

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

OCT 27 2011

MEMORANDUM

TO:

Superintendent, Fort Berthold Agency

FROM:

cillia Regional Director, Great Plains Region

SUBJECT: Environmental Assessment Addendum and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued. The addendum authorizes land use for gathering pipelines connecting the Questar MHA #1-05-08H-147-92 well pad to Arrow Phase 2 Southeast gathering pipeline system 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 Addendum, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (40 C.F.R. Part 1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

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

Attachment

cc: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)
Elgin Crows Breast, Tribal Historic Preservation Officer (with attachment)
Derek Enderud, BLM, Bureau of Land Management (with attachment)
Mike Cook, SWCA (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

Arrow Pipeline, LLC

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Questar MHA #1-05-08H-147-92 Well Pad to Arrow Phase 2 Southeast Gathering Pipeline System

Dunn County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) received a proposal to authorize land use for an Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Questar MHA #1-05-08H-147-92 Well Pad to Arrow Phase 2 Southeast Gathering Pipeline System on the Fort Berthold Reservation. Associated federal actions by BIA include determinations of effect regarding cultural resources and approvals 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 addendum to the EA, I have determined 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:

- Agency and public involvement was solicited and environmental issues related to the proposal were identified.
- Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, water resources, and cultural resources. The potential for impacts was disclosed for both the proposed action 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.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).
- 4. The proposed action was designed to avoid adverse effects to historic, archaeological, cultural, and traditional properties, sites, and practices. The Tribal Historic Preservation Officer has concurred with BIA's determination that no historic properties will be affected.
- 5. Environmental justice was fully considered.
- 6. Cumulative effects to the environment are either mitigated or minimal.
- 7. No regulatory requirements have been waived or require compensatory mitigation measures.
- 8. The proposed project will improve the socioeconomic condition of the affected Indian community.

Regional Director - Great Plains Regional Office

Date

ENVIRONMENTAL ASSESSMENT Addendum

United States Bureau of Indian Affairs

Great Plains Regional Office Aberdeen, South Dakota



Arrow Pipeline, L.L.C

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Questar MHA #1-05-08H-147-92 Well Pad to Arrow Phase 2 Southeast Gathering Pipeline System

Fort Berthold Indian Reservation

October 2011

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

TABLE OF CONTENTS

<u>Pag</u>	
1. Purpose and Need for the Proposed Action	
2. Authorities	
3. Legal Land Description for Proposed Action	
4. Scope of Work for Proposed Action	1
5. Trust Resources	2
6. Potential Effects	3
7. Applicable National Environmental Policy Act (NEPA) Document(s)	4
8. Materials Information and Corrosion Rates	4
Steel Pipe	
•	
Fiberspar® or Similar Pipe	
9. Spill Response Plan	
10. Pipeline Marking Procedures	4
11. Quality Control/Quality Assurance Measures	5
12. Valve Locations	5
13. Reclamation	5
Interim Reclamation	5
Final Reclamation	6
14. NEPA Adequacy Criteria	6
LIST OF FIGURES	
<u>Figure</u> <u>Pag</u>	_
Figure 1. Proposed MHA #1-05-08H-147-92 gathering pipeline alignment	8

LIST OF APPENDICES

Appendix

A. Pipeline Layout and Pipeline Right-of-Way for MHA #1-05-08H-147-92

1. Purpose and Need for the Proposed Action

Arrow Pipeline, LLC (Arrow) is proposing to construct a gathering oil, gas, and produced water pipeline within the Fort Berthold Indian Reservation. Developments have been proposed on land held in trust by the United States in Dunn County, North Dakota. The Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA also holds title to 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 the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and individual tribal members.

The purpose of the proposed action is to authorize the land use by Arrow for the construction and installation of one set of gathering pipelines including: one oil line, one gas line, and one produced water line, all of which will not individually exceed a diameter of 8 inches. The proposed gathering pipelines would transport oil, gas, and produced water from productive wells to markets and disposal facilities. A buried electrical line may be installed in the future.

2. Authorities

Oil and gas exploration and development activities are conducted under the authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

3. Legal Land Description for Proposed Action

The MHA #1-05-08H-147-92 gathering pipelines would be located on trust land originating from the southwest corner of the well pad, in the NW1/4 NW1/4 of Section 5, Township (T) 147 North (N), Range (R) 92 West (W), 5th Prime Meridian (P.M.), Dunn County, North Dakota. From the origination point the pipelines would travel northwest through the NE1/4 NE1/4 of Section 6, T147N, R92W, 5th P.M., Dunn County, North Dakota until their termination point in the SE1/4 SE1/4 Section 31, T148, 92W 5th P.M., Dunn County, North Dakota.

4. Scope of Work for Proposed Action

Arrow proposes to construct and install oil, gas, and produced water gathering pipelines on trust land that would join the MHA #1-05-08H-147-92 well pad to the proposed Arrow Phase 2 Southeast (SE) Gathering Pipeline System. Pipelines would originate from the southwest corner of the MHA #1-05-08H-147-92 well pad, travel west-northwest and tie into the Arrow

1

Phase 2 SE Gathering Pipeline System. Normally, Arrow attempts to locate gathering pipelines adjacent and immediately parallel, that is, within the disturbance area of approved access roads. However, the access road for the MHA #1-05-08H-147-92 well has already been constructed. Therefore, constructing the pipeline in proximity to the access road could compromise the structural integrity of the existing access road. For this reason, Arrow has proposed to construct the gathering pipelines in a manner that is in line with preserving the structural integrity of the existing access road.

All three pipelines would be buried in either two 2.5-foot-wide trenches, spaced 5.0 feet apart, or one 5.0-foot-wide trench. Oil and gas pipelines would be no greater than 8 inches in diameter and constructed of steel. The water pipeline would also be no greater than 8 inches in diameter and constructed of Fiberspar® or similar material.

Approximately 2,382 feet of steel and Fiberspar® or similar pipe would be needed to connect the MHA #1-05-08H-147-92 well pad to the proposed Arrow Phase 2 SE Gathering Pipeline System. All construction disturbances would occur within a 120-foot-wide temporary right-of-way (ROW) and permanent surface disturbance would occur within a 50-foot ROW between the MHA #1-05-08H-147-92 well pad and the Arrow Phase 2 SE Gathering Pipeline System, which has been surveyed for impacts to natural and cultural resources with no significant findings. In total, approximately 6.56 acres would be temporarily disturbed as a result of activities associated with the construction of the proposed gathering pipelines. Pipeline plats are provided in Appendix A.

5. Trust Resources

SWCA Environmental Consultants (SWCA) conducted natural resource surveys for threatened and endangered species and habitat, migratory birds and active nests, bald and golden eagles and nests, and wetlands on May 24, 2011. Reroute surveys were conducted on July 14, 2011 in order to reduce the potential for disturbance of forested upland habitat. BIA Environmental Specialist, Jeff Desjarlais, approved the location and proposed alignment of the gathering pipelines on May 24, 2011. No wetlands are anticipated to be impacted by the construction of the proposed gathering pipelines. No threatened and endangered species or bald/golden eagles or nests were observed during the natural resource surveys. However, due to the proximity to Lake Sakakawea and potential for the presence of nesting habitat for least tern (*Sturnella antillarum*) and designated critical habitat of the piping plover, the proposed project may affect, but is not likely to adversely affect piping plovers and least terns. Arrow would implement all best management practices (BMPs), erosion control measures, and spill prevention practices required by the Clean Water Act to minimize any potential impact on piping plover and least tern.

One known golden eagle nest occurs approximately 0.26 mile east-southeast of the proposed pipeline (North Dakota Game and Fish Department 2010). The previously recorded

eagle nest sits on a step located on a sheer cliff face overlooking Lake Sakakawea and is therefore out of the line-of-sight of any construction activities associated with this project. Further, project construction is likely to occur in Winter 2011/2012 and take an estimated 2 weeks to complete, which will reduce the likelihood of disturbing nesting eagles. Migratory bird habitat is prevalent in the survey area and SWCA biologists observed and noted the presence of mourning dove (Zenaida macroura), eastern kingbird (Tyrannus tyrannus), gray catbird (Dumetella carolinensis), yellow warbler (Dendroica petechia), yellow-breasted chat (Icteria virens), spotted towhee (Pipilo maculates), field sparrow (Spizella pusilla), lark sparrow (Chondestes grammacus), lark bunting (Calamospiza melanocorys), song sparrow (Melospiza melodia), vesper sparrow (Pooecetes gramineus) and American goldfinch (Carduelis tristis).

A cultural resource inventory of this pipeline route was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 12.32 acres were inventoried between May 24 and July 14, 2011 (Schleicher 2011). 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 September 26, 2011; however the THPO did not respond within the allotted 30 day comment period.

6. Potential Effects

Potential direct impacts to cultural resource sites would occur as a result of disturbance and/or the loss of sites eligible for the National Register of Historic Places. No cultural resources were recorded during the field surveys, therefore no impacts are anticipated.

Potential direct impacts to natural resources may include the loss of native vegetation and wildlife habitat, soil disturbance, and erosion during construction that may adversely affect air and water quality. Impacts would be mitigated by using best management practices during construction to minimize disturbance. Once construction activities are completed, reclamation would take place within 6 months and would include the return of topsoil and contouring, and seeding of native vegetation.

Potential indirect impacts include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated through avoidance of any federally listed threatened or endangered species or wetlands, avoidance of nesting migratory birds, implementing best management practices to control the introduction of noxious weeds, and minimizing the length of time between trenching, pipeline burial, and reclamation. These mitigation measures are consistent with the approved National Environmental Policy Act (NEPA) document, which received a finding of no significant impact (FONSI) (April 2011).

3

7. Applicable National Environmental Policy Act (NEPA) Document(s)

Environmental Assessment: Phase 2 Southeast Pipeline (March 2011)

8. Materials Information and Corrosion Rates

Steel Pipe

Arrow proposes to construct the oil and gas pipelines using new steel pipe rated by the American Petroleum Institute (API) as 5L X52. Arrow would ensure that each steel pipe segment is coated with approximately 14 to 16 millimeters of fusion bonded epoxy coating. Further, Arrow would deploy an active cathodic protection system for all steel pipe, which further reduces the likelihood of external corrosion. Arrow would ensure that each steel pipe segment is allotted a 1/16-inch corrosion allowance; however, because of the non-corrosive nature of Bakken crude and the low concentrations of hydrogen sulfide, Arrow does not anticipate any external or internal corrosion during the operating lifetime of the pipe, which, at a minimum, is estimated to be 50 years.

Fiberspar® or Similar Pipe

Arrow proposes to construct the produced water gathering pipeline using a material known as Fiberspar or one with the same corrosion-resistant characteristics as Fiberspar. This type of material is not subject to internal or external corrosion.

9. Spill Response Plan

Arrow has developed a Spill Response Plan (Plan) (Middick 2011¹) for the Phase 3SW pipeline. 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 Arrow has legally committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194). Arrow has committed to submitting a spill response plan, specific to this proposed project, to the BIA prior to the commencement of construction activities.

10. Pipeline Marking Procedures

Arrow adheres to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, Arrow would place pipeline markers within 1,000 feet of one another,

4

¹ Middick, Andy. 2011. *Operations Monitoring and Spill Response Plan.* Blackshare Environmental Solutions. Oklahoma City, Oklahoma.

at all public road crossings, railroad crossings, creek crossings, fence crossings, and at all points of major direction change.

11. Quality Control/Quality Assurance Measures

Arrow purchases steel pipe that is rated as API 5L X52 and inspects all pipe while at the mill to ensure quality. Arrow is also present to ensure that external epoxy coating is applied to a minimum thickness of 14 millimeters. During construction, all welds are visually inspected for quality and completeness by qualified professionals. Once welds have passed visual inspection, they are subjected to 100 percent Non Destructive Testing. After passing these tests, the weld areas are covered for corrosion protection. After the weld areas have been covered, the external coating of the pipe is inspected using a jeepmeter to detect holes and cracks. The pipe is lowered into the trench and buried. Prior to being put into service, the steel pipe is hydrotested to approximately 1.5 times the minimum design pressure of 1,180 pounds per square inch gauge (psig). The produced water pipe is designed to sustain a minimum pressure of 750 psig and is hydrotested to approximately 900 psig prior to being approved for service.

12. Valve Locations

Two valves would be installed at each end of the proposed pipelines. One valve would be installed at the well location while the second valve would be installed at the proposed tie-in. The installation of two valves would allow Arrow to isolate the proposed gathering pipelines if required.

13. Reclamation

Interim Reclamation

Reclamation would continue to occur over the life of the pipelines. Initial reclamation would be required after initial construction and then following any maintenance work or additions of infrastructure. Reclamation would be required before final abandonment of the decommissioned pipeline. A successful reclamation would at all times be the responsibility of the system's operator.

Trenches would be back-filled immediately after the pipe is installed and testing is complete, assuming frozen or saturated soils are not present. Back-fill piles would be stored opposite of the topsoil piles during construction. If construction is to occur during winter, Arrow will partially fill the trench with useable, non-frozen, back-fill soil to the extent possible and cover the entire ROW including the trench with straw. The trench would be back-filled and topsoil distributed as soon as practicable after the soil has defrosted. Topsoil piles would be covered to eliminate the potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events.

5

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the ROW would be plowed before the stockpiled topsoil is distributed.

The disturbed areas would be reclaimed and contoured as soon as possible after construction is complete (fall/spring). The ROW would be covered with stockpiled topsoil and reseeded with a seed mixture determined by the BIA. Arrow would control noxious weeds within the ROW and other applicable facilities by approved chemical or mechanical methods. If seeding of the ROW does not occur due to growing season constraints, Arrow will deploy approved weed-free hay across the entire ROW. The presence of hay across the ROW will reduce the potential for excessive erosion as a result of spring snow melt and precipitation.

The entire ROW would be monitored for erosion, subsidence, or noxious weeds. In areas where problems are found to occur, reclamation efforts would continue until the BIA feels the ROW is successfully reclaimed. Reclamation is considered successful when:

- seeded areas are established;
- adjacent vegetative communities spread back into the disturbed areas; and
- noxious weeds are under control.

If after two growing seasons the new seeding is not successful, the BIA may require additional efforts to establish vegetation. For noxious weeds, a survey was conducted on the ROW prior to the construction commencing. The BIA has developed a weed management plan to treat known or likely to occur noxious weed species.

Final Reclamation

Final reclamation would occur when the pipeline is decommissioned. All disturbed areas would be reclaimed, reflecting the BIA's view of oil and gas exploration and production as temporary intrusions on the landscape. All facilities would be removed. Access roads and work areas would be leveled or backfilled as necessary, scarified, recontoured, and seeded. 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. It is economically and environmentally unfeasible to excavate and remove the decommissioned pipeline. Instead it would be purged with water of any natural gas remaining in the lines and abandoned in place.

14.NEPA Adequacy Criteria

This document has identified a previously prepared NEPA document, *Environmental Assessment: Phase 2 Southeast Pipeline* (March 2011), which adequately describes the

environmental consequences of the newly proposed action described herein, and meets the following NEPA Adequacy Criteria.

- 1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA document.
- 2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
- 3. The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
- 4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
- 5. The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA document.
- 6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
- 7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

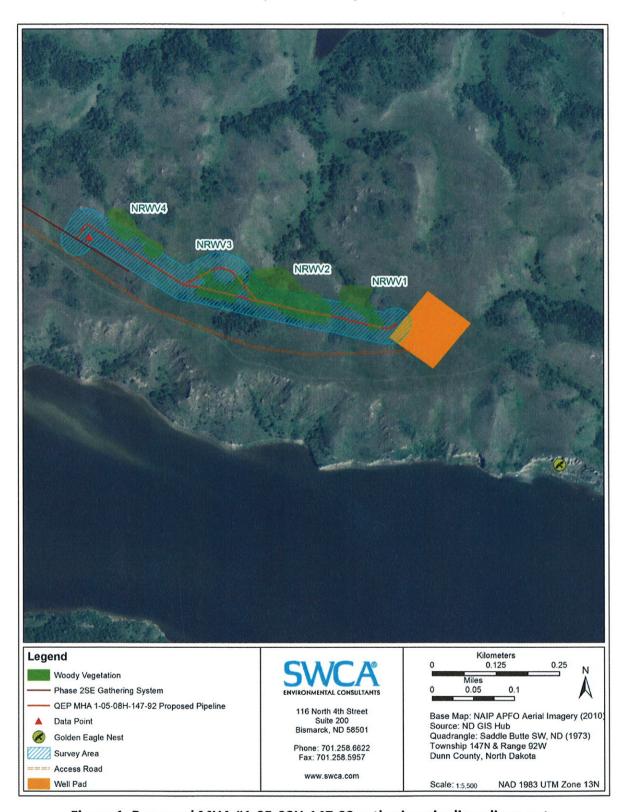


Figure 1. Proposed MHA #1-05-08H-147-92 gathering pipeline alignment.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS Great Plains Regional Office MC-208 115 Fourth Avenue S.E., Suite 440 Aberdeen, South Dakota 57401

SEP 2 6 2011



IN REPLY REFER TO: DESCRM MC-208

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

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of a proposed Arrow gathering line in Dunn County, North Dakota. Approximately 12.32 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. No historic properties were located which 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. 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. Catalogued as BIA Case Number AAO-1890/FB/11, the proposed undertaking, location, and project dimensions are described in the following report:

Schleicher, Jolene

(2011) A Class I and Class III Cultural Resources Inventory of the Arrow MHA #1-05-08H-147-92
Gathering Pipeline, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA
Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

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.

Regional Director

Enclosure

ce: Chairman, Three Affiliated Tribes

Superintendent, Fort Berthold Agency

REFERENCES

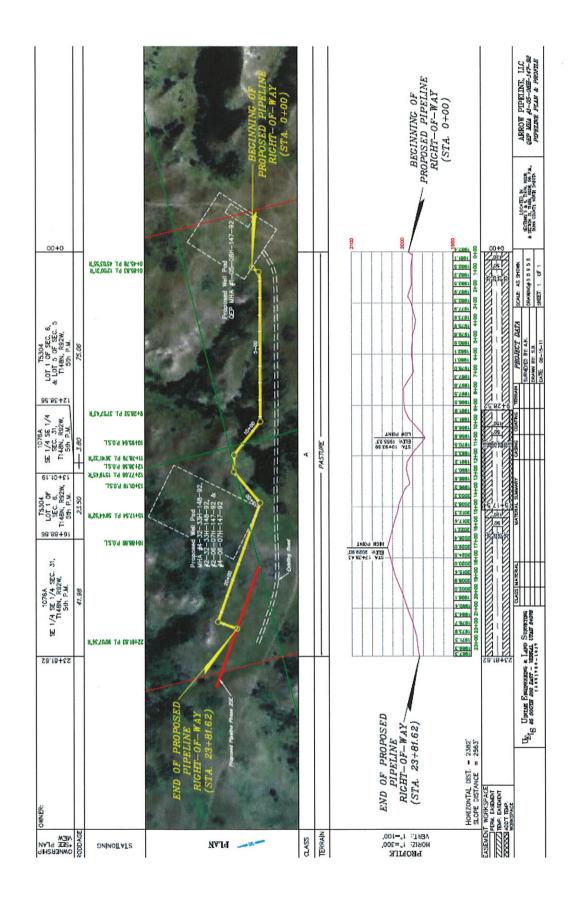
North Dakota Game and Fish Department. 2010. Golden and bald eagle nests within the boundary of the Fort Berthold Indian Reservation databases. From Steve Dyke, September 20, 2009. Data available from North Dakota Game and Fish Department upon request.

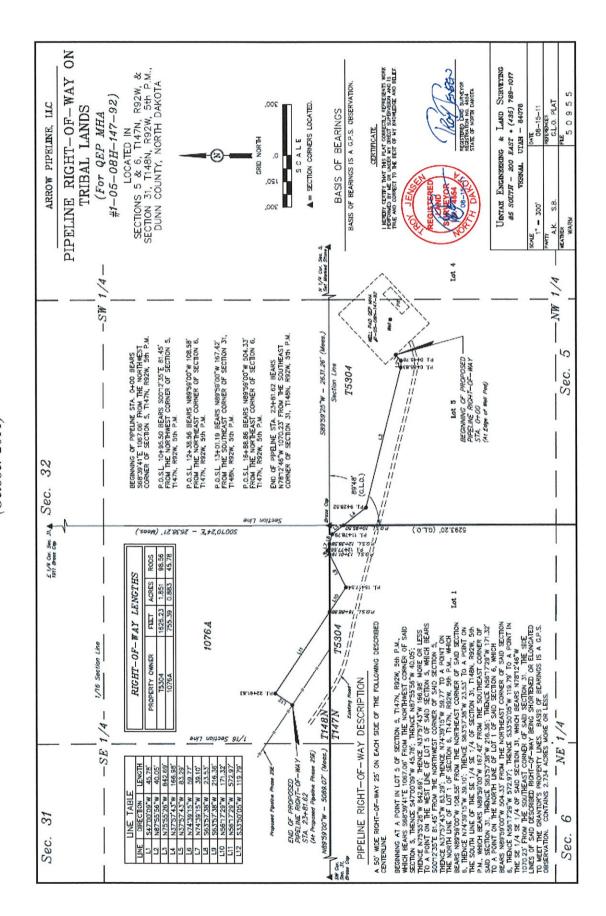
Schleicher, Jolene

2011 A Class I and Class III Cultural Resources Inventory of the Arrow Questar MHA #1-05-08H-147-92 Gathering Pipeline, Fort Berthold Indian Reservation, Dunn County, North Dakota. Prepared by SWCA Environmental Consultants for Arrow Pipeline LLC.

APPENDIX A

Pipeline Layout and Pipeline Right-of-Way For MHA #1-05-08H-147-92





Notice of Availability and Appeal Rights

Arrow Pipeline: Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Questar MHA #1-05-08H-147-92 Well Pad to Arrow Phase 2 Southeast Gathering Pipeline System

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Questar MHA #1-05-08H-147-92 Well Pad to Arrow Phase 2 Southeast Gathering Pipeline System on the Fort Berthold Reservation as shown on the attached map. Construction by Arrow Pipeline, LLC is expected to begin in 2011.

An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, 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 November 25, 2011, by contacting:

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

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

Project locations

