



***Finding of No Significant Impact***

***Arrow Pipeline, LLC  
Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System***

***Addendum to:  
Environmental Assessment and Finding of No Significant Impact: Arrow Midstream Holdings, LLC, Oil,  
Gas, and Water Gathering System Phase 1B - South (BIA 12 - 14) (March 2010).  
Fort Berthold Indian Reservation  
Dunn County, North Dakota***

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to the above referenced Environmental Assessment (EA). The proposal is to authorize land use by Arrow Pipeline, LLC (Arrow) for the construction of the Station #3-Phase 1B South Compressor and Pump Station (station) and associated access road. The station would support the existing Phase 1B South pipeline system and associated lateral pipelines on the Fort Berthold Indian Reservation by compressing natural gas and pumping crude oil. The station would subsequently facilitate the transport of increasing natural gas liquids and crude oil volumes to market. Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources for developments on tribal lands.

The potential of the proposed actions to impact the human environment is analyzed in the attached addendum to an existing EA, as required by the National Environmental Policy Act. Based on the recently completed addendum to the EA, I have determined that the proposed project will not significantly affect the quality of the human environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed actions and the No Action alternative.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.).
4. The proposed actions are designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed projects will improve the socio-economic condition of the affected Indian community.

  
\_\_\_\_\_  
ACTING Regional Director

2-23-2012  
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 the Construction of  
a Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System**

**Fort Berthold Indian Reservation**

**February 2012**

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

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## **1. Purpose and Need for the Proposed Action**

The purpose of the proposed action is to authorize land use by Arrow Pipeline, LLC (Arrow) for the construction of the Station #3-Phase 1B South Compressor and Pump Station (station) and associated access road. The station would support the existing Phase 1B South pipeline system and associated lateral pipelines on the Fort Berthold Indian Reservation by compressing natural gas and pumping crude oil. The station would subsequently facilitate the transport of increasing natural gas liquids and crude oil volumes to market. This development has 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 Nation 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 proposed station and access road are located approximately 4 miles east of Mandaree, North Dakota, adjacent to BIA Road 10, in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 16, Township (T) 149 North (N), Range (R) 93 West (W), Dunn County, North Dakota.

## **4. Scope of Work for Proposed Action**

Arrow has proposed to construct the station in order to compress and propel gathered natural gas liquids and pump crude oil to market. The station would be powered by self-contained engines that run continuously on collected natural gas and monitored through the use of a Supervisory Control and Data Acquisition (SCADA) system, as well as daily visits by Arrow personnel. Natural gas temperatures would be reduced through the use of air coolers. In total, construction of the proposed station would impact approximately 5.33 acres.

As proposed, the access road would be constructed within a 66-foot-wide right-of-way (ROW) and trend due west from BIA Road 10 for approximately 82 feet before entering the proposed station. In total, the access road would impact approximately 0.124 acre.

## **5. Resource Surveys**

SWCA Environmental Consultants (SWCA) conducted natural resource surveys for threatened and endangered species and habitat, migratory birds and nesting habitat, bald and golden eagles including nests, and wetlands for the station and access road on November 3 and 4, 2011. BIA Environmental Specialist Chris McLaughlin approved the proposed location on November 4, 2011. No common wildlife, threatened and endangered species, bald/golden eagle individuals or nests, or wetlands were observed during the natural resource surveys.

Herbaceous upland plant species observed within the project area included smooth brome (*Bromus inermis*), crested wheatgrass (*Agropyron cristatum*), and alfalfa (*Medicago sativa*). The project area is likely used for agricultural production including livestock grazing.

A cultural resource inventory of this compressor station site was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 7.7 acres were inventoried on November 3, 2011 (Schleicher 2012). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of no historic properties affected for this undertaking. This determination was communicated to the THPO on January 18, 2012; however the THPO did not respond within the allotted 30 day comment period.

Schleicher, Jolene

(2012) A Class I and Class III Cultural Resources Inventory of the Arrow Phase 1B South Compressor Station and Access Road, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

## **6. 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. Arrow will utilize a SCADA system to remotely monitor conditions at the station and will use a qualified individual to conduct a once daily check of conditions throughout the life of the facility.

## **7. 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. However, no cultural resources were recorded within the surveyed area.

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. Arrow commits to beginning the reclamation process no later than 6 months after construction activities are completed.

Potential indirect impacts include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated by avoiding any federally listed threatened or endangered species or wetlands, avoiding nesting migratory birds, implementing best management practices to control the introduction of noxious weeds, and minimizing the length of time between construction and reclamation. These mitigation measures are consistent with the approved National Environmental Policy Act (NEPA) document, which received a finding of no significant impact (March 2010).

## **8. Reclamation**

### **Interim Reclamation**

Reclamation would continue over the life of the station and would include the return of topsoil, and contouring and seeding of native vegetation. Initial reclamation would be required 6 months after construction, if environmentally feasible, and then following any maintenance work or additions of infrastructure. Reclamation would be required before final abandonment of the decommissioned station. A successful reclamation would at all times be the responsibility of the operator.

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the station 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 disturbed area outside of the working station would be covered with stockpiled topsoil and seeded 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 would deploy approved weed-free hay across the entire ROW. The presence of hay across the ROW would reduce the potential for excessive erosion as a result of spring snow melt and precipitation.

The entire ROW would be monitored for erosion, subsidence, and 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 access road ROW and compressor station, 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 station 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.

## **9. Applicable NEPA Document**

*Environmental Assessment and Finding of No Significant Impact: Arrow Midstream Holdings, LLC, Oil, Gas, and Water Gathering System Phase 1B - South (BIA 12 – 14)* (March 2010).

## **10. NEPA Adequacy Criteria**

This document has identified the above-mentioned previously prepared NEPA document, which adequately describes the environmental consequences of the newly proposed action described herein, and meets the following NEPA Adequacy Criteria.

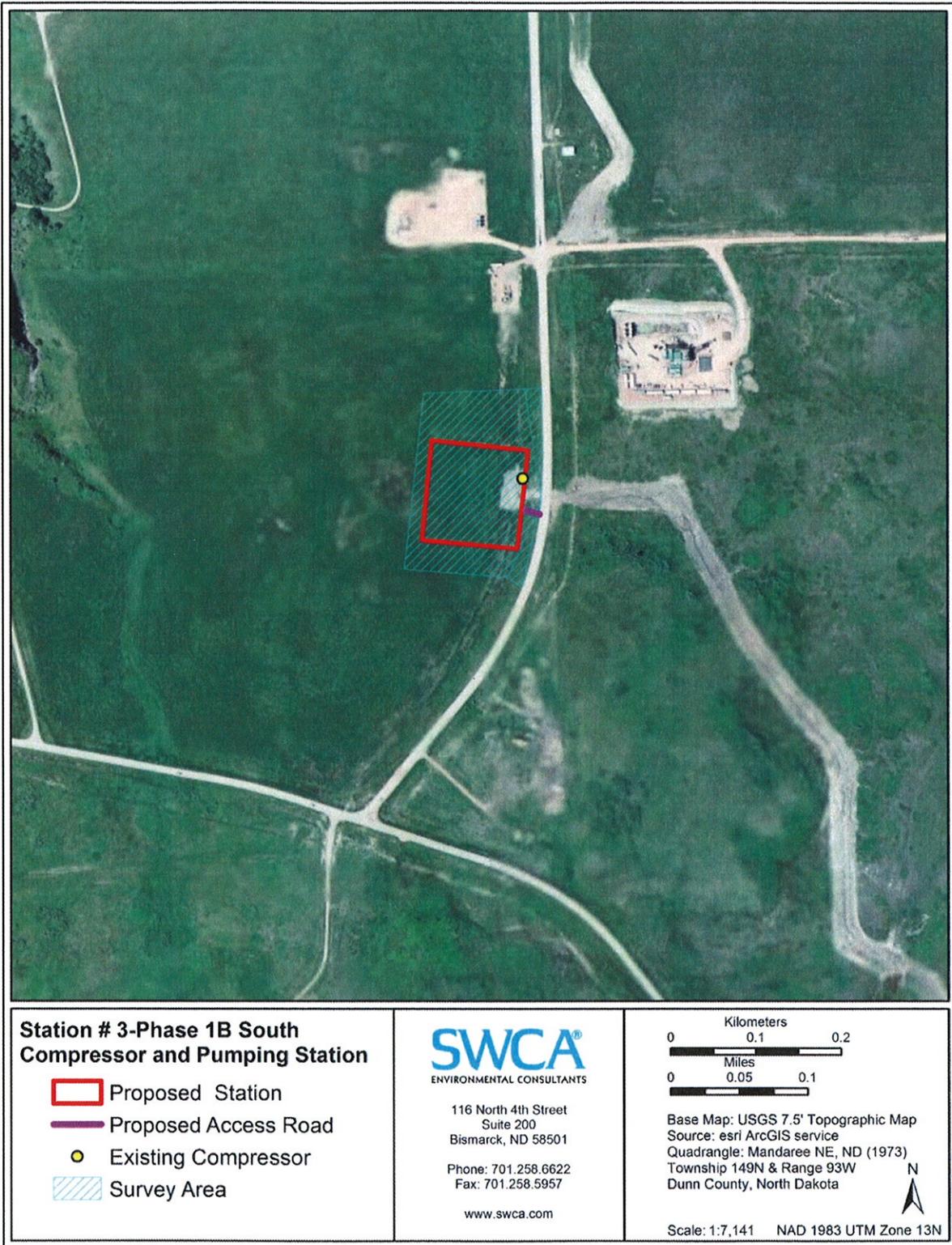
1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA document.
2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental 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.

*Addendum to Environmental Assessment to Authorize Land Use for the Construction of a Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System*  
*(February 2012)*

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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 the Construction of a Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System  
(February 2012)*



**Figure 1. Proposed Arrow Station #3-Phase 1B South Compressor and Pump Station Location.**

*Addendum to Environmental Assessment to Authorize Land Use for the Construction of a Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System  
(February 2012)*



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

JAN 18 2012

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

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of two proposed compressor stations in Dunn and McKenzie Counties, North Dakota. Approximately 47.14 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 that 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-2059/FB/12**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Schleicher, Jolene

(2012a) A Class I and Class III Cultural Resources Inventory of the Arrow Phase 1B South Compressor Station and Access Road, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

(2012b) A Class I and Class III Cultural Resources Inventory of the Arrow Phase 1A Compressor Station and Access Road, Fort Berthold Indian Reservation, McKenzie 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

Enclosure

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

**APPENDIX A**

**Right-of-Way for Arrow Station #3-Phase 1B South Pipeline System  
Compressor and Pump Station**

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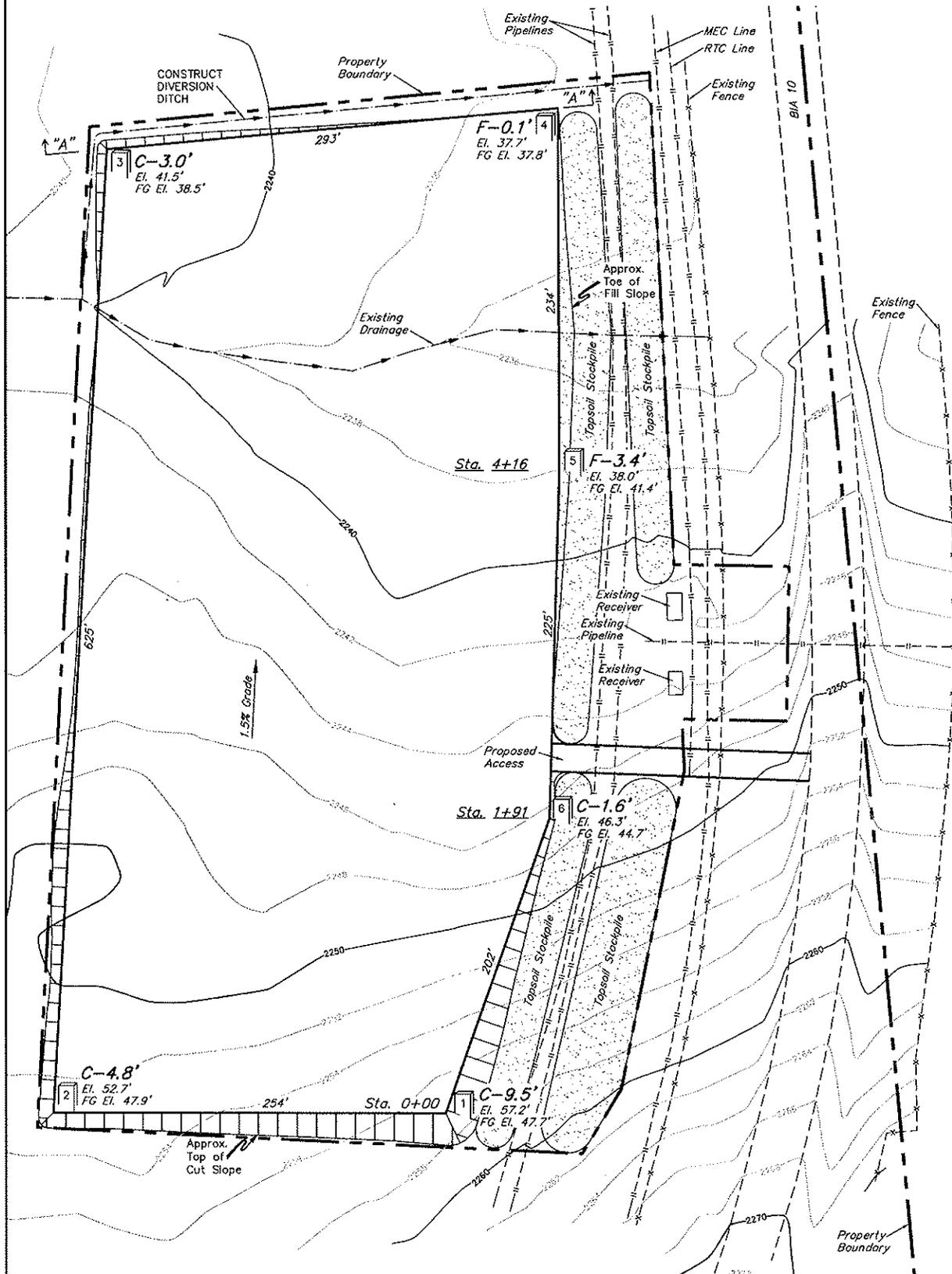
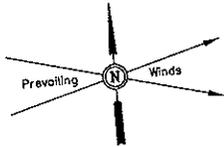
ARROW PIPELINE, LLC

PAD LAYOUT FOR

STATION #3: PHASE 1B SOUTH  
SECTION 16, T149N, R93W, 5th P.M.  
NE 1/4 NW 1/4

FIGURE #1

SCALE: 1" = 60'  
DATE: 01-26-12  
DRAWN BY: S.B.



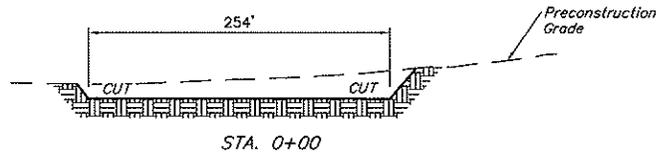
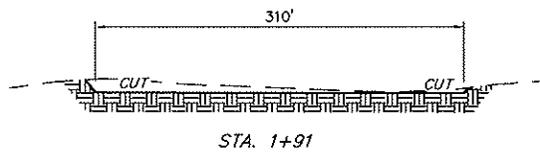
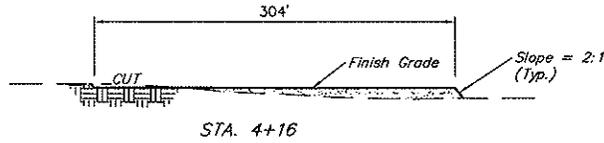
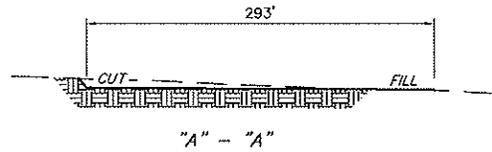
NOTE:  
PIPELINES SHOWN ARE  
AN APPROXIMATE LOCATION

FINISHED GRADE ELEV. AT CORNER #1 = 2247.7'

1" = 40'  
 X-Section  
 Scale  
 1" = 100'  
 DATE: 01-26-12  
 DRAWN BY: S.B.

ARROW PIPELINE, LLC  
 TYPICAL CROSS SECTIONS FOR  
 STATION #3: PHASE 1B SOUTH  
 SECTION 16, T149N, R93W, 5th P.M.  
 NE 1/4 NW 1/4

FIGURE #2



APPROXIMATE ACREAGES  
 SITE DISTURBANCE = ± 5.330 ACRES  
 ACCESS ROAD DISTURBANCE = ± 0.124 ACRES  
 TOTAL = ± 5.454 ACRES

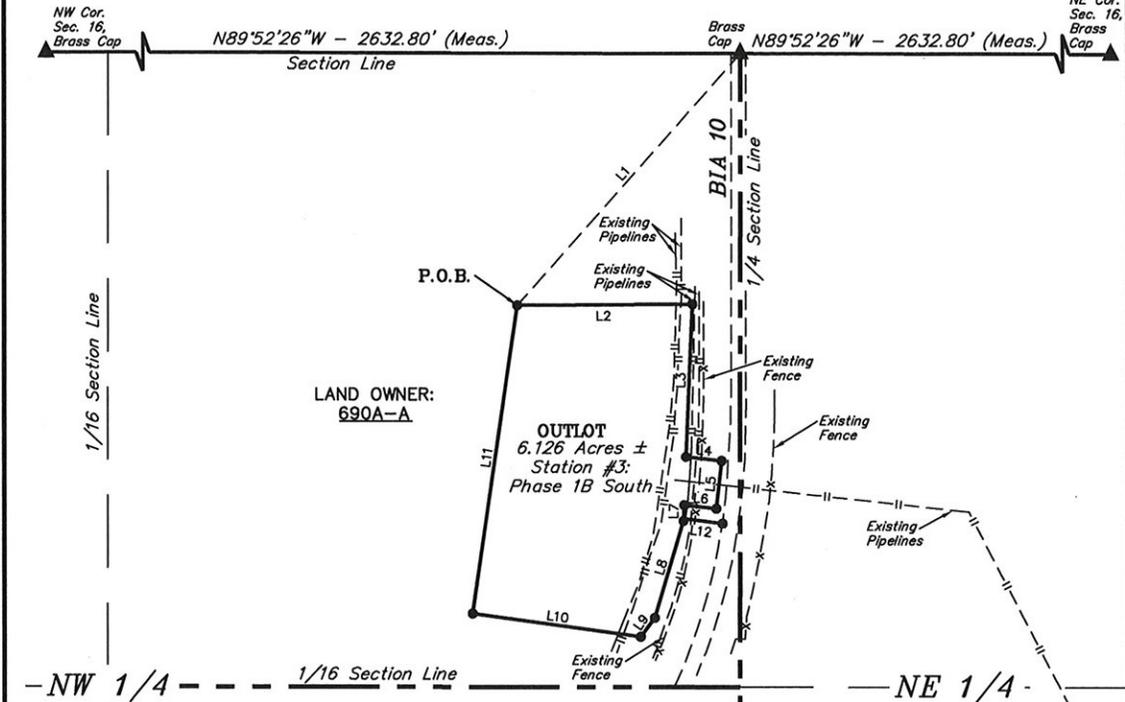
\* NOTE:  
 FILL QUANTITY INCLUDES  
 30% FOR COMPACTION

APPROXIMATE YARDAGES

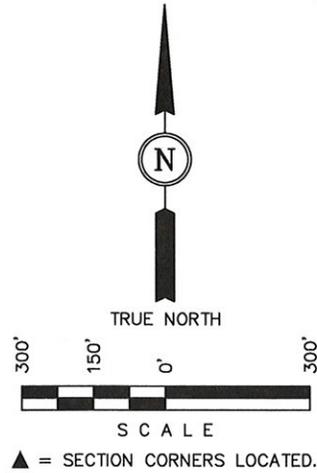
(6") Topsoil Stripping	= 3,730 Cu. Yds.	EXCESS MATERIAL	= 3,730 Cu. Yds.
Location Cut	= 9,540 Cu. Yds.	Topsoil	= 3,730 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 13,270 CU.YDS.</b>	EXCESS UNBALANCE	= 0 Cu. Yds.
<b>FILL</b>	<b>= 9,540 CU.YDS.</b>	(After Interim Rehabilitation)	

**PLAT OF OUTLOT**

NE 1/4 NW 1/4 OF SECTION 16,  
T149N, R93W, 5th P.M.  
DUNN COUNTY, NORTH DAKOTA



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S41°34'59\"W	699.77'
L2	N89°40'06\"E	363.86'
L3	S02°25'52\"W	318.42'
L4	S83°43'28\"E	74.46'
L5	S06°16'32\"W	100.00'
L6	N83°43'28\"W	67.74'
L7	S02°25'52\"W	33.14'
L8	S16°31'28\"W	210.32'
L9	S36°43'23\"W	49.16'
L10	N82°04'08\"W	352.41'
L11	N08°17'46\"E	648.47'
L12	S82°34'46\"E	82.03'



**Sec. 16**

**CERTIFICATE**

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



*Troy Jensen*

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 4654  
STATE OF NORTH DAKOTA

**OUTLOT DESCRIPTION**

A PARCEL OF LAND IN THE NE 1/4 NW 1/4 OF SECTION 16, T149N, R93W, 5th P.M. DESCRIBED AS FOLLOWS: BEGINNING AT A POINT THAT BEARS S41°34'59\"W 699.77' FROM THE NORTH 1/4 CORNER OF SAID SECTION 16, THENCE N89°40'06\"E 363.86'; THENCE S02°25'52\"W 318.42'; THENCE S83°43'28\"E 74.46'; THENCE S06°16'32\"W 100.00'; THENCE N83°43'28\"W 67.74'; THENCE S02°25'52\"W 33.14'; THENCE S16°31'28\"W 210.32'; THENCE S36°43'23\"W 49.16'; THENCE N82°04'08\"W 352.41'; THENCE N08°17'46\"E 648.47' TO THE POINT OF BEGINNING. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 6.126 ACRES MORE OR LESS.

DATE: 01-26-12 S.B.  
ARROW PIPELINE, LLC

# **Notice of Availability and Appeal Rights**

Arrow Pipeline, LLC

Compressor and Pump Station on the Existing Arrow Phase 1B South Pipeline System

**The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to land use by Arrow Pipeline, LLC (Arrow) for the construction of the Station #3-Phase 1B South Compressor and Pump Station (station) and associated access road. The station would support the existing Phase 1B South pipeline system and associated lateral pipelines on the Fort Berthold Indian Reservation as shown on the attached map. Construction by Arrow Pipeline, LLC (Arrow) is expected to begin in 2012.**

**An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 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 March 23, 2012, by contacting:**

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

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

**Project locations.**



**Station # 3-Phase 1B South  
Compressor and Pumping Station**

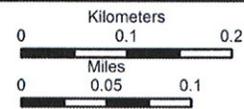
-  Proposed Station
-  Proposed Access Road
-  Existing Compressor
-  Survey Area



116 North 4th Street  
Suite 200  
Bismarck, ND 58501

Phone: 701.258.6622  
Fax: 701.258.5957

[www.swca.com](http://www.swca.com)



Base Map: USGS 7.5' Topographic Map  
Source: esri ArcGIS service  
Quadrangle: Mandaree NE, ND (1973)  
Township 149N & Range 93W  
Dunn County, North Dakota



Scale: 1:7,141 NAD 1983 UTM Zone 13N