



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office MC-208
115 Fourth Avenue S.E., Suite 400
Aberdeen, South Dakota 57401




IN REPLY REFER TO:
DESCRM
MC-208

MAY 17 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: Regional Director, Great Plains Region 

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, for six proposed drilling wells atop a single pad by Petro-Hunt, LLC on the Fort Berthold Reservation, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (40 C.F.R. Part 1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)
Elgin Crows Breast, THPO (with attachment)
Derek Enderud, BLM, Dickinson, ND (with attachment)
John Shelman, US Army Corps of Engineers
Jeffrey Hunt, Virtual One Stop Shop

Finding of No Significant Impact

Petro Hunt, LLC (Petro Hunt)

Environmental Assessment for Drilling of Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H Oil & Gas Wells

Fort Berthold Indian Reservation McKenzie County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to drill six oil and gas wells located atop a single well pad as follows:

- Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H located in T152N, R93W, 5th P.M., Section 8 & 9 (McKenzie County)

Associated federal actions by BIA include determinations of effect regarding environmental resources and positive recommendations to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed action to impact the human environment is analyzed in the following Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the EA, I have determined that the proposed project will not significantly affect the quality of the human or natural environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternatives.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-

668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).

4. The proposed action is designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed project will improve the socio-economic condition of the affected Indian community.



Regional Director

5/17/11

Date

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

**Great Plains Regional Office
Aberdeen, South Dakota**



Petro Hunt, LLC

Drilling of Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H Oil & Gas Wells

Fort Berthold Indian Reservation

April 2011

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources
115 4th Avenue SE
Aberdeen, South Dakota 57401
605-226-7656

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Chapter 1 Purpose and Need for Action

1.6 Introduction

This EA (Environmental Assessment) was prepared in accordance with NEPA (the National Environmental Policy Act) of 1969, as amended, and the regulations of the CEQ (Council on Environmental Quality), 40 CFR parts 1500 through 1508. An EA is an informational document intended for use by both decision-makers and the public. It discloses relevant environmental information concerning the proposed action and the no-action alternative.

1.7 Description of the Proposed Action

The Fort Berthold Reservation encompasses 988,000 acres, 457,837 of which are in tribal and individual Indian ownership by the Three Affiliated Tribes (Mandan, Hidatsa, and Arikara) and its members. The reservation is located in west central North Dakota and is split into three areas by Lake Sakakawea, which traverses the center of the reservation. It occupies sections of six counties: Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward.

The Fort Berthold Reservation lies atop the Bakken Formation, a geologic formation rich in oil and gas deposits that extends approximately 25,000 square miles beneath North Dakota and Montana, United States, and Saskatchewan and Manitoba, Canada. Approximately two-thirds of the Bakken Formation is beneath North Dakota. The Three Forks Formation lies beneath the Bakken. The North Dakota Department of Mineral Resources estimates that there are approximately 2 billion barrels of recoverable oil in each of these formations. (The Bakken contains about 169 billion barrels of oil and the Three Forks contains about 20 billion barrels; however, most of this is not expected to be recoverable.) The Department's director estimates that there are 30-40 remaining years of production, or more if technology improves.

The proposed action includes approval by the Bureau of Indian Affairs (BIA) and Bureau of Land Management (BLM) for Petro Hunt, LLC (Petro Hunt) to drill and complete six wells from a single well pad targeting the Bakken and Three Forks Formations. The proposed action is located on the Fort Berthold Reservation and is proposed to be positioned in T152N, R93W, Sections 8 & 9 (McKenzie County). ***Please refer to Figure 1-1, Project Location Map.***

The proposed well pad would support six wells: Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H. Each well would have its own corresponding spacing unit in which the minerals are to be efficiently developed. Proposed completion activities include acquisition of rights-of-way, infrastructure (including gathering lines and electrical lines) for the proposed wells, and roadway improvements to provide access to and from the wells.

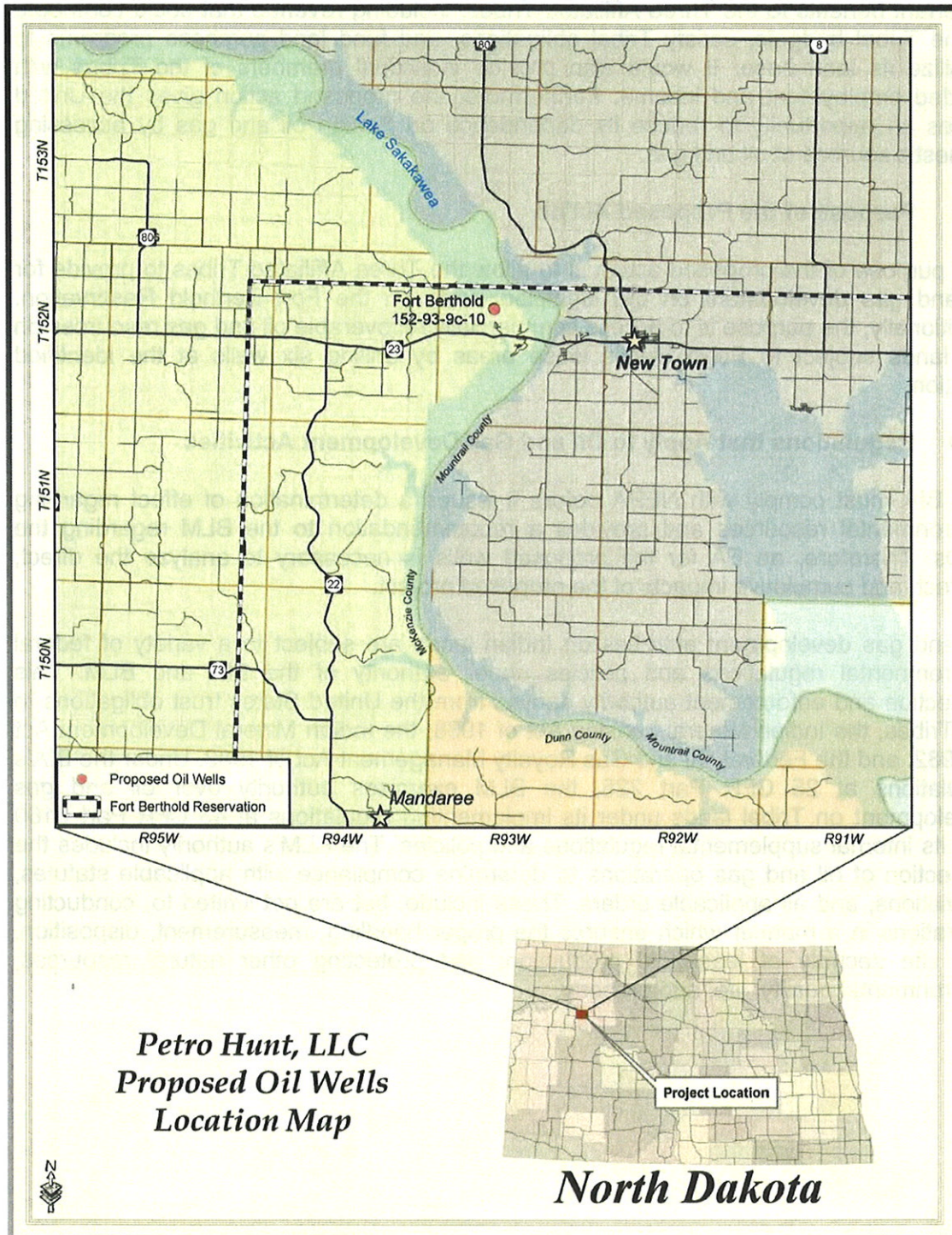


Figure 1-1, Project Location Map

1.8 Need for the Proposed Action

The Tribes own their mineral resources, which are held in trust by the United States government through the BIA. The BIA's positive recommendation to the BLM for approval of the APDs (Applications for Permit to Drill) for the six wells would provide

important benefits to the Three Affiliated Tribes, including revenue that could contribute to the Tribal budgets, satisfy Tribal obligations, and fund land purchase programs to stabilize its land base. It would also provide individual members of the Tribes with needed employment and income. Furthermore, the proposed action gives the United States an opportunity to reduce its dependence on foreign oil and gas by accessing domestic sources of oil and gas.

1.9 Purpose of the Proposed Action

The purpose of the proposed action is to allow the Three Affiliated Tribes to provide for oil and gas development on the identified lands on the Fort Berthold Reservation. Additionally, the purpose is to access commercially recoverable oil and gas resources on the lands subject to Petro Hunt's lease areas by drilling six wells at the identified location.

1.10 Regulations that Apply to Oil and Gas Development Activities

The BIA must comply with NEPA before it issues a determination of effect regarding environmental resources and provides a recommendation to the BLM regarding the APDs. Therefore, an EA for the proposed wells is necessary to analyze the direct, indirect, and cumulative impacts of the proposed project.

Oil and gas development activities on Indian lands are subject to a variety of federal environmental regulations and policies under authority of the BIA and BLM. This inspection and enforcement authority derives from the United States trust obligations to the Tribes, the Indian Mineral Leasing Act of 1938, the Indian Mineral Development Act of 1982, and the Federal Oil and Gas Royalty Management Act of 1982. Under the BIA's regulations at 25 CFR Part 225, the BLM exercises authority over oil and gas development on Tribal lands under its implementing regulations at 43 CFR Part 3160 and its internal supplemental regulations and policies. The BLM's authority includes the inspection of oil and gas operations to determine compliance with applicable statutes, regulations, and all applicable orders. These include, but are not limited to, conducting operations in a manner which ensures the proper handling, measurement, disposition, and site security of leasehold production; and protecting other natural resources, environmental quality, life, and property.

Chapter 2. Alternatives

2.1 Introduction

This chapter provides information on the development and evaluation of project alternatives. The development of alternatives is directly related to the purpose and need for the project. Two alternatives are being considered for this project: a no action alternative and a proposed action alternative.

2.2 Alternative A: No Action

Under the no action alternative (Alternative A), the BIA and BLM would not authorize the development of a single well pad, resulting in the drilling and completion of six oil and gas wells. There would be no environmental impacts associated with Alternative A. However, the Three Affiliated Tribes (or any of its members) would not receive potential royalties on production or other economic benefits from oil and gas development on the Reservation. Further, the oil and gas resources targeted by the proposed action would not be explored for commercial production or recovered and made available for domestic energy use.

2.3 Alternative B: Proposed Action

The proposed action (Alternative B) includes authorization by the BIA and BLM to construct six wells atop one well pad, resulting in the drilling and completion of up to six exploratory oil and gas wells as well as associated rights-of-way acquisition, roadway improvements, and infrastructure for the wells. Infrastructure may include subsurface oil and gas gathering pipelines and buried electrical lines, both of which would be located within the access road right-of-way.

All of the wells would be located on a single well pad, and they would share an access road and associated infrastructure. All of the wells would also share a spacing unit. The well pad is where the actual surface disturbance caused by drilling activities would occur. The spacing unit is the location of the minerals that are to be developed. The location of the proposed well site, access road, and proposed horizontal drilling techniques were chosen to minimize surface disturbance.

The well pad would require new right-of-way for access points, supporting electrical lines, and gathering pipelines associated with oil and gas production. Rights-of-way would be located to avoid sensitive surface resources and any cultural resources identified in site surveys. Access roads would be improved as necessary to eliminate overly steep grades, maintain current drainage patterns, and provide all-weather driving surfaces.

An intensive resource survey of the well pad and access road was conducted on October 22, 2010 with the BIA Environmental Protection Specialist, Petro Hunt, and KL&J (Kadmas, Lee & Jackson) present. The purpose of this survey was to gather site-specific data and photos with regards to biological, botanical, soil, and water resources. A study area of 10 acres centered on the well pad center point and a 200-foot wide access road corridor were evaluated during these visits. Resources were evaluated

using visual inspection and pedestrian transects across the site. In addition, a survey for eagles and eagle nests within 0.5 miles of all project disturbance areas (well pad, access road, and associated rights-of-way) was conducted. This survey consisted of pedestrian transects focusing specifically on potential nesting sites within 0.5 miles of the project disturbance areas where survey permission allowed, including cliffs and wooded draws. Wooded draws were observed both from the upland areas overlooking the draws and from bottomlands within the actual draws.

The BIA EA on-site assessment of the proposed well pad and access road sites was also conducted on October 22, 2010. The BIA Environmental Protection Specialist, representatives from the Tribal Historic Preservation Office (THPO), Petro Hunt, and KL&J participated in these assessments. Construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. The well pad and access road locations were finalized, and the BIA gathered information needed to develop site-specific mitigation measures and BMPs to be incorporated into the final APDs. Those present at the on-site assessments agreed that the selected locations, along with the minimization measures Petro Hunt plans to implement, are positioned to minimize impacts to sensitive wildlife and botanical resources. In addition, comments received from the USFWS (United States Fish and Wildlife Service) have been considered in the development of this project.

2.3.1 Fort Berthold 152-93-9C-10 Six Well Pad

The Fort Berthold 152-93-9C-10 well pad would have six wells located upon it. The wells would have the following names: Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H. The six-well pad would be located in the SE¼ of Section 8 and the SW¼ of Section 9, Township 152 North, Range 93 West, 5th P.M. to access potential oil and gas resources within the spacing unit consisting of Sections 9 & 10, Township 152 North, Range 93 West, 5th P.M. **Please refer to Figure 2-1, Fort Berthold 152-93-9C-10 Wells Overview for a Visual Depiction of the Spacing Units.**

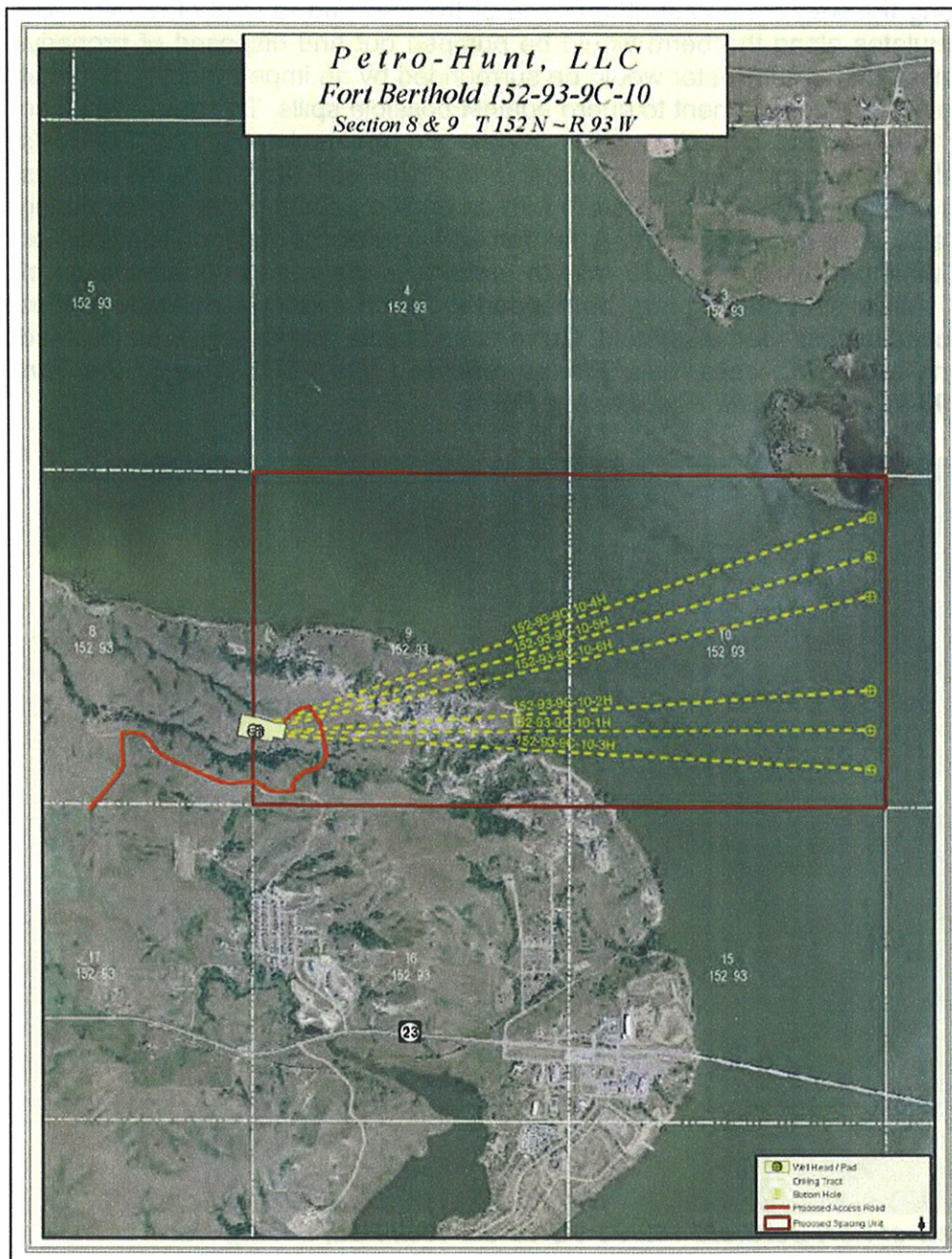


Figure 2-1, Fort Berthold 152-93-9C-10 Wells Overview

The Fort Berthold 152-93-9C-10 six-well pad would be accessed from the northeast. A new access road approximately 1.3 miles long would be constructed and would connect with another proposed Petro Hunt access road. These access roads would provide a connection to State Highway 23. The southeast corner of the well pad would be rounded to avoid an adjacent wooded drainage. As a result of the rounding of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park. The pit stockpile has been sited in the northwest corner of the pad which would contain runoff to the northwest. A two-foot high berm would be

constructed along the western and southern side of the well pad to control runoff. Any fluid that accumulates along the berm would be pumped out and disposed of properly. The storage tanks and heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. BMPs to minimize wind and water erosion of soil resources, as well as implementation of a semi-closed loop system with an on-site semi-dry cuttings pit during drilling, would also be put into practice. A reinforced lining of the semi-dry cuttings pit would have a minimum thickness of 20 mils to prevent seepage and contamination of underlying soil. Minor spot grading may be needed to flatten existing landscape grades along the proposed access road alignment. Culverts and cattle guards would be installed as needed along this new access road. **Please refer to Figure 2-2, View of the Fort Berthold 152-93-9C-10 Six-Well Pad, Facing North.**



Figure 2-2, View of Fort Berthold 152-93-9C-10 Six-Well Pad, Facing North

2.3.2 Field Camps

Self-contained trailers may temporarily house key personnel on-site during drilling operations. No long-term residential camps are proposed. Sewage would be collected in standard portable chemical toilets or service trailers on-site and then transported off-site to a State-approved wastewater treatment facility. Other solid waste would be collected in enclosed containers and disposed of at a State-approved facility. As a result of the rounded of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park.

2.3.3 Access Road

Existing roadways would be used to the extent possible to access the proposed wells; however, the improvement of existing roadways and construction of new access road segments would also be required. The running surface of the access road would be surfaced with crushed gravel or scoria from a previously approved location, and erosion control measures would be installed as necessary. A maximum right-of-way width of 100 feet would be disturbed, consisting of a 16-foot wide roadway with the remainder of the disturbed area due to borrow ditches, construction slopes, gathering pipelines and buried electrical infrastructure. The outslope portions of constructed access roads would be re-seeded upon completion of construction to reduce access road related disturbance. Access road construction shall follow road design standards outlined in the BLM's Gold Book.

Construction activities may occur during the migratory bird breeding and nesting season (February 1 to July 15). In the event that construction takes place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted by a qualified biologist within five days prior to the initiation of construction activities and the results would be reported to the USFWS. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow the area prior to the nesting/breeding season to deter use of the area by migratory birds.

2.3.4 Well Pad

The proposed well pad would consist of a leveled area surfaced with several inches of gravel or crushed scoria. The pad would be used for the drilling rig and related equipment, as well as an excavated, reinforced lined (with a minimum of thickness of 20mils) semi-dry cuttings pit to store drill cuttings. A semi-closed loop system would be used during drilling for the oil wells in order to further minimize potential impacts to the wooded drainage. All drill cuttings pits would be reclaimed to BLM and NDIC (North Dakota Industrial Commission) standards immediately upon finishing completion operations. The level well pad, plus cut and fill slope areas, required for drilling and completing operations (including semi-dry cuttings pit for drill cuttings) would be approximately 360 x 772 feet (approximately 6.8 acres). The semi-dry cuttings pit would be fenced and covered with netting to protect wildlife from hazardous areas. The entire well pad would also be fenced if livestock will be grazing the area. The southeast corner of the well pad will be rounded to avoid a wooded drainage. As a result of the rounded of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park. The pit stockpile has been sited in the northwest corner of the pad which would contain runoff to the northwest. A two-foot high berm would be constructed along the western and southern sides of the well pad to control runoff.

Well pad areas would be cleared of vegetation, stripped of topsoil, and graded to specifications in the APDs submitted to the BLM. Construction would comply with the standards and guidelines prescribed in the BLM's "Gold Book." Topsoil would be stockpiled and stabilized until disturbed areas are reclaimed and re-vegetated.

Excavated subsoils would be used in pad construction. Erosion control at the sites would be maintained through the use of BMPs (best management practices), which may include, but are not limited to, water bars, bar ditches, diversion ditches, bio-logs, silt fences, and re-vegetation via hydro-seeding or matting of disturbed areas.

Construction activities may occur during the migratory bird breeding and nesting season (February 1 to July 15). In the event that a construction takes place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted by a qualified biologist within five days prior to the initiation of construction activities and the results would be reported to the USFWS. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow the area prior to the nesting/breeding season to inhibit use of the area by migratory birds.

2.3.5 Drilling

Following the access road construction and well pad preparation, a drilling rig would be rigged up at the well site. The time for rigging up, drilling the well, and rigging down the well is anticipated to be about 60 days. During this phase, vehicles and equipment would access the site several times a day.

Initial drilling would be vertical to a depth of approximately 10,200 feet, where it would angle to become horizontal at 11,200 feet and then drill horizontally to an approximate measured depth of about 15,500 feet, targeting the Middle Bakken Dolomite Member target. This horizontal drilling technique would minimize surface disturbance. A similar technique would be utilized during drilling to the Three Forks Formation, below the Bakken. At this point Petro Hunt has not determined which wells would target the Three Forks Formation.

For the first 2,500 feet drilled at each well (commonly referred to as a "surface hole"), a fresh water based mud system with non-hazardous additives would be used to minimize contaminant concerns. Water would be obtained from a commercial source for this drilling stage. About 8 gallons of water would be used per foot of hole drilled, for a total of about 40,000 gallons (20,000 gallons in the hole and 20,000 gallons as working volume at the surface). After setting and cementing the surface casing, an oil-based mud system consisting of about 80% diesel fuel and 20% saltwater would be used to drill the remainder of the vertical hole and curve. Once seven-inch production casing is set and cemented through the curve (into the lateral), a saltwater based drilling mud would be utilized for the horizontal portion of the wellbore.

Drilling fluids would be separated from cuttings and contained in steel tanks placed on liners until they were ready for re-use. Any minimal fluids remaining in the drill cuttings pit would be removed and disposed of in accordance with BLM and NDIC rules and regulations. Cuttings generated from drilling would be deposited in the cuttings pit on the well pad. The pit would be lined to prevent seepage and contamination of underlying soil. Prior to its use, the pit would be fenced on the non-working sides. The access side would be fenced and netted immediately following drilling and completions operations in order to prevent wildlife and livestock from accessing the pit. In accordance with NDIC and BLM regulations and guidelines, drill cuttings would be solidified into an inert, solid mass by chemical means.

2.3.6 Casing and Cementing

Casing and cementing methods would be used to isolate all near-surface aquifers and hydrocarbon zones encountered during drilling.

2.3.7 Completion and Evaluation

Once each well is drilled and cased, approximately 30-45 additional days (depending on availability of services) would be required to complete and evaluate it. Completion and evaluation activities include cleaning out the well bore, pressure testing the casing, perforating and fracturing to stimulate the horizontal portion of the well, and running production tubing for potential future commercial production. Fluids utilized in the completion process would be captured in tanks and would be disposed of in accordance with BLM and NDIC rules and regulations. It is anticipated that three wells would be drilled consecutively and then put into the production phase. The remaining three wells would be drilled later in a similar consecutive process. Once each of the two sets of wells (six total) are completed, site activity and vehicle access would be reduced. If the wells are determined to be successful, tank trucks (and, if appropriate, natural gas gathering lines) would transport the product to market.

2.3.8 Commercial Production

If commercially recoverable oil and gas resources are found at the proposed well sites, the site(s) would become established as production facilities. Production equipment, including a well pumping unit, vertical heater/treater, storage tanks (typically four 400 barrel steel oil tanks and one 400 barrel fiberglass saltwater tank per well), and a flare with associated piping would be installed. The tanks would be connected by a pipe and valve near the top of each tank, which would allow for overflow into the next tank. The storage tanks and heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. A two-foot high berm would be constructed along the western and southern side of the well pad to control runoff. All permanent above ground production facilities would be painted to blend into the surrounding landscape, as determined by the BIA, based on standard colors recommended by the BLM.

Oil would be collected in the storage tanks and periodically trucked to an existing oil terminal to be sold. Produced water would also be captured in storage tanks and periodically trucked to an approved disposal site. The frequency of trucking activities for both oil resources and produced water would be dependent upon volumes and rates of production. It is expected that oil would be trucked via the access roads to Highway 23 and then west approximately 20 miles (off of the Fort Berthold Reservation) to a regional oil terminal. All haul routes used would be either private roads or roads that are approved for this type of transportation use by the local governing tribal, township, county, and/or state entities. All associated applicable permits would be obtained and restrictions complied with. Should regional oil, gas, and/or saltwater pipelines be installed, every attempt to tie production facilities at the site to these pipelines would be made, thereby minimizing truck traffic. Any future oil, gas, or saltwater transportation

pipelines would be constructed within the existing right-of-way or additional NEPA analysis and approval from the BIA would be undertaken.

When any of the proposed wells cease to flow naturally, a pump jack would be installed. After production ceases, the well would be plugged and abandoned, and the land would be fully reclaimed in accordance with BIA and BLM requirements.

Petro Hunt would mitigate the effects of these six wells by incorporating applicable conditions, mitigation measures, and BMPs from the BLM's regulations, BLM's Gold Book (4th Edition, 2006), and applicable BLM Onshore Oil and Gas Orders, including Numbers 1, 2, and 7.

2.3.9 Reclamation

The drill cuttings would be dried during drilling operations and placed into a semi-dry cuttings pit at the site. Additional treatment of the cuttings, including stabilization, would be completed, and then the pit would be backfilled and buried as soon as possible upon well completion. Other interim reclamation measures to be implemented upon well completion include reduction of cut and fill slopes where necessary, redistribution of stockpiled topsoil, and re-seeding of the disturbed areas via hydro-seeding or matting. Per recommendations made at the BIA EA on-site, small trees or saplings impacted by the project shall be ground up and incorporated into topsoil piles to help stabilize the soil. If commercial production equipment is installed, the well site would be reduced in size to accommodate the production facilities, while leaving adequate room to conduct normal well maintenance and potential recompletion operations, with the remainder of the well pad reclaimed. Reclamation activities would include leveling, re-contouring, treating, backfill, and re-seeding with native vegetation. Erosion control measures would be installed as appropriate. Stockpiled topsoil would be redistributed and reseeded as recommended by the BIA.

If no commercial production were developed from one or any of the proposed wells, or upon final abandonment of commercial operations, all disturbed areas would be promptly reclaimed. As part of the final reclamation process, all well facilities would be removed, well bores would be plugged with cement, and dry hole markers would be set in accordance with NDIC and BLM requirements. The access road and well pad areas would be re-contoured to match topography of the original landscape, and reseeded with a native grass seed mixture that is consistent with surrounding native species to ensure a healthy and diverse vegetative community that is free of noxious weeds. Erosion control measures would be installed as appropriate. Maintenance of the grass seeding would continue until such time that the productivity of the stand is consistent with surrounding undisturbed vegetation and is free of noxious weeds. An exception to these reclamation measures may occur if the BIA approves assignment of an access road either to the BIA roads inventory or to concurring surface allottees.

2.3.10 Potential for Future Development

Development beyond the drilling of Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H, Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H wells, access road, and associated infrastructure discussed in this document is not included with this proposal.

Further development would be subject to applicable regulations, including 43 CFR Part 3160, and the BLM's Onshore Oil and Gas Order No. 1 – Approval of Operations on Onshore Federal and Indian Oil and Gas Leases, and would be subject to review under NEPA, as appropriate.

Chapter 3 Description of the Affected Environment and Impacts

3.1 Introduction

This chapter describes the existing conditions within the study area. The existing conditions, or affected environment, are the baseline conditions that may be affected by the proposed action. This chapter also summarizes the positive and negative direct environmental impacts of the project alternatives, as well as cumulative impacts. Indirect impacts are discussed in impact categories where relevant. Information regarding the existing environment, potential effects to the environment resulting from the proposed alternative, and avoidance, minimization, and/or mitigation measures for adverse impacts is included.

3.2 Climate, Geologic Setting, and Land Use

The proposed wells and access road are situated geologically within the Williston basin, where the shallow stratigraphy consists of sandstones, silts and shales dating to the Tertiary Period (65 to 2 million years ago), including the Sentinel Butte and Golden Valley Formations. The underlying Bakken and Three Forks Formations are well-known sources of hydrocarbons. Although earlier oil and gas exploration activity within the Fort Berthold Reservation was limited and commercially unproductive, recent advances in drilling technologies, including horizontal drilling techniques, now make accessing oil in the Bakken and Three Forks Formations feasible.

According to High Plains Regional Climate Center data collected at the Keene weather station from 1971-2000, temperatures in excess of 80 degrees Fahrenheit are common in summer months. The area receives approximately 16.1 inches of rain annually, predominantly during spring and summer. Winters in this region are cold, with temperatures often falling near zero degrees Fahrenheit. Snow generally remains on the ground from November to March, and about 32.4 inches of snow are received annually.

The topography within the project area is primarily identified as part of the Missouri Plateau ecoregion. According to the United States Geological Survey (USGS), the landscape opens up to become the "wide open spaces" of the American West. The topography of this ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage pattern.

The western and southern portions of the Fort Berthold Reservation consist of prairie grasslands and buttes. The northern and eastern areas of the Reservation provide fertile farmland. The proposed project areas are located within a predominately rural area, with an urban area located 0.3 miles south. According to NASS (National Agricultural Statistics Services) data, land within area of the proposed well pad and access road is mainly composed of a mix of grassland (82%) and transportation/developed (10%). **Please refer to Figure 3-1, Land Use.** Small amounts of woodlands and cultivated land are also located in the proposed project areas.



Figure 3-1, Land Use

3.2.1 Climate, Geologic Setting and Land Use Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact land use, climatic conditions, or the geological setting within the study area.

Alternative B (Proposed Action) – Alternative B would result in the conversion of approximately 23.28 acres of land from present uses to part of an oil and gas network. **Please refer to Table 3.1, Summary of Land Use Conversion.**

Well Site	Well Pad Acres	Access Road Acres	Total Acres
Fort Berthold 152-93-9C-10 well pad	8.0	15.28	23.28
Total			23.28

Mineral resources would be impacted through the development of oil and gas resources within the spacing unit, as is the nature of this project. Impacts to the geologic setting and paleontological resources are not anticipated.

3.3 Soils

The NRCS (Natural Resource Conservation Service) Soil Survey of McKenzie County dates from 2006, with updated information available online through the NRCS Web Soil Survey. There are 6 soil types identified within the project impact area. Location and characteristics of these soils are identified in **Table 3.2, Soils.**

Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ¹		Hydrologic Soil Group ²
			% sand	% silt	% clay	T	Kf	
2	Heil silty clay	0 to 1	6.9	48.2	44.9	2	.28	D
38F	Dogtooth-Janesburg-Cabba complex	6 to 30	4.5	47.1	48.4	2	.28	D
41B	Williams-Bowbells loams	3 to 6	34.8	35.2	30.0	5	.28	B
43C	Williams-Zahl loams	6 to 9	35.0	35.2	30.6	5	.28	B
44E	Zahl-Williams loams	15 to 25	35.0	34.3	30.6	5	.28	B
442F	Zahl-Williams loams, dissected	15 to 45	35.0	34.3	30.6	5	.28	B

All of the soils listed have moderate susceptibility to sheet and rill erosion. In addition, all of the soils, with the exception of 2 and 38F, can tolerate high levels of erosion without loss of productivity. Each of these soils is well drained, and depth to the water table is generally recorded at greater than six feet for each of these soil types with exception of

¹ Erosion Factors indicate susceptibility of a soil to sheet and rill erosion by water. Kf indicates the erodibility of material less than two millimeters in size. Values of K range from 0.02 to 0.69. Higher values indicate greater susceptibility. T Factors estimate maximum average annual rates of erosion by wind and water that will not affect crop productivity. Tons/acre/year range from 1 for shallow soils to 5 for very deep soils. Soils with higher T values can tolerate higher rates of erosion without loss of productivity.

² Hydrologic Soil Groups (A, B, C, and D) are based on estimates of runoff potential according to the rate of water infiltration under the following conditions: soils are not protected by vegetation, soils are thoroughly wet, and soils receive precipitation from long-duration storms. The rate of infiltration decreases from Group A (high infiltration, low runoff) to D (low infiltration, high runoff).

map unit symbol 2 (Heil silty clay) which is recorded at zero feet to the water table. In addition this map unit symbol has the potential to allow water to pond. The remaining soils listed within the project impact areas are not susceptible to flooding or ponding.

3.3.1 Soil Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact soils.

Alternative B (Proposed Action) – Construction activities associated with the proposed well site and access road would result in soil disturbances, though impacts to soils are not anticipated to be significant. Stockpile quantities for the location were calculated using an assumed 6 inches of existing topsoil. A minimum of 5,445 cubic yards of topsoil would be stockpiled on site.

Based on NRCS soil data, topsoil exists in excess of 5 inches at the well site, yielding sufficient quantity of topsoil for construction and reclamation activities. Topsoil depths taken during the onsite survey indicated a soil depth of greater than 6 inches at the well site. The stockpiles on the northwest side of the pad would be positioned to assist in containing runoff from the pad, thus minimizing erosion, and to allow for interim reclamation soon after the well is put into production. Two topsoil stockpiles and one pit stockpile would be located around the well pad. One topsoil pile would be located on the northeast side of the pad, west of the access road. The other topsoil pile would be located on the west side of the pad, just below the pit stockpile.

Soil impacts would be localized, and BMPs would be implemented to minimize these impacts. Surface disturbance caused by well development, road improvements, and facilities construction would result in the removal of vegetation from the soil surface. This can damage soil crusts and destabilize the soil. As a result, the soil surface could become more prone to accelerated erosion by wind and water. BMPs used at the site to reduce these impacts would include erosion and sediment control measures during and after construction, segregating topsoil from subsurface material for future reclamation, chipping any woody vegetation that is removed on-site and incorporating it into topsoil stockpiles, re-seeding of disturbed areas immediately after construction activities are completed, the use of construction equipment appropriately sized to the scope and scale of the project, ensuring the road gradient fits closely with the natural terrain, and maintaining proper drainage. According to discussions at the field on-site assessment and standard industry practices, BMPs identified in the BLM Gold Book shall be utilized, to further minimize site erosion.

Another soil resources issue is soil compaction, which can occur by use of heavy equipment. When soil is compacted, it decreases permeability and increases surface runoff. This is especially evident in silt and clay soils. In addition, soils may be impacted by mixing of soil horizons. Soil compaction and mixing of soil horizons would be minimized by the previously discussed topsoil segregation.

Contamination of soils from various chemicals and other pollutants used during oil development activities is not anticipated. In the rare event that such contamination may occur, the event shall be immediately reported to the BLM, the NDIC, and where appropriate the NDDH (North Dakota Department of Health), and the procedures of the surface management agency shall be followed to contain spills and leaks.

3.4 Water Resources

The Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, provides the authority to the EPA (Environmental Protection Agency) and USACE (United States Army Corps of Engineers) to establish water quality standards, control discharges into surface and ground waters, develop waste treatment management plans and practices, and issue permits for discharges (Section 402) and for dredged or fill material (Section 404).

Within the Fort Berthold Reservation, the Missouri River and Lake Sakakawea are both considered navigable waters and are therefore subject to Section 10 of the Rivers and Harbors Act of 1899. Per correspondence with USACE, a section 10 permit is not required for deep well bores.

The EPA also has the authority to protect the quality of drinking water under the SDWA (Safe Drinking Water Act) of 1974. As amended in 1986 and 1996, the SDWA requires many actions to protect drinking water and its sources: rivers, lakes reservoirs, springs, and ground water wells³. The Energy Policy Act of 2005 excludes hydraulic fracturing operations related to oil, gas, or geothermal production activities from EPA regulation under the SDWA⁴.

3.4.1 Surface Water

The project area is situated in the Great Plains region of North Dakota that borders the Badlands to the west. This is an arid area with few isolated surface water basins. The majority of the surface waters in the region are associated with the Missouri River, Lake Sakakawea, and tributaries to these water bodies. Surface water generally flows overland until draining into these systems.

The proposed project is located in the Lake Sakakawea basin, meaning surface waters within this basin drain to Lake Sakakawea. In addition, the proposed project is located in the Antelope Creek State WMA Watershed and 101101011804 Sub-Watershed. **Please refer to Figure 3-2, Surface Water Resources and Figure 3-3, Surface Water Drainage.** The proposed well pad would have a 2-foot high berm constructed around the western and southern sides of the well pad, containing runoff from the proposed well pad. In addition, an approximately 30-foot high ridge exists north of the proposed location which would act as a barrier. Current drainage off of the proposed pad location is primarily to an ephemeral wooded drainage to the south, with a small portion of the northwest corner draining to an ephemeral wooded drainage to the northwest. Drainage to the south continues down the ephemeral drainage to the northwest approximately a half-mile to a man made stockdam near a farmstead. The wooded drainage continues on the other side of the farmstead approximately one half-mile northwest to the lake. The total drainage distance from the pad to the lake is approximately 1.05 miles. Current drainage to the northwest enters an ephemeral wooded drainage and continues down the drainage approximately 0.62 miles before entering the lake.

³ The SDWA does not regulate private wells that serve fewer than 25 individuals.

⁴ The use of diesel fuel during hydraulic fracturing is still regulated under the SDWA.

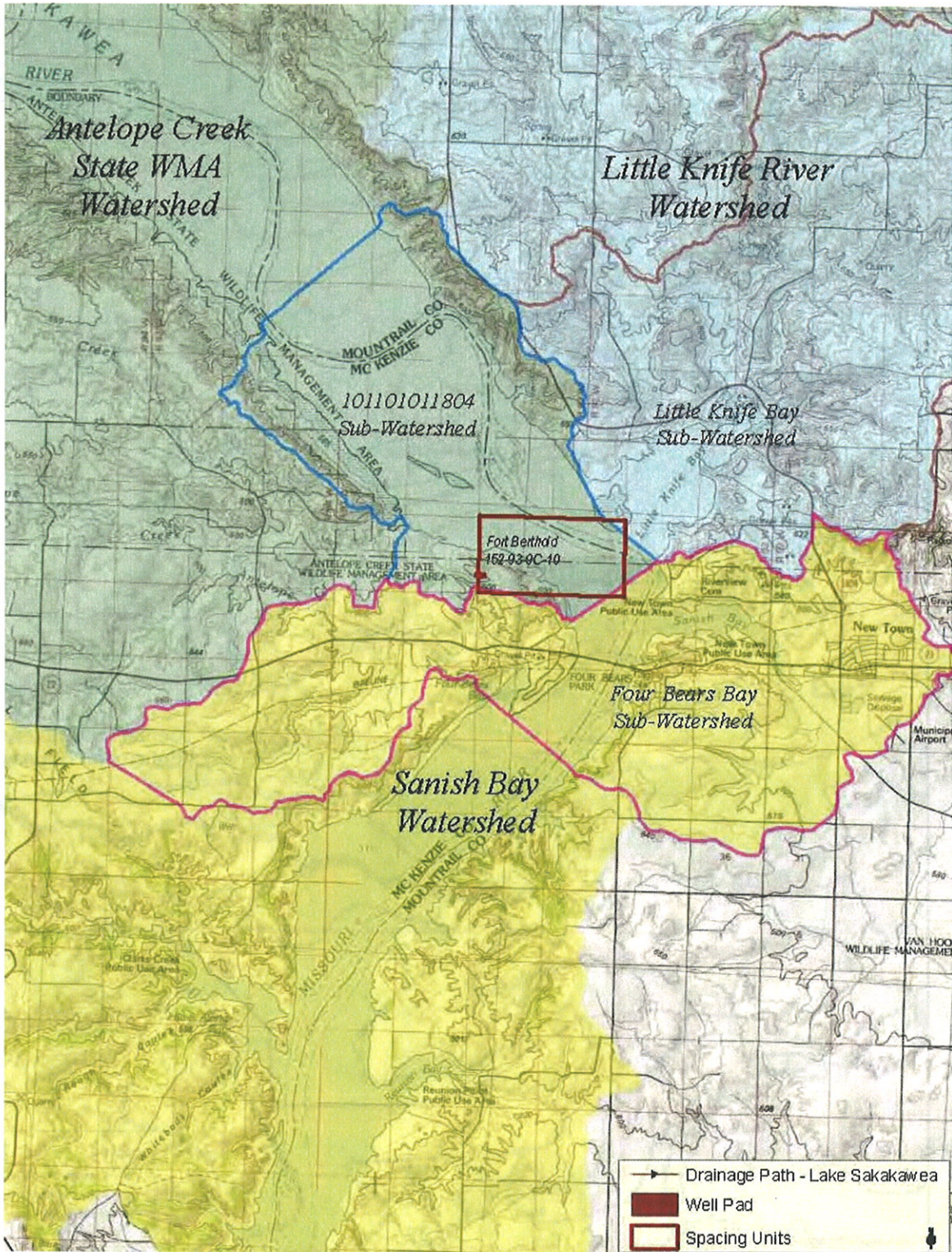


Figure 3-2, Surface Water Resources

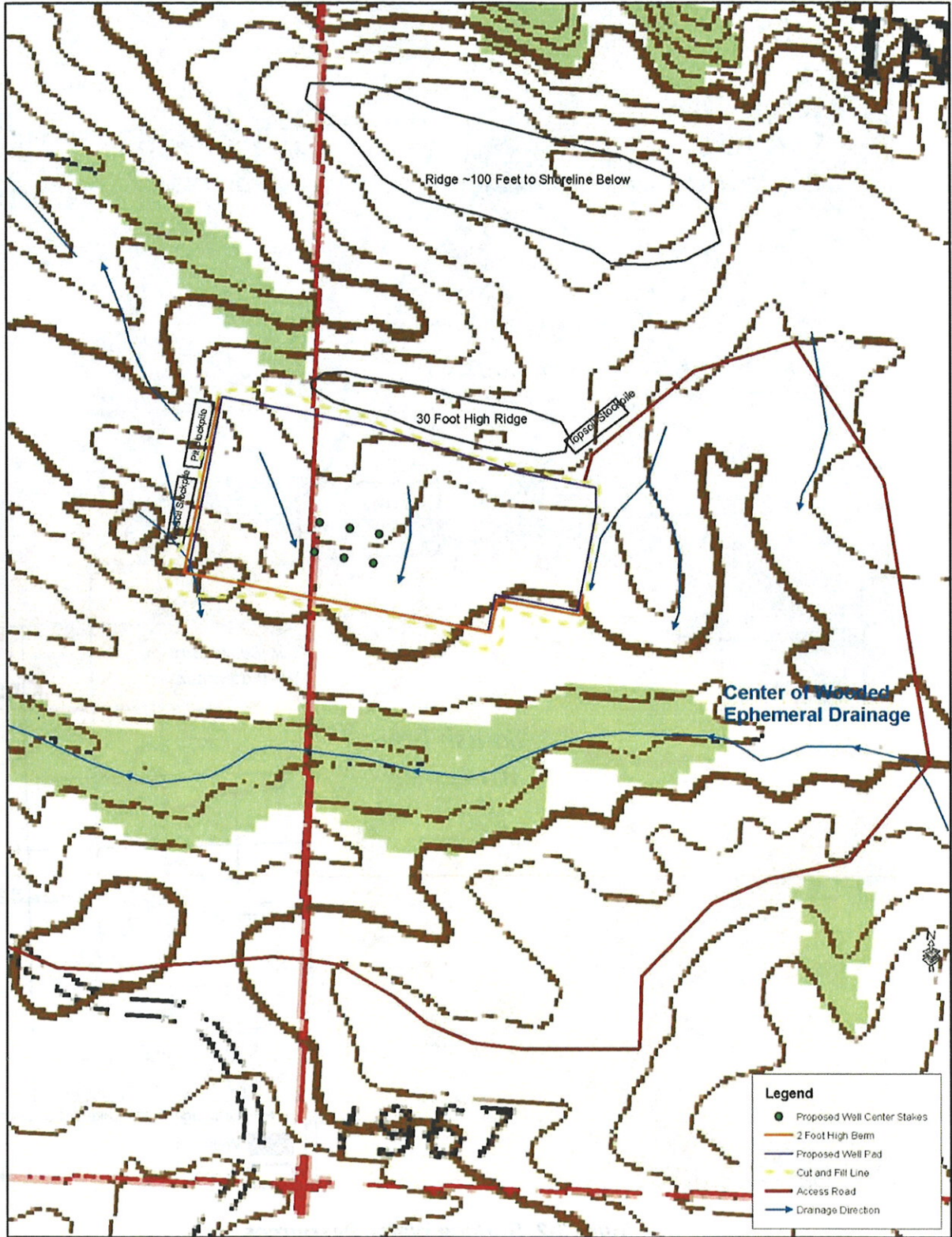


Figure 3-3, Surface Water Drainage

3.4.1.1 Surface Water Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact surface water.

Alternative B (Proposed Action) –The USACE's Garrison Dam/Lake Sakakawea Project Division and the USFWS had concerns of the risk of storm water runoff from the well pad entering Lake Sakakawea and disturbing threatened and endangered species and their habitat. USFWS indicated that Petro Hunt's design measures and the distance from Lake Sakakawea is sufficient enough that the threat of exposure to Threatened and Endangered Species, from the semi-dry cuttings pit due to erosion, would be insignificant or discountable. No significant impacts to surface water are expected to result from Alternative B. The proposed project has been sited to avoid direct impacts to surface waters and to minimize the disruption of drainage patterns across the landscape. Construction site plans include measures to divert surface runoff around the well pad. Culverts would be implemented as needed. Roadway engineering and the implementation of BMPs to control erosion would minimize runoff of sediment downhill or downstream. Storage tanks and the heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against accidental release of fluids from the site. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. A two-foot high berm would be constructed along the western and southern sides of the pad to control and contain runoff. As part of the design of the well pad, much of the north and western sides of the pad would have cuts in the higher elevations causing a wall, which would help contain runoff on the pad. The pit stockpile will also be positioned in the northwest corner of the pad and will act as another drainage barrier. In addition, solidification of drill cuttings before placement in the pit and the reinforced lining of the cuttings pit would diminish the potential for pit leaching. Alternative B is not anticipated to result in measurable increases in runoff or impacts to surface waters. The proposed project will not alter stream channels or change drainage patterns, except in a small area on the northwest corner of the well pad where construction mechanisms will stop runoff from entering the wooded draw northwest of the well pad

3.4.2 Ground Water

The North Dakota State Water Commission's electronic records reveal that there are no active or permitted groundwater wells within one-mile of the proposed oil and gas well pad or access road areas. The New Town aquifer is located approximately 2.5 miles east of the proposed well sites and approximately 0.56 miles east of the spacing unit; however, no sole source aquifers have been identified within the state of North Dakota. ***Please refer to Figure 3-4, Aquifers and Groundwater Wells.***

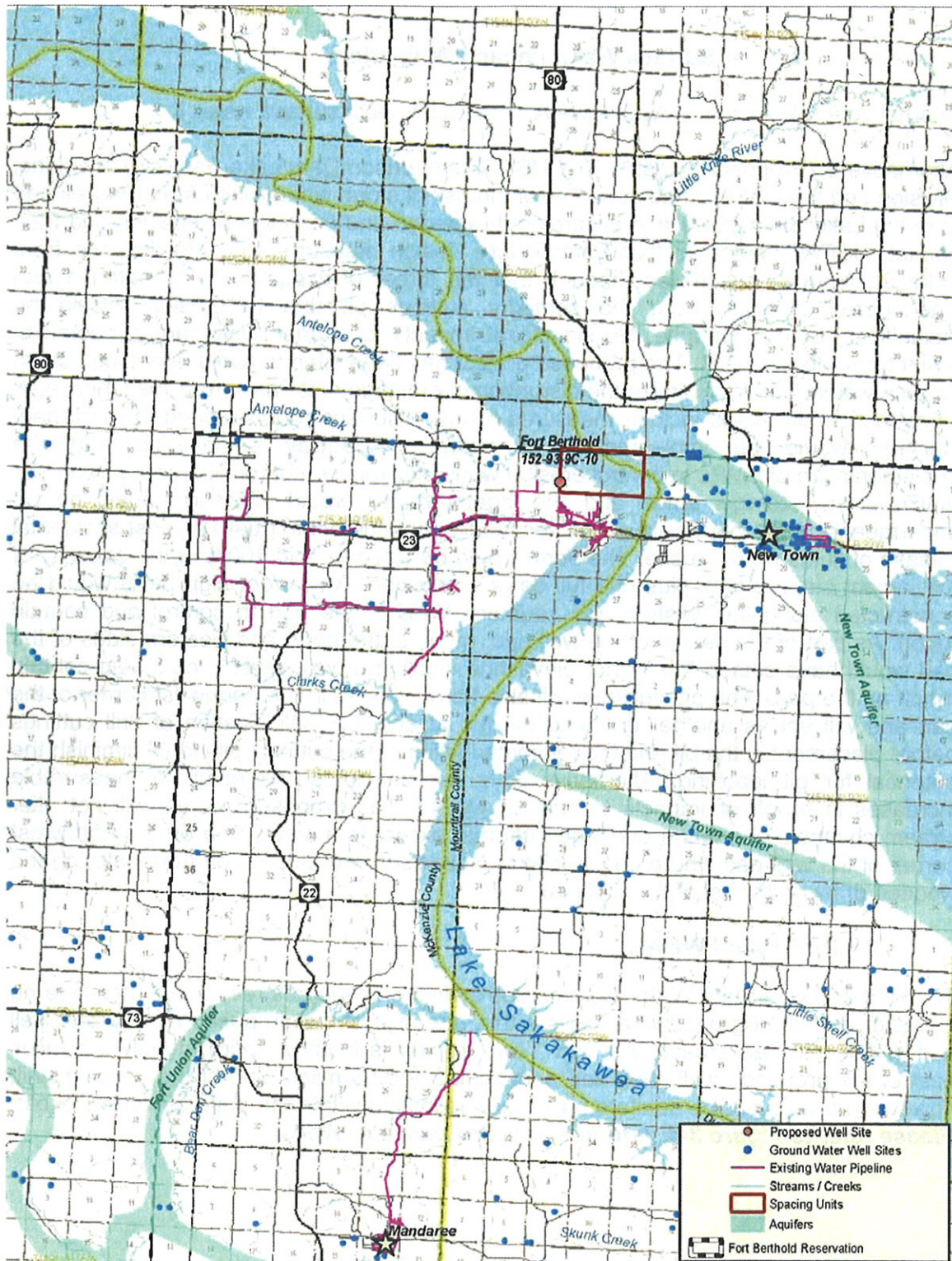


Figure 3-4, Aquifers and Groundwater Wells

3.4.2.1 Ground Water Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact groundwater.

Alternative B (Proposed Action) – Limited scientific data is available regarding potential effects of hydraulic fracturing on groundwater⁵. The proposed drilling tracts would not occur in any identified aquifers. The closest aquifer, the New Town Aquifer, is approximately 0.56 miles east of the drilling spacing unit. The bottom elevation of the New Town Aquifer ranges from approximately 150 feet to more than 250 feet below the surface; therefore, the deepest extents of the aquifer are far above the elevation of the proposed horizontal drilling units. The surface location is also approximately 2.5 miles away from the New Town Aquifer. As there are no ground water wells within the spacing unit being developed, and the horizontal drilling would occur well below the New Town aquifer, no significant impacts to groundwater are expected to result from Alternative B. As required by applicable law, all proposed wells would be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal/injection zones.

3.4.3 Wetlands

Wetlands are defined in both the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or groundwater with a frequency to support and under normal circumstances do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (US Army Corps of Engineers, 1987), are hydric soils, hydrophytic vegetation, and hydrology. Wetlands are an important natural resource serving many functions, such as providing habitat for wildlife, storing floodwaters, recharging groundwater, and improving water quality through purification.

No wetlands were observed in the study area.

3.4.3.1 Wetland Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact wetlands.

Alternative B (Proposed Action) – Due to the absence of wetlands within the proposed project area, Alternative B would not impact wetlands.

3.5 Air Quality

The Clean Air Act, as amended, requires the EPA to establish air quality standards for pollutants considered harmful to public health and the environment by setting limits on emission levels of various types of air pollutants. The NDDH operates a network of AAQM (Ambient Air Quality Monitoring) stations. The nearest AAQM station is located in Dunn Center, North Dakota, approximately 43.9 miles south of the proposed Fort Berthold 152-93-9C-10 well sites. Criteria pollutants tracked under EPA's National

⁵ The EPA is currently conducting a study on groundwater impacts from hydraulic fracturing, which is expected to be completed in 2012.

Ambient Air Quality Standards in the Clean Air Act include SO₂ (sulfur dioxide), PM (particulate matter), NO₂ (nitrogen dioxide), O₃ (ozone), Pb (lead), and CO (carbon monoxide). In addition, the NDDH has established state air quality standards. State standards must be as stringent as (but may be more stringent than) federal standards. The federal and state air quality standards for these pollutants are summarized in **Table 3.3, Federal and State Air Quality Standards and Reported Data for Dunn Center (EPA 2006, NDDH 2009, Dunn Center 2009)**.

North Dakota was one of thirteen states in 2008 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the EPA (NDDH 2009).

Pollutant	Averaging Period	EPA Air Quality Standard		NDDH Air Quality Standard		Dunn Center 2009 Reported Data	
		µg/m ³	parts per million	µg/m ³	parts per million	µg/m ³	parts per million
SO ₂	24-Hour	365	0.14	260	0.099	--	.0055
	Annual Mean	80	0.030	60	0.023	--	.0005
PM ₁₀	24-Hour	150	--	150	--	44.5	--
	Annual Mean	50	--	50	--	11.3	--
PM _{2.5}	24-Hour	35	--	35	--	14.2	--
	Weighted Annual Mean	15	--	15	--	3.4	--
NO ₂	Annual Mean	100	0.053	100	0.053	--	.0015
CO	1-Hour	40,000	35	40,000	35	--	--
	8-Hour	10,000	9	10,000	9	--	--
Pb	3-Month	1.5	--	1.5	--	--	--
O ₃	1-Hour	240	0.12	235	0.12	--	.064
	8-Hour	--	0.08	--	0.08	--	.055

In addition, the Fort Berthold Reservation complies with the North Dakota National Ambient Air Quality Standards and visibility protection. The Clean Air Act affords additional air quality protection near Class I areas. Class I areas include national parks greater than 6,000 acres in size, national monuments, national seashores, and federally designated wilderness areas larger than 5,000 acres designated prior to 1977. There are no Federal Class I areas within the project area. The Theodore Roosevelt National Park is the nearest Class I area, located approximately 39.7 miles southwest of the proposed Fort Berthold 152-93-9C-10 well sites.

3.5.1 Air Quality Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact air quality.

Alternative B (Proposed Action) – The Fort Berthold Reservation complies with North Dakota National Ambient Air Quality Standards and visibility protection. In addition, the Dunn Center AAQM Station reported air quality data well below the state and federal

standards. Alternative B would not include any major sources of air pollutants. Construction activities would temporarily generate minor amounts of dust and gaseous emissions of PM, SO₂, NO₂, CO, and volatile organic compounds. Emissions would be limited to the immediate project areas and are not anticipated to cause or contribute to a violation of National Ambient Air Quality Standards. No detectable or long-term impacts to air quality or visibility are expected within the airsheds of the Fort Berthold Reservation, State, or Theodore Roosevelt National Park. No mitigation or monitoring measures are recommended.

3.6 Threatened, Endangered, and Candidate Species

In accordance with Section 7 of the ESA (Endangered Species Act) of 1973, 50 CFR Part 402, as amended, each federal agency is required to ensure the following two criteria. First, any action funded or carried out by such agency must not be likely to jeopardize the continued existence of any federally-listed endangered or threatened species or species proposed to be listed. Second, no such action can result in the destruction or adverse modification of habitat of such species that is determined to be critical by the Secretary. An endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is a plant or animal for which the USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. While candidate species are not legally protected under the ESA, it is within the spirit of the ESA to consider these species as having significant value and worth protecting.

The proposed action area was evaluated to determine the potential for occurrences of federally-listed threatened, endangered, and candidate species. The USFWS (United States Fish and Wildlife Service) September 2010 Endangered, Threatened, and Candidate Species and Designated Critical Habitat in North Dakota county list identified the black-footed ferret, gray wolf, interior least tern, pallid sturgeon, and whooping crane as endangered species that may be found within McKenzie County. The piping plover is listed as a threatened species. The Dakota Skipper and Sprague's pipit are listed as candidate species. In addition, McKenzie County contains designated critical habitat for the piping plover adjacent to Lake Sakakawea. None of these species were observed in the field. Habitat requirements, the potential for suitable habitat within the project area, and other information regarding listed species for McKenzie County are as follows:

3.6.1 Endangered Species

Black-Footed Ferret (*Mustela nigripes*)

The black-footed ferret historically could be found throughout the Rocky Mountains and Great Plains. In North Dakota, the black-footed ferret may potentially be present within prairie dog towns. However, the species has not been confirmed in North Dakota for over 20 years and is presumed extirpated. Its preferred habitat includes areas around prairie dog towns, as it relies on prairie dogs for food and lives in prairie dog burrows. Black-footed ferrets require at least an 80-acre prairie dog town to survive.

No prairie dog towns to provide suitable black-footed ferret habitat were observed within the proposed well pad or access road corridors.

Gray Wolf (*Canis lupus*)

The gray wolf is the largest wild canine species in North America. It is found throughout northern Canada, Alaska, and the forested areas of Northern Michigan, Minnesota, and Wisconsin and has been re-introduced to Yellowstone National Park in Wyoming. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone.

The project area is located far from other known wolf populations.

Interior Least Tern (*Sterna antillarum*)

The interior least tern nests along inland rivers. The interior least tern is found in isolated areas along the Missouri, Mississippi, Ohio, Red, and Rio Grande Rivers. In North Dakota, it is sighted along the Missouri River during the summer nesting season. The interior least tern nests in sandbars or barren beaches, preferably in the middle of a river for increased safety while nesting. These birds nest close together, using safety in numbers to scare away predators. According to the USFWS, the interior least tern may travel 30 miles or more from its nesting site to forage during the nesting season.

Coordination with the North Dakota Parks and Recreation Department (NDPRD) identified a recorded interior least tern sighting in July of 1990 within one mile of the proposed project, to the northeast.

There is no existing or potential tern habitat within the project area. Potential habitat in the form of Lake Sakakawea shoreline may exist approximately 0.25 miles away from the proposed site at the nearest point.

Pallid Sturgeon (*Scaphirhynchus albus*)

The pallid sturgeon is known to exist in the Yellowstone, Missouri, middle and lower Mississippi, and Atchafalaya Rivers, and seasonally in some tributaries. In North Dakota, the pallid sturgeon is found principally in the Missouri River and upstream of Lake Sakakawea in the Yellowstone River. Dating to prehistoric times, the pallid sturgeon has become well adapted to living close to the bottom of silty river systems. According to the USFWS, its preferred habitat includes "a diversity of water depths and velocities formed by braided river channels, sand bars, sand flats, and gravel bars." Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age.

Potential habitat for pallid sturgeon can be found in Lake Sakakawea approximately 0.25 miles from the project site at the closest point.

Whooping Crane (*Grus americana*)

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and east into Colorado. Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats, including the Missouri River.

Currently there are three wild populations of whooping cranes, yielding a total species population of about 383. Of these flocks, only one is self-sustaining.

The proposed project is located in the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. The proposed project site and access road do not contain wetlands; however emergent wetlands and cropland were observed near the west end of the access road. Lake Sakakawea, which provides potential stopover habitat for whooping crane migration, is approximately 0.25 miles away.

3.6.2 Threatened Species

Piping Plover (*Charadrius melodus*)

The piping plover is a small migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains, and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands, and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover on the Missouri River system. Critical habitat includes reservoir reaches composed of sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and their interface with water bodies.

Coordination with the NDPRD identified a recorded piping plover sighting in 1996 within one mile of the proposed project to the northeast.

There is no existing or potential habitat within the project area. According to USFWS data, critical habitat occurs throughout the entire shoreline of Lake Sakakawea. However, due to increasing water levels in Lake Sakakawea, sparsely vegetated shoreline beaches composed of sand, gravel, or shale that once provided suitable for the piping plover, may now be inundated with water. Lake Sakakawea is located approximately 0.25 miles away from the proposed project site at the closest point.

3.6.3 Candidate Species

Dakota Skipper (*Hesperia dacotae*)

The Dakota skipper is a small butterfly with a one-inch wing span. These butterflies historically ranged from southern Saskatchewan, across the Dakotas and Minnesota, to Iowa and Illinois. The preferred habitat for the Dakota skipper consists of flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. Dakota skippers are visible in their butterfly stage from mid June to early July.

The proposed project area consists of moderately grazed rangeland that does contain bluestem prairies with abundant wildflowers. Although grazing is evident, it is moderate in nature; therefore, the project site may contain suitable habitat for the Dakota skipper. No Dakota skippers were observed during the field visits; however, the visits occurred after the Dakota Skipper butterfly life stage.

Sprague's pipit (*Anthus spragueii*)

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes open, rolling, well-drained upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in large patches of habitat with minimal human disturbance and will avoid grasslands with excessive shrubs. The majority of the project area consisted of moderately grazed rangeland which may provide potential habitat for the Sprague's pipit. No Sprague's pipit were observed during the field survey.

3.6.4 Endangered, Threatened, and Candidate Species Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact threatened or endangered species or designated critical habitat.

Alternative B (Proposed Action) – The USACE's Garrison Dam/Lake Sakakawea Project Division and the USFWS had concerns of the risk of storm water runoff from the well pad entering Lake Sakakawea and disturbing threatened and endangered species and their habitat. USFWS indicated that Petro Hunt's design measures and the distance from Lake Sakakawea is sufficient enough that the threat of exposure to Threatened and Endangered Species, from the semi-dry cuttings pit due to erosion, would be insignificant or discountable. ***Please refer to Appendix B for USFWS correspondence.*** Suitable habitat for the interior least tern, pallid sturgeon, and piping plover is largely associated with Lake Sakakawea and its shoreline. Potential habitat for these species exists approximately 0.25 miles north of the proposed site. The well pad and access road are located on upland bluffs composed of grassland, with Lake Sakakawea and its shoreline located below the bluffs (approximately 100 feet in elevation). There are two large ridges located between the well pad and the shoreline. Specifically, the ridge just north of the pad is approximately 30 feet higher in elevation than the well pad. The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shoreline-nesting birds.

Current drainage off of the proposed pad location is to an ephemeral wooded drainage to the south with a small portion of the northwest corner draining to an ephemeral wooded drainage to the northwest. Drainage to the south continues down the ephemeral drain to the northwest approximately a half-mile to a man made stockdam near a farmstead. The wooded drainage continues on the other side of the farmstead approximately one half-mile northwest to the lake. A gravel access road leading to the farmstead provides good access to the drainage in case of accidental release. The total drainage distance from the pad to the lake is approximately 1.05 miles. Current drainage to the northwest enters an ephemeral wooded drainage and continues down the drainage approximately 0.62 miles before entering the lake. Upon completion of construction of the pad, all stormwater and potential spills would be contained on the pad.

Storage tanks and the heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against accidental release of fluids from the site. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. Upon completion of construction of the pad, all stormwater and potential spills would be contained on the pad. Containment on the pad would include an approximately 30-foot high ridge acting as a barrier for runoff to the

north. As part of the design of the well pad, much of the north and western sides of the pad would have cuts in the higher elevations causing a wall, which would help contain runoff from the pad. The pit stockpile has been sited in the northwest corner of the pad which would also stop runoff from flowing from the pad to the northwest. A two-foot high berm will be placed around the western and southern sides of the pad to act as additional containment. In addition, solidification of drill cuttings before placement in the pit and the reinforced lining, with a minimum thickness of 20 mils, of the semi-dry cuttings pit would diminish the potential for pit leaching. Due to the implementation of secondary containment measures and the semi-dry cuttings pit parameters, the transfer of accidentally released fluids to Lake Sakakawea and its associated habitats is unlikely. However, due to the proximity of the proposed six well pad to Lake Sakakawea (0.25 miles) the proposed project may affect but is not likely to adversely affect the interior least tern, pallid sturgeon, and piping plover. The proposed project may affect, but is not likely to adversely affect, critical habitat for the piping plover. USFWS concurred with this determination in correspondence dated 3-29-11. ***Please refer to Appendix B for correspondence.***

The proposed project is located within the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. Per USFWS recommendations, if a whooping crane is sighted within one-mile of the well sites or associated facilities while under construction, then all work would cease within one-mile of that part of the project and the USFWS would be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area. Potential forage and stopover habitat may exist near the west end of the access road in the form of a shallow, emergent wetlands and cropland. The proposed project site and access road do not contain wetlands. It is determined that the proposed project may affect, but is not likely to adversely affect, the whooping crane.

The proposed project area consists of native and non-native upland grasses with abundant wildflowers. Due to the presence of potential habitat for the Dakota skipper within the project area, the proposed action may impact individuals or habitat. An "effect determination" under Section 7 of the Endangered Species Act has not been made due to the current unlisted status of the species.

The proposed project site consists of native and non-native upland grasses with high plant species diversity. Due to the presence of potential habitat for the Sprague's pipit within the project area, the proposed action may impact individuals or habitat. An "effect determination" under Section 7 of the Endangered Species Act has not been made due to the current unlisted status of the species. In the event that construction takes place during the migratory bird nesting season, a pre-construction survey for migratory birds or their nests will be conducted by a qualified biologist within five days prior to the initiation of all construction activities. The findings of these surveys would be reported to USFWS. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow the area prior to the nesting/breeding season to inhibit use of the area by migratory birds

3.7 Migratory Birds, Eagles, and Other Wildlife

An intensive, pedestrian resource survey of the proposed well pad and access road was conducted on October 22, 2010 by KL&J. The purpose of this survey was to gather site-specific data and photos with regards to botanical, biological, and water resources. The study area consisted of 10 acres centered on the proposed well pad center point and a

200-foot wide corridor along the proposed access road. Resources were evaluated using visual inspection and pedestrian transects across the site. In addition, a survey for raptors and raptor nests within 0.5 miles of all project disturbance areas (well pad, access road, and associated rights-of-way) was conducted. This survey consisted of pedestrian transects focusing specifically on potential nesting sites within 0.5 miles of the project disturbance areas where survey permission allowed, including cliffs and wooded draws. Wooded draws were observed both from the upland areas overlooking the draws and from bottomlands within the actual draws.

The BIA EA on-site assessment of the well pad and access road was also conducted on October 22, 2010. The BIA Environmental Protection Specialist, representatives from the Tribal Historic Preservation Office, Petro Hunt, and KL&J participated in these assessments. Construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. The well pad and access road locations were adjusted and finalized, and the BIA gathered information needed to develop site-specific mitigation measures and BMPs to be incorporated into the final APDs. Those present at the on-site assessment agreed that the selected locations, along with the minimization measures Petro Hunt plans to implement, are positioned to minimize impacts to sensitive wildlife and botanical resources. In addition, comments received from the USFWS (United States Fish and Wildlife Service) have been considered in the development of this project.

3.7.1 Bald and Golden Eagles

Protection is provided for the bald and golden eagle through the BGEPA (Bald and Golden Eagle Protection Act). The BGEPA of 1940, 16 U.S.C. 668–668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. The BGEPA prohibits, except under certain specified conditions, the taking, possession, or commerce of bald and golden eagles. Under the BGEPA, to “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein “disturb” means to agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment.

The bald eagle (*Haliaeetus leucocephalus*) is sighted in North Dakota along the Missouri River during spring and fall migration periods and periodically in other places in the state such as the Devils Lake and Red River areas. The ND Game and Fish Department estimated in 2009 that 66 nests were occupied by bald eagles, though not all eagle nests were visited and verified. Preferred habitat for the bald eagle includes open areas, forests, rivers, and large lakes. Bald eagles tend to use the same nest year after year, building atop the previous year's nest. No bald eagles or nests were observed within 0.5 miles of proposed project disturbance areas during the field survey conducted on October 22, 2010.

The golden eagle (*Aquila chrysaetos*) can be spotted in North Dakota throughout the badlands and along the upper reaches of the Missouri River in the western part of the state. Golden eagle pairs maintain territories that can be as large as 60 square miles and nest in high places including cliffs, trees, and human-made structures. They perch on ledges and rocky outcrops and use soaring to search for prey. Golden eagle preferred habitat includes open prairie, plains, and forested areas. No golden eagles or

eagle nests were observed within 0.5 miles of proposed project disturbance areas during the field survey conducted on October 22, 2010.

The USGS (United States Geological Survey) Northern Prairie Wildlife Research Center maintains information on bald eagle and golden eagle habitat within the state of North Dakota. According to the USGS data, the 0.5 mile buffered survey area for the proposed well pad and access road does contain recorded habitat for both the bald eagle and the golden eagle. In addition, Dr. Anne Marguerite Coyle of Dickinson State University has completed focused research on golden eagles and maintains a database of golden eagle nest sightings. According to Dr. Coyle's information, the closest recorded golden eagle nest is located approximately 3.9 miles south of the proposed well pad. This recorded nest site is located across the river (Lake Sakakawea) from the well pad. ***Please refer to Figure 3-5, Bald and Golden Eagle Habitat and Nest Sightings.***



Figure 3-5, Bald and Golden Eagle Habitat and Nest Sightings

3.7.1.1 Bald and Golden Eagle Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact bald or golden eagles.

Alternative B (Proposed Action) – The proposed project is located within areas of recorded suitable bald and golden eagle habitat. However, no golden or bald eagles were observed during the field investigations and no evidence of eagle nests was found

within 0.5 miles of the project area. Additionally, if electrical lines are installed, the lines would be buried to prevent the potential for bird strikes. Therefore, no impacts to bald or golden eagles are anticipated to result from the proposed project. If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.

3.7.2 Migratory Birds and Other Wildlife

The MBTA (Migratory Bird Treaty Act), 916 U.S.C. 703–711, provides protection for 1,007 migratory bird species, 58 of which are legally hunted. The MBTA regulates impacts to these species such as direct mortality, habitat degradation, and/or displacement of individual birds. The MBTA defines "taking" to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations.

The proposed project study area lies in the Central Flyway of North America. As such, this area is used as resting grounds for many birds on their spring and fall migrations, as well as nesting and breeding grounds for many waterfowl species. Other non-game bird species are known to fly through and inhabit this region. In addition, the project areas contain suitable habitat for mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), plains sharptail grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicas*), red tail hawk (*Buteo jamaicensis*), song birds, coyote (*Canis latrans*), red fox (*Vulpes vulpes*), Eastern cottontail rabbit (*Sylvilagus floridanus*), white-tailed jackrabbit (*Lepus townsendii*), and North American porcupine (*Erethizon dorsatum*).

During the pedestrian field surveys, migratory birds, raptors, big and small game species, non-game species, potential wildlife habitats, and and/or nests were identified if present. Pocket gopher mounds were observed during the survey. No additional wildlife was observed. **Please refer to Figure 3-6, View of Pocket Gopher Mounds.**



**Figure 3-6, View of Pocket Gopher
Mounds**

3.7.2.1 Migratory Birds and Other Wildlife Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact migratory birds or other wildlife.

Alternative B (Proposed Action) – Due to the presence of suitable habitat at the project site for many wildlife and avian species, ground clearing, drilling, and long-term production activities associated with the proposed project may impact individuals by displacing animals from suitable habitat for the wildlife species discussed above. Construction may occur during the migratory bird nesting/breeding season of February 1 to July 15. If construction is planned to occur during that period, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow (degrade) the area prior to the nesting/breeding season to deter use of the area by migratory birds

While many species of wildlife may continue to use the project area for breeding and feeding and continue to thrive, the activities associated with oil and gas development may displace animals from otherwise suitable habitats. As a result, wildlife may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and competition may be lower survival, lower reproductive success, lower recruitment, and lower carrying

capacity, leading ultimately to population-level impacts. Therefore, the proposed project may affect individuals and populations within these wildlife species, but is not likely to result in a trend towards listing of any of the species identified. As no grouse leks were observed in the project area, additional timing restrictions for construction are not required.

The proposed Fort Berthold 152-93-9C-10 well pad site is located on an upland area that is at a considerably higher elevation (approximately 100 feet) than the Lake Sakakawea shoreline. The topographic features of the area should assist in providing sight and sound buffers for shoreline-nesting birds. With the present lake level, the shoreline in the vicinity of the project area doesn't presently provide suitable habitat for nesting species. But due to the fluctuating lake levels, potential habitat may exist there in the future.

During drilling activities, the noise, movements, and lights associated with the drilling are expected to deter wildlife from entering the areas. In addition, the semi-dry cuttings pit would be used primarily for solid material storage, and it is expected that very minimal free fluid will be present in the pit. A reinforced lining of the semi-dry cuttings pit would have a minimum thickness of 20 mils to prevent seepage and contamination of underlying soil. The absence of exposed liquids in the semi-dry cuttings pit would minimize their attractiveness to wildlife. Immediately after the drilling rig leaves the location, the pit would be netted with State and Federal approved nets. These would remain in place until the closure of the pit.

In addition, design considerations will be implemented to further protect against potential habitat degradation. The storage tanks and heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. BMPs to minimize wind and water erosion of soil resources would also be put into practice. A 2-foot high berm would be constructed on the western and southern sides of the pad.

Construction activities may occur during the breeding/nesting season (February 1 to July 15). In the event that a construction activity is planned within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow the area prior to the nesting/breeding season to inhibit use of the area by migratory birds. Additionally, all reasonable, prudent, and effective measures to avoid the taking of migratory bird species would be implemented during the construction and operation phases. These measures would include: the use of suitable mufflers on all internal combustion engines; certain compressor components to mitigate noise; only utilizing approved roadways; placing wire mesh or grate covers over barrels or buckets placed under valves and spigots to collect dripped oil; maintaining open pits and ponds that are free from oil, netting semi-dry cuttings pits with netting that has a maximum mesh size of 1.5 inches, and burial of electrical lines.

3.8 Vegetation

Botanical resources were evaluated using visual inspection. The project area was also investigated for the presence of invasive plant species.

Vegetation at the Fort Berthold 152-93-9C-10 proposed well pad consist of moderately grazed upland grasses bordered to the south and northwest by large wooded draws and to the north by steep clay outcroppings. The access road along the existing gravel road was dominated by crested wheatgrass (*Agropyron cristatum*) and prairie sandreed (*Calamovilfa longifolia*). The remainder of the access road consisted of upland grass species consistent with the well pad. The well pad was mostly dominated by blue grama (*Bouteloua gracilis*), needle & thread (*Stipa comate*), and prairie junegrass (*Koeleria pyramidata*). Additionally, Kentucky bluegrass (*Poa pratensis*), green needlegrass (*Stipa viridula*), sideoats grama (*Boutelous curtispindula*), western wheatgrass (*Agropyron smithii*), little bluestem (*Andropogon scoparius*), and western snowberry (*Symphoricarpos occidentalis*) were all found throughout the study area. Green ash (*Fraxinus pennsylvanica*) and silver buffalo berry (*Shepherdia argenteae*) were observed growing in the drainages south and northwest of the well pad site. Patches of silver buffalo berry (*Shepherdia argentea*) also appeared on the proposed well pad location. The center of the wooded ephemeral drainage to the south was approximately 225 feet away at the closest point from the well pad. The center of the wooded ephemeral drainage to the northwest was approximately 125 feet away from the well pad. No wetlands were observed in the study area, and no wetland plant species were observed. Canada thistle (*Cirsium arvense*) and absinth wormwood (*Artemisia absinthium*) were observed in small quantities along the proposed access road. There are no threatened or endangered plant species listed for McKenzie County. **Please refer to Figure 3-7, Native Upland Grasses, Facing Northwest, Figure 3-8, View of Wooded Drainage South of Well Pad, Facing West, Figure 3-9, View of Little Bluestem Community, Facing Southwest, and Figure 3-10, View of Vegetation along Existing Gravel Road- Will Be Used as Part of Access Road, Facing West** for examples of vegetation observed at the Fort Berthold 152-93-9C-10 proposed well sites.



Figure 3-7, Native Upland Grasses, Facing Northwest



Figure 3-8, View of Wooded Drainage South of Well Pad, Facing West



Figure 3-9, View of Little Bluestem Community, Facing Southwest



Figure 3-10, View of Vegetation along Existing Gravel Road- Will Be Used as Part of Access Road, Facing West

In addition, the project area was surveyed for the presence of noxious weeds. Of the 11 species declared noxious under the North Dakota Century Code (Chapter 63-01.0), 5 are known to occur in McKenzie County. Two noxious weeds, Canada thistle (*Cirsium arvense*) and Absinth wormwood (*Artemesia absinthium*), were observed in small quantities along the existing gravel roadway during the survey. **Please refer to Table 3.4, Noxious Weed Species.** In addition, counties and cities have the option to add species to the list to be enforced within their jurisdictions. McKenzie County has added black henbane, common burdock, houndstongue, halogeton, baby's breath.

Table 3.4 Noxious Weed Species		
Common Name	Scientific Name	2009 McKenzie County Reported Acres
Absinth wormwood	<i>Artemesia absinthium</i> L.	15
Baby's breath	<i>Gypsophila paniculata</i>	—
Black henbane	<i>Hyoscyamus niger</i>	—
Canada thistle	<i>Cirsium arvense</i> (L.) Scop	33,600
Common burdock	<i>Arctium minus</i>	—
Dalmation toadflax	<i>Linaria genistifolia</i> ssp. <i>Dalmatica</i>	1
Diffuse knapweed	<i>Centaurea diffusa</i> Lam	1
Halogeton	<i>Halogeton glomeratus</i>	—
Houndstongue	<i>Cynoglossum officinale</i>	—
Leafy spurge	<i>Euphorbia esula</i> L.	26,200
Musk thistle	<i>Carduus nutans</i> L.	—
Purple loosestrife	<i>Lythrum salicaria</i>	—
Russian knapweed	<i>Acroptilon repens</i> (L) DC.	—
Salt cedar (tamarisk)	<i>Tamarix ramosissima</i>	2,400
Spotted knapweed	<i>Centaurea maculosa</i> Lam.	5
Yellow toadflax	<i>Linaria vulgaris</i>	—

3.8.1.1 Vegetation Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact vegetation.

Alternative B (Proposed Action) – Ground clearing activities associated with construction of the proposed well and access road would result in vegetation disturbance; however, the areas of proposed surface disturbances are minimal in the context of the setting, and these impacts would be further minimized in accord with the BLM Gold Book standards for well reclamation. Disturbance of vegetation in areas of noxious weed infestations may increase the potential for redistribution of invasive species within the project area. The spread of noxious weeds can have an adverse effect on multiple aspects of vegetative resources ranging from the suitability of sensitive plant habitat and maintenance of native biodiversity providing habitat for wildlife species as well as forage production for livestock grazing. If advised by the BIA, identified noxious weed infestations may be treated with a BIA/BLM approved herbicide prior to construction to prevent the spread of noxious weeds.

Following construction, interim reclamation measures to be implemented include reduction of cut and fill slopes, redistribution of stockpiled topsoil, and re-seeding of disturbed areas with a native grass seed mixture consistent with surrounding vegetation. If commercial production equipment is installed, the well pad would be reduced in size to accommodate the production facilities, while leaving adequate room to conduct normal well maintenance and potential recompletion operations, with the remainder of the well pad reclaimed. Reclamation activities would include leveling, re-contouring, treating, backfill, and re-seeding with a native grass seed mixture from a BIA/BLM-approved source. Erosion control measures would be installed as appropriate. Stockpiled topsoil would be redistributed and re-seeded as recommended by the BIA.

If no commercial production developed from any of the proposed wells, or upon final abandonment of commercial operations, all disturbed areas would be promptly reclaimed. The access road and well pad areas would be re-contoured to match topography of the original landscape as closely as possible and re-seeded with vegetation consistent with surrounding native species to ensure a healthy and diverse mix free of noxious weeds. Seed would be obtained from a BIA/BLM-approved source. Re-vegetation of the site would be consistent with the BLM Gold Book standards. Erosion control measures would be installed as appropriate in a manner that is consistent with the BLM Gold Book standards. Maintenance of the re-vegetated site would continue until such time that the stand was consistent with the surrounding undisturbed vegetation and the site free of noxious weeds. The surface management agency would provide final inspection of the site to deem the reclamation effort complete.

3.9 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966, as amended, requires that projects needing federal approval and/or federal permits be evaluated for the effects on historic and cultural properties included or eligible for listing on the NRHP (National Register of Historic Places). The Archaeological and Historic Preservation Act of 1974 provides for the survey, recovery, and preservation of significant scientific, prehistoric, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a Federal, federally licensed, or federally funded project.

The NAGPRA (Native American Graves Protection and Repatriation Act) of 1990 is triggered by the possession of human remains or cultural items by a Federally-funded repository or by the discovery of human remains or cultural items on Federal or Tribal lands and provides for the inventory, protection, and return of cultural items to affiliated Native American groups. Permits are required for intentional excavation and removal of Native American cultural items from Federal or Tribal lands.

The American Indian Religious Freedom Act of 1978 requires consultation with Native American groups concerning proposed actions on sacred sites on Federal land or affecting access to sacred sites. It establishes Federal policy to protect and preserve for American Indians, Eskimos, Aleuts, and Native Hawaiians the right to free exercise of their religion in the form of site access, use and possession of sacred objects, as well as the freedom to worship through ceremonial and traditional rites. The Act requires Federal agencies to consider the impacts of their actions on religious sites and objects important to these peoples, regardless of eligibility for listing on the NRHP.

In accordance with 16 U.S.C. 470hh(a), information concerning the nature and location of archaeological resources and traditional cultural properties, and detailed information regarding archaeological and cultural resources, is confidential. Such information is exempt from the Freedom of Information Act and is not included in this EA.

A Class I Literature Review for the proposed site was conducted by Kadrmas, Lee & Jackson on October 29, 2010. A Class III Cultural Resources Survey was conducted by Kadrmas, Lee & Jackson on October 27, 2010 with tribal monitors from the Three Affiliated Tribes THPO simultaneously conducting Traditional Cultural Property Surveys. The APE (Area of Potential Effect), or area surveyed, consisted of a 20-acre site around the well pad, as well as the associated access road areas. One new cultural resource site was identified near the project APE. The proposed access road location was adjusted during the onsite to avoid the site.

3.9.1 Cultural Resources Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact cultural resources.

Alternative B (Proposed Action) – No cultural resources were identified within the APE. The one cultural resource site identified near the APE would be avoided by the proposed project. As such, cultural resources impacts are not anticipated. A No Historic Properties Affected Determination was made by the BIA for the proposed construction. The THPO concurred with these findings on April 25th. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA. All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.

3.10 Socioeconomic Conditions

Socioeconomic conditions depend on the character, habits, and economic conditions of people living within the proposed project area. Business, employment, transportation, utilities, etc. are factors that affect the social climate of a community. Other factors that

distinguish the social habits of one particular area from another include the geography, geology, and climate of the area.

The Fort Berthold Reservation is home to six major communities, consisting of New Town, White Shield, Mandaree, Four Bears, Twin Buttes, and Parshall. These communities provide small business amenities such as restaurants, grocery stores, and gas stations; however, they lack the larger shopping centers that are typically found in larger cities of the region such as Minot and Bismarck. According to 2000 US Census data, educational/health/social services is the largest industry on the Reservation, followed by the entertainment/recreation/accommodation/food industry⁶. The Four Bears Casino, Convenience Store, and Recreation Park are also major employers with over 320 employees, 90% of whom are tribal members. In addition, several industries are located on the Reservation, including Northrop Manufacturing, Mandaree Enterprise Corporation, Three Affiliated Tribes Lumber Construction Manufacturing Corporation, and Uniband.

Several paved state highways provide access to the Reservation including ND Highways 22 and 23 and Highway 1804. These highways provide access to larger communities such as Bismarck, Minot and Williston. Paved and gravel BIA Route roadways serve as primary connector routes within the Reservation. In addition, networks of rural gravel roadways are located throughout Reservation boundaries providing access to residences, oil and gas developments, and agricultural land. Major commercial air service is provided out of Bismarck and Minot, with small-scale regional air service provided out of New Town and Williston. A housing subdivision exists approximately 0.5 miles south of the project site.

3.10.1 Socioeconomic Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact the socioeconomic conditions in the project area. However, Alternative A would not permit the development of oil and gas resources, which could have positive effects on employment and income through the creation of jobs and payment of leases, easement, and/or royalties to Tribal members.

Alternative B (Proposed Action) – Alternative B is not anticipated to substantially impact the socioeconomic conditions in the project areas, but it does have the potential to yield beneficial impacts on Tribal employment and income. Qualified individual tribal members may find employment through oil and gas development and increase their individual incomes. Additionally, the proposed action may result in indirect economic benefits to tribal business owners resulting from construction workers expending money on food, lodging, and other necessities. The increased traffic during construction may create more congested traffic conditions for residents. Petro Hunt will follow McKenzie County, BIA, and North Dakota Department of Transportation rules and regulations regarding rig moves and oversize/overweight loads on state and county roads used as haul roads in order to maintain safe driving conditions. The housing subdivision south of the project area may experience increased truck traffic as a result of the project, but impacts should be minimal as it is anticipated that trucks transporting oil will travel west on Highway 22

⁶ It should be noted that the most recent US Census data dates from 2000. Since 2000, there has been an increasing focus on oil and gas development on the Fort Berthold Reservation. As such, it is anticipated that these trends have likely shifted; however, no new data is available until the 2010 US Census is completed and published.

away from the subdivision. Workers leaving the site for New Town would most likely be the main contributor to additional traffic past the subdivision.

3.11 Environmental Justice

Per Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, measures must be taken to avoid disproportionately high adverse impacts on minority or low-income communities.

Generally, the Three Affiliated Tribes qualify for environmental justice consideration as both a minority and low-income population. The population of North Dakota is predominantly Caucasian. Tribal members comprise only 5.0% of North Dakota's population and 21.1% of the population of McKenzie County.

As of 2000, the Fort Berthold Reservation and McKenzie County had lower than statewide averages of per capita income and median household income. In addition, McKenzie County had slightly lower rates of unemployment than the state average, while Fort Berthold's rate of unemployment was substantially greater⁷. **Please refer to Table 3.5, Employment and Income.**

Location	Per Capita Income	Median Household Income	Unemployment Rate	Individuals Living Below Poverty Level
McKenzie County	\$14,732	\$29,342	4.1%	17.2%
Fort Berthold Reservation	\$10,291	\$26,274	11.1%	28.1%
Statewide	\$17,769	\$34,604	4.6%	11.9%

Source: U.S. Census Bureau of the Census, Census 2000.

Population decline in rural areas of North Dakota has been a growing trend as individuals move toward metropolitan areas of the state, such as Bismarck and Fargo. While McKenzie County's population has been slowly declining, the Fort Berthold Reservation has witnessed a steady increase in population. American Indians are the majority population on the Fort Berthold Reservation but are the minority population in McKenzie County and the state of North Dakota. **Please refer to Table 3.6, Demographic Trends.**

⁷ While more current data reflecting income, unemployment, and poverty levels within the Fort Berthold Reservation are not available, it is anticipated that 2010 numbers may show different trends. The exploration and production of oil and gas resources on the Reservation since 2006 have created employment opportunities and have likely affected these economic indicators. However, this assessment uses the best available data.

**Table 3.6
Demographic Trends**

Location	Population in 2000	% of State Population	% Change 1990–2000	Predominant Race	Predominant Minority
McKenzie	5,737	0.89%	-10.1%	White	American Indian (21.2%)
Fort Berthold Reservation	5,915	0.92%	+9.8%	American Indian ⁸	White (26.9%)
Statewide	642,200	--	+0.5%	White	American Indian (5.0%)

Source: U.S. Census Bureau of the Census, Census 2000.

3.11.1 Environmental Justice Impacts/Mitigation

Alternative A (No Action) – Alternative A would not result in environmental justice impacts.

Alternative B (Proposed Action) – Alternative B would not require relocation of homes or businesses, cause community disruptions, or cause disproportionately adverse impacts to members of the Three Affiliated Tribes. The proposed project has not been found to pose significant impacts to any other critical element (public health and safety, water, wetlands, wildlife, soils, or vegetation) within the human environment. The proposed project is not anticipated to result in disproportionately adverse impacts to minority or low-income populations. Oil and gas development of the Bakken and Three Forks Formations is occurring both on and off the Fort Berthold Reservation. Employment opportunities related to oil and gas development may lower the unemployment rate and increase the income levels on the Fort Berthold Reservation. In addition, the Three Affiliated Tribes and allotted owners of mineral interests may receive income from oil and gas development on the Fort Berthold Reservation in the form of royalties, if drilling and production are successful, as well as from TERO (Tribal Employee Rights Office) taxes on construction of drilling facilities.

3.12 Infrastructure and Utilities

The Fort Berthold Reservation's infrastructure consists of roads, bridges, utilities, and facilities for water, wastewater, and solid waste.

Known utilities and infrastructure within the vicinity of the proposed project includes paved and gravel roadways. The nearest waterline is approximately 75-feet west of the proposed access road on the extreme west end of the route.

3.12.1 Infrastructure and Utility Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact infrastructure or utilities.

Alternative B (Proposed Action) – The waterline is not anticipated to be impacted by the project. Vehicular traffic associated with construction, operation, and maintenance of the

⁸ According to the North Dakota Tourism Division, there are 10,400 enrolled members of the Three Affiliated Tribes.

proposed action would increase the overall traffic on the local roadway network. Alternative B would also require construction of a new gravel roadway. The proposed gravel access road would be approximately 6,994 feet long, and approximately 3,150 feet of it would occur on an existing gravel roadway that is currently being used as access to a farmstead.

Safety hazards posed from increased traffic during the drilling phase are anticipated to be short-term and minimal for the proposed site. It is anticipated that approximately 30 to 40 trips, over the course of several days, would be required to transport the drilling rig and associated equipment to the proposed well site. If commercial operations are established at any of the proposed well sites following drilling activities, the pump would be checked daily and oil and water hauling activities would commence. Oil would be hauled using a semi tanker trailer, typically capable of hauling 140 barrels of oil per load. Traffic to and from the well site would depend upon the productivity of the well. A 1,000 barrel per day well would require approximately seven tanker visits per day, while a 300 barrel per day well would require approximately two visits per day⁹. Produced water would also be hauled from the site using a tanker, which would typically haul 110 barrels of water per load. The number of visits would be dependent upon daily water production¹⁰. Established load restrictions for state and BIA roadways would be followed and haul permits would be acquired as appropriate.

To minimize potential impacts to the roadway conditions and traffic patterns in the area, all haul routes used would either be private roads or roads that have been approved for this type of transportation use by the local governing tribal, township, county, and/or state entities. Petro Hunt would follow McKenzie County, BIA, and North Dakota Department of Transportation rules and regulations regarding rig moves and oversize/overweight loads on state and county roads used as haul roads. All contractors are required to permit their oversize/overweight roads through these entities. Petro Hunt's contractors would be required to adhere to all local, county, tribal, and state regulations regarding rig moves, oversize/overweight loads, and frost restrictions.

The well site may also require the installation of supporting electrical lines. In addition, if commercially recoverable oil and gas are discovered at any of the wells, a natural gas gathering system may need to be installed. It is expected that electric lines and other pipelines would be constructed within the existing right-of-way, or additional NEPA analysis and BIA approval would be completed prior to construction of these utilities. Other utility modifications would be identified during design and coordinated with the appropriate utility company.

Drilling operations at the proposed well site may generate produced water. In accordance with the BLM Gold Book and BLM Onshore Oil and Gas Order Number 7, produced water would be disposed of via subsurface injection, or other appropriate methods that would prevent spills or seepage. Produced water may be trucked to nearby oil fields where injection wells are available.

⁹ A typical Bakken oil well initially produces at a high rate and then declines rapidly over the next several months to a more moderate rate. In the vicinity of the proposed project areas, initial rates of 500 to 1,000 BOPD (barrels of oil per day) could be expected, dropping to 200 to 400 BOPD after several months.

¹⁰ A typical Bakken oil well initially produces water at 200 bbls per day and then declines rapidly over the next several months to a more moderate rate. In the vicinity of the proposed project areas, initial rates of 200 BWP (barrels of water per day) could be expected, dropping to 30 to 70 BWP after several months.

3.13 Public Health and Safety

Health and safety concerns associated with this type of development include hydrogen sulfide (H₂S) gas¹¹ and hazardous materials used or generated during well installation or production.

3.13.1 Public Health and Safety Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact public health and safety.

Alternative B (Proposed Action) – Project design and operational precautions would minimize the likelihood of impacts from H₂S gases and hazardous materials as described below.

H₂S Gases. It is unlikely that the proposed action would result in release of H₂S in dangerous concentrations; however, Petro Hunt will submit H₂S Contingency Plans to the BLM as part of the site APDs. These plans establish safety measures to be implemented throughout the drilling process to prevent accidental release of H₂S into the atmosphere. The Contingency Plans are designed to protect persons living and/or working within 3,000 feet (0.57 miles) of the well location and include emergency response procedures and safety precautions to minimize the potential for an H₂S gas leak during drilling activities. Satellite imagery revealed that there is a residence approximately 0.41 miles west and a housing subdivision approximately 0.5 miles south of proposed well pad.

Hazardous Materials. The EPA (Environmental Protection Agency) specifies chemical reporting requirements under the Superfund Amendments and Reauthorization Act of 1986, as amended. No materials used or generated by this project for production, use, storage, transport, or disposal are on either the Superfund list or on the EPA's list of extremely hazardous substances in 40 CFR 355.

The SPCC (Spill Prevention, Control, and Countermeasure) rule includes EPA requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

3.14 Cumulative Considerations

Cumulative impacts result from the incremental consequences of an action "when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). Effects of an action may be minor when evaluated in an individual context, but these effects can add to other disturbances and collectively may lead to a measureable environmental change. By evaluating the impacts of the proposed action with the effects of other actions, the relative contribution of the proposed action to a projected cumulative impact can be estimated.

¹¹ H₂S is extremely toxic in concentrations above 500 parts per million. H₂S has not been found in measurable quantities in the Bakken Formation. However, before reaching the Bakken, drilling would penetrate the Mission Canyon Formation, which is known to contain varying concentrations of H₂S.

3.14.1 Past, Present, and Reasonably Foreseeable Actions

Oil and gas development in western North Dakota has occurred with varying intensity for the past 100 years. Gas development began in the area in 1909, and the first recorded oil well was drilled in 1920. North Dakota's oil production has boomed twice prior to the current boom; first in the 1950s, peaking in the 1960s, and again in the 1970s, peaking in the 1980s. North Dakota is currently experiencing its third oil boom, which has already far surpassed the previous booms in magnitude. This oil boom is occurring both within and outside the Fort Berthold Reservation.

According to the NDIC, as of November 15, 2010, there were approximately 403 active and/or confidential oil and gas wells within the Fort Berthold Reservation and approximately 972 within the 20-mile radius of the proposed wells. ***Please refer to Figure 3-11, Existing and Proposed Oil and Gas Wells.*** There are no known oil and gas wells within one mile of the proposed sites. ***Please refer to Table 3.7, Summary of Active and Proposed Wells.***

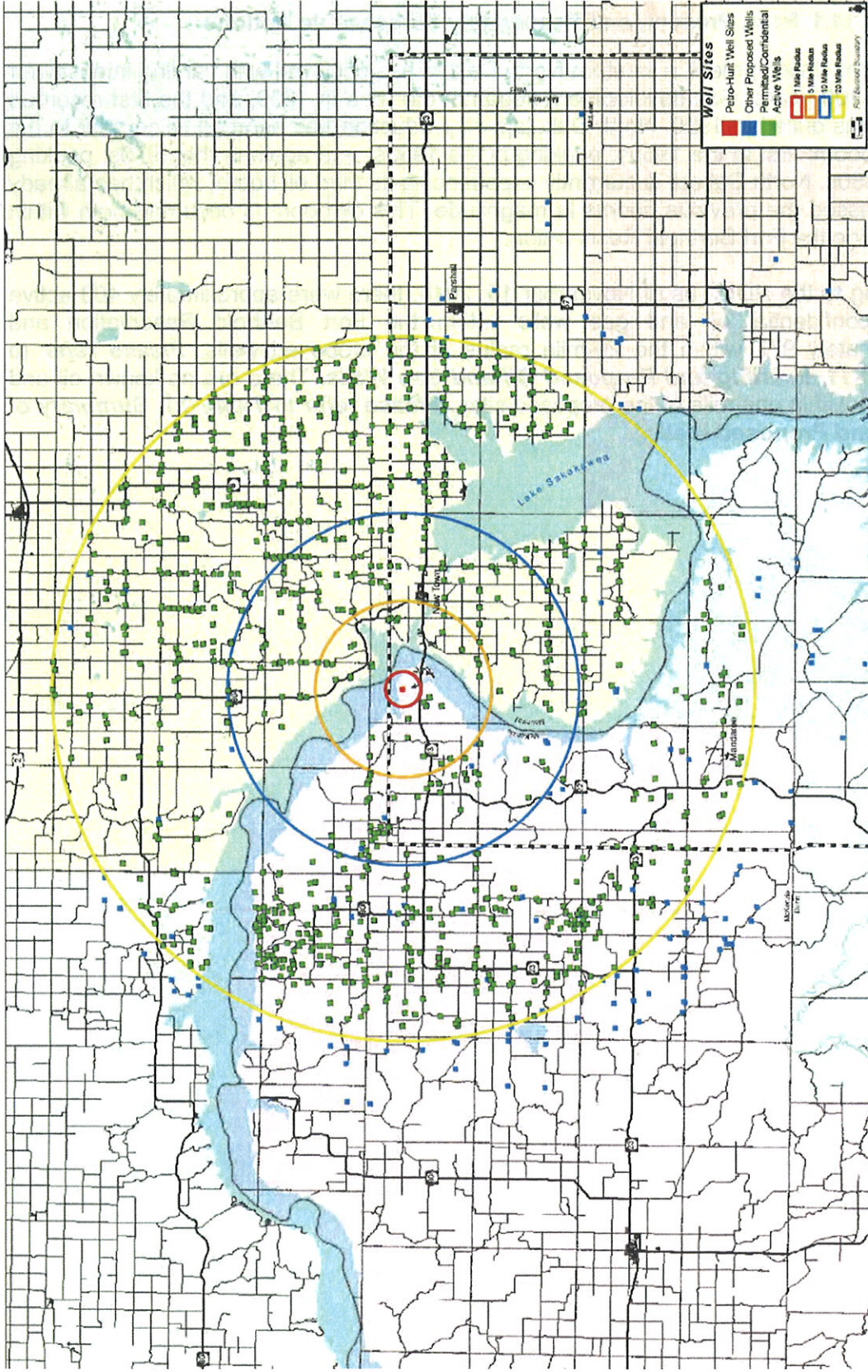


Figure 3-11, Existing and Proposed Oil and Gas Wells

Distance from Site	Number of Active or Proposed Wells
1 mile radius	0
5 mile radius	36
10 mile radius	213
20 mile radius	972

As mentioned previously in this EA, the Bakken Formation (targeted by the proposed action) covers approximately 25,000 square miles beneath North Dakota, Montana, Saskatchewan, and Manitoba, with approximately two-thirds of the acreage beneath North Dakota. The Three Forks Formation (also targeted with the proposed action) lies beneath the Bakken. The North Dakota Department of Mineral Resources estimates that there are approximately 2 billion barrels of recoverable oil in each of these Formations and that there will be 30-40 remaining years of production, or more if technology improves.

Commercial success at any new well can be reasonably expected to result in additional nearby oil/gas exploration proposals; however, it is speculative to anticipate the specific details of such proposals. While such developments remain speculative until APDs have been submitted to the BLM or BIA, it is reasonable to assume based on the estimated availability of the oil and gas resources that further development will continue in the area for the next 30-40 years. It is also reasonable to assume that natural gas and oil gathering and/or transportation systems will be proposed and likely built in the future to facilitate the movement of products to market. Currently, natural gas gathering systems are being considered and/or proposed on the Fort Berthold Reservation, but as there are no approved projects, that information remains proprietary.

3.14.2 Cumulative Impact Assessment

The proposed project is not anticipated to directly impact other oil and gas projects. It is a reasonable generalization that, while oil and gas development proposals and projects vary based on the developer, well location, permit conditions, site constraints, and other factors, this proposed action is not unique among others of its kind. It is also a reasonable generalization based on regulatory oversight by the BIA, BLM, NDIC, and other agencies as appropriate, that this proposed action is not unique in its attempts to avoid, minimize, or mitigate harm to the environment through the use of BMPs and site-specific environmental commitments. The following discussion addresses potential cumulative environmental impacts associated with the proposed project and other past, present, and reasonably foreseeable actions.

Land Use — As oil and gas exploration and production of the Bakken and Three Forks Formations proceed, lands atop these formations are converted from existing uses (often agricultural or vacant) to industrial, energy-producing uses. The proposed project would convert grasslands, woodlands, and cultivated agricultural lands to a well pad, access road, and associated uses. However, the well pad and access road have been selected to avoid or minimize sensitive land uses and to maintain the minimum impact footprint possible. In addition, the BIA views these developments to be temporary in nature as impacted areas would be restored to original conditions upon completion of oil and gas activity.

Air Quality — Air emissions related to construction and operation of past, present, or reasonably foreseeable oil and gas wells, when added to emissions resulting from the proposed project, are anticipated to have a negligible cumulative impact. McKenzie County is currently well below the Ambient Air Quality Standards, and it is anticipated that mobile air source toxics from truck traffic for the proposed project and other projects, as well as air emissions related to gas flaring, would be minor; therefore, the contribution of the proposed project to air emissions is not expected to be significant.

Wildlife and Vegetation — The proposed project, when added to previously constructed and reasonably foreseeable oil and gas wells, would contribute to habitat loss and fragmentation associated with construction of well pads, access roads, and associated development. The NDPRD notes in its undated publication, "*North Dakota Prairie: Our Natural Heritage*" that approximately 80% of the state's native prairie has been lost to agriculture, with most of the remaining areas found in the arid west; ongoing oil and gas activity has the potential to threaten remaining native prairie resources.

While many species of wildlife may continue to use the project area for breeding and feeding and continue to thrive, the activities associated with oil and gas development may displace animals from otherwise suitable habitats. As a result, wildlife may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity leading ultimately to population-level impacts. In particular, species that rely on native prairie for breeding, feeding, and sheltering, such as the Dakota skipper and the Sprague's pipit, may experience population impacts due to the cumulative loss of habitat through conversion and fragmentation. The addition of oil and gas wells and roadways to existing human development may also create an indirect cumulative impact on the Sprague's pipit due to its avoidance of non-prairie features.

The proposed action and other similar actions are carefully planned to avoid or minimize impacts to wildlife and associated habitat. Multiple components of the process used by the BIA to evaluate and approve such actions, including biological and botanical surveys, on-site assessments with representatives from multiple agencies and entities, agency comment periods on this EA, and the use of BMPs and site-specific environmental commitments are in place to ensure that environmental impacts associated with oil and gas development are minimized. The practice of utilizing existing roadways to the greatest extent practicable further minimizes impacts to wildlife habitats and prairie ecosystems. The proposed wells have been sited to avoid sensitive areas such as surface water, wetlands, and riparian areas. Reclamation activities are anticipated to minimize and mitigate disturbed habitat.

Infrastructure and Utilities — The proposed action, along with other oil and gas wells proposed and drilled in the Bakken and Three Forks Formations, requires infrastructure and utilities to provide needed resource inputs and accommodate outputs such as fresh water, power, site access, transportation for products to market, disposal for produced water and other waste materials. As with the proposed action, many other well sites currently being proposed and/or built are positioned to make the best use of existing roads and to minimize the construction of new roads; however, some length of new access roads are commonly associated with new wells. The well pad has been positioned in close proximity to existing roadways to minimize the extent of access road

impacts in the immediate area. Additionally, an existing gravel roadway has been utilized to minimize impacts to the surrounding landscape. The contribution of the proposed project and other projects to stress on local roadways used for hauling materials may result in a cumulative impact to local roadways. However, abiding by permitting requirements and roadway restrictions with the jurisdictional entities are anticipated to offset any cumulative impact that may result from the proposed project and other past, present, or future projects. BMPs would be implemented to minimize impacts of the proposed project.

The proposed action has been planned to avoid impacts to resources such as wetlands, floodplains, surface water, cultural resources, and threatened and endangered species. Unavoidable impacts to these or other resources would be minimized and/or mitigated in accordance with applicable regulations.

3.15 Irreversible and Irrecoverable Commitment of Resources

Removal and consumption of oil or gas from the Bakken and Three Forks Formations would be an irreversible and irretrievable commitment of resources. Other potential resource commitments include acreage devoted to disposal of cuttings, soil lost through wind and water erosion, cultural resources inadvertently destroyed, wildlife killed during earth-moving operations or in collisions with vehicles, and energy expended during construction and operation.

3.16 Short-term Use of the Environment Versus Long-term Productivity

Short-term activities would not significantly detract from long-term productivity of the project area. The area dedicated to the access road and well pad would be unavailable for livestock grazing, wildlife habitat, or other uses. However, allottees with surface rights would be compensated for loss of productive acreage and project footprints would shrink considerably once the wells were drilled and non-working areas reclaimed and reseeded. Successful and ongoing reclamation of the landscape would reestablish the land's use for wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. The primary long-term resource loss would be the extraction of oil and gas resources from the Bakken and Three Forks Formations, which is the purpose of this project.

3.17 Permits

Petro Hunt will be required to acquire the following permits prior to construction:

- *Application for Permit to Drill* – Bureau of Land Management
- *Application for Permit to Drill* – North Dakota Industrial Commission

3.18 Environmental Commitments/Mitigation

The following commitments have been made by Petro Hunt Oil Company:

- Topsoil will be segregated and stored on-site to be used in the reclamation process. All disturbed areas would be re-contoured to original elevations as close as possible as part of the reclamation process.

- Woody vegetation cleared from the site will be chipped on-site and incorporated into topsoil stockpiles.
- BMPs (may include, but are not limited to, hydro-seeding, erosion mats and biologs) will be implemented to minimize wind and water erosion of soil resources. Soil stockpiles will be positioned to help divert runoff around the well pads.
- Well sites and access roads will avoid surface waters. The proposed project will not alter stream channels or change drainage patterns, except in a small area on the northwest corner of the well pad where construction mechanisms will stop runoff from entering the wooded draw northwest of the well pad.
- The semi-dry cuttings pits will be located on the cut side of the well pad and away from areas of shallow ground water and have a reinforced synthetic liner to prevent potential leaks. All spills or leaks of chemicals and other pollutants will be reported to the BLM and EPA. The procedures of the surface management agency shall be followed to contain leaks or spills.
- All proposed wells will be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal/injection zones.
- Wetlands and riparian areas will be avoided.
- If advised by the BIA, identified noxious weed infestations may be treated with a BIA/BLM approved herbicide prior to construction to prevent the spread of noxious weeds.
- Disturbed vegetation will be re-seeded in kind upon completion of the project, and a noxious weed management plan would be implemented. The re-seeded site would be maintained until such time that the vegetation is consistent with surrounding undisturbed areas and the site is free of noxious weeds. Seed will be obtained from a BIA/BLM approved source.
- Well sites and access roads will avoid impacts to cultural resources. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.
- Access roads will be located at least 75 feet away from identified cultural resources. The boundaries of these 75-foot "exclusion zones" would be marked as an extra measure to ensure that inadvertent impacts to cultural resources are avoided.
- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.
- Petro Hunt will ensure all contractors working for the company will adhere to all local, county, tribal, and state regulations and ordinances regarding rig moves, oversize/overweight loads, and frost law restrictions.
- Utility modifications will be identified during design and coordinated with the appropriate utility company.
- Disposal areas will be properly fenced to prevent human or animal access.

- H2S Contingency Plans for each well site will be submitted to the BLM as part of the APD.
- Established load restrictions for state and BIA roadways will be followed and haul permits would be acquired as appropriate.
- Suitable mufflers will be put on all internal combustion engines and certain compressor components to mitigate noise levels.
- Wells and associated facilities will be painted in earth tones, based on standard colors recommended by the BLM, to allow them to better blend in with the natural background color of the surrounding landscape.
- BMPs will be used during construction to ensure contaminants do not move off site.
- The semi-dry cuttings pit will be netted while not actively being used.
- A semi-closed loop system would be used during drilling. Liquids from drilling will be transported off site. Drill cuttings would be solidified before being placed in the reinforced lined cuttings pit. The reinforced lining of the cuttings pit would have a minimum thickness of 20 mils to prevent seepage and contamination of underlying soil. Any minimal fluids remaining in drill cuttings pit would be removed and disposed of in accordance with BLM and NDIC rules and regulations. All liquids from drilling would be transported off-site. The drill cuttings pit would be reclaimed to BLM and North Dakota Industrial Commission (NDIC) standards immediately upon finishing completion operations.
- Prior to its use, the cuttings pit would be fenced on the non-working sides. The access side would be fenced and netted immediately following drilling and completion operations in order to prevent wildlife and livestock from accessing the pit.
- If a whooping crane is sighted within one-mile of a site or associated facilities while it is under construction, all work will cease within one-mile of that part of the project and the USFWS will be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.
- Construction activities may occur during the migratory bird breeding/nesting season (February 1 to July 15). In the event that a construction takes place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities. An alternative to pre-construction surveys, if chosen by Petro Hunt, would be to mow the area prior to the nesting/breeding season to inhibit use of the area by migratory birds.
- If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.
- Wire mesh or grate covers will be placed over barrels or buckets placed under valves and spigots to collect dripped oil.
- Netting, with a maximum mesh size of 1.5 inches will be used to keep birds and other small animals out of open pits.

- All storage tanks and heater/treater will be surrounded by an impermeable berm that would act as secondary containment to guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production.
- The southeast corner of the well pad will be rounded to avoid a wooded drainage. As a result of the rounded of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park.
- A two-foot high berm would be constructed along the western and southern sides of the well pad to control runoff. Any fluid that accumulates along the berm would be pumped out and disposed of properly. Additionally, pad design would also aid in the containment and control of runoff on the pad.
- Re-seeding of native species shall occur as needed on stockpile areas and slope areas during reclamation.
- Facilities on the well pad shall be located as close together as possible.
- Spoil piles should be placed on the high/cut side of pads as feasible, to aid in reclamation.
- Catch trenches will be installed as needed on downsloping sides of well pad.
- The site shall include interim reclamation as soon as possible after the production phase.
- All pipelines and utility lines associated with the proposed project will be installed underground.

Chapter 4 Preparers and Agency Coordination

4.1 Introduction

This chapter identifies the names and qualifications of the principal people contributing information to this EA. In accordance with Part 1502.6 of the CEQ (Council on Environmental Quality) regulations for implementing the National Environmental Policy Act, the efforts of an interdisciplinary team comprising technicians and experts in various fields were required to accomplish this study.

This chapter also provides information about consultation and coordination efforts with agencies and interested parties, which has been ongoing throughout the development of this EA.

4.2 Preparers

Kadmas, Lee & Jackson, Inc. prepared this EA under a contractual agreement between Petro Hunt, LLC. and Kadmas, Lee & Jackson, Inc. A list of individuals with the primary responsibility for conducting this study, preparing the documentation, and providing technical reviews is contained in **Table 4.1, Preparers**.

Table 4.1 Preparers			
Affiliation	Name	Title	Project Role
Bureau of Indian Affairs	Marilyn Bercier	Regional Environmental Scientist	Review of Draft EA and recommendation to Regional Director regarding FONSI or EIS
	Mark Herman	Environmental Engineer	
Petro Hunt	Mike Lindsey	Project Coordinator	Project development, alternatives, document review
	Jeff Herman	District Landman	Project development, alternatives, document review
Kadmas, Lee & Jackson, Inc.	Grady Wolf	Environmental Scientist	Client and agency coordination
	Charlotte Brett	Environmental Planner	Senior review
	Mary Mitchell	Archaeologist	Cultural resources surveys
	Jen Macy	Archaeologist	Cultural resources surveys
	Steve Czczok	Environmental Planner	Field resources surveys, principal author
	Alvin Lambert	Surveyor	Site Plats
	Skip Skattum	GIS Analyst	Impact assessment, exhibit creation

4.3 Agency Coordination

To initiate early communication and coordination, an early notification package to tribal, federal, state, and local agencies and other interested parties was distributed on October 27, 2010. This scoping package included a brief description of the proposed project, as well as a location map. Pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, a solicitation of views was requested to ensure that social, economic, and environmental effects were considered in the development of this project.

At the conclusion of the 30-day comment period, nine responses were received. In addition, several letters were sent back and forth with USFWS for implementing proper design measures for the proposed project. These comments provide valuable insight into the evaluation of potential environmental impacts. The comments were referenced and incorporated where appropriate within the environmental impact categories addressed in this document. ***Appendix A contains Scoping Materials.***

4.4 Public Involvement

Provided the BIA approves this document and determines that no significant environmental impacts would result from the proposed action, a FONSI (Finding of No Significant Impact) will be issued. The FONSI is followed by a 30-day public appeal period. BIA will advertise the FONSI and public appeal period by posting notices in public locations throughout the Reservation. No construction activities may commence until the 30-day public appeal period has expired.

Chapter 5 References

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Appendix A
Agency Scoping Materials

October 27, 2010

Mr. Scott Davis
Indian Affairs Commission
600 E. Blvd. Ave. 1st Floor, Judicial Wing, Rm 117
Bismarck, ND 58505-0300

**RE: Petro Hunt, LLC
Six Proposed Oil and Gas Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear Mr. Davis,

On behalf of Petro Hunt, LLC, Kadrmas, Lee & Jackson, Inc. is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of six wells on one well pad on the Fort Berthold Reservation.

The Fort Berthold 152-93-9C-10 well sites would be located in the SE¼ of Section 8 & the SW¼ of Section 9, Township 152 North, Range 93 West, 5th P.M. ***Please refer to the enclosed project location map.*** The well pad has been positioned to utilize existing roadways for access to the extent possible. Construction of the proposed well pad and access road is scheduled to begin in late 2010 or early 2011.

To ensure that social, economic, and environmental effects are analyzed accurately, we solicit your views and comments on the proposed action. We are interested in existing or proposed developments you may have that should be considered in connection with the proposed project. We also ask your assistance in identifying any property or resources that you own, manage, oversee, or otherwise value that might be adversely impacted.

Please provide your comments by **November 26, 2010**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the EA.

If you would like further information regarding this project, please contact me at (701) 355-8726. Thank you for your cooperation.

Sincerely,

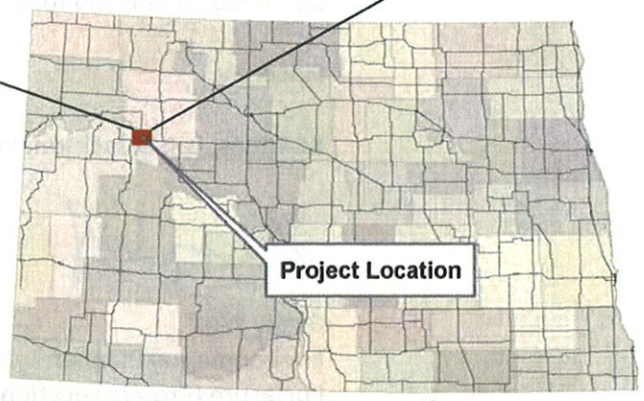
Kadrmas, Lee & Jackson, Inc.



Grady Wolf
Environmental Planner
Enclosure (Project Location Map)



*Petro Hunt, LLC
Proposed Oil Wells
Location Map*



North Dakota



Petro Hunt, LLC Oil Wells
McKenzie County

Scoping Mailing List

CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Weldon	Loudermilk	Regional Director		Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen	SD	57401
Mr.	Jeffrey	Desjardais	Environmental Protection Specialist		Bureau of Indian Affairs	202 Main Street	New Town	SD	58763
Mr.	Darryl	Turcotte	Environmental Protection Specialist		Bureau of Indian Affairs	202 Main Street	New Town	SD	58763
Mr.	Richard	Nelson	Chief, Resource Management	Dakotas Area Office		PO Box 1017	Bismarck	ND	58502-1017
Mr.	Steve	Oberauer	Manager	Bismarck Airports District Office	Federal Aviation Administration	2301 University Drive, Bldg 23B	Bismarck	ND	58504
Mr.	Dan	Cimarosti	Manager	ND Regulatory Office	US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504
Mr.	Charles	Sorensen	Natural Resource Specialist	Rivertdale Field Office	US Army Corps of Engineers	PO Box 527	Rivertdale	ND	58565
Ms.	Candace	Gorton	Chief, Env., Economics, & Cultural Resource Section	Omaha District	US Army Corps of Engineers	106 S. 15th St.	Omaha	NE	68102-1618
Mr.	Paul	Sweeney	State Conservationist		US Department of Agriculture	PO Box 1458	Bismarck	ND	58502-1458
Mr.	Gerald	Paulson	Director, Transmission Line Substations	ND Maintenance Office	US Department of Energy	PO Box 1173	Bismarck	ND	58502-1173
Mr.	Larry	Svoboda	Director	NEPA Program, Region 8	US Environment Protection Agency	1595 Wyrnkop Street	Denver	CO	80202-1129
Mr.	Jeffrey	Towner	Field Supervisor	ND Field Office	US Fish & Wildlife Service	3425 Miriam Ave.	Bismarck	ND	58501
Mr.	Scott	Davis	Executive Director		Indian Affairs Commission	600 E. Blvd. Ave.	Bismarck	ND	58505-0300
Mr.	Greg	Wiche	Director	Water Resources Division	US Geological Survey	1st Floor, Judicial Wfng, Rm 117	Bismarck	ND	58501
Mr.	L. David	Glatt	Chief	Environmental Health Section	ND Department of Health	821 E. Interstate Ave.	Bismarck	ND	58501-1947
Mr.	Terry	Steinwand	Director	Gold Seal Center	ND Game & Fish Department	100 Bismarck Expressway	Bismarck	ND	58501-5095
Mr.	Mark	Zimmerman	Director		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0649
Mr.	Dale	Frank	State Engineer		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58505-0850
Mr.	Bill	Boyd	Construction Manager		Midcontinent Cable Company	719 Memorial Hwy	Bismarck	ND	58501
Mr.	Doug	Dixon	General Manager	Badlands Region	Montana Dakota Utilities	PO Box 1406	Williston	ND	58802-1406
Mr.	George	Berg	Manager		NoDak Electric Coop., Inc.	Box 13000	Grand Forks	ND	58208-3000
Mr.	Ken	Miller	Manager/CEO	Land Department	Northern Border Pipeline Company	13710 FNB Parkway	Omaha	NE	68154-5200
Mr.	Ray	Christenson	CEO		Southwest Water Authority	4665 2nd St. W.	Dickinson	ND	58601
Mr.	David C.	Schickoph	Manager		West Plains Electric Coop., Inc.	PO Box 1038	Dickinson	ND	58602-1038
Sr		or Madam	Manager		Xcel Energy	PO Box 2747	Fargo	ND	58108-2747
Sr		or Madam	Manager		Mountain-Williams Electric Cooperative	355 Main St	New Town	ND	58763
Mr.	Jim	Redding	District Engineer	Minot District	ND Department of Transportation	1305 Hwy 2 Bypass E	Minot	ND	58701
Mr.	Lonny	Bagley	Field Office Manager	North Dakota Field Office	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Mike	Nash	Assistant Field Office Manager	Division on Mineral Resources	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Michael	Seivage	Tribal Chairman		Sisseton-Wapeton Sioux Tribe	PO Box 509	Sisseton	SD	57262-0267
Ms.	Myra	Pearson	Tribal Chairman		Spirit Lake Sioux Tribe	PO Box 359	Ft. Totten	ND	58325
Mr.	Charles	Murphy	Tribal Chairman		Standing Rock Sioux Tribe	PO Box D	Fort Yates	ND	58538
Mr.	Perry	Brady	Tribal Historic Preservation Officer		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr.	Marcus	Levings	Tribal Chairman		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr.	Damon	Williams	Tribal Attorney		Turtle Mountain Chippewa	PO Box 900	Beccourt	ND	58316-0900
Mr.	Fred	Fox	Director	Energy Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Ms.	V. Judy	Bugh	Representative	Four Bears Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Arnold	Strahs	Representative	Mandaree Segment	Three Affiliated Tribes	PO Box 665	Mandaree	ND	58757
Mr.	Scott	Eagle	Representative	Shell Creek Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Mervin	Packineau	Representative	Parshall/Lucky Mound Segment	Three Affiliated Tribes	404 Frontage Road	Parshall	ND	58770
Mr.	Frank	Whitecalf	Representative	White Shield Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Barry	Benson	Representative	Twin Buttes Segment	Three Affiliated Tribes	70879 E Ave NW	Helliday	ND	58636
Mr.	Fred	Poitra	Director	Game and Fish Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Sr		or Madam	Operations Manager	Natural Resources Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Roger	Hovda	County Auditor		Reservation Telephone Cooperative	PO Box 68	Parshall	ND	58770-0068
Mr.	Frances	Olson	Chairman	County Commission	McKenzie County	201 5th Street NW, PO Box 543	Waitford City	ND	58854
Mr.	Rick	Lawlar	District Landman		McKenzie County	201 5th Street NW, PO Box 543	Waitford City	ND	58854
Mr.	Jeff	Herman	District Landman		Petro Hunt, LLC	4th and Broadway, Suite 514	Bismarck	ND	58502-0935
Mr.	Mike	Lindsay			Petro Hunt, LLC	4th and Broadway, Suite 514	Bismarck	ND	58502-0935

Kadrmass
Lee &
Jackson

Engineers Surveyors
Planners

October 27, 2010

Jeffrey Towner
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926

**Re: Petro Hunt, LLC
Six Proposed Oil and Gas Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear Mr. Towner,

On behalf of Petro Hunt, LLC (Petro Hunt), Kadrmass, Lee & Jackson, Inc. (KL&J) is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of six wells on one well pad and an access road on the Fort Berthold Reservation. This well pad is proposed to be positioned in the following location:

- T152N, R93W, SE¼ of Section 8 & SW¼ of Section 9

Please refer to the enclosed project location map.

The proposed action would advance the exploration and production of oil from the Bakken Pool. The well pad has been positioned to utilize existing roadways for access to the extent possible. Construction of the proposed well pad and access road is scheduled to begin in late 2010 or early 2011.

An intensive, pedestrian resource survey of the proposed well pad and access road was conducted on October 22, 2010 by KL&J. The purpose of this survey was to gather site-specific data and photos with regards to botanical, biological, threatened and endangered species, biological, eagle, and water resources. A study area of 10 acres centered on the well pad center point and a 200-foot wide access road corridor was evaluated for the site. In addition, a 0.50 mile wide buffer around all areas of project disturbance was used to evaluate the presence of eagles and eagle nests. Resources were evaluated using visual inspection and pedestrian transects across the site. ***Please refer to the enclosed eagle buffer map.***

A BIA-facilitated EA on-site assessment of the well pad and access road was also conducted on October 22, 2010. The BIA Environmental Protection Specialist, as well as representatives from the Tribal Historic Preservation Office (THPO), Petro Hunt, and KL&J were present. During the assessment, construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. Well pad and access road locations were adjusted, as

701 355 8400

128 Soo Line Drive

PO Box 1157

Bismarck, ND 58502-1157

Fax 701 355 8781

www.kljeng.com

Kadrmass, Lee & Jackson, Inc.

A KLJ Solutions Company

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

appropriate, to avoid conflicts with identified environmental areas of concern. Those present at the on-site assessment agreed that the chosen location, along with the minimization measures Petro Hunt plans to implement, are positioned in areas which would minimize impacts to sensitive wildlife and botanical resources. BMPs and other commitments Petro Hunt has made to avoid, minimize, or mitigate impacts are listed at the end of this letter.

Threatened and Endangered Species: The proposed well site occurs in McKenzie County. In McKenzie County, the interior least tern, whooping crane, black-footed ferret, pallid sturgeon, and gray wolf are all listed as endangered species. The piping plover is listed as a threatened species, and the Dakota skipper and Sprague's pipit are listed as a candidate species. McKenzie County also contains designated critical habitat for the piping plover. None of these species were observed during the field survey and on-site assessment.

Whooping cranes use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting, and various cropland and emergent wetlands for feeding. The proposed project is located in the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. Due to the presence of shallow, emergent wetlands and cropland near the west end of the access road, the site may be used as potential stopover habitat. The proposed project may affect but is not likely to adversely affect whooping cranes or whooping crane habitat. If a whooping crane is sighted within one-mile of a well site or associated facilities while under construction, all work will cease within one-mile of that part of the project and the USFWS will be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.

Suitable habitat for the interior least tern, pallid sturgeon, and piping plover is largely associated with Lake Sakakawea and its shoreline. Potential habitat for these species exists approximately 0.25 miles north of the proposed site at the nearest point. The well pad and access road are located on upland bluffs composed of grassland, with Lake Sakakawea and its shoreline located below the bluffs (approximately 100 feet). The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shoreline-nesting birds. USFWS determined Lake Sakakawea's shoreline to be critical habitat for the piping plover. With the present lake level, the shoreline in the vicinity of the project area doesn't presently provide suitable habitat for nesting species. But due to the fluctuating Lake levels, potential habitat may exist there in the future.

Storage tanks and the heater/treater would be surrounded by an impermeable berm that would act as secondary containment to guard against accidental release of fluids from the site. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. A two-foot high berm would be constructed along the southern side of the pad to control runoff. In addition, solidification of drill cuttings before placement in the pit and the reinforced lining of

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

the cuttings pit would diminish the potential for pit leaching. Due to the implementation of secondary containment measures and the cuttings pit parameters, the transfer of accidentally released fluids to Lake Sakakawea and its associated habitats is unlikely. However, due to the proximity of the proposed project to Lake Sakakawea (approximately 0.25 miles at the nearest point) the proposed project may affect but is not likely to adversely affect the interior least tern, pallid sturgeon, and piping plover or their associated habitats.

The black-footed ferret historically could be found throughout the Rocky Mountains and Great Plains. In North Dakota, the black-footed ferret may potentially be present within prairie dog towns. However, they have not been confirmed in North Dakota for over 20 years and are presumed extirpated. Its preferred habitat includes areas around prairie dog towns, as it relies on prairie dogs for food and lives in prairie dog burrows. Black-footed ferrets require at least an 80-acre prairie dog town to survive. Due to a lack of suitable habitat and known populations, the proposed project is anticipated to have no effect to the black-footed ferret.

Historically, the gray wolf's preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. The project area is located far from other known wolf populations and is positioned on rangeland that is actively grazed. No wolves or indications of wolves were observed during the field survey. Due to a lack of preferred habitat characteristics and known populations, the proposed project is anticipated to have no effect to the gray wolf.

The preferred habitat for the Dakota skipper consists of undisturbed, flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. The proposed sites are located on moderately grazed rangeland that does contain bluestem prairies with abundant wildflowers. Although grazing is evident, it is moderate in nature; therefore, the project site does contain suitable habitat for the Dakota skipper. Due to the presence of preferred habitat characteristics, the proposed project may affect, but is not likely to adversely affect, the Dakota skipper.

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance. The proposed project areas consist of moderately grazed rangeland which may provide potential habitat for the Sprague's pipit. No Sprague's pipit were observed during the field survey. Due to the presence of preferred habitat characteristics, the proposed project may affect, but is not likely to adversely affect, the Sprague's pipit. Additionally, all efforts will be made for construction activities to begin after July 15 and end prior to February 1, in order to avoid impacts to migratory birds during the breeding/nesting season. In the event that construction activity needs to take place within the nesting and breeding season,

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities; or mowing of the site prior to the nesting/breeding season would be completed. Petro Hunt may choose to implement mowing in lieu of the pre-construction survey.

Botanical Resources: The Fort Berthold 152-93-9C-10 proposed well sites consist of moderately grazed upland grasses bordered to the south by large wooded draws and to the north by steep clay outcroppings. The access road along the existing gravel road was dominated by crested wheatgrass (*Agropyron cristatum*) and prairie sandreed (*Calamovilfa longifolia*). The remainder of the access road consisted of upland grass species consistent with the well pad. The well pad was mostly dominated by blue grama (*Bouteloua gracilis*), needle & thread (*Stipa comate*), and prairie junegrass (*Koeleria pyramidata*). Additionally, Kentucky bluegrass (*Poa pratensis*), green needlegrass (*Stipa viridula*), sideoats grama (*Boutelous curtispindula*), western wheatgrass (*Agropyron smithii*), little bluestem (*Andropogon scoparius*), western snowberry (*Symphoricarpos occidentalis*) were all found throughout the study area. Green ash (*Fraxinus pennsylvanica*) and silver buffalo berry (*Shepherdia argentea*) draws were observed growing in the drainages south of the well pad site. Patches of silver buffalo berry (*Shepherdia argentea*) also appeared on the proposed well pad location. No wetlands were observed in the study area; therefore, no wetland plant species were observed. Canada thistle (*Cirsium arvense*) and absinth wormwood (*Artemisia absinthium*) were observed in small quantities along the proposed access road. There are no threatened or endangered plant species listed for McKenzie County.

Biological Resources: The project area contains suitable habitat for mule deer, whitetail deer, sharp-tailed grouse, ring-necked pheasant, golden eagle, red tail hawk, bald eagle, badger, song birds, coyote, red fox, cottontail rabbit, wild turkey, jackrabbit, and North American porcupine. Pocket gopher mounds were observed during the survey. No additional wildlife was observed during the survey.

During drilling activities, the noise, movements, and lights associated with having a drilling rig on-site are expected to deter wildlife from entering the area. In addition, the cuttings pit would only be used for solid material storage, and it is expected that very minimal free fluid will be present in the pit. The absence of exposed liquids in the pit would minimize their attractiveness to wildlife. Immediately after the drilling rig leaves the location, reserve pits would be netted with State and Federal approved nets. These would remain in place with proper maintenance until the closure of the reserve pits.

In addition, design considerations will be implemented to further protect against potential habitat degradation. The southeast corner of the well pad will be rounded to avoid a wooded drainage. A two-foot high berm would be constructed along the southern side of the well pad to control runoff. The storage tanks and heater/treater would be surrounded by an impermeable berm that would act as secondary

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

containment to guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. BMPs to minimize wind and water erosion of soil resources, as well as implementation of a semi-closed loop system with an on-site cuttings pit during drilling, would also be put into practice.

All efforts will be made for construction activities to begin after July 15 and end prior to February 1, in order to avoid impacts to migratory birds during the breeding/nesting season. In the event that a construction activity needs to take place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities; or mowing of the site prior to nesting/breeding season may be completed in lieu of the pre-construction survey.

Additionally, all reasonable, prudent, and effective measures to avoid the taking of migratory bird species will be implemented during the construction and operation phases. These measures will include: the use of suitable mufflers on all internal combustion engines; certain compressor components to mitigate noise; only utilizing approved roadways; placing wire mesh or grate covers over barrels or buckets placed under valves and spigots to collect dripped oil; maintaining open pits and ponds that are free from oil, and netting cuttings pits with netting that has a maximum mesh size of 1.5 inches.

Eagles: A survey for eagle nests was conducted on October 22, 2010 and no eagle nests were detected within 0.5 miles of the project area. The project site was thoroughly searched and no eagles or eagle nests were observed. Dr. Anne Marguerite Coyle of Dickinson State University has completed focused research on golden eagles and maintains a database of golden eagle nest sightings. According to Dr. Coyle's information, the closest recorded golden eagle nest is located approximately 4 miles north of the survey area. If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.

Water Resources: The site drains south off of the pad into a wooded drainage. The runoff would then flow to the northwest approximately one mile into Lake Sakakawea. The south side of the well pad, adjacent to wooded draws, will have a two-foot high berm constructed to control runoff.

Best Management Practices: BMPs for soil and wind erosion would be implemented as needed to include over-seeding of cut areas and spoil piles via hydro-seeding, as well as the use of diversion ditches, silt fences and/or mats. Any woody vegetation removed during site construction would be chipped and incorporated into topsoil stockpiles. The alteration of drainages near the proposed well pad would be avoided. Culverts to maintain drainage along the access road would also be installed where needed. The southeast corner of the well pad would

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

be rounded to minimize impacts to a drainage. Upon well completion, a portion of the well pad would be reclaimed to further avoid environmental areas of concern.

Summary of Commitments to Avoid or Minimize Impacts: In an effort to minimize the potential environmental effects associated with the proposed project, Petro Hunt will also implement the following measures into the development of this site:

- A semi-closed loop system would be used during drilling. Drill cuttings would be solidified before being placed in the reinforced lined cuttings pit. The reinforced lining of the cuttings pit would have a minimum thickness of 20 mils to prevent seepage and contamination of underlying soil. Any minimal fluids remaining in drill cuttings pit would be removed and disposed of in accordance with BLM and NDIC rules and regulations. All liquids from drilling would be transported off-site. The drill cuttings pit would be reclaimed to BLM and North Dakota Industrial Commission (NDIC) standards immediately upon finishing completion operations.
- Prior to its use, the cuttings pit would be fenced on the non-working sides. The access side would be fenced and netted immediately following drilling and completion operations in order to prevent wildlife and livestock from accessing the pit.
- All efforts will be made for construction activities to begin after July 15 and end prior to February 1, in order to avoid impacts to migratory birds during the breeding/nesting season. In the event that a construction activity needs to take place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities. Mowing the sites prior to the nesting/breeding season would prevent birds from nesting at the site. Petro Hunt may choose to implement mowing in lieu of the pre-construction survey.
- Measures implemented during construction to avoid the taking of migratory bird species will include: the use of suitable mufflers on all internal combustion engines; certain compressor components to mitigate noise; only utilizing approved roadways; placing wire mesh or grate covers over barrels or buckets placed under valves and spigots to collect dripped oil; maintaining open pits and ponds that are free from oil, and netting cuttings pits with netting that has a maximum mesh size of 1.5 inches.
- If a whooping crane is sighted within one-mile of a well site or associated facilities while under construction, all work will cease within one-mile of that part of the project and the USFWS will be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.
- The storage tanks and heater/treater will be surrounded by an impermeable berm that will act as secondary containment to guard against possible spills. The berm will be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. BMPs would be implemented to minimize wind and water erosion of soil resources and a semi-closed loop system would be used during drilling.

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

- The southeast corner of the well pad will be rounded to avoid a wooded drainage. As a result of the rounded of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park.
- A two-foot high berm would be constructed along the southern side of the well pad to control runoff.

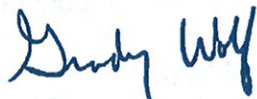
To ensure that social, economic, and environmental effects are considered in the development of this project, we are soliciting your views and comments on the proposed development of this project, pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property that your department may own, or have an interest in, located within the project area. We would also appreciate being made aware of any proposed development your department may be contemplating in the area of the proposed project. Any information that might help us in our study would be appreciated.

It is requested that any comments or information be forwarded to our office on or before **November 26, 2010**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation. A draft copy of the Environmental Assessment document will be provided to your office once complete.

If you would like further information regarding this project, please contact me at (701) 355-8726. Thank you for your cooperation.

Sincerely,

Kadrmass, Lee & Jackson, Inc.

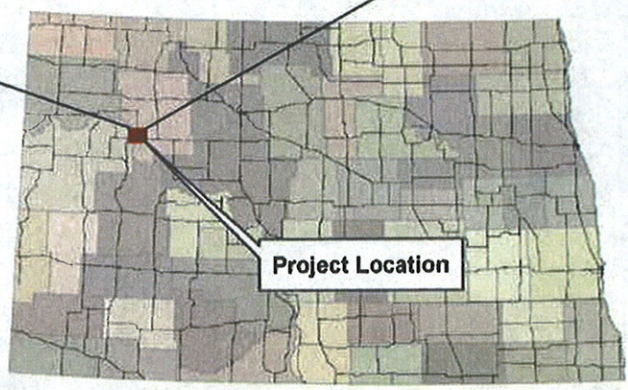
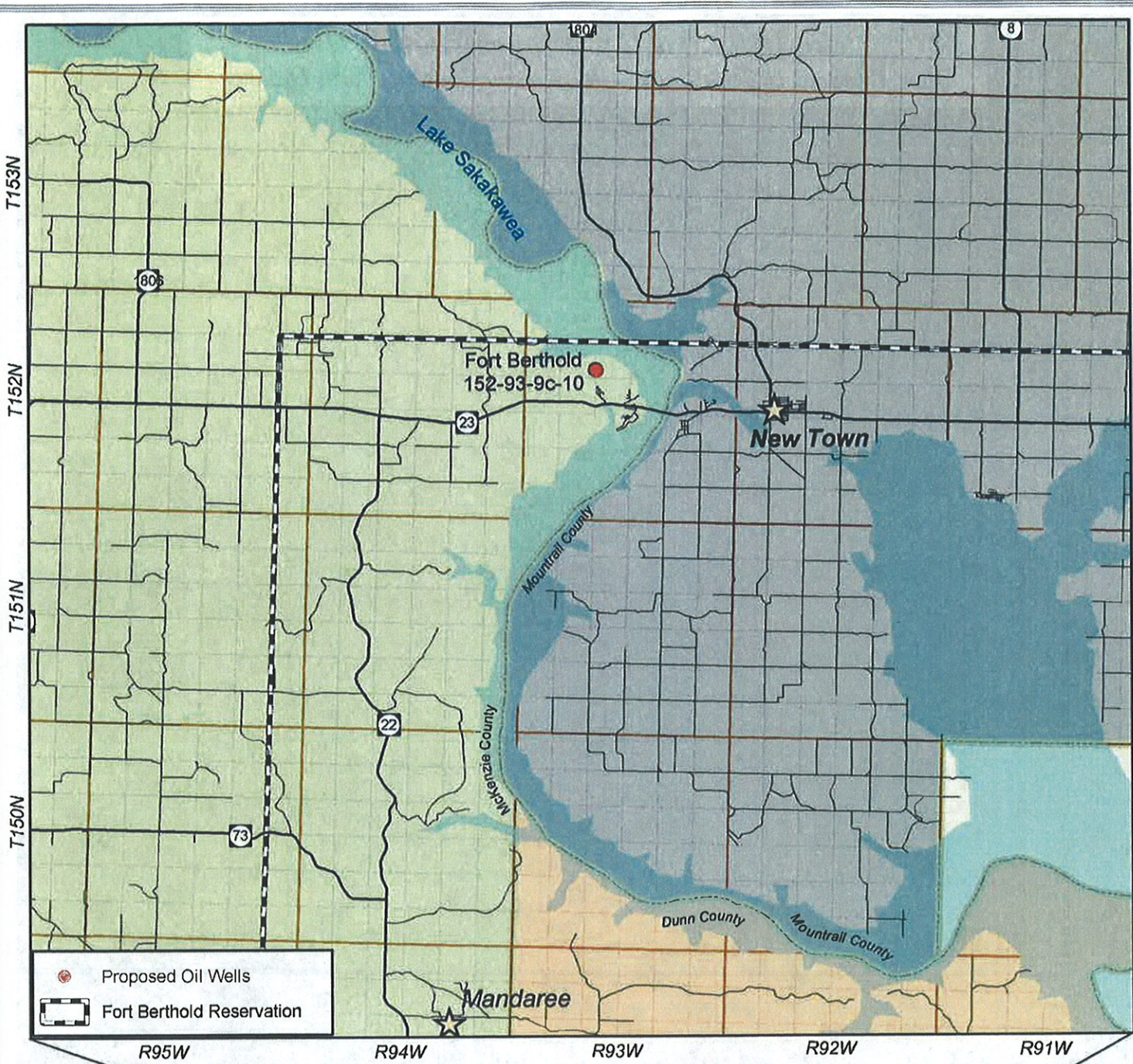


Grady Wolf
Environmental Planner

Enclosures (Maps)

Kadrmass
Lee &
Jackson

Engineers Surveyors
Planners



***Petro Hunt, LLC
Proposed Oil Wells
Location Map***

North Dakota



Petro Hunt, LLC ~ Proposed Oil Wells
Fort Berthold 152-93-9c-10 - McKenzie County, North Dakota



Appendix B
Agency Scoping Responses & Correspondence



November 1, 2010

Mr. Grady Wolf
Environmental Planner
Kadrmass, Lee & Jackson, Inc.
P.O. Box 1157
Bismarck, ND 58502-1157

Re: Six Proposed Well Oil and Gas Wells by Petro Hunt, LLC on the
Fort Berthold Reservation, McKenzie County

Dear Mr. Wolf:

This department has reviewed the information concerning the above-referenced project submitted under date of October 27, 2010 with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Development of the production facilities and any access roads or well pads should have a minimal effect on air quality provided measures are taken to minimize fugitive dust. However, operation of the wells has the potential to release air contaminants capable of causing or contributing to air pollution. We encourage the development and operation of the wells in a manner that is consistent with good air pollution control practices for minimizing emissions.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Oil and gas related construction activities located within tribal boundaries within North Dakota may be required to obtain a permit to discharge storm water runoff from the U.S. Environmental Protection Agency. Further information may be obtained from the U.S. EPA's website or by calling the U.S. EPA – Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for

Mr. Grady Wolf

2.

November 1, 2010

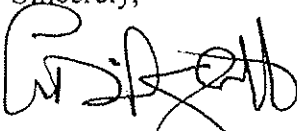
construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. David Glatt', written over a horizontal line.

L. David Glatt, D.E., Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

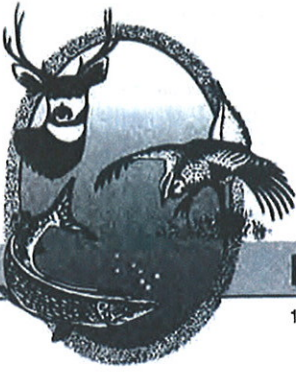
Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

November 15, 2010

Grady Wolf
Environmental Planner
Kadrmass, Lee & Jackson, Inc.
PO Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wolf:

RE: Fort Berthold 152-93-9C-10 Well Sites

Petro Hunt, LLC is proposing six oil and gas wells on one well pad on the Fort Berthold Reservation in McKenzie County, North Dakota.

Our primary concern with oil and gas development is the fragmentation and loss of wildlife habitat associated with construction of the well pads and access roads. We recommend that construction be avoided to the extent possible within native prairie, wooded draws, riparian corridors, and wetland areas.

We also suggest that botanical surveys be completed during the appropriate season and aerial surveys be conducted for raptor nests before construction begins.

Sincerely,

Paul Schadewald
Chief
Conservation & Communication Division

js



John Hoeven, Governor
Mark A. Zimmerman, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

November 12, 2010

Grady Wolf
Kadmas, Lee & Jackson
PO Box 1157
Bismarck, ND 58502-1157

Re: Petro Hunt, LLC Six Proposed Oil and Gas Wells

Dear Mr. Wolf:

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced project proposal submitted by Petro Hunt, LLC to develop, drill, and complete six wells located in Section 9, T152N, R93W, McKenzie County.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or Land and Water Conservation Fund recreation projects that we coordinate.

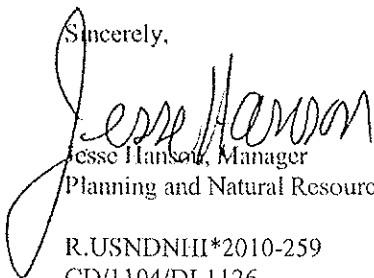
The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, several occurrences have been identified within or adjacent to the project area including: *Charadrius melodus* (piping plover) and *Sterna antillarum* (least tern). Please see the attached spreadsheet and map for more specific information on these species. We defer further comments regarding animal species to the North Dakota Game and Fish Department and the United States Fish and Wildlife Service.

Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

The Department recommends that the project be accomplished with minimal impacts and that all efforts be made to ensure that critical habitats not be disturbed in the project area to help secure rare species conservation in North Dakota. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

Thank you for the opportunity to comment on this project. Please contact Kathy Duttonhefner (701-328-5370) or kgduttonhefner@nd.gov of our staff if additional information is needed.

Sincerely,


Jesse Hanson, Manager
Planning and Natural Resources Division

R.USNDNHH*2010-259
CD/1104/DL1126

.....
Play in our backyard!

North Dakota Natural Heritage Inventory
Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
<i>Sterna antillarum</i>	Least Tern	S1	G4		152N093W - 09	McKenzie	1990-07		S
<i>Charadrius melodus</i>	Piping Plover	S1S2	G3	LE, LT	152N093W - 09	McKenzie	1996		S

North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

The quantity and quality of data collected by the North Dakota Natural Heritage Inventory are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in North Dakota have never been thoroughly surveyed, and new species are still being discovered. For these reasons, the Natural Heritage Inventory cannot provide a definite statement on the presence, absence, or condition of biological elements in any part of North Dakota. Natural Heritage data summarize the existing information known at the time of the request. Our data are continually upgraded and information is continually being added to the database. This data should never be regarded as final statements on the elements or areas that are being considered, nor should they be substituted for on-site surveys.

Estimated Representation Accuracy

Value that indicates the approximate percentage of the Element Occurrence Representation (EO Rep) that was observed to be occupied by the species or community (versus buffer area added for locational uncertainty). Use of estimated representation accuracy provides a common index for the consistent comparison of EO reps, thus helping to ensure that aggregated data are correctly analyzed and interpreted.

Very high (>95%)

High (>80%, <= 95%)

Medium (>20%, <= 80%)

Low (>0%, <= 20%)

Unknown

(null) - Not assessed

Precision

A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using dots.

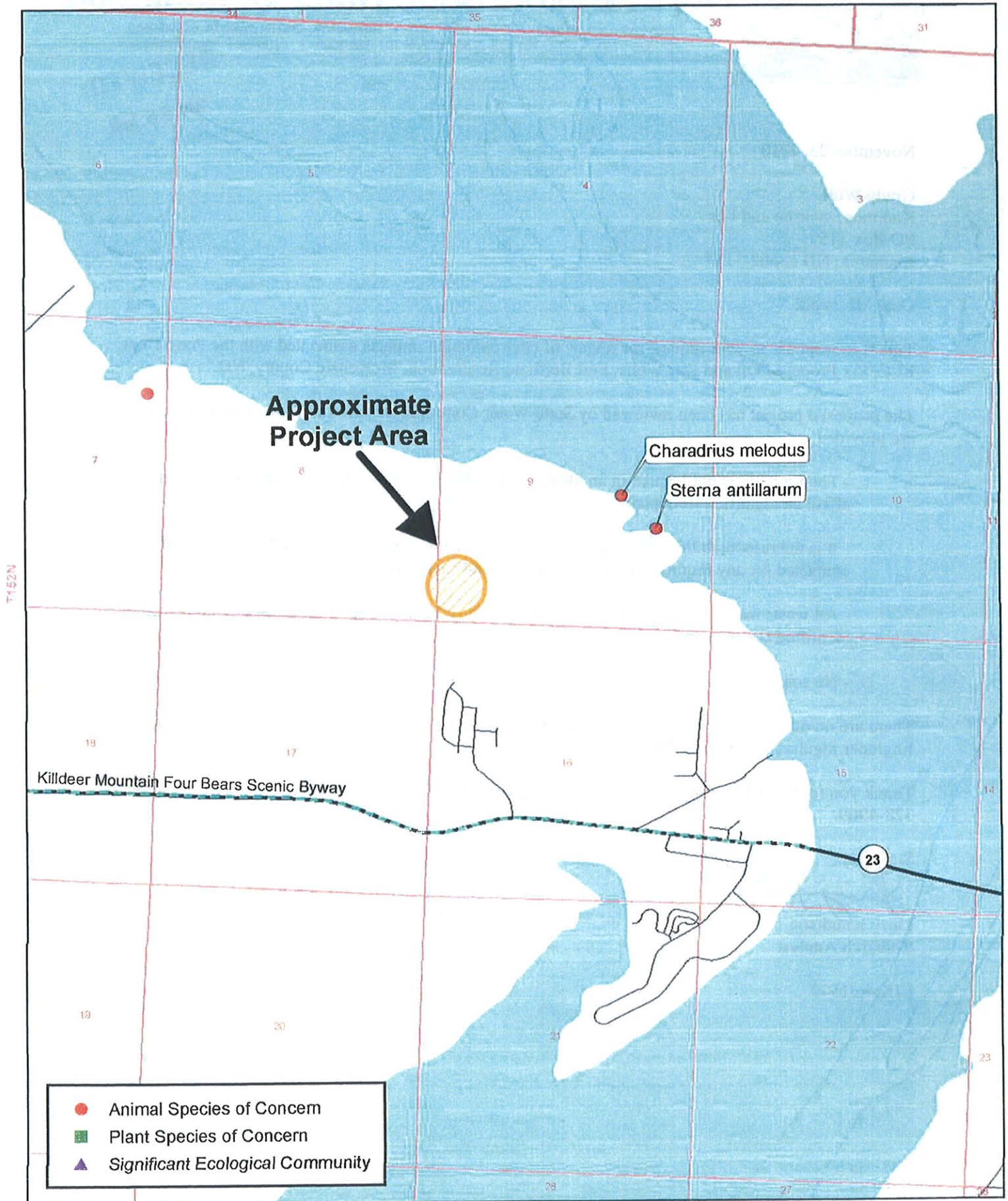
S - Seconds: accuracy of locality mappable within a three-second radius; 100 meters from the centerpoint

M - Minute: accuracy of locality mappable within a one-minute radius; 2 km from the centerpoint

G - General: accuracy of locality mappable to map or place name precision only; 8 km from centerpoint

U - Unmappable

North Dakota Parks and Recreation Department North Dakota Natural Heritage Inventory





North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swe.nd.gov>

RECEIVED
NOV 26 2010

November 23, 2010

Grady Wolf
Kadmas, Jackson and Lee
PO Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wolf:

This is in response to your request for review of environmental impacts associated with the Petro Hunt, LLC, Six Proposed Oil and Gas Wells, Fort Berthold Reservation, McKenzie County, ND.

The proposed project has been reviewed by State Water Commission staff and the following comments are provided:

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- It is the responsibility of the project sponsor to ensure that local, state and federal agencies are contacted for any required approvals, permits, and easements.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:dp/1570

United States Department of Agriculture



Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

November 3, 2010

Gary Wolf
Kadmas, Lee & Jackson
128 Soo Line Drive
PO Box 1157
Bismarck, ND 58502-8781

RE: Petro Hunt, LLC
Six Proposed Oil and Gas Wells
Fort Berthold Reservation
McKenzie County, ND

Dear Mr. Wolf:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated October 27, 2010, regarding the proposed action of the development, drilling, and completion of six wells on one well pad on the Fort Berthold Reservation in McKenzie County, North Dakota, by Petro Hunt, LLC.

Important Farmlands - NRCS has a major responsibility with FPPA in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agricultural use. It appears your proposed project is not supported by Federal funding or actions; therefore, no further action is required.

Wetlands – The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose of, or to have the effect of, making agricultural production possible, loss of USDA benefits could occur. NRCS has developed the following guidelines for the installation of buried utilities. If these guidelines are followed, the impacts to the wetland(s) will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements: 1) Disturbance to the wetland(s) must be temporary, 2) no drainage of the wetland(s) is allowed (temporary or permanent), 3) mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained, 4) temporary side cast material must be placed in such a manner not to be dispersed in the wetland, and 5) all trenches must be backfilled to the original wetland bottom elevation.

Helping People Help the Land


An Equal Opportunity Provider and Employer

Mr. Wolf
Page 2

NRCS would recommend that impacts to wetlands be avoided. If the project requires passage through or disturbance of a wetland, NRCS can complete a certified wetland determination, if requested by the landowner/operator.

If you have additional questions pertaining to FPPA, please contact Steve Sieler, State Soil Liaison, at (701) 530-2019.

Sincerely,


JEROME SCHAAR
State Soil Scientist/MO Leader



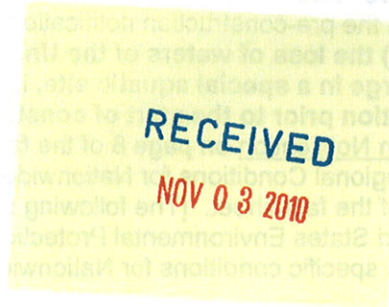
REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

November 02, 2010

North Dakota Regulatory Office

Kadrmass, Lee & Jackson, Inc.
Attn: Grady Wolf, Environmental Planner
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-1157



Dear Mr. Wolf:

This is in response to your solicitation letter on behalf of **Petro Hunt, LLC**, received on October 28, 2010 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments for six proposed oil and gas exploratory wells from a single pad within the Fort Berthold Indian Reservation. The proposed wells include **Fort Berthold 152-93-9C-10**. The project is located in Section 8/9, Township 152 North, Range 93 West, McKenzie County, North Dakota.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates work in or affecting navigable waters. This would include work over, through, or under Section 10 water. Section 10 waters in North Dakota are the Missouri River (including Lake Sakakawea and Lake Oahe), Yellowstone River, James River south of Jamestown, North Dakota, Bois de Sioux River, Red River of the North, and the Upper Des Lacs Lake. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in waters of the United States.

For any proposed well where the well line and/or bottom hole is under or crosses under Lake Sakakawea, regardless of depth, we require that project proponent provide a DA permit application (ENG Form 4345) to the Corps.

Enclosed for your information is the fact sheet for Nationwide Permit 12, Utility Line Activities. Pipeline projects are already authorized by Nationwide Permit 12 **provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and 401 Water Quality Certification is obtained**. Please note the pre-construction notification requirements on page 2 of the fact sheet. **If a project involves any one of the seven notification requirements, the project proponent must submit a DA application**. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 12 and 13 of the fact sheet. [The following info is for activities on a reservation] Please be advised that the United States Environmental Protection Agency (EPA), Region 8 has denied 401 Water Quality Certification for activities in perennial drainages and wetlands. Furthermore, EPA has placed conditions on activities in ephemeral and intermittent drainages. It is recommended you contact the U.S. Environmental Protection Agency, Region 8, Attn: Brent Truskowski, 1595 Wynkoop Street, Denver, Colorado 80202-1129 to review the conditions pursuant to Section 401 of the Clean Water Act prior to any construction.

Also enclosed for your information is the fact sheet for Nationwide Permit 14, Linear Transportation Projects. Road crossings are already authorized by Nationwide Permit 14 **provided the discharge does not cause the loss of greater than ½ acre of waters of the United States per crossing and all other proposed construction activities are in compliance with the Nationwide's permit conditions.** Please note the pre-construction notification requirements on the front page of the fact sheet. **If a project involves (1) the loss of waters of the United States exceeding 1/10 acre per crossing; or (2) there is a discharge in a special aquatic site, including wetlands, the project proponent must submit a DA application prior to the start of construction.** Please reference General Condition 27, Pre Construction Notification on page 8 of the fact sheet. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 11 and 12 of the fact sheet. [The following is included for activities on a reservation] Enclosed is a copy of the United States Environmental Protection Agency, Region 8's; General Conditions for all Nationwide Permits and specific conditions for Nationwide Permit 14.

In the event your project requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely reviewed and will require the issuance of a public notice. A Standard or Individual Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend beyond 120 days.

This correspondence letter is neither authorization for the proposed construction nor confirmation that the proposed project complies with the Nationwide Permit(s).

If any of these projects require a Section 10 and/or Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 1513 South 12th Street, Bismarck, North Dakota 58504. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter or phone at (701) 255-0015.

Sincerely,



Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure
ENG Form 4345
Fact Sheet NWP 12 and 14

CF w/o encl
EPA Denver (Brent Truskowski)

**Instructions for Preparing a
Department of the Army Permit Application**

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant, if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality that the site is located in.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known.

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Description of Avoidance, Minimization, and Compensation. Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Also provide a brief description of how impacts to waters of the United States will be compensated for, or a brief statement explaining why compensatory mitigation should not be required for those impacts.

Block 24. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identify the authorization, if possible.

Block 25. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 26. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 27. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.**

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)

OMB APPROVAL NO. 0710-0003
EXPIRES: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please **DO NOT RETURN** your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME: First - Middle - Last -- Company -- E-mail Address --	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) First - Middle - Last -- Company -- E-mail Address --
6. APPLICANT'S ADDRESS. Address - City -- State -- Zip -- Country --	9. AGENT'S ADDRESS Address - City -- State -- Zip -- Country --
7. APPLICANT'S PHONE NOS. W/AREA CODE. a. Residence b. Business c. Fax	10. AGENT'S PHONE NOS. W/AREA CODE a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)	
13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable) Address City - State -- Zip .
15. LOCATION OF PROJECT Latitude: °N Longitude: °W	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section -- Township -- Range --	
17. DIRECTIONS TO THE SITE	

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
-------------------------------	-------------------------------	-------------------------------

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
Or
Liner Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address --
City -- State -- Zip --

26. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
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* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

**FACT SHEET
NATIONWIDE PERMIT 12
(2007)**

UTILITY LINE ACTIVITIES. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2 acre of waters of the United States.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2 acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the total discharge from a single and complete project does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or

under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (Sections 10 and 404)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters), copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

General Conditions: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical

habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP's 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWP's 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP's. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP's.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address

documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically in North Dakota, the North Dakota Department of Health has denied certification for projects under this Nationwide Permit proposed to cross **all classified rivers, tributaries and lakes**; individual certification for project in these waterways must be obtained by the project proponent prior to authorization under this Nationwide Permit. For utility line crossings of all other waters, the Department of Health has issued water quality certification provided the attached Construction and Environmental Disturbance Requirements are followed.*

22. Coastal Zone Management. *Not Applicable.*

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received a NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. *See attached pages.*

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

General Condition 27. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) Forty five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP's and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

**2007 NATIONWIDE PERMITS
REGIONAL CONDITIONS
STATE OF NORTH DAKOTA
OMAHA DISTRICT – CORPS OF ENGINEERS**

The U.S. Army Corps of Engineers has adopted the following regional conditions for activities authorized by nationwide permits within the State of North Dakota. However, the pre-construction notification requirements defined below are not applicable to Nationwide Permit 47.

1. Wetlands Classified as Fens

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38, 45, and 47, are revoked for use in fens in North Dakota. For nationwide permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 27 (Notification) prior to initiating any regulated activity impacting fens in North Dakota.

Fens are wetlands that develop where a relatively constant supply of ground water to the plant rooting zone maintains saturated conditions most of the time. The water chemistry of fens reflects the mineralogy of the surrounding and underlying soils and geological materials. The substrate is carbon-accumulating, ranging from muck to peat to carbonates. These wetlands may be acidic to alkaline, have pH ranging from 3.5 to 8.4 and support a range of vegetation types. Fens may occur on slopes, in depressions, or on flats (i.e., in different hydrogeomorphic classes; after: Brinson 1993).

2. Waters Adjacent to Natural Springs

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

3. Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

4. Historic Properties

That the permittee and/or the permittee's contractor, or any of the employees, subcontractors or other persons working in the performance of a contract(s) to complete the work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the North Dakota Regulatory Office. Notification shall be by telephone or fax within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the North Dakota Regulatory Office.

5. Spawning Condition

That no regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July.

Additional Information

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material.

Specific verbiage on prohibited materials and the 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at:
<https://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm>



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

**FACT SHEET
NATIONWIDE PERMIT 14
(2007)**

LINEAR TRANSPORTATION PROJECTS. Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge in a special aquatic site, including wetlands. (Sections 10 and 404)

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

General Conditions: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical

habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address

documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically for North Dakota, the North Dakota Department of Health has issued water quality certification for projects under this Nationwide Permit provided the attached Construction and Environmental Disturbance Requirements are followed.*

22. Coastal Zone Management. *Not Applicable.*

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received a NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. *See attached pages.*

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Further Information

- 1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
- 2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
- 3. NWPs do not grant any property rights or exclusive privileges.
- 4. NWPs do not authorize any injury to the property or rights of others.
- 5. NWPs do not authorize interference with any existing or proposed Federal project.

General Condition 27. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) Forty five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed project;
- (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);
- (4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) **District Engineer's Decision:** In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

**2007 NATIONWIDE PERMITS
REGIONAL CONDITIONS
STATE OF NORTH DAKOTA
OMAHA DISTRICT – CORPS OF ENGINEERS**

The U.S. Army Corps of Engineers has adopted the following regional conditions for activities authorized by nationwide permits within the State of North Dakota. However, the pre-construction notification requirements defined below are not applicable to Nationwide Permit 47.

1. Wetlands Classified as Fens

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38, 45, and 47, are revoked for use in fens in North Dakota. For nationwide permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 27 (Notification) prior to initiating any regulated activity impacting fens in North Dakota.

Fens are wetlands that develop where a relatively constant supply of ground water to the plant rooting zone maintains saturated conditions most of the time. The water chemistry of fens reflects the mineralogy of the surrounding and underlying soils and geological materials. The substrate is carbon-accumulating, ranging from muck to peat to carbonates. These wetlands may be acidic to alkaline, have pH ranging from 3.5 to 8.4 and support a range of vegetation types. Fens may occur on slopes, in depressions, or on flats (i.e., in different hydrogeomorphic classes; after: Brinson 1993).

2. Waters Adjacent to Natural Springs

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

3. Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

4. Historic Properties

That the permittee and/or the permittee's contractor, or any of the employees, subcontractors or other persons working in the performance of a contract(s) to complete the work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the North Dakota Regulatory Office. Notification shall be by telephone or fax within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the North Dakota Regulatory Office.

5. Spawning Condition

That no regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July.

Additional Information

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material.

Specific verbiage on prohibited materials and the 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at:
<https://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm>



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

Grady Wolf

From: Sorensen, Charles G NWO [Charles.G.Sorensen@usace.army.mil]
Sent: Monday, December 06, 2010 3:30 PM
To: grady.wolf@kljeng.com
Subject: Petro Hunt LLC Fort Berthold 152-93-9c-10 well location

-----Original Message-----

From: Sorensen, Charles G NWO
Sent: Monday, December 06, 2010 3:21 PM
To: 'shanna.braun@kljeng.com'
Cc: Ames, Joel O NWO
Subject: Kodiak oil and gas Charging Eagle well locations

December 6, 2010

Grady

Thank you for letting the U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project comment on Petro Hunt LLC's proposed Fort Berthold 152-93-9c-10 oil well locations.

At this time the U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project request that consideration and if at all possible implement the following management practices during the exploration phase of the those wells listed in the request letter

Due to the close proximity of the well location to lands managed by the U.S. Army Corps of Engineers (USACE) there is a high risk that any storm water runoff from the well location will enter the Missouri River/Lake Sakakawea. As such the USACE would request that Petro Hunt LLC consider the construction/establishment of a catch trench located on the down sloping side of the well pad. Said trench would help in containing any hazardous wastes from the well pad. Those fluids that accumulate in the trench should be pumped out and disposed of properly

As previously mentioned the location of the proposed well site is extremely close to lands managed by the USACE and as previously stated the possibility for contamination of the Missouri River/Lake Sakakawea is of great concern to this agency. To aid in the prevention of hazardous wastes from entering the aforementioned bodies of water, the USACE would strongly recommend that a Closed Loop Drilling Method be used in the handling of all drilling fluids

Should living quarters be established onsite it is requested that all sewage collection systems be of a closed design and all holding tanks are to be either double walled or contained in a secondary containment system. All sewage waste removed from the well site location should be disposed of properly.

That all additional fill material required for the construction of the well pad is obtained from a private supplier whose material has been certified as being free of all noxious weeds.

Prior to the drilling rig and associated equipment being moved/ placed that all equipment be either pressure washed or air blasted off Tribal lands to prevent the possible transportation of noxious or undesirable vegetation onto Tribal lands as well as USACE managed lands.

That no surface occupancy be allowed within ½ mile of any known Threatened or Endangered Species critical habitat.

If possible, all construction activities should occur between August 15th and April 1st. If trees are present, the appropriate dates are August 15th - February 1st. By constructing during these dates, disruptions to wildlife during the breeding season maybe kept to a minimum.

Cumulative impacts are often overlooked, in the completion of NEPA compliance. To adequately assess cumulative impacts, the following activities should consider.

- a. Has the project area already been degraded, and if so, to what extent?
 - b. Are other ongoing activities in the area causing impacts, and if so, to what extent?
 - c. What is the likelihood that this project will lead to a number of associated projects?
 - d. What are the trends for activities and impacts in the area?

If you have any questions regarding the above recommendations please feel free to contact me

Charles Sorensen
Natural Resource Specialist
U.S. Army Corps of Engineers
Garrison Dam/Lake Sakakawea Project



United States Department of the Interior

BUREAU OF RECLAMATION

Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502



IN REPLY REFER TO:
DK-5000
ENV-6.00

NOV 3 2010

RECEIVED
NOV 04 2010

Mr. Grady Wolf
Environmental Planner
KLJ/Petro Hunt, LLC
P.O. Box 1157
Bismarck, ND 58502-1157

Subject: Solicitation for an Environmental Assessment for the Proposed Construction, Drilling, Completion, and Production of Up To Six Exploratory Oil and Gas Wells On One Pad by Petro Hunt Oil on the Fort Berthold Reservation in McKenzie County, North Dakota

Dear Mr. Wolf:

This letter is written to inform you that we received your letter dated October 27, 2010, and the information and map have been reviewed by Bureau of Reclamation staff.

The proposed oil well site located in Dunn County could potentially affect Reclamation facilities in the form of the rural water pipelines of the Fort Berthold Rural Water System. The well sites are not identified in detail and your access roads, service utilities, and other developments are not identified for the sites of:

Fort Berthold 152-93-9C-10: SE ¼ section 8, T152N, R93W McKenzie County, ND
Fort Berthold 152-93-9C-10: SW ¼ section 9, T152N, R93W McKenzie County, ND

We are providing an index map depicting water pipeline (in blue) alignments in the vicinity of the proposed well sites and area surrounding sections 8 and 9 and likely directions of access to aid you in identification of potential for adverse effect to federal facilities. Also, should it be necessary to cross a Fort Berthold Rural Water System pipeline, please refer to the enclosed sheet for pipeline crossing specifications and contact our engineer Ryan Waters, as below, prior to crossing. Since Reclamation is the lead federal agency for the Fort Berthold Rural Water System, we request that any work planned on the reservation be coordinated with Mr. Lester Crows Heart, Fort Berthold Rural Water Director, Three Affiliated Tribes, 308 4 Bears Complex, New Town, North Dakota 58763.

Note that blue and orange lines represent Reclamation water lines, burgundy lines are reservation boundary, and black lines the township borders.

Thank you for providing the information and opportunity to comment. If you have any further environmental questions, please contact me at 701-221-1287 or Ryan Waters, General Engineer, for engineering questions at 701-221-1262.

Sincerely,



Kelly B. McPhillips
Environmental Specialist

Enclosures - 2

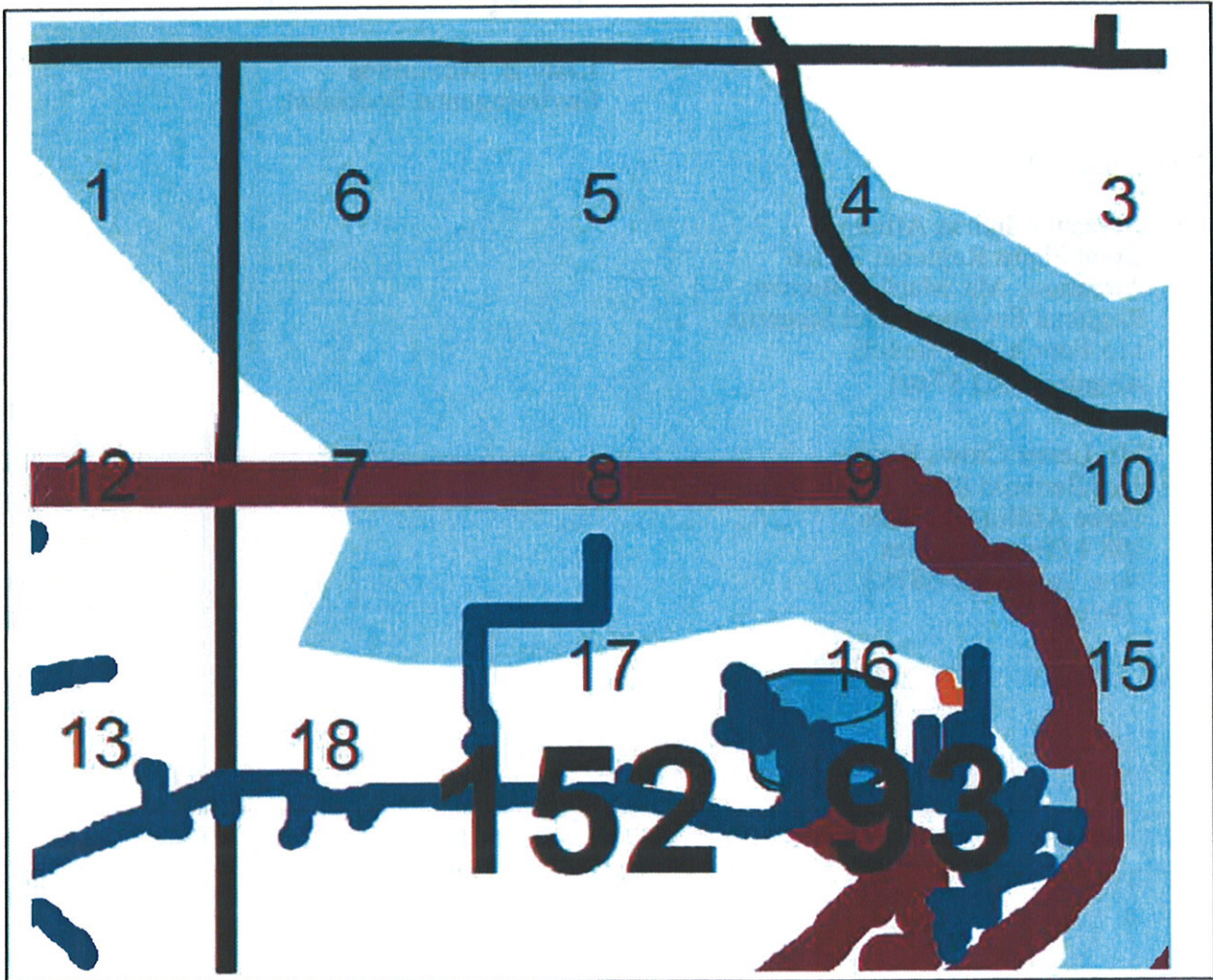
cc: Bureau of Indian Affairs
Great Plains Regional Office
Attention: Ms. Marilyn Bercier
Regional Environmental Scientist
115 Fourth Avenue S.E.
Aberdeen, SD 57401

Mr. Lester Crows Heart
Fort Berthold Rural Water Director
Three Affiliated Tribes
308 4 Bears Complex
New Town, ND 58763
(w/encl)

Single Pad – hexa-well

Fort Berthold 152-93-9C-10: SE ¼ section 8, T152N, R93W McKenzie County, ND

Fort Berthold 152-93-9C-10: SW ¼ section 9, T152N, R93W McKenzie County, ND





United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

DEC 10 2010

Mr. Grady Wolf, Environmental Planner
Kadrmass, Lee & Jackson
128 Soo Line Drive
P.O. Box 1157
Bismarck, North Dakota 58502-1157

Re: Request for Review and Concurrence
on Six proposed Petro-Hunt Oil & Gas
Wells, Ft. Berthold Reservation,
McKenzie County, North Dakota

Dear Mr. Wolf:

This is in response to your October 27, 2010, request for review and concurrence for six exploratory oil and gas wells proposed to be drilled and completed by Petro-Hunt, LLC (Petro-Hunt) on the Fort Berthold Reservation, McKenzie County, North Dakota.

Specific location for the proposed pad is:

T. 152 N., R. 93 W., SE1/4 of Section 8 and SW1/4 of Section 9

We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).

Threatened and Endangered Species

In an e-mail dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Kadrmass, Lee & Jackson (KLJ) to represent the BIA for informal Section 7 consultation under the ESA. Therefore, the U.S. Fish and Wildlife Service (Service) is responding to you as the designated non-Federal representative for the purposes of ESA, and under our other authorities as the entity preparing the NEPA document for adoption by the BIA.

The Service concurs with your “may affect, is not likely to adversely affect” determination for whooping cranes. This concurrence is predicated on Petro-Hunt’s commitment to notify the Service if a confirmed sighting of a whooping crane is observed within one mile of the project area. Petro-Hunt will cease construction if a whooping crane is observed within one mile of the project area, and contact the Service immediately. In coordination with the Service, work may resume after the bird(s) leave the area.

The Service does not concur with your “may affect, is not likely to adversely affect” determination for piping plovers, interior least terns, pallid sturgeon and piping plover critical habitat. The proposed location for the well pad is within 0.25 mile of habitat for these species, and within 300 feet of a wooded draw containing a minor tributary which drains into the lake. Due to the proximity to the lake, and to a draw which drains to the lake, the potential for migration of pollutants off the drilling pad and/or leachate from the reserve pit entering the lake represents an unacceptable potential for adverse effects to these species and their habitat. The Service recommends that Petro-Hunt move the well pad a minimum of 300 feet from the wooded draw, and KLJ revise its determination of effect, or that the BIA should request formal consultation under Section 7 of the ESA.

The Service acknowledges your no effect determination for gray wolf and black-footed ferret.

The Dakota skipper is a small to medium-sized hesperiine butterfly associated with high quality prairie ranging from wet-mesic tallgrass prairie to dry-mesic mixed grass prairie. The first type of habitat is relatively flat and moist native bluestem prairie. Three species of wildflowers are usually present: wood lily (*Lilium philadelphicum*), harebell (*Campanula rotundifolia*), and smooth camas (*Zygadenus elegans*). The second habitat type is upland (dry) prairie that is often on ridges and hillsides. Bluestem grasses and needlegrasses dominate these habitats. On this habitat type, three wildflowers are typically present in high quality sites that are suitable for Dakota skipper: pale purple (*Echinacea pallida*) and upright (*E. angustifolia*) coneflowers and blanketflower (*Gaillardia sp.*). Because of the difficulty of surveying for Dakota skippers and a short survey window, we recommend that the project avoid any impacts to potential Dakota skipper habitat. If Dakota skipper habitat is present near the proposed project, and you intend to take precautions to avoid impacts to skipper habitat, please notify the Service for further direction.

In 2010, the Sprague’s pipit was added to the candidate species list. Migratory bird species such as the Sprague’s pipit that are candidates are still protected under the MBTA. Sprague’s pipits require large patches of grassland habitat for breeding, with preferred grass height between 4 and 12 inches. The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. They can be found in lightly to heavily grazed areas. They avoid intrusive human features on the landscape, so the impact of a development can be much larger than the actual footprint of the feature. If Sprague’s pipit habitat is present within or adjacent to the proposed project

area, the Service requests that you document any steps taken to avoid and minimize disturbance of this habitat.

The Dakota skipper and Sprague's pipit are candidate species for listing under the ESA; therefore, an effects determination is not necessary for these species. No legal requirement exists to protect candidate species; however, it is within the spirit of the ESA to consider these species as having significant value and worth protecting. Although not required, Federal action agencies such as the BIA have the option of requesting a conference on any proposed action that may affect candidate species such as the Dakota skipper and Sprague's pipit.

Migratory Birds

Your correspondence states that Petro-Hunt will implement the following measures to avoid/minimize take of migratory birds:

- Construction will be done outside of the migratory bird nesting season (Feb. 1- July 15);
- Or, vegetation within the construction ROW will be regularly mowed outside of the nesting season;
- Or, surveys will be conducted for nesting migratory birds within five days of construction. The Service will be contacted for additional guidance if any birds/nests are found.

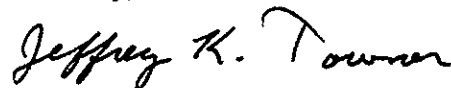
Bald and Golden Eagles

Your letter states that the nearest documented golden eagle nest is located approximately four miles away and that no eagle nests were found within 0.5 mile of the project area during the October 22, 2010 pedestrian survey.

The Service believes that Petro-Hunt's commitment to implement the aforementioned measures does demonstrate compliance with the MBTA and the BGEPA.

Thank you for the opportunity to comment on this EA. If you require further information or the project plans change, please contact me or Heidi Riddle of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

cc: Bureau of Indian Affairs, Aberdeen
(Attn: Marilyn Bercier)
Bureau of Land Management, Dickinson
ND Game & Fish Department, Bismarck

February 9, 2011

Jeffrey Towner
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926

**Re: Petro Hunt, LLC
Six Proposed Oil and Gas Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear Mr. Towner,

As part of the National Environmental Policy Act, the Bureau of Indian Affairs (BIA) has designated Kadmas, Lee & Jackson (KL&J) to represent the BIA for informal Section 7 consultation under the Endangered Species Act for a Petro Hunt, LLC EA which includes drilling of six wells on one well pad on the Ft. Berthold Reservation. Prior correspondence regarding this pad has been received from the Service in a letter stamped December 10th 2010. The six wells are proposed to be constructed in the SE $\frac{1}{4}$ of Section 8 and SW $\frac{1}{4}$ of Section 9, Township 152N, Range 93W.

Please refer to the enclosed project location map.

In the Service's response letter it was stated that the Service does not concur with the "may affect, not likely to adversely affect" determination made for the interior least tern, pallid sturgeon, and piping plover. We understand your concern that the location of the pad in proximity to the lake has the potential for migration of pollutants off the drilling pad and/or leachate from the reserve pit entering the lake. Specific concerns regarding the location of the pad which were outlined in the Service's letter include;

- The pad location is within 0.25 miles from habitat for piping plover, interior least terns, and pallid sturgeon.
- The pad location is within 300 feet of a wooded draw containing a minor tributary which drains to Lake Sakakawea.

Based on the measures that Petro Hunt has committed to, we are still in belief that the project may affect, but is not likely to adversely affect, the piping plover, interior least terns, and pallid sturgeon or their habitat. We ask that you please reevaluate this project along with the avoidance measures implemented by Petro Hunt in hopes of receiving concurrence on our affect determinations. **Please refer to site photos and project location maps for project specific information.**

Petro-Hunt has developed BMP's and commitments to avoid or minimize potential impacts to piping plover, interior least terns, and pallid sturgeon and associated habitats.

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

The well pad is located on an upland site approximately 0.25 miles from Lake Sakakawea. Two ridges separate the pad from the Lake. The first ridge, just north of the pad, is approximately 30 feet higher in elevation than the pad and acts as containment for the pad to the north. The shoreline is visible from the second ridge approximately 100 feet below. The topographic features of the two ridges and distance from the shoreline should assist in providing sight and sound barriers/buffers for shoreline-nesting birds.

The proposed well pad has been designed to minimize impacts to the landscape. The combining of six wells onto one pad minimizes the potential impact on the landscape. This grouping of wells results in up to 30 fewer acres of land being converted from current uses to oil & gas use than if each well were drilled on a separate pad.

Current drainage off of the proposed pad location is to an ephemeral wooded drainage to the south with a small portion of the northwest corner draining to an ephemeral wooded drainage to the northwest. Drainage to the south continues down the ephemeral drain to the northwest approximately a half-mile to a farmstead. The wooded drainage continues on the other side of the farmstead approximately one half-mile northwest to the lake. A gravel access road leading to the farmstead provides good access to the drainage in case of accidental release. The total drainage distance from the pad to the lake is approximately 1.05 miles. Current drainage to the northwest enters an ephemeral wooded drainage and continues down the drainage approximately 0.62 miles before entering the lake. Upon completion of construction of the pad, all stormwater and potential spills would be contained on the pad. Containment on the pad would include an approximately 30-foot high ridge acting as a barrier for runoff to the north. The pit stockpile has been sited in the northwest corner of the pad which would contain runoff to the northwest. In addition, a two-foot high berm will be placed around the western and southern sides of the pad to act as containment.

Upon well completion, a portion of the well pad would be reclaimed to further avoid environmental areas of concern.

Summary of Commitments to Avoid or Minimize Impacts: In an effort to minimize the potential environmental effects associated with the proposed project, Petro Hunt will also implement the following measures into the development of this site:

- A semi-closed loop system would be used during drilling. Drill cuttings would be solidified before being placed in the reinforced lined cuttings pit. The reinforced lining of the cuttings pit would have a minimum thickness of 20 mils to prevent seepage and contamination of underlying soil. Any minimal fluids remaining in drill cuttings pit would be removed and disposed of in accordance with BLM and NDIC rules and regulations. All liquids from drilling would be transported off-site. The drill cuttings pit would be reclaimed to BLM

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation

and North Dakota Industrial Commission (NDIC) standards immediately upon finishing completion operations.

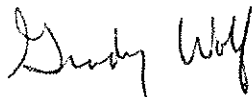
- Prior to its use, the cuttings pit would be fenced on the non-working sides. The access side would be fenced and netted immediately following drilling and completion operations in order to prevent wildlife and livestock from accessing the pit.
- The storage tanks and heater/treater will be surrounded by an impermeable berm that will act as secondary containment to guard against possible spills. The berm will be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. BMPs would be implemented to minimize wind and water erosion of soil resources and a semi-closed loop system would be used during drilling.
- The southeast corner of the well pad will be rounded to avoid a wooded drainage. As a result of the rounding of the southeast corner, the well pad would be expanded on the northeast corner to provide an area for operation trailers to park.
- A two-foot high berm would be constructed along the southern and western sides of the well pad to control runoff.
- A soil stockpile from the cuttings pit would be placed in the northwest corner to further contain runoff from entering an ephemeral drainage to the northwest of the pad.
- The combining of wells onto one pad, minimizes the footprint on the landscape by up to approximately 30 acres (5 pads x ~6 acres a pad).

We request that you reevaluate the above information and attachments and provide us with comments by March 9, 2011 or before. I would be happy to meet with you if you have any questions or would like further information regarding this project.

Please feel free to contact me at (701) 355-8726. Thank you for your cooperation.

Sincerely,

Kadrmass, Lee & Jackson, Inc.



Grady Wolf
Environmental Planner
Enclosures (Maps)

Six Proposed Oil and Gas Wells
Petro Hunt, LLC
Fort Berthold Reservation



View from the existing gravel road towards the well pad, facing North.



View from the proposed access road towards the well pad, facing North.

Petro Hunt, LLC ~ Proposed Oil Wells
Fort Berthold 152-93-9c-10 - McKenzie County, North Dakota



8
T152N-R93W


9
T152N-R93W

17
T152N-R93W

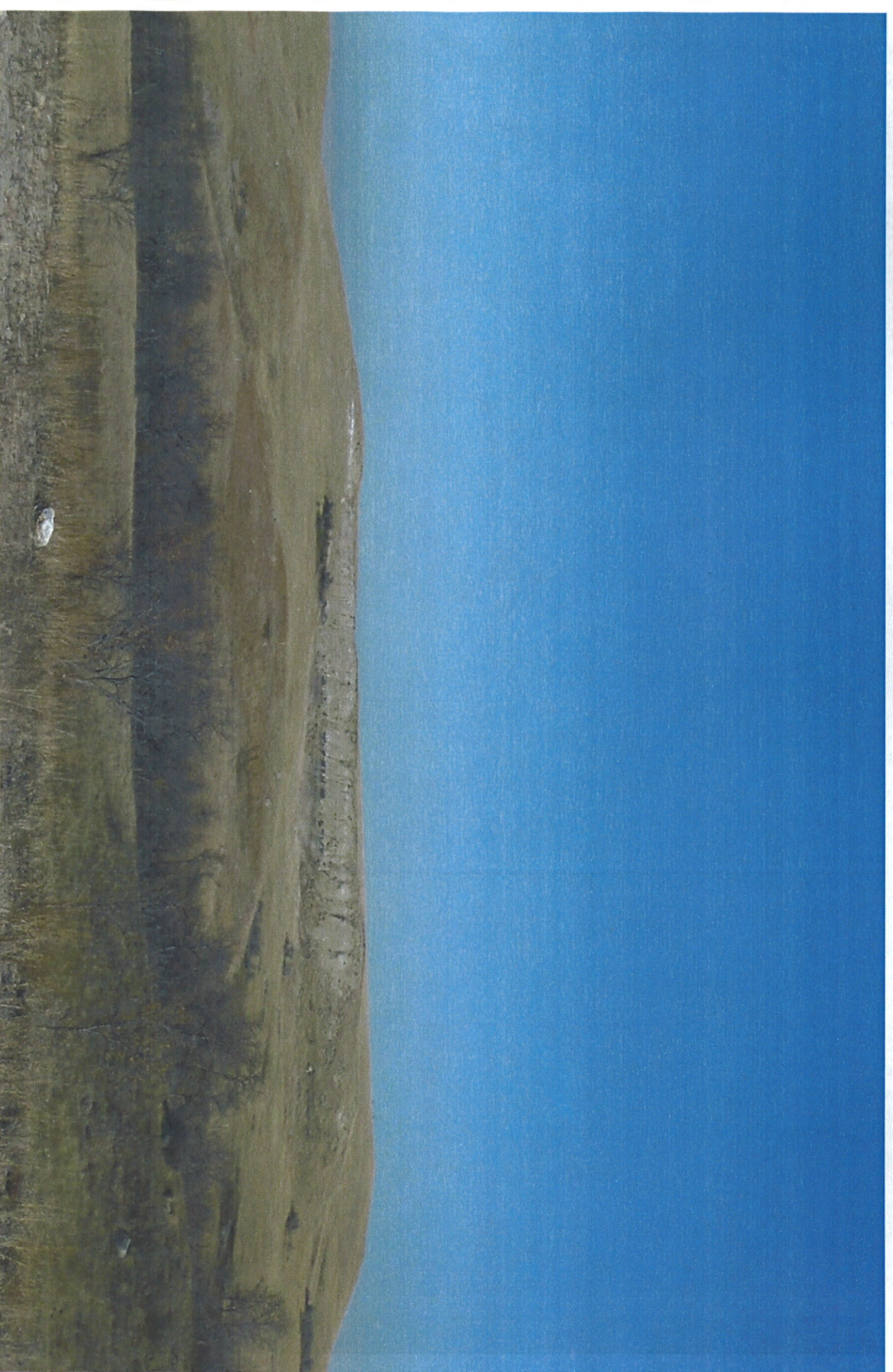
16
T152N-R93W

23

One Half Mile Buffer
Study Area



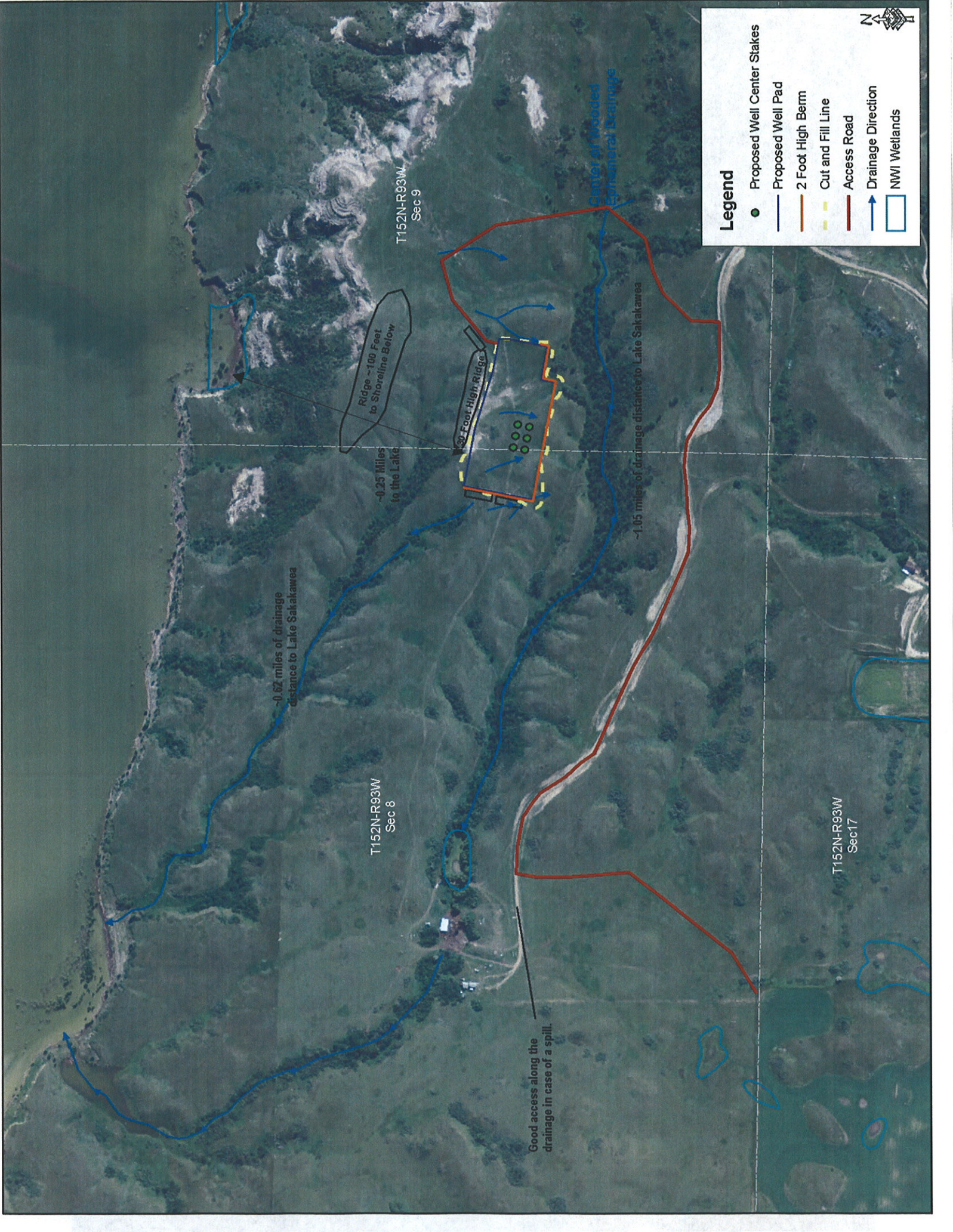
View from existing gravel access road, facing north towards pad.





Legend

- Proposed Well Center Stakes
- Proposed Well Pad
- 2 Foot High Berm
- - - Cut and Fill Line
- Access Road
- ↑ Drainage Direction
- NWI Wetlands



T152N-R93W
Sec 8

T152N-R93W
Sec 9

T152N-R93W
Sec 17

Ridge ~100 Feet
to Shoreline Below

30-Foot High Ridge

~0.62 miles of drainage
distance to Lake Sakakawea

~0.25 Miles
to the Lake

~1.05 miles of drainage distance to Lake Sakakawea

Good access along the
drainage in case of a spill.

Center of Wooded
Sphumeral Drainage



Legend

- Proposed Well Center Stakes
- 2 Foot High Berm
- Proposed Well Pad
- - - Disturbed Area
- Access Road
- Drainage Direction



Ridge ~100 Feet to Shoreline Below

~0.25 Miles to the Lake

~0.62 miles of drainage distance to Lake Sakakawea

~1.05 miles of drainage distance to Lake Sakakawea

30 Foot High Ridge

Topsoil Stockpile

Topsoil Stockpile

Topsoil Stockpile

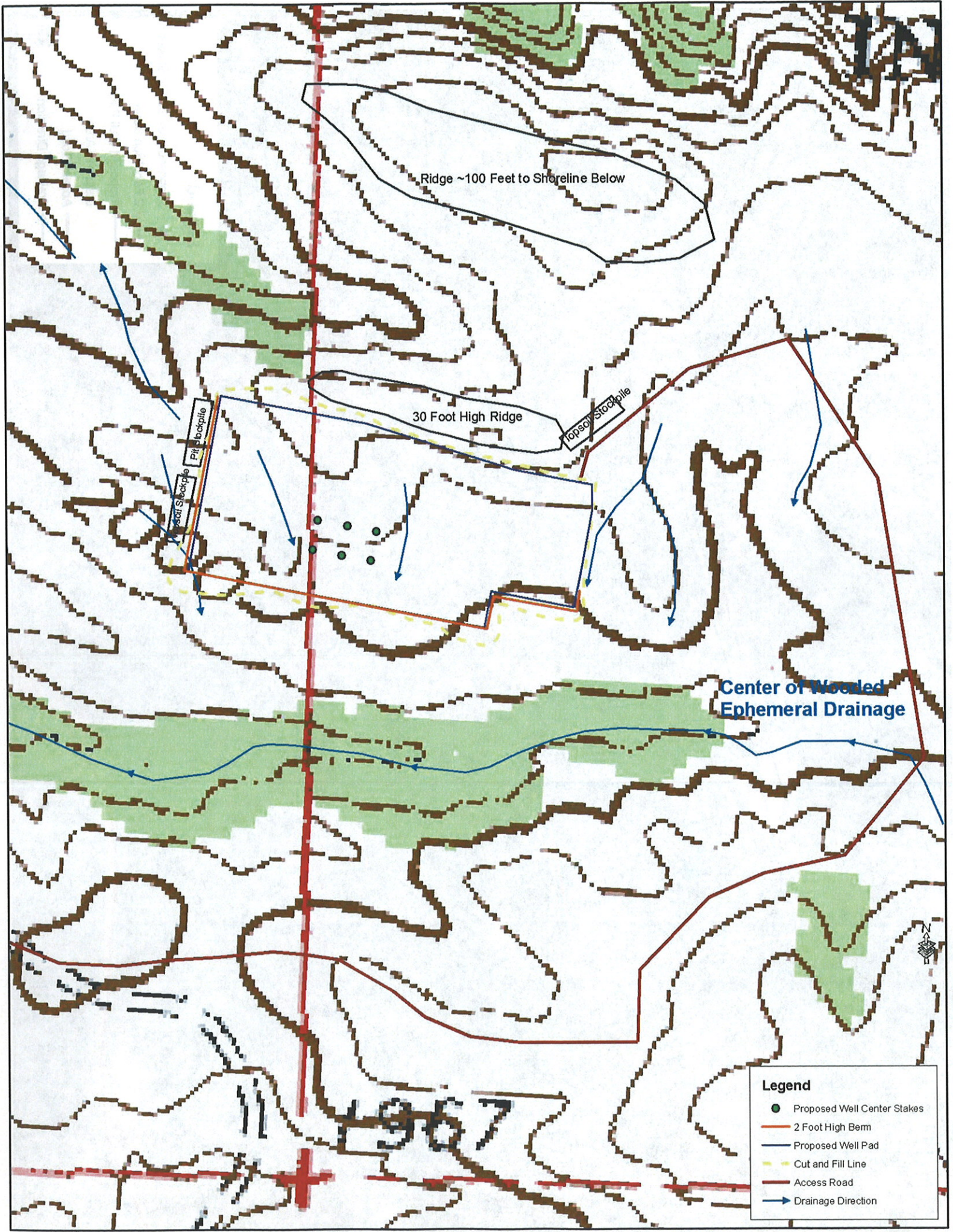
Center of Wooded Ephemeral Drainage

~225 Feet

~245 Feet

~285 Feet

Good access along the drainage in case of a spill.



Ridge ~100 Feet to Shoreline Below

30 Foot High Ridge

Pit Stockpile

Topsoil Stockpile

Topsoil Stockpile

Center of Wooded Ephemeral Drainage

- Legend**
- Proposed Well Center Stakes
 - 2 Foot High Berm
 - Proposed Well Pad
 - - - Cut and Fill Line
 - Access Road
 - Drainage Direction



Steve Czeczok

From: Grady Wolf [grady.wolf@kljeng.com]
Sent: Tuesday, March 01, 2011 4:52 PM
To: steve.czeczok@kljeng.com
Subject: FW: PetroHunt project
Attachments: reid_etal_1988_sakakawea.pdf

Not sure if I sent this to you or not?

Grady Wolf
355-8726

-----Original Message-----

From: Heidi_Riddle@fws.gov [mailto:Heidi_Riddle@fws.gov]
Sent: Tuesday, March 01, 2011 11:37 AM
To: grady.wolf@kljeng.com
Cc: Jeffrey_Towner@fws.gov
Subject: RE: PetroHunt project

Hello Grady,

After reviewing the project with additional information provided, we remain unable to concur with your determinations, based on the following:

- 1) The well pad appears to be approximately 350-370 meters from the high water mark of Lake Sakakawea.
- 2) The proposal includes the use of a dry cuttings pit.

We recommend that bank recession rates at this location be analyzed (see attached article);
OR, commit to implementing a closed loop system, in which cuttings would also be removed from the site. We are concerned that the presence of a perpetual reserve pit may impact endangered species, in the event that bank erosion causes this area to eventually slough into the lake.

Please feel free to contact me with any additional questions.

Heidi

(See attached file: reid_etal_1988_sakakawea.pdf)

~~~~~ Heidi Riddle Fish and Wildlife Biologist  
U.S. Fish and Wildlife Service North Dakota Ecological Services Field Office  
3425 Miriam Avenue  
Bismarck ND 58501  
Ph: 701.250.4481, or 701.355.8503  
Fax: 701.355.8513  
Email: heidi\_riddle@fws.gov

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."  
Aldo Leopold

"Grady Wolf"  
<grady.wolf@kljen  
g.com>

02/09/2011 11:33  
AM

Please respond to  
<grady.wolf@kljen  
g.com>

<Heidi\_Riddle@fws.gov>

RE: PetroHunt project

To

cc

Subject

Heidi,

Thanks for taking the time to meet with us to discuss the Petro Hunt 6-well pad EA that we are working on. We were unaware of any potential problems that inclusion of a stock dam as potential containment may have on a SPCC plan. The stock dam was never originally considered for containment purposes when the pad was designed and on-sited. This was something that we noticed after the fact and we thought it may provide containment in case of a spill. Please disregard any mention of the stock dam as containment in the previous memo and consider the revised memo for your determination of impact of species. It is our feeling that the 2-foot containment berms and lined cuttings pit provides sufficient containment in case of a spill. Please provide a response regarding our may affect not likely to adversely affect determinations that were discussed during our recent meeting.

Thanks

Grady Wolf  
355-8726

-----Original Message-----

From: Heidi\_Riddle@fws.gov [mailto:Heidi\_Riddle@fws.gov]  
Sent: Monday, January 31, 2011 6:02 PM  
To: grady.wolf@kljeng.com  
Subject: Re: PetroHunt project

Hi Grady,

Thanks for meeting here this morning to discuss the PetroHunt project. I was discussing the project with our Contaminants Biologist and he mentioned that in order to be in SPCC compliance, in determining whether a facility could reasonably discharge oil into or upon navigable waters or adjoining shorelines, that manmade features, such as dikes, equipment or other structures that might prevent, contain, hinder, or restrain the flow of oil could not be taken into account (see pages 4-5 of the SPCC regs).



Because containment of a potential spill was partially dependent upon the presence of the stock pond downstream of the project, I would recommend that you ensure compliance with EPA on this. If they don't have additional concerns with it, then we can proceed with our response. We don't want to base potential concurrence on a violation of SPCC regs.

Thank you, Heidi

~~~~~  
Heidi Riddle
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck ND 58501
Ph: 701.250.4481, or 701.355.8503
Fax: 701.355.8513
Email: heidi_riddle@fws.gov

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."
Aldo Leopold

"Grady Wolf"
<grady.wolf@kljen
g.com>

01/17/2011 11:36
AM

Please respond to
<grady.wolf@kljen
g.com>

<Heidi_Riddle@fws.gov>

To

cc

Subject

Heidi,

I have attached a SOV response letter received from the Service regarding a Petro Hunt well pad on the Ft. Berthold Reservation along with a letter sent to you in response to the previous letter. I talked with Jeff Towner on Friday January 14, 2011 regarding this project and he informed me you would more than likely be the one who is handling this project for him.

The original letter received from the Service indicated the Service did not concur with our affects determinations for the least tern, piping plover and pallid sturgeon. After reviewing the Services letter with the BIA, I was informed to send a response letter back to the Service and provide more detail on why a "may affect, not likely to adversely affect" determination was made for the project. Please concur with our affects determinations for

the least tern, piping plover, pallid sturgeon and piping plover critical habitat or give me a call so we can discuss any potential issues with this project.

Thanks.

Grady Wolf
Environmental Scientist
Kadmas, Lee & Jackson
128 Soo Line Drive
Bismarck, ND 58501
701-355-8726
(fax)355-8781

[attachment "USFWS 12-10.pdf" deleted by Heidi Riddle/R6/FWS/DOI]
[attachment "USFWS Letter_Petro Hunt Well3.pdf" deleted by Heidi Riddle/R6/FWS/DOI] [attachment "USFWS Letter_Petro Hunt Well4.pdf" deleted by Heidi Riddle/R6/FWS/DOI]

MEMO

Date: 3/15/2011
To: Heidi Riddle, USFWS
Copy To: Jeffrey Towner, USFWS
Marilyn Bercier, BIA
Mark Herman, BIA
Mike Lindsay, Petro Hunt
From: Kadrmass, Lee & Jackson
Grady Wolf
Re: Petro Hunt 6 well EA(152-93-9C-10)
USFWS Concurrence

Heidi,

This memo is intended as follow up correspondence for Petro Hunt's 6-well EA located in T152N, R93W, Section 8 & 9. Kadrmass, Lee & Jackson (KL&J) originally sent a solicitation of views (SOV) letter to the US Fish and Wildlife Service (USFWS) requesting concurrence on our affects determinations for threatened and endangered (T&E) species as well as to address any concerns the Service may have with the proposed project. The SOV letter indicated that KL&J believes the proposed project may affect, but is not likely to adversely affect the interior least tern, piping plover, pallid sturgeon and critical habitat for the piping plover. The Service responded in a letter date stamped December 10, 2010 with a non-concurrence determination for the above mentioned species due to the well pads proximity to a wooded draw and Lake Sakakawea.

KL&J along with Petro Hunt followed up the letter with a meeting with the Service on January 31, 2011 to discuss the non-concurrence response received. During the meeting, Petro Hunt outlined the BMP's that would be implemented on site to minimize potential impacts to T&E species. From this meeting, along with further email and telephone correspondence regarding the project, it was believed that the Service would concur with the may affect, but not likely to adversely affect determination presented in the original SOV letter.

The Service responded with an email dated 3/1/2011 indicating that they had new concerns with potential bank erosion and sloughing of the bank which may expose the dry cuttings pit associated with drilling the well. The Service also attached a research paper outlining findings regarding bank recession processes, rates and predictions published in 1988. During a follow-up telephone conversation with the Service, it was indicated that they believe Petro Hunt's commitments to

701 355 8400

128 Soo Line Drive

PO Box 1157

Bismarck, ND 58502-1157

Fax 701 355 8781

www.kljeng.com

Kadrmass, Lee & Jackson, Inc.

A KLJ Solutions Company

install specific BMP's minimized the potential of a spill from the site entering an adjacent wooded draw; However, bank erosion and exposure of the cuttings pit was a concern of theirs.

The erosion prediction report provided by the USFWS indicates that typical bank erosion occurred at approximately 1.59 meters per year for the sites analyzed. These rates are variable depending on soil conditions, water elevation, proximity to prevailing wind direction along with various additional parameters. The proposed project is located approximately 381 meters from the shoreline at the closest location. At the average erosion rates outlined in the report of 1.59 meters per year, it would take approximately 240 years for the shoreline to reach the edge of the pad. In addition, it is likely that erosion rates would lessen over time due to the creation of shallower water along the shoreline further extending the potential for exposure of the cuttings pit.

Petro Hunt is planning on using a semi-closed loop system which utilizes a dry cuttings pit lined with a 20 mill liner for well drilling. Any fluids entering the pit would be removed and disposed of in an approved manner. It is anticipated that levels of contaminated soils within the cuttings pit would be minimal and would continue to break down over time to levels that are essentially nonproblematic to the environment if the pit was exposed by erosion. Given the average time it would take to expose the dry cuttings pit along with the small potential for contamination if there were exposure, KL&J still believes the proposed project may affect, but is not likely to adversely affect the interior least tern, piping plover, pallid sturgeon and piping plover critical habitat.

We request the Service to re-evaluate our affects determination as we feel a may affect determination is still appropriate for the proposed project.

If you would like further information regarding the proposed project please feel free to contact me to set up a meeting.

Sincerely,

Kadrmass, Lee & Jackson, Inc.

Grady Wolf

Environmental Scientist



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501
MAR 29 2011

Mr. Grady Wolf, Environmental Planner
Kadrmass, Lee & Jackson
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-1157

Re: Request for Review and Concurrence
on Six Proposed Petro-Hunt Oil & Gas
Wells, Ft. Berthold Reservation,
McKenzie County, North Dakota

Dear Mr. Wolf:

This is in response to your March 15, 2011, request for review and concurrence for six exploratory oil and gas wells proposed to be drilled and completed by Petro-Hunt, LLC (Petro-Hunt) on the Fort Berthold Reservation, McKenzie County, North Dakota. This response pertains only to additional information provided in your March 15, 2011, memo. Our previous December 10, 2010, response remains valid for any concurrence and recommendations not included here.

Specific location for the proposed pad is:

T. 152 N., R. 93 W., SE1/4 of Section 8 and SW1/4 of Section 9

In our December 10, 2010, response and a March 1, 2011, email from Heidi Riddle of my staff, the Fish and Wildlife Service (Service) expressed concern regarding the proximity of the site to Lake Sakakawea, and potential bank erosion, and stated that we do not concur with your "may affect, is not likely to adversely affect" determination for piping plovers, interior least terns, pallid sturgeon and piping plover critical habitat. On March 15, 2011, you provided additional information regarding erosion prediction rates for the proposed site. Upon further review of the proposed project and the information provided in your erosion report, the Service believes that the potential for exposure of the cuttings pit due to erosion would be insignificant or discountable, based on your analysis. Therefore, the Service concurs with your "may affect, not likely to adversely affect" determination for pallid sturgeon, interior least tern and piping plover for this site.

Thank you for the opportunity to comment on this proposal. If you require further information or the project plan's change, please contact me or Heidi Riddle of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

cc: Bureau of Indian Affairs, Aberdeen
(Attn: Marilyn Bercier)
Bureau of Land Management, Dickinson
ND Game & Fish Department, Bismarck

Appendix C
THPO Correspondence

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office MC-208
115 Fourth Avenue S.E., Suite
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

APR 13 2011

Elgin Crows Breast, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of a proposed multiple oil well pad and access road in Mountrail County, North Dakota. Approximately 25.3 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. One archaeological site (KLJ-JNM-02) was located that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking, as the archaeological site will be fenced out and avoided. Catalogued as **BIA Case Number AAO-1884/FB/11**, the proposed undertaking, location, and project dimensions are described in the following report:

Macy, Jennifer

(2010) Fort Berthold 152-93-9C-1H, FB 152-93-9C-2H, FB 152-93-9C-3H, FB 152-93-9C-4H, FB 152-93-9C-5H, FB 152-93-9C-6H Well Pad and Access Road: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Dallas.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency



TRIBAL HISTORIC PRESERVATION

Mandan Hidatsa Arikara

Elgin Crows Breast, Director.

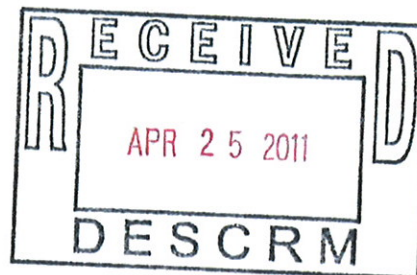
404 Frontage Road,

New Town, North Dakota 58763

Ph/701-862-2474 fax/701-862-2490

redhawk@mhanation.com

Dr. Carson N. Murdy
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



RE: Macy, Jennifer
(2010) Fort Berthold 152-93-9C-1H, FB 152-93-9C-2H, FB 152-93-9C-3H FB 152-93-9C-4H, FB 152-93-9C-5H, FB 152-93-9C-6H Well Pad and Access Road: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. KLJ cultural Resources for Petro-Hunt, Dallas.

Dear Dr. Carson N. Murdy,

After review of the documentation provided by your office, the Mandan Hidatsa, Arikara Nations Tribal Historic Preservation Office concurs with the determination of "No Adverse Affect/No Historic Properties Affected" to any pre and post-historic relics, artifacts or sacred and cultural resources in the proposed Project area.

We respectfully request to be notified should any NAGPRA issues arise as the Project progresses.

Sincerely,

Pete Coffey
Chief compliance Officer
Tribal Historic Preservation Office
Mandan, Hidatsa Arikara Nation.

Notice of Availability and Appeal Rights

Petro-Hunt: Fort Berthold 152-93-9C-10-1H, Fort Berthold 152-93-9C-10-2H,
Fort Berthold 152-93-9C-10-3H, Fort Berthold 152-93-9C-10-4H, Fort
Berthold 152-93-9C-10-5H, and Fort Berthold 152-93-9C-10-6H

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to installation of six oil and gas wells located atop a single well pad as shown on the attached map. Construction by Petro-Hunt is expected to begin 2011.

An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Howard Bemer, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA’s decision to proceed with administrative actions *can* be appealed until June 16, 2011, by contacting:

**United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Indian Appeals
801 N. Quincy Street, Suite 300, Arlington, Va 22203.**

Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.

Project locations.

