



# United States Department of the Interior

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

IN REPLY REFER TO:  
DESCRM  
MC-208

AUG 15 2012

## MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: <sup>ACTING</sup> 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, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued. The EA authorizes land use for the installation of the Ruby Parshall 31-30H well pad with up to three wells, access road, pipelines and utilities on the Fort Berthold Indian Reservation.

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 (40 C.F.R. Section 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, Tribal Historic Preservation Officer (with attachment)  
Derek Enderud, BLM, Bureau of Land Management (with attachment)  
Michael Madson, SWCA (with attachment)  
Jonathon Shelman, Corps of Engineers (electronic)  
Jeff Hunt, Fort Berthold Agency (electronic)

*Finding of No Significant Impact*

*WPX Energy Williston, LLC*

*Environmental Assessment*

*Three wells from one pad: Ruby Parshall 31-30H  
Well Pad, Access Road, Pipelines and Utilities*

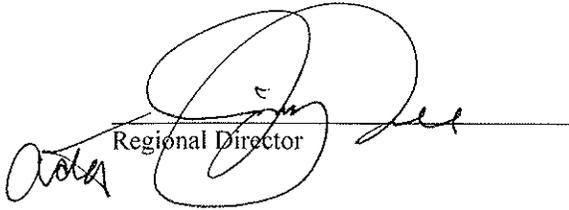
*Fort Berthold Indian Reservation  
McKenzie County, North Dakota*

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to authorize land use for the installation of the Ruby Parshall 31-30H Well Pad, Access Road, Pipelines and Utilities on the Fort Berthold Reservation. The proposed wells (three total) will be drilled from one well pad. The well pad will be named the Ruby Parshall 31-30H from which both the Bakken and Three Forks shale formations will be drilled. The proposed Ruby Parshall 31-30H well site will consist of three well bores, drilled to access petroleum resources of the Bakken and Three Forks formations under Sections 30, T151N, R94W. Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources for developments on tribal lands.

The potential of the proposed actions to impact the human environment is analyzed in the attached addendum to an existing EA, as required by the National Environmental Policy Act. Based on the recently completed addendum to the EA, I have determined that the proposed project will not significantly affect the quality of the human 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 actions and the No Action alternative.
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.), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.).
4. The proposed actions are 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 projects will improve the socio-economic condition of the affected Indian community.

  
Regional Director

8/15/12  
Date

# **ENVIRONMENTAL ASSESSMENT**

**United States Bureau of Indian Affairs**

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



**WPX Energy Williston, LLC  
Ruby Parshall 31-30H  
Well Pad, Access Road, Pipelines and Utilities  
Fort Berthold Indian Reservation**

**August 2012**

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

**Environmental Assessment**  
**Ruby Parshall 31-30H**  
**Well Pad, Access Road, Pipelines and Utilities**  
**WPX Energy Williston, LLC**

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## **Acronyms**

AAQM	Ambient Air Quality Monitoring (site)
AIRFA	American Indian Religious Freedom Act
APD	Application for Permit to Drill
APE	Area of Potential Affect
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
GPRO	Great Plains Regional Office
MHA Nation	Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation
NAGPRA	Native American Graves Protection and Repatriation Act
NDCC	North Dakota Century Code
NDDH	North Dakota Department of Health
NDGFD	North Dakota Game and Fish Department
NDIC	North Dakota Industrial Commission
NDNHI	North Dakota Natural Heritage Inventory
NDSWC	North Dakota State Water Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPAL	Northern Plains Agro-ecosystems Laboratory
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTL	Notice to Lessees
SHPO	State Historic Preservation Officer
TCP	Traditional Cultural Property
TERO	Tribal Employment Rights Office
THPO	Tribal Historic Preservation Officer
TVD	Total Vertical Depth
USACE	United States Army Corps of Engineers
USC	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

## 1.0 Purpose and Need for the Proposed Action

WPX Energy Williston, LLC (WPX) is proposing to construct a well pad to drill three horizontal oil/gas wells on the Fort Berthold Indian Reservation (FBIR), in order to develop the commercial potential of the natural resources. This includes an associated access road and gathering/supply pipelines and utilities.

The U.S. Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The development is proposed on lands held in trust by the United States in McKenzie County, North Dakota (Figure 1). The BIA may also hold title to subsurface mineral rights.

Additional NEPA analysis, decisions, and federal actions will be required prior to any other developments. Any authorized project will comply with all applicable federal, state, and tribal laws, rules, policies, regulations, and agreements. No construction, drilling, or other ground-disturbing operations will begin until all necessary leases, easements, surveys, clearances, consultations, permissions, determinations, and permits are in place.

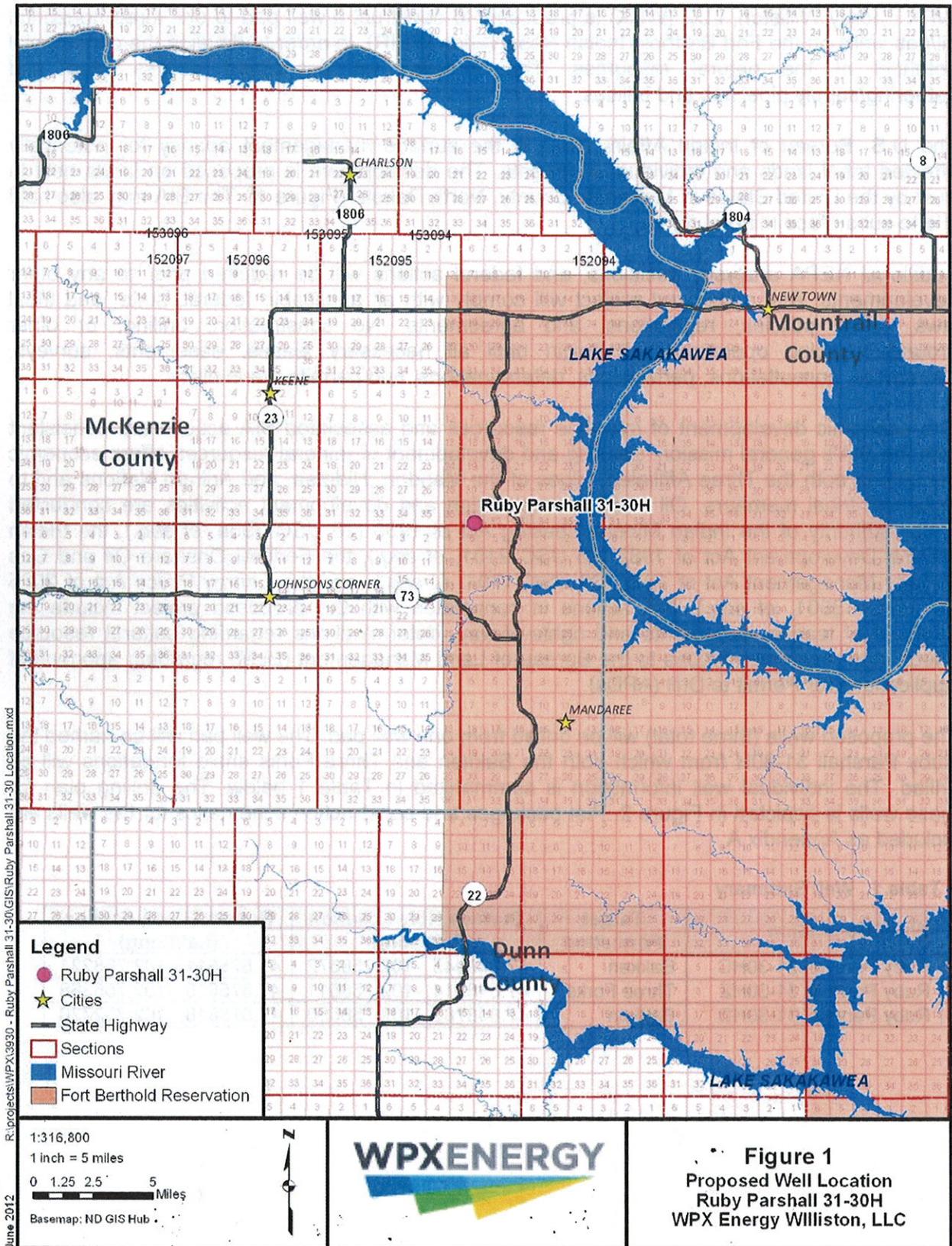
The economic development of available resources and associated BIA actions are consistent with the BIA's general mission. Leasing and development of mineral resources offers economic benefits to both the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members. Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 USC 396a, *et seq.*), the Indian Mineral Development Act of 1982 (25 USC 2101, *et seq.*), the Federal Onshore Oil and Gas Royalty Management Act of 1982 (30 USC 1701, *et seq.*), and the Energy Policy Act of 2005 (42 USC 15801, *et seq.*). BIA actions in connection with the proposed project include the approval of leases, easements and rights-of-way, determinations regarding cultural resource effects and recommendations to the Bureau of Land Management (BLM) regarding approval of Applications for Permit to Drill (APDs).

The proposed wells (three total) will be drilled from one well pad. The well pad will be named the Ruby Parshall 31-30H from which both the Bakken and Three Forks shale formations will be drilled. The individual well information is summarized in Table 1 below. The drilling plan for these wells is depicted in Figure 2. Plat packages and construction schematics for the wells are included as Appendix A.

**Table 1. Well Summary**

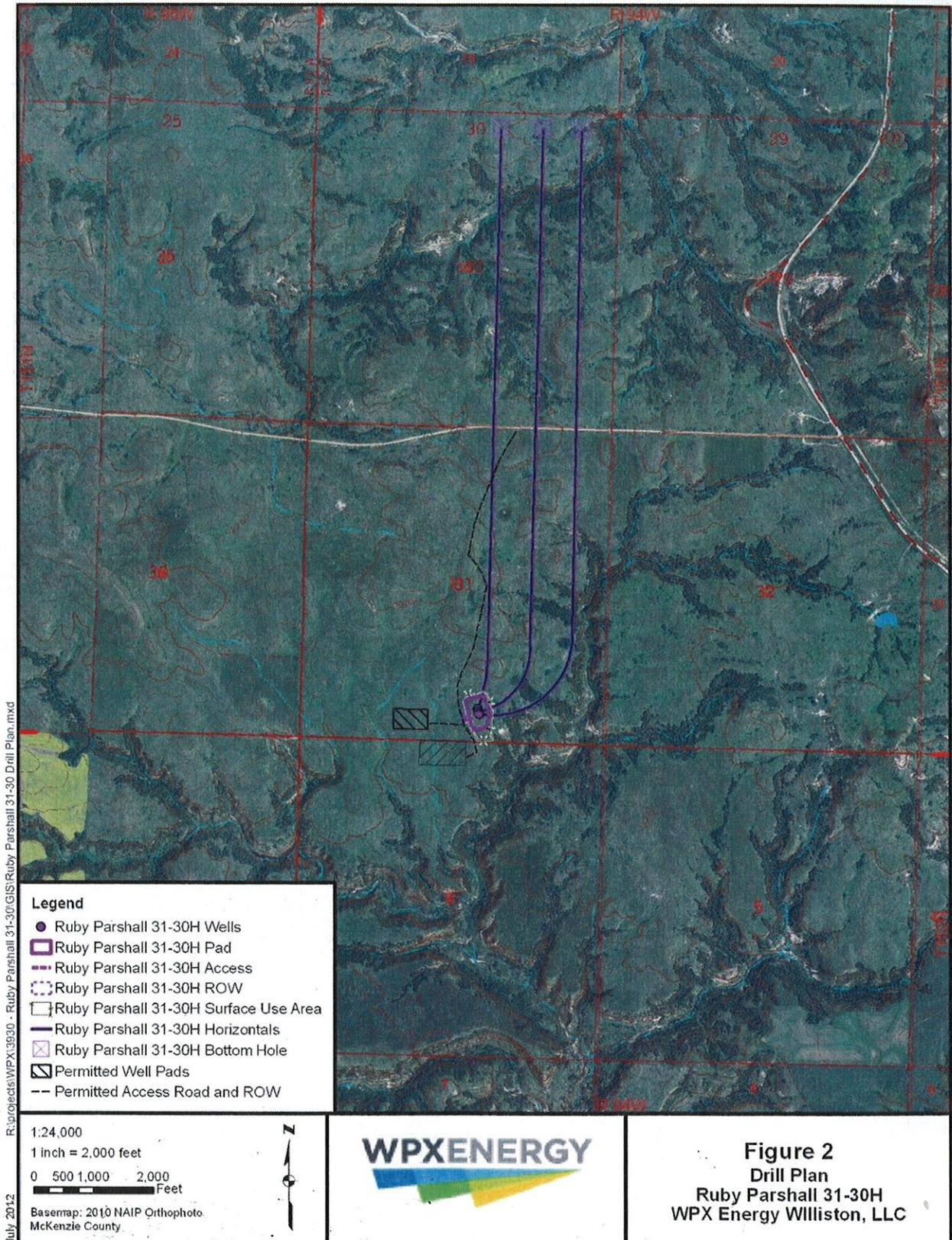
<b>Well Designation</b>	<b>Target Formation</b>	<b>Surface Hole Location (Lat/Long)</b>	<b>Bottom Hole Location (Lat/Long)</b>
Ruby Parshall 31-30HC	Bakken	47.849045, -102.758672	47.875811, -102.758221
Ruby Parshall 31-30HZ	Three Forks	47.848914, -102.758611	47.875815, -102.755368
Ruby Parshall 31-30HD	Bakken	47.848783, -102.758550	47.875818, -102.752720

Figure 1. Proposed Well Location



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June 2012

**Figure 2. Proposed Ruby Parshall 31-30H Drill Plan**



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July 2012

There are several components of the proposed action. A new access road will be constructed to access the proposed well site; a well pad will be built to accommodate drilling operations; oil, natural gas, and produced water pipelines may be constructed; an above ground temporary fresh water pipeline may be installed in the ROW for completion activities; and underground electrical and fiber optic lines may be installed. All project components will eventually be abandoned and reclaimed, as specified in this document, the APD, and according to any other federal conditions, unless formally transferred with federal approval to either the BIA or the landowner.

These proposed federal actions require compliance with the *National Environmental Policy Act* of 1969 (NEPA) and regulations of the Council on Environmental Quality (CEQ, 40 CFR 1500-1508). Analysis of the proposal's potential to affect the human environment is expected to both improve and explain federal decision-making. APDs submitted by WPX describe developmental, operations, and reclamation procedures and practices that contribute to the technical basis of this Environmental Assessment (EA). The procedures and practices described in the application are critical elements in both the project proposal and the BIA's decision regarding environmental impacts. This EA will result in either a Finding of No Significant Impact (FONSI) or a decision to prepare an Environmental Impact Statement (EIS).

## 2.0 Proposed Action and Alternatives

The Proposed Action, outlined within this document, analyzes the potential impacts of the specific proposed project, three exploratory oil/gas wells on tribal allotted surface ownership and mineral estate held in trust by the BIA in McKenzie County, North Dakota. The proposed wells will test the commercial potential of the Bakken and Three Forks Formations. Site-specific actions will include several components, including construction and installation of the following:

- Access road;
- Well pad;
- Oil, natural gas, and produced water gathering pipelines;
- Above ground temporary fresh water pipeline; and
- Underground electrical and fiber optic utilities.

### 2.1 Proposed Action

Construction activities will follow lease stipulations, practices, and procedures outlined in this document, the APD, guidelines and standards in *Surface Operating Standards for Oil and Gas Explorations and Development* (BLM/US Forest Service, Fourth Edition, also known as the Gold Book), and any conditions added by either the BIA or BLM. All lease operations will be conducted in compliance with applicable laws and regulations, including 43 CFR 3100, *Onshore Oil and Gas Orders 1, 2, 3, 6, and 7*, approved plans of operations and any applicable Notices to Lessees.

#### 2.1.1 Field Camps

Self-contained trailers may house a few key personnel during drilling operations, but any such arrangements will be short-term. No long-term residential camps are proposed. Construction and drilling personnel will commute to the proposed project site, most likely from within or around the Reservation. Human waste will be collected in standard portable chemical toilets or service trailers located on site, then transported to a state-approved wastewater treatment facility. Other solid waste will be collected in enclosed containers and disposed of at a state-approved facility.

#### 2.1.2 Access Road Construction Procedures

Approximately 33.5 feet of new access road, within a 130-foot right-of-way (ROW), will be constructed from the west side of the proposed pad connecting with the approved access road from BIA 4 to the Enerplus Resources (USA) Corporation (Enerplus) permitted well pad (Enerplus, 2012).

The maximum disturbed ROW width of 130 feet of the access road, pipeline, and utility corridor will result in a potential 0.1 acre of disturbance. Signed agreements will be in place allowing road construction across affected surface allotments and private land surfaces. Any applicable approach permits and/or easements will be obtained prior to any construction activity.

Construction will follow road design standards outlined in the Gold Book. A minimum of eight inches of topsoil will be stripped from the Ruby Parshall 31-30H access road and utility corridor. The stockpiled topsoil will be redistributed on the outside areas of the borrow ditches following road construction. Ditches will be reseeded as soon as practical with a seed mixture approved by the BIA. Care will be taken during road construction to avoid disturbing any existing

buried utilities. The access road will be surfaced with a minimum of four inches of gravel, and the roadway will remain in place for the life of the well. Typical cross-sections are shown in Figure 3.

### **2.1.3 Pipeline and Utility Construction Procedures**

An associated pipeline and utility corridor will parallel the road alignment within the ROW of the access route. The pipeline and utility corridor will include oil, natural gas, and produced water gathering pipelines. Underground electrical and fiber optic utilities may also be constructed. The proposed ROW will connect to the permitted ROW of Enerplus and the Saddle Butte Pipeline.

The natural gas pipeline will be constructed of three-inch-diameter polyethylene pipe. The oil pipeline will be constructed of six- to eight-inch welded steel pipe. Produced water pipelines will consist of four-inch-diameter polyethylene pipe.

All pipelines will be underground with the exception of a temporary above ground fresh water pipeline to be utilized during completion activities. Natural gas and oil pipelines will be installed in one trench with produced water pipeline installed in a second trench. Trenches will be approximately 2.5 feet wide and placed 10 to 15 feet apart. All pipelines will be installed at a minimum depth of six feet at road and stream crossings, or deeper for safety considerations. Underground electrical and fiber optic utilities will be installed at the same time or at a later date utilizing the spider-plow or similar method.

Trenches will be backfilled immediately after pipeline and utility installation and testing, waiting only if soils are overly wet or frozen. Appropriate temporary and long-term erosion control measures will be applied to all disturbed areas to minimize and control erosion. Field practices will conform with prescribed BMPs, which may include:

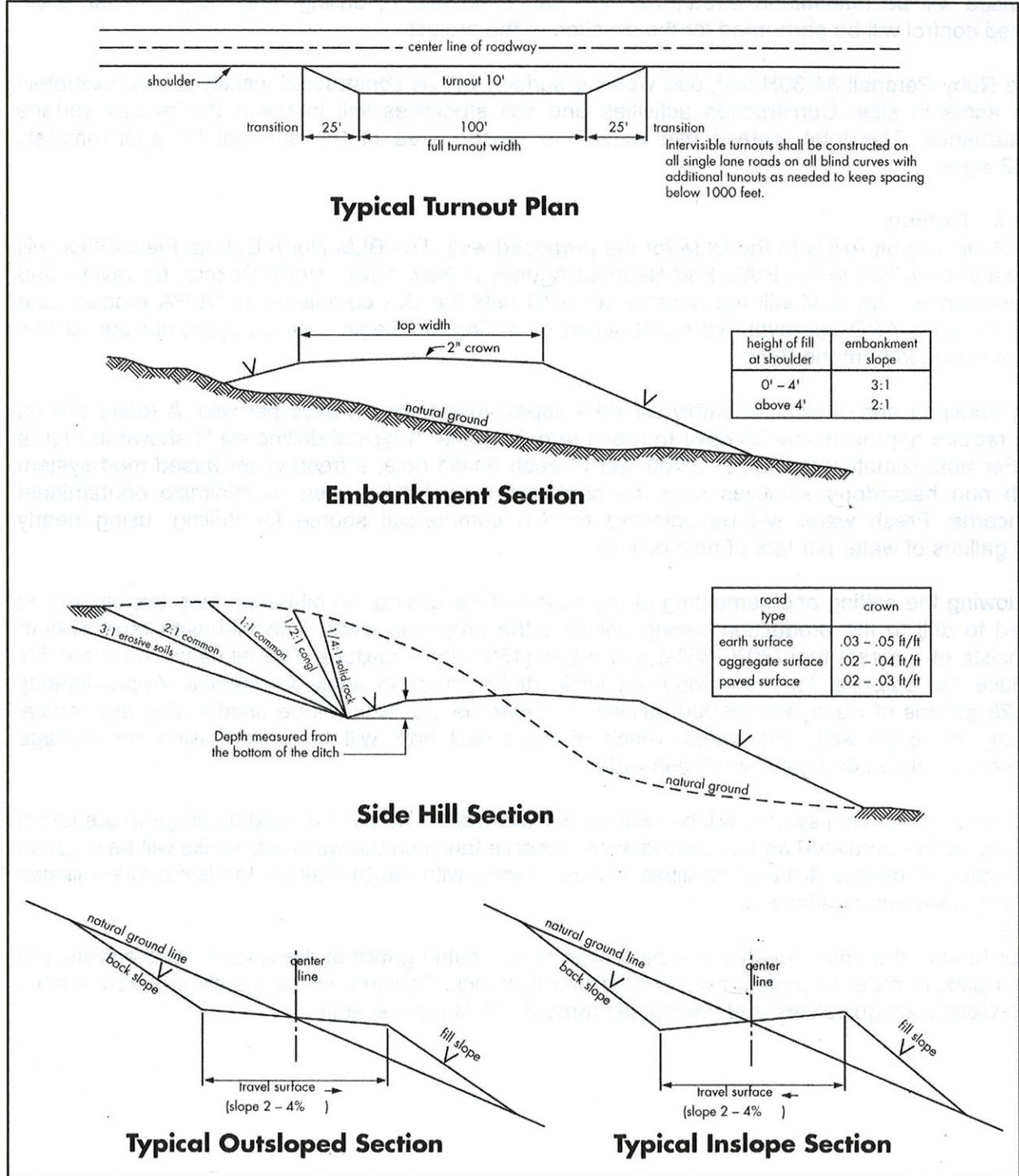
- Installing erosion fabric, mats or logs;
- Construction of diversion ditches and/or water bars;
- Seeding, planting, mulching and creation of buffer strips; and
- Other measures identified at on-site meetings by the BIA and during construction to minimize erosion and soil loss.

When ditching is implemented with a trenching machine, the topsoil will first be stripped and stored on the far side of the spoil side of the ROW. Subsoil will be stored closest to the open ditch. Pipeline installation and subsoil backfilling will be performed as soon as possible dependent on weather conditions. If construction occurs during winter months, topsoil will likely contain chunks of frozen soil. If the topsoil is excessively frozen, the topsoil will not be replaced but kept in windrows. Appropriate BMPs will be placed along the entirety of the ROW to reduce the potential for excessive erosion because of spring snowmelt. In areas where the spring thaw will likely bring considerable amounts of running water, energy dissipaters, along with temporary surface matting may be installed to further minimize erosion potential.

After subsoil is scarified to alleviate compaction, the stockpiled topsoil will be redistributed over the ROW. Topsoil redistribution and final grading will be done in the spring following complete frost thaw and required drying of the right-of-way. Monitoring and maintenance of erosion along the ROW will be ongoing and the responsibility of WPX.

**Figure 3. Typical roadway cross section (Gold Book)**

- Construction Steps**
1. Salvage topsoil
  2. Construct road
  3. Redistribute topsoil
  4. Revegetate slopes



#### **2.1.4 Well Pad Construction Procedures**

The proposed well pad will consist mainly of an area leveled for the drilling rig and related equipment. The well pad area will be cleared of vegetation, stripped of topsoil, and graded to the specifications in the approved APD. Topsoil will be stockpiled and stabilized until disturbed areas are reclaimed and re-vegetated. Excavated subsoil will be used in well pad construction, with the finished well pad graded to ensure positive water drainage away from the drill site. Erosion control devices will be maintained throughout well pad construction, drilling, and interim reclamation. Weed control will be performed for the duration of the project.

The Ruby Parshall 31-30H well pad working surface will be constructed initially to approximately 5.8 acres in size. Construction activities and soil stockpiles will increase the overall surface disturbance. The total surface use within the fenced area of the site will be approximately 6.82 acres.

#### **2.1.5 Drilling**

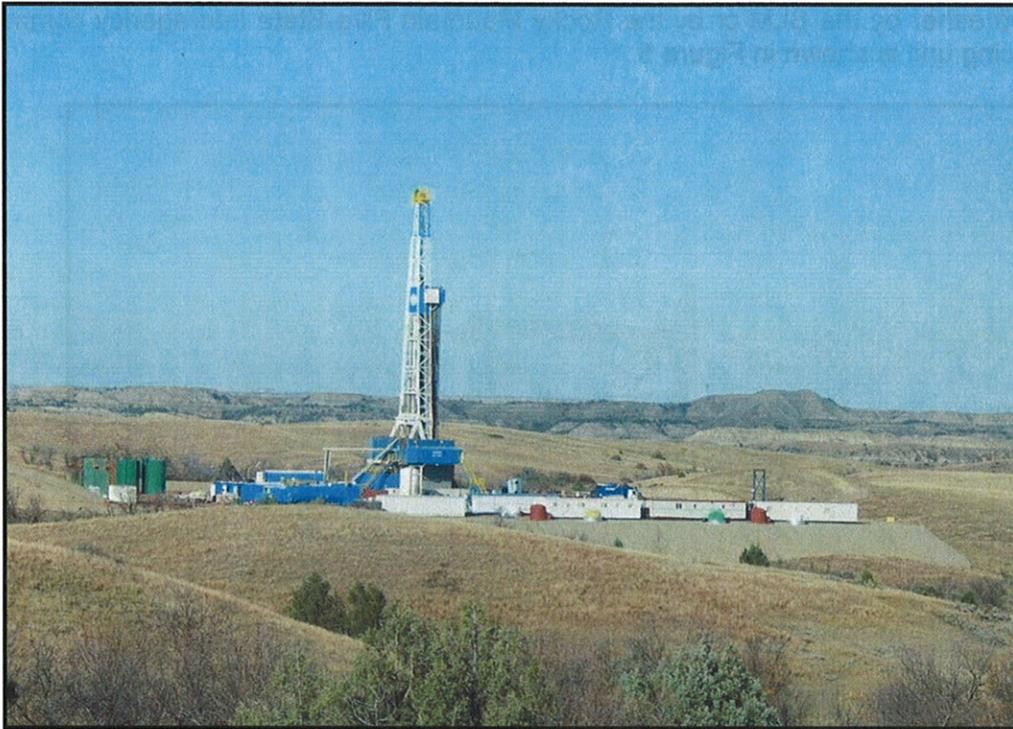
WPX will submit APDs to the BLM for the proposed well. The BLM North Dakota Field Office will forward the APDs to the BIA's Fort Berthold Agency in New Town, North Dakota, for review and concurrence. The BLM will not approve an APD until the BIA completes its NEPA process and recommends APD approval. No construction or drilling will begin until an approved permit has been obtained from the BLM.

Rig transport and on-site assembly will take approximately seven days per well. A rotary drill rig will require approximately 30 days to reach target depths. A typical drilling rig is shown in Figure 4. For approximately the upper 2,500 feet of each drilled hole, a fresh-water-based mud system with non hazardous additives such as bentonite clay will be used to minimize contaminant concerns. Fresh water will be obtained from a commercial source for drilling, using nearly 8.4 gallons of water per foot of hole drilled.

Following the setting and cementing of the near-surface casing, an oil-based mud system will be used to drill to the production casing point for the proposed wells. The oil-based mud system consists of a diesel fuel (80%–85%) and water (15%–20%) mixture. The oil-based drilling fluids reduce the potential for hole sloughing while drilling through shale formations. Approximately 4,725 gallons of water and 18,900 gallons of diesel fuel per well will be used during the vertical drilling for each well. The lateral reach of each well hole will be drilled using on average approximately 33,600 gallons of fresh water.

A closed-loop drilling system will be used to drill the wells. The cuttings and fluids generated from drilling will be circulated and deposited within reserve tanks on the well pad. Tanks will be emptied at approved off-site disposal facilities in accordance with North Dakota Industrial Commission (NDIC) rules and regulations.

Prior to use, the entire location will be fenced with a cattle guard at the access road entrance to each pad, in order to protect both wildlife and livestock. Fencing will be installed in accordance with Gold Book guidelines and maintained through the life of the wells.



**Figure 4. Typical drill rig (Carlson McCain)**

### **2.1.6 Casing and Cementing**

Surface casing will be set to approximately 2,500 feet and cemented back to the surface during drilling, isolating all near-surface aquifers. The Fox Hills Formation will be encountered at approximately 1,700 feet and the Pierre Formation at approximately 1,800 feet. A production casing cemented from approximately 11,256 feet up to 4,000 feet will isolate potential hydrocarbon zones in the Dakota Formation that occur below 4,500 feet. The production horizontal section will be uncased, with all associated operations conducted in compliance with *Onshore Oil and Gas Order 2* (Title 43 CFR 3160).

### **2.1.7 Completion and Evaluation**

A work-over unit will be moved onto the well site following the completion of the drilling operations. Approximately 30 days are usually needed to clean out the well bore, pressure test the casing, perforate and fracture the horizontal portion of the hole, and run production tubing for commercial production. A mixture of sand and a carrier (water and/or nitrogen) may be pumped into the well bore under extreme pressure to fracture the target formation. The sand particles will stabilize the fractures, increase the capture zone and maximize the field drainage. The fracture fluids will be recovered by flowing the well back to the surface, with all collected fluids disposed of in accordance with NDIC rules and regulations.

### **2.1.8 Commercial Production**

If drilling, testing, and production support commercial production from the proposed locations, additional equipment will be installed, including a pumping unit at the wellhead, a vertical heater/treater, storage tanks, and a flare/production pit. An impervious dike (that can contain 110% capacity of the largest holding tank plus one full day's production) will be placed around the production tanks and heater/treater. Load-out lines will be located inside the diked area and a screened drip barrel will be installed under the outlet. A metal access staircase will provide access to the diked area, protect the dike, and may provide support to tanker truck hoses. The BIA will choose an inconspicuous paint color for permanent aboveground production facilities from colors

recommended either by the BLM or by the Rocky Mountain Five-State Interagency committee. A typical producing unit is shown in Figure 5.



**Figure 5. Typical producing unit (Carlson McCain)**

Oil and produced water will be collected in tanks and trucked to existing oil terminals or approved disposal sites until connection to pipelines. Production volumes of oil and water along with pipeline operational date will dictate trucking frequency and duration.

The duration of production operations cannot be reliably predicted, but some oil wells have pumped for more than 100 years. Initial daily production is estimated at 500 barrels of oil and 100 barrels of water, decreasing after three months to approximately 200 barrels of oil and 50 barrels of water per day.

Natural gas will initially be flared in accordance with Notice to Lessees (NTL) 4A and adopted NDIC regulations, which prohibit unrestricted flaring for more than the initial year of operation (NDCC 28-08-06.4).

Gathering pipelines for oil and natural gas will be constructed as part of this project. The gathering network will allow for gas and oil to be transported to a central location for shipping to market.

Should future oil/gas exploration and development activities be proposed wholly or partly on trust land, those proposals and associated federal actions would require additional site-specific NEPA analysis and BIA consideration prior to implementation.

### **2.1.9 Pipeline Spill Response Plan**

Saddle Butte Pipeline (SBP) has developed an Emergency Spill Contingency Plan (Plan) for the SBP System. The spill preventative measures and monitoring protocols, notification procedures, spill detection and on-scene spill mitigation procedures, response activities, contacts, training and drill procedures, and response plan review and update procedures, as referenced in the Plan, apply to the proposed pipelines. A copy of the Plan has been filed with the BIA, and SBP has committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194).

### **2.1.10 Pipeline Marking Procedures**

SBP will adhere to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, SBP will place pipeline markers within 1,000 feet of one another, at public road crossings, railroad crossings, creek crossings, fence crossings, and at points of major direction change.

### **2.1.11 Pipeline Quality Control/Quality Assurance Measures**

SBP's pipelines are coated with 14–16 mil FBE, which protects the pipelines against corrosive elements in the soil. The coating is inspected thoroughly at the time of installation, both visually and by electronic testing. All coating repairs are inspected by SBP personnel. In addition, shrink sleeves protect field joints. SBP also utilizes specialty coatings that are applicable for underground fittings, bore crossings, etc., to provide additional levels of protection in areas.

Erosion is addressed during the design phase, when velocities and pressure drops for the pipeline system are carefully evaluated and lines are sized to prevent erosion velocity by a safety factor of approximately two. Additionally, lines are designed to be cleaned and inspected via internal tools (e.g., cleaning pigs and smart pigs), which helps in the identification of issues in the pipes.

Following design and installation, SBP immediately conducts a cathodic survey utilizing test stations, rectifier pads and other means designed by cathodic protection specialists. The system is continuously monitored throughout the life of the asset in accordance with the strict pipeline safety requirements set forth in the USDOT's rules and regulations. SBP installs pig launchers and receivers on its trunk lines and primary laterals to identify pipeline conditions both internally and externally, in order to maintain the integrity of SBP's system.

SBP installs check valves between its trunk line and laterals to prevent a "back feed" scenario to a spill, thereby limiting the volume of any spill. SBP also has manual valve sets at all intersections of laterals to our trunk, allowing isolation as well as at the wells themselves. Real time web-based mapping for use by its operations team and for use by first responder personnel is being developed. SBP has provided options in its trunk line for automatic isolation based on low-pressure switching devices once the system pressure exceeds 1400 psi. These valves will automatically isolate the pipeline under most line rupture circumstances.

SBP's construction specifications require its contractors to allow for inspection at all times, and no pipeline is laid and backfilled without appropriate approvals. SBP also conducts very rigorous hydro testing of its pipelines with extremely tight tolerances on pressure drop throughout the duration of the test to assure there is no possibility of leakage at the time of installation.

### **2.1.12 Site Description**

The proposed Ruby Parshall 31-30H well site will consist of three well bores, drilled to access petroleum resources of the Bakken and Three Forks formations under Sections 30, T151N, R94W. The well pad working surface will initially be constructed to approximately 530 feet by 330 feet or 5.8 acres in size (Figure 6). Construction activities and soil stockpiles will increase the overall surface disturbance. The total surface use (fenced area) will be approximately 6.82 acres.

A 24-inch containment berm will be constructed on top of the pad site to contain surface runoff during drilling and for the life of the well. An additional 18-inch containment berm will be constructed around fill slopes on the south half of the pad. Topsoil from the site will be stripped at a depth of eight inches and stockpiled on the south side of the pad. Soil stockpiles will act as secondary containment during drilling, with the topsoil redistributed during interim and final reclamation. Site-specific BMPs include the containment berms and erosion control measures identified during the on-site review. A closed-loop drilling system will be utilized and no cuttings pits will be excavated; however, there is a possibility of a contingency pit to be established for emergencies.

The access route will begin at the west side of the pad and proceed west approximately 33.5 feet, where it will connect to a previously approved well pad access road and utility ROW to the Enerplus well pad. An associated pipeline and utility corridor will follow the road alignment and will include oil and natural gas pipelines along with underground electrical and fiber optic utilities as described in previous sections. Shut-off valves will be installed at the pad site for all pipelines. The Ruby Parshall 31-30H lateral pipelines will connect to the SBP.

#### **2.1.13 Interim Reclamation**

If commercial production equipment is installed, best faith efforts will be made to reduce the size of the well pad to approximately half of the original size. Re-contouring and interim reclamation of disturbed areas will be accomplished within six months after construction is completed and no later than by the next appropriate planting season (fall or spring). Interim site reclamation plans after well drilling completion will reduce the pad surface size to less than half of the size needed for development. No reclamation of cuttings pits will be necessary due to the use of a closed-loop drilling system.

The working area of the well pad and the running surface of the access road will remain surfaced with scoria or crushed rock. Other interim reclamation measures include reduction of the cut and fill slopes, redistribution of stockpiled topsoil, installation of erosion control measures, and reseeding of native species as recommended by the BIA.

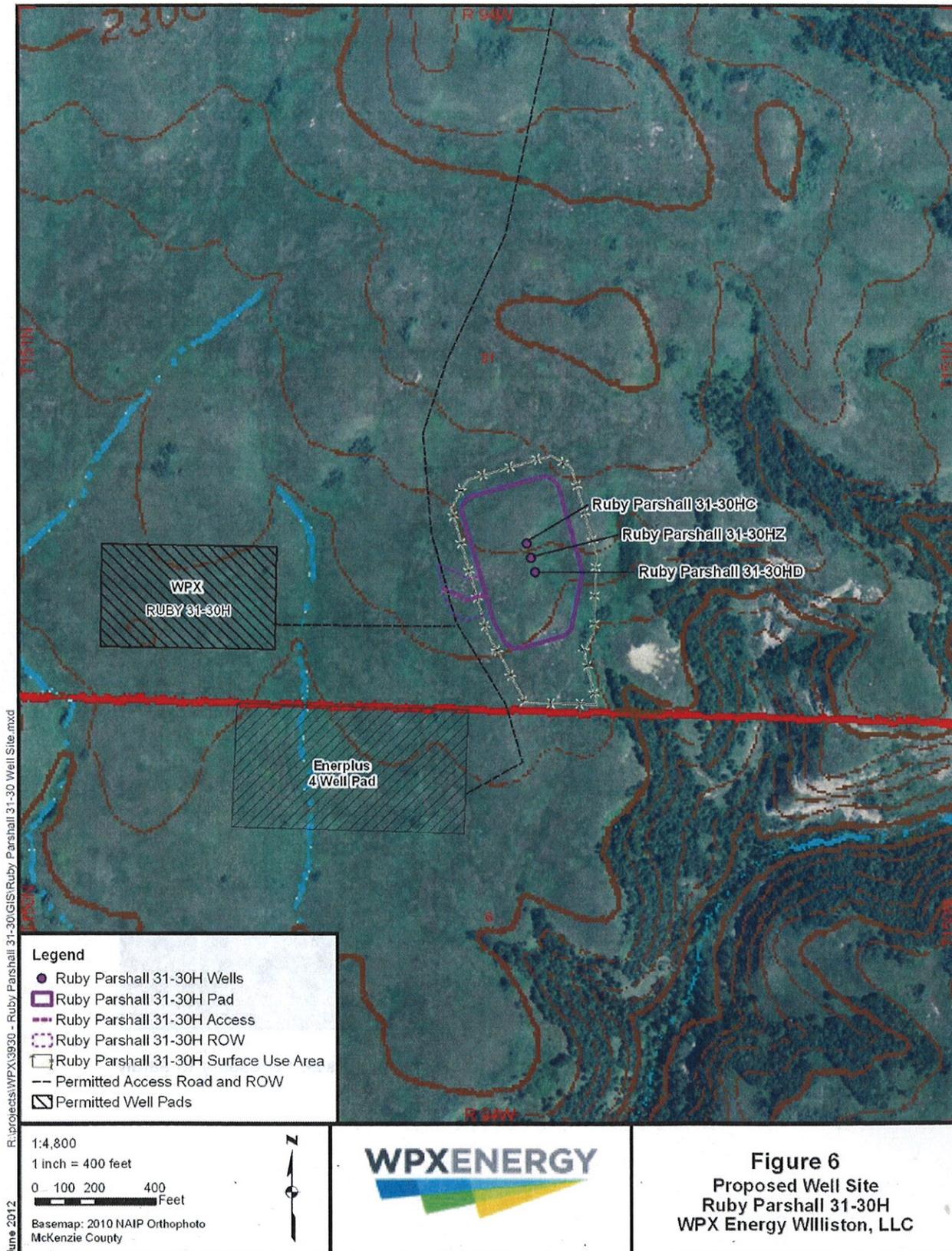
#### **2.1.14 Final Reclamation**

Final reclamation will occur within six months if the proposed well is commercially unproductive, or later upon final abandonment of commercial operations. All disturbed areas will be reclaimed, reflecting the BIA view of oil and gas exploration and production as temporary intrusions on the landscape. All above-ground facilities will be removed, well bores will be plugged with cement and dry hole markers will be set. The access road and work area will be leveled or backfilled as necessary, scarified, re-contoured and reseeded.

Decommissioning of the pipelines and utilities will also result in mandatory final reclamation of the ROW. Due to economic costs and additional environmental disturbance associated with excavation and removal, pipelines will be purged with water to remove hydrocarbons and then abandoned in place.

Weather conditions will determine final reclamation timing. The disturbed area(s) in grassland locales will be reseeded with certified, weed-free seed mixtures established by the BIA. Native species will be used to the extent possible, and seeding and planting will comply with BIA and BLM regulations to ensure successful reclamation. Disturbed areas in cultivated fields will not require reseeding, reverting to agricultural use.

**Figure 6. Ruby Parshall 31-30H Well Site and ROW**

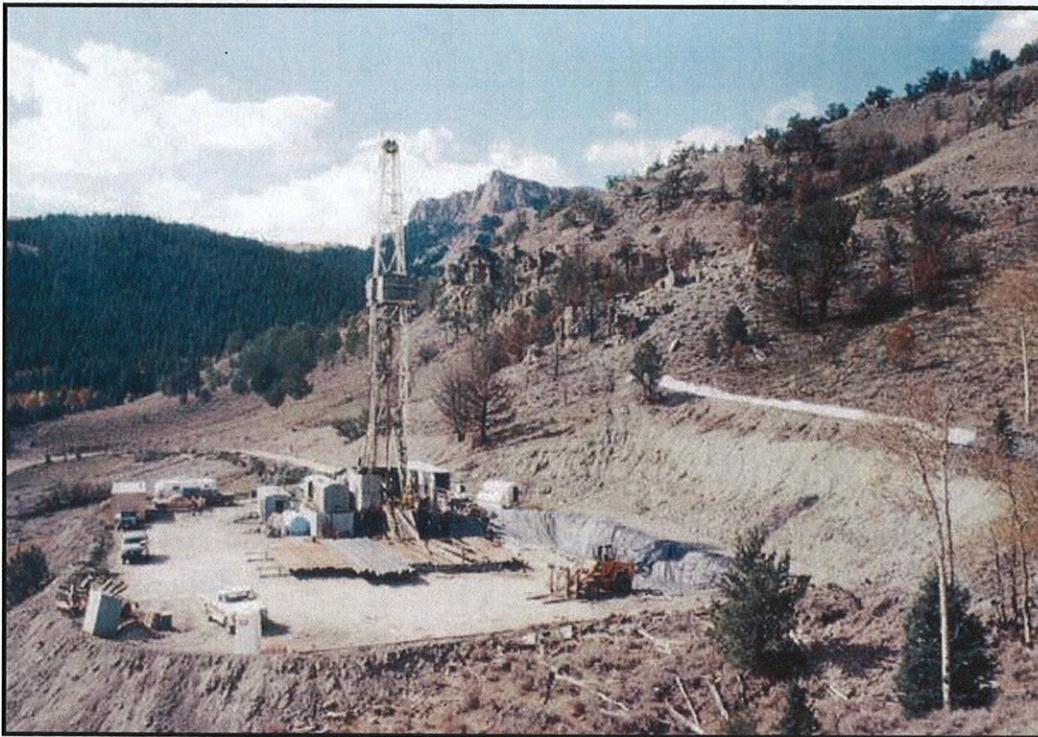


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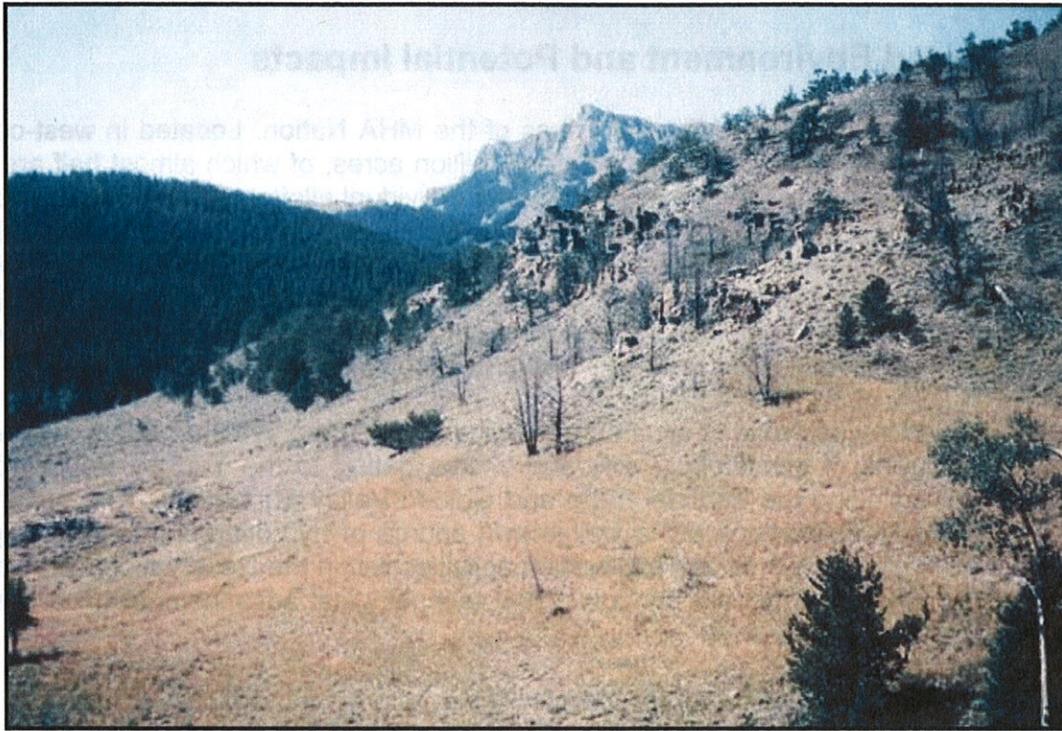
Long-term monitoring will be required to ensure successful reclamation and implementation of any necessary remedial efforts. Exceptions to these reclamation measures might occur if the BIA approves assignment of an access road either to the BIA roads inventory or to concurring surface allottees. Figures 7 and Figure 8 (from the Gold Book) show a typical site that was constructed and reclaimed.

Disturbed areas will be monitored to identify areas of excessive erosion, subsidence, and invasion of noxious weeds. Periodic monitoring will be performed and repeated reclamation efforts will be undertaken in problem areas until the BIA has certified the reclamation is successful. Successful reclamation is defined by the BIA to include the following observable factors: 1) reproduction of seeded and re-established species; 2) natural invasion of plants from undisturbed adjacent communities; and 3) control or exclusion of noxious weeds.

The BIA has developed a weed management plan to facilitate the treatment of known and likely noxious/invasive weed species. If seeding is not successful within two growing seasons, the BIA may require extra efforts to stabilize the site, such as matting the entire affected area or using a mix of rapidly growing forbs and annual grasses, followed by reseeded with grasses, forbs, and shrubs with rapidly expanding, deep root systems.



**Figure 7. Typical well pad during operation.**  
The well pad and access road are constructed to the minimum size necessary to safely conduct drilling and completion operations.



**Figure 8. Well pad after reclamation.**

The well pad and access road have been regraded back to the original contour, the topsoil respread, and the site revegetated.

## 2.2 The No Action Alternative

The No Action Alternative must be considered within an EA. If this alternative is selected, the BIA will not approve leases, rights-of-way, or other administrative proposals for the proposed project. The project, as proposed, will not be constructed, and neither the benefits nor the impacts outlined in this EA will be realized.

### 3.0 The Affected Environment and Potential Impacts

The FBIR is the home of the Three Affiliated Tribes of the MHA Nation. Located in west-central North Dakota, the FBIR encompasses more than one million acres, of which almost half are held in trust by the United States for either the MHA Nation or individual allottees. The remainder of the land is owned in fee simple title, sometimes by the MHA Nation or tribal members, but usually by nonmembers. The Reservation occupies portions of six counties, including Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward. In 1945, the Garrison Dam was completed, inundating much of the Reservation. The remaining land was divided into three sections by Lake Sakakawea, an impoundment of the Missouri River upstream of the Garrison Dam.

The proposed well and access road is situated geologically within the Williston Basin, where the shallow structure 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 a well-known source of hydrocarbons targeted by the proposed project. Although earlier oil/gas exploration activities within the Reservation were limited and commercially unproductive, recent economic and technological advancement have created feasible access to these formations.

The Reservation is within the northern Great Plains ecoregion, which consists of four physiographic units:

- Missouri Coteau Slope north of Lake Sakakawea;
- Missouri River Trench (not flooded);
- Little Missouri River Badlands; and
- Missouri Plateau south and west of Lake Sakakawea.

Much of the Reservation is located on the Missouri Coteau Slope and is comprised of a glaciated gently rolling landscape. Elevations of the Reservation range from 1,838 feet at Lake Sakakawea to over 2,600 feet on Phaelan's Butte near Mandaree. Annual precipitation averages between 15 and 17 inches. Mean temperatures fluctuate between -3° and 21°F in January and between 55° and 83° in July, with 95 to 130 frost-free days each year (Bryce et al. 1998; High Plains Regional Climate Center 2008).

The proposed well site and spacing unit is in a rural area consisting primarily of grassland, shrubland, and cropland that is currently farmed, idle or used to graze livestock. The landscape has been previously disturbed by dirt trails and gravel and paved roadways.

The specific well pad location was determined at on-site inspections by the proponent, the BIA Environmental Specialist, land surveyors, archeologists, the Tribal Historic Preservation Office (THPO) monitor and the environmental consultant. Resource surveys were conducted at the time of on-site inspections to determine potential affects to cultural, biological, and physical resources such as topography, natural drainage and erosion control, location of topsoil and subsoil stockpiles, flora, fauna, and wildlife habitat. The Ruby Parshall 31-30H location was evaluated on April 18, 2012.

The broad definition of human and natural environment under NEPA leads to the consideration of the following elements:

- Air quality;
- Public health and safety;
- Water resources;

- Wetland/riparian habitat;
- Threatened and endangered species;
- Soils;
- Vegetation and invasive species;
- Cultural resources;
- Socioeconomic conditions; and
- Environmental justice.

Potential impacts to these elements are analyzed for both the No Action Alternative and the Proposed Action. Impacts may be beneficial or detrimental, direct or indirect, and short-term or long-term. The EA also analyzes the potential for cumulative impacts and ultimately makes a determination as to the significance of any impacts. In the absence of significant negative consequences, it should be noted that a significant benefit from the project does *not* in itself require preparation of an EIS. After consideration of the no-action alternative, existing conditions and potential impacts from proposed projects are described below.

### 3.1 Air Quality

The North Dakota Department of Health (NDDH) network of Ambient Air Quality Monitoring (AAQM) stations includes Theodore Roosevelt National Park – North Unit in McKenzie County, Dunn Center in Dunn County, and Beulah in Mercer County. These stations are located west, south, and southeast of the proposed well site. Criteria pollutants tracked under National Ambient Air Quality Standards (NAAQS) of the *Clean Air Act* include sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>), nitrogen dioxide (NO<sub>2</sub>), and ozone (O<sub>3</sub>). Two other criteria pollutants, lead (Pb) and carbon monoxide (CO), are not monitored by these three stations. Table 2 summarizes federal air quality standards and available air quality data from the three-county study area.

**Table 2. Summary of Federal Air Quality Standards and Available Air Quality Data**

Pollutant	Averaging Period	NAAQS (µg/m <sup>3</sup> )	NAAQS (ppb)	County		
				Dunn	McKenzie	Mercer
SO <sub>2</sub>	24-Hour	365	140	3.7 ppb	4.1 ppb	0.011 ppm
	Annual Mean	80	30	0.71 ppb	.55 ppb	1.86 ppb
PM <sub>10</sub>	24-Hour	150	--	32 µg/m <sup>3</sup>	31 µg/m <sup>3</sup>	49 µg/m <sup>3</sup>
	Annual Mean	50	--	--	--	--
PM <sub>2.5</sub>	24-Hour	35	--	--	27.3 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
	Weighted Annual Mean	15	--	--	8.59 µg/m <sup>3</sup>	6.35 µg/m <sup>3</sup>
NO <sub>2</sub>	Annual Mean	100	53	1.4 ppb	1.15 ppb	2.75 ppb
CO	1-Hour	40,000	35000	--	--	--
	8-Hour	10,000	9000	--	--	--
Pb	3-Month	1.5	--	--	--	--
O <sub>3</sub>	8-Hour	147	75	66 ppb	70 ppb	66 ppb

Source: ND Dept of Health 2010 Annual Report

North Dakota was one of thirteen states in 2010 that met standards for all criteria pollutants. The state also met standards for fine (PM<sub>2.5</sub>) particulates and the eight-hour ozone standards established by the U.S. Environmental Protection Agency (EPA) (NDDH 2010). The three counties addressed in Table 2 are also in full attainment and usually far below established limits (American Lung Association 2006). The Clean Air Act mandates prevention of significant deterioration in designated attainment areas. Class I areas are of national significance and include national parks greater than 6,000 acres in size, national monuments, national seashores, and federal wilderness areas larger than 5,000 acres and designated prior to 1977. There is a

Class I air shed at nearby Theodore Roosevelt National Park (TRNP). TRNP covers three units of approximately 110 square miles within the Little Missouri National Grassland between Medora and Watford City. The nearest unit (TRNP North Unit) is located 30–40 miles west of the proposed project. The reservation can be considered a Class II attainment air shed, which affords it a lower level of protection from significant deterioration.

The proposed project is similar to other nearby previously approved and installed projects. Construction, drilling, and tanker traffic will generate temporary, intermittent, and nearly undetectable gaseous emissions of particulates, SO<sub>2</sub>, NO<sub>2</sub>, CO<sub>2</sub>, and volatile organic compounds. Road dust will be controlled, as necessary, by implementing BMPs to limit emissions to the immediate project area. No detectable or long-term impacts to air quality or visibility are expected within the air sheds of the Reservation, state, or TRNP. No laws, regulations or other requirements have been waived; no monitoring or compensatory measures are required.

### 3.2 Public Health and Safety

Health and safety concerns include naturally occurring toxic gases, hazardous materials used or generated during installation or production, and hazards posed by heavy truck traffic associated with drilling, completion, and production activities.

Hydrogen sulfide gas (H<sub>2</sub>S) is extremely toxic in concentrations above 500 parts per million (ppm), but it has not been found in measurable quantities in the Bakken and Three Forks Formations. Before reaching the Bakken, however, drilling will penetrate the Mission Canyon Formation, which is known to contain varying concentrations of H<sub>2</sub>S. Release of H<sub>2</sub>S at dangerous concentrations is very unlikely. Contingency plans submitted to BLM comply fully with relevant portions of *Onshore Oil and Gas Order 6* to minimize potential for gas leaks during drilling. Emergency response plans protect both the drilling crew and the general public within one mile of a well. Precautions implemented include automated sampling and alarm systems operating continuously at multiple locations on the well pad.

Satellite imagery was used to identify occupied homes within one and five miles of the proposed well site (Table 3). There are no occupied homes located within one mile and 13 occupied home within five miles of the proposed well site.

**Table 3. Distance and Location of Residences**

Well Name	Nearest residence	Occupied Residences within 1 mile	Occupied Residences within 5 miles
Ruby Parshall 31-30H	1.7 mi southwest	0	13

Impacts from construction will be largely temporary. Noise, fugitive dust, and traffic hazards will be present during the construction, drilling, and well completion (approximately 60 days), and will then diminish quickly during commercial operation. Approximately 50 trips during several days will be needed to transport the drilling rig and associated equipment to each site. The same amount of traffic will be required to dismantle and transport the drilling rig following the completion of the drilling operations.

Natural gas will initially be flared during production, and the produced oil and water will be trucked away from the well site. Tanker truck activity depends directly on production of the well and timing of connection to the SBP. Initially, a successful Bakken well usually produces high rates of both oil and water. Upward of 500 barrels of oil and 100 barrels of water per day might be expected during the initial months of production, with production typically decreasing by 50% or more after the initial months. An oil tanker usually hauls 140 barrels and a water tanker hauls 110 barrels per load. Four oil tankers and one water tanker may visit each well site per day during the initial

months of production. This number will decline as production declines. Established load restrictions for state and BIA roadways will be followed and appropriate haul permits will be acquired. All traffic must be confined to approved routes and conform to load and speed limits.

The EPA specifies chemical reporting under Title III of the *Superfund Amendments and Reauthorization Act* (SARA) of 1986, as amended. No materials used or generated by this project for production, use, storage, transport, or disposal are on either the SARA list or on EPA's list of extremely hazardous substances in 40 CFR 355. Project design and operational precautions mitigate against impacts from toxic gases, hazardous materials, and traffic. All operations, including flaring, will conform to instructions from BIA fire management staff. Impacts from the proposed projects are considered minimal, unlikely or insignificant. No laws regulations, or requirements have been waived; no compensatory mitigation measures are required.

### 3.3 Water Resources

#### 3.3.1 Surface Water

The proposed site is located on a glaciated upland in the Missouri River Regional Water Basin (Figure 9). Surface water runoff generally starts as sheet-flow until collected by ephemeral drainages leading to Lake Sakakawea. The ephemeral drainages, in turn, combine to form intermittent and/or perennial streams that flow into Lake Sakakawea. Lake Sakakawea is part of the Missouri River sub regional watershed and is the receiving water for runoff from the land area surrounding the well site.

The Ruby Parshall 31-30H is located within the Garrison Dam Sub-Basin, the Bear Den Creek Watershed and the Bear Den Bay Sub-Watershed. WPX will construct and maintain a minimum 18-inch containment berm on the well pad during drilling operations and after interim reclamation. Surface water runoff will be diverted around the pad by topsoil placement.

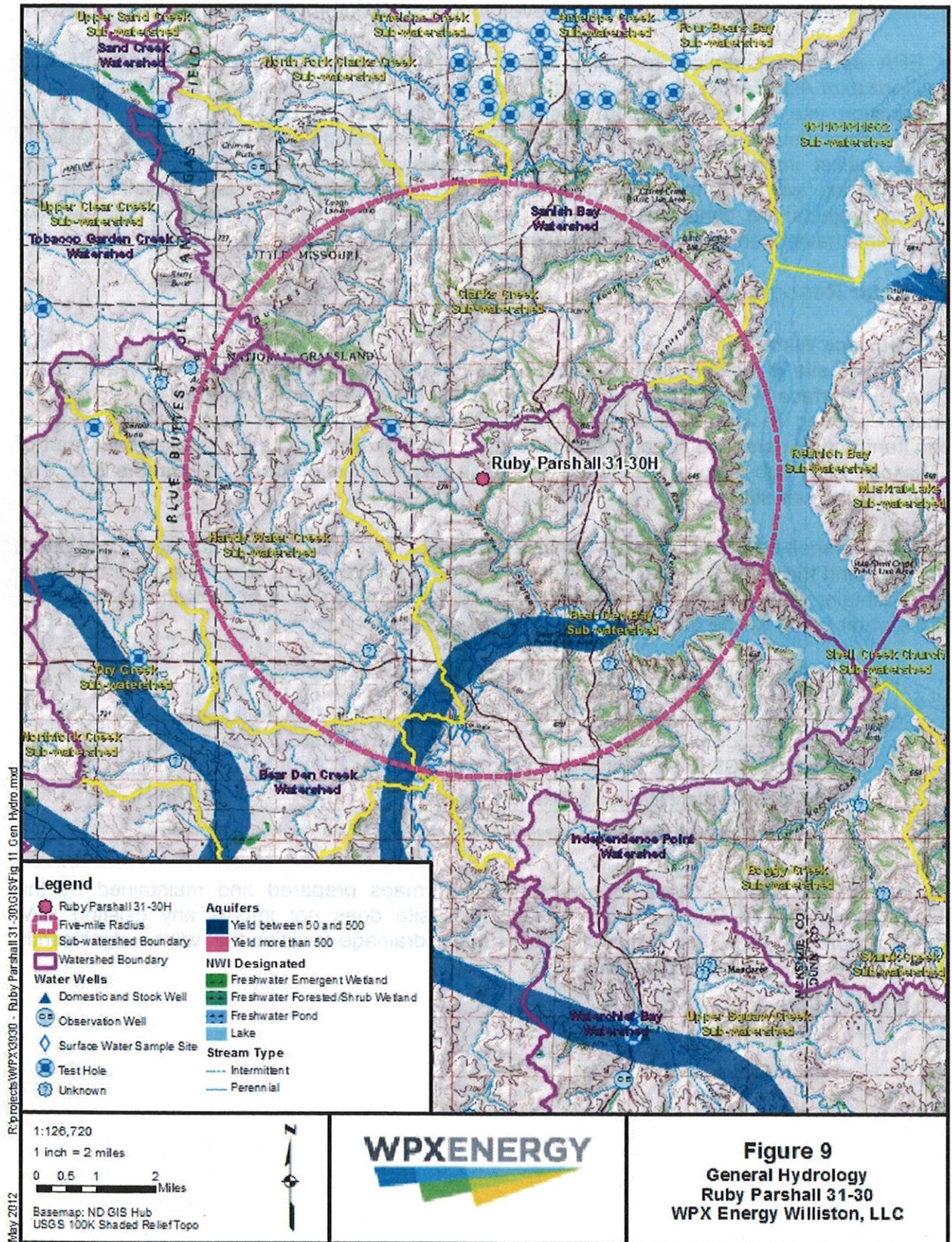
**Table 4. Distance from Ruby Parshall 31-30H to receiving water**

Source - Point	Distance (feet)
Pad to USGS intermittent stream/treed drainage	1,267
USGS intermittent stream to Lake Sakakawea <sup>1</sup>	18,480

<sup>1</sup>Lake level based on McKenzie County Aerial Photograph (NAIP 2010) and high water mark

According to the National Wetland Inventory (NWI) maps prepared and maintained by the USFWS, the proposed Ruby Parshall 31-30H well site does not impact any existing NWI wetlands. There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well site.

**Figure 9. General Hydrology**



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### 3.3.2 Groundwater

The principal uses of ground water in the area are for domestic and livestock supplies, public supplies, industrial supplies, and irrigation. Most farm units in the area have at least one well for their domestic and livestock uses, but no records are available to accurately determine the quantity of water used. Practically all of the water used for industrial purposes is either used in connection with the production of petroleum or is obtained from public supplies, and no records are kept. The largest use of ground water is for pressure maintenance during well drilling.

Ground water in McKenzie County is obtained from aquifers in the glacial drift of Quaternary age, the Sentinel Butte and Tongue River Formations in the Fort Union Group of Tertiary age, and the Fox Hills Formation, Hell Creek Formation, and the Dakota Group of Cretaceous age. The Dakota Group, Fox Hills Formation, Hell Creek Formation, Fort Union Group, and the glacial drift contain the only aquifers that are presently of economic importance.

The upper part of the Fox Hills Formation and the lower part of the Hell Creek Formation contain about 100 feet of sandstone in an inter-bedded sandstone, siltstone, and shale zone. The sandstone beds in the zone apparently are hydrologically connected and herein are referred to as the Fox Hills-Hell Creek aquifer.

The top of the Fox Hills-Hell Creek aquifer generally ranges from 1,550 to 2,100 feet below land surface (altitude about 300 feet above msl) in the south-central and southwestern parts of Mountrail County. The top of the aquifer is approximately 1,450 to 2,100 feet below land surface (altitude about 550 feet above msl) in the southeastern part of the county.

The Fort Union Group generally underlies the glacial drift at depths of less than 100 feet throughout much of the Coteau Slope and the Drift Prairie, except in the larger ancient buried valleys. Depths to the Fort Union are commonly more than 100 feet in the Coteau du Missouri area, but many exceptions do exist. The group is subdivided into four formations in the Tongue River and Sentinel Butte Formations.

The Tongue River and Sentinel Butte Formations either crop out or immediately underlie the glacial drift in the report area. These units are distinguishable only on the surface in Mountrail County. Individual sand beds in the Tongue River-Sentinel Butte Formations vary greatly in thickness. Most sand beds are less than 10 feet thick, but thicknesses exceeding 100 feet do occur.

### 3.3.3 Water Wells and Water Use Permits

There is one domestic water supply well within five miles of the proposed well site (Figure 9). In addition, there is one observation well, three test wells, and four unknown-use wells located within five miles of the Ruby Parshall 31-30H (Table 6). There is one surface water sampling site located within five miles of the proposed well site.

**Table 5. Water Wells Within 5 miles**

LOCATION	Distance To Nearest Proposed Well (miles)	Permit Type	Aquifer	Well Depth (feet)	Date
<b>Ruby Parshall 31-30H</b>					
NW NE 36 T151N R95W	1.2	Domestic Well	Unknown	40	5/22/1973
NW NW 36 T151N R95W	1.6	Observation Well	Tongue River-	1280	5/28/1982

LOCATION	Distance To Nearest Proposed Well (miles)	Permit Type	Aquifer	Well Depth (feet)	Date
			Ludlow		
NE NE 35 T151N R95W	1.8	Test Well	Unknown	240	12/13/1981
SW NE 16 T150N R94W	3.2	Test Well	Unknown	40	9/11/1980
SW NE 16 T150N R94W	3.2	Test Well	Unknown	40	9/11/1980
SE SW 14 T150N R95W	3.8	Unknown	Fort Union	35	12/13/1972
NE NE 15 T150N R94W	3.8	Unknown	Fort Union	414	1/1/1962
NW SE 21 T150N R94W	3.8	Unknown	Fort Union	380	1/1/1964
NW NW 30 T150N R94W	4.3	Surface Water Sample Site	Surface	0	Unknown
NW SW 22 T150N R94W	4.7	Unknown	Fort Union	327	1/1/1964

Source: ND State Water Commission 2009

Water quality will be protected by drilling with fresh water to a point below the base of the Fox Hills Formation, implementing proper hazardous materials management and using appropriate casing and cementing. Drilling will proceed in compliance with *Onshore Oil and Gas Order 2, Drilling Operations* (43 CFR 3160). If cement circulation is lost, a cement bound log will be required by BLM to ascertain if remedial cementing is required to provide an adequate seal between casing and strata. Surface casing will be cemented in place to a depth of approximately 2,500 feet, isolating aquifers in the Fox Hills Formation and extending a minimum of 50 feet into the underlying Pierre shale. Intermediate casing will extend from the surface and cemented to isolate potentially productive water and hydrocarbon-bearing zones.

Seepage and infiltration of hazardous materials from the site is considered unlikely due to the use of a closed-loop drilling system (pit-less). There will be no other pits or lagoons. Impacts to shallow aquifers from surface activities and spills will also be minimized or managed by implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan. Produced water will be stored in tanks on site and periodically trucked to an approved disposal site until connection to the SBP.

Evidence of groundwater contamination related to the project will result in a stop work order until appropriate measures are identified and implemented. These and other construction and reclamation techniques included in the APD will minimize the potential for impacts to both surface water and groundwater. No significant impacts to surface water or groundwater are expected because of the proposed action. No applicable laws or regulations will be waived; no compensatory mitigation measures are required to protect surface water or groundwater. The BIA and BLM will monitor operations and review site records at their discretion.

### 3.4 Wildlife and Habitat

#### 3.4.1 Species of Concern

Assessments for Federally listed threatened and endangered species and candidate species were conducted by evaluating historic and present occurrences by determining if potential habitat exists within the project area. Scoping letters were sent to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), the BLM and the North Dakota Parks and Recreation Department - Natural Heritage Inventory (NDPRD) concerning wildlife and habitat impact concerns (Appendix B). Consultation and comments received are presented in Appendix C. All concerns have been considered and mitigation measures have been incorporated throughout this EA.

Currently, eight species and one Designated Critical Habitat is listed as potentially occurring in McKenzie County (Table 6).

**Table 6. McKenzie County Threatened, Endangered, and Candidate Species and Designated Critical Habitat**

Species	Status
Interior Least Tern	Endangered
Whooping Crane	Endangered
Black-footed Ferret	Endangered
Pallid Sturgeon	Endangered
Gray Wolf	Endangered
Piping Plover	Threatened
Sprague's Pipit	Candidate
Dakota Skipper	Candidate
Designated Critical Habitat - Piping Plover	

Source: USFWS (March, 2012)

#### 3.4.2 Species Assessments

Assessments for Federally listed threatened, endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species and habitat. Determinations made for Federally listed species are:

- No effect
- May affect, but is not likely to adversely affect
- May affect, and is likely to adversely affect
- Is likely to jeopardize a proposed species or adversely modify critical habitat
- Is not likely to jeopardize a proposed species or adversely modify critical habitat

Determinations concerning direct and cumulative effects of the proposed activities on each species and their habitat are presented below. The USFWS has issued a response letter with a discussion of the determinations of affects discussed below (Appendix C).

##### 3.4.2.1 Black-footed Ferret

Black-footed ferrets were historically in the southwest portion of North Dakota but their occurrence is unlikely or questionable at this time. The black-footed ferret requires expansive black-tailed

prairie dog colonies for food and den habitat. The Black-Footed Ferret Survey Guidelines (USFWS 1989) states that 80 acres is the minimum size prairie dog habitat needed to support the black-footed ferret. Black-footed ferret reintroduction into the wild began in 1991 (Black-footed Ferret Recovery Implementation Team 2009). There have been 19 reintroduction sites but none in North Dakota at this time. No potential habitat occurs in the area and the proposed project will have **no effect** on this species at this time.

#### 3.4.2.2 Gray Wolf

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America, including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan, and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area, it is reasonable to expect that the proposed project **may affect, is not likely to adversely affect** this species.

#### 3.4.2.3 Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches. Their nesting period occurs between mid May through mid August. During the nesting season, the least tern has been documented to travel 7.5 miles or more from the lake to forage in wetlands. The Ruby Parshall 31-30H well site is located approximately 3.5 miles from and not within line-of-sight of the Missouri River system shoreline. The pad site will not impact any wetlands, and BMPs will be employed to protect adjacent drainages and the lake. No individual terns were observed in the area during the on-site evaluation. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** this species.

#### 3.4.2.4 Pallid Sturgeon

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems, and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960s (Grondahl and Martin; no date). The proposed Ruby Parshall 31-30H well site is approximately 3.5 miles from the Missouri River system (Lake Sakakawea). A closed-loop drilling system will be used to drill and BMPs will be employed, including a containment berm surrounding the proposed well pad site. Following these guidelines, it is reasonable to expect that the proposed project **may affect, is not likely to adversely affect** this species.

#### 3.4.2.5 Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Aransas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location. Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is native grasslands and agricultural fields. The pad and access road are placed in locations that may have

some potential of impacting whooping crane feeding habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities in the immediate area will cease and be immediately reported to the USFWS, the NDGFD, and the BIA. In coordination with the USFWS and the BIA, construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** whooping cranes.

#### **3.4.2.6 Piping Plover and Critical Habitat**

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars, and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been designated along Lake Sakakawea. NDPRD records do not indicate historic piping plover critical habitat within two miles of the project site.

The Ruby Parshall 31-30H well site is located approximately 3.5 miles from and not within line-of-sight of the Missouri River system shoreline. The pad site will not impact any wetlands, and BMPs will be employed to protect adjacent drainages and the lake. No individual piping plovers were observed in the area during the on-site evaluation. Following the guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** this species.

#### **3.4.2.7 Sprague's Pipit**

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects, spiders, and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland, with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The proposed Ruby Parshall 31-30H pad site will be developed within a native prairie pasture. The vegetative height at time of survey was approximately 10–30 cm in most areas, although numerous chokecherry (*Prunus virginiana*), buffaloberry (*Shepherdia argentea*), and western snowberry (*Symphoricarpos occidentalis*) patches are common across the area. In addition, the pad is located near a treed drainage. A two-track trail from the north also bisects the area. Based upon these landscape conditions, the proposed activities **may affect, is not likely to adversely affect** this species.

#### **3.4.2.8 Dakota Skipper**

Dakota skippers are found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needle grass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The proposed Ruby Parshall 31-30H pad site and ROW are located within a mixed grass prairie pasture. This pasture does contain needle grasses, bluestem grasses and coneflower species as well. The overall surface disturbance by these projects will be small in context to the amount of

native prairie habitat available in the immediate area. Based upon these landscape conditions, the proposed activities **may affect, is not likely to adversely affect** this species.

**3.4.3 Wildlife (General)**

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests has been conducted within ½ mile of the proposed projects during the on-site reviews. No nests were observed during the on-site review. The project area was also surveyed for other migratory bird species; however, no birds were observed. Due to the location of the proposed project, surveys for migratory bird nests (including raptor) will again be conducted within five days of construction if portions of the projects are to be constructed during the spring nesting season (February 1–July 15). If a migratory bird nest is located, the location will be recorded and monitored, and documentation will be maintained. The USFWS and BIA will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.

Mowing and/or grubbing of suitable nesting habitat in the project area may be done in the fall prior to construction. This discourages migratory birds from establishing territories and nests in the spring following the disturbance.

Table 7 identifies other wildlife that was observed and/or may generally be expected around the proposed site(s). These were confirmed by direct observation or by various signs of wildlife activity. Direct wildlife observations are affected by time of day, time of year, etc.

**Table 7. Wildlife (General)**

Location	Observed	Suitable Habitat
Ruby Parshall 31-30H	Pocket gopher mounds	Mule deer and white-tailed deer, pronghorn antelope, small mammals, sharp-tailed grouse, and a variety of grassland and song birds

Potential impacts to wildlife include disturbance of habitat by construction of the well pad, construction of a new road, and potential future commercial operations. Minimal to no impacts on listed species are expected due to the low likelihood of their occurrence within the project area. Ground clearing may affect habitat for unlisted species, including small birds, ground dwelling mammals, and other wildlife species. Proposed projects may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. Fragmentation of native prairie habitat is a specific concern for grouse species. High value wildlife habitat will not be compromised by pad construction, but there will be an overall loss of grassland cover.

Precautions benefitting all wildlife include:

- Locations overlying or near existing disturbances;
- No open pits or ponds;
- Installation of covers on drip buckets under valves or spigots; and
- Prompt initial reclamation.

Final reclamation will proceed within six months (or the following spring if during winter months) if the well is unproductive, or promptly after a commercial well is decommissioned.

### 3.5 Soils

The Natural Resource Conservation Services (NRCS) soils data was reviewed prior to the on-site assessment and verified during the field visit. Generally, the pad site is located on fine-grained silty clay soil with low to moderate erosion potential. The site is suitable for construction. The site will be monitored for erosion and BMPs will be placed to control erosion as necessary.

The Ruby Parshall 31-30H site (fenced surface use area) and ROW is located on a 6%–30% slope comprised of the Dogtooth-Janesburg-Cabba complex, according to the NRCS Soils Mapping Units (MUs) of McKenzie County (Table 8). The surface is mixed prairie grassland with topsoil approximately eight inches deep across the site.

**Table 8. Ruby Parshall 31-30H Soils**

Soil Name	Surface Use Acres	ROW Acres	Total Acres
Dogtooth-Janesburg-Cabba complex, 6 to 30 percent slopes	6.8	0.1	6.9

### 3.6 Vegetation and Noxious Weeds

The Missouri Plateau Ecoregion (Missouri Slope) is a western mixed-grass and short-grass prairie (Bryce et al. 1998). The U.S. Department of Agriculture soil surveys for McKenzie County describe vegetation within proposed project areas as mostly cultivated farmlands, native grasses, and wetland plants. Common grain and seed crops include wheat, oats, flax, canola, and barley. Native grasses include big bluestem, little bluestem, blue grama, side-oats grama, green needlegrass, and western wheatgrass. Typical wetland plants are smartweed, sedge species, bulrush, bluejoint and cattail. Woody draws, coulees, and drainages may host communities of chokecherry, buffalo berry, western snowberry and gooseberry.

The proposed Ruby Parshall 31-30H pad site is located within a gently rolling native prairie community. Vegetation condition at time of the survey was moderate to tall and vegetative height ranged from 10 cm to 30 cm. Dominant species in this native pasture community are needle-and-thread (*Stipa comata*), western wheatgrass (*Agropyron smithii*), blue grama (*Bouteloua gracilis*) and green needlegrass (*Stipa viridula*), with little bluestem (*Andropogon scoparius*) common on side slopes. Patches of western snowberry (*Symphoricarpos occidentalis*) and Kentucky bluegrass (*Poa pratensis*) are common on the site. A few small scattered hawthorne (*Crataegus rotundifolia*) are located in the center of the pad. The wooded drainages to the east are characterized by green ash (*Fraxinus pennsylvanica*), chokecherry (*Prunus virginiana*), and buffaloberry (*Shepherdia argentea*), with a few eastern red cedar (*Juniperus virginiana*). Common forbs included fringed sagewort (*Artemisia frigid*), purple coneflower (*Echinacea angustifolia*), green milkweed (*Asclepias viridiflora*), white sagewort (*Artemisia ludoviciana*), yarrow (*Achillea millefolium*) and goats beard (*Tragopogon dubius*). A few rocky, clay pan areas occur on the eastern edge of site and are characterized by blue grama and curlycup gumweed (*Grindelia squarrosa*).



**Figure 10. Ruby Parshall 31-30H General Appearance**

The proposed well site is located in a rolling native prairie pasture. Photograph taken facing north across the site.



**Figure 11. Access Road, Pipeline and Utility ROW**

Photograph taken facing west toward the approved access route.

### 3.6.1 Noxious Weeds

The North Dakota Agriculture Commission (ND Department of Agriculture, 2010) identifies 11 noxious weed plant species in the state (Table 9). Ten of the 11 noxious weed species have been reported in McKenzie County. Absinth wormwood, Canada thistle, Leafy spurge, Musk thistle, Purple loosestrife, Saltcedar, Diffuse knapweed, Spotted knapweed, and Russian knapweed are known to occur. No noxious weeds were observed at the on-site assessments.

**Table 9. Noxious weeds known to occur in McKenzie County**

Common Name	Scientific Name	2010 Reported Acres of Noxious Weeds McKenzie County
Absinth wormwood	<i>Artemisia absinthium</i>	8,813
Canada thistle	<i>Cirsium arvense</i>	30,178
Dalmatian toadflax	<i>Linaria genistifolia</i>	NR
Diffuse knapweed	<i>Centaurea diffusa</i>	2
Leafy spurge	<i>Euphorbia esula</i>	1,306
Musk thistle	<i>Carduus nutans</i>	19,751
Purple loosestrife	<i>Lythrum salicaria</i>	2
Russian knapweed	<i>Acroptilon repens</i>	17
Saltcedar	<i>Tamarix spp.</i>	123
Spotted knapweed	<i>Centaurea maculosa</i>	4
Yellow toadflax	<i>Linaria vulgaris</i>	NR

Source: North Dakota Department of Agriculture 2010

Potential disturbance of up to 6.7 acres presents opportunities for invasive species and threatens to reduce the quality or quantity of forage or crop production. The APD and this EA require the operator to control noxious weeds throughout project areas. Vehicles that have been driven in areas with invasive species must be cleaned with high-pressure sprayers before entering the project area.

Surface disturbance and vehicular traffic must not take place outside the approved ROW or the fenced area of the well pad. Areas stripped of topsoil must be reseeded and reclaimed at the earliest opportunity and within six months. Certified weed-free straw and seed must be used for construction, seeding, and reclamation efforts. Prompt and appropriate construction, operation, and reclamation are expected to reduce vegetative impacts to minimal levels, effectively negating the potential to establish or spread invasive species.

### 3.7 Cultural Resources

Many laws, regulations and agreements protect historic properties or cultural resources on federal or tribal lands. The *National Historic Preservation Act of 1966* (16 USC 470 *et seq.*) in Section 106 requires, for any federal, federally assisted or federally licensed undertaking, that the federal agency take into account the effect of that undertaking on any district, site, building, structure or object that is included in the National Register of Historic Places (National Register) before the expenditure of any federal funds or the issuance of any federal license. "Cultural resources" is a broad term encompassing sites, objects, or practices of archaeological, historical, cultural and religious significance. Eligibility criteria (36 CFR 60.6) include association with important events or people in our history, distinctive construction or artistic characteristics, and either a record of yielding or a potential to yield information important in prehistory or history. In practice, properties are generally not eligible for listing on the National Register if they lack diagnostic artifacts, subsurface remains or structural features, but those considered eligible are treated as though they were listed on the National Register, even when no formal nomination has been filed. This process of taking into account an undertaking's effect on historic properties is known as "Section 106 review," or more commonly as a cultural resource inventory.

The area of potential effect (APE) of any federal undertaking must also be evaluated for significance to Native Americans from a cultural and religious standpoint. Sites and practices may be eligible for protection under the *American Indian Religious Freedom Act of 1978* (42 USC 1996). Sacred sites may be identified by a tribe or an authoritative individual (Executive Order

13007). Special protections are afforded to human remains, funerary objects, and objects of cultural patrimony under the *Native American Graves Protection and Repatriation Act* (NAGPRA, 25 USC 3001 *et seq.*).

Whatever the nature of the cultural resource addressed by a particular statute or tradition, implementing procedures invariably include consultation requirements at various stages of a federal undertaking. The MHA Nation has designated a Tribal Historic Preservation Officer (THPO) by Tribal Council resolution, whose office and functions are certified by the National Park Service. The THPO operates with the same authority exercised in most of the rest of North Dakota by the State Historic Preservation Officer (SHPO). Thus, the BIA consults and corresponds with the THPO regarding cultural resources on all projects proposed within the exterior boundaries of the Fort Berthold Reservation.

A cultural resource inventory of this well pad was conducted by personnel of Metcalf Archaeological Consultants, Inc., using an intensive pedestrian methodology. Approximately 40 acres were inventoried on April 16, 2012 (Bluemle 2012). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of no historic properties affected for this undertaking. This determination was communicated to the THPO on May 9, 2012; however, the THPO did not respond within the allotted 30 day comment period.

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify the BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties. Following any such discovery, operations will not resume without written authorization from the BIA. **Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.** No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

### 3.8 Socio-economics

Socioeconomic conditions include population, demographics, income, employment, and housing. These conditions can be analyzed and compared at various scales. This analysis focuses on the reservation, the four counties that overlap the majority of the Reservation and the state of North Dakota. The state population showed little change between the last two censuses (2000-2010), but there were notable changes amongst counties, as shown in Table 10. Populations in Dunn and McLean counties declined from 1% to 4%, while populations in McKenzie and Mountrail increased by more than 10%. On the Fort Berthold Reservation, population showed almost no change (+.07). While American Indians are the predominant group on the reservation, they are a minority everywhere else in the state. More than two-thirds (3,986) of the Reservation population are tribal members.

In addition to the ranching and farming that are employment mainstays in western North Dakota, employment on the Reservation largely consists of ranching, farming, tribal government, tribal enterprises, schools, and federal agencies. The MHA Nation's Four Bears Casino and Lodge near New Town employs over 320 people, 90% of which are tribal members (Three Affiliated Tribes 2008).

**Table 10. Population and Demographics.**

County or Reservation	Population in 2010	% of State Population	% Change 2000-2010	Predominant Group	Predominant Minority
Dunn County	3,536	0.5	- 1.8	White	American Indian (12%)
McKenzie County	6,360	0.99	+ 10.9	White	American Indian (21%)
McLean County	8,962	1.39	- 3.7	White	American Indian (6%)
Mountrail County	7,673	1.19	+ 15.7	White	American Indian (30%)
Fort Berthold Reservation	6,341	0.98	+ .07	American Indian	White (23%)
Statewide	672,591	100	+0.005	White	American Indian (18%)

Source: U.S. Census Bureau 2010.

As shown in Table 11, counties overlapping the Reservation tend to have per capita incomes, median household incomes, and employment rates that are lower than North Dakota statewide averages. Reservation residents have lower average incomes and higher unemployment rates compared to the encompassing counties. MHA Nation members are in turn disadvantaged relative to overall Reservation incomes and unemployment rates that average in nonmember data. The most recent census found that per capita income for residents of the Reservation is \$10,291 (less than one-third of the state average). Overcrowded housing skews the median reservation household income upward to \$26,274 (about one-third of the state average). A BIA report in 2003 found that 33% of employed MHA Nation members were living below federal poverty levels. The unemployment rate of tribal members is 22% compared to 11.1% for the reservation as a whole and 4.6% statewide.

Availability and affordability of housing can affect oil and gas development and operations. Housing information from the year 2010 is summarized in Table 12. The tribal Housing Authority manages a majority of the housing units within the reservation. Housing typically consists of homes built through various government programs, low-rent housing units, and scattered-site homes. Private purchase and rental housing are available in New Town. New housing construction has recently increased within much of the analysis area, but availability remains low.

**Table 11. Income and Unemployment.**

Unit of Analysis	Per Capita Income	Median Household Income	Unemployment Rate	Employed but Below Poverty Level	Percent of All People in Poverty
MHA Nation <sup>1</sup>	--	--	22%	33%	Unknown
Fort Berthold Reservation <sup>1</sup>	\$10,291	\$26,274	11.1%	--	Unknown
Mountrail County <sup>2</sup>	\$25,762	\$53,912	2.0%	--	16.5%
Dunn County <sup>2</sup>	\$24,832	\$48,707	1.4%	--	8.6%
McKenzie County <sup>2</sup>	\$27,605	\$48,480	1.5%	--	10%
McLean County <sup>2</sup>	\$27,029	\$52,922	4.1%	--	9.3%
North Dakota <sup>2</sup>	\$31,871	\$46,781	2.9%	--	12.3%

Source: <sup>1</sup>U.S. Department of Agriculture Economic Research Data 2008 and BIA 2003.

<sup>2</sup>U.S. Census Bureau 2010, Federal Reserve Bank of Saint Louis 2012.

The proposed project is not expected to have measurable impacts on population trends, local unemployment rates or housing starts. Relatively high-paying construction jobs will result from exploration and development of oil and gas reserves on the reservation, but most of these opportunities are expected to be short-term. The proposed actions will require temporary employees during the well construction cycle and one to two full-time employees from the long-term production cycle. Short-term construction employment will provide some economic benefit. Long-term commercial operations will provide significant royalty income and indirect economic benefits.

**Table 12. Housing**

Housing Development	Fort Berthold Reservation	Dunn County	McKenzie County	McLean County	Mountrail County
<b>Existing Housing</b>					
Owner-Occupied Units	--	2,946	4,123	8,984	4,982
Renter Occupied Units	--	458	1,871	1,564	1,963
Vacant	1,515	--	--	--	--
Total	3,614	3,404	5,994	8,548	6,943
New Private Housing Building Permits 2010-2011	--	11	151	53	102
<b>Housing Development Statistics</b>					
State rank in housing starts	--	51 of 53	15 of 53	21 of 53	17 of 53
National rank in housing starts	--	3112/3141	2498/3141	2691/3141	2559/3141

Source: U.S. Census Bureau 2010

### 3.9 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, was signed by President Clinton in 1994. The Order requires agencies to advance environmental justice (EJ) by pursuing fair treatment and meaningful involvement of minority and low-income populations. Fair treatment means such groups should not bear a disproportionately high share of negative environment consequences from federal programs, policies, decisions, or operations. Meaningful involvement means federal officials actively promote opportunities for public participation, and federal decisions can be materially affected by participating groups and individuals.

The U.S. Environmental Protection Agency (EPA) headed the interagency workgroup established by the 1994 Order and is responsible for related legal action. Working criteria for designation of targeted populations are provided in *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (EPA 1998). This guidance uses a statistical approach to consider various geographic areas and scales of analysis to define a particular population's status under the Order.

Environmental Justice is an evolving concept with potential for disagreement over the scope of analysis and the implications for federal responsiveness. It is nevertheless clear that tribal members on the Great Plains qualify for EJ consideration as both a minority and low-income population. The population of the Dakotas is predominantly Caucasian. While some 70% of Reservation residents are tribal members, Indians comprise only 5% of North Dakota residents.

There are, however, some unusual EJ considerations when proposed federal actions are meant to benefit tribal members. Determination of fair treatment necessarily considers the distribution of both benefits and negative impacts due to variation in the interests of various tribal groups and individuals. There is also potential for major differences in impacts to resident tribal members and those enrolled or living elsewhere. A general benefit to the MHA Nation government and infrastructure has already resulted from tribal leasing, fees, and taxes. Oil and gas leasing has also already brought much-needed income to MHA Nation members who hold mineral interests, some of whom might eventually benefit further from royalties on commercial production. Profitable production rates at proposed locations might lead to exploration and development on additional tracts owned currently by non-benefitting allottees. The absence of lease and royalty income does not, moreover, preclude other benefits. Exploration and development will provide many relatively high-paying jobs, with oversight from the Tribal Employment Rights Office.

The owners of allotted surface within the project areas may not hold mineral rights. In such case, surface owners do not receive oil and gas lease or royalty income, and their only income will be compensatory for productive acreage lost due to road and well pad construction. Tribal members without surface or mineral rights will not receive any direct benefits. Indirect benefits of employment and general tribal gains will be the only potential offsets to negative impacts.

Potential impacts to tribes and tribal members include disturbance of cultural resources. There is potential for disproportionate impacts, especially if the impacted tribes and members do not reside within the Reservation and therefore do not share in direct or indirect benefits. This potential is significantly reduced following the surveys of proposed well locations and access road routes, and determination by the BIA that there will be no effect on historic properties. Research and survey has found nothing to be impacted at either well pad that qualifies as a traditional cultural property (TCP) under the *American Indian Religious Freedom Act*. Potential for disproportionate impacts is further mitigated by requirements for immediate work stoppage following an unexpected discovery of cultural resources of any type. Mandatory consultations will take place during any such work stoppage, affording an opportunity for all affected parties to assert their interests and contribute to an appropriate resolution, regardless of their home location or tribal affiliation.

The proposed project has not been found to pose significant impacts to any other critical element—air, public health and safety, water, wetlands, wildlife, vegetation, or soils—within the human environment. The proposed action offers many positive consequences for tribal members, while recognizing Environmental Justice concerns. Procedures summarized in this document and in the APD are binding and sufficient. No laws, regulations, or other requirements have been waived; no compensatory mitigations measures are required.

### **3.10 Irreversible and Irretrievable Commitment of Resources**

Removal and consumption of oil and/or gas from the Bakken and/or Three Forks Formation will 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 earthmoving or in collisions with vehicles, and energy expended during construction and operation.

### **3.11 Short-Term Use versus Long-Term Productivity**

Short-term activities will not detract significantly from long-term productivity of the project areas. The small areas dedicated to the access roads and well pad will be unavailable for livestock grazing, wildlife habitat, and other uses. Allottees with surface rights will be compensated for loss of productive acreage. Project footprints will shrink considerably once the wells are drilled, the pipelines and utilities installed, and the area is reclaimed and reseeded. Successful and ongoing

reclamation of the landscape will quickly support wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. The major long-term resource loss corresponds with the project purpose: extraction of hydrocarbons from the Bakken and Three Forks Formations.

### **3.12 Cumulative Impacts**

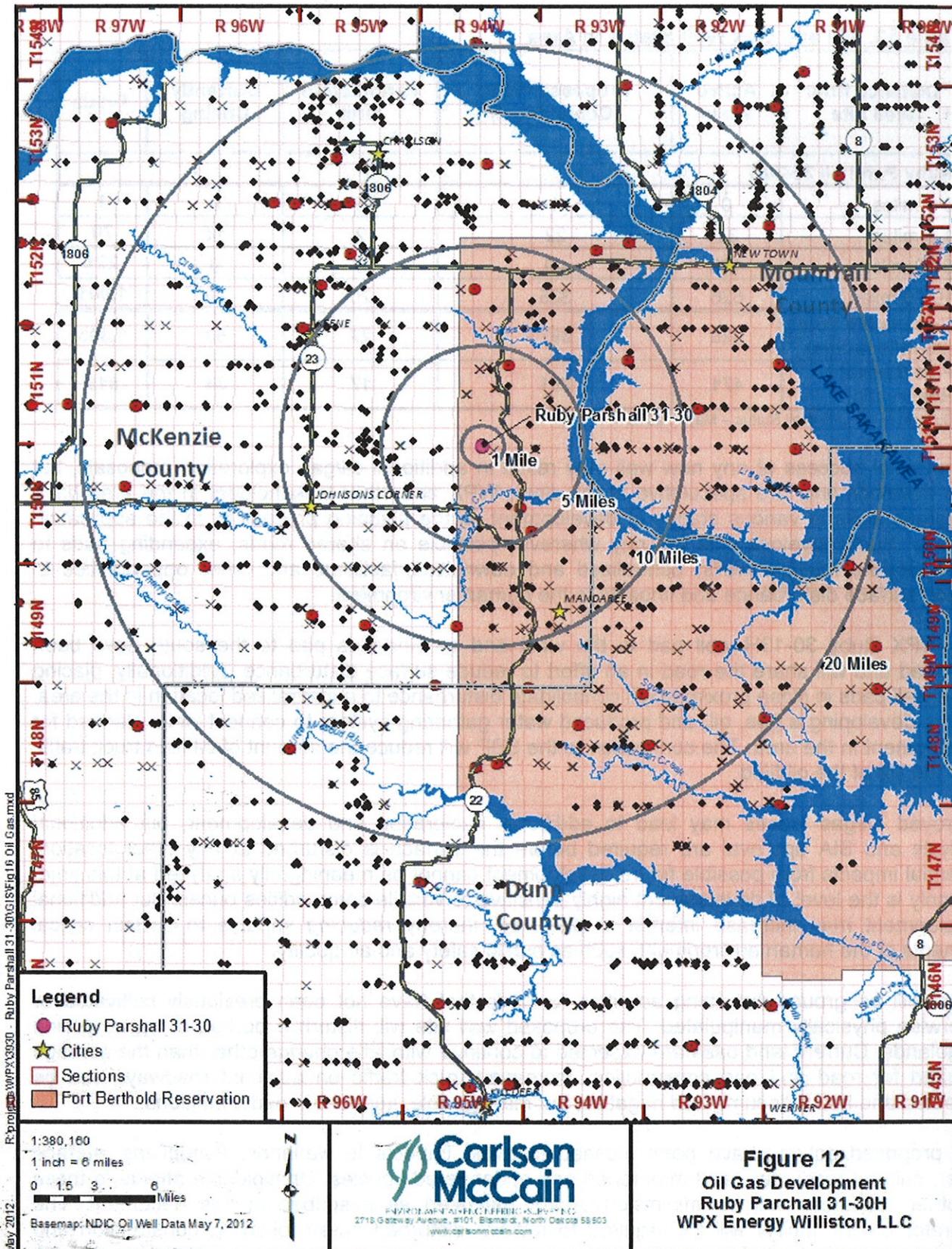
Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that is the focus of the cumulative impact analysis. While impacts can be differentiated as direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances, since cumulative impacts result in the compounding of the effects of all actions over time. Thus, the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource no matter what entity (federal, non-federal, or private) is taking the actions. Environmental impacts may accumulate over time or in combination with similar activities in the area. Unrelated activities may also have negative impacts on critical elements, thereby contributing to cumulative degradation of the environment. There are other impacts, however, that cumulatively may be greater than the sum of the individual projects.

The landscape and vegetation of the Great Plains have undergone continual transformations due to the influences of nature and human actions. Cumulative effects have occurred as a loss and alteration of habitats caused by cultivation, range management practices, fire suppression, exotic species introductions, resource development, and other practices. Past and current disturbances near the proposed project include farming, grazing, roads, and other oil/gas development. Virtually all available acreage is already organized into agricultural leases or range units to utilize surface resources for economic benefit.

The major activity with potential to impact critical elements of the human environment is oil field development. Over the past several years, exploration has accelerated over the Bakken and Three Forks Formation, and has accelerated within the reservation boundary in the last three years. The proposed projects are one of various proposed developments in the area. As such, it will contribute only a portion of the cumulative impacts. In some instances, the cumulative impact on the environment of the proposed project and oil/gas development activities will be the sum of the individual impacts from each project in the region.

Perimeters of 1, 5, 10, and 20 miles around the proposed well site were evaluated to determine the level of oil and gas activity in the surrounding area, as shown in Figure 12 and Table 13. There are now 32 active wells within five miles of the site considered in this document, with at least 23 confidential sites in the area as reported by the NDIC. WPX and other producers are currently developing the immediate area. Within ten miles, there are currently 200 active wells with another 72 proposed. Within 20 miles, there are approximately 1,303 total oil and gas wells in various stages of development or production.

Figure 12. Oil and Gas Development



**Table 13. Oil and Gas Well Status in Area**

Distance from Well Site	Active Wells	Proposed Wells (Confidential)	Permitted to Drill	Currently Drilling	Totals
<b>Ruby Parshall 31-30H</b>					
0-1 miles	0	1	0	0	1
1-5 miles	32	22	2	14	70
5-10 miles	168	49	5	9	231
10-20 miles	626	325	20	30	1,001
<b>Cumulative Total (20-mile radius)</b>	<b>826</b>	<b>397</b>	<b>27</b>	<b>53</b>	<b>1,303</b>
<b>Fort Berthold Reservation</b>	<b>471</b>	<b>291</b>	<b>17</b>	<b>34</b>	<b>813</b>

Source: NDIC O/G Well Status – May 7, 2012

Commercial success at any new well may result in additional oil/gas exploration proposals, but such developments are speculative at this time. WPX and other leaseholders in the area have numerous wells in various stages of development, in the planning process or in the application process. Such developments will rely wherever possible on shared roads, expanding pads to accommodate multiple wells, centralized and downsized facilities, and other opportunities to reduce surface disturbance and impacts to the human environment.

The WPX Ruby 30-13H well pad to the west and an Enerplus pad to the south have been permitted and will share the road in an effort to reduce surface disturbance. Additionally, placing these well pads in close proximity will consolidate disturbance to a centralized location in the area. SBP is developing a gas, oil, and produced water gathering system to connect wells planned for development in the area. The connection to the SBP will reduce the amount of oil field truck traffic over the life of the oil field.

Approved oil/gas leases may lead to additional exploration and development, but additional analysis and BIA approval are required before the surface is disturbed at any other location. Potential impacts from possible future development cannot be meaningfully analyzed at this time. Not only is the level of development highly sensitive to volatile commodities prices, but additional development may increase interest in pipelines, thereby *reducing* impacts to certain critical elements of the human environment, such as public safety and air quality.

There will be ground-disturbing activities to lands that have not been previously cultivated or otherwise physically manipulated. The proposed well site will disturb a portion of native prairie rangelands. Current land uses are expected to continue with little change other than the acreage required for road and pad construction. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

The proposed actions have been planned to avoid impacts to wetlands, floodplains, surface water, cultural resources, and threatened and endangered species. Unavoidable affects to these or other resources will be minimized and/or mitigated as described in this document. The Operator of any facility will be required to reclaim disturbed areas following construction and completion. Implementation of other precautionary and protective measures detailed in this EA and applicable regulations are expected to minimize impacts to critical elements of the human

environment. Foreseeable impacts from the proposed projects are generally expected to be temporary, manageable, and/or insignificant. Cumulative impacts over the entire Bakken basin have not been assessed. No cumulative impacts are reasonably foreseen from the proposed activities, relative to the existing scale of development.

### **3.13 Mitigation and Commitments by WPX**

Many protective measures and procedures are described in this document and in the APD. No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

Resource surveys were conducted at the time of on-site inspections to determine potential affects to cultural and natural (i.e., biological and physical) resources. The locations were inspected in consideration of topography, location of topsoil/subsoil stockpiles, natural drainage and erosion control, flora, fauna, habitat, historical and cultural resources, and other surface issues. The final locations were determined in consideration of these issues.

Avoidance measures and other protective measures were incorporated into the final project design to minimize impacts to evaluated resources. Those measures are presented here and will be incorporated in the Permit to Construct.

#### **3.13.1 Site Specific Spill Prevention and BMPs**

WPX has committed to use the following mitigation measures:

- Utilization of a closed-loop drilling system.
- Construction of an 18-inch containment berm around fill slopes of pad.
- Diversion ditches on the north side of the pad to divert water around the pad site.
- Use of Best Management Practices (BMPs), including containment berm(s), diversion ditches, matting on fill slopes, soil compaction, and reseeded of native species during reclamation.
- Interim reclamation within six months of initial construction disturbance.

#### **3.13.2 Wildlife Protections**

WPX has made commitments to the following wildlife protection and mitigation measures:

- If portions of the projects will be constructed during the nesting season (February 1– July 15), surveys for migratory bird nests will be conducted within five days before construction. The location of any nests will be recorded and the USFWS will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.
- Construction will be stopped if whooping cranes are sighted within one mile of the construction activity and not resume until the birds have left the area. Any sightings will be immediately reported to the USFWS, NDGFD, and the BIA.

#### **3.13.3 Utilities**

Oil, natural gas, and produced water pipelines along with underground electric and fiber optic utilities will be constructed within the evaluated corridor. Efforts will be made to install utilities at one time, coinciding with interim reclamation of the pad site.

#### **3.13.4 Dust Control**

WPX will practice watering and/or application of a dust suppressant as necessary on access roads during construction, especially during periods of high winds and/or low precipitation.

#### **3.13.5 Fire Control**

WPX implements fire prevention and control measures including, but not limited to, the following:

- Requiring construction crews to carry fire extinguishers in their vehicles and/or equipment.
- Training construction crews in the proper use of fire extinguishers.
- Contracting with the local fire district to provide fire protection.

#### **3.13.6 Traffic and Roads**

Cooperative efforts by operators, agencies, and the MHA Nation are currently being developed and implemented across the FBIR. These measures include the following:

- Requiring construction personnel to stay within the ROW or follow designated access roads.
- Increasing pipeline infrastructure, centralizing water depots, and developing salt water disposal wells to reduce overall truck traffic and road degradation.
- Utilizing Tribal TERO fees for oil and gas activities, TAT Tribal funds, and IRR funds to increase the pace of maintenance and repair of roads impacted by increased truck traffic and adverse weather conditions.

#### **3.13.7 Cultural Resources**

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify the BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties. Following any such discovery, operations will not resume without written authorization from the BIA. Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.

## 4.0 Consultation and Coordination

Project scoping letters and maps were mailed on April 10, 2012. Direct mail recipients and a record of comments received are listed in Table 14. An example scoping letter and all responses received are found in Appendices B and C. A response letter discussing concurrence of species effect determinations was received from the USFWS on June 14, 2012 (Appendix C).

**Table 14. Scoping Record**

<b>Recipient</b>	<b>Comments</b>
Bureau of Land Management	No Response
Bureau of Reclamation	No federal Reclamation facilities are located within project area. If project crosses water pipeline, contact Bureau of Reclamation engineer and the Fort Berthold Rural Water Director.
Dunn County	No Response
EPA	No Response
FAA Bismarck	No Response
FAA Minneapolis	No Response
FEMA	Consult local Land use official for McKenzie County
Fort Berthold Rural Water Supply	No Response
McKenzie Ranger District	No Response
McLean County Board of Commissioners	No Response
MHA Nation	No Response
MHA Nation District Rep	No Response
MHA Nation Chairman	No Response
MHA Nation Game & Fish	No Response
MHA Nation Natural Resources Dept.	No Response
MHA Nation THPO	No Response
Montana-Dakota Utilities	No Response
Mountrail Board of Commissioners	No Response
National Park Service	No Response
ND DOT	No Response
ND Game and Fish	Avoid fragmentation and destruction of native prairie, wooded draws, riparian, and wetland areas.
ND NRCS	No action required in regard to the Farmland Protection Policy Act. Follow NRCS guidelines for the installation of buried utilities to minimize impacts to wetland(s).
NDIAC	No Response
New Town Municipal Airport	No Response
NoDak Electric Cooperative, Inc.	No Response
North Dakota Department of Health	Minimize dust, minimize emissions, ensure road aggregate does not contain erionite, minimize degradation to waterways, ensure proper storm water management, and develop a spill response plan.

<b>Recipient</b>	<b>Comments</b>
North Dakota Parks and Recreation Dept.	No species of concern or significant ecological communities within one mile.
Parshall-Hankins Field Airport	No Response
Reservation Telephone Co-op	No Response
Southwest Water Authority	No Response
Spirit Lake Tribe	No Response
Standing Rock Sioux Tribe	No Response
State Historical Society	Request for cultural resource survey results.
Turtle Mountain Band of Chippewa	No Response
USACOE - Bismarck	Submit ENG form 4345 for proposed wells with line and/or bottom hole located under Lake Sakakawea.
USACOE - Riverdale	Recommend down slope trenching to contain hazardous wastes, impervious liner be placed on well pad prior to construction, use of closed loop drilling system, weed free fill material, clean equipment prior to construction to prevent the distribution of noxious or undesirable vegetation, NSO ½ mile of T&E species, construct August 15–April 1 to reduce disruption during breeding season, and assess cumulative impacts.
USFWS	Concurrence with mitigation efforts and T&E species determinations except Piping plover. The "no effect" determination was changed to reflect the USFWS recommendation of "may affect, not likely to adversely affect".
Ward County Board of Commissioners	No Response

## 5.0 List of Preparers

An interdisciplinary team contributed to this document, following guidance in Part 1502.6 of CEQ regulations. Portions of the documents were drafted by Carlson McCain, Inc., under the direction of the BIA. Federal officials, oil and gas representatives, and consultants included the following:

### **Bureau of Indian Affairs**

Marilyn Bercier  
Mark Herman

### **WPX Energy Williston, LLC**

Nelson Klitzka, Regulatory Specialist  
Jennifer Head, Regulatory Manager

### **Carlson McCain, Inc.**

Todd Hartleben, Senior Engineer  
Ryan Krapp, Wildlife Biologist/GIS Specialist  
Miranda Meehan, Natural Resource Specialist

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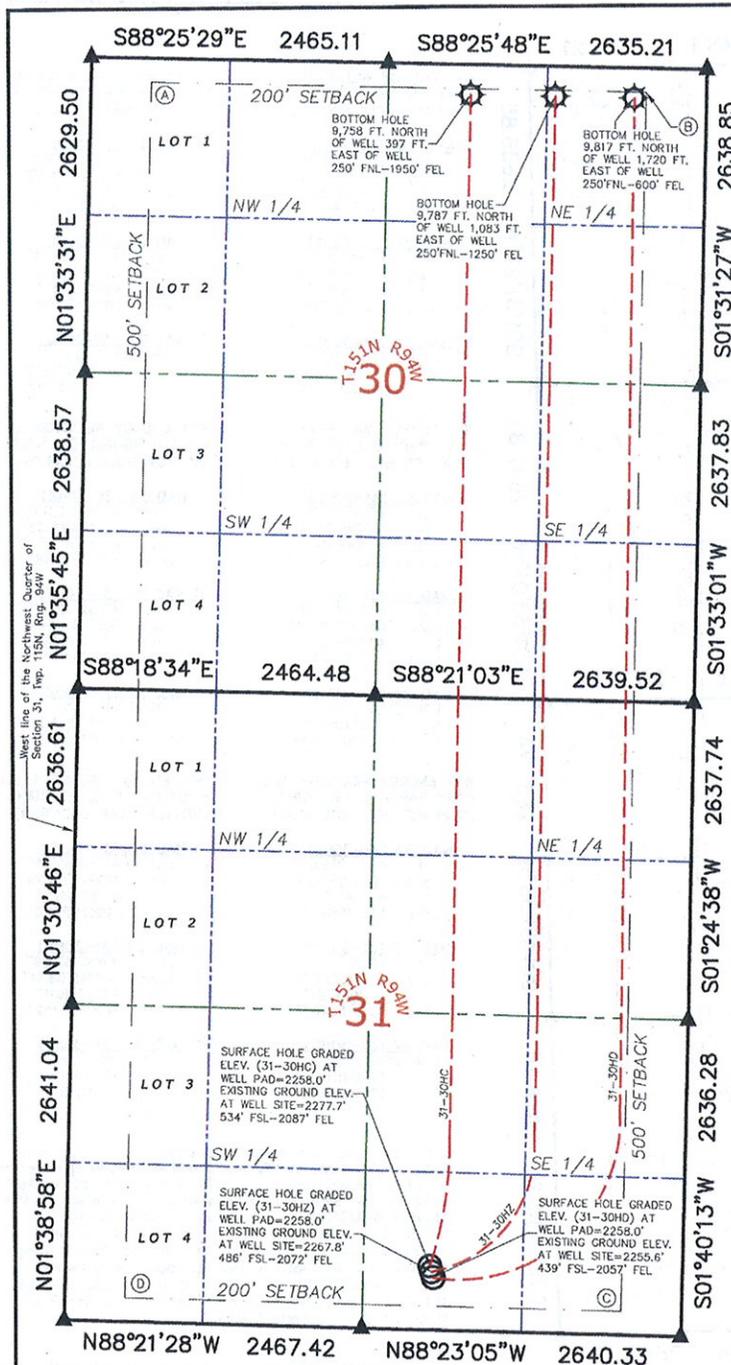
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# Appendix A



WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(BOTTOM HOLE LOCATION)

- 1) **NAD 83 (31-30HC)**  
Lat. 47°50'56.56"  
Long. 102°45'31.22"  
Lat. 47.849045°  
Long. 102.758672°
- 2) **NAD 27 (31-30HC)**  
Lat. 47°50'56.50"  
Long. 102°45'29.53"  
Lat. 47.849029°  
Long. 102.758204°
- 3) **NAD 27 (31-30HC)**  
UTM ZONE 13N  
N: 17394108.510  
E: 2190665.871

- 1) **NAD 83 (31-30HC)**  
Lat. 47°52'32.92"  
Long. 102°45'29.59"  
Lat. 47.875811°  
Long. 102.758221°
- 2) **NAD 27 (31-30HC)**  
Lat. 47°52'32.86"  
Long. 102°45'27.91"  
Lat. 47.875794°  
Long. 102.757753°
- 3) **NAD 27 (31-30HC)**  
UTM ZONE 13N  
N: 17403870.900  
E: 2190493.192

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(BOTTOM HOLE LOCATION)

- 1) **NAD 83 (31-30HZ)**  
Lat. 47°50'56.09"  
Long. 102°45'31.00"  
Lat. 47.848914°  
Long. 102.758611°
- 2) **NAD 27 (31-30HZ)**  
Lat. 47°50'56.03"  
Long. 102°45'29.31"  
Lat. 47.848898°  
Long. 102.758143°
- 3) **NAD 27 (31-30HZ)**  
UTM ZONE 13N  
N: 17394061.267  
E: 2190682.239

- 1) **NAD 83 (31-30HZ)**  
Lat. 47°52'32.93"  
Long. 102°45'19.33"  
Lat. 47.875815°  
Long. 102.755368°
- 2) **NAD 27 (31-30HZ)**  
Lat. 47°52'32.87"  
Long. 102°45'17.64"  
Lat. 47.875798°  
Long. 102.754900°
- 3) **NAD 27 (31-30HZ)**  
UTM ZONE 13N  
N: 17403892.593  
E: 2191192.886

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(BOTTOM HOLE LOCATION)

- 1) **NAD 83 (31-30HD)**  
Lat. 47°50'55.62"  
Long. 102°45'30.78"  
Lat. 47.848783°  
Long. 102.758550°
- 2) **NAD 27 (31-30HD)**  
Lat. 47°50'55.56"  
Long. 102°45'29.09"  
Lat. 47.848767°  
Long. 102.758082°
- 3) **NAD 27 (31-30HD)**  
UTM ZONE 13N  
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E: 2190698.607

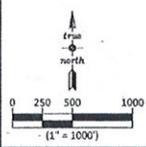
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- 2) **NAD 27 (31-30HD)**  
Lat. 47°52'32.89"  
Long. 102°45'08.11"  
Lat. 47.875801°  
Long. 102.752252°
- 3) **NAD 27 (31-30HD)**  
UTM ZONE 13N  
N: 17403912.737  
E: 2191842.602

I, Kurt M. Kisch, Professional Land Surveyor, North Dakota RLS# 4597 hereby certify that I and or personnel under my direct supervision made a survey on the 10th day of April, 2012 for the Surface Hole Locations and Elevation of WPX ENERGY WILLISTON, LLC, Well Ruby Parshall 31-30HC, 31-30HZ, and 31-30HD being located within the SW 1/4 of the SE 1/4, of Section 31, Township 151 North, Range 94 West and the Bottom Hole Locations being located within the N 1/2 of the NE 1/4 of Section 30, Township 151 North, Range 94 West, both being of the 5th P.M., McKenzie County, North Dakota.

- Notes:**
1. All bearings shown hereon are based on the west line of the Northwest Quarter of Section 31, Township 151N, Range 94W, having a bearing of N01°30'46"E using GPS observations, occupying a CMI control point and having the location and elevation derived from an OPUS Solution.
  2. Vertical Datum used is of NAVD 88.
  3. The OPUS Solution control point used is located 468.18 feet on a bearing of SB9°16'26"E from the South Quarter Corner of Section 31, Township 151N, Range 94W.
  4. Distances shown hereon are ground distances using a combined scale factor of 1.000160016.

**DRILL AREA SETBACK COORDINATES**

- |   |   |   |   |
|---|---|---|---|
| A) <b>NAD 83</b><br>UTM ZONE 13N<br>N: 17404559.672<br>E: 2187711.050 | B) <b>NAD 83</b><br>UTM ZONE 13N<br>N: 17404686.368<br>E: 2191808.722 | C) <b>NAD 83</b><br>UTM ZONE 13N<br>N: 17394543.773<br>E: 2192128.045 | D) <b>NAD 83</b><br>UTM ZONE 13N<br>N: 17394419.885<br>E: 2188023.499 |
| A) <b>NAD 27</b><br>UTM ZONE 13N<br>N: 17403838.948<br>E: 2187843.143 | B) <b>NAD 27</b><br>UTM ZONE 13N<br>N: 17403965.809<br>E: 2191940.969 | C) <b>NAD 27</b><br>UTM ZONE 13N<br>N: 17393823.529<br>E: 2192260.533 | D) <b>NAD 27</b><br>UTM ZONE 13N<br>N: 17393699.476<br>E: 2188155.825 |



**LEGEND**

- ▲ Found Monument
- Corner Searched and Not Found
- Calculated Corner
- ⊙ Bottom Hole Location
- Surface Hole Location

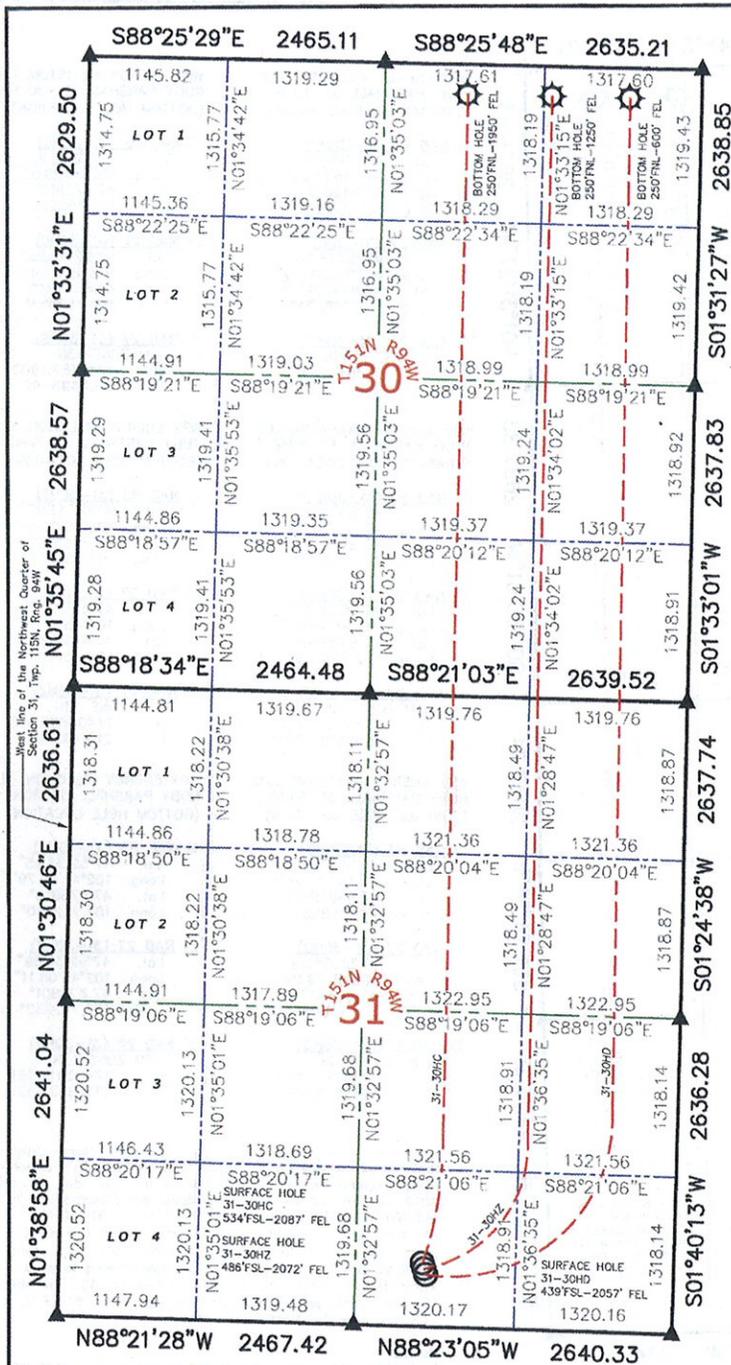


*Kurt M. Kisch*  
Kurt M. Kisch Registered Land Surveyor  
Registration No. 4597  
State of North Dakota

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2718 Gateway Avenue, #101  
Bismarck, ND 58503  
Phone: 701-255-1475  
www.carlsonmccain.com

PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**WELL LOCATION PLAT**  
**RUBY PARSHALL 31-30HC, 31-30HZ, & 31-30HD**  
~ WPX ENERGY WILLISTON, LLC ~



WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(SURFACE HOLE LOCATION)

- NAD 83 (31-30HC)**  
Lat. 47°50'56.56"  
Long. 102°45'31.22"  
Lat. 47.849045°  
Long. 102.758672°
- NAD 27 (31-30HC)**  
Lat. 47°50'56.50"  
Long. 102°45'29.53"  
Lat. 47.849029°  
Long. 102.758204°
- NAD 27 (31-30HC)**  
UTM ZONE 13N  
N: 17394108.510  
E: 2190665.871

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(SURFACE HOLE LOCATION)

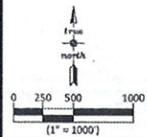
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RUBY PARSHALL 31-30HD  
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Lat. 47°50'55.56"  
Long. 102°45'29.09"  
Lat. 47.848767°  
Long. 102.758082°
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UTM ZONE 13N  
N: 17394014.023  
E: 2190698.607

I, Kurt M. Kisch, Professional Land Surveyor, North Dakota RLS# 4597 hereby certify that I and/or personnel under my direct supervision made a survey on the 10th day of April, 2012 for the Surface Hole Locations and Elevation of WPX ENERGY WILLISTON, LLC, Well Ruby Parshall 31-30HC, 31-30HZ, and 31-30HD being located within the SW 1/4 of the SE 1/4, of Section 31, Township 151N, Range 94W and the Bottom Hole Locations being located within the N 1/2 of the NE 1/4 of Section 30, Township 151N, Range 94W, both being of the 5th P.M., McKenzie County, North Dakota.

- Notes:**
- All bearings shown hereon are based on the west line of the Northwest Quarter of Section 31, Township 151N, Range 94W, having a bearing of N01°30'46"E using GPS observations, occupying a CMI control point and having the location and elevation derived from an OPUS Solution.
  - Vertical Datum used is of NAVD 88.
  - The OPUS Solution control point used is located 468.18 feet on a bearing of S89°16'26"E from the South Quarter Corner of Section 31, Township 151N, Range 94W.
  - Distances shown hereon are ground distances using a combined scale factor of 1.000160016.



- LEGEND**
- ▲ Found Monument
  - Corner Searched and Not Found
  - Calculated Corner
  - ⊙ Bottom Hole Location
  - Surface Hole Location



*Kurt M. Kisch*  
Kurt M. Kisch Registered Land Surveyor  
Registration No. 4597  
State of North Dakota

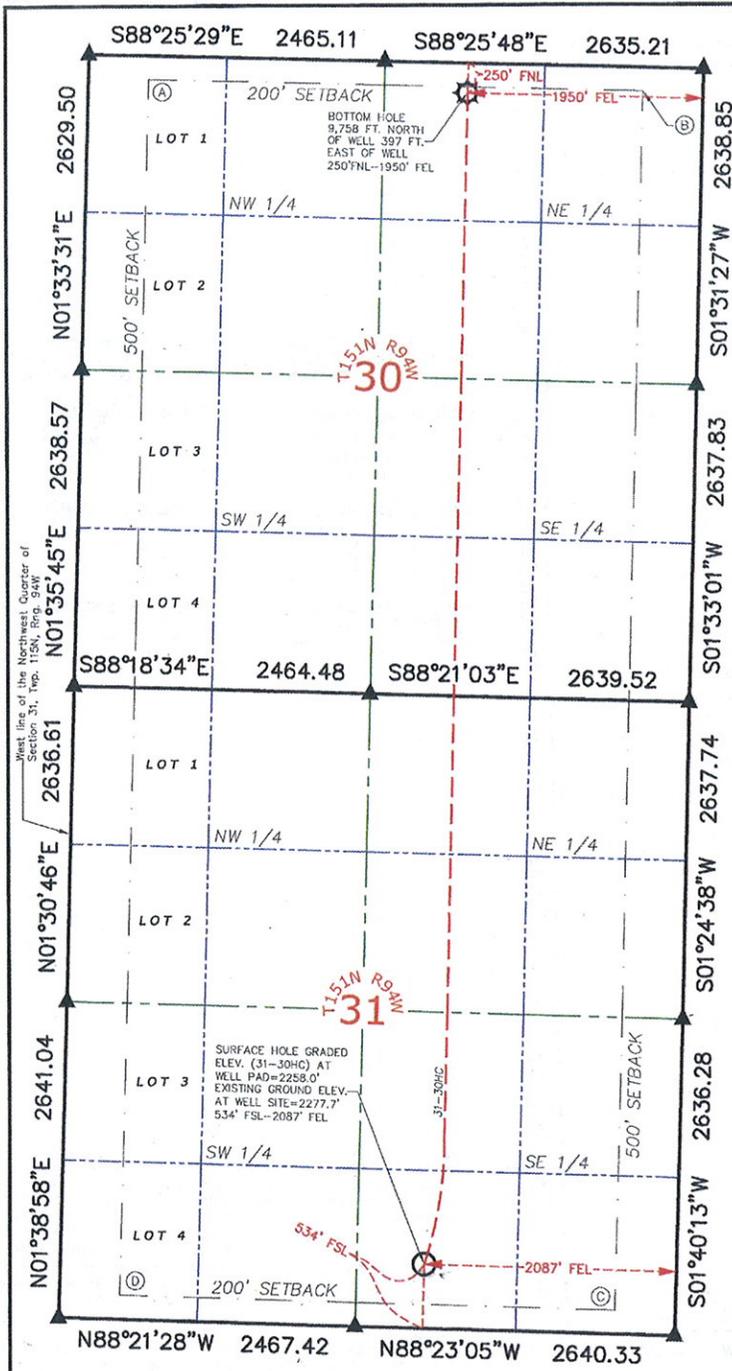
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www.carlsonmccain.com

**PAD LOCATION**

THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 | DATE: 7/02/12  
REVISIONS:

**HORIZONTAL SECTION PLAT**  
**RUBY PARSHALL 31-30HC, 31-30HZ, & 31-30HD**  
~ WPX ENERGY WILLISTON, LLC ~



WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(BOTTOM HOLE LOCATION)

- 1) NAD 83 (31-30HC)  
Lot. 47°50'56.56"  
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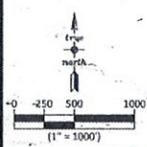
**Notes:**  
1. All bearings shown hereon are based on the west line of the Northwest Quarter of Section 31, Township 151N, Range 94W, having a bearing of N01°30'46"E using GPS observations, occupying a CMI control point and having the location and elevation derived from an OPUS Solution.

2. Vertical Datum used is of NAVD 88.  
3. The OPUS Solution control point used is located 468.18 feet on a bearing of S89°16'26"E from the South Quarter Corner of Section 31, Township 151N, Range 94W.

4. Distances shown hereon are ground distances using a combined scale factor of 1.000160016.

**DRILL AREA SETBACK COORDINATES**

A) <u>NAD 83</u> UTM ZONE 13N N: 17404559.672 E: 2187711.050	B) <u>NAD 83</u> UTM ZONE 13N N: 17404686.368 E: 2191808.722	C) <u>NAD 83</u> UTM ZONE 13N N: 17394543.773 E: 2192128.048	D) <u>NAD 83</u> UTM ZONE 13N N: 17394419.885 E: 2188023.499
A) <u>NAD 27</u> UTM ZONE 13N N: 17403838.948 E: 2187843.143	B) <u>NAD 27</u> UTM ZONE 13N N: 17403965.809 E: 2191940.969	C) <u>NAD 27</u> UTM ZONE 13N N: 17393823.529 E: 2192260.533	D) <u>NAD 27</u> UTM ZONE 13N N: 17393699.476 E: 2188155.825



- LEGEND**
- ▲ Found Monument
  - Corner Searched and Not Found
  - ⊙ Calculated Corner
  - ⊙ Bottom Hole Location
  - Surface Hole Location



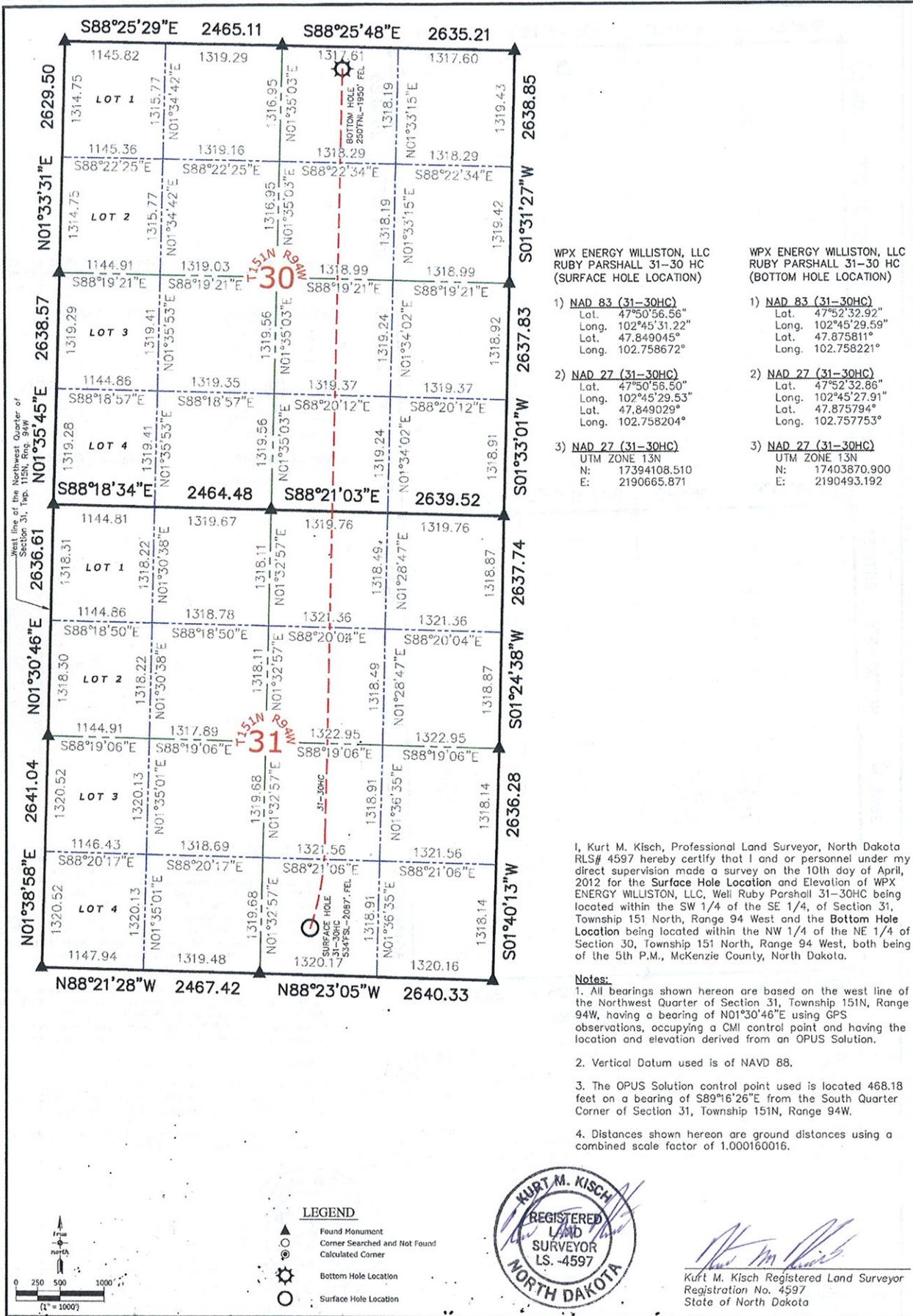
*Kurt M. Kisch*  
Kurt M. Kisch Registered Land Surveyor  
Registration No. 4597  
State of North Dakota

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Bismarck, ND 58503  
Phone: 701-255-1475  
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PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**WELL LOCATION PLAT**  
**RUBY PARSHALL 31-30HC**  
~ WPX ENERGY WILLISTON, LLC ~

SHEET 3 of 21



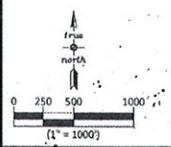
WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30 HC  
(BOTTOM HOLE LOCATION)

- |   |   |
|---|---|
| 1) NAD 83 (31-30HC)<br>Lat. 47°50'56.56"<br>Long. 102°45'31.22"<br>Lot. 47.849045°<br>Long. 102.758672° | 1) NAD 83 (31-30HC)<br>Lat. 47°52'32.92"<br>Long. 102°45'29.59"<br>Lot. 47.875811°<br>Long. 102.758221° |
| 2) NAD 27 (31-30HC)<br>Lat. 47°50'56.50"<br>Long. 102°45'29.53"<br>Lot. 47.849029°<br>Long. 102.758204° | 2) NAD 27 (31-30HC)<br>Lat. 47°52'32.86"<br>Long. 102°45'27.91"<br>Lot. 47.875794°<br>Long. 102.757753° |
| 3) NAD 27 (31-30HC)<br>UTM ZONE 13N<br>N: 17394108.510<br>E: 2190665.871                                | 3) NAD 27 (31-30HC)<br>UTM ZONE 13N<br>N: 17403870.900<br>E: 2190493.192                                |

I, Kurt M. Kisch, Professional Land Surveyor, North Dakota RLS# 4597 hereby certify that I and or personnel under my direct supervision made a survey on the 10th day of April, 2012 for the Surface Hole Location and Elevation of WPX ENERGY WILLISTON, LLC, Well Ruby Parshall 31-30HC being located within the SW 1/4 of the SE 1/4, of Section 31, Township 151 North, Range 94 West and the Bottom Hole Location being located within the NW 1/4 of the NE 1/4 of Section 30, Township 151 North, Range 94 West, both being of the 5th P.M., McKenzie County, North Dakota.

- Notes:**
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  - Distances shown hereon are ground distances using a combined scale factor of 1.000160016.



**LEGEND**

- ▲ Found Monument
- Corner Searched and Not Found
- Calculated Corner
- ⊙ Bottom Hole Location
- Surface Hole Location

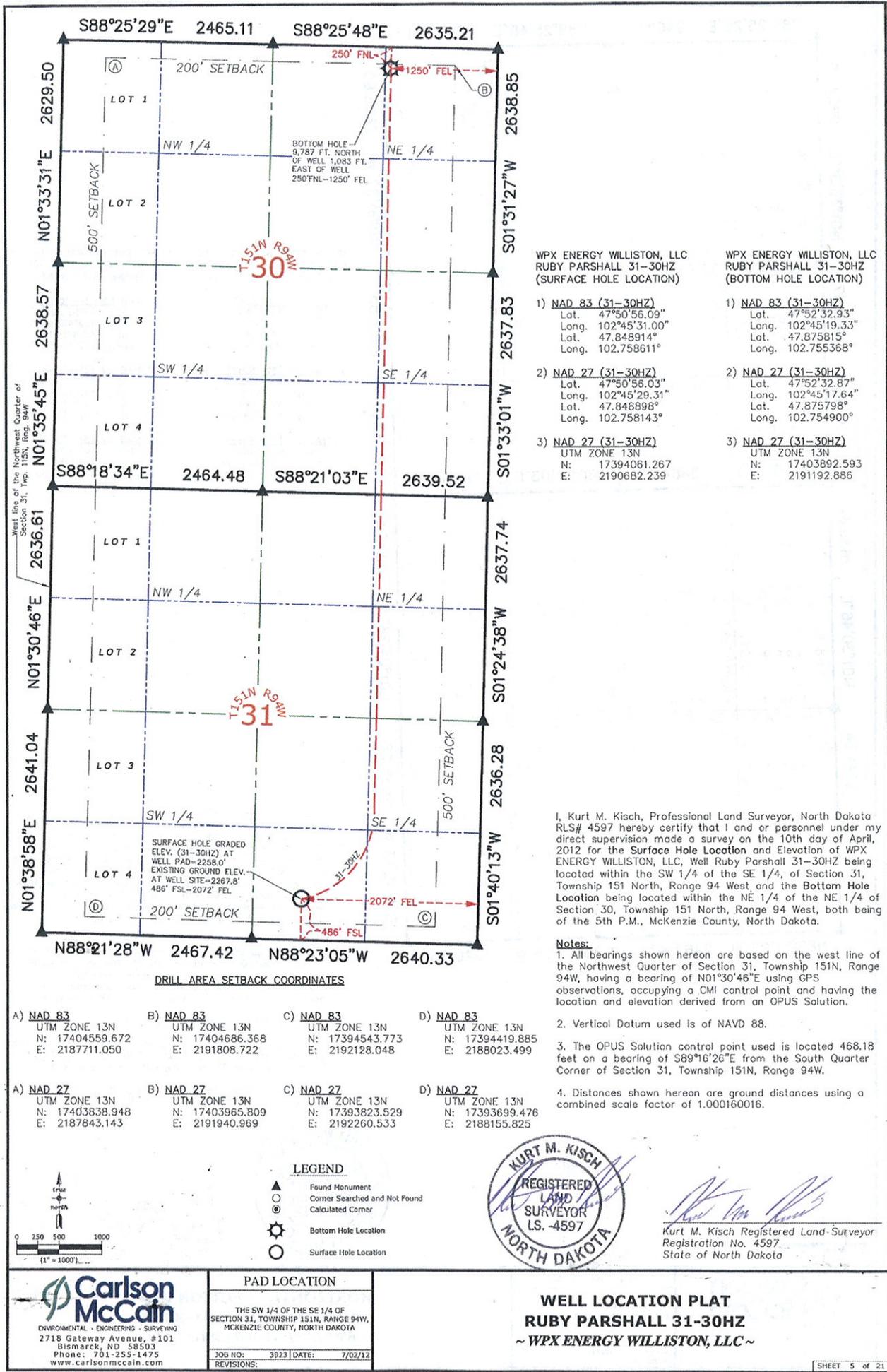


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PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**HORIZONTAL SECTION PLAT**  
**RUBY PARSHALL 31-30HC**  
~ WPX ENERGY WILLISTON, LLC ~

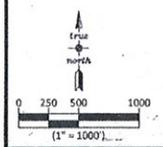


- WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(SURFACE HOLE LOCATION)
- 1) **NAD 83 (31-30HZ)**  
 Lat. 47°50'56.09"  
 Long. 102°45'31.00"  
 Lat. 47.848914°  
 Long. 102.758611°
- 2) **NAD 27 (31-30HZ)**  
 Lat. 47°50'56.03"  
 Long. 102°45'29.31"  
 Lat. 47.848898°  
 Long. 102.758143°
- 3) **NAD 27 (31-30HZ)**  
 UTM ZONE 13N  
 N: 17394061.267  
 E: 2190682.239
- WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(BOTTOM HOLE LOCATION)
- 1) **NAD 83 (31-30HZ)**  
 Lat. 47°52'32.93"  
 Long. 102°45'19.33"  
 Lat. 47.875815°  
 Long. 102.755368°
- 2) **NAD 27 (31-30HZ)**  
 Lat. 47°52'32.87"  
 Long. 102°45'17.64"  
 Lat. 47.875798°  
 Long. 102.754900°
- 3) **NAD 27 (31-30HZ)**  
 UTM ZONE 13N  
 N: 17403892.593  
 E: 2191192.886

I, Kurt M. Kisch, Professional Land Surveyor, North Dakota RLS# 4597 hereby certify that I and or personnel under my direct supervision made a survey on the 10th day of April, 2012 for the Surface Hole Location and Elevation of WPX ENERGY WILLISTON, LLC, Well Ruby Parshall 31-30HZ being located within the SW 1/4 of the SE 1/4, of Section 31, Township 151 North, Range 94 West and the Bottom Hole Location being located within the NE 1/4 of the NE 1/4 of Section 30, Township 151 North, Range 94 West, both being of the 5th P.M., McKenzie County, North Dakota.

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A) <b>NAD 83</b> UTM ZONE 13N N: 1740458.672 E: 2187711.050	B) <b>NAD 83</b> UTM ZONE 13N N: 17404686.368 E: 2191808.722	C) <b>NAD 83</b> UTM ZONE 13N N: 17394543.773 E: 2192128.048	D) <b>NAD 83</b> UTM ZONE 13N N: 17394419.885 E: 2188023.499
A) <b>NAD 27</b> UTM ZONE 13N N: 1740368.948 E: 2187843.143	B) <b>NAD 27</b> UTM ZONE 13N N: 17403965.809 E: 2191940.969	C) <b>NAD 27</b> UTM ZONE 13N N: 17393823.529 E: 2192260.533	D) <b>NAD 27</b> UTM ZONE 13N N: 17393699.476 E: 2188155.825



- LEGEND**
- ▲ Found Monument
  - Corner Searched and Not Found
  - ⊙ Calculated Corner
  - ⊙ Bottom Hole Location
  - Surface Hole Location



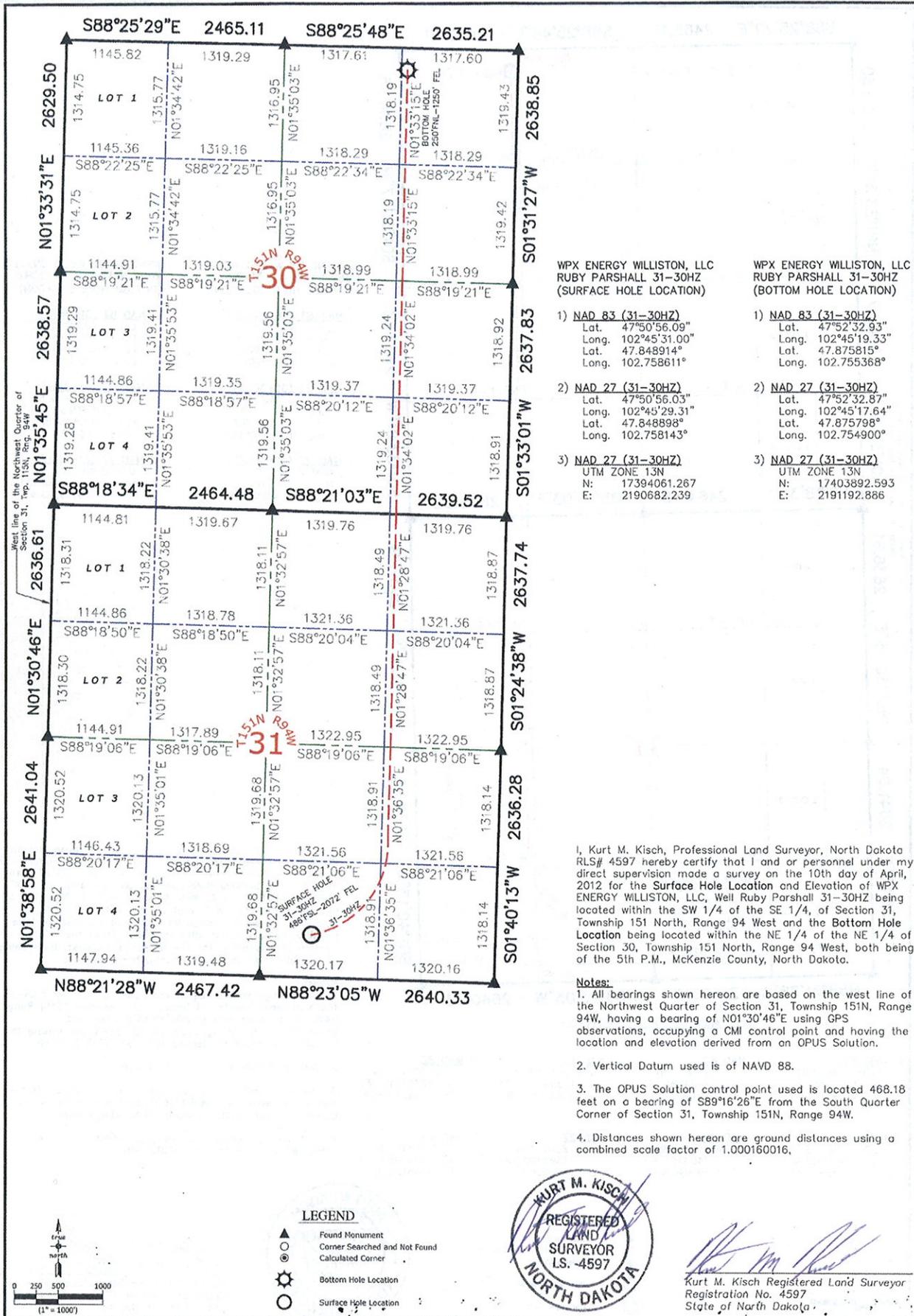
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PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**WELL LOCATION PLAT**  
**RUBY PARSHALL 31-30HZ**  
 ~ WPX ENERGY WILLISTON, LLC ~

SHEET 5 of 21



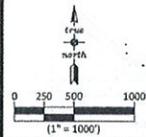
- WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(SURFACE HOLE LOCATION)
- WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HZ  
(BOTTOM HOLE LOCATION)
- NAD 83 (31-30HZ)**  
Lat. 47°50'56.09"  
Long. 102°45'31.00"  
Lat. 47.848914°  
Long. 102.758611°
  - NAD 27 (31-30HZ)**  
Lat. 47°50'56.03"  
Long. 102°45'29.31"  
Lat. 47.848898°  
Long. 102.758143°
  - NAD 27 (31-30HZ)**  
UTM ZONE 13N  
N: 17394061.267  
E: 2190682.239
- NAD 83 (31-30HZ)**  
Lat. 47°52'32.87"  
Long. 102°45'19.33"  
Lat. 47.875815°  
Long. 102.755368°
  - NAD 27 (31-30HZ)**  
Lat. 47°52'32.87"  
Long. 102°45'17.64"  
Lat. 47.875798°  
Long. 102.754900°
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UTM ZONE 13N  
N: 17403892.593  
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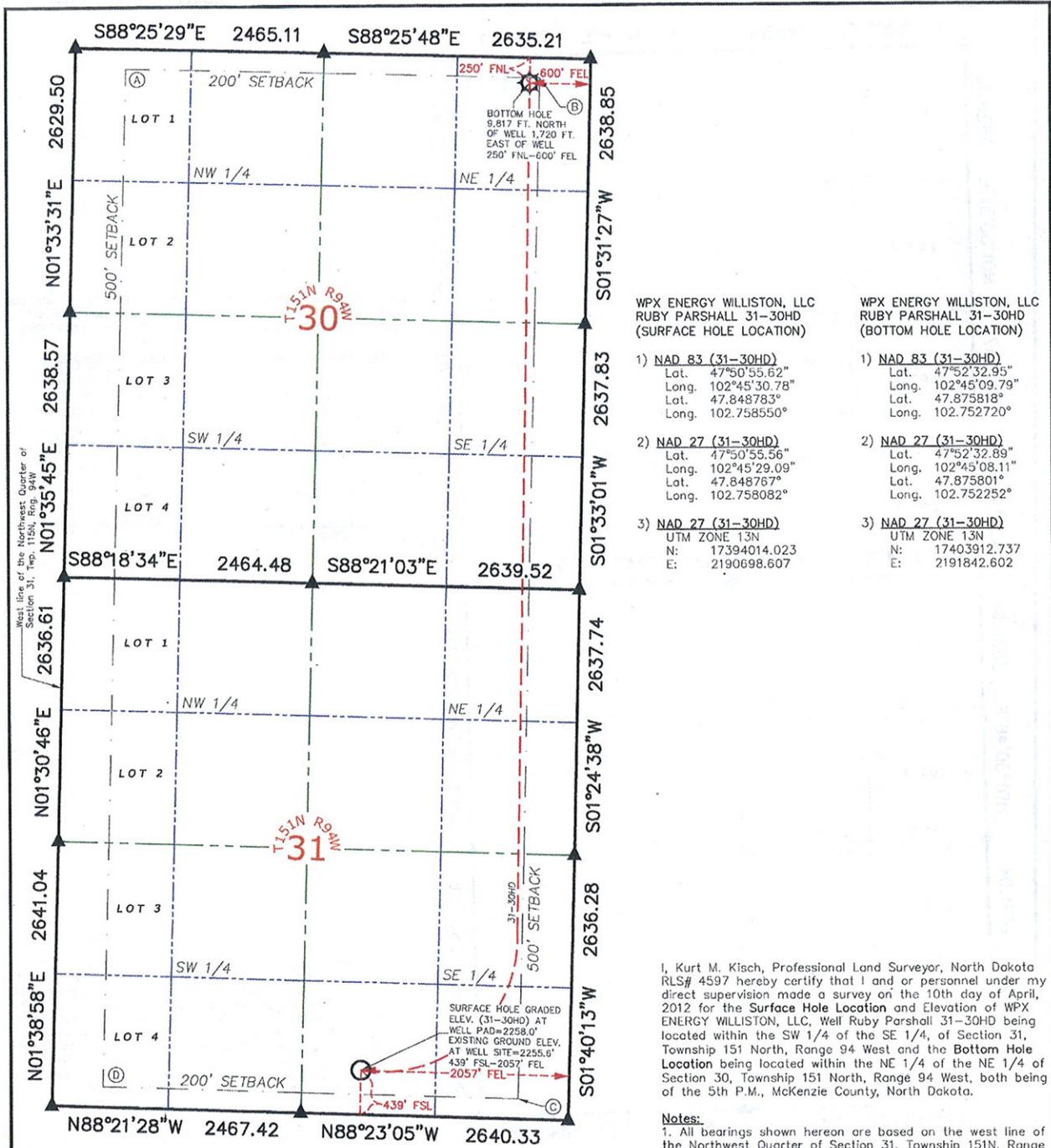


- LEGEND**
- ▲ Found Monument
  - Corner Searched and Not Found
  - Calculated Corner
  - ☼ Bottom Hole Location
  - Surface Hole Location

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PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**HORIZONTAL SECTION PLAT**  
**RUBY PARSHALL 31-30HZ**  
~ WPX ENERGY WILLISTON, LLC ~



WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(BOTTOM HOLE LOCATION)

- 1) **NAD 83 (31-30HD)**  
 Lat. 47°50'55.62"  
 Long. 102°45'30.78"  
 Lat. 47.848783°  
 Long. 102.758550°
- 2) **NAD 27 (31-30HD)**  
 Lat. 47°50'55.56"  
 Long. 102°45'29.09"  
 Lat. 47.848767°  
 Long. 102.758082°
- 3) **NAD 27 (31-30HD)**  
 UTM ZONE 13N  
 N: 17394014.023  
 E: 2190698.607

- 1) **NAD 83 (31-30HD)**  
 Lat. 47°52'32.95"  
 Long. 102°45'09.79"  
 Lat. 47.875818°  
 Long. 102.752720°
- 2) **NAD 27 (31-30HD)**  
 Lat. 47°52'32.89"  
 Long. 102°45'08.11"  
 Lat. 47.875801°  
 Long. 102.752252°
- 3) **NAD 27 (31-30HD)**  
 UTM ZONE 13N  
 N: 17403912.737  
 E: 2191842.602

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A) <b>NAD 83</b>		B) <b>NAD 83</b>		C) <b>NAD 83</b>		D) <b>NAD 83</b>	
UTM ZONE 13N	N: 17404559.672	UTM ZONE 13N	N: 17404686.368	UTM ZONE 13N	N: 17394543.773	UTM ZONE 13N	N: 17394419.885
	E: 2187711.050		E: 2191808.722		E: 2192128.048		E: 2188023.499
A) <b>NAD 27</b>		B) <b>NAD 27</b>		C) <b>NAD 27</b>		D) <b>NAD 27</b>	
UTM ZONE 13N	N: 17403838.948	UTM ZONE 13N	N: 17403965.809	UTM ZONE 13N	N: 17393823.529	UTM ZONE 13N	N: 17393699.476
	E: 2187843.143		E: 2191940.969		E: 2192260.533		E: 2188155.825

**LEGEND**

- ▲ Found Monument
- Corner Searched and Not Found
- ⊙ Calculated Corner
- ⊙ Bottom Hole Location
- ⊙ Surface Hole Location

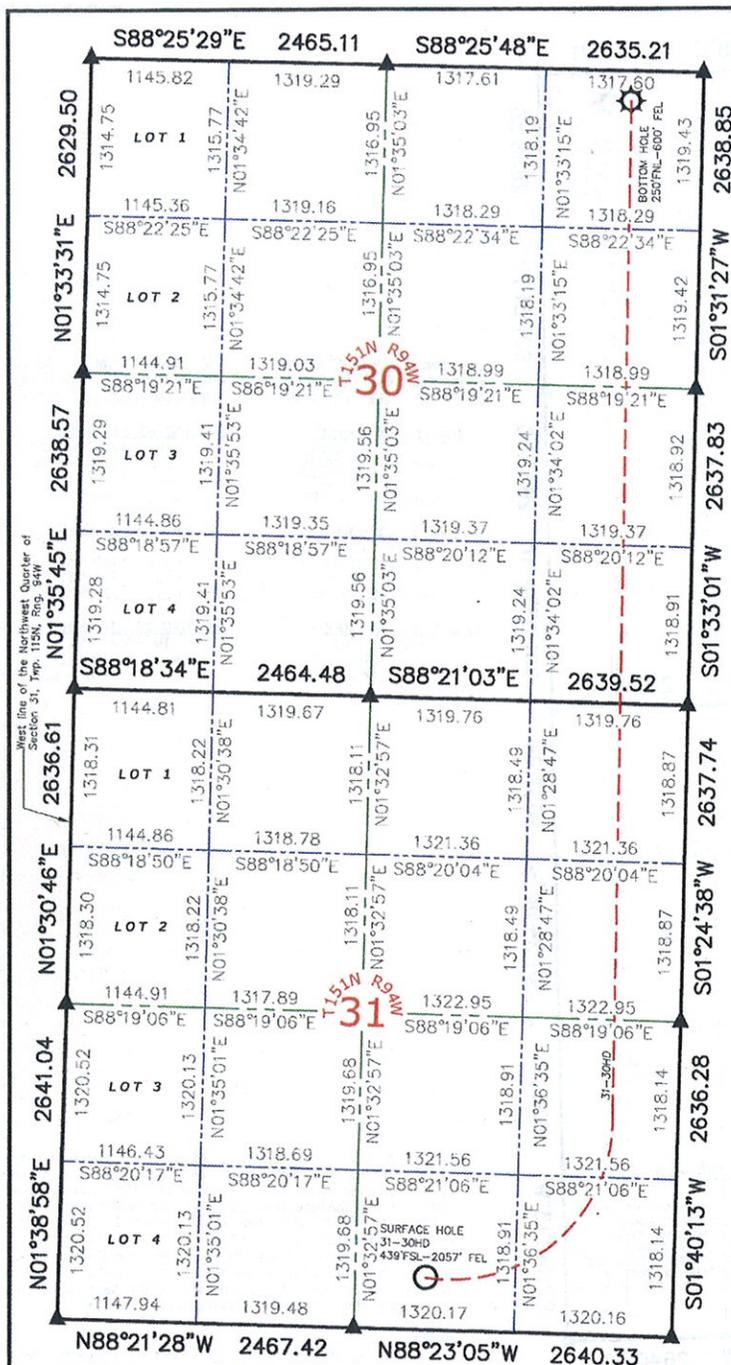


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PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**WELL LOCATION PLAT**  
**RUBY PARSHALL 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~



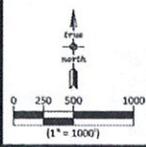
WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(SURFACE HOLE LOCATION)

WPX ENERGY WILLISTON, LLC  
RUBY PARSHALL 31-30HD  
(BOTTOM HOLE LOCATION)

- |  |  |
|--|--|
| 1) <b>NAD 83 (31-30HD)</b><br>Lat. 47°50'55.62"<br>Long. 102°45'30.78"<br>Lat. 47.848783°<br>Long. 102.758550° | 1) <b>NAD 83 (31-30HD)</b><br>Lat. 47°52'32.95"<br>Long. 102°45'09.79"<br>Lat. 47.875818°<br>Long. 102.752720° |
| 2) <b>NAD 27 (31-30HD)</b><br>Lat. 47°50'55.56"<br>Long. 102°45'29.09"<br>Lat. 47.848767°<br>Long. 102.758082° | 2) <b>NAD 27 (31-30HD)</b><br>Lat. 47°52'32.89"<br>Long. 102°45'08.11"<br>Lat. 47.875818°<br>Long. 102.752252° |
| 3) <b>NAD 27 (31-30HD)</b><br>UTM ZONE 13N<br>N: 17394014.023<br>E: 2190698.607                                | 3) <b>NAD 27 (31-30HD)</b><br>UTM ZONE 13N<br>N: 17403912.737<br>E: 2191842.602                                |

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- LEGEND**
- ▲ Found Monument
  - Corner Searched and Not Found
  - ⊙ Calculated Corner
  - ⊙ Bottom Hole Location
  - ⊙ Surface Hole Location



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**PAD LOCATION**

THE SW 1/4 OF THE SE 1/4 OF  
SECTION 31, TOWNSHIP 151N, RANGE 94W,  
MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 DATE: 7/02/12  
REVISIONS:

**HORIZONTAL SECTION PLAT**  
**RUBY PARSHALL 31-30HD**  
~ WPX ENERGY WILLISTON, LLC ~

~LOCATION COORDINATE SUMMARY~  
 RUBY PARSHALL 31-30HC, 31-30HZ, & 31-30HD  
 ~WPX ENERGY WILLISTON, LLC~

Section	Township	Range	Geographic NAD 83						Geographic NAD 27						UTM Zone 13N NAD 27		
			Deg. Min. Decimal Seconds		Decimal Degrees		Deg. Min. Decimal Seconds		Decimal Degrees		Deg. Min. Decimal Seconds		Decimal Degrees		Northing	Easting	Footage
			Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude					
31-30HC PAD (SHL)	151 N	94 W	47°50'56.56"	102°45'31.22"	47.849045°	102.758672°	47°50'56.50"	102°45'29.53"	47.849029°	102.758204°	17394108.510	2190665.871	534' FSL	2087' FEL			
31-30HC PAD (BHL)	151 N	94 W	47°52'32.92"	102°45'29.59"	47.875811°	102.758221°	47°52'32.86"	102°45'27.91"	47.875794°	102.757753°	17403870.900	2190493.192	250' FNL	1950' FEL			
31-30HC PAD (SHL)	151 N	94 W	47°50'56.09"	102°45'31.00"	47.848914°	102.758611°	47°50'56.03"	102°45'29.31"	47.848898°	102.758143°	17394061.267	2190682.239	486' FSL	2072' FEL			
31-30HC PAD (BHL)	151 N	94 W	47°52'32.93"	102°45'19.33"	47.875815°	102.755368°	47°52'32.87"	102°45'17.64"	47.875798°	102.754900°	17403892.593	2191192.886	250' FNL	1250' FEL			
31-30HD PAD (SHL)	151 N	94 W	47°50'55.62"	102°45'30.78"	47.848783°	102.758550°	47°50'55.56"	102°45'29.09"	47.848767°	102.758082°	17394014.023	2190698.607	439' FSL	2057' FEL			
31-30HD PAD (BHL)	151 N	94 W	47°52'32.95"	102°45'09.79"	47.875818°	102.752720°	47°52'32.89"	102°45'08.11"	47.875801°	102.752252°	17403912.737	2191842.602	250' FNL	600' FEL			

	UTM Zone 13N NAD 83		UTM Zone 13N NAD 27	
	Northing	Easting	Northing	Easting
A	17404559.672	2187711.050	17403838.948	2187843.143
B	17404686.368	2191808.722	17403965.809	2191940.969
C	17394543.773	2192128.048	17393823.529	2192260.533
D	17394419.885	2188023.499	17393699.476	2188155.825

# ~LOCATION COORDINATE SUMMARY~

## RUBY PARSHALL 31-30HC

~WPX ENERGY WILLISTON, LLC~

	Section	Township	Range
31-30HC PAD (SHL)	31	151 N	94 W
31-30HC PAD (BHL)	30	151 N	94 W

Geographic NAD 83				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HC PAD (SHL)	47°50'56.56"	102°45'31.22"	47.849045°	102.758672°
31-30HC PAD (BHL)	47°52'32.92"	102°45'29.59"	47.875811°	102.758221°

Geographic NAD 27				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HC PAD (SHL)	47°50'56.50"	102°45'29.53"	47.849029°	102.758204°
31-30HC PAD (BHL)	47°52'32.86"	102°45'27.91"	47.875794°	102.757753°

UTM Zone 13N NAD 27				
	Northing	Easting	Footage	
31-30HC PAD (SHL)	17394108.510	2190665.871	534' FSL	2087' FEL
31-30HC PAD (BHL)	17403870.900	2190493.192	250' FNL	1950' FEL

	UTM Zone 13N NAD 83		UTM Zone 13N NAD 27	
	Drill Area Setback Coordinates		Drill Area Setback Coordinates	
	Northing	Easting	Northing	Easting
A	17404559.672	2187711.050	17403838.948	2187843.143
B	17404686.368	2191808.722	17403965.809	2191940.969
C	17394543.773	2192128.048	17393823.529	2192260.533
D	17394419.885	2188023.499	17393699.476	2188155.825

# ~LOCATION COORDINATE SUMMARY~

## RUBY PARSHALL 31-30HZ

~WPX ENERGY WILLISTON, LLC~

	Section	Township	Range
31-30HZ PAD (SHL)	31	151 N	94 W
31-30HZ PAD (BHL)	30	151 N	94 W

Geographic NAD 83				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HZ PAD (SHL)	47°50'56.09"	102°45'31.00"	47.848914°	102.758611°
31-30HZ PAD (BHL)	47°52'32.93"	102°45'19.33"	47.875815°	102.755368°

Geographic NAD 27				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HZ PAD (SHL)	47°50'56.03"	102°45'29.31"	47.848898°	102.758143°
31-30HZ PAD (BHL)	47°52'32.87"	102°45'17.64"	47.875798°	102.754900°

UTM Zone 13N NAD 27				
	Northing	Easting	Footage	
31-30HZ PAD (SHL)	17394061.267	2190682.239	486' FSL	2072' FEL
31-30HZ PAD (BHL)	17403892.593	2191192.886	250' FNL	1250' FEL

	UTM Zone 13N NAD 83		UTM Zone 13N NAD 27	
	Drill Area Setback Coordinates		Drill Area Setback Coordinates	
	Northing	Easting	Northing	Easting
A	17404559.672	2187711.050	17403838.948	2187843.143
B	17404686.368	2191808.722	17403965.809	2191940.969
C	17394543.773	2192128.048	17393823.529	2192260.533
D	17394419.885	2188023.499	17393699.476	2188155.825

# ~LOCATION COORDINATE SUMMARY~

## RUBY PARSHALL 31-30HD

~WPX ENERGY WILLISTON, LLC~

	Section	Township	Range
31-30HD PAD (SHL)	31	151 N	94 W
31-30HD PAD (BHL)	30	151 N	94 W

Geographic NAD 83				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HD PAD (SHL)	47°50'55.62"	102°45'30.78"	47.848783°	102.758550°
31-30HD PAD (BHL)	47°52'32.95"	102°45'09.79"	47.875818°	102.752720°

Geographic NAD 27				
	Deg. Min. Decimal Seconds		Decimal Degrees	
	Latitude	Longitude	Latitude	Longitude
31-30HD PAD (SHL)	47°50'55.56"	102°45'29.09"	47.848767°	102.758082°
31-30HD PAD (BHL)	47°52'32.89"	102°45'08.11"	47.875801°	102.752252°

UTM Zone 13N NAD'27				
	Northing	Easting	Footage	
31-30HD PAD (SHL)	17394014.023	2190698.607	439' FSL	2057' FEL
31-30HD PAD (BHL)	17403912.737	2191842.602	250' FNL	600' FEL

	UTM Zone 13N NAD 83		UTM Zone 13N NAD 27	
	Drill Area Setback Coordinates		Drill Area Setback Coordinates	
	Northing	Easting	Northing	Easting
A	17404559.672	2187711.050	17403838.948	2187843.143
B	17404686.368	2191808.722	17403965.809	2191940.969
C	17394543.773	2192128.048	17393823.529	2192260.533
D	17394419.885	2188023.499	17393699.476	2188155.825

~LOCATION COORDINATE SUMMARY~

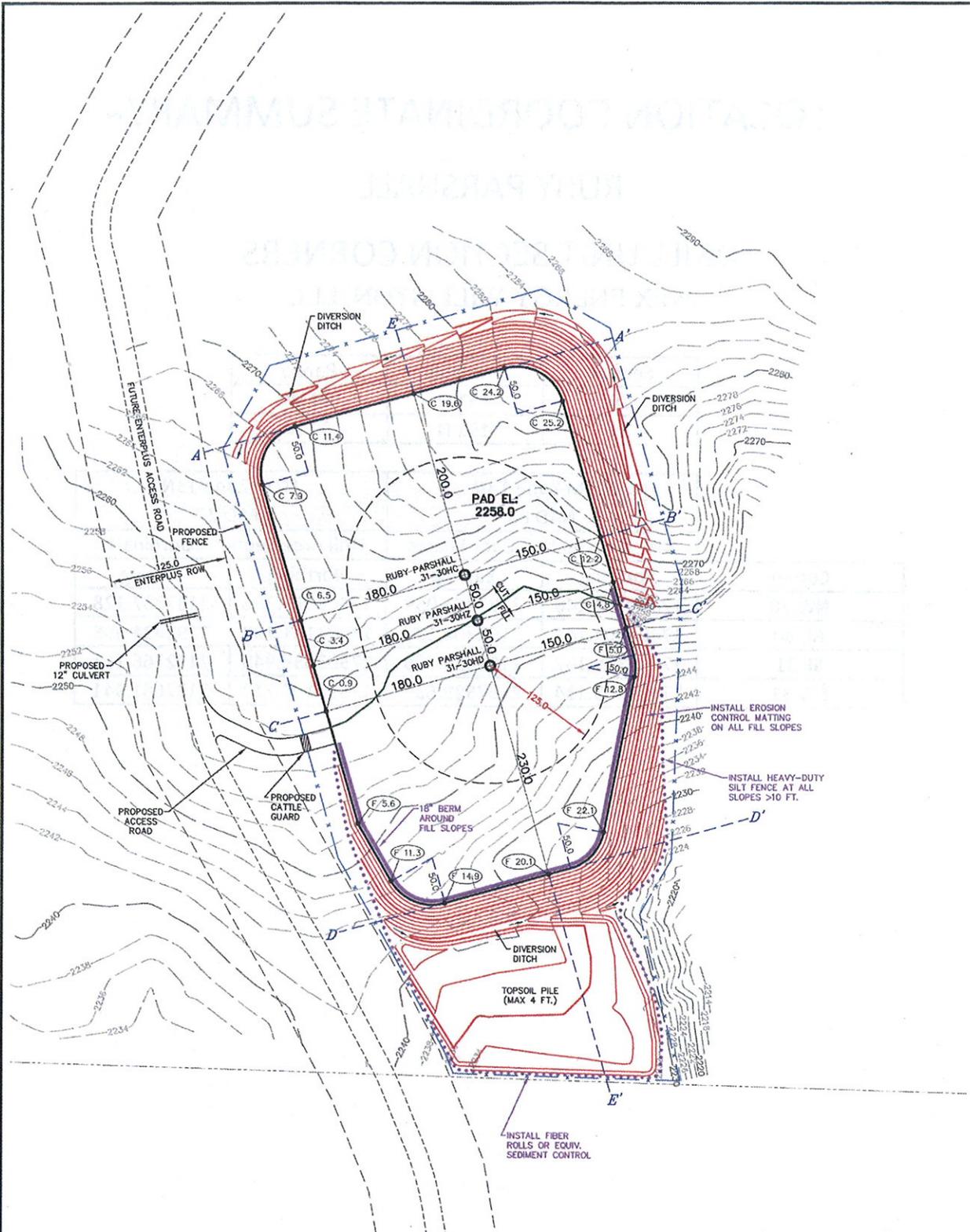
RUBY PARSHALL

DRILL UNIT SECTION CORNERS

~WPX ENERGY WILLISTON, LLC~

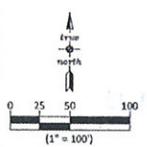
Section	Township	Range
30	151 N	94 W
31	151 N	94 W

Corner	UTM Zone 13N NAD 83		UTM Zone 13N NAD 27	
	Drill Area Section Coordinates		Drill Area Section Coordinates	
	Northing	Easting	Northing	Easting
NW 30	17404744.148	2187205.059	17404023.396	2187337.128
NE 30	17404901.744	2192302.136	17404181.198	2192434.395
SE 31	17394359.167	2192633.605	17393638.948	2192766.111
SW 31	17394205.134	2187529.630	17393484.712	2187661.941



**LEGEND**

- Section Line
- Existing 2' Contour
- Existing 10' Contour
- Existing Fence
- Proposed Pad
- x-x- Proposed Fence
- Proposed 2' Contour
- Proposed 10' Contour
- Proposed Cut/Fill Break
- Proposed Fiber Rolls
- Proposed Cut/Fill (in feet)
- Proposed Well



**COMPACTION NOTES**

All fill/embankment areas shall be compacted to at least 95% of the Standard Proctor Dry Density as determined by ASTM D698. In areas where production equipment will be placed on fill/embankment areas, compaction within 3 vertical feet of finished grade shall be 100% of the Standard Proctor-Dry Density.

**SITE DATA**

RUBY PARSHALL 31-30HC	FEL: 2087'	FSL: 534'
RUBY PARSHALL 31-30HZ	FEL: 2072'	FSL: 486'
RUBY PARSHALL 31-30HD	FEL: 2057'	FSL: 439'

**EARTHWORK QUANTITIES**

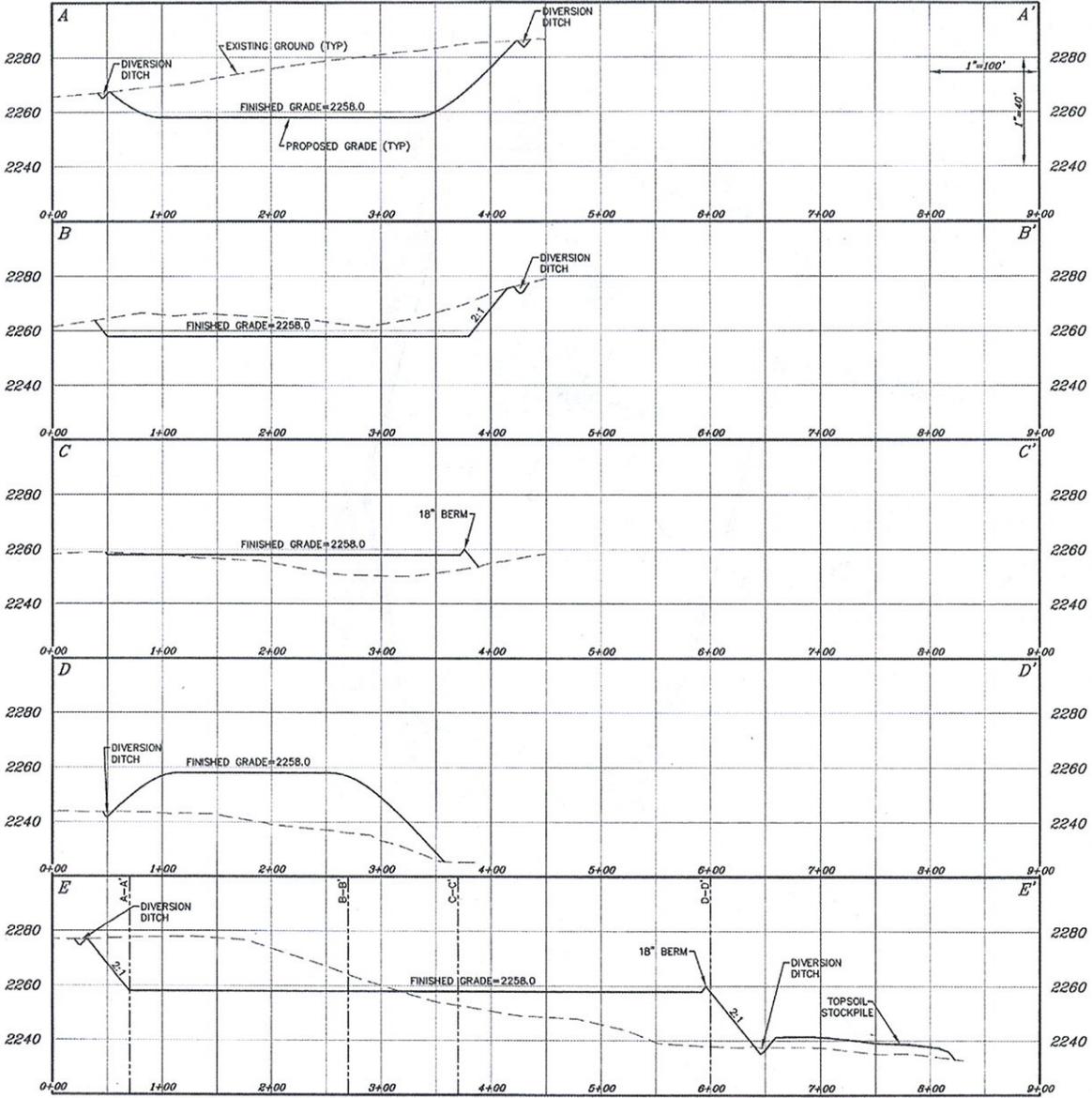
CUT SLOPE:	2:1
FILL SLOPE:	2:1
TOTAL CUT:	47,400 C.Y.
TOTAL FILL + 25% SHRINK:	42,100 C.Y.
TOPSOIL STRIPPING AT 8":	5,300 C.Y.
SPON:	0 C.Y.
DISTURBED AREA:	6.01 AC.
FENCED AREA:	6.82 AC.

F:\000\3923 - RUC Infill Pad #1-6(CAD)\Survey\Plan\3923 - RUC Infill Pad.dwg 7/2/2012 9:58:50 AM COT

**Carlson McCain**
  
 ENVIRONMENTAL - ENGINEERING - SURVEYING
   
 2718 Gateway Avenue, #101
   
 Bismarck, ND 58503
   
 Phone: 701-255-1475
   
 www.carlsonmccain.com

<b>PAD LOCATION</b>	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**PAD LAYOUT**  
**RUBY PARSHALL 31-30HC, 31-30HZ & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~



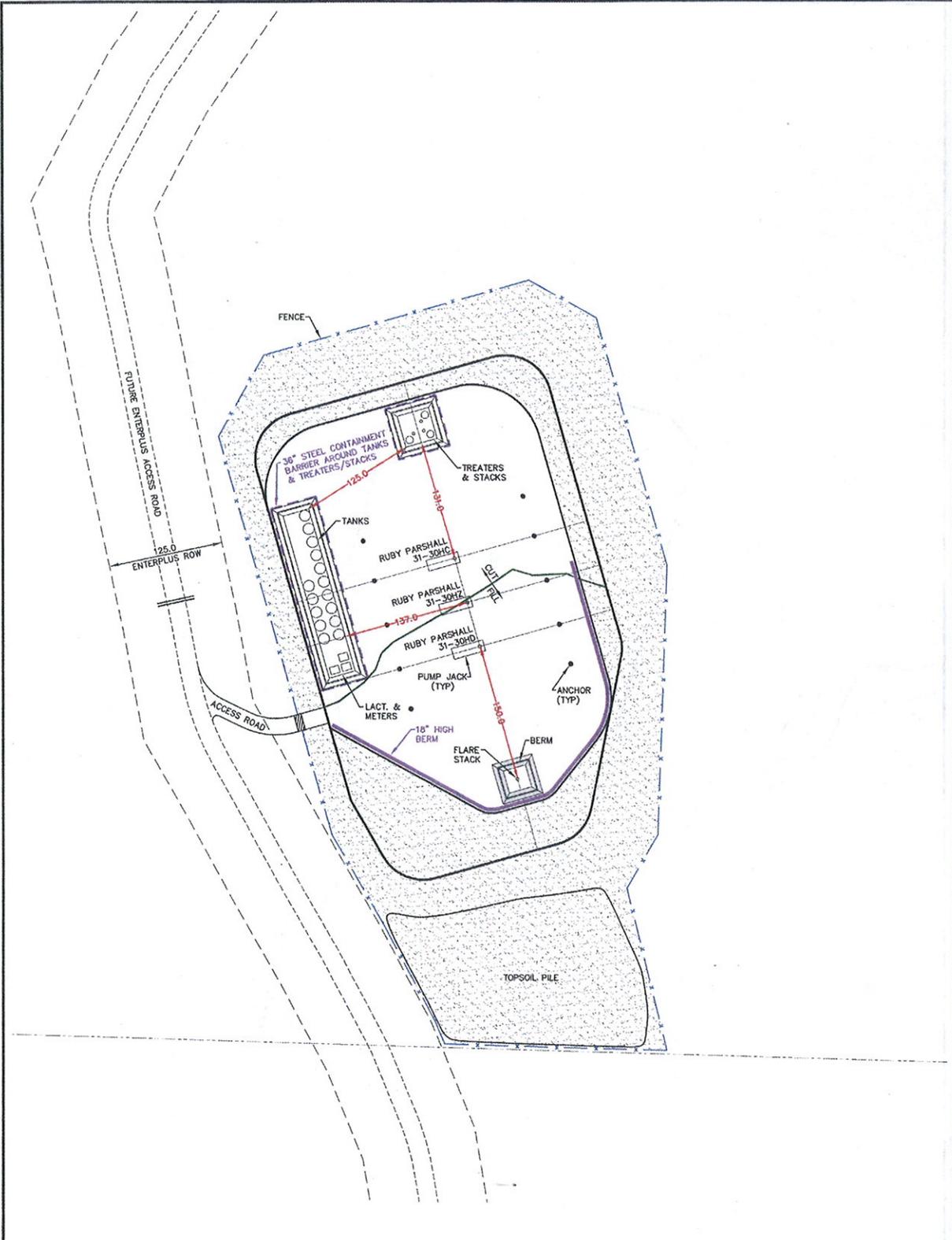
E:\Jobs\13921 - 3940\13923 - Bird Field Pad #128\CAD\Survey\Plan\3923 Bird Field Pad.dwg 8/29/2012 2:04:55 PM CDT

  
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 Phone: 701-255-1475  
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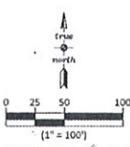
PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**CROSS-SECTIONS**  
**RUBY PARSHALL 31-30HC, 31-30HZ & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~





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**LEGEND**

- Section Line
- - - Existing Fence
- Proposed Pad
- x - x - Proposed Fence
- - - Proposed Cut/Fill Break
- o Proposed Well

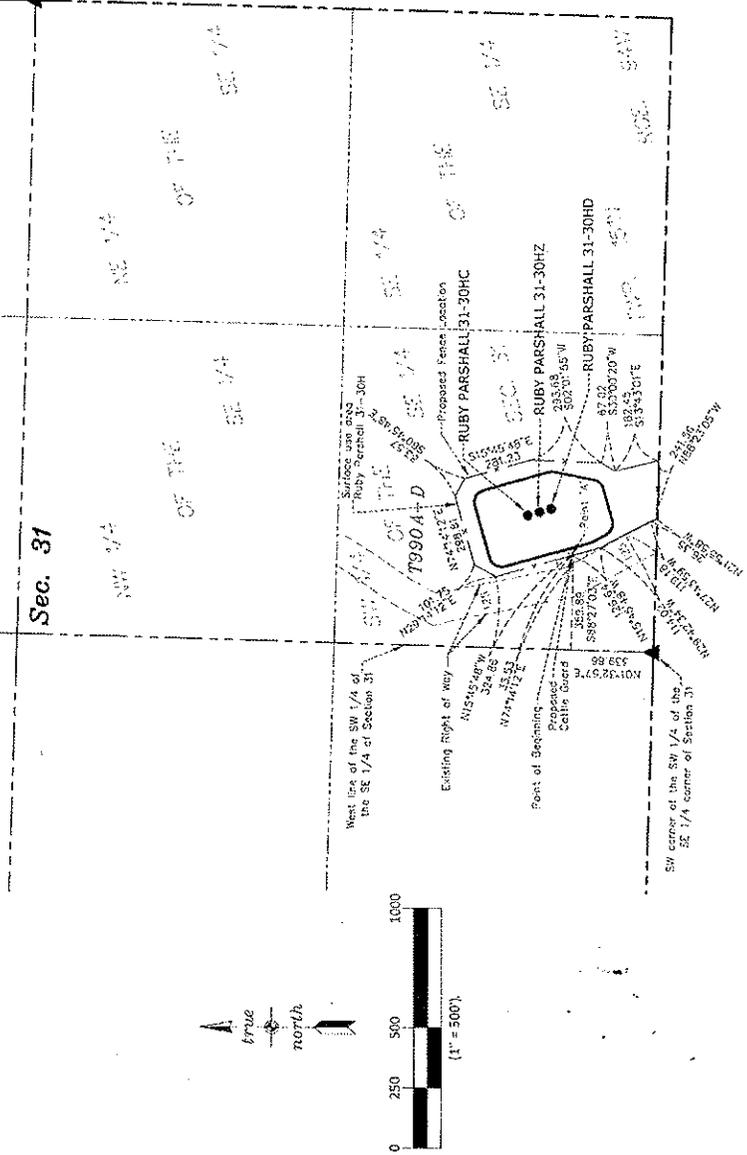
INTERIM RECLAMATION DATA	
FENCED AREA:	6.82 AC.
RECLAIMED AREA:	3.95 AC.
PAD AREA:	2.87 AC.

**Carlson McCain**  
 ENVIRONMENTAL - ENGINEERING - SURVEYING  
 2718 Gateway Avenue, #101  
 Bismarck, ND 58503  
 Phone: 701-255-1475  
 www.carlsonmccain.com

PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

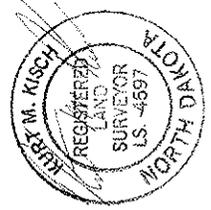
**PRODUCTION FACILITY LAYOUT**  
**RUBY PARSHALL 31-30HC, 31-30HZ & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~





- Notes:**
- All bearings shown hereon are based on the west line of the Northwest Quarter of Section 31, Township 15N, Range 94W, having a bearing of N01°30'46"E using GPS observations, occupying a CMR control point and having the location and elevation derived from an OPUS Solution.
  - Vertical Datum used is of NAVD 88.
  - The OPUS Solution control point used is located 466.18 feet on a bearing of S89°16'26"E from the South Quarter Corner of Section 31, Township 15N, Range 94W.
  - Distances shown hereon are ground distances using a combined satellite receiver of 1.0001600:6.

<b>Pad/Road ROW</b>	
Tract T990A-D	10.10 acres
Road ROW (130')	33.53 feet
Pad ROW (fenced)	6.82 acres
Total 6.92 acres	
<b>Pipeline ROW (130')</b>	
Tract T990A-D	0.10 acres
Pipeline ROW (130')	33.53 feet
Total 0.10 acres	
<b>Utilities ROW (130')</b>	
Tract T990A-D	0.10 acres
Utilities ROW (130')	33.53 feet
Total 0.10 acres	
<b>Total Disturbance Summary</b>	
Tract T990A-D	6.92 acres



Kurt M. Kisch Registered Land Surveyor  
 Registration No. 4597  
 State of North Dakota

**CERTIFICATE**  
 I hereby certify that this plat correctly represents work performed by me or under my direct supervision and is true and correct to the best of my knowledge and belief.  
 Dated: 7/02/12

**PAD, ROAD, PIPELINE, ELECTRIC, UTILITY, FIBER OPTIC, AND ABOVE-GROUND APPURTENANCES.**  
**RIGHT-OF-WAY DESCRIPTION**  
 A 130.00 foot wide right-of-way for Pad, Road, Pipeline, Electric, Utility, Fiber Optic, and above ground Appurtenances purposes lying over, under and across the Southwest Quarter of the Southeast Quarter of Section 31, Township 15N, Range 94W, the centerline of said right-of-way to be described as follows:

Commencing at the Southwest Corner of said Southwest Quarter of the Southeast Quarter; thence on an assumed bearing of North 01 degree 32 minutes 57 seconds East, along the west line of said Southwest Quarter of the Southeast Quarter, 339.86 feet; thence South 88 degrees 27 minutes 03 seconds East, 359.89 feet to the point of beginning of said centerline to be described; thence North 74 degrees 14 minutes 12 seconds East, 33.53 feet to a point hereinafter referred to as Point 'A', which is also the west line of the proposed surface use area and said centerline there terminating.

Sidelines of said right-of-way shall be prolonged or shortened to meet the existing access easement and proposed surface use area.

Together with:

A surface use easement lying over, under and across all that part of the Southwest Quarter of the Southeast Quarter of Section 31, Township 15N, Range 94W, said easement to be described as follows:

Beginning at the aforementioned Point 'A', thence North 15 degrees 45 minutes 48 seconds West, 324.88 feet; thence North 29 degrees 14 minutes 12 seconds East, 101.75 feet; thence North 74 degrees 14 minutes 12 seconds East, 288.81 feet; thence South 60 degrees 45 minutes 48 seconds East, 83.67 feet; thence South 15 degrees 45 minutes 48 seconds East, 281.23 feet; thence South 02 degrees 01 minute 55 seconds West, 293.68 feet; thence South 30 degrees 00 minutes 20 seconds West, 67.02 feet; thence South 13 degrees 43 minutes 01 seconds East, 182.45 feet; thence North 88 degrees 23 minutes 05 seconds West, 241.28 feet; thence North 21 degrees 55 minutes 58 seconds West, 26.35 feet; thence North 27 degrees 19 minutes 59 seconds West, 119.18 feet; thence North 29 degrees 42 minutes 44 seconds West, 114.02 feet; thence North 15 degrees 45 minutes 48 seconds West, 126.64 feet to the point of beginning.



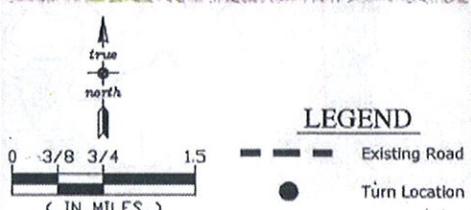
**PAD LOCATION**  
 THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 15N, RANGE 94W, SOUTHWEST QUARTER, NORTH DAKOTA  
 JOB NO.: 3923  
 DATE: 7/02/12  
 REVISIONS:

**RIGHT-OF-WAY PLAT**  
**RUBY PARSHALL**  
**31-30HC, 31-30HZ & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~  
 SHEET 15 OF 21

PROJECT NO. 3923  
 FIELD CREW: STEVENSON/CARLSON  
 DATE: 5/9/12  
 REMARKS:  
 TRACT: Ruby Parshall 31-30HC, 31-30HZ & 31-30HD  
 ▲ = SECTION CORNERS LOCATED North Dakota State Plane (at ground)



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**Carlson  
McCain**  
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2718 Gateway Avenue, #101  
Bismarck, ND 58503  
Phone: 701-255-1475  
www.carlsonmccain.com

**PAD LOCATION**

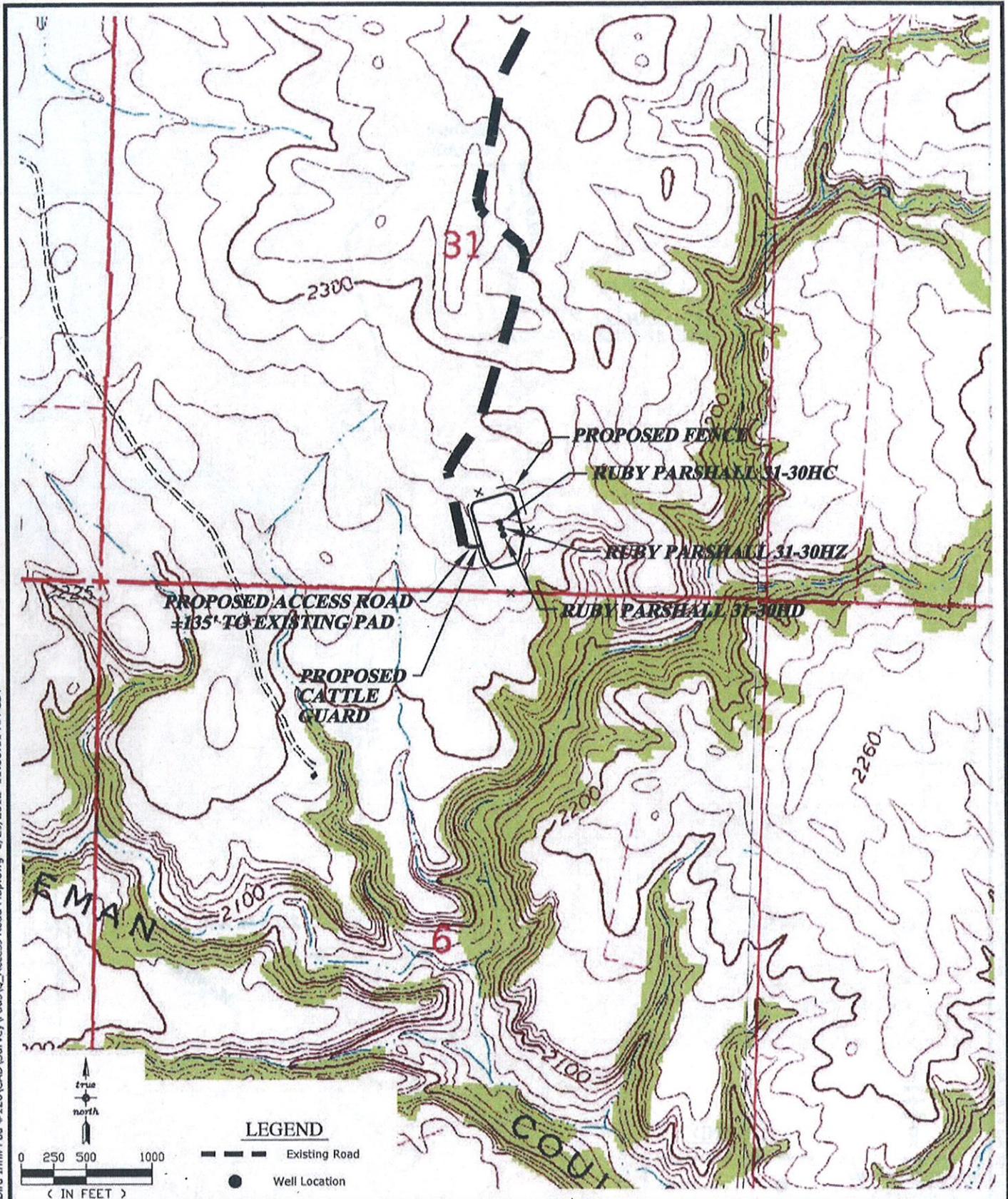
THE SW 1/4 OF THE SE 1/4 OF  
SECTION 31, TOWNSHIP 151N, RANGE 94W,  
MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 | DATE: 7/02/12  
REVISIONS:

**EMERGENCY ROUTE AREA MAP  
RUBY PARSHALL  
31-30HC, 31-30HZ, & 31-30HD  
~ WPX ENERGY WILLISTON, LLC ~**

**TOPO A** | SHEET 17 of 21

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 Bismarck, ND 58503  
 Phone: 701-255-1475  
 www.carlsonmccain.com

**PAD LOCATION**

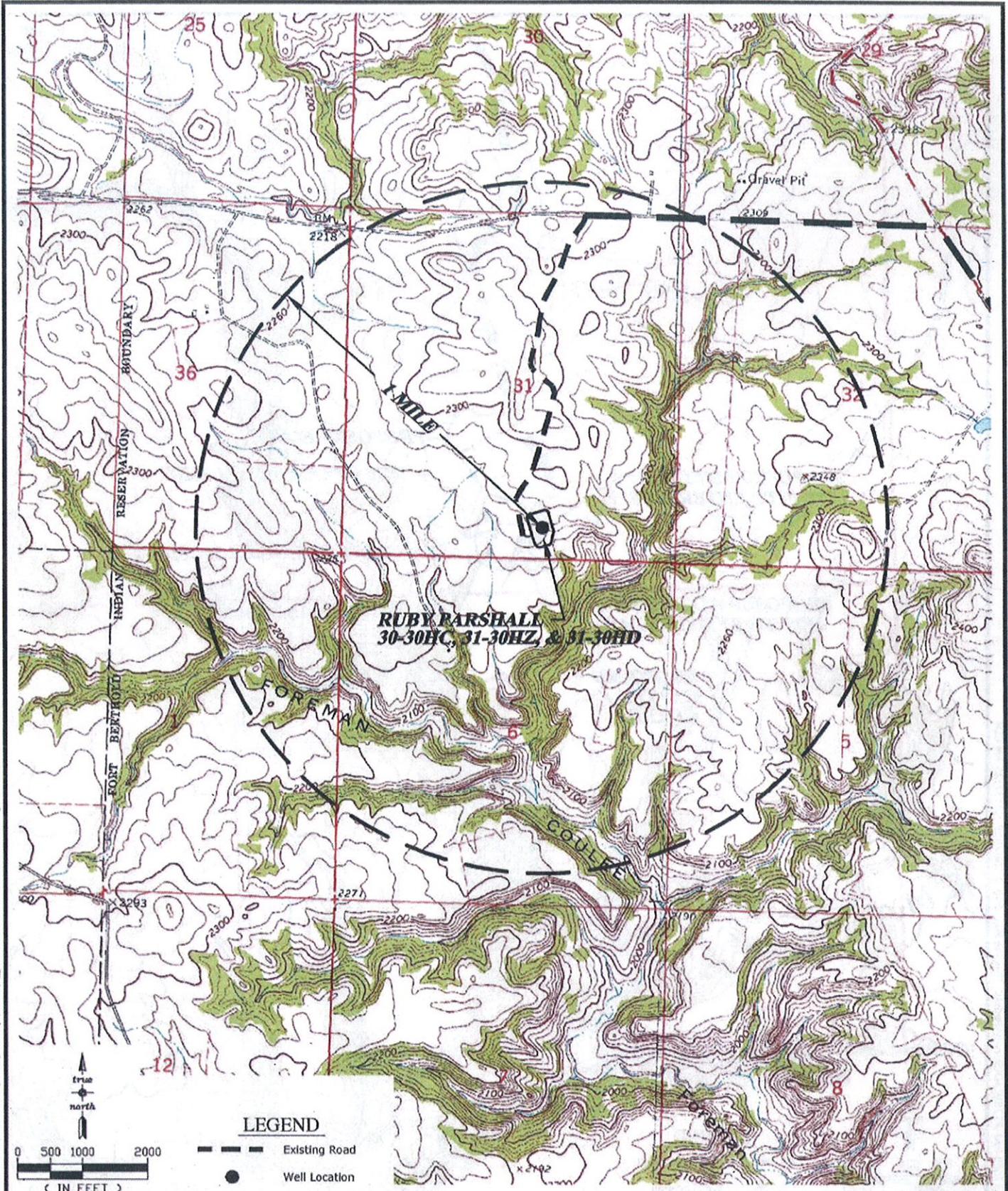
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 | DATE: 7/02/12  
 REVISIONS:

**ACCESS ROAD MAP**  
**RUBY PARSHALL**  
**31-30HC, 31-30HZ, & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~

**TOPO B** SHEET 18 of 21

F:\Jobs\3921 - 3940\3923 - Bird Infill Pad #126\CAD\Survey\Pods\C\_H2S Awareness Perimeter.dwg 6/29/2012 11:36:38 AM CDT



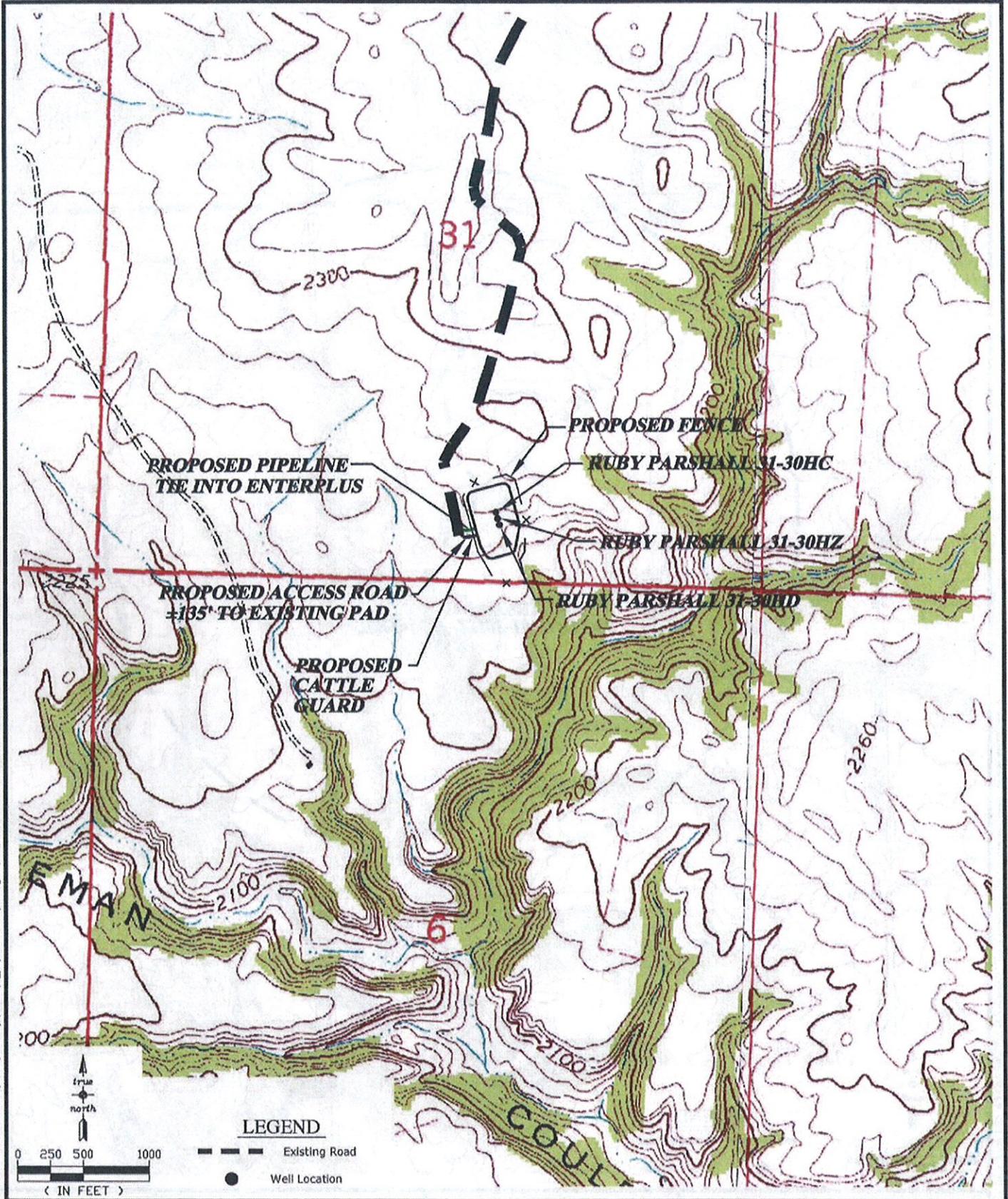
**Carlson McCain**  
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 Bismarck, ND 58503  
 Phone: 701-255-1475  
 www.carlsonmccain.com

PAD LOCATION	
THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 151N, RANGE 94W, MCKENZIE COUNTY, NORTH DAKOTA	
JOB NO:	3923
DATE:	7/02/12
REVISIONS:	

**1 MILE RADIUS  
 H2S AWARENESS PERIMETER  
 RUBY PARSHALL  
 31-30HC, 31-30HZ, & 31-30HD  
 ~ WPX ENERGY WILLISTON, LLC ~  
 TOPO C**

SHEET 19 of 21

F:\Jobs\3923 - 3940\3923 - Bird Infill Pad #126\CAD\Survey\Pods\1 Pipeline Map.dwg 6/29/2012 11:37:25 AM CDT



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 Bismarck, ND 58503  
 Phone: 701-255-1475  
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**PAD LOCATION**

THE SW 1/4 OF THE SE 1/4 OF  
 SECTION 31, TOWNSHIP 151N, RANGE 94W,  
 MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 | DATE: 7/02/12  
 REVISIONS:

**PIPELINE MAP  
 RUBY PARSHALL**

**31-30HC, 31-30HZ, & 31-30HD**  
 ~ WPX ENERGY WILLISTON, LLC ~

**TOPO D**

SHEET 20 of 21

### DRIVING DIRECTIONS

Proceed westerly from Mandaree, North Dakota along 22nd Street Northwest. Follow this route for approximately 1.2 miles to the intersection of Highway 22. Turn right onto Highway 22 and continue northerly for approximately 10.2 miles to the intersection of Highway 23. Turn left onto Highway 23 and continue westerly for approximately 1.0 miles to the access road to the RUBY PARSHALL 31-30H site. Turn left onto access road and continue southerly approximately 1.0 miles to the existing well location.

Total distance from Mandaree, North Dakota to the RUBY PARSHALL 31-30H site is approximately 13.53 miles.

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Bismarck, ND 58503  
Phone: 701-255-1475  
www.carlsonmccain.com

#### PAD LOCATION

THE SW 1/4 OF THE SE 1/4 OF  
SECTION 31, TOWNSHIP 151N, RANGE 94W,  
MCKENZIE COUNTY, NORTH DAKOTA

JOB NO: 3923 DATE: 7/02/12  
REVISIONS:

#### DRIVING DIRECTIONS

#### RUBY PARSHALL

**31-30HC, 31-30HZ, & 31-30HD**

~ WPX ENERGY WILLISTON, LLC ~



# Appendix B



**Appendix B**

Scoping and Concurrence Request Letters



ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

April 25, 2012

US Fish and Wildlife Service  
Mr. Jeffrey Towner  
Field Supervisor  
3425 Miriam Avenue  
Bismarck, ND 58501

Re: Request for Comments  
Proposed Oil & Gas Well Pad  
Ruby Parshall 31-30 (Bird Infill)  
WPX Energy Williston, LLC

Dear Mr. Towner:

On behalf of WPX Energy Williston, LLC, Carlson McCain, Inc. is submitting information concerning development of the proposed Ruby Parshall 31-30 infill well pad. The proposed multi-well site (Site) will include the Ruby Parshall 31-30HD, 31-30HZ, and 31-30HC well bores into the Bakken and Three Forks formations. The Site is located in Section 31, T151N, R94W on the Fort Berthold Reservation in McKenzie County, North Dakota (Figure 1).

A biological assessment of the Site was conducted on April 18, 2012, with the Bureau of Indian Affairs (BIA) in attendance. At the initial on-site visit the proposed well site and access road were "soft" staked and the location was reviewed in consideration of topography, natural drainage and erosion control, vegetation, T&E species, migratory birds, wildlife and habitats, historical and cultural resources and other surface impacts. Site-specific mitigation measures were discussed and incorporated into the final project design to minimize impacts to evaluated resources.

#### **Project Description**

The proposed site is planned to have three well bores, drilled horizontally to the north to access petroleum resources of the Bakken and Three Forks formations. The proposed well pad working surface will initially be constructed approximately to 530 feet by 330 feet in size, or approximately 4.0 acres. Interim site reclamation after well completions will reduce the pad working surface size to less than half of original size with reclaimed areas being reseeded. The overall surface use loss (fenced area) for the pad will be approximately 6.7 acres.

The access route will begin from BIA 4 and follow a previously approved well pad access road to an Enerplus well pad. The new access will head east to the well pad approximately 153 feet. A maximum disturbance width (ROW) of 130 feet will result in less than 0.5 acres of new disturbance.

Topsoil stockpiles will be located on the south side of the pad on the fill side. A 24-inch containment berm will be constructed on top of the pad site to contain surface runoff and any undesirable release. A closed-loop drilling system (pitless) will be implemented. Topsoil from site will be removed at a depth of 8-10-inches and piled onsite for interim and final reclamation use. The corners of the proposed well pad will be rounded as needed. A 2:1 slope will be constructed on the high cut slope to which matting and other erosion control will be applied to minimize soil erosion during drilling. The topsoil will then be spread at interim and final reclamation. Best Management Practices (BMP's) including the use of a containment berm(s), fiber rolls, fiber matting, soil compaction and seeding of native species will be utilized during construction, and at interim and final reclamation.

Pipelines (gas, oil, produced water) and utilities (electrical and fiber optic) will be installed underground in the same right-of-way (ROW) corridor as the access road. The proposed pipelines located within the ROW will connect to the established Saddle Butte Gathering System (SBGS) that runs parallel the Enerplus access road. Pipeline shut-off valves will be placed at the pad site.

#### **Migratory Birds and Raptors**

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests was conducted within line-of sight of the proposed project. No nests were observed during the on-site review. The project area was also surveyed for other migratory bird species; however, no birds were observed. Due to the location of the proposed project in a grassland community a raptor and migratory bird survey will be conducted 5-days prior to construction (February 1 - July 15) and/or mowing and grubbing will take place on the site in the preceding fall. If birds or nests are discovered during construction, all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. If mowing or grubbing does take place maintenance of the habitat in a degraded state will occur until construction begins.

#### **High Value Habitat Avoidance**

The ND Parks and Recreation Department (NDPRD) houses the North Dakota Natural Heritage biological conservation database. A request for record review will be done to determine if any current or historic 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.

The proposed pad site is located within a gently rolling native prairie community. Vegetation condition at time of the survey was moderate to tall and vegetative height ranged from 10 cm to 30 cm. Dominate species in this native pasture community are needle-and-thread (*Stipa comata*), western wheatgrass (*Agropyron.smithii*), blue grama (*Bouteloua gracilis*) and green needlegrass (*Stipa viridula*) with little bluestem

(*Andropogon scoparius*) common on side slopes. Patches of western snowberry (*Symphoricarpos occidentalis*) and Kentucky bluegrass (*Poa pratensis*) are common on the site. A few small scattered hawthorne (*Crataegus rotundifolia*) are located in the center of pad. The wooded drainages to the east are characterized by green ash (*Fraxinus pennsylvanica*), chokecherry (*Prunus virginiana*), and buffaloberry (*Shepherdia argentea*) with a few eastern red cedar (*Juniperus virginiana*). Common forbs included fringed sagewort (*Artemisia frigid*), purple coneflower (*Echinacea angustifolia*), green milkweed (*Asclepias viridiflora*), white sagewort (*Artemisia ludoviciana*), yarrow (*Achillea millefolium*) and goats beard (*Tragopogon dubius*). A few rocky, clay pan areas occurring on the eastern edge of site are characterized by blue grama and curlycup gumweed (*Grindelia squarrosa*).

A closed-loop drilling system (pit-less) will be implemented eliminating or greatly reducing potential for contamination or leaching. No high value wildlife habitat will be compromised by pad construction but there will be an overall loss of grassland cover. At the time of the field visit, no significant ecological communities were observed.

Disturbed areas will be reseeded with a native seed mix as specified by the BIA. WPX and the BIA will monitor the seeding success and weed species control over life of project.

#### **Cumulative Impacts**

The total project will result in less than 7.2 total acres of agricultural land (pasture) loss due to utilizing an existing oil and gas designated access corridor. Potential impacts to wildlife will be minimal in the context of development in the immediate area. The goal of establishing a slightly larger multi-well pad and other in same area as other planned well pads will ultimately reduce the overall disturbance in the surrounding area. Access road and pad construction is near other permitted roads and oil facilities and should not significantly negatively affect unlisted species, including migratory birds, small and large mammals, and other wildlife species.

There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well site. Current land uses are expected to continue with little change other than the acreage required for development. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

#### **Biological Species Assessment**

Assessments for Federally listed threatened and endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species. Threatened and endangered species with documented occurrences in Mountrail and McLean Counties are listed in Table 1.

Table 1. McKenzie County Threatened, Endangered and Candidate Species List

Species	Status
Interior Least Tern	Endangered
Whooping Crane	Endangered
Black-footed Ferret	Endangered
Pallid Sturgeon	Endangered
Gray Wolf	Endangered
Piping Plover and Designated Critical Habitat	Threatened
Sprague's Pipit	Candidate
Dakota Skipper	Candidate

<sup>1</sup> USFWS (updated February, 2012)

Determinations made for federally listed species are:

- No effect
- May affect, is not likely to adversely affect
- May affect, is likely to adversely affect

#### Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches. Their nesting period occurs between mid-May through mid-August. During the nesting season the least tern has been documented to travel 7.5-miles or more from the lake to forage in wetlands.

No individuals were observed in the area during the onsite visit on April 18, 2012. The proposed well site is approximately 3.5 miles from the Missouri River system (Lake Sakakawea). Mitigation practices will be employed to protect drainages and lake. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** this species.

#### Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Arkansas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location. Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is native prairie pasture and agricultural fields. The pad and access road are placed in a location that will have little potential of

impacting whooping crane stop-over habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities will cease and will be immediately reported to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), and the BIA. In coordination with the USFWS and the BIA construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** whooping cranes.

#### **Black-footed Ferret**

Black-footed ferrets were historically in the southwest portion of North Dakota but their occurrence is unlikely or questionable at this time. The black-footed ferret requires expansive black-tailed prairie dog colonies for food and den habitat. The Black-Footed Ferret Survey Guidelines (USFWS 1989) states that 80 acres is the minimum size prairie dog habitat needed to support black-footed ferret. Black-footed ferret reintroduction into the wild began in 1991 (Black-footed Ferret Recovery Implementation Team 2009). There have been 19 reintroduction sites, but none in North Dakota at this time. No potential habitat occurs in the area and the proposed project will have **no effect** on this species at this time.

#### **Pallid Sturgeon**

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed well site is located approximately 6.5 stream miles from the Missouri River system. The project should have **no effect** on this species.

#### **Gray Wolf**

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area the proposed project still **may affect, is not likely to adversely affect** this species.

#### **Piping Plover and Critical Habitat**

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been designated along Lake Sakakawea. The NDPRD records will indicate any piping plover sightings or critical habitat within 2-miles of the project site.

The proposed well site is located approximately 3.5 miles from the Missouri River system. No piping plovers were observed in or around the project area during the on-site review. The proposed project will have **no effect** this species.

### Sprague's Pipit

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The vegetative height at time of survey was approximately 10-30 cm in most areas although numerous chokecherry, buffalo berry and buck brush patches are located across the area and pad is located near a treed drainage. A two-track trail from the north also bisects the area.

If the site will be constructed during the nesting season (February 1 - July 15) ground surveys for migratory birds and their nests will be conducted five days prior to construction. If birds or nests are discovered the USFWS will be contacted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of migratory bird nesting sites. Based upon these factors the proposed project ***may affect, is not likely to adversely affect*** this species.

### Dakota Skipper

Dakota skippers are found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

Relatively small amounts of life stages of the Dakota skipper may be altered by the proposed development. The proposed project ***may affect, is not likely to adversely affect*** this species.

### Conclusion

WPX has adopted as a standard the following site-specific construction procedures to be implemented in helping reduce potential impacts to wildlife and habitat:

- Use of a closed-loop drilling system
- Construction of an 24" high containment berm on the pad
- Construction of a 2:1 slope on all slopes
  - Use of BMPs (matting, fabric, etc.) to reduce erosion on fill slopes.
- Monitor required during construction and reclamation to ensure a minimum 75' buffer is maintained for cultural resources present.
- Raptor and migratory bird survey 5-days prior to construction
- Interim and final reclamation including:
  - Use of BMPs (soil compaction, berms, silt fences, wattles, fabric etc.) to reduce erosion
  - Monitoring and maintenance of potential erosion areas.
  - Seeding of native species.
  - Indefinite monitoring of seeding success and weed species control.

Ruby Parshall 31-30 Infill Well Pad - WPX Energy Williston, LLC

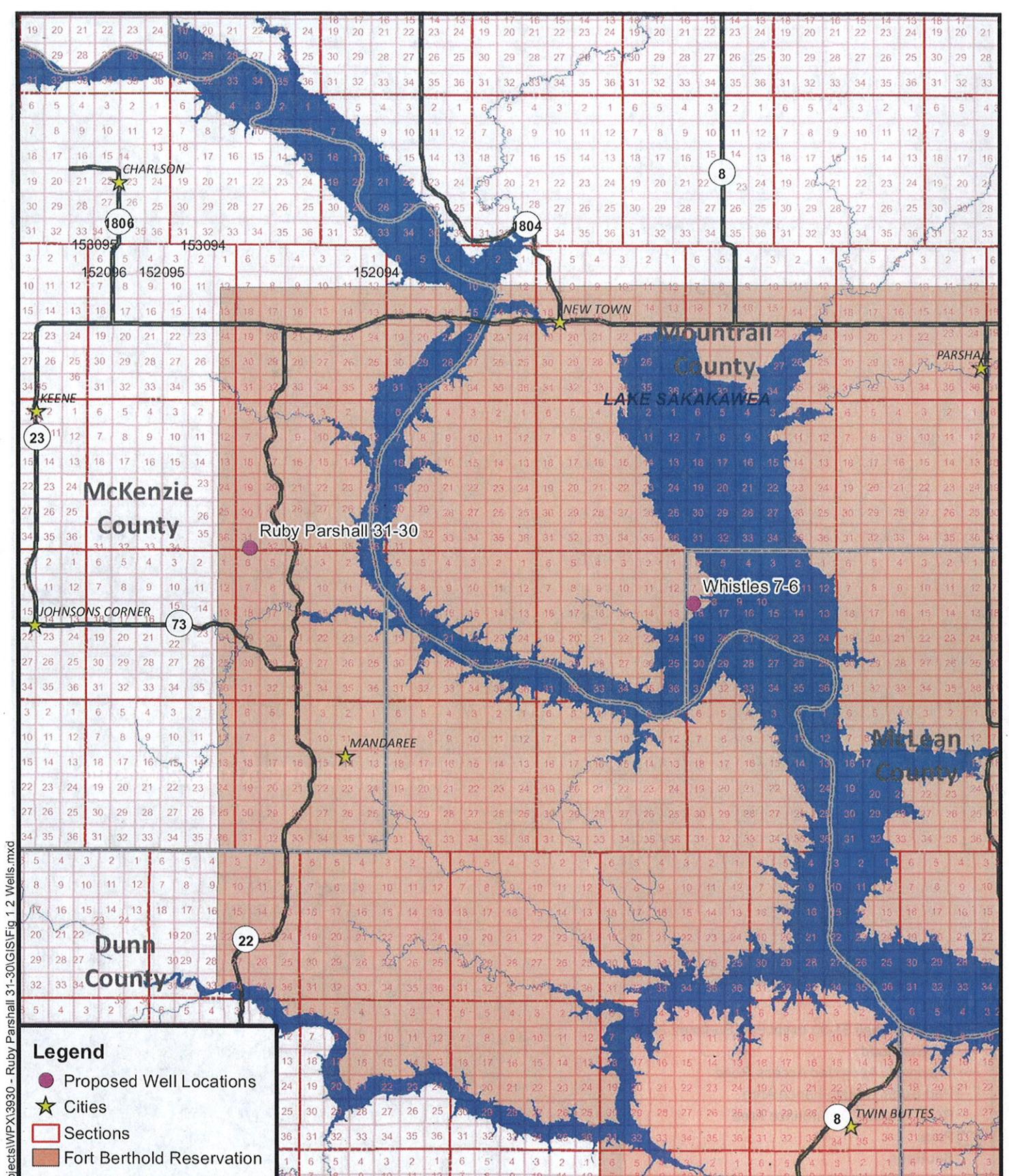
Based on a review of a list of federally listed or proposed endangered or threatened species under U.S. Fish and Wildlife Service jurisdiction, in addition to occasional transient individuals, we have determined that these actions will either have *no effect* or *may affect, but is not likely to adversely affect* listed threatened, endangered or candidate species and habitats.

Please call me at 701-255-1475 if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan J. Krapp". The signature is fluid and cursive, with a long horizontal stroke at the end.

Ryan J. Krapp  
Ecologist/GIS Specialist



R:\projects\WPX\3930 - Ruby Parshall 31-30\GIS\Fig 1 2 Wells.mxd  
 April 2012

**Legend**

- Proposed Well Locations
- ★ Cities
- Sections
- Fort Berthold Reservation

1:316,800  
 1 inch = 5 miles

0 1.25 2.5 5 Miles

Basemap: ND GIS Hub

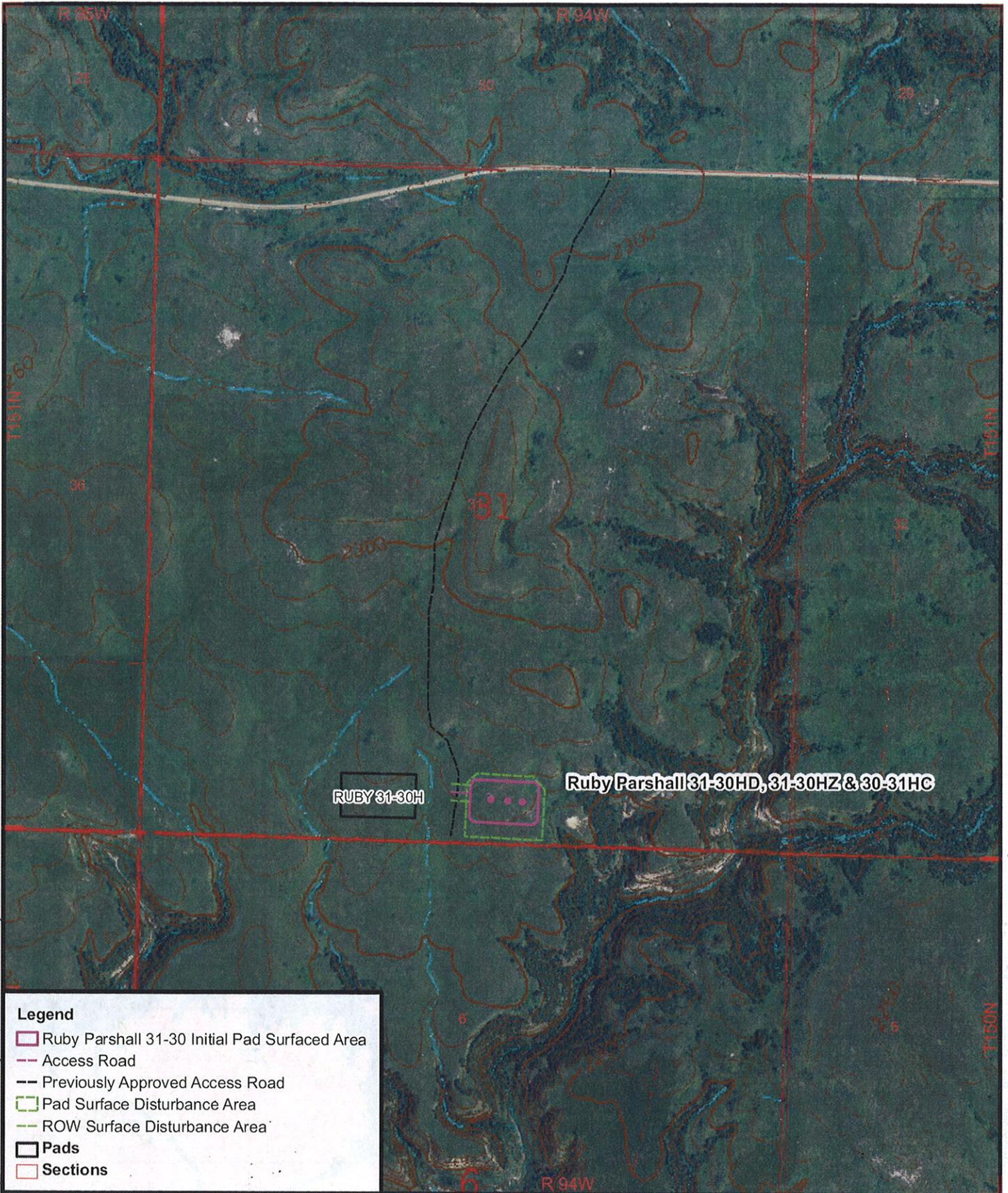


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McCain**

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 www.carlsonmccain.com

**Figure 1**  
**Proposed Well Locations**  
**WPX Energy Williston, LLC**

R:\projects\WPX\3930 - Ruby Parshall 31-30\GIS\Ruby Parshall 31-30 Well Site.mxd  
April 2012



**Legend**

-  Ruby Parshall 31-30 Initial Pad Surfaced Area
-  Access Road
-  Previously Approved Access Road
-  Pad Surface Disturbance Area
-  ROW Surface Disturbance Area
-  Pads
-  Sections

1:12,000  
1 inch = 1,000 feet  
0 250 500 1,000 Feet  
Basemap: 2010 NAIP Orthophoto  
McKenzie County



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**Figure 1**  
Proposed Well Site  
Ruby Parshall 31-30  
WPX Energy Williston, LLC



ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

April 10, 2012

Ronald Melhouse  
Bureau of Reclamation  
P.O. Box 1017  
Bismarck, ND 58502

**RE: Request for Comments**  
**WPX Energy Williston, LLC**

Dear Mr. Melhouse,

On behalf of WPX Energy Williston, LLC, Carlson McCain is submitting information concerning development of three proposed oil and gas extraction locations on the Fort Berthold Reservation (Reservation). The Bureau of Indian Affairs (BIA) is preparing an environmental assessment (EA) under the National Environmental Policy Act (NEPA) for the proposed action(s). The proposed surface locations for the three infill well pads is described below, and illustrated on the Project location map (Figure 1).

- Bird Infill Well:
- Mandan South Infill Well:
- Stink Gun Infill Well:

The proposed Bird Infill well pad is located in the SW $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 31, T151N, R94W in McKenzie County (Figure 2). The proposed Mandan South Infill well pad is located in the SW $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of Section 13, T150N, R93W in Mountrail County (Figure 3). The proposed Stink Gun Infill well pad is located in the NW $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 18, T150N, R91W in Mountrail County (Figure 4).

Associated appurtenances include roads, utility lines, and production and storage facilities. In general, oil will be stored on location in tank batteries and then hauled to the nearest processing plant or sales point. Produced water will be transported by truck to water disposal wells or enclosed tanks. Any gas produced from these wells will initially be flared until a gathering system can be planned, permitted, and constructed. Associated appurtenances and utilities for the Mandan South and Stink Gun Infill Wells will be installed underground in the same right-of-way as the road and connecting to the established Van Hook Gathering System (VHGS).

*Proposed Infill Well Pads*

In accordance with NEPA requirements, we are requesting comments regarding the proposed project. Comments are requested to be sent before May 8, 2012 so they may be incorporated into the final decision making. Please send comments to my attention at the address below.

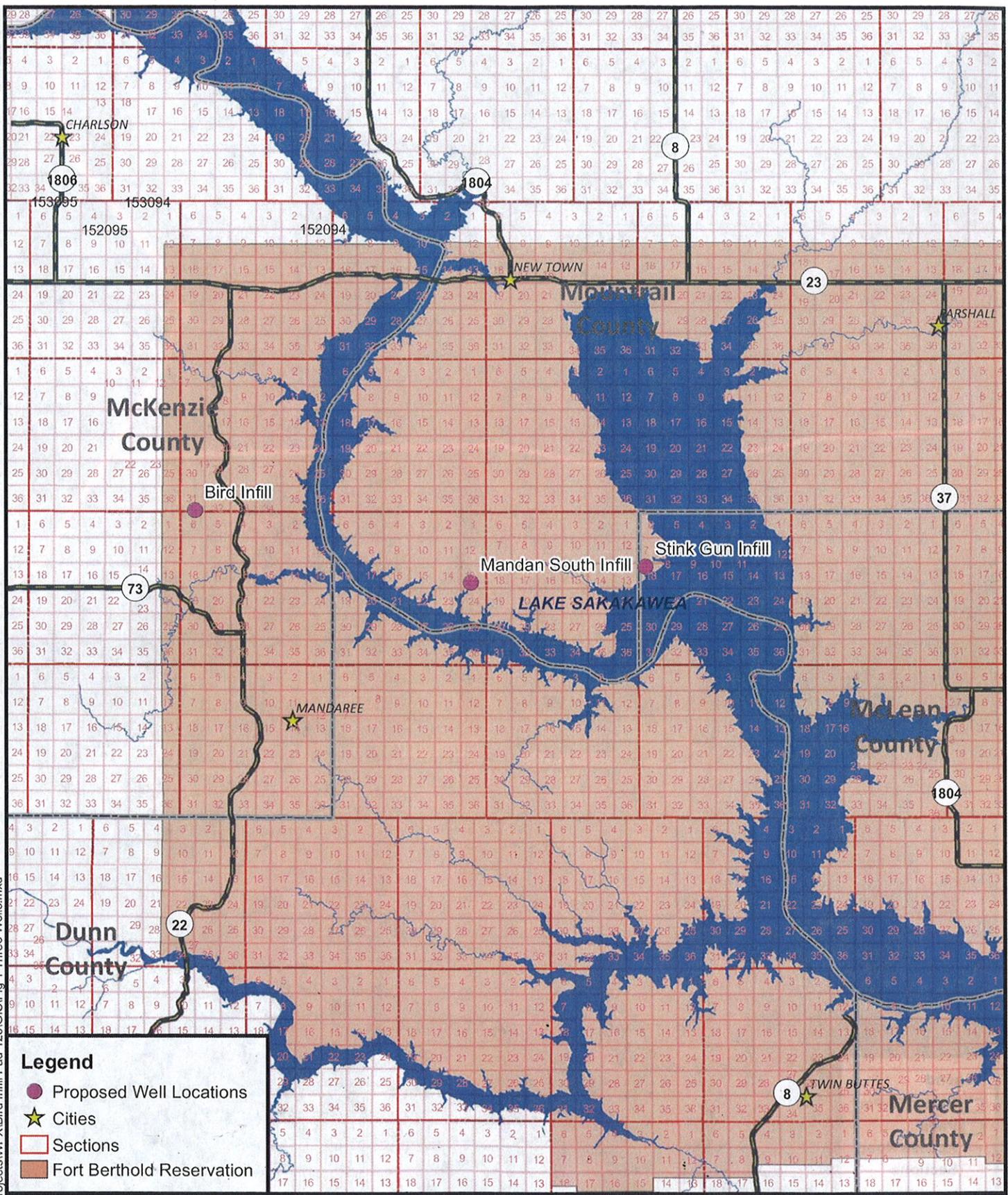
2718 Gateway Avenue, Suite 101  
Bismarck, ND 58503

Sincerely,



Ryan J. Krapp  
Ecologist/GIS Specialist  
rkrapp@carlsonmccain.com

R:\projects\WPX\Bird Infill Pad 126\GIS\Fig 1 Three Wells.mxd  
April 2012



**Legend**

- Proposed Well Locations
- ★ Cities
- Sections
- Fort Berthold Reservation

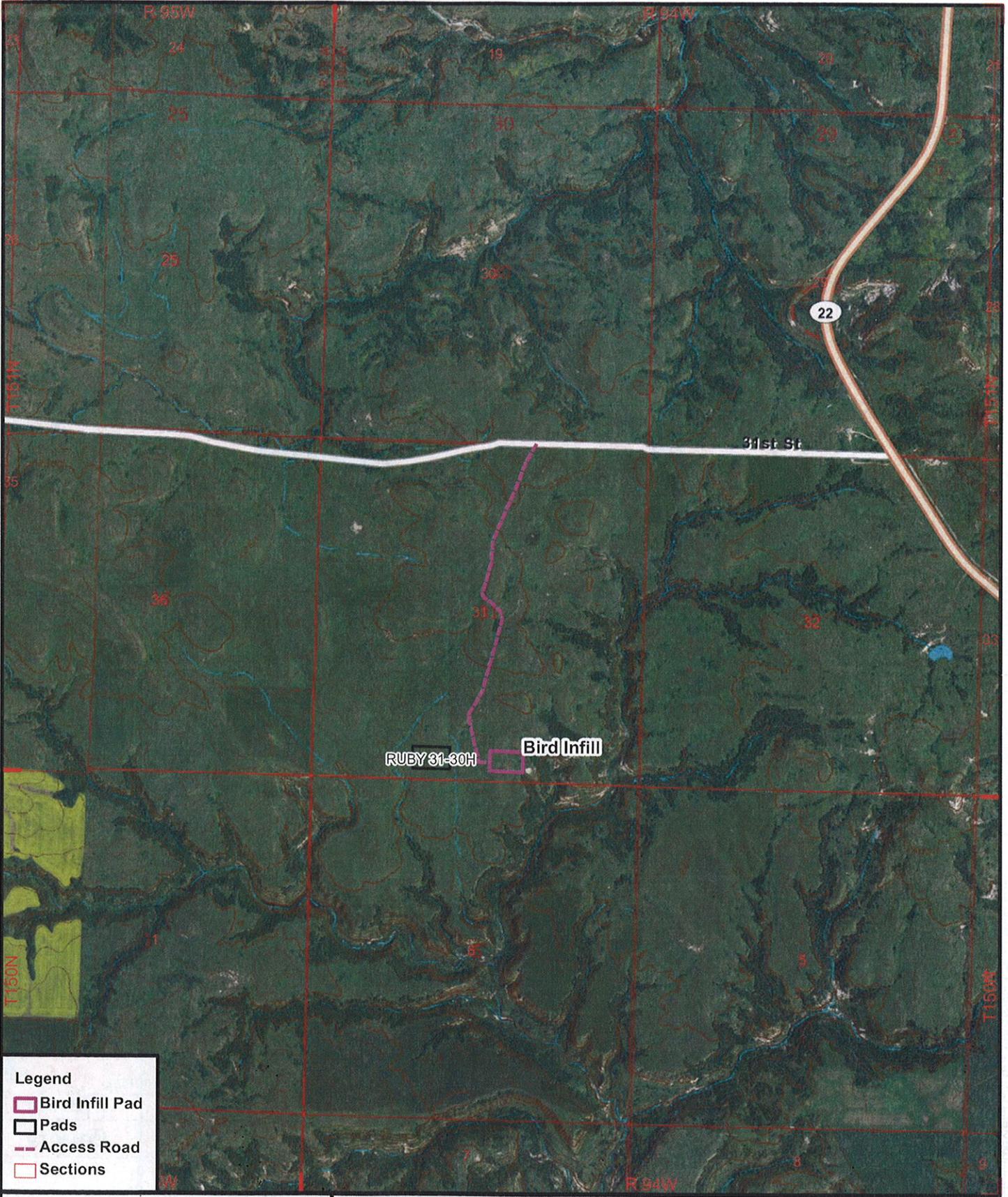
1:316,800  
1 inch = 5 miles  
0 1.25 2.5 5 Miles  
Basemap: ND GIS Hub



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**Figure 1**  
**Proposed Well Locations**  
**WPX Energy Williston, LLC**

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April 2012

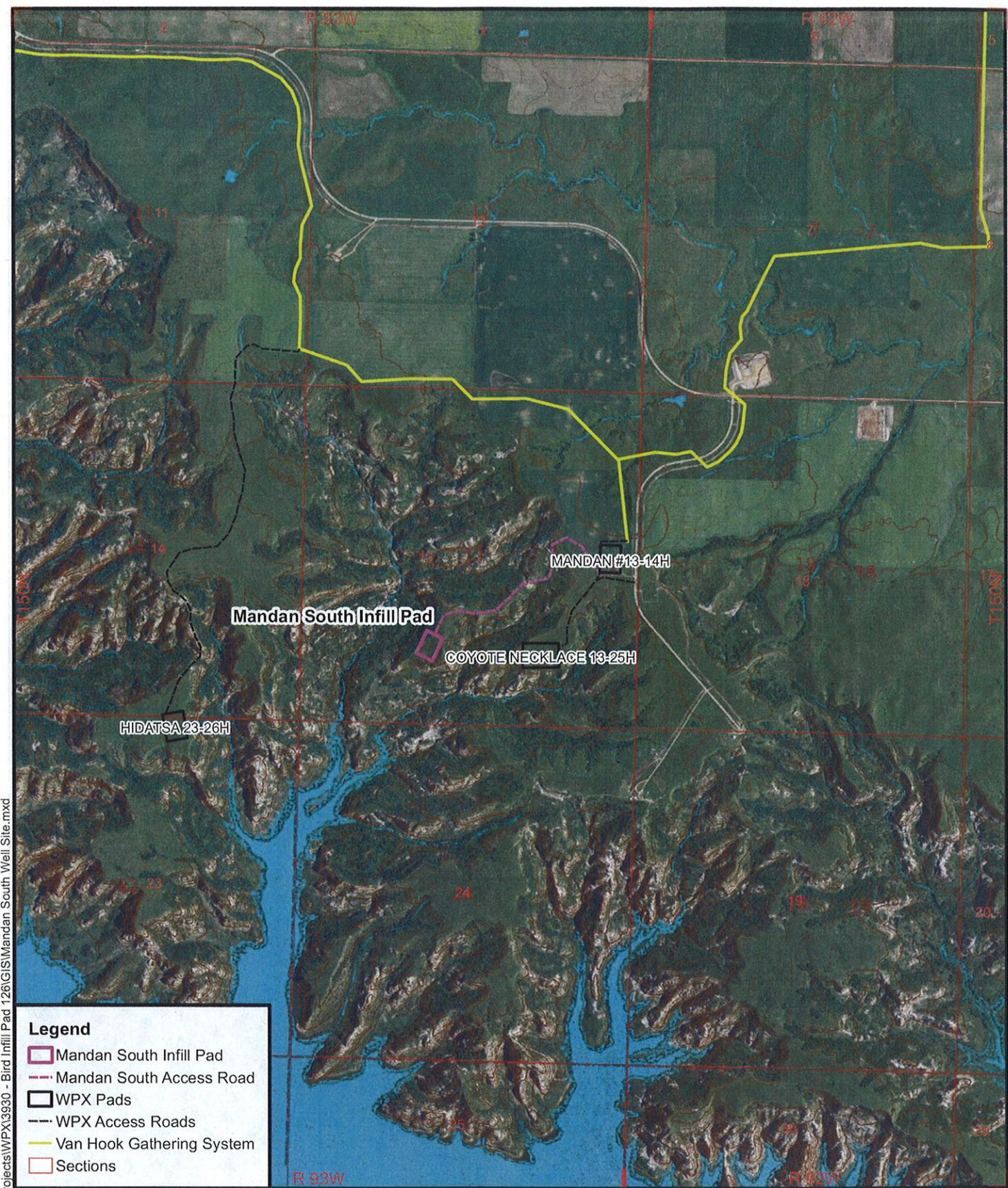


- Legend**
- Bird Infill Pad
  - Pads
  - Access Road
  - Sections

1:24,000  
1 inch = 2,000 feet  
0 .500 1,000 2,000 Feet  
Basemap: 2010 NAIP Orthophoto  
McKenzie County

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**Figure 2**  
Proposed Well Site  
Bird Infill Pad  
WPX Energy Williston, LLC



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April 2012

**Legend**

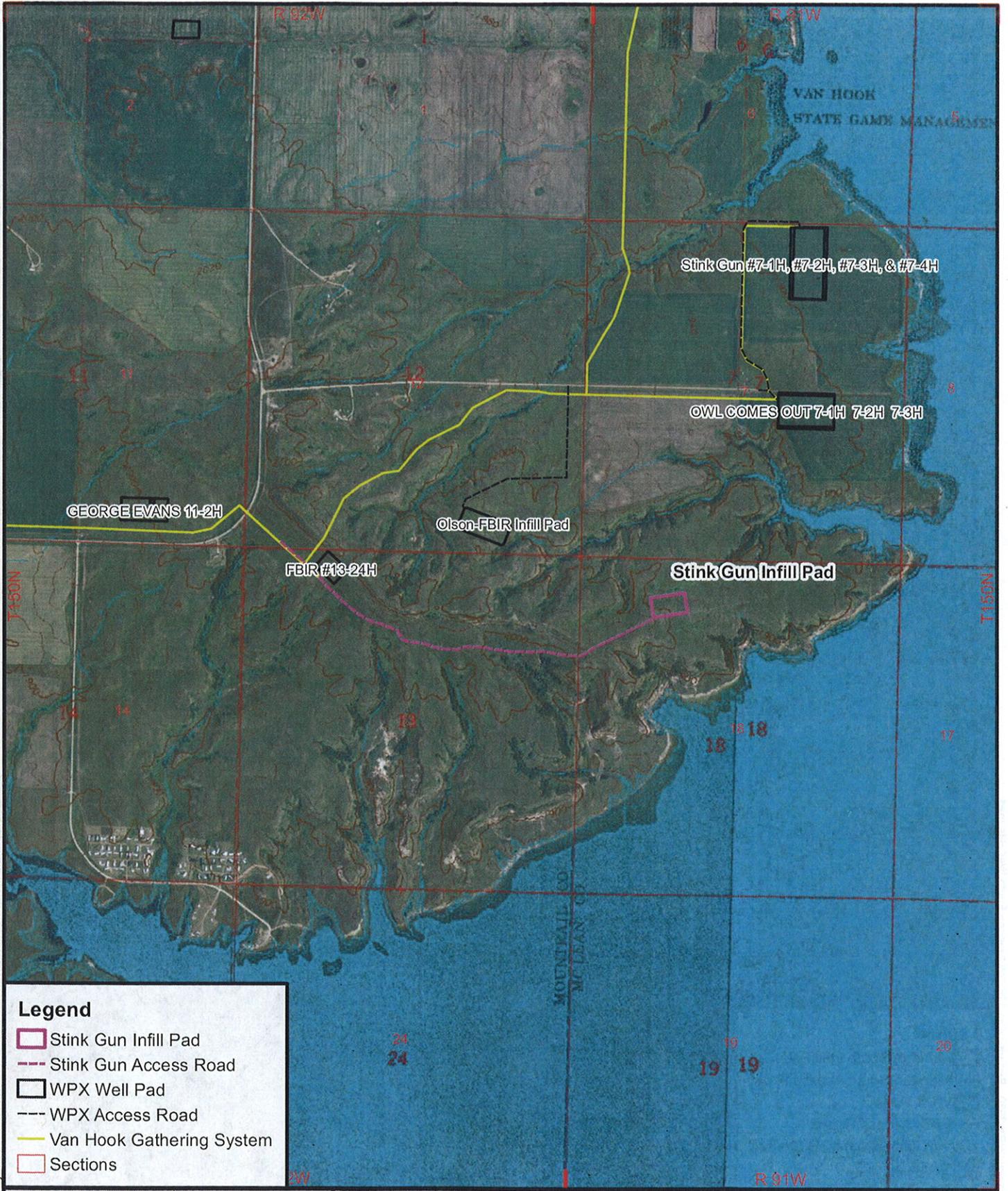
- Mandan South Infill Pad
- Mandan South Access Road
- WPX Pads
- WPX Access Roads
- Van Hook Gathering System
- Sections

1:24,000  
1 inch = 2,000 feet  
0 500 1,000 2,000 Feet  
Basemap: 2010 NAIP Orthophoto  
Mountrail County



  
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**Figure 3**  
**Proposed Well Site**  
**Mandan South Infill Pad**  
**WPX Energy Williston, LLC**



**Legend**

- Stink Gun Infill Pad
- Stink Gun Access Road
- WPX Well Pad
- WPX Access Road
- Van Hook Gathering System
- Sections

1:24,000  
 1 inch = 2,000 feet  
 0 500 1,000 2,000 Feet  
 Basemap: 2010 NAIP Orthophoto  
 Mountrail County




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**Figure 4**  
**Proposed Well Site**  
**Stink Gun Infill Pad**  
**WPX Energy Williston, LLC**

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 April 2012

**Appendix C**

Scoping Responses and Concurrence Letter



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
3425 Miriam Avenue  
Bismarck, North Dakota 58501

JUN 14 2012



Mr. Ryan Krapp  
Ecologist/GIS Specialist  
Carlson McCain, Inc.  
2718 Gateway Avenue, Suite 101  
Bismarck, North Dakota 58503

Re: Request for Comments  
Proposed Oil & Gas Well Pad  
Ruby Parshall 31-30 (Bird Infill)  
WPX Energy Williston, LLC  
In reply, please reference TAILS #2012-CPA-0566

Dear Mr. Krapp:

This is in response to your letter dated April 25, 2012, regarding a proposal by WPX Energy Williston, LLC (WPX) for the development, drilling, and completion of three wells on one well pad, along with associated facilities on the Fort Berthold Reservation in McKenzie County, North Dakota.

Specific location for the proposed pad is:

**Ruby Parshall 31-30: T. 151 N., R. 94 W., Sec. 31**

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

### **Threatened and Endangered Species**

In an e-mail dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Carlson McCain, Inc. to represent the BIA for informal Section 7 consultation under the ESA. Therefore, the 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.

Your letter states that WPX has committed to ceasing work on the proposed site if a whooping crane(s) (*Grus americana*) is sighted within 1.0 mile of the project area and immediately contacting the Service. Work may resume in coordination with the Service after the bird(s) leaves. Additionally, per BIA requirements, all new power lines must be buried. Therefore, the Service concurs with your "may affect, is not likely to adversely affect" determination for whooping crane.

Your letter states that the proposed Ruby Parshall 31-30 well pad is located approximately 3.5 miles south from potential habitat for interior least tern (*Sterna antillarum*), pallid sturgeon (*Scaphirhynchus albus*) and designated critical habitat for piping plovers (*Charadrius melodus*). A setback distance of 1.0 stream-mile is believed to be adequate to contain most spills before product can reach the lake through draws and drainages. Additionally, WPX has committed to implementing a closed loop drilling system for each proposed well pad, further reducing potential impacts. The Service believes that the absence of a reserve pit greatly reduces the potential of migration of fluids off the pad. Therefore, the Service concurs with your "may affect, is not likely to adversely affect" determination for interior least tern, pallid sturgeon, and designated critical habitat for piping plovers.

The Service acknowledges your determination of "no effect" for piping plover. If you maintain your determination, no further consultation is necessary. However, the Service does not believe a "no effect" determination for these species is correct. When determining if an action may affect a listed species, the federal agency must include direct and indirect effects, as well as those actions that are interrelated or interdependent. We are concerned with potential impacts that the interrelated and interdependent actions of oil and gas exploration could have on plovers since the species could move far from the lake to wetlands to feed. A recent study indicates that piping plovers may travel up to 10 or more miles to forage during the nesting season (enclosed). The Service suggests that a determination of "may affect, not likely to adversely affect" for this federally listed species is the correct determination, and one that we would concur with.

The Service recommends a 0.5-mile buffer from piping plover habitat to avoid disturbance during construction and operation. In your June 6, 2012, email to Karine Becker of my staff, you stated that topographic features of the area and the distance from the shoreline should assist in providing sight and sound barriers for shoreline-nesting birds.

The Dakota skipper (*Hesperia dacotae*) and Sprague's pipit (*Anthus spragueii*) 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**

The MBTA prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the MBTA has no provision for allowing incidental take, the Service realizes that some birds may be killed during project construction and operation even if all known reasonable and effective measures to protect birds are used. The Service Office of Law Enforcement carries out its mission to protect

migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and agencies that have taken effective steps to avoid take of migratory birds, and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without identifying and implementing all reasonable, prudent, and effective measures to avoid that take. Individuals, companies, or agencies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during construction or similar activities.

The letter states that WPX will implement the following measures to avoid/minimize take of migratory birds:

- Construction will be completed outside of the migratory bird nesting season (Feb. 1-July 15). If construction cannot be completed outside of the migratory bird nesting season, WPX will either:
  - Conduct a pre-construction survey for migratory birds or their nests five days prior to the initiation of construction activities.
  - Mow the site prior to and throughout the nesting/breeding season in lieu of the pre-construction survey.

If active nests are identified, WPX should cease construction, maintain a sufficient buffer around active nests to avoid disturbing breeding activities, and contact the Service. The Service recommends WPX implement all practicable measures to avoid all take, such as suspending construction where necessary, and/or maintaining adequate buffers to protect the birds until the young have fledged. The Service further recommends that if you choose to conduct field surveys for nesting birds with the intent of avoiding take, that you maintain any documentation of the presence of migratory birds, eggs, and active nests, along with information regarding the qualifications of the biologist(s) performing the survey(s), and any avoidance measures implemented at the project site. Should surveys or other available information indicate a potential for take of migratory birds, their eggs, or active nests, the Service requests that you contact this office for further coordination on the extent of the impact and the long-term implications of the intended use of the project on migratory bird populations.

### **Bald and Golden Eagle Protection Act**

The BGEPA, prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof. The Act defines take as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon

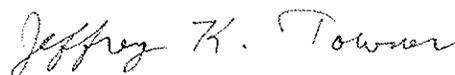
the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

Bald and/or golden eagles may use the project area where the well pad will be located. Golden eagles inhabit a wide variety of habitat types, including open grassland areas. They are known to nest on cliffs, in trees, manmade structures, and on the ground (Kochert et al. 2002). While the bald eagle tends to be more closely associated with forested areas near water (Buehler 2000), they have been found nesting in single trees several miles from the nearest water body. Therefore, there may also be potential habitat for the bald eagle at the proposed project site. Especially early in the nesting season, eagles can be very sensitive to disturbance near the nest site and may abandon their nest as a result of low disturbance levels, even from foot traffic. A buffer of at least 0.5-mile should be maintained for golden and bald eagle nests. A permit is required for any take of bald or golden eagles or their nests. Permits to take golden eagles or their nests are available only for legitimate emergencies and as part of a program to protect golden eagles.

Your letter states that no bald or golden eagle nests were observed during a survey conducted on April 18, 2012. In an e-mail dated May 31, 2012, you clarified that a .5-mile line-of-sight survey was conducted. WPX has committed to ceasing construction activities if a bald or golden eagle nest is sighted within 0.5 miles of the project construction area and that the Service would be contacted immediately. The eagle nest database maintained by North Dakota Game and Fish Department does not indicate any recorded eagle nests within 0.5-mile of the project area. The Service's May 2007, National Bald Eagle Management Guidelines contains detailed information on protecting bald eagles from disturbance due to human activity. The guidelines can be accessed on the Service's website: <http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>.

Thank you for the opportunity to comment on this project proposal. If you require further information, please contact Karine Becker of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,



Jeffrey K. Towner  
Field Supervisor  
North Dakota Field Office

cc: Project Leader, Lostwood WMD, Kenmare, ND  
Bureau of Indian Affairs, Aberdeen, SD  
(Attn: Marilyn Bercier)  
Bureau of Land Management, Dickinson, ND  
ND Game & Fish Department, Bismarck, ND  
(G. Link)



# United States Department of the Interior

## BUREAU OF RECLAMATION

Dakotas Area Office

P.O. Box 1017

Bismarck, North Dakota 58502



IN REPLY PLEASE REFER TO  
DK-5000  
ENV-6.00

APR 30 2012

Mr. Ryan J. Krapp  
Ecologist/GIS Specialist  
Carlson McCain  
2718 Gateway Avenue, Suite 101  
Bismarck, ND 58503

Subject: Solicitation for an Environmental Assessment by BIA for the Proposed Construction of 3 Exploratory Oil and Gas Wells on Single Well Pads For WPX Energy on the Fort Berthold Indian Reservation in McKenzie and Mountrail Counties, North Dakota

Dear Mr. Krapp:

This letter is written to inform you that we received your letter of April 10, 2012, and the information and maps of your proposed well pads and wells have been reviewed by Bureau of Reclamation staff.

The proposed projects are sited in:

Bird Infill - SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  Section 31, T151N, R94W - McKenzie County  
Mandan South - SW  $\frac{1}{4}$  Section 13, T150N, R93W - Mountrail County  
Stink Gun - NW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 18, T150N, R91W - Mountrail County

There are federal Reclamation facilities in sections adjacent to Sections 31 and 13 and slightly more distant from Section 18 (maps below). Although these sites appear to be clear, it is difficult to determine the detailed impacts of the wells and access roads. Please note that municipal, rural, and industrial water lines (red and blue lines) commonly follow roads.

Should you have need to cross a Fort Berthold Rural Water System pipeline while accessing your proposed project, please contact our engineer Colin Nygaard, as shown below and refer to the enclosed sheet for pipeline crossing specifications.

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.

Thank you for providing your project information and opportunity to comment on your proposal. If you have any further environmental questions, please contact me at 701-221-1287 or for engineering questions Colin Nygaard, Civil Engineer, at 701-221-1260.

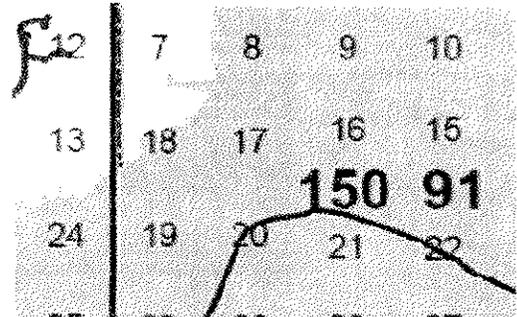
Sincerely,

Kelly B. McPhillips  
Environmental Specialist

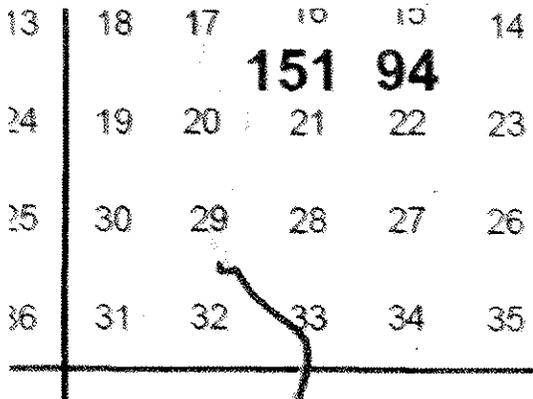
Enclosure

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

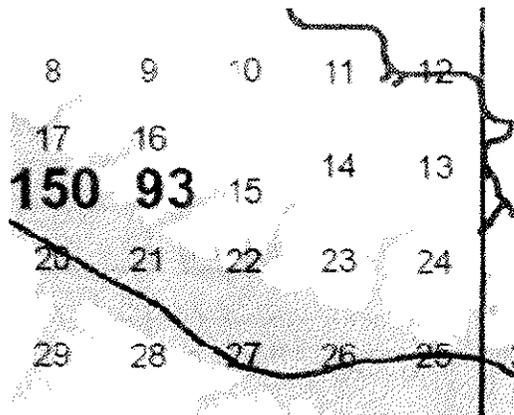
Mr. Lester Crows Heart  
Fort Berthold Rural Water Director  
Three Affiliated Tribes  
308 4 Bears Complex  
New Town, ND 58763  
(w/encl)



Stink Gun - NW ¼ of the NW ¼ of Section 18, T150N, R91W - Mountrail County



Bird Infill - SW ¼ SE ¼ Section 31, T151N, R94W - McKenzie County



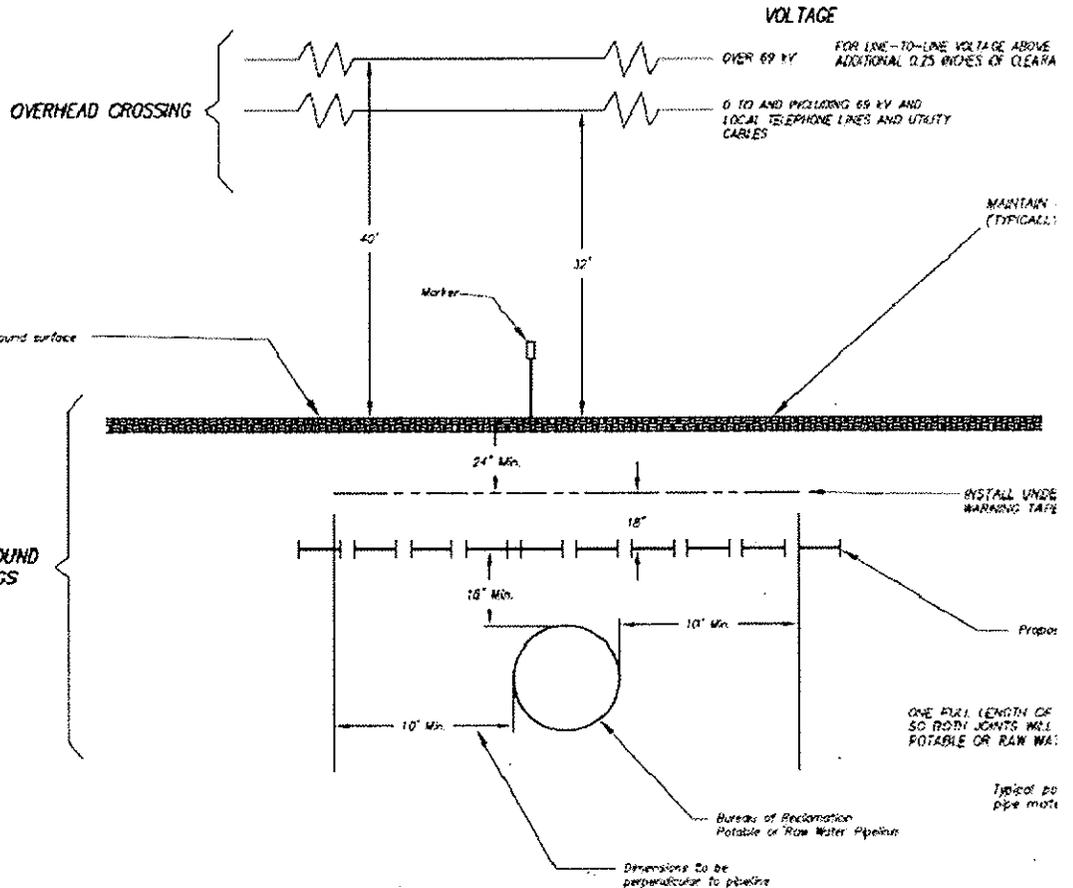
Mandan South - SW ¼ Section 13, T150N, R93W - Mountrail County ¼ Section 36,

NOTES

1. Drawing is not to scale.
2. Clearances shown are minimum for all conditions.
3. Any additional permits required/needed for construction shall be provided by the Contractor.
4. Overhead conductor clearances shown are for 120 degrees F and final unlocked sag.
5. Erosion control measures, including re-vegetation, shall be implemented after completing construction activities.
6. The applicant shall submit a project description, and detailed construction plans showing plan views, profiles and sections, and grading plans of proposed work within Reclamation's Right-of-Way (ROW).
7. The applicant shall submit procedures, excavation plans, and schedules for crossing the Reclamation pipeline.
8. At the completion of construction activities the applicant shall submit AS-BUILT drawings that indicate the horizontal and vertical alignments of all utilities in areas disturbed during construction within Reclamation ROW.
9. Pipelines carrying hazardous materials or pollutants (e.g. oils, gasoline, natural gas, contaminated water and nonpotable water, etc.) should be designed for a reduced risk of failure in the portion within Reclamation's ROW. The design shall require either:
  - 9.1. Designing the crossing pipeline with an additional 50 percent working pressure factor, OR
  - 9.2. Use secondary containment (pipe casing) for all hazardous material pipelines.
10. All work within 18 inches of the facility shall be done using hand-held tools only. The excavation and backfill shall be made in the presence of Reclamation personnel or authorized representative.
11. The applicant and or his/her contractor shall be liable for all damages to Reclamation facilities and appurtenances as a result of construction and for any other damages or losses suffered by Reclamation, including power, municipal and industrial water supply and communication losses.
12. For crossings of all Reclamation facilities, Reclamation personnel familiar with the facilities will obtain and provide copies of existing files showing information about existing buried facilities (center of pipeline, approximate depth of cover, size of pipe, class of pipe, etc.) to the applicant.
13. Typical Reclamation potable and raw water pipelines are PVC. If metallic pipelines or those containing metallic reinforcement (e.g. reinforced concrete) are encountered in the crossing a suitable bonded dielectric coating and cathodic protection may be required.

DETECTABLE WARNING TAPE

- A. For potable water lines, the warning tape shall be a 3 inch detectable tape imprinted with "CAUTION BURIED WATER LINE".
- B. For nonpotable water lines, the warning tape is 3-inch-wide purple detectable tape imprinted with "BURIED NONPOTABLE WATER LINE".
- C. For gas, oil, and steam chemical lines, the warning to a 3-inch-wide yellow detectable tape imprinted with "BURIED (type) LINE".
- D. For telecommunications, telephone, television and warning tape shall be a 3-inch-wide orange detectable tape imprinted with "CAUTION BURIED (type) LINE".
- E. For electrical conduit(s), the warning tape shall be a 3 red detectable tape imprinted with "CAUTION BURIED LINE".
- F. A marker sign shall be provided that shows the electrical line voltage. The warning sign should face traffic and state "DANGER, HIGH VOLTAGE OVERHEAD".



DATE AND TIME PLOTTED  
 DATE AND TIME PLOTTED  
 PLOTTED BY  
 CHECKED BY  
 APPROVED BY  
 DRAWING NO.



**NORTH DAKOTA**  
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION  
Gold Seal Center, 918 E. Divide Ave.  
Bismarck, ND 58501-1947  
701.328.5200 (fax)  
www.ndhealth.gov



April 19, 2012

Mr. Ryan J. Krapp  
Ecologist/GIS Specialist  
Carlson McCain  
2718 Gateway Avenue, Suite 101  
Bismarck, ND 58503

Re: WPX Energy Williston, LLC  
Bird, Mandan South & Stink Gun Infill Well Pads  
Fort Berthold Reservation, McKenzie & Mountrail Counties

Dear Mr. Krapp:

This department has reviewed the information concerning the above-referenced project submitted under date of April 10, 2012, 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, well pads or pipelines 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. Detailed guidance is available at [www.ndhealth.gov/AQ/OilAndGasWells.htm](http://www.ndhealth.gov/AQ/OilAndGasWells.htm).

Any questions about air pollution control or permitting requirements should be addressed to Ms. Kathleen Paser at the U.S. Environmental Protection Agency, Region 8. She may be reached at (303) 312-6526 or [Paser.Kathleen@epa.gov](mailto:Paser.Kathleen@epa.gov).

2. Aggregate to be used for road construction should not contain any erionite. Aggregate sources should be tested for erionite following guidelines found at [www.ndhealth.gov/EHS/Erionite](http://www.ndhealth.gov/EHS/Erionite). For questions regarding erionite testing, please call Mark Dihle at 701-328-5188.
3. 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

Environmental Health  
Section Chief's Office  
701.328.5150

Division of  
Air Quality  
701.328.5188

Division of  
Municipal Facilities  
701.328.5211

Division of  
Waste Management  
701.328.5166

Division of  
Water Quality  
701.328.5210

Mr. Ryan J. Krapp

2.

April 19, 2012

receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

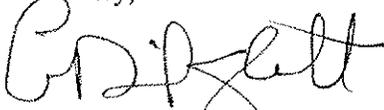
4. Oil and gas related construction activities located within tribal boundaries in North Dakota may be required to obtain a permit to discharge storm water runoff from the U.S. Environmental Protection Agency. Further information may be obtained from the U.S. EPA's website or by calling the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
5. Projects that involve construction, drilling, completion and/or production of crude oil or natural gas wells should select locations that minimize the potential for environmental damage during development of the well and in the event of a spill, restrict fluids from reaching surface waters. Well placement should avoid close proximity to drainage areas and steep slopes. Environmental damage can be reduced by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring of pipelines is necessary for the early detection of leaks.

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,



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

LDG:cc

Attach.

cc: Mark Dihle, Division of Air Quality



**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.



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**NORTH DAKOTA GAME AND FISH DEPARTMENT**

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

May 15, 2012

Ryan J. Krapp  
Ecologist/GIS Specialist  
Carlson McCain, Inc.  
2718 Gateway Ave, Suite 101  
Bismarck, ND 58503

Dear Mr. Krapp:

RE: Ruby Parshall 31-30  
Whistles 7-6  
Mandan South 24-25

WPX Energy Williston, LLC is proposing nine oil and gas wells located on three well pads on the Fort Berthold Reservation in McKenzie, Mountrail & McLean Counties, 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.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Link".

Greg Link  
Chief  
Conservation & Communication Division

js



Jack Dalrymple, 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](mailto:parkrec@nd.gov)  
[www.parkrec.nd.gov](http://www.parkrec.nd.gov)

May 7, 2012

Mr. Ryan Krapp  
Carlson McCain  
2718 Gateway Ave.  
Suite 101  
Bismarck, ND 58503

Re: Ruby Parshall 31-30 (Bird Infill) WPX Energy Williston, LLC

Dear Mr. Krapp,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposed Ruby Parshall 31-30 infill well pad on the Fort Berthold Reservation in McKenzie County, North Dakota.

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 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, there are no documented occurrences in our database within or adjacent to project area. 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.

We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact me at (701-328-5370 or [kgdutton@nd.gov](mailto:kgdutton@nd.gov)). Thank you for the opportunity to comment on this proposed project.

Sincerely,

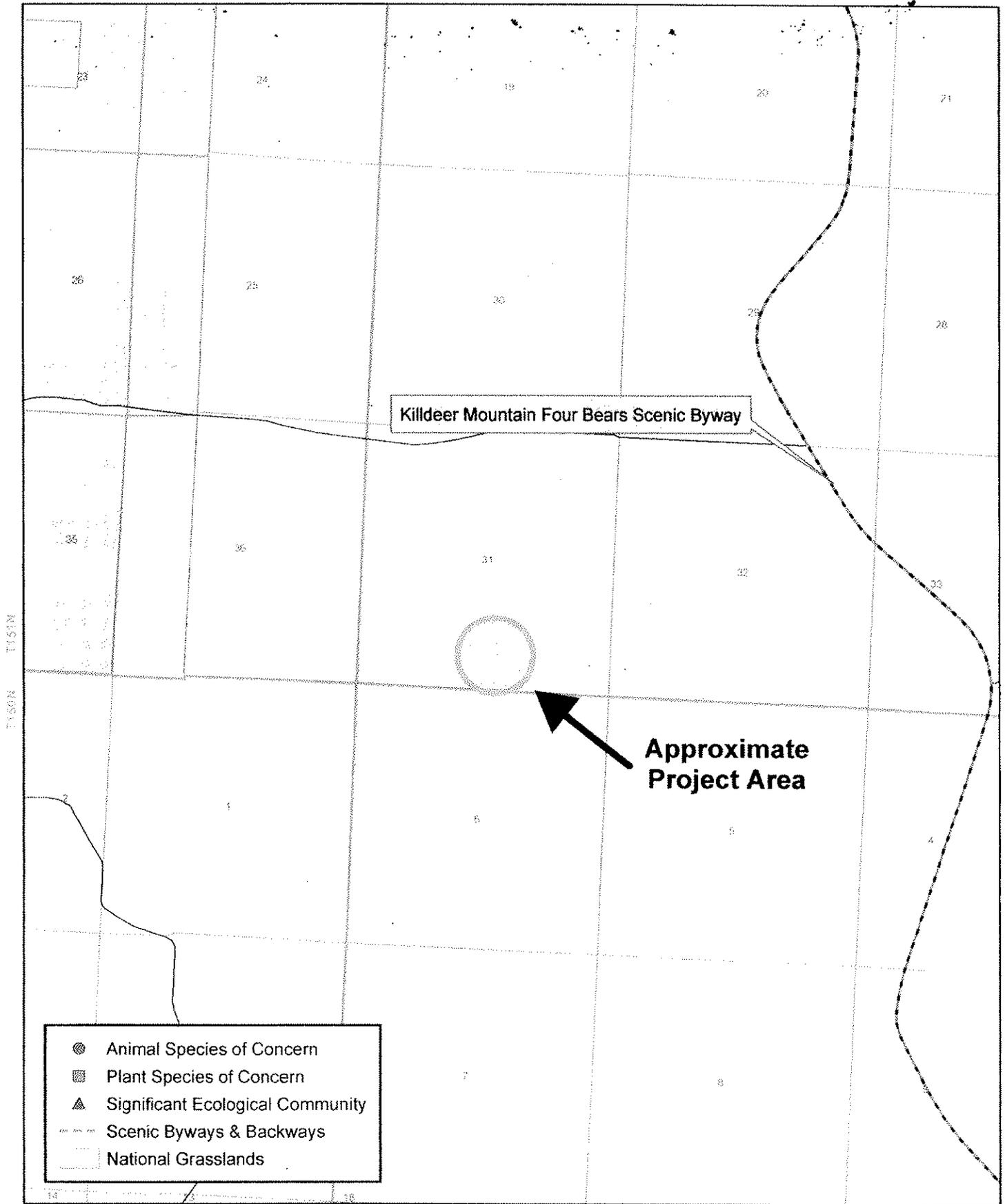
A handwritten signature in black ink, appearing to read "Kathy Guttenther".

Kathy Guttenther, Coordinator  
Natural Resources Division

R:\SND\NH\2012\_109 KD5\7\2012\DL5.20.2012

.....  
*Play in our backyard!*

# North Dakota Parks and Recreation Department North Dakota Natural Heritage Inventory



Killdeer Mountain Four Bears Scenic Byway

**Approximate  
Project Area**

- Animal Species of Concern
- Plant Species of Concern
- ▲ Significant Ecological Community
- Scenic Byways & Backways
- ⋯ National Grasslands

United States Department of Agriculture



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

---

May 2, 2012

Ryan J. Krapp  
Carlson McCain  
2718 Gateway Avenue, Suite 101  
Bismarck, ND 58503 ~~58502-1157~~

RE: WPX Energy Williston, LLC  
Bird Infill Well, Mandan South Infill Well, and Stink Gun Infill Well  
McKenzie and Mountrail Counties, ND

Dear Mr. Krapp:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated April 10, 2012, concerning the Bird, Mandan South, and Stink Gun infill well pads in McKenzie and Mountrail Counties, North Dakota.

*Important Farmlands* - NRCS has a major responsibility with Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agricultural use when the project utilizes federal funds. It appears your proposed project is not supported by federal funding; therefore, FPPA does not apply and no further action is needed.

*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. Krapp  
Page 2

NRCS would recommend that impacts to wetlands be avoided. If the alignment of the project requires passage through 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, NRCS, Bismarck, North Dakota (701-530-2019).

Sincerely,

 ACTING FOR

STEVEN J. SIELER  
State Soil Scientist/MO 7 Leader (Acting)



STATE  
HISTORICAL  
SOCIETY  
OF NORTH DAKOTA

Jack Dalrymple  
Governor of North Dakota

North Dakota  
State Historical Board

Gerold Gerntholz  
Valley City - President

Calvin Grinnell  
New Town - Vice President

A. Ruric Todd III  
Jamestown - Secretary

Albert I. Berger  
Grand Forks

Diane K. Larson  
Bismarck

Chester E. Nelson, Jr.  
Bismarck

Margaret Puetz  
Bismarck

Sam Otte Coleman  
Director  
Tourism Division

Kelly Schmidt  
State Treasurer

Alvin A. Jaeger  
Secretary of State

Mark Zimmerman  
Director  
Parks and Recreation  
Department

Francis Ziegler  
Director  
Department of Transportation

Merlan E. Paaverud, Jr.  
Director

Accredited by the  
American Association  
of Museums since 1986

April 12, 2012

Mr. Ryan J. Krapp  
Ecologist/GIS specialist  
Carlson McCain  
2718 Gateway Avenue, Suite 101  
Bismarck ND 58503

NDSHPO REF. 12-0941 BIA/BLM/MHAN THPO WPX Energy Williston, LLC 3 Infill Wells (Bird, Mandan South and Stink Gun) in portions of [T151N R94W Section 31; T150N R93W Section 13; T150N R91W Section 18] North Dakota

Dear Mr. Krapp,

We received your correspondence regarding NDSHPO REF. 12-0941 BIA/BLM/MHAN THPO WPX Energy Williston, LLC 3 Infill Wells (Bird, Mandan South and Stink Gun) in portions of [T151N R94W Section 31; T150N R93W Section 13; T150N R91W Section 18] North Dakota. We request that a copy of cultural resource site forms and reports be sent to this office so that the cultural resources archives can be kept current for researchers.

Thank you for your consideration. Consultation is with MHAN THPO. If you have any questions please contact Susan Quinnell, Review & Compliance Coordinator at (701)328-3576 or [squinnell@nd.gov](mailto:squinnell@nd.gov)

Sincerely,

Merlan E. Paaverud, Jr.  
State Historic Preservation Officer (North Dakota)

c: Elgin Crows Breast, THPO MHAN  
c: Justin Peters, BLM, Dickinson, ND

**From:** [Sorensen, Charles G. NWO](#)  
**To:** [Ryan Krapp](#)  
**Cc:** [Ames, Joel O. NWO](#)  
**Subject:** Comments for the WPX Energy Williston, LLC proposed, Bird, Mandan South and Stink Gun Infill oil and gas wells (UNCLASSIFIED)  
**Date:** Tuesday, April 17, 2012 3:00:13 PM

---

Classification: UNCLASSIFIED  
Caveats: NONE

Ryan

Thank you for letting the U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project comment on WPX Energy Williston, LLC proposed, Bird, Mandan South and Stink Gun Infill oil and gas wells located on the Fort Berthold Indian Reservation.

At this time the U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project would request that WPX Energy consider and implement the following management practices during the exploration phase of the aforementioned wells.

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 locations will enter the Little Missouri, Missouri River/Lake Sakakawea. As such, the USACE would request that WPX Energy construct an impervious lined trench located on the down sloping side of the well pad to catch and hold any surface run off from the well pads. Fluids that accumulate in the trench should be pumped/removed from the trench and disposed of properly. In addition to the catch trench, the USACE would like to also recommend that all three well pads have an impervious type liner placed on the well pad locations prior to the construction of the pads.

The location of the proposed well sites are extremely close to lands managed by the USACE and the possibility for contamination of the Missouri River/Lake Sakakawea from the well pads and wells is a 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 exploration phase of the wells to include all drilling fluids and cuttings.

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.

Should additional fill material required for the construction of the well pads that construction materials be 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 1/2 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  
Riverdale, North Dakota Office  
(701) 654 7411 ext 232

Classification: UNCLASSIFIED  
Caveats: NONE



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

17 April 2012

North Dakota Regulatory Office

Carlson McCain  
Attn: Ryan Krapp  
2718 Gateway Avenue Suite 101  
Bismarck, ND 58503

Dear Mr. Krapp:

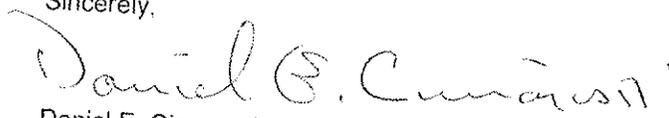
This is in response to your letter dated 10 April 2012 on behalf of WPX Energy Williston, LLC, requesting U.S. Army Corps of Engineers (Corps) comments for a proposed oil and gas exploratory well pad, referred as Bird Infill Well, within the Fort Berthold Indian Reservation. The proposed well includes the southwest quarter of the southeast quarter of Section 31, Township 151 North, Range 94 West in McKenzie County, North Dakota.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 regulates work in or affecting navigable waters. This would include work over, through, or under Section 10 waters. 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 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 is 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 submit a completed permit application (ENG Form 4345) to the Corps. Include a location map and description of all work associated with the proposal, i.e., well bore, road construction, utility lines, etc. Send the completed application to the U.S. Army Corps of Engineers; North Dakota Regulatory Office; 1513 South 12<sup>th</sup> Street; Bismarck, North Dakota; 58504.

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

CF w/o encl  
EPA Denver (Brent Truskowski)



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

17 April 2012

North Dakota Regulatory Office

Carlson McCain  
Attn: Ryan Krapp  
2718 Gateway Avenue Suite 101  
Bismarck, ND 58503

Dear Mr. Krapp:

This is in response to your letter dated 10 April 2012 on behalf of WPX Energy Williston, LLC, requesting U.S. Army Corps of Engineers (Corps) comments for a proposed oil and gas exploratory well pad, referred as Mandan South Infill Well, within the Fort Berthold Indian Reservation. The proposed well includes the southwest quarter of the southwest quarter of Section 13, Township 150 North, Range 93 West in Mountrail County, North Dakota.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 regulates work in or affecting navigable waters. This would include work over, through, or under Section 10 waters. 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 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 is 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 submit a completed permit application (ENG Form 4345) to the Corps. Include a location map and description of all work associated with the proposal, i.e., well bore, road construction, utility lines, etc. Send the completed application to the U.S. Army Corps of Engineers; North Dakota Regulatory Office; 1513 South 12<sup>th</sup> Street; Bismarck, North Dakota; 58504.

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,

A handwritten signature in cursive script that reads "Daniel E. Cimarosti".

Daniel E. Cimarosti  
Regulatory Program Manager  
North Dakota

Enclosure  
ENG Form 4345

CF w/o encl  
EPA Denver (Brent Truskowski)



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

17 April 2012

North Dakota Regulatory Office

Carlson McCain  
Attn: Ryan Krapp  
2718 Gateway Avenue Suite 101  
Bismarck, ND 58503

Dear Mr. Krapp:

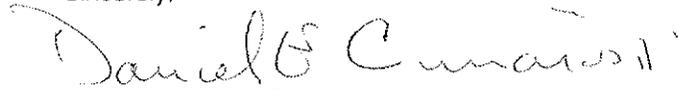
This is in response to your letter dated 10 April 2012 on behalf of WPX Energy Williston, LLC, requesting U.S. Army Corps of Engineers (Corps) comments for a proposed oil and gas exploratory well pad, referred as Stink Gun Infill Well, within the Fort Berthold Indian Reservation. The proposed well includes the northwest quarter of the northwest quarter of Section 18, Township 150 North, Range 91 West in Mountrail County, North Dakota.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 regulates work in or affecting navigable waters. This would include work over, through, or under Section 10 waters. 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 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 is 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 submit a completed permit application (ENG Form 4345) to the Corps. Include a location map and description of all work associated with the proposal, i.e., well bore, road construction, utility lines, etc. Send the completed application to the U.S. Army Corps of Engineers; North Dakota Regulatory Office; 1513 South 12<sup>th</sup> Street; Bismarck, North Dakota; 58504.

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,

A handwritten signature in cursive script that reads "Daniel E. Cimarosti".

Daniel E. Cimarosti  
Regulatory Program Manager  
North Dakota

Enclosure  
ENG Form 4345

CF w/o encl  
EPA Denver (Brent Truskowski)



# United States Department of the Interior

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



IN REPLY REFER TO:  
DESCRM  
MC-208

MAY 09 2012

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 three oil well pads and a gathering line reroute in McKenzie, McLean and Mountrail Counties, North Dakota. Approximately 249.8 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. Four archaeological sites (32ML33, 32ML1226, 32ML1227, 32MN886) were revisited 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. The record for site 32ML33 was updated so as to include site 32ML1226. 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 sites 32ML33 and 32MN886 will be avoided and site 32ML1227 is outside the project Area of Potential Effect. Catalogued as **BIA Case Number AAO-2086/FB/12**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Bluemle, William

(2012a) WPX Energy's Ruby Parshall (aka Bird Infill 151-94-31) Well Pad: A Class III Cultural Resource Inventory, Ft. Berthold Reservation, McKenzie County, North Dakota. Metcalf Archaeological Consultants, Inc. for WPX Energy, Minot, ND.

(2012b) WPX Energy's Whistles (Stink Gun Infill 150-91-18) Well Pad: A Class III Cultural Resource Inventory, Ft. Berthold Reservation, McLean and Mountrail Counties, North Dakota. Metcalf Archaeological Consultants, Inc. for WPX Energy, Minot, ND. Ms. on file (AAO-2086/FB/12)

Kinsey, Matt

(2012a) WPX Energy's Mandan South (150-93-13) Well Pad: A Class III Cultural Resource Inventory, Ft. Berthold Reservation, Mountrail County, North Dakota. Metcalf Archaeological Consultants, Inc. for WPX Energy, Minot, ND.

(2012b) WPX Energy's Van Hook Gathering System 29<sup>th</sup> Street Reroute: A Class III Cultural Resource Inventory, Ft. Berthold Reservation, Mountrail County, North Dakota. Metcalf Archaeological Consultants, Inc. for WPX Energy, Minot, ND.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Tim L. Ginter". The signature is written in a cursive style with a large initial "T".

Acting

Regional Director

Enclosures

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

# **Notice of Availability and Appeal Rights**

WPX Energy: Ruby Parshall 31-30H Well Pad, Access Road, Pipelines and Utilities

**The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to the Installation of the Ruby Parshall 31-30H Well Pad, Access Road, Pipelines and Utilities on the Berthold Reservation as shown on the attached map. Construction by WPX Energy is expected to begin in 2012.**

**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 Earl Silk, Superintendent at 701-627-6570 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 September 13, 2012, 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 701-627-6570.**

Project locations.

