



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

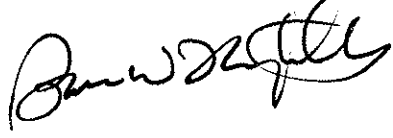


IN REPLY REFER TO:
DESCRM
MC-208

NOV 03 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: ^{Acting} 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 MHA #2-04-03H-149-91 & #4-04-03H-149-91 well to the MHA #1-06-01H-149-92 & #2-06-01H-149-92 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 MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the MHA #1-06-01H-149-92 & #2-06-01H-149-92 Gathering Pipeline System

Dunn County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) received a proposal to authorize land use by for Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the MHA #1-06-01H-149-92 & #2-06-01H-149-92 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:

1. Agency and public involvement was solicited and environmental issues related to the proposal were identified.
2. 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.

Acting


Regional Director – Great Plains Regional Office

11/3/11
Date

**ENVIRONMENTAL ASSESSMENT
Addendum**

United States Bureau of Indian Affairs

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



Arrow Pipeline, LLC

**Addendum to Environmental Assessment to Authorize Land Use for
Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well
to the MHA #1-06-01H-149-92 & #2-06-01H-149-92 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

*Addendum to Environmental Assessment to Authorize Land Use for
Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the
MHA #1-06-01H-149-92 & #2-06-01H-149-92 Gathering Pipeline System
(October 2011)*

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1. Purpose and Need for the Proposed Action

The purpose of the proposed action is to authorize the land use by Arrow Pipeline, LLC (Arrow) for the construction and installation of three gathering pipelines including one oil pipeline, one gas pipeline, and one produced water pipeline. As proposed, the MHA #2-04-03H-149-91 & MHA #4-04-03H-149-91 gathering pipeline system (pipelines) would transport oil, gas, and produced water to markets and approved disposal sites. A buried electrical line may be installed in the future, and if electrical lines are installed in association with this project or to provide service to this project, they will be installed underground within the approved right-of-way (ROW).

Developments have been proposed on land held in trust by the United States in Dunn County, North Dakota, where the Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected individual allotments. 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 to individual tribal members.

2. Authorities

Oil and gas exploration and development activities are conducted under 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 pipelines would be located on trust land originating from the northeast corner of the proposed QEP #2-04-03H-149-91 & #4-04-03H-149-91 well pad, approximately 14 miles east-northeast of Mandaree, North Dakota, in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 4, Township (T) 149 North (N), Range (R) 91 West (W), 5th Prime Meridian (P.M.), Dunn County, North Dakota (Figure 1). The proposed gathering pipelines would travel west through the S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 5, T149N, R91W, before terminating at the approved MHA #1-06-01H-149-92 & #2-06-01H-149-92 gathering pipeline system (tie-in) in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 5, T149N, R91W, 5th P.M., Dunn County, North Dakota.

4. Scope of Work for Proposed Action

Oil, gas, and produced water 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 new steel. The produced water pipeline would also be no greater than 8 inches in diameter and constructed of Fiberspar[®] or similar corrosion resistant material. All of the construction disturbances would occur within a 120-foot-wide temporary construction ROW and permanent surface disturbance would occur within a 50-foot-wide ROW between the well pad and the respective tie-in gathering pipeline.

The pipelines, as proposed, would originate from the northeast corner of the MHA #2-04-03H-149-91 & #4-04-03H-149-91 well pad, traverse south and then west, and tie in to the proposed MHA #1-06-01H-149-92 & #2-06-01H-149-92 gathering pipeline system at the existing MHA #1-06-01H-149-92 & #2-06-01H-149-92 well location. The MHA #1-06-01H-149-92 & 2-06-01H-149-92 gathering pipeline system alignment has been previously surveyed for impacts to natural and cultural resources with no significant findings.

Approximately 6,622.61 feet of oil, gas, and produced water pipe would be needed to connect the MHA #2-04-03H-149-91 & #4-04-03H-149-91 well to the tie-in. Approximately 18.24 acres would be disturbed as a result of activities associated with the construction of the proposed gathering pipeline.

5. 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.

6. 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 developing a project specific spill response plan that will be submitted to the BIA prior to the commencement of construction activities.

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

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

8. 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.

9. 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.

10. Boring Locations

As proposed, boring techniques would not be used for the proposed pipelines, thereby avoiding any anthropogenic or natural features.

11. 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.

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.

12. Surveys

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 for the proposed pipelines on June 22, 2011. BIA Environmental Specialist, Jeff Desjarlais, approved the locations and the proposed alignment of the gathering pipelines on the same date. No threatened and endangered species or bald/golden eagle individuals or nests were observed during SWCA's environmental surveys. Designated critical habitat for piping plovers (*Charadrius melodus*), and potential nesting/foraging habitat of interior least terns (*Sterna antillarum*), is present within 0.5 mile of the proposed pipelines. For construction that would occur within 0.5 mile line-of-sight of designated critical habitat, Arrow has committed to the following measures to mitigate potential impact as a result of the construction activities: 1) construct the gathering pipelines after September 1 to allow sufficient time for piping plover and interior least tern individuals to migrate; or 2) if construction is to occur prior to September 1, conduct a species-specific survey of all potential nesting habitat occurring within 0.5 mile line-of-sight of the project area.

A cultural resource inventory of this pipeline route was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 41.34 acres were inventoried on June 22, 2011 (Schleicher and Riordan 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 28, 2011; however the THPO did not respond within the allotted 30 day comment period.

Schleicher, Jolene, and Carolyn Riordan (2011) A Class I and Class III Cultural Resources Inventory of the Arrow MHA #2-04-03H-149-91 and #4-04-03H-149-91 Gathering Pipeline, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK

13. Potential Effects

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 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 (September 2010).

14. Applicable NEPA Document(s)

- *Environmental Assessment: Arrow Pipeline, LLC Oil, Gas & Water Gathering System Phase 2E - BIA 13* (September 2010).
- *Addendum to Environmental Assessment to Authorize Land Use for Arrow Pipeline Questar MHA #2-06-01H Gathering Pipeline* (February 2011).

15. Other Relevant Documentation

- *Environmental Assessment Questar Exploration and Production, Four Bakken Formation Exploratory Wells at Four Locations: MHA #1-06H-149-91, MHA #1-01H-149-92, MHA #1-31H-150-91, MHA #1-06-31H-150-92* (September 2009).

16. NEPA Adequacy Criteria

This document has identified a previously prepared NEPA document, *Environmental Assessment: Arrow Pipeline, LLC Oil, Gas & Water Gathering System Phase 2E - BIA 13* (September 2010), 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.

*Addendum to Environmental Assessment to Authorize Land Use for
Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the
MHA #1-06-01H-149-92 & #2-06-01H-149-92 Gathering Pipeline System
(October 2011)*

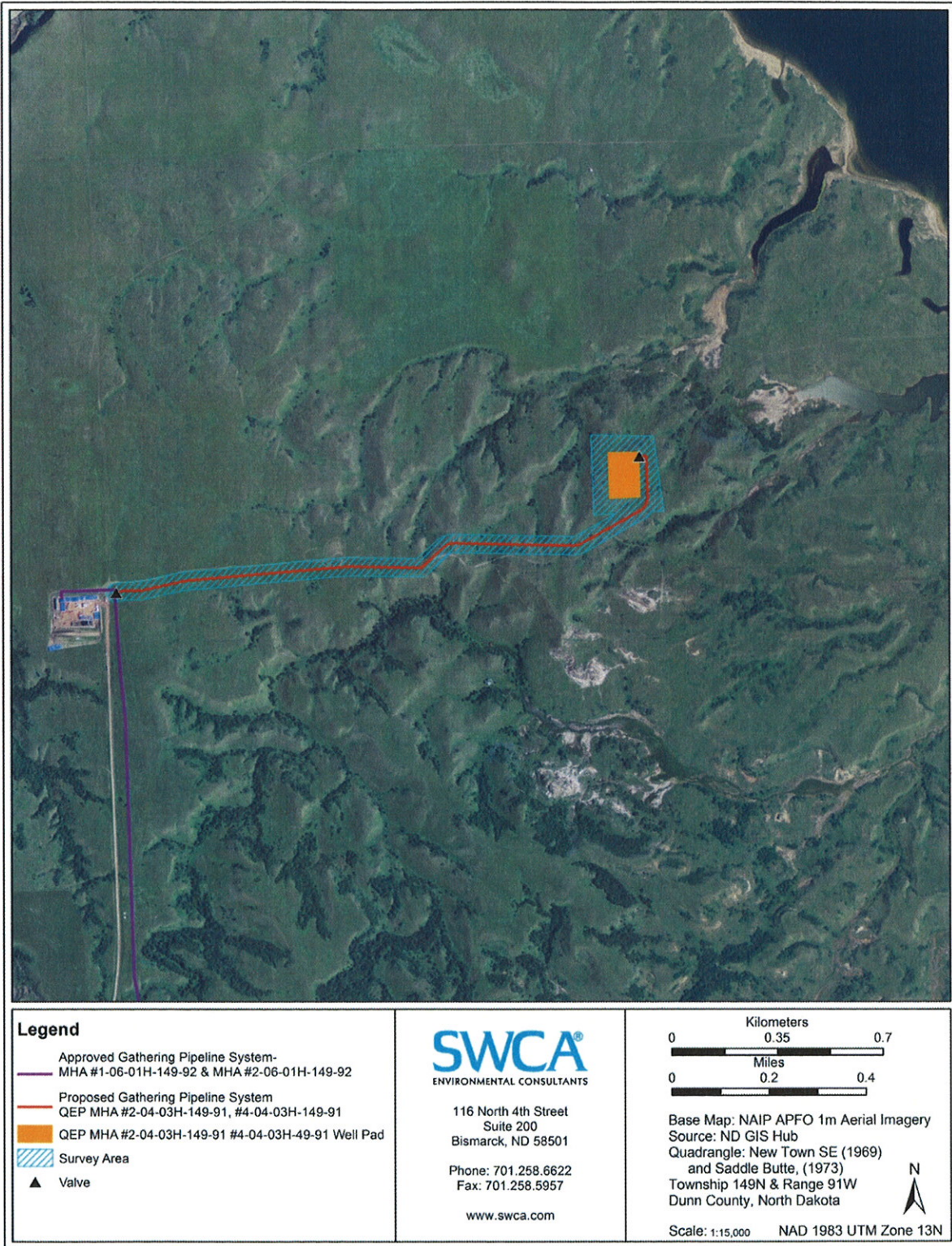


Figure 1. Proposed MHA #2-04-03H-149-91 & #4-04-03H-149-91 gathering pipelines and associated well pad.

*Addendum to Environmental Assessment to Authorize Land Use for
Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the
MHA #1-06-01H-149-92 & #2-06-01H-149-92 Gathering Pipeline System
(October 2011)*



United States Department of the Interior

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



IN REPLY REFER TO:
DESCRM
MC-208

SEP 28 2011

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

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of two proposed Arrow gathering lines in Dunn County, North Dakota. Approximately 91.32 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. 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 these undertakings. Catalogued as BIA Case Number AAO-1890/FB/11, the proposed undertakings, locations, and project dimensions are described in the following reports:

Schleicher, Jolene, and Carolyn Riordan

(2011a) A Class I and Class III Cultural Resources Inventory of the Arrow MHA #2-04-03H-149-91 and #4-04-03H-149-91 Gathering Pipeline, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

(2011b) A Class I and Class III Cultural Resources Inventory of the Arrow QEP MHA 3-32-33H-148-92 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,

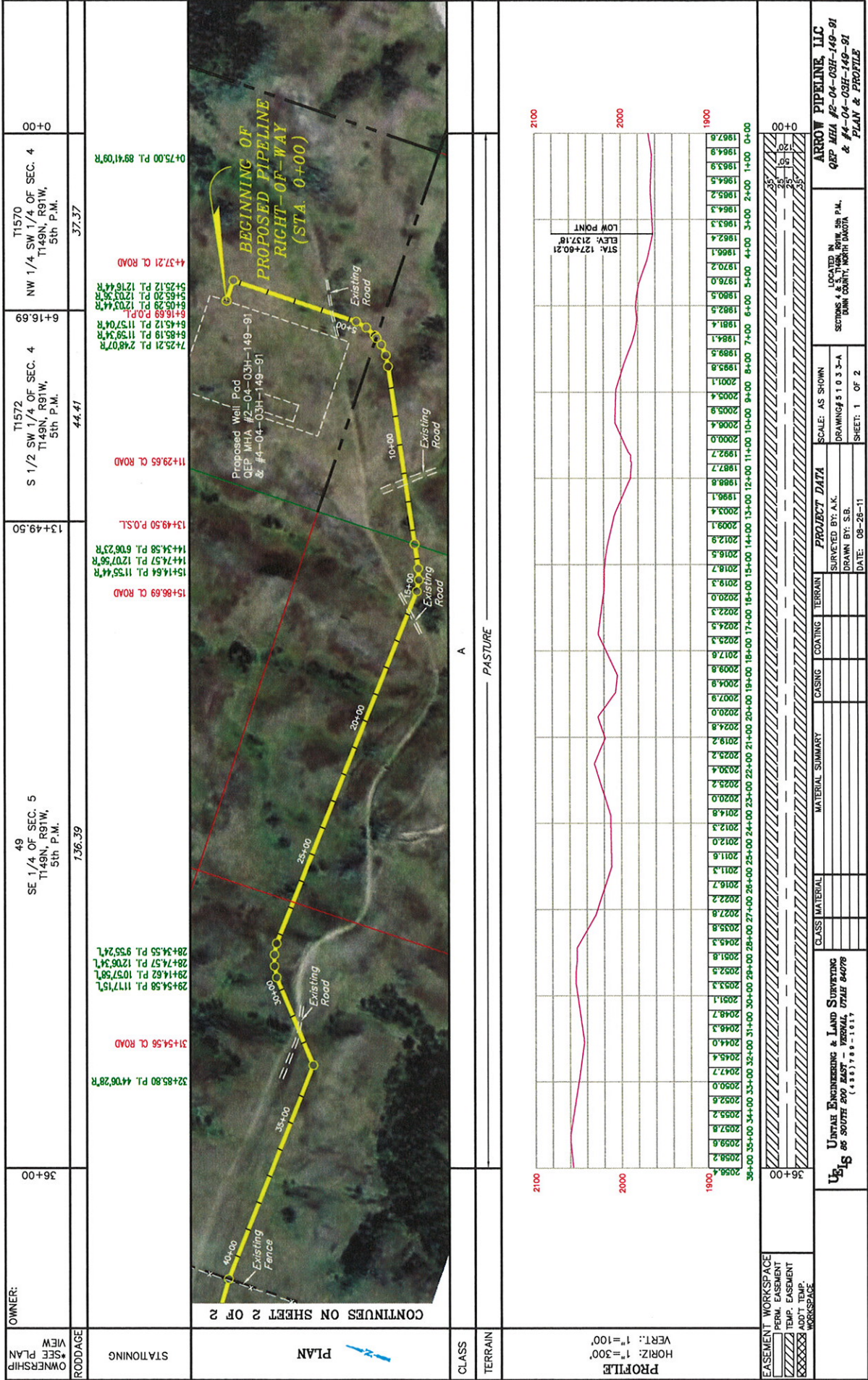

ACTING Regional Director

Enclosures

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

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MHA #1-06-01H-149-92 & #2-06-01H-149-92 Gathering Pipeline System
(October 2011)*

**MHA #2-04-03H-149-91 & MHA #4-04-03H-149-91 Gathering
Pipeline Plats**



OWNER: *SEE PLAN VIEW

RODDAGE: 13+49.50

STATIONING: 0+00 to 36+00

PLAN: CONTINUES ON SHEET 2 OF 2

CLASS: PASTURE

TERRAIN: A

PROFILE: HORIZ: 1"=300' VERT: 1"=100'

LEGEND:
 EASEMENT WORKSPACE
 PREM EASEMENT
 TEMP EASEMENT
 ADJUST TEMP
 WORKSPACE

SECTION 5: SE 1/4 OF SEC. 5 T149N, R91W, 5th P.M. 49 736.39

SECTION 4: S 1/2 SW 1/4 OF SEC. 4 T149N, R91W, 5th P.M. 44.41

SECTION 4: NW 1/4 SW 1/4 OF SEC. 4 T1570, R91W, 5th P.M. 37.37

CL. ROAD: 15+86.69 CL. ROAD (15+14.64 PL. 1155.44'R, 14+74.57 PL. 1207.56'R, 14+34.58 PL. 606.27'R)

CL. ROAD: 11+29.65 CL. ROAD (8+45.12 PL. 1157.04'R, 6+85.19 PL. 248.07'R, 6+45.12 PL. 1157.04'R, 6+45.12 PL. 1203.44'R, 5+25.12 PL. 1216.44'R, 5+25.12 PL. 1216.44'R)

CL. ROAD: 13+49.50 P.O.S.L.

CL. ROAD: 31+54.56 CL. ROAD (29+54.58 PL. 1171.51'L, 29+14.62 PL. 1037.81'L, 28+74.57 PL. 1206.34'L, 28+34.55 PL. 933.24'L)

CL. ROAD: 32+85.80 PL. 4476.28'R

PROPOSED WELL PAD: QEP MHA #2-04-03H-149-91 & #4-04-03H-149-91

PROJECT DATA: SCALE: AS SHOWN SURVEYED BY: A.K. DRAWN BY: S.B. DATE: 08-28-11

PROJECT SUMMARY: CLASS MATERIAL MATERIAL SUMMARY CASING COATING TERRAIN

ARROW PIPELINE, LLC: QEP MHA #2-04-03H-149-91 & #4-04-03H-149-91 PLAN & PROFILE

LOCATION: M. S. P.L. DUNN COUNTY, NORTH DAKOTA

SHEET: 1 OF 2

Station	Elevation
36+00	2056.4
35+00	2058.2
34+00	2057.8
33+00	2059.6
32+00	2057.6
31+00	2059.2
30+00	2057.8
29+00	2059.6
28+00	2057.8
27+00	2059.6
26+00	2057.8
25+00	2059.6
24+00	2057.8
23+00	2059.6
22+00	2057.8
21+00	2059.6
20+00	2057.8
19+00	2059.6
18+00	2057.8
17+00	2059.6
16+00	2057.8
15+00	2059.6
14+00	2057.8
13+00	2059.6
12+00	2057.8
11+00	2059.6
10+00	2057.8
9+00	2059.6
8+00	2057.8
7+00	2059.6
6+00	2057.8
5+00	2059.6
4+00	2057.8
3+00	2059.6
2+00	2057.8
1+00	2059.6
0+00	2057.8

LOW POINT: STA: 127+60.21 ELEV: 2137.18'

OWNER: 122 SW 1/4 OF SEC. 5 T149N, R91W, 5th P.M. 49 SE 1/4 OF SEC. 5 T149N, R91W, 5th P.M. 40+85.81 36+00

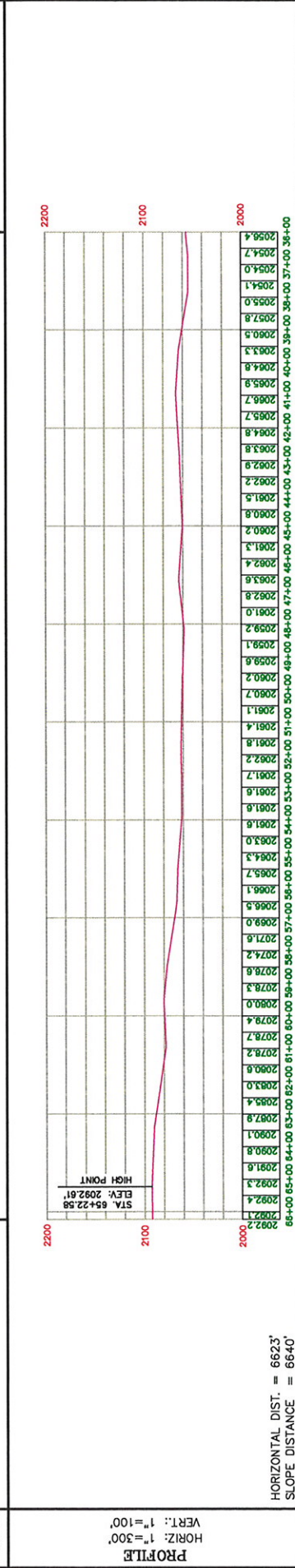
RODDAGE 153.75 29.44

STATIONING 66+22.61 65+22.58 P.L. 11.95'58" 63+40.54 P.L. 120'12" 62+70.95 C.L. ROAD 58+45.29 P.L. 720'41"

40+90.57 FENCE / PL. 605'35"



CLASS PASTURE



Urbair Engineering & Land Surveying
 85 SOUTH 800 EAST - KERRVILLE, TEXAS 78078
 (409)788-1017

PROJECT DATA
 SURVEYED BY: A.K. DRAWN BY: S.B. DATE: 08-28-11

SCALE: AS SHOWN DRAWING # 10 3 3-B SHEET: 2 OF 2

ARROW PIPELINE, LLC
 OEP MHA #1-06-03H-149-91 & #4-06-03H-149-91
 PLAN & PROFILE

RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
T1570	616.69	0.708	37.37
T1572	732.81	0.841	44.41
49	2735.31	3.141	155.84
122	2356.80	2.912	153.75
TOTAL	6622.61	7.602	401.37

BEGINNING OF PIPELINE STA. 0+00 BEARS S37°26'59"E 984.15' FROM THE WEST 1/4 CORNER OF SECTION 4, T149N, R91W, 5th P.M.

P.O.P.L. 6+16.69 BEARS S26°05'12"E 1465.78' FROM THE WEST 1/4 CORNER OF SECTION 4, T149N, R91W, 5th P.M.

P.O.S.L. 13+49.50 BEARS S00°16'18"E 1671.28' FROM THE WEST 1/4 CORNER OF SECTION 4, T149N, R91W, 5th P.M.

P.O.P.L. 40+85.81 BEARS N00°24'13"W 762.14' FROM THE SOUTH 1/4 CORNER OF SECTION 5, T149N, R91W, 5th P.M.

ARROW PIPELINE, LLC
PIPELINE RIGHT-OF-WAY ON
TRIBAL LANDS
 (For QEP MHA #2-04-03H-149-91 & #4-04-03H-149-91)

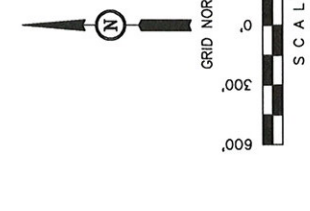
PIPELINE RIGHT-OF-WAY DESCRIPTION

A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

Lot 2
 BEGINNING AT A POINT IN THE NW 1/4 SW 1/4 OF SECTION 4, T149N, R91W, 5th P.M., WHICH BEARS S37°26'59"E 984.15' FROM THE WEST 1/4 CORNER OF SAID SECTION 4, THENCE EAST 75.00'; THENCE S00°18'51"E 450.12'; THENCE S11°57'53"W 40.08'; THENCE S24°01'29"W 40.08'; THENCE S36°05'13"W 11.41' TO A POINT ON THE SOUTH LINE OF THE NW 1/4 SW 1/4 OF SAID SECTION 4, WHICH BEARS S26°05'12"E 1465.78' FROM THE WEST 1/4 CORNER OF SAID SECTION 4, THENCE S36°05'13"W 28.43'; THENCE S48°02'17"W 40.07'; THENCE S60°01'51"W 40.02'; THENCE S67°49'58"W 624.29' TO A POINT ON THE WEST LINE OF THE SW 1/4 SW 1/4 OF SAID SECTION 4, WHICH BEARS S00°16'18"E 1671.28' FROM THE WEST 1/4 CORNER OF SAID SECTION 4, THENCE S62°49'58"W 85.08'; THENCE S68°56'21"W 39.99'; THENCE S81°04'17"W 40.07'; THENCE N86°59'59"W 1319.91'; THENCE S83°04'37"W 40.02'; THENCE S70°56'03"W 40.05'; THENCE S87°04'37"W 800.01' TO A POINT ON THE WEST LINE OF THE SW 1/4 SE 1/4 OF SECTION 5, T149N, R91W, 5th P.M., WHICH BEARS N00°24'13"W 762.14' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 5, THENCE S86°43'43"W 1759.48'; THENCE S79°23'02"W 495.25'; THENCE N88°35'46"W 182.04'; THENCE S79°28'16"W 100.04' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 5, WHICH BEARS N11°09'47"E 574.94' FROM THE SOUTHWEST CORNER OF SAID SECTION 5, THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 7.602 ACRES MORE OR LESS.

HORIZONTAL DIST. = 6623'	
SLOPE DISTANCE = 6640'	

LINE	DIRECTION	LENGTH
L1	EAST	75.00'
L2	S00°18'51"E	450.12'
L3	S11°57'53"W	40.08'
L4	S24°01'29"W	40.08'
L5	S36°05'13"W	11.41'
L6	S36°05'13"W	28.43'
L7	S48°02'17"W	40.07'
L8	S60°01'51"W	40.02'
L9	S67°49'58"W	624.29'
L10	S62°49'58"W	85.08'
L11	S68°56'21"W	39.99'
L12	S81°04'17"W	40.07'
L13	N86°59'59"W	1319.91'
L14	S83°04'37"W	40.02'
L15	S70°58'03"W	40.05'
L16	S60°00'05"W	39.98'
L17	S48°42'50"W	331.22'
L18	N87°10'42"W	800.01'
L19	S86°43'43"W	1759.48'
L20	S79°23'02"W	495.25'
L21	N88°35'46"W	182.04'
L22	S79°28'16"W	100.04'



LOCATED IN SECTIONS 4 & 5, T149N, R91W, 5th P.M., DUNN COUNTY, NORTH DAKOTA

Sec. 5 - NW 1/4, SW 1/4, SE 1/4, 1/16 Section Line, 1/4 Section Line

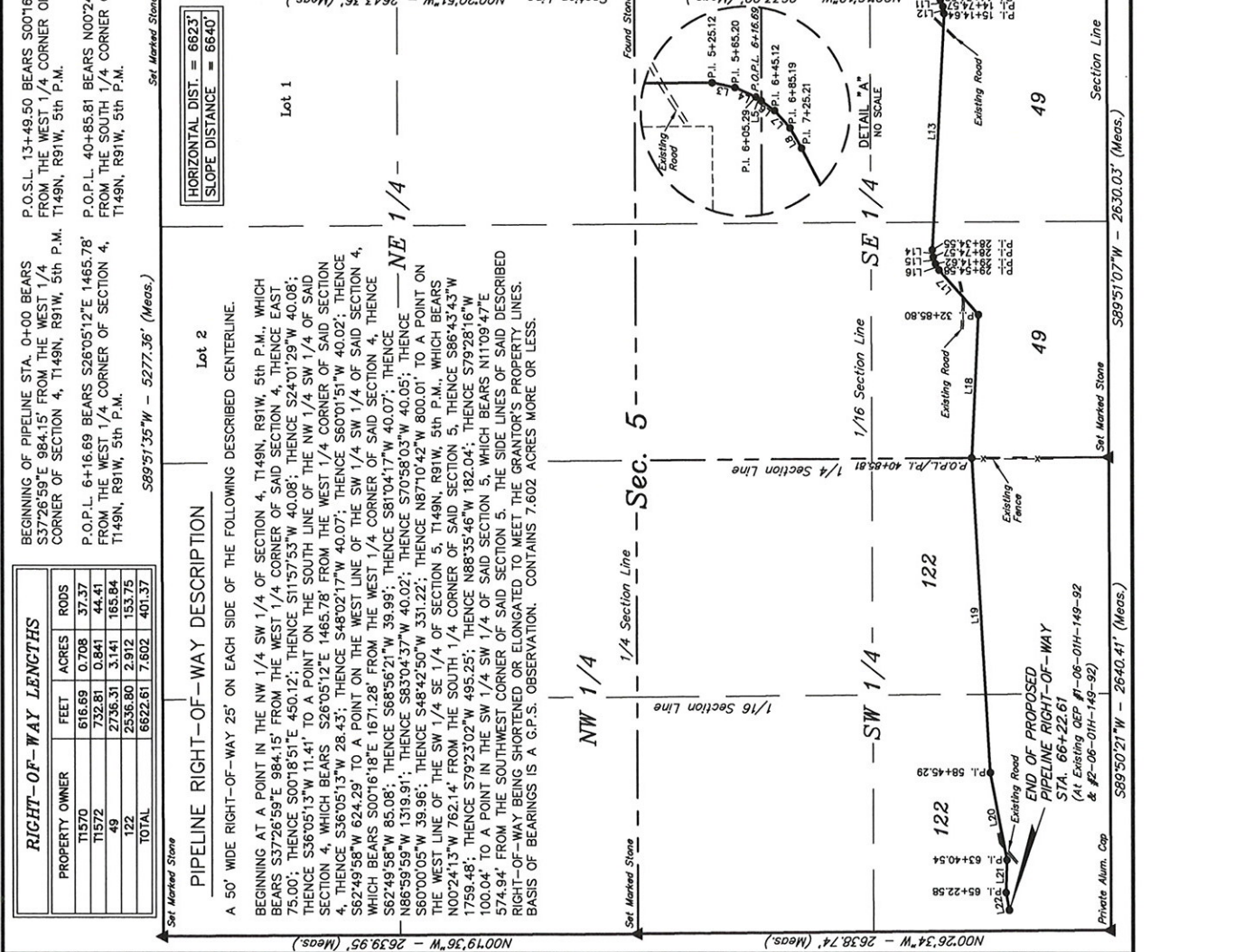
Sec. 4 - SW 1/4

BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CERTIFICATE.

I HEREBY CERTIFY THAT THIS PLAN CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



UNTAH ENGINEERING & LAND SURVEYING	
85 SOUTH - 200 EAST • (485) 789-1077	
VERNAL, UTAH - 84078	
SCALE 1" = 600'	DATE 08-29-11
PARTY A.K. S.B.	REFERENCES G.L.O. PLAT
WEATHER WARM	FILE 5 1 0 3 4



ARROW PIPELINE, LLC
QEP MHA #2-04-03H-149-91 & #4-04-03H-149-91
PIPELINE RIGHT-OF-WAY
SECTIONS 4 & 5, T149N, R91W, 5th P.M.

TOTAL PIPELINE RIGHT-OF-WAY ON TRIBAL LANDS

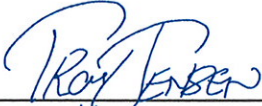
TOTAL LENGTH OF RIGHT-OF-WAY IS 6622.61' OR 1.254 MILES. WIDTH OF RIGHT-OF-WAY IS 50' (25' PERPENDICULAR ON EACH SIDE OF THE CENTERLINE). CONTAINS 7.602 ACRES MORE OR LESS.

ENGINEER'S AFFIDAVIT

STATE OF MONTANA }
COUNTY OF RICHLAND } SS

TROY JENSEN, BEING FIRST DULY SWORN DEPOSES AND STATES THAT HE IS THE REGISTERED LAND SURVEYOR, FOR ARROW PIPELINE, LLC, THAT THESE SURVEYS WERE MADE BY HIM (OR UNDER HIS SUPERVISION): THAT HE HAS EXAMINED THE FIELD NOTES OF THE SURVEYS OF THE PIPELINE RIGHT-OF-WAY AS DESCRIBED AND SHOWN ON THIS MAP, THAT THIS MAP WAS PREPARED UNDER HIS DIRECTION FROM SAID FIELD NOTES; AND THAT SAID RIGHT-OF-WAY, 1.254 MILES IN LENGTH BEGINNING AND ENDING AS SHOWN ON THIS MAP IS ACCURATELY REPRESENTED.




REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

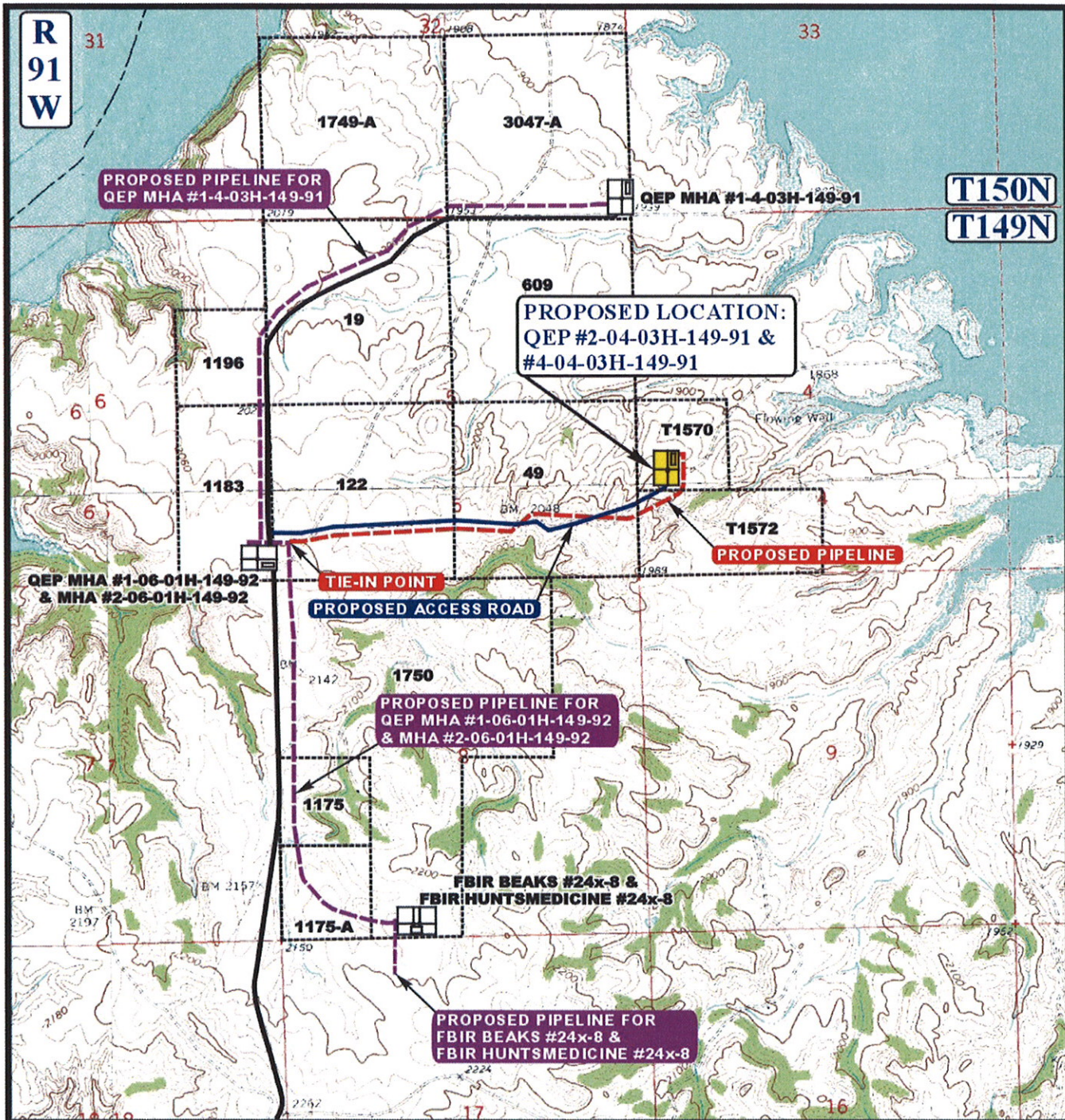
APPLICANT'S CERTIFICATE

I, JOHN DOLAN, DO HEREBY CERTIFY THAT I AM THE VP OF ENGINEERING FOR ARROW PIPELINE, LLC, HEREINAFTER DESIGNATED THE APPLICANT; THAT TROY JENSEN WHO SUBSCRIBED TO THE FOREGOING AFFIDAVIT, IS EMPLOYED BY THE APPLICANT AS A LAND SURVEYOR AND THAT HE WAS DIRECTED BY THE APPLICANT TO SURVEY THE LOCATION OF THIS PIPELINE RIGHT-OF-WAY, 1.254 MILES IN LENGTH BEGINNING AT STA. 0+00 AND ENDING AT STA. 66+22.61, THAT SAID PIPELINE RIGHT-OF-WAY IS ACCURATELY REPRESENTED ON THIS MAP; THAT SUCH SURVEY AS REPRESENTED ON THIS MAP HAS BEEN ADOPTED BY THE APPLICANT AS THE DEFINITE LOCATION OF THE RIGHT-OF-WAY THEREBY SHOWN; AND THAT THE MAP HAS BEEN PREPARED TO BE FILED WITH THE SECRETARY OF THE INTERIOR OR HIS DULY AUTHORIZED REPRESENTATIVE AS PART OF THE APPLICATION FOR SAID RIGHT-OF-WAY TO BE GRANTED THE APPLICANT, ITS SUCCESSORS AND ASSIGNS, WITH THE RIGHT TO CONSTRUCT, MAINTAIN, AND REPAIR IMPROVEMENTS, THEREON AND THEREOVER, FOR SUCH PURPOSES, AND WITH THE FURTHER RIGHT IN THE APPLICANT, ITS SUCCESSORS AND ASSIGNS TO TRANSFER THIS RIGHT-OF-WAY BY ASSIGNMENT, GRANT, OR OTHERWISE.

APPLICANT

VP OF ENGINEERING

TITLE



APPROXIMATE TOTAL PIPELINE DISTANCE = 6,623' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



ARROW PIPELINE, LLC

QEP MHA #2-04-03H-149-91 & 4-04-03H-149-91
 SECTIONS 4 & 5, T149N, R91W, 5th P.M.
 DUNN COUNTY, NORTH DAKOTA



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP 06 20 11
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: S.F. REVISED: 08-02-11



Notice of Availability and Appeal Rights

Arrow Pipeline: Addendum to Environmental Assessment to Authorize Land Use for
Gathering Pipelines Connecting the MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the MHA #1-06-01H-149-92
& #2-06-01H-149-92 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 MHA #2-04-03H-149-91 & #4-04-03H-149-91 Well to the MHA #1-06-01H-149-92 & #2-06-01H-149-92 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 December 3, 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

