



Final Reclamation & Revegetation Report

Bakken Oil Express
Reroute of Dickinson Bypass Pipeline
Section 23 & 26, T140N R97W, 5th PM
Stark County, North Dakota

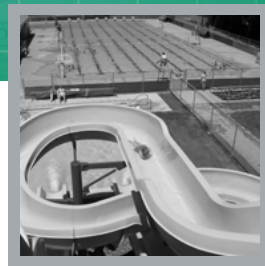
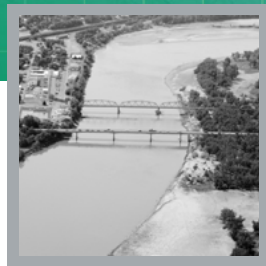
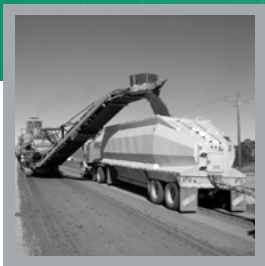


Prepared By:

INTERSTATE
ENGINEERING

(Project No. E16-00-075)
June 2017

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1. EXECUTIVE SUMMARY

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission (Commission) to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of the citizens of North Dakota. Commission construction and post-construction inspections ensure that energy projects are constructed in compliance with the siting laws (North Dakota Century Code Chapter 49-22), rules (North Dakota Administrative Code Article 69-06) and applicable Commission Orders.

The Commission retained Interstate Engineering, Inc. (Interstate) to complete construction inspections of the Bakken Oil Express, LLC (BOE) Dickinson Bypass Pipeline Reroute Project (Project), Case No. PU-16-95, which was under construction in Stark County, North Dakota. The Project involves the construction of approximately 0.7 miles of 16-inch outside diameter pipeline and associated facilities for the transmission of crude oil.

Construction of the Project commenced on May 17, 2016. Interstate conducted the Reclamation and Revegetation Inspection in September and October of 2016. Interstate prepared this report to document the Projects Reclamation and Revegetation as to provide a summary of compliance with the Commission Orders.

2. RECLAMATION & REVEGETATION INSPECTION (REVISED JUNE 2017)

The purpose of the Reclamation and Revegetation Inspection was to observe the restoration phase of the project and to verify that topsoil has been properly replaced, seeded and revegetated. The inspection occurred after the topsoil had been placed, the area seeded and the planted area had significant time for growth, in accordance with the Certification Relating to Order Provisions for Case PU-16-95 on May 30, 2017. The inspector took photographs of the site and are included in Appendix B. Note the pipeline is marked by the yellow flags shown on the photos, from the October 2016 report.

As the photographs show and the inspector observed, the topsoil had been replaced, graded, seeded. Straw cover was spread, the seed had sprouted, and the grass had significant growth. This project had some overlap onto the NDDOT bypass reroute project, which appears to have been reclaimed nearly at the same time. There were some thin spots. However even in these areas the grass was well rooted. From about 3+50 (photos 1, 2, and 3) the pipeline exited the NDDOT project right of way and entered private land, which is used for animal grazing. This area had good root growth. Due to the animal grazing, the vegetation was struggling along the edges. Near 11+00 (photo 4) there is a drainage crossing, which appears to have had effective erosion control installed and revegetated nicely, despite grazing. Photographs 5, 6, 7, 8, and 9 show the effects of grazing on the previously planted area. However, there appears to be good root penetration. Near station 29+00 (photos 10, 11, 12 and 13) the pipeline crosses a county road, which is a part of the NDDOT reroute. Near the end of the project, the pipeline enters private land, which is also used for grazing, though not as intensely.

3. CONCLUSION (REVISED JUNE 2017)

Overall, reclamation and revegetation activities appear to be satisfactory, and the inspector determined that the reclamation and revegetation in compliance with the Commission's Order.

4. SIGNATURE (REVISED JUNE 2017)

Observations and findings contained in this report are based on available information, daily field reports and photographs in a generally accepted technically practice at the present time.

Project Manager Robert L. Procive, PLS, West Central Region Vice President.

Robert L. Procive, PLS, West Central Region Vice President
Interstate Engineering, Inc.

Date

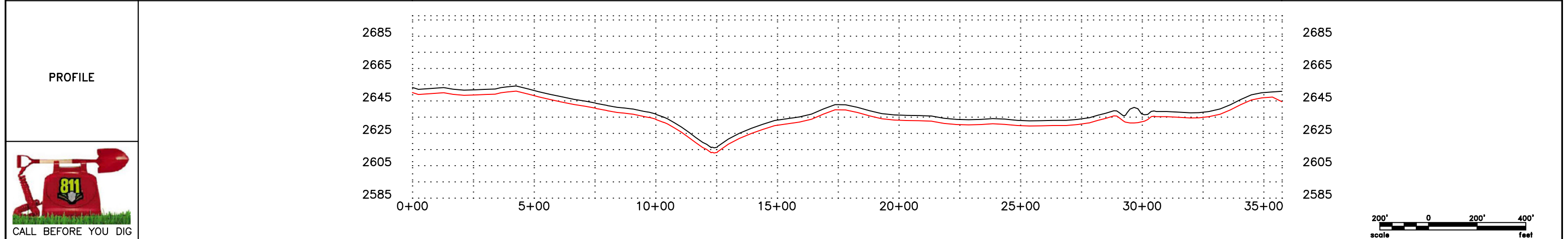
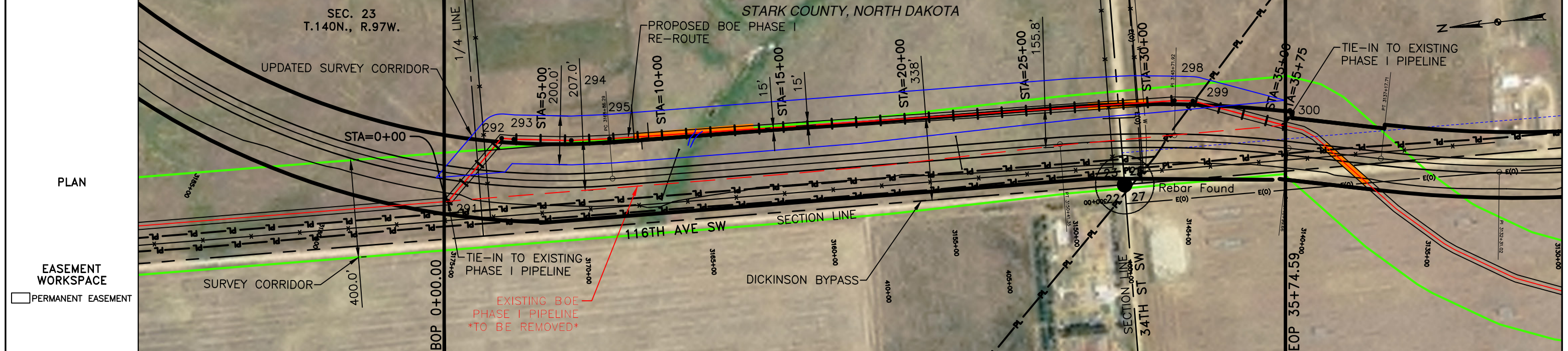


■ APPENDIX A

Map

OWNERSHIP: STATE OF NORTH DAKOTA (NW1/4, SW1/4 & SE1/4, 2879.91 FEET, 174.54 RODS); ARTHUR S RIDL, ETAL (NW1/4, 694.68 FEET, 42.10 RODS)

STATIONING: 0+00.00 BEGN STA, 1+89.13 1/4 LINE, 2+37.32 EXISTING FENCE, 3+39.62 P.I. - 540'x50' RT., 3+69.93 P.I. - 321'x23' LT., 5+26.16 P.I. - 338'x22' LT., 7+83.78 P.I. - 137'x0' LT., 8+87.29 BEGN BORE, 9+44.38 EXISTING FENCE, 13+76.11 END BORE, 27+55.45 BEGN BORE, 28+39.21 EXISTING FENCE, 28+79.91 SECTION LINE, 29+55.09 OVERHEAD POWER LINES, 29+60.81 EXISTING FENCE, 29+84.32 EXISTING UNDERGROUND WATERLINE, 31+11.39 P.I. - 743'x15' RT., 31+87.68 P.I. - 1378'x15' RT., 31+93.09 EXISTING PIPELINE, 35+74.59 END STA



LEGEND

—	PROPERTY LINE	—	BARBED WIRE FENCE	—	EROSION/SEDIMENT CONTROL BMP
- - -	SECTION LINE	—	FIBER OPTIC COM. LINE	—	AVOIDANCE AREA
- - -	EASEMENT LINE	—	RAILROAD	—	WETLAND EASEMENT
- - -	PIPELINE CENTERLINE	—	OVERHEAD ELECTRIC	—	TEST LEAD
—	WATER LINE	—	UTILITY POLE	—	VALVE SETTING
—	FOREIGN PIPELINE	—	PROPOSED BORE		
—	EXISTING ROAD	—	MARKER POST		
—	UNDERGROUND COM. LINE				

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	2844'	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	736'	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE, 30-35 MIL ARO
T1	1	TYPE-1

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION	NO.	DATE

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'

DRAWN BY: A. ROMANN
DATE: 4/5/2016
CHECKED BY: D. DIONNE
APPROVED BY: S. BESMER
KLJ JOB NUMBER: 1715137
REVISION: SHEET: 41

BOE (Bakken Oil Express) **BAKKEN OIL EXPRESS PIPELINE**

BOE PIPELINE PHASE I
SECTIONS 23, 26 & 27, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
4585 Coleman Street
Bismarck, ND 58503

■ APPENDIX B

Photographs

Revised June 2017

Pictures 1-13

May 30

Pictures taken: May 30, 2017



Photo 1:



Photo 2:

Pictures taken: May 30, 2017



Photo 3:



Photo 4:

Pictures taken: May 30, 2017



Photo 5:



Photo 6:

Pictures taken: May 30, 2017



Photo 7:



Photo 8:

Pictures taken: May 30, 2017



Photo 9:



Photo 10:

Pictures taken: May 30, 2017



Photo 11:

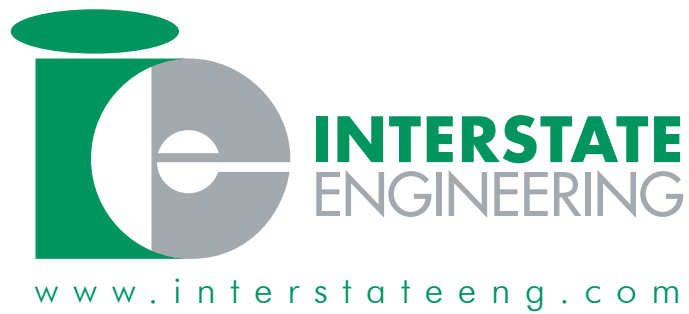


Photo 12:

Pictures taken: May 30, 2017



Photo 13:



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