

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

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



Zenergy Operating Company, LLC

Dakota-3 Pennington #16-15H Pipeline

Fort Berthold Indian Reservation

September 2009

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Finding of No Significant Impact

Zenergy Operating Company, LLC (Zenergy)

Dakota-3 Pennington #16-15H Pipeline

Fort Berthold Indian Reservation Mountrail County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for a natural gas pipeline on the Fort Berthold Indian Reservation from the Pennington #16-15H well pad to be located in part on trust land in Section 15 of Township 152 North, Range 92 West. Associated federal actions by BIA include determination of effect regarding cultural resources, approval of leases, rights-of-way and easements.

Potential of the proposed action to impact the human environment is analyzed in the attached Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed 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. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternative.
2. 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.
3. Environmental justice was fully considered.
4. Cumulative effects to the environment are either mitigated or minimal.
5. No regulatory requirements have been waived or require compensatory mitigation measures.
6. The proposed projects will improve the socio-economic condition of the affected Indian community.


Regional Director

9/29/09
Date

TABLE OF CONTENTS

1.	Purpose and Need for the Proposed Action	3
2.	Proposed Action and Alternatives	5
2.2	Construction/Site Details	6
2.3	Preferred Alternative	9
3.	The Affected Environment and Potential Impacts	9
3.1	No Action Alternative	9
3.2	Air Quality	9
3.3	Public Health and Safety	11
3.4	Water Resources	11
3.5	Wetland/Riparian Habitat and Threatened or Endangered Species	16
3.6	Soils	17
3.7	Vegetation and Invasive Species	20
3.8	Cultural Resources	21
3.9	Socio-Economics	21
3.10	Environmental Justice	23
3.11	Mitigation and Monitoring	24
3.12	Irreversible and Irrecoverable Commitment of Resources	24
3.13	Short-Term Use Versus Long-Term Productivity	24
3.14	Cumulative Impacts	25
4.0	Consultation and Coordination	27
5.0	List of Preparers	31
6.0	References and Acronyms	32

Tables

2.2	Estimation of Acreage Of Proposed Disturbances	6
3.2	Air Quality Standards and Data for Dunn, McKenzie, & Mercer Counties, ND	10
3.4a	Distance from D-3 Pennington # 16-15H Pipeline to Receiving Water	12
3.4b	Water Wells within 5 miles of Proposed Well Sites	15
3.5a	County Status of Endangered, Threatened, & Candidate Species	16
3.6a	Soils and Attributes	18
3.6b	Soil Texture	18

3.7a	Noxious Weeds Known to Occur in Mountrail County	20
3.9a	Population and Demographics	22
3.9b	Income and Unemployment	22
3.9b	Housing Units	23
3.14a	Oil Wells Near the Proposed Pipeline Route	25
3.14b	Oil and Gas Well Status in Area	25

Figures

1	General Location Map	4
2.2a	Typical Right-of-Way Cross Section	6
2.2b	Pipeline Route	7
2.2c	Pipeline Route General Appearance	8
2.2d	Pipeline Route General Appearance	8
3.4a	General Hydrology Map	13
3.4b	Surface Water Map	14
3.6a	Surface Soils	19
3.6b	Surface Soils	19
3.14	Approved or Proposed Oil and Gas Projects	26

1. Purpose and Need for the Proposed Action

Zenergy Operating Company, LLC (Zenergy) is proposing to construct a natural gas pipeline on the Fort Berthold Reservation. The pipeline will transport natural gas from the D-3 Pennington #16-15H oil well to the Robinson Lake Gathering System, near the Lacey #11-10H oil well operated by Whiting Oil and Gas Corporation (Figure 1). The development has been proposed in part on lands held in trust by the United States in Mountrail County, North Dakota. The U.S. Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA also holds title to the subsurface mineral rights.

The economic development of available resources and associated BIA actions are consistent with BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to both the Three Affiliated Tribes of the Mandan, Hidatsa and Arikara Nation and to individual tribal members. Zenergy is proposing the pipeline to reduce waste of valuable resources associated with continued flaring of produced natural gas and to reduce environmental and public health and safety concerns.

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 are largely administrative and include approval of leases, easements and rights-of-way, and a determination regarding the potential effect on cultural resources.

The 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). Therefore, an Environmental Assessment (EA) for the proposed action is necessary to analyze the direct, indirect, and cumulative impacts of the BIA's approval of the proposed project.

Any authorized project will comply with all applicable federal, state and tribal laws, rules, policies, regulations and agreements. No construction or other ground-disturbing operations will begin until all necessary leases, easements, surveys, clearances, consultations, permissions, determinations and permits are in place.

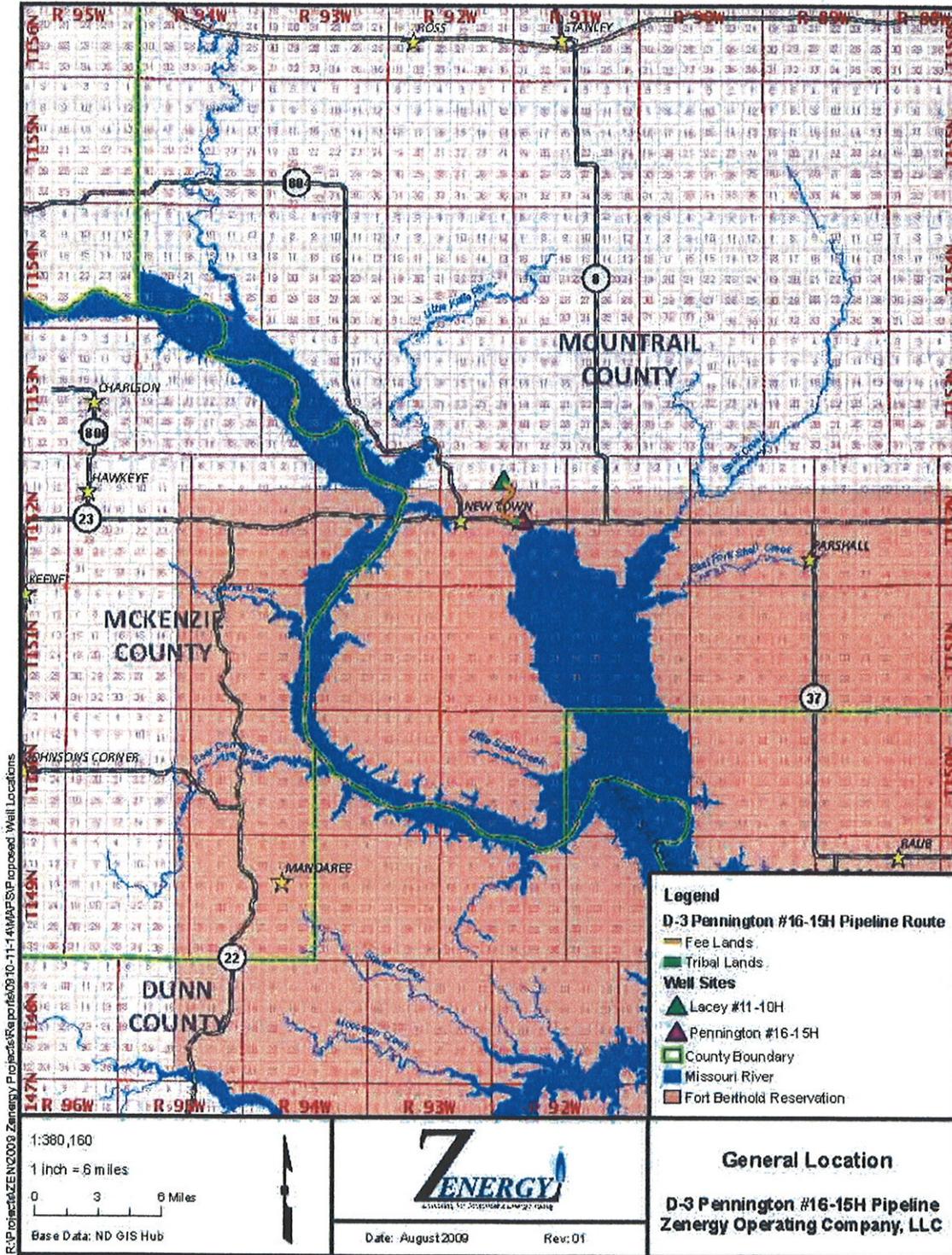


Figure 1: General Location Map

2. Proposed Action and Alternatives

The **No Action Alternative** must be considered within an Environmental Assessment. If this alternative is selected, BIA would not approve leases, rights-of-way or other administrative proposals for the proposed project. Current land use practices would continue at a No Action site. Flaring of gas at the Pennington #16-15H would be a possibility, with greater environmental impact (air emissions) than if the heavy hydrocarbons are recovered. Valuable natural resources would be lost through flaring rather than being brought to market, and corresponding royalty payments would be lost.

This document analyzes the potential impacts of a specific proposed action – a natural gas pipeline on allotted surface and mineral estate within the boundaries of the Fort Berthold Indian Reservation in Mountrail County, North Dakota. The proposed pipeline would transport natural gas from the D-3 Pennington#16-15H well to the Robinson Lake Gathering System.

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

A permanent easement of 50 feet, 25 feet either side of the pipeline centerline, will remain in place after construction. After the trench is backfilled, disturbed areas would be re-graded to original contours, stockpiled topsoil reset over the ROW, pipeline marking signs would be installed, reclamation would be finalized, and the ROW would be reduced to 50 feet. There is a residence located approximately 250' north of the pipeline.



Figure 2.2b: Pipeline Route

2.2 Construction/Site Details

The proposed pipeline route traverses tribal land on the north side of State Highway 23 in the SW¼SE¼, Section 15, T152N, R92W, Mountrail County, approximately 2.5 miles east of New Town, ND (Figure 2.2b). The proposed pipeline will be 6 inches in diameter and constructed of polyethylene pipe (PEP) where it crosses tribal land. The pipeline will be installed using the open trench construction method (Figure 2.2a). Topsoil will be stripped full depth from across the construction right-of-way (ROW) and stockpiled on one side of the trench. Soil excavated from the trench will be stockpiled separately from topsoil. The pipeline will have a minimum cover depth of 5 feet (60 inches).

The construction ROW will be 100 feet wide, 50 feet on either side of the pipeline centerline. The pipeline traverses approximately 1,320 feet of tribal land, resulting in approximately three acres of surface disturbance during construction (Table 2.2).

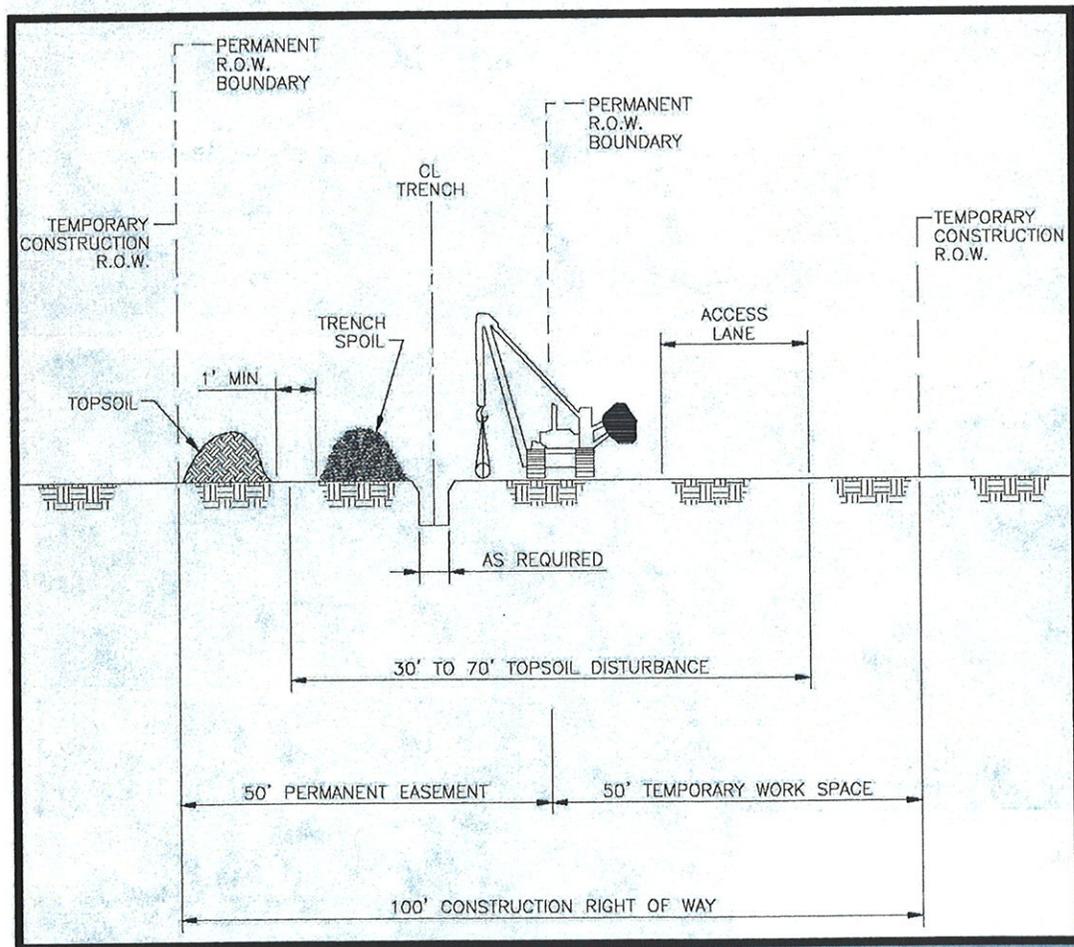


Figure 2.2a: Typical Right-of-way Cross Section

Table 2.2: Estimation of acreage of proposed disturbances

Site	Feature	Feet	100' Construction Corridor (acres)
D-3 Pennington #16-15H Pipeline	Tribal Surface Crossing	1,320'	3.0



Figure 2.2b: Pipeline Route General Appearance
The pipeline route across the tribal land parcel. The residence noted in the paragraphs above can be seen on the right side of the photo. Highway 23 is on the left. Photo was taken facing west along the proposed route.

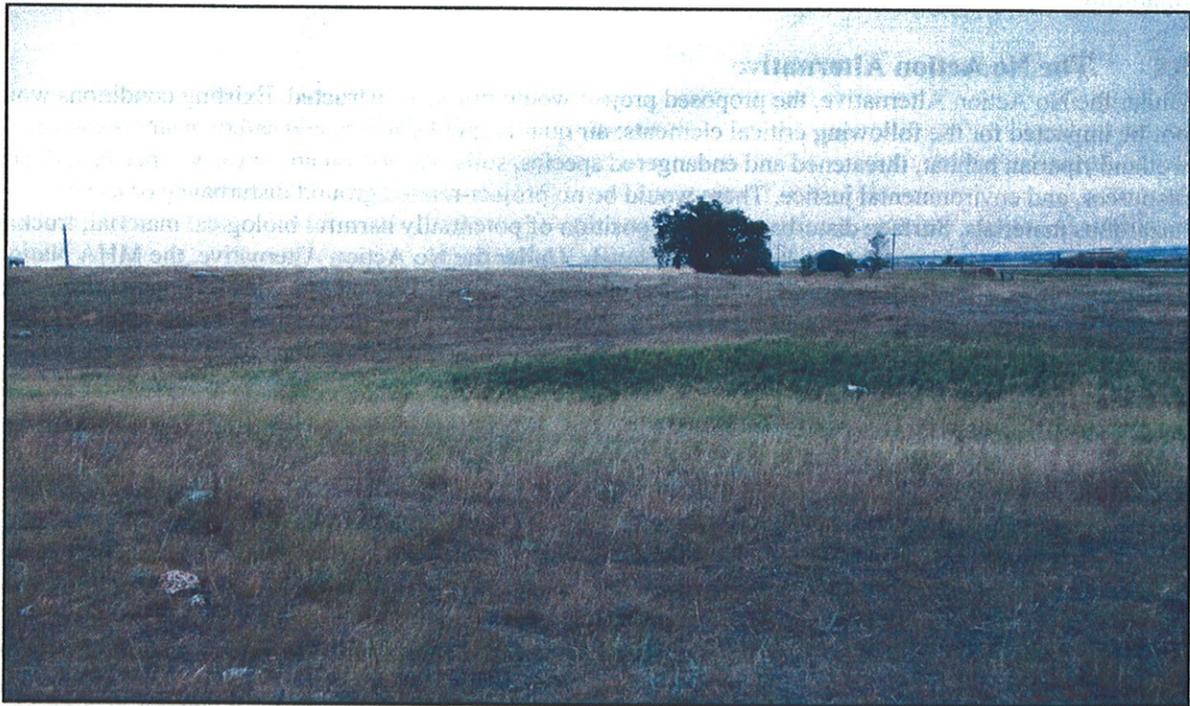


Figure 2.2c: Pipeline Route General Appearance
The pipeline route across the tribal land parcel facing east. Leafy spurge can be seen in the drainage (dull yellow flowers).

2.3 Preferred Alternative

The preferred alternative is to complete all administrative actions and approvals necessary to authorize the installation of the natural gas line for the connection to the Pennington#16-15 well location.

3. The Affected Environment and Potential Impacts

The Fort Berthold Indian Reservation is the home of the Three Affiliated Tribes of the MHA Nation. Located in west-central North Dakota, the Reservation 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 non-Indians. The Reservation occupies portions of six counties, including Dunn, McKenzie, McLean, Mercer, Mountrail and Ward. In 1954 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 natural gas line is in a rural area consisting primarily of mixed grass prairie that is currently either idle or used to graze livestock. The broad definition of the 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 Preferred Alternative. Impacts may be beneficial or detrimental, direct or indirect, and short-term or long-term. This 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.

3.1 The No Action Alternative

Under the No Action Alternative, the proposed project would not be constructed. Existing conditions would not be impacted for the following critical elements: air quality, public health and safety, water resources, wetland/riparian habitat, threatened and endangered species, soils, vegetation and invasive species, cultural resources, and environmental justice. There would be no project-related ground disturbance or use of hazardous materials. Surface disturbance and deposition of potentially harmful biological material, trucking, and other traffic would not change from present levels. Under the No Action Alternative, the MHA Nation, Tribal members, and allottees would not have the opportunity to realize potential financial gains resulting from the recovery of resources at this location and the air quality may not be improved due to the potential flaring of gas which would maintain the higher air emissions than if the heavy hydrocarbons were recovered.

3.2 Air Quality

The North Dakota Department of Health (NDDH) network of Ambient Air Quality Monitoring (AAQM) stations includes Watford City in McKenzie County, Dunn Center in Dunn County, and Beulah in Mercer County. These stations are located west, south and southeast of the proposed pipeline. Criteria pollutants tracked under National Ambient Air Quality Standards (NAAQS) of the Clean Air Act include sulfur dioxide (SO₂), particulate matter (PM₁₀), nitrogen dioxide (NO₂) and ozone (O₃). Two other criteria pollutants – lead (Pb) and carbon monoxide (CO) – are not monitored by any of three stations. Table 3.2 summarizes federal air quality standards and available air quality data from a three-county study area.

Table 3.2 Air quality standards and data for Dunn, McKenzie, and Mercer Counties, North Dakota

Pollutant	Averaging Period	NAAQS ($\mu\text{g}/\text{m}^3$)	NAAQS (ppm)	County		
				Dunn	McKenzie	Mercer
SO ₂	24-Hour	365	0.14	0.004 ppm	0.004 ppm	0.011 ppm
	Annual Mean	80	0.030	0.001 ppm	0.001 ppm	0.002 ppm
PM ₁₀	24-Hour	150	--	50 ($\mu\text{g}/\text{m}^3$)	35 ($\mu\text{g}/\text{m}^3$)	35 ($\mu\text{g}/\text{m}^3$)
	Annual Mean	50	--	--	--	--
PM _{2.5}	24-Hour	35	--	--	--	--
	Weighted Annual Mean	15	--	--	--	--
NO ₂	Annual Mean	100	0.053	0.002 ppm	0.001 ppm	0.003 ppm
CO	1-Hour	40,000	35	--	--	--
	8-Hour	10,000	9	--	--	--
Pb	3-Month	1.5	--	--	--	--
O ₃	1-Hour	240	0.12	0.071 ppm	0.072 ppm	0.076 ppm
	8-Hour	--	0.08	0.061 ppm	0.066 ppm	0.067 ppm

Source: U.S. Environmental Protection Agency (EPA) 2006. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter. ppm = parts per million.

North Dakota was one of only nine states in 2006 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the U.S. Environmental Protection Agency (EPA) (NDDH 2007). The three counties addressed in Table 3.2 are also in full attainment and usually far below established limits for these pollutants (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 airshed at nearby Theodore Roosevelt National Park, which covers about 110 square miles in three units within the Little Missouri National Grassland between Medora and Watford City. The Reservation can be considered a Class II attainment airshed, which affords it a lower level of protection from significant deterioration.

In North Dakota, the EPA has delegated enforcement of the Clean Air Act standards to the NDDH. Construction of the project would result in temporary emissions of PM₁₀, SO₂, NO₂, CO, and volatile organic compounds. These temporary air emissions during construction are not anticipated to cause or contribute to a

violation of NAAQS or to adversely affect the Theodore Roosevelt National Park. The proposed project is anticipated to have a long-term benefit to air quality in the project area because it would reduce emissions associated with gas flaring at the well site location. In addition, instead of trucks having to travel to the well site to collect natural gas, there would ultimately be one consolidated storage location. In the long-term, this may improve air quality in the area by reducing mobile source toxic materials in the air associated with trucking operations. No mitigation or monitoring measures are recommended.

3.3 Public Health and Safety

Health and safety are key concerns on any construction project, and one objective in designing a pipeline is to minimize the risk to public health and safety. Typically, the highest probability of accidents occurs during the construction phase due to the variety of equipment, number of personnel and types of activity which are present during this period.

Generally, negative impacts, such as noise, dust, air pollution from the use of fossil fuel, ground water contamination from liquid spills as well as traffic hazards from construction are temporary. These temporary negative impacts can be controlled through routine education, safety reminders/briefings, careful planning and proper preparation.

It is equally important to remember that combustion and explosive hazards, although an extremely unlikely possibility in and around operating pipelines, are a consideration when evaluating public health and safety for any project. The risk and extent of negative impact from system operation is much more difficult to predict than the impact from construction due to the many variables involved.

The size of an area which can potentially be affected by a pipeline leak or rupture and possible resulting fire, or even an explosion is specific to each particular site. In many instances it is impossible to find a route which does not have some possible negative impact during the life of a project. The ultimate goal is therefore to route, design and construct the pipeline in a manner which has the least probable impact on the environment and on society.

An explosion, although extremely unlikely, is possible; therefore, there are potential risks to human safety and for structural damage. There are no known local, state or federal regulations for an established "set-back" from occupied dwellings for pipelines. Pipeline operations will conform to instructions from BIA and Tribal fire management staff.

Negative impacts from this project are considered to be minimal based upon the proposed route selected and design parameters. No waivers to laws, regulations or other requirements have been requested or issued and no compensatory mitigation measures are required based upon the available information utilized herein.

3.4 Water Resources

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

Surface Water

The D-3 Pennington #16-15H pipeline is located within the Garrison Dam Sub-Basin, the Van Hook State Wildlife Management Area Watershed and Upper Van Hook Arm Sub-Watershed. Natural drainage of the area is to the south. The surface water flows under State Highway 23 and into NWI designated freshwater emergent wetlands approximately 1300' (0.25 miles) to the south. Drainage from the proposed pipeline route to Lake Sakakawea is approximately 4500' (0.85 miles) from the pipeline route (Table 3.4a and Figures 3.4a and 3.4b).

Table 3.4a. Distance from D-3 Pennington #16-15H pipeline to Receiving Water

Source - Point	Distance	
	feet	miles
Ephemeral drain to Lake Sakakawea ¹	4,500	0.85

¹Lake level based on Mountrail County Aerial Photograph (NAIP 2006)

The proposed project has been sited to avoid direct impacts to surface water and minimize disruption of drainages. Erosion control measures would mitigate the potential migration of sediments downhill or downstream. No measureable increase in runoff or impacts to surface water is expected as a result of project approval. Risks posed to surface water from operations and spills at this location are minimal.

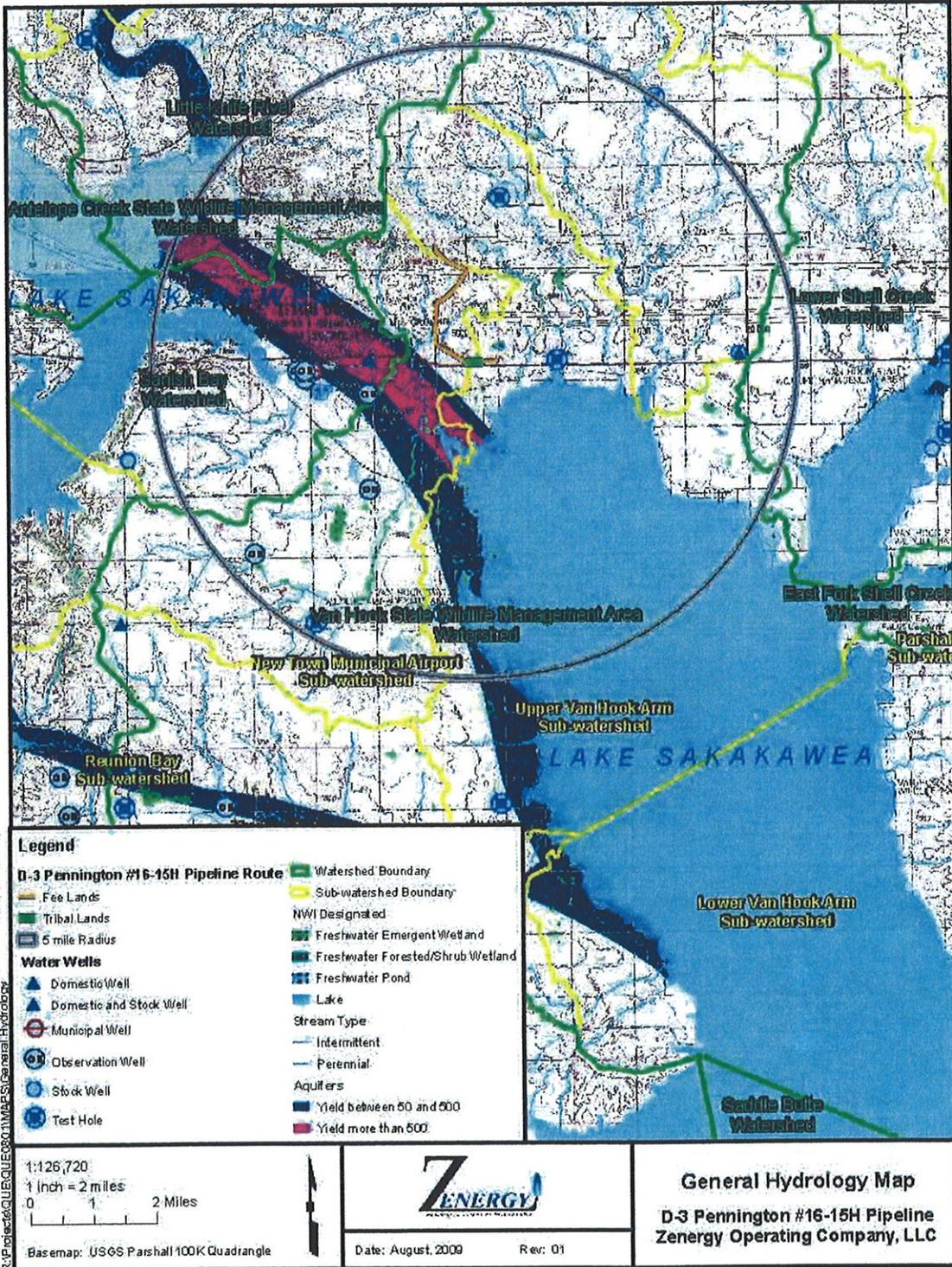


Figure 3.4a: General Hydrology Map

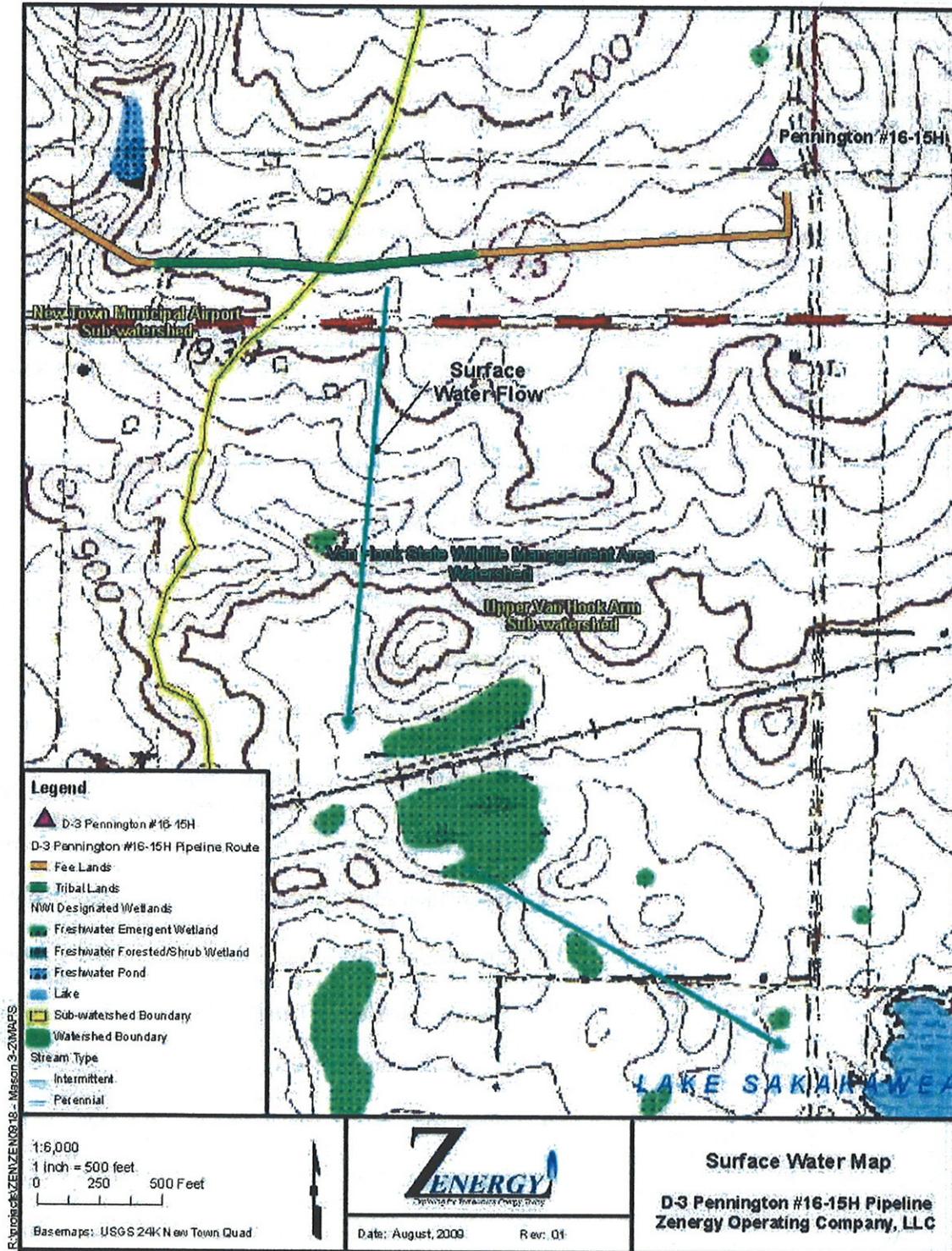


Figure 3.4b: Surface Water Map

Groundwater

There are three domestic water supply wells and one municipal well within five miles of the proposed pipeline route where it crosses tribal land. The closest domestic water well is 8,100' or (1.5 miles) west, just south of Highway 23 and on the east edge of New Town in the SE¼SE¼ of Section 17, T152N, R92W (Table 3.4b). The New Town municipal well is located on the south edge of town in the NW¼NW¼ of Section 20, T152N, R92W. The other two domestic wells are east of the project area, 4.1 miles distant in the SE¼SE¼ of Section 17, T152N, R91W and the other 4.3 miles distant in the SE¼SE¼ of Section 6, T152N, R91W. The domestic wells to the east extract groundwater from the Sentinel Butte-Tongue River Aquifer from depths of 156 and 222 feet. There are no records indicating the well production rate or quality of water for these wells.

There are also eight observation wells; five of these are near the municipal well in NW¼NW¼ of Section 20, T152N, R92W. The three others are southeast of the project area. There were also 5 test holes drilled (see map) with no observation wells installed.

Four active water permits have been issued within T152N, R92W. Three are issued to the city of new Town for municipal, industrial and irrigation uses. The other is issued to the U.S. Army Corps of Engineers for fish and wildlife use. The proposed project would not impact groundwater resources.

Table 3.4b Water wells within 5 miles of proposed well sites

Pipeline	LOCATION	Distance To Well (miles)	Permit Type	Aquifer	Well Depth (feet)	Date
D-3 Pennington #16-15H pipeline	SE SE 17 T152 R92 N W	1.5	Domestic Well	New Town	222	6/20/1988
	NW NW 20 T152 R92 N W	2.5	Municipal Well	New Town	180	1/1/1957
	SE SE 17 T151 R91 N W	4.1	Domestic Well & Stock Well	Sentinel Butte-Tongue River	156	6/1/1960
	SE SE 6 T151 R91 N W	4.3	Domestic/Stock Well	Sentinel Butte-Tongue River	225	Unknown
	NW NW 20 T152 R92 N W	2.5	Observation Well	New Town	180	7/19/1967
	NW NW 20 T152 R92 N W	2.5	Observation Well	New Town	240	9/12/1967
	NW NW 20 T152 R92 N W	2.5	Observation Well	New Town	240	9/13/1967
	NW NW 20 T152 R92 N W	2.5	Observation Well	Undefined	180	9/14/1967
	NW NW 20 T152 R92 N W	2.5	Observation Well	New Town	145	9/14/1967
	SE NE 20 T152 R92 N W	1.6	Observation Well	New Town	325	5/18/1966
	SE SE 29 T152 R92 N W	2.5	Observation Well	New Town	140	6/12/1967
SW SW 31 T152 R92 N W	4.5	Observation Well	New Town	80	7/17/1967	

¹ ND State Water Commission 2009

3.5 Wetland/Riparian Habitat and Threatened or Endangered Species

An on-site assessment of the proposed pipeline route was conducted on August 6, 2009. National Wetland Inventory (NWI) maps prepared and maintained by the USFWS do not identify any wetlands near the proposed pipeline route. The nearest wetland that lies downstream is located approximately 1,300 feet (0.25 mile) south of the proposed route. The on-site assessment confirmed that wetlands are not located on the proposed route.

Assessments for Federally listed threatened and endangered species were conducted by evaluating historic and present occurrences, and by determining if potential habitats exist within the project area. Determinations were made concerning direct and cumulative effects of the proposed activities on each species and their habitat. Currently, six species and one Designated Critical Habitat are listed in both McLean and Mountrail Counties, North Dakota.

County status of Endangered, Threatened, and Candidate species and Designated Critical Habitat

Species	Status	Mountrail County
Interior Least Tern	Endangered	X
Whooping Crane	Endangered	X
Black-footed Ferret	Endangered	
Pallid Sturgeon	Endangered	X
Gray Wolf	Endangered	X
Piping Plover	Threatened	X
W Prairie Fringed Orchid	Threatened	
Dakota Skipper	Candidate	X
Designated Critical Habitat - Piping Plover		X

¹ USFWS (updated May 15, 2009)

Determinations made for federally listed species are:

- No effect
- Is not likely to adversely affect
- 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

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 in North Dakota for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves have occurred (Grondahl and Martin, no date). The proposed project will have *no effect* on this species at this time.

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. The proposed project will not disrupt the Missouri River habitat and will have *no effect* on this species at this time.

Pallid Sturgeon

Pallid sturgeons are found within the Mississippi, Missouri, and Yellowstone River systems. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed project will not disrupt the Missouri River habitat. The proposed project will have *no effect* on this species at this time.

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 Park and Wildlife 2008).

The proposed project site is located within the Central Flyway. Project activities may cause any migratory cranes to divert from the area but is not likely to result in any fatalities. The proposed project will have *no effect* on this species at this time. Any sightings should be immediately reported to the USFWS, NDGFD, and/or the BIA.

Piping Plover

Piping plovers are found along the Missouri and Yellowstone River systems and 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 proposed well locations are not within line-of-sight of Missouri River habitat.

The project will not disrupt the Missouri River habitat or any designated Critical Habitat. The proposed projects will have *no effect* on this species at this time and *no effect* on critical habitat.

Dakota Skipper

Dakota skippers are currently listed as a candidate species in North Dakota and have been documented in Mountrail County. Larvae of the Dakota skipper feed on grasses, favoring little bluestem. Adults emerge in mid-June, feeding on the nectar of flowering native forbs. Harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*) are common components of their diet (Canadian Wildlife Service, 2004). Dakota skippers are most likely to be found along river valleys or in mesic segments of mixed grass prairie.

This parcel of land is heavily grazed and lacks the vegetation species and high native forb diversity preferred by the Dakota Skipper. The proposed project will have *no effect* on this species at this time.

3.6 Soils

The following paragraphs discuss the soils found within the project area. The Natural Resource Conservation Services (NRCS) soils data was reviewed prior to the on-site assessment and verified during the field visit. The NRCS has classified the majority of the soils of this parcel as Williams and Zahl loams.

The field evaluation found that the surface soils across the hilltops on this parcel are generally sandy loams with gravel and rocks. Topsoil is less than 6" thick and numerous glacial erratics and large rocks were noted on the surface. Soils turn to sandy clay at approximately 8-12". Calcium carbonate is present in the soil at approximately 14-16" (Tables 3.6a and 3.6b). Soils in the drainages were observed to be silty loams and clays with sand present. Topsoil in the drainages is approximately 8-12" thick.

Table 3.6a: Soils and Attributes

Soil Name ¹	Route Acres	Landscape ²			Erosion and Runoff Factors ³			Soil Composition ⁴		
		Land-form	Down-slope Shape	% slope	Hydrologic group	Kf	T factor	% Sand	% Silt	% Clay
Williams and Zahl Loams	3.0	Knolls, rises	Linear-convex	3-25	B	.28	5	41.1	36.9	22.0

¹ NRCS Map Units, major and minor components

² Landscape

- Landform and down-slope shape are indicators of erosion and deposition characteristics.
- Slope is indicated as an average or typical gradient under which soils form.

³ Erosion and runoff factors indicate susceptibility of soils to erosion to wind or water:

- Hydrologic Soil Group (A, B, C, D) are assigned from estimates of runoff potential, based on infiltration rates of wetted soils unprotected by vegetation during long-duration storms. The rate of infiltration decreases from Group A soils (high infiltration, low runoff) to Group D soils (low infiltration, high runoff).
- Kf indicates erodibility of material less than 2 millimeters in size to sheet and rill erosion by water. Values of Kf range from 0.02 to 0.69. Higher values indicate greater erosion potential.
- T estimates maximum average annual rates of erosion by wind and water that will not affect crop productivity. Tons per acre per year values range from 1, for shallow soils, to 5, for very deep soils. Higher T soils can tolerate higher rates of erosion without loss of productivity.

⁴ Texture of surface horizon

Table 3.6b: Soil Texture

Soil	Depth (in)	Texture
Williams	0-6	Loam
	6-24	Clay loam, Loam
Zahl	0-5	Loam
	6-24	Clay loam, Loam

Soils along the proposed route are suitable for construction. Surface soils along the hillsides and hilltops are not generally conducive for vegetation restoration due to the large amounts of sand and rocks present. Soils in the drainages lend well to restoration.

Soils along the site are generally fine grained and susceptible to erosion. The main concern is control of blowing soil and water erosion. Erosion potential would be minimized by the use of best management practices and re-vegetating disturbed areas following construction.



Figure 3.6a: Surface Soils
Surface soils along the proposed pipeline route are sandy in nature and contain large amounts of gravel and rocks.



Figure 3.6b: Surface Soils
Evidence of glacial erratics and rocks present in surface soils along the pipeline route.

3.7 Vegetation and Invasive Species

This parcel of land is gently rolling hills of native prairie currently being used as pasture for livestock. Slopes range from 3-15% along the pipeline route. Native species in the pasture consist of blue grama (*Bouteloua gracilis*), needle-and-thread (*Stipa comata*), green needlegrass (*Stipa viridula*), and threadleaf sedge (*Carex filifolia*). Crested wheatgrass (*Agropyron cristatum*) has invaded native areas due to feeding of livestock hay. Forbs such as scarlet globemallow (*Sphaeralcea coccinea*), canada goldenrod (*Solidago canadensis*), fringed sagebrush (*Artemisia frigida*), and gay feather (*Liatris punctata*) are scattered throughout the area.

The pasture is dissected by shallow drainages vegetated with Kentucky bluegrass (*Poa pratensis*), buckbrush (*Symphoricarpos occidentalis*), and occasional chokecherry (*Prunus virginiana*). Leafy-spurge (*Euphorbia esula*) is present in the drainages.

Noxious Weeds

The North Dakota Agriculture Commission (ND Department of Agriculture 2002) identifies twelve noxious weed plant species in the state. Seven of the twelve noxious weed species have been reported in Mountrail County. Leafy spurge was documented along proposed pipeline route.

Table 3.7a Noxious weeds known to occur in Mountrail County

Common Name	Scientific Name	5 year (2003-2007) Average Reported Acres of Noxious Weeds ¹
Absinth wormwood	<i>Artemisia absinthium</i>	1,085
Canada thistle	<i>Cirsium arvense</i>	21,232
Dalmatian toadflax	<i>Linaria genistifolia</i>	NR
Diffuse knapweed	<i>Centaurea diffusa</i>	NR
Field bindweed	<i>Convolvulus arvensis</i>	1,429
Leafy spurge	<i>Euphorbia esula</i>	21,928
Musk thistle	<i>Carduus nutans</i>	2
Purple loosestrife	<i>Lythrum salicaria</i>	NR
Russian knapweed	<i>Acroptilon repens</i>	NR
Saltcedar	<i>Tamarix spp.</i>	721
Spotted knapweed	<i>Centaurea maculosa</i>	164
Yellow starthistle	<i>Centaurea solstitialis</i>	NR

¹ North Dakota Department of Agriculture 2003-2007

² Not Reported

Potential disturbance of 3 acres and removal of existing vegetation present opportunities for invasive species and threaten to reduce the quality or quantity of forage. This EA requires the operator to control noxious weeds throughout the project area. 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 approved rights-of-way.** Areas stripped of topsoil must be re-seeded and reclaimed at the earliest opportunity. Certified weed-free straw and seed must be used for all 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.

3.8 Cultural Resources

Cultural resources is a broad term encompassing sites, objects, or practices of archaeological, historical, cultural and religious significance. Cultural resources on federal or tribal lands are protected by many laws, regulations and agreements. The *National Historic Preservation Act of 1966* (16 USC 470 *et seq.*) at 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. 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). As a result, BIA consults and corresponds with the THPO on all projects proposed within the exterior boundaries of the Fort Berthold Reservation. The SHPO may have useful information, but has no official role regarding proposed federal actions on trust land. The MHA Nation has also designated responsible parties for consultations and actions under NAGPRA and cultural resources generally.

A cultural resource inventory of this pipeline route was conducted by personnel of Beaver Creek Archaeology, Inc., using a pedestrian methodology. Approximately 4.6 acres were intensively inventoried on August 6, 2009 (Pollman and Burns 2009). No historic properties were located within the project area 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. One property ("avoidance area") was located that may qualify for protection under the American Indian Religious Freedom Act (16 USC 1996). 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, provided that the traditional cultural property is avoided. This determination was communicated to the THPO on August 26, 2009, and the THPO concurred on September 11, 2009 (see Part 4).

3.9 Socioeconomics

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 most of the Reservation and the state of North Dakota. The state population showed little change between the last two censuses (1990–2000), but there were notable changes locally, as shown in Table 3.9a. Populations in Dunn, McKenzie, McLean, and Mountrail counties declined 5 to 11%, while population on the Fort Berthold Reservation increased by almost 10%. These trends are expected to continue (Rathge *et al.* 2002). While American Indians are the predominant group on the reservation, they are a minority elsewhere in the state. More than two-thirds (3,986) of the Reservation population are tribal members.

Table 3.9a: Population and Demographics

County or Reservation	Population in 2000	% of State Population	% Change 1990-2000	Predominant Group	Predominant Minority
Dunn County	3,600	0.56%	- 10.1%	White	American Indian (12%)
McKenzie County	5,737	0.89%	- 10.1%	White	American Indian (21%)
McLean County	9,311	1.45%	- 11.0%	White	American Indian (6%)
Mountrail County	6,631	1.03%	- 5.6%	White	American Indian (30%)
Fort Berthold Reservation	5,915	0.92%	+ 9.8%	American Indian	White (27%)
Statewide	642,200	100%	+ 0.005%	White	American Indian (5%)

Source: U.S. Census Bureau 2007.

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).

As shown in Table 3.9b, 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 non-Indian data. The most recent census found that per capita income for residents of the Reservation is \$10,291 (less than 1/3 the state average). Overcrowded housing skews the median reservation household income upward to \$26,274 (about 1/3 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 for tribal members is 22 %, compared to 11.1% for the reservation as a whole and 4.6% statewide.

Table 3.9b: Income and Unemployment

Unit of Analysis	Per Capita Income	Median Household Income	Unemployment Rate (2007)	Employed but Below Poverty Level	Percent of All People in Poverty
MHA Nation members	--	--	22 %	33 %	Unknown
Fort Berthold Reservation	\$ 10,291	\$ 26,274	11.1 %	--	Unknown
Mountrail County	\$ 29,071	\$ 34,541	5.8 %	--	15.4%
Dunn County	\$ 27,528	\$ 35,107	3.4 %	--	13%
McKenzie County	\$ 27,477	\$ 35,348	3.1 %	--	15.8 %
McLean County	\$ 32,387	\$ 37,652	4.7 %	--	12.8%
North Dakota	\$ 31,871	\$ 40,818	3.2 %	--	11.2 %

Source: U.S. Department of Agriculture Economic Research Data 2008 and BIA 2003.

Availability and affordability of housing could impact oil and gas development and operations. Housing information is summarized in Table 3.9c. The tribal Housing Authority manages a majority of the housing units within the reservation. Housing typically consists of mutual help 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 3.9c: Housing Units – 2000 (U.S. Census Bureau 2007 and 2008).

Housing Development	Fort Berthold Reservation	Dunn County	McKenzie County	McLean County	Mountrail County
Existing Housing					
Owner-Occupied Units	1,122	1,570	2,009	4,332	2,495
Renter-Occupied Units	786	395	710	932	941
Total	1,908	1,965	2,719	5,264	3,436
New Private Housing Building Permits 2000-2005	--	18	4	135	113
Housing Development Statistics					
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

The proposed project is not expected to have measurable impacts on population trends, local unemployment rates or housing starts. Relatively high-paying construction jobs would 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 action would require temporary employees during the well construction cycle and one to two full-time employees for the long-term production cycle. Short-term construction employment would provide some economic benefit. Long-term commercial operations would provide significant royalty income and indirect economic benefits.

3.10 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 in federal programs, policies, decisions and operations. Fair treatment means such groups should not bear a disproportionately high share of negative environmental consequences from such undertakings. Meaningful involvement means federal officials actively promote opportunities for public participation and that 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 and 12% of the population of Dunn County. Even in a state with relatively low per capita and household income, Indian individuals and households are distinctly disadvantaged.

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 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 by currently non-benefitting allottees. The absence of lease and royalty income does not, moreover, preclude other benefits. Exploration and development would 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 cases, surface owners do not receive oil and gas lease or royalty income and their only related income would be compensatory for productive acreage lost to road and well pad or pipeline construction. Tribal members without either surface or mineral rights would not receive any direct benefits whatsoever. Indirect benefits of employment and general tribal gains would 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 project locations and determination by the BIA that there will be no historic properties affected. Nothing is known to be present, furthermore, that qualifies for protection 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 would 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, soils or vegetation—within the human environment. Avoiding or minimizing such impacts also makes unlikely disproportionate impacts to low-income or minority populations. The proposed action offers many positive consequences for tribal members, while recognizing Environmental Justice concerns. Procedures summarized in this document and in applicable laws, rules and orders are binding and sufficient. No laws, regulations or other requirements have been waived; no compensatory mitigation measures are required.

3.11 Mitigation and Monitoring

Many protective measures and procedures are described in this document. No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required. Monitoring of cultural resource impacts by qualified personnel is recommended during all ground-disturbing activities. In addition, it is recommended that all areas reclaimed and reseeded are monitored following reclamation efforts to ensure the area is properly reclaimed and the spread of noxious weeds is prevented.

3.12 Irreversible and Irretrievable Commitment of Resources

Potential irreversible and irretrievable commitments of resources include 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.

3.13 Short-term Use of the Environment versus Long-term Productivity

Short-term activities would not detract significantly from long-term productivity of the project area. The project area would generally remain available for livestock grazing, wildlife habitat and other uses. The Tribe and/or allottees with surface rights would be compensated for loss of productive acreage during construction. Successful and ongoing reclamation of the landscape would quickly support wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. Long-term productivity of the oil and gas well would improve as previously lost hydrocarbons are collected and brought to market. In addition, there would be a long-term benefit as the proposed project would reduce air emissions associated with flaring and trucking of stored liquids at the well site.

3.14 Cumulative Impacts

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

The proposed pipeline will connect the recently drilled D-3 Pennington #16-15H oil and gas well with an established pipeline near the Lacey #11-10H well pad. Currently, there are 20 active well sites within five miles of the proposed pipeline (Table 3.14a).

Table 3.14a: Oil wells near the proposed pipeline route.

	Active Well Sites		Drill Rigs		Confidential, Proposed, and Locations with Permits to Drill	
	Distance to nearest well pad (miles)	Number within 5 miles	Distance to well pad (miles)	Number within 5 miles	Distance to well pad (miles)	Number within 5 miles
D-3 Pennington #16-15H Pipeline	0.2	20	x	3	x	18

NDIC August 17, 2009

Oil and gas development surrounding the proposed pipeline was tabulated by established distances from the proposed disturbance. There are approximately 288 oil and gas wells actively operating with 20 miles of the proposed pipeline. Also within 20 miles, there are another 167 proposed well sites (not yet permitted), 44 sites that have been issued permits to drill, and 22 sites where active drilling is taking place, or has recently been finished. Overall, there are approximately 521 oil and gas wells that are active, proposed, or being drilled within a 20-mile radius of the proposed pipeline. Several of these are located outside of the Fort Berthold Reservation. On Fort Berthold, 198 wells are active, proposed, or being drilled (Table 3.14b).

Table 3.14b: Oil and Gas Well Status in Area

Distance from Well Sites	All Wells	Active Wells	Confidential or Proposed Wells	Permitted to Drill	Currently Drilling ²
0-1 miles	2	1	1	0	0
1-5 miles	43	19	17	4	3
5-10 miles	112	66	35	10	1
10-20 miles	364	202	114	30	18
Total in 20 mile	521	288	167	44	22
Fort Berthold	198	84	87	17	10

Historically, oil and gas exploration has already affected the area. There are 118 inactive, or temporarily abandoned well sites, and an additional 108 well sites that are dry, or abandoned within 20 miles of the proposed pipeline (Figure 3.14).

Pipelines within the area generally result in temporary surface disturbance, as would this proposed pipeline; therefore, when adding on to past, present, or reasonably foreseeable pipeline proposals, it is not anticipated that a significant cumulative impact would occur.

Furthermore, the proposed project impacts are mainly related to construction and, therefore, would not add to the impacts resulting from construction and operation of the existing oil and gas wells associated with the project or potential future oil and gas wells. In the long-term, the proposed project is anticipated to aid in the reduction of air emissions within the project area through reduced flaring from the well and reduced truck traffic to the well site. When added to potential impacts of future phases of the pipeline, the reduction in air emissions is anticipated to provide a cumulative benefit.

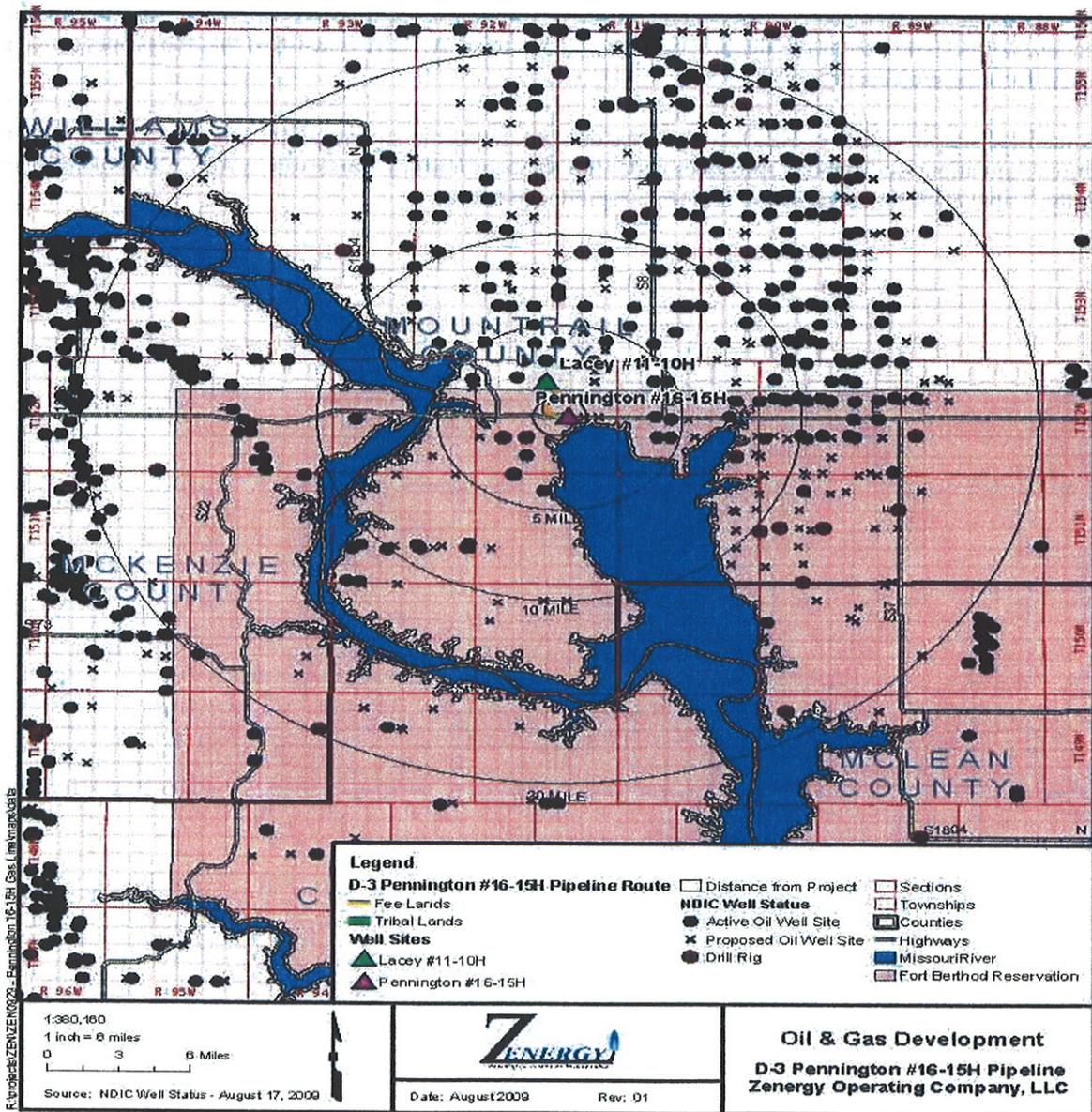


Figure 3.14a: Approved or proposed oil and gas projects

4. Consultation and Coordination

The Bureau of Indian Affairs has completed many Environmental Assessments (EAs) for the oil and gas projects at Fort Berthold since 2007. For the first 18 of these projects, prior notice was sent to about 60 tribes, government agencies, non-profit organizations and individuals. BIA consulted directly and repeatedly with the U.S. Fish and Wildlife Service to identify issues and incorporate best management practices for wildlife protection. BIA also routinely cooperated on every project with the Bureau of Land Management regarding operational standards and reclamation procedures.

Responses to previous notifications quickly became repetitious, usually consisting of form letters advising BIA that the respondent had no concerns or that the same general concerns applied to every project proposal. BIA has therefore discontinued mailing of individual notices for Fort Berthold oil and gas environmental review, except where proposals include unusual components not previously considered with other interested parties. There are no such components to the proposal analyzed in this EA. BIA is satisfied that the proper scope of analysis for such projects is known.

This justified simplification of NEPA procedures does not impact in any way BIA practices regarding cultural resource regulations and standard practices under the National Historic Preservation Act. Correspondence with the Tribal Historic Preservation Officer is reproduced below.



United States Department of the Interior

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



IN REPLY REFER TO:
DESCRM
MC-208

AUG 26 2009

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of four oil well pads, an access road and a gas pipeline in Mountrail, Dunn and McKenzie Counties, North Dakota. Approximately 58.6 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. One historic structure was located, but which does not appear to 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. Ten properties, "avoidance areas," were located that may qualify for protection under the American Indian Religious Freedom Act (16 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 these undertakings, as the avoidance areas will be avoided. Catalogued as **BIA Case Number AAO-1651/FB/09**, the proposed undertakings, locations, and project dimensions are described in the following reports:

- Pollman, Jennifer, and Wade Burns
- (2009) Dakota-3 Adeline #15-5H Well Pad: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. Beaver Creek Archaeology for Zenergy Operating Company, LLC, Tulsa, OK.
 - (2009) Dakota-3 Elk #4-16H Well Pad: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. Beaver Creek Archaeology for Zenergy Operating Company, LLC, Tulsa, OK.
 - (2009) Dakota-3 Mason #2-22H Well Pad and Access Road: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. Beaver Creek Archaeology for Zenergy Operating Company, LLC, Tulsa, OK.
 - (2009) Dakota-3 Pennington #16-15H Gas Line Connection: A Class III Cultural Resource Inventory, Mountrail County, North Dakota. Beaver Creek Archaeology for Zenergy Operating Company, LLC, Tulsa, OK.
 - (2009) Dakota-3 Strahs #4-31H Well Pad: A Class III Cultural Resource Inventory, Dunn and McKenzie Counties, North Dakota. Beaver Creek Archaeology for Zenergy Operating Company, LLC, Tulsa, OK.

Page 2

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

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

Sincerely,



Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency
Chief, Division of Energy and Environment



TRIBAL HISTORIC PRESERVATION

Mandan Hidatsa Arikara

Perry 'No Tears' Brady, Director.

404 Frontage Road,

New Town, North Dakota 58763

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

pbrady@mhanation.com

September 11, 2009

Carson Murdy
Regional Archeologist
Bureau of Indian Affairs
Great Plains Regional Office
115 Fourth Avenue SE
Aberdeen, SD, 57401

RE: Project # AAO-1651/FB/09

Dakota 3 Adeline 15-5H well pad

Dakota 3 Elk 4-16H well pad

Dakota 3 Mason 2-22H well pad and access road

Dakota 3 Pennington 16-15H Gas line connection

Dakota 3 Strahs 4-31H well pad

Dr. Murdy:

After review of the documentation provided, the Mandan Hidatsa Arikara Nations Tribal Historic Preservation Office concurs with the determination of 'No Historic Properties Affected' to any pre and post-historic relics, artifacts or sacred and cultural resources in the Project areas.

We respectfully request to be notified should any NAGPRA issue or others arise as the Project progresses.

Sincerely,

A handwritten signature in black ink that reads "Perry Brady PC".

Perry 'No Tears' Brady,
Tribal Historic Preservation Officer,
Mandan Hidatsa Arikara Nations.

THPO Concurrence letter

5. List of Preparers

An interdisciplinary team contributed to this document, following guidance in Part 1502.6 of CEQ regulations. Preparers, reviewers, consultants and federal officials include the following:

- Todd Hartleben Principal Engineer, McCain and Associates, Inc
- Ryan Krapp Biologist/GIS Specialist, McCain and Associates, Inc
- Kelley Bryan Williston Basin Land Manager/Zenergy
- Division of Environment, Safety and Cultural Resource Management, BIA

6. References and Acronyms

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Acronyms

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

Notice of Availability and Appeal Rights

Zenergy: Dakota 3-Pennington #16-15H Pipeline

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to installation of the Dakota-3 Pennington #16-15H Pipeline as shown on the attached map. Construction by Zenergy is expected to begin in 2009.

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

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA’s decision to proceed with administrative actions *can* be appealed until October 29, 2009, by contacting:

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

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

