overall project.

Task 1.7 – Web Publish Commission Orders

The Commission's web site has recently been re-designed and updated, and makes our orders readily available to the public. The Commission'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://www.aogcc.alaska.gov/orders/ordindex.htm>. 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.

Maintaining the New Functionality: Receiving Information Electronically.

The new system capability delivered as a result of this grant and its associated activities must be sustained by modifying the day-to-day business practices of the Commission. The goal is to assure a steady flow of timely public information delivered via the Internet. Toward that end, the Commission will begin an eCommerce Initiative during 2004 that will enable companies to electronically deliver required reports and data. Currently, the Commission receives routine production data from several large operating companies in the form of ASCII files attached to email messages. While this system functions well, a replacement system that is consistent, easy to use, and employs automatic quality control (ensuring data completeness, consistency, and trapping of errors) is needed to increase work efficiency, reduce data errors, and conserve staff time. Our initiative will develop a production-reporting module geared for use by both large, sophisticated companies and smaller companies with more limited technological resources.

This eCommerce Initiative will also build tools that enable operating companies to submit reports, applications (including supporting documents) and other data to the Commission in electronic format. Outreach meetings have been held with BP, Conoco-Phillips, Unocal, Marathon, and two groups within DNR. Comments received during those meetings have been collected and categorized, and they will be used as a basis for design effort that will begin during the 1st Quarter of 2004.

Task 1 Status Summary

The Alaska Oil and Gas Conservation Commission 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 our 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. Our project goal is to make that information more readily available through the Internet.

Good progress has been made: the URL for the Commission's web site has been simplified (<http://www.aogcc.alaska.gov>), and the web site updated. The Commission's hearing and meeting calendar, orders, regulations, drilling statistics, production statistics, annual reports, forms and more are available through our web site.

Much progress is yet to come: the project will make well information, directional survey data, production and injection records, images of well history records, and digital well log data files available across the Internet. Our eCommerce initiative will make it possible for operating companies to submit reports, data, and applications (with supporting documents) to the Commission across a trusted Internet connection.

Refer to Appendix 1 for additional information on the Task 1 goals, and their relationship to the overall statewide IT planning effort.

TASK 2: Automate Manual Processing Aspects of ACMP Project Consistency Review

Introduction and Background

This task will develop and implement a web-enabled decision support application for Alaska Coastal Management Program (ACMP) coordinated reviews of exploration and development projects.

Task 2 defines specific steps to address permit 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 manual work and addressing the lack of exchange between related permit efforts. 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 access to enforceable policies establish criteria for resource development activities.

Task 2 will result in a new database application for multi-agency ACMP consistency reviews. This will include: a newly revised, automated Coastal Project Questionnaire (CPQ), a document routinely required for Oil and Gas exploration and development projects; two newly developed web-GIS applications for project application, planning

and review using the multi-agency GIS described in the next step; and applicant profile that permits sharing of common information. This project will take State of Alaska permitting toward a user-centered design and 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.

Task 2 Technical Project Status

Task 2 is modified by the new Governor's and Legislative administrative and structural changes to the State's permitting process, particularly to the ACMP. These changes strengthen the overall goal of improved permitting but will require additional time to implement the software and procedures defined by the grant. The Governor's transfer of ACMP administration into the Department of Natural Resources should result in enhanced integration of Task 2 with Task 3. However, the transfer likely results in requirements for the Task 2 system to have greater integration with DNR's Land Administration and other information systems than previously anticipated. Though this is positive from a systems development perspective, it creates additional planning, coordination, and fiscal challenges.

A contractor is being selected to conduct the technical work, with primary task management and coordination responsibilities performed by the Office of Project Management and Permitting (OPMP). OPMP will devote extra attention to data development for the detailed design, GIS web applications, coordination of data sharing with other agencies, and the web interface design and development.

Task 2.1 Design, Develop and Implement Database and Software Application

To accommodate the new environment described above and continue making progress, the system described for Task 2 is tentatively segregated into two closely related sub-systems: a self-sufficient intra-office sub-system to support essential OPMP business functions and an expanded (than what was envisioned in the DOE grant application) inter-agency project questionnaire sub-system that communicates with systems of other agencies, including OPMP's. The

inter-agency sub-system would provide a common place for developers to apply for permits from several agencies.

The intent of segregating Task 2 in this way is to minimize the impacts of addressing the technical and coordination issues necessary to develop the inter-agency sub-system in this new administrative environment, which could slow progress on development of the OPMP intra-office aspects of the system. Should the expanded vision for the project questionnaire sub-system become unfeasible, OPMP will revert to developing the Coastal Project Questionnaire function originally envisioned in the DOE grant.

The project questionnaire sub-system will coordinate identity management with the MyAlaska enterprise application, use land and customer records data maintained within DNR, and link to the enterprise GIS project described in Task 3. It is anticipated the project questionnaire sub-system will become a common data module for multiple agency information systems. This project is just getting off the ground by developing a proposal for approval by the new administration.

OPMP has contracted (using non-DOE funds) to revise the Software Requirements Specification (SRS) for the intra-office decision support aspects of the Task 2 ACMP Information System (see attached Task Order 0068 Appendix 2). The contract will address new administrative and functional requirements. The revised SRS will follow the format outlined in ANSI/IEEE Standard 830 and should be completed by December 31, 2003.

Upon completion of the revised SRS, OPMP intends to solicit a request for proposals to develop a detailed design and implement the intra-office aspects of the system according to the SRS, pending approval by the new administration. The intra-office sub-system will be tightly linked to the project questionnaire sub-system.

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

Project staff have remained in communication as the Task 3 system develops. Two web-enabled GIS applications will be developed using the multi-agency GIS developed in Task 3. The next planning meetings are scheduled for November 14, 2003 on this topic with a focus on GIS functionality that permits applicants to locate project boundaries via either a map interface or text description.

Task 2.3 – Design and Develop Public Web Interface

OPMP IT staff are currently building a web development plan for the OPMP and ACMP web sites (see <http://www.alaskacoast.state.ak.us/>) consistent with the new Administrative Order regarding the State of Alaska's Internet websites. OPMP IT staff are also working on developing a public web interface with the existing Access database (mostly outside the scope of the DOE project). This will provide valuable experience when developing the interface for the new system. The plan includes site goals, user needs, site structure, visual design, production, promotion and launch, site maintenance and usability testing. This web development process will be used as the basis for developing the web interface for the database software application. OPMP IT staff will work closely with the contractor to cooperatively design and develop the web interface consistent with the web plan.

Task 2.4 – Coordinate with the New Shared Applicant Profile

This task will coordinate the identity part of the application with the initiative (outside the scope of this DOE grant) by the Alaska Information Technology Group to design and implement an identity management system for state government. Named myAlaska, the system currently manages identity for individuals who are state residents. Subsequent versions will allow management of identity for organizations and businesses, which will enhance its usefulness to the ACMP system.

A strategic component of the MyAlaska solution is the ability for the registered customers to utilize an electronic signature in cases where authentication is necessary to

conduct on-line business. In the case of individual Alaskan who register with the site, primarily with intent to electronically submit their permanent fund dividend application, the State, in effect, serves as the certifying authority (CA) for the digital signatures. The CA component of the business and organization implementation may require a modified approach. Developers and staff on this DOE grant are collaborating with the architects of the MyAlaska project to work toward the goals of electronically authenticating transaction processing.

This task includes defining the unique needs of oil and gas applicant profiles and assuring those needs are met by the new system. This will include a review of existing applicants' ability to manage multiple profiles based on geographic or other company criteria, and ability of applicants to update the information themselves. This task will assure clear programming documentation for accessing applicant profile data.

Following the completion of the updated Software Requirements Specification, the project team is discussing an out-reach effort to meet with key customers. In addition to the corporate customers who hold active oil and gas leases, the project team has identified a number of active professional societies whose members typically represent environmental engineering firms hired to conduct permit processing. Team members hope to make presentations at meetings and symposia to solicit feedback and additional direction. Contact organizations include Air Waste Management Association; Alaska Association of Environmental Professionals; and the Alaska Groundwater Association. Please see Appendix 2 for a more detailed account of the Task 2 process implementation.

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

Task 3.1 Establish GIS Hardware and Commercial Software Infrastructure

The project goal is to implement GIS at an enterprise level among participating agencies. During this reporting period, meetings and plans materialized into tangible products that were delivered. A new production database server and web application server cluster were deployed, thus firmly establishing a GIS Hardware and Commercial Software Infrastructure housed by the Alaska Department of Natural Resources.

A new GIS production application has been published that utilizes the newly deployed infrastructure. The site is located at <http://mapper.landrecords.info>. This site provides public access to state land records, including all current and active Oil and Gas leases with ownership and other related information. The public has multiple tools available for navigating to areas of interest (top left of screen), including the use of geographic names. For example, after selecting the mineral estate map, and entering the name "Deadhorse" under geographic names under Map Navigation; a map of the oil and gas leases in the Prudhoe Bay vicinity is quickly displayed.

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Figure 1: Example of Public Access to Oil and Gas Lease Information
Site available at <http://mapper.landrecords.info>

The legend on the left offers additional functionality. Under map search, one can select point, and click on one of the identified leases. The selected parcel will turn yellow, and by clicking on View Results at the bottom left of the screen, a preliminary summary for the site is displayed. A direct link to the DNR primary database of record, the Land Administration System, is available via the submit button. This will return current information on ownership via a Case Summary of transaction history with legal description from the state mainframe. A Case Detail record and Land Abstract are also available for the selected case.

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Alaska Department of Natural Resources
Commissioner: Tom Irwin

Land Administration System Menu | Credit Card Payment

Land Administration System

Case Summary Information

File Type: File Number:

See Township, Range, Section and Acreage?
☒ Yes ☐ No

[Case Abstract](#) | [Case Detail](#) | [Land Abstract](#)

File: ADL 28303 As of 11/11/2003

Customer: 000107377		BP EXPLORATION (ALASKA) INC PO BOX 196612/900 E. BENSON BL ATTN: LAND MANAGER-ALASKA ANCHORAGE AK 995196612	
Case Type: 784	OIL & GAS LEASE COMP	DNR Unit: 780	OIL AND GAS
File Location: DOG	DIV OIL AND GAS		
Case Status: 35	ISS/APPRV/ACTV AUTH	Status Date: 09/14/1965	
Total Acres: 2560.000		Date Initiated: 05/28/1965	
Office of Primary Responsibility: DOG		DIV OIL AND GAS	
Last Transaction Date: 12/31/2002		Case Subtype: NS NORTH SLOPE	
Last Transaction: CDESTAND STATUS CODE STANDARDIZED			
Meridian: U	Township: 011N	Range: 014E	Section: 04 Total Acres: 640
Meridian: U	Township: 011N	Range: 014E	Section: 03 Total Acres: 640
Meridian: U	Township: 011N	Range: 014E	Section: 09 Total Acres: 640
Meridian: U	Township: 011N	Range: 014E	Section: 10 Total Acres: 640

Figure 2: Example of tabular oil and gas information made available from map based queries
Site available at <http://mapper.landrecords.info>

The emphasis on this GIS is *shared among State Agencies*. DNR/LRIS is working closely with other groups. In support of Task 1, DNR/LRIS is coordinating with AOGCC and its contractor, ALL Consulting (Tulsa, Oklahoma), to house well-log data in this shared environment. Both AOGCC and DNR/LRIS will produce web-based applications which allow viewing this data without duplication, adding the well location data, with links to associated AOGCC well data, to the DNR lease information and basemap that is now available.

The Alaska DNR Division of Geological & Geophysical Surveys is already successfully using this system to pursue application & data development and publication that supports energy exploration and development. See <http://maps.akgeology.info/> for a map based interface to scientific publications on energy and mineral prospects in Alaska.

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Figure 3: Example of scientific publications made available from map based query tool.
Site available at <http://maps.akgeology.info/>

DNR/LRIS is actively engaging in discussions with the Department of Transportation and Public Facilities, the Department of Environmental Conservation, and Department of Fish and Gas to house data from those agencies in this shared environment. Improved statewide centerline files, regulated point source facilities by ADEC, and expanded access to fisheries and habitat information from ADFG are all key objectives for providing the public and decision makers with the most reliable information available.

By implementing and maintaining a shared resource for housing spatial information, agencies can reduce costs, eliminate duplication, improve data quality, improve customer service, and accelerate the permitting process – all of which supports the shared goal of timely and well managed development of oil & gas resources.

Task 3.2 Define Shared GIS Policy Base

Reorganization within the Alaska Government has led to the elimination of the past Information Technology governance structures. The state is currently engaged a large-scale IT planning and budgeting effort that will most likely result in a new structure for coordinating and managing IT projects throughout the state. Senior managers have identified GIS as a key IT area requiring additional review and coordination. As a recognized leader for GIS within the state, DNR is actively participating in this process and is expected to make strong contributions to new policies in this area. A new governance model for IT has developed (<http://www.state.ak.us/itg/plan>) with a focus on service areas. Policies for GIS standards and implementation have been identified as a task for the Technology Management Council with an appropriately staffed functional working group.

Figure 4: Emerging State IT Governance Model

Task 3.3 Incorporate Existing Data

DNR/LRIS has designated a full-time position to providing data administration and customer support for the Enterprise GIS and the related Alaska State Geospatial Data Clearinghouse (ASGDC). This individual is charged with completing and ensuring the success of Task 3.3 and providing support for other GIS-related tasks.

The conversion of Land Status data is complete. This conversion included digitizing ink-on-Mylar plats and converting approximately 9000 stand-alone databases into a single model. The result is that data not previously electronically available to decision-makers is now readily accessible and easier to keep current. DNR is continuing to check the converted data for quality and expect to complete this task by June 2004. Quality control on all oil and gas related land status actions have been completed.

DNR has migrated our initial GIS data repository to the new production server and have re-configured our Internet-based mapping applications to use this new repository. DNR is now working to make data in the production repository available to desktop-based GIS applications as well (ESRI products), and will further build upon the capability of the <http://mapper.landrecords.info> site as new layers are available.

DNR is continuing to work toward establishing a fundamental remote sensing capability among resource development decision-makers. Working with partners such as DNR/Parks, DNR/Forestry, USGS, and BLM, we are exploring methods for incorporating Landsat7, ASTER, and other base data into the eGIS to support this capability. A web-based delivery system for Landsat7 and other data using the EON software product from RSI Inc., (makers of ENVI), is being pursued. Coordination with the University of Alaska Geographic Information Network of Alaska (GINA) is underway. An image basemap, of the highest resolution publicly accessible information for the oil and gas basins of Alaska is a goal of this effort. The USGS and BLM have recently invested in production of digital orthoquads for portions of the north slope. Production products have not yet been released. An image basemap for GIS web sites will help to support environmental reviews, project planning, and permit processing. Complementary work continues with the USGS – Alaska Memorandum

of Understanding to support development of statewide base map, and framework data layers defined by the National Spatial Data Infrastructure initiated with support from DOE Pump III objectives for eGIS. A high quality digital elevation model is a high priority.

Population of the Enterprise GIS continues. DNR has incorporated preliminary anadromous fish stream data from the Alaska Department of Fish & Game (ADF&G), in preparation for including the finalized data when it becomes available in 2004. (See task 3.6 below.) DNR is working with AOGCC and its contractor to include well-log data in the eGIS. Making these two data layers available together with land status information will enable industry to make better decisions prior to application, which leads to a more streamlined application process and short time to development.

Task 3.4 AOGCC Application Interface Support

AOGCC is moving ahead with Task 1 using ALL Consulting based in Tulsa, Oklahoma. DNR/LRIS staff have met with AOGCC and its contractor to ensure the success of Task 3.4. Meetings have lead to a general agreement about methodology, including data standards and data access. This general agreement will be refined to specific standards, application & data development, and a finalized product that meets the goals of this project.

Task 3.5 Application Interface Support for Consistency Review

The Office of Project Management and Permitting (OPMP) contributed significantly to Task 3.1 and continues to work in conjunction with LRIS to complete Task 3.5. DNR/LRIS has provided a number of web-based applications to OPMP staff for review and commentary, and to determine the feasibility of using these applications to help complete this task.

Task 3.6 Annotate North Slope Anadromous Fish Waters Atlas

DNR is working closely with ADF&G to finalize the products for this task, which are due by June 30, 2004. Preliminary data has already been incorporated into the eGIS and successfully tested for database and application compatibility. This work will complete the Anadromous Waters Catalog for the Arctic Sub-Region, an important goal for the Department of Fish and Game, and will provide useful information for planning North Slope development projects. See

http://gis.habitat.adfg.state.ak.us/AWC_IMS/viewer.htm

Task 3 Status Summary

Overall, Task 3 is progressing at an acceptable rate of completion and is expected to be successful. Task 3.1 took somewhat longer to complete than anticipated, but once initial meetings and discussions were out of the way and a schedule was set, the task was completed on schedule. Task 3.6 is nearly complete, with no anticipated delays. Tasks 3.3 and 3.4 are progressing nicely and are anticipated to be completed on schedule. Task 3.5 has suffered a setback due to re-organization, but is expected to recover and lead to the desired results. Task 3.2 is in a difficult status at the moment. With the State of Alaska in the middle of a large-scale IT re-organization, it is not clear what the future policy environment will be at this time. DNR/LRIS is continuing to monitor the situation and actively working to ensure a successful policy environment for shared GIS and other decision-making tools.

APPENDIX 1

Oil and Gas Conservation Commission

OPERATIONAL AREA –

Alaska Oil and Gas Exploration, Development and Permitting Project (an Enterprise Project including DNR and the Office of Project Management and Permitting)

Description

1.1. Brief Description of Purpose

The Alaska Oil and Gas Conservation Commission (“Commission”) is in the process of migrating from paper-based to electronic business practices. This process began approximately three years ago, and it consists of one project having several facets involving not only the Commission, but other branches of state government as well.

The objective of this project is to eliminate inter-related barriers to oil production in Alaska through information technology strategies. Each barrier is the result of either current labor-intensive methods or poorly accessible information. This project brings together three parts of the oil exploration, development, and permitting process to form the foundation for a more fully integrated information technology infrastructure for the State of Alaska.

This web-based system will enable the public and other review participants to track permit status, submit and view comments, and obtain important project information on-line. By automating several functions of the current manual process, permit applications will be completed more quickly and accurately, and agencies will be able to complete reviews with fewer delays. Making information available on-line will greatly enhance competition to explore and develop Alaska’s oil and gas resources.

Currently, State of Alaska agencies use multiple, independent systems to identify, authenticate, and authorize customers for online transactions. Consumers of online state services may be required to manage multiple online “profiles,” and during a permit review process valuable time may be lost verifying identity or reconciling differences in applicant information when agency records disagree. The state’s Information Technology Group is developing a shared applicant profile system that will provide an additional opportunity to demonstrate data sharing between agencies.

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 faster and ‘smarter’ exploration, development and permitting.

Methods

This project uses the following methods:

1. Provide public subsurface geo-science and engineering information (e.g. public-domain well logs and well-related documents) 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.

This project involves close cooperation between the Department of Natural Resources, the Office of Project Management and Permitting, and the Commission. The Commission is conducting task 1 of the project. Specifics of this task are presented below.

Task 1: Deliver On-Line Subsurface Geoscience and Engineering Information

Task 1 addresses the issue of public access to well data. The task is described in a series of discreet steps, presented as a sequence of specific deliverables created over the two-year time span. This project will integrate existing database and GIS technology and develop Internet-based tools that will ease and speed exploration for oil and gas. The Task 1 project team will make public well data readily available worldwide via the Internet, 24 hours per day, 7 days per week using a simple, map-based GIS interface or direct text-based query. Data will include well description (well header data), well production and injection records, well files, digital log curves, deviation surveys, and possibly Alaska Oil and Gas Conservation Commission orders, and reports available at Alaska’s Geologic Materials Center.

Task 1 will provide, to the public and permitting agencies, well data that is as complete as possible and in industry standard digital formats. This will save years of effort in providing the public with this information. Expanded access will translate into new analysis, new opportunity, and new production. The web site will be updated regularly as new public data becomes available. The Commission will integrate regular updating into its business processes.

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APPENDIX 2

CONTRACT DOCUMENT 10-0068 FOR TASK 2

State of Alaska
2003 Task Order Interim Submission Form
Version 4
Firm Fixed Price Task Orders

Contract

ITG Completes This Section.

Contracting Agency: State of Alaska/Administration (02)/ITG

Contract Number:

Assigned Contractor RDI

Task Order Number: 10-0068

Technology Group: Category 9, Other Application Programming support

Approval/Procurement: Guy Crockroft

Contractor: Resource Data, Inc.

Contractor Completes This Section.

Task Order Manager: Rick Pannell

Final Approval: Greg Fischer

Technology Group:

State Agency: DNR/OPMP- Alaska Coastal Management Program

Description and Status

Task Order Title:	SRS Revision
Task Order Type:	Firm, Fixed bid

Requesting Agency

Dates, Location, Reporting Interval

Requested Start Date:	10/20/2003
Anticipated Completion Date:	12/1/2003
Locations(s):	Anchorage, Juneau
Reporting Interval:	Weekly

Reporting Period: April 1, 2003 Through September 30, 2003

Agency Codes:

Ledger Code:	86139776
Co-location Code:	10152212
Project Code:	None

Background/Statement of Work To Be Performed

The Department of Natural Resources (DNR), Alaska Coastal Management Program (ACMP) seeks professional services for an update and review of the Software Requirement Specifications (SRS) developed as a first step in implementing an on-line permit review coordination system. The purpose of the review is to ensure that the document is current in its understanding of the business practices and system requirements involved in developing a geographic and relational database information system that will support a variety of functions, including:

- Coastal project consistency review
- Coastal management planning
- Incorporation of geographic information system (GIS) data
- Online delivery of information and tools
- Document and image management
- Grant administration

The ACMP is interested in developing a software solution to help streamline the project review process by creating an on-line permit coordination system. To that end, a Software Requirements Specification was completed before the Murkowski administration transition. Since then, many of the policies and procedures followed by the ACMP have changed, and the current version of the SRS is out of date and inaccurate in its account of the business processes behind the requirements for the software.

Statement of Work:

The proposed project will update the existing SRS to reflect new business processes and requirements. The contractor will be responsible for gathering updated information and compiling it into a new version of the SRS. It is the intention of the ACMP to use this updated version of the SRS as the basis for design and implementation of the on-line permitting system in the near future.

Ultimately, this new version of the Software Requirements Specification will help the ACMP accurately describe requirements of the new system. It will also assist the designers and implementers of the system in their understanding exactly what the ACMP wants in the software package.

Tasks and Deliverables Overview

A final updated and approved Software Requirements Specification will be delivered in two versions, preliminary review and final revision. Both versions will be made available to ACMP in print and in MS Word format, along with copies of any VISIO files that were incorporated in the final product. The preparation of the *preliminary review* and the *final revision* requires the completion of the following project tasks.

Task one will include the collection of data required to revise the original SRS. Much of the actual data collection will occur during two 3 or 4-day work sessions to take place in Juneau and Anchorage. During this task the project team will meet with staff at the ACMP to discuss, in detail, the content of the original SRS. The focus of these meetings will be to critique the SRS for its accuracy and level of completeness. These meetings should include an in-depth review of the ACMP coastal review practices, policies, procedures and key players.

Task two will involve the review of collected data and incorporation into a new revision of the SRS. At the conclusion of this task, the revised SRS will be submitted to the ACMP for review and in-house revision. This is the stage of the project that will allow the ACMP to ensure that the new version of the SRS is complete, accurate and prepared for use as a foundation for design.

The concluding task will initiate when the SRS is returned to the contractor team for final revisions. If no further changes are required, the SRS will be automatically submitted as a final version. However, if additional changes are required, the SRS will proceed through a final review to ensure that the final revision is accurate and complete. At the conclusion of this task, the SRS will be submitted as the final deliverable.

Tasks

To help organize the process of reviewing and updating the SRS, this project has been divided into 6 individual tasks:

- Preliminary Review
- Work Session 1 (Anchorage)
- Work Session 2 (Juneau)
- Document Revision 1
- Document Review
- Document Final Revision

Preliminary Review **Scope**

The preliminary review will be accomplished in-house at the ACMP and prior to any work being initiated by the contractor. The purpose of this review is to outline and

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highlight the areas of the current SRS that need more detailed review and revision. These areas will be the primary focus of the work sessions scheduled in forthcoming project tasks.

Outcome

The DNR project team will highlight data in the SRS that is in need of review and updating.

Work Session – Anchorage

Scope

This work session will focus on in-person interviews with the primary players in the consistency review process who are based in the Anchorage area. Contractor staff will be in attendance as well as project and senior DNR staff deemed integral to the SRS review process. The specific list of individuals to be interviewed will be compiled by ACMP project staff. An agenda for the work session will be provided prior to the session.

Outcome

The project team will gain an updated understanding of the business processes outlined in the original Software Requirements Specification.

Work Session – Juneau

Scope

This work session will focus on in-person interviews with the primary players in the consistency review process who are based in the Juneau area. Contractor staff will be in attendance as well as project and senior DNR staff deemed integral to the SRS review process. The specific list of individuals to be interviewed will be compiled by ACMP project staff. An agenda for the work session will be provided prior to the session.

Outcome

The project team will gain an updated understanding of the business processes outlined in the original Software Requirements Specification.

Document Revision 1 (Deliverable 1)

Scope

Contractor staff will compile and review data gathered during the Juneau and Anchorage work sessions. Upon review, the data will be used to update the existing SRS and will result in an updated version of the SRS. This phase may involve follow-up meetings and/or conference calls to clarify any details not adequately covered during the intensive review sessions.

Outcome

The project team will complete and submit a review copy of the second version of the Software Requirements Specification.

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Document Review

Scope

ACMP staff will review the new version of the SRS. The document should be reviewed for accuracy, completeness and readiness for a software design. Upon completion of this review, the ACMP and contractor project teams will meet to discuss final revisions to the document.

Outcome

The ACMP project team will complete a document review and return the document with a list of required and suggested revisions.

Document Final Revision (Deliverable 2)

Scope

Contractor staff will revise the review version of the SRS in accordance with the required and suggested revision list submitted by the ACMP project team. Follow-up meetings and conference calls may be required to clarify the revision list.