

# ONEOK Bakken Pipeline, L.L.C. Targa Lateral Pipeline Project Post-Construction Inspection Report PU-14-254



Prepared for:  
**North Dakota Public Service  
Commission**

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# 1.0 Executive Summary

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The North Dakota Public Service Commission (PSC) retained Wenck Associates, Inc. (Wenck) to complete a construction inspection of the The ONEOK Bakken Pipeline, Targa Lateral Pipeline (Project) in McKenzie County, North Dakota (ND), constructed by ONEOK Bakken Pipeline, LLC. Construction for the Project was completed in June 2015. Wenck reviewed all Project documents to identify those aspects that required compliance, and visually inspected the Project area on 7 July 2015.

The Project was well-maintained and appeared to have been constructed as planned with numerous efforts to minimize impacts. However, there were several non-critical issues that may need to be resolved for the Project to be considered complete and in full compliance, including 1) written verification of some items, in particular, documentation of as-built drawings, specifications, and associated GIS files; 2) documentation of Letter of Intent; 3) vegetation establishment at the east end of the project near the pig launcher. Follow-up actions taken by ONEOK to address these issues can be corroborated in writing or photos and will not require a subsequent site visit. Wenck recommends the PSC take the following steps to resolve these issues.

## **Recommended Action Steps**

### **→ Review Internally, Clarify, Then Request if Needed**

- Several items may need written verification, but the PSC should review since some may not be needed or may be best verified in some other way (refer to list in Section 4.1).

### **→ Expect Later, Request if Needed**

- Documentation of satisfactory establishment of vegetation establishment at the east end of the project near Highway 85. Soil amendments or re-seeding may be necessary if former land uses cannot be attained in the next couple years.
- As-built drawings, specifications, and associated GIS files.
- Documentation of Letter of Intent.

## 2.0 Background and Scope

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### 2.1 INTRODUCTION

The ONEOK Bakken Pipeline, Targa Lateral Pipeline (Project) originates at the Targa Resources LLC's Little Missouri Plant (TLMP) in McKenzie County, North Dakota, and terminates at an interconnect with ONEOK's existing Garden Creek Pipeline (GCP) in Arnegard, North Dakota. The Project was constructed by ONEOK Bakken Pipeline, LLC (ONEOK). The Project includes an 8-inch diameter underground pipeline with a total length of approximately 10.8 miles. The Project is under the jurisdiction of the North Dakota Public Service Commission (PSC), which issued its Findings of Fact, Conclusions of Law, and Order in Case No. PU-14-254 on 16 October, 2014, granting a Certificate of Corridor Compatibility No. 158 and Route Permit No. 170 for the Project.

### 2.2 PURPOSE

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service 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 citizens of North Dakota. Post-construction inspections ensure that such projects are constructed in compliance with the siting laws (North Dakota Century Code Chapter 49-22) and rules (North Dakota Administrative Code Article 69-06) and the applicable Commission Findings of Fact, Conclusions of Law, and Order (Order). The North Dakota PSC retained Wenck Associates, Inc. (Wenck) to complete a construction inspection of the Project.

### 2.3 METHODS AND SCOPE OF INSPECTION

#### 2.3.1 Project Compliance Items Identified

Wenck identified a list of "Project Specifications," which ONEOK is obligated or responsible to follow and that can be verified either in written documentation or by an on-site inspection. These items were taken from 1) siting laws and rules, 2) Project activities or specifications proposed in the Application for a Certificate of Corridor Compatibility and Route Permit (Application), 3) Project plans described in the Findings of Fact, 4) Orders, and 5) recommendations by other agencies. These Project specifications are listed in Table 2.1 under 7 categories: Siting & Location; Project Design & Engineering; Pre-Construction; Cultural Resources; Natural Resources; Construction, Reclamation & Soils; and Operation.

#### 2.3.2 Document Review

Wenck staff reviewed publicly-available Project documents in the PSC Online Case Search (ND PSC, 2015) to find written verification of compliance for the Project specifications listed in Table 2.1. If written verification was filed, the findings are described in Section 3, and the source and name of the documentation are listed in Table 2.1, Column 3 (Written Verification). Shaded boxes in the table represent Project specifications that are potentially non-compliant because they have no written verification.

#### 2.3.3 On-Site Inspection

Luke Nelson, Wenck project engineer, visited the Project site on 7 July 2015. A representative from ONEOK Bakken Pipeline, Tim Swan, accompanied Wenck staff during the site visit.

The site was inspected visually by driving to access points and walking within the Project area at those points. Digital photographs (Canon Power Shot SD1300 IS, 12 megapixel) were taken showing typical Project infrastructure and documenting problem areas (**Appendix A**). Geographic coordinates were recorded at observation points or potential problem areas using a handheld Global Positioning System (GPS) (Garmin GPSMAP 60CSx; <10m accuracy; NAD83 datum) (**Appendix B**).

If on-site inspection of a Project specification was completed, the findings are described in Section 3 and referenced in Table 2.1, Column 4 (Site Verification). Shaded boxes in the table represent Project specifications that are potentially non-compliant based on site verification.

**Table 2-1: Project Specifications with Written or Site Verification Information**

Source of Project Specification	Description of Project Specification	Written Verification*	Site Verification*
<b>SITING &amp; LOCATION</b>			
Corridor and Route App. pp. 1; Findings of Fact 3	Originates at the Targa Resources LLC’s Little Missouri Plant (TLMP) in McKenzie County, North Dakota, and terminates at an interconnect with ONEOK’s existing Garden Creek Pipeline (GCP) in Arnegard, North Dakota.	None	Section 3.1.1
ND Admin. Code Article 69-06-08; Corridor p. 11 and Route App. p. 10; Findings of Fact 11, 13, 17	Siting Criteria analysis – exclusion, avoidance, selection, and policy. No exclusion or avoidance areas within study area. No impacts to Selection Criteria. Meets Policy Criteria.	Docket #1, Appendix B, Project Maps	Section 3.1.2
Corridor and Route App. pp. 18	Construction of the Project will impact about 96 acres of prime farmlands.	None	Section 3.1.3
Findings of Fact 16	Areas within 500ft of inhabited rural residence must be designated avoidance areas.	Docket #1, Appendix B, Project Maps	Section 3.1.4
ND State Land Dept. (04-06-11); NDGF (04-26-2011); NDPR (filed 10-24-2011)	No state trust surface or mineral ownership within study area. No PLOTS lands in or adjacent to corridor. No state parks or NDPR-managed lands.	Docket #1, Appendix C, Agency Notifications, ND State Lands-School Trust Lands and ND State Lands-Mineral Trust Lands	Section 3.1.5
<b>PROJECT DESIGN &amp; ENGINEERING</b>			
Corridor and Route App. pp. 2; Findings of Fact 3, 4; Order 2, 3	Authorized 10.8 miles of steel 8-inch diameter underground pipeline, pipeline markers, rectifiers, and block valves. Maximum operating pressure of 1,440 pounds per square inch with a capacity of 16,000 barrels per day.	Docket #1, Engineering Documents, Overall Site Layout	Section 3.2.1
Corridor and Route App. pp. 3	The Project will be constructed utilizing a typical 75-foot construction ROW. ONEOK maintains a typical 50-foot ROW along the entire length of the project.	Docket #1, Appendix A, Attachment A	Section 3.2.2
Corridor and Route App. p.2	Design, construction, and operation in compliance with US DOT 49 CFR Part 195.	None	N/A

Source of Project Specification	Description of Project Specification	Written Verification*	Site Verification*
Certification 29	Provide engineering design drawings prior to construction upon request.	Docket #1, Engineering Documents, Overall Site Layout	Section 3.2.4
Certification 31	Provide electronic and paper as-built design specifications and associated GIS files within 3 months after construction complete.	None	N/A
<b>PRE-CONSTRUCTION</b>			
ND Century Code Ch. 49-22-07.1; ND Admin. Code Article 69-06-03	Letter of Intent.	None	N/A
ND Century Code Ch. 49-22-08; ND Admin. Code Article 69-06-04	Application for a Certificate of Site or Corridor Compatibility and Route Permit.	Docket #1, Application for Certificate of Corridor Compatibility and Route Permit	N/A
ND Century Code Ch. 49-22-07	Certificate of Site Compatibility or Route Permit.	Docket #26, Findings of Fact, Conclusions of Law and Order	N/A
ND Century Code Ch. 49-22-04; ND Admin. Code Article 69-06-02	Ten-year Plan (submit before July 1).	Docket #1, Appendix F, 10-Year Plan	N/A
Certification 2	Conduct Pre-construction Conference. Provide notice of intent to start construction.	Docket #31, Meeting Minutes	N/A
Certification 30	Inform Commission of plans to modify facility and obtain approval. Any facilities not included in current Application must be applied for in a separate Route or Site Permit.	Docket #40, Certification and documentation for route adjustments under NDCC 49-22-16.3	N/A

Source of Project Specification	Description of Project Specification	Written Verification*	Site Verification*
Certification 3	Compliance with rules and regulations of other jurisdictional agencies. Obtain permits and approvals from other agencies and provide copies prior to applicable permitted activity.	Docket #1, Appendix C, Agency Notifications	N/A
Certification 34, 35	Participate in ND One-Call Excavation Notice System.	None.	Section 3.3.5
<b>CULTURAL RESOURCES</b>			
Corridor and Route App. pp. 14; Findings of Fact 13, 14, 15, 17, 18	Cultural resource sites determined ineligible for National Register of Historic Places. Complete Class III cultural resources survey of corridor. SHPO concurrence provided with Application. No avoidance or mitigation necessary.	Docket #19, Letter enclosing SHPO concurrence letter	Section 3.4.1
Findings of Fact 18; Certification 11, 12	Submit cultural resource mitigation plans to SHPO prior to construction for approval. Report discovery of cultural, archeological, historic, etc. sites and stop construction, consult SHPO for clearance, and file report to PSC.	Docket #1, Appendix C, Agency Notifications, State Historic and Preservation Office	N/A
<b>NATURAL RESOURCES</b>			
Corridor App. p.5 and Route App. p. 7; USFWS (04-20-2011)	Expect temporary displacement of wildlife due to clearing and construction, but no significant impacts. No impacts expected to T+E or sensitive species. Project construction to occur outside migratory season for whooping cranes and outside the nesting season for bald and golden eagles and other migratory birds. Will comply with USFWS recommendations for minimizing wildlife impacts.	Docket #1, Appendix C, Agency Notifications, U.S. Fish and Wildlife Service and North Dakota Game and Fish Department	Section 3.5.1
Corridor App. p. 5; Route App. p. 6; USFWS (04-20-2011); NDGF (04-26-2011)	No permanent impacts to wetlands or waterbodies are anticipated. Spill control, erosion and sediment controls, and other specific construction measures will be used through wetlands, according to permit. USFWS recommends impacts to wetlands and streams be minimized by workspace modification, narrowing ROW, horizontal drilling, and/or use of Best Management Practices (BMPs). NDGF recommends erosion control, no drainage	Docket #1, Appendix D, Natural Resource Report; Docket #1, Appendix C, Agency Notifications, U.S. Fish and Wildlife Service and North Dakota Game and Fish Department	Section 3.5.2

Source of Project Specification	Description of Project Specification	Written Verification*	Site Verification*
	alteration.		
Corridor App. p.5 and Route App. P. 7; Certification 10; USFWS (04-20-2011)	Report presence of T+E species, bald or golden eagles during construction and operation. USFWS: Project is within whooping crane migration corridor; stop work if one is sighted during construction and notify USFWS.	None reported to date	N/A
Corridor App. p. 8-9, 13; Route App. p. 13, 23, 27; Certification 17; USFWS (04-20-2011)	Reclamation, fertilization, and reseeding according to NRCS (or landowner, if approved). Mulch and erosion control fabric will be applied according to desires of landowner. USFWS request: reseed with grass/forb mixture of native species from local seed sources.	Docket #1, Appendix C, Agency Notifications, U.S. Fish and Wildlife Service and North Dakota Game and Fish Department	Section 3.5.4
Corridor and Route App. pp. 23; Findings of Fact 23; Certification 20	Shrubland avoided to extent practicable. Tree and shrub removal and replacement will comply with "Tree and Shrub Mitigation Specifications."	Docket #1, Appendix D, Natural Resource Report	Section 3.5.5
	<b>CONSTRUCTION, RECLAMATION &amp; SOILS</b>		
Findings of Fact 24; Certification 5, 15	Environmental monitors and inspectors utilized during construction. Construct and operate in accordance with Application and safety requirements. Construction suspended during adverse weather conditions. Provide weekly construction reports.	Docket #35, 41, 43-51, Weekly Construction Reports	N/A
Certification 6	Pipeline buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in range land, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines.	None	Section 3.6.2
Route and Corridor App. pp. 9, 23, 27-28	Soil erosion minimized by use of BMPs during and after construction to protect surface water and soils/topsoils.	None	Section 3.6.3

Source of Project Specification	Description of Project Specification	Written Verification*	Site Verification*
Route and Corridor App. pp. 26-31; Certification 16	Topsoil and subsoil must be segregated and replaced separately. No staging areas on land of other ownership. Rocks (> 3in diameter) will be removed from cultivated lands post-construction. Topsoil will be removed and replaced to maximum depth of 12 inches.	None	<i>Section 3.6.4</i>
Route and Corridor App. pp. 32; Certification 13, 14, 18, 25	Temporarily disturbed areas and roads will be restored. Pre-existing roads restored to satisfactory condition. Restoration of area to pre-construction contours as soon as practicable upon completion of construction. ROW will be de-compacted per landowner request. Reclamation and maintenance throughout life of facility. All crossings of graded roads will be bored.	None	<i>Section 3.6.5</i>
Corridor and Route App. pp. 26; Certification 21, 22, 24	Temporary fences and gates will be installed as necessary. Repair/replace all damaged fences ,gates, and drain tile. Waste removed and disposed regularly. Disturbed areas are to be fenced in until seeding is completed.	None	<i>Section 3.6.7</i>
<b>OPERATION</b>			
Corridor and Route App. pp. 20; Certification 9, 27	Construct and operate in accordance with Application and safety requirements. Maintain records of compliance with Order and Certificate of Site Compatibility. Extraordinary events (e.g. injuries, T+E wildlife fatalities) reported within 5 business days.	None reported to date	<i>Section 3.7.1</i>
Corridor and Route App. pp. 26; Certification 18, 24	Reclamation and maintenance throughout life of facility. Waste removed & disposed regularly.	None	<i>Section 3.7.2</i>
Findings of Fact 20	Company's existing Emergency Action Plan will include the Project.	None	<i>Section 3.7.3</i>

**\*Note: Shaded boxes represent non-compliance or potential non-compliance issues.**

## 3.0 Findings

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### 3.1 SITING & LOCATION OF FACILITY

#### 3.1.1 Designated Location & Maps of Corridor

The Project was built as proposed in the designated location described in the Application and Order in McKenzie County, originating at the Targa Resources LLC's Little Missouri Plant (TLMP) in McKenzie County, North Dakota, and terminates at an interconnect with ONEOK's existing Garden Creek Pipeline (GCP) in Arnegard, North Dakota.

#### 3.1.2 Siting Criteria

Siting criteria were analyzed in detail in the Applications for the Project (Docket #1). Wenck confirmed during the site inspection that there were no exclusion or avoidance areas within the Project area. Wenck also confirmed that impacts to selection and policy criteria were considered and kept at a minimum.

#### 3.1.3 Land & Agricultural Impacts

The Project was built as proposed within the estimated construction ROW, impacting 96 acres of prime farmlands. During the site inspection, the farmlands were observed to have been restored to pre-construction conditions.

#### 3.1.4 Setbacks

The Project was in a rural setting, with three residences within 500ft of the Project corridor. Executed landowner waivers for these residences can be found in Appendix G (Docket #38).

#### 3.1.5 ND State-Owned or Managed Lands

The ND Game & Fish Department (NDGF) requested that work in native prairie and wooded draws be avoided to the extent possible and disturbed areas be reclaimed to pre-project conditions. In addition they requested that the crossing at Cherry Creek was constructed with directional boring. (Docket #1, Appendix C, NDGF Correspondence). In both instances NDGF's requests were addressed and completed. The ND Parks & Recreation Department (NDPR) indicated that no state parks or other lands they manage were in the vicinity of the Project (Docket #1, Appendix C, NDPR Correspondence). Therefore, no state owned or managed lands were potentially impacted by the Project.

### 3.2 PROJECT DESIGN & ENGINEERING

#### 3.2.1 Length & Infrastructure

The Project was authorized 10.8 miles of steel 8-inch diameter underground pipeline, as described in the Application and at the hearing. It also includes double block valve, pig launcher, and pig receiver. The site inspection observations coincide with these parameters (Docket #1 Appendix A, Engineering Documents) (**Appendix A**, Photos 1, 5, 25).

#### 3.2.2 Right-of-Way Corridor

The Order for the Project authorized construction within a 75ft ROW construction ROW. The permanent ROW for the Project is 50ft centered on the pipeline. The pipeline appeared to have been constructed according to these maximum widths (Docket #1; **Appendix B**, Project Maps) (**Appendix A**, Photos 1-24).

### **3.2.3 Compliance with US DOT Regulations**

There was no written verification or certification of compliance with US DOT 49 CFR Parts 192.

### **3.2.4 Engineering Design Drawings**

Engineering design drawings were provided in the Application materials (Docket #1 Appendix A, Engineering Documents).

### **3.2.5 As-built Drawings and GIS Files**

As-built alignment drawings and associated CAD files (acceptable alternative to GIS) have not yet been received. The PSC should pursue receipt of the drawings and their accuracy should be confirmed.

## **3.3 PRE-CONSTRUCTION**

### **3.3.1 PSC-Required Documents**

A Letter of Intent to date has not been posted to the docket. An Application for a Certificate of Corridor Compatibility and Route Permit was subsequently submitted on 29 May 2014 (Docket #1, Application). A Certificate of Corridor Compatibility No. 158 and Route Permit No. 170 were issued on 16 October 2014, in accordance with the Order and Certification Relating to Order Provisions signed on 16 October 2014 (Docket #26, Findings of Fact, Conclusions of Law and Order). A Ten-Year Plan was filed on 29 May 2014 (Docket #1 Appendix F 10-Year Plan).

### **3.3.2 Pre-Construction Conference/Notice of Intent to Start Construction**

ONEOK Bakken Targa Lateral Pipeline conducted a pre-construction conference on 21 October 2014. Meeting minutes were taken, as well as well as a list of attendees (Docket #31 Meeting Minutes).

### **3.3.3 PSC Approval of Modifications**

On 10 November 2014 ONEOK filed a request to modify the designated corridor (Docket #40, Certification and documentation for route adjustments under NDCC 49-22-16.3). The adjustments were on the order of 15-25ft and were meant to avoid an existing fiber optic line and to maintain a safe distance from the nearby Northern Border Pipeline. No letter of approval or as-built drawings were on file to confirm written approval of the request; however, during the site visit it was mentioned by Tim Swan (ONEOK) that modifications were made to avoid existing utilities.

### **3.3.4 Permits and Approvals from Other Agencies**

It was indicated in the Applications that consultation with federal, state, and local agencies would be required to obtain permits for the Project. Agencies consulted with and permits identified as required for the Project included:

- NDDH NDPDES General Permit for Temporary Dewatering/Hydrostatic Testing discharge of potable water
- U.S. Fish and Wildlife Service (USFWS)
- North Dakota Game and Fish Department (NDGFD)
- North Dakota Parks and Recreation-Natural Heritage Program (NDPRD)
- North Dakota State Water Commission (NDSWC)
- North Dakota State Historical Preservation Office (SHPO)
- North Dakota Department of Health (NDDH)
- U.S. Army Corps of Engineers (COE)
- Federal Aviation Administration (FAA)

- Natural Resources Conservation Service (NRCS)
- McKenzie County

These permits have not yet been filed with the PSC as required. All consultations with the above-mentioned agencies and their approvals have been documented with the PSC (Docket #1, Application, Appendix C, Agency Notifications).

### **3.3.5 North Dakota One-Call Participation**

There was no written documentation that Dakota Gasification Company participated in North Dakota One-Call.

## **3.4 CULTURAL RESOURCES**

### **3.4.1 Cultural Site Avoidance**

No historic properties were affected by pipeline construction. The ND State Historic Preservation Office (SHPO) concurred with this conclusion (Docket #19, Letter enclosing SHPO concurrence letter). Therefore, no mitigation plans were deemed necessary. No discoveries of cultural or historic materials were reported during construction.

## **3.5 NATURAL RESOURCES**

### **3.5.1 Wildlife**

In general, it appeared ONEOK attempted to minimize impacts to wildlife and habitat. A natural resources survey was completed prior to construction which included a wetland and waterbody survey and a tree and shrub inventory (Docket #1, Appendix D, Natural Resources Report). Disturbance from pipeline construction was temporary in nature for most species.

ONEOK stated that the project would have no significant impact on fish and wildlife resources. The project area was not occupied by any endangered or threatened species (Docket #1, Appendix C, Agency Notifications, U.S. Fish and Wildlife Service and North Dakota Game and Fish Department). However, to date a letter of correspondence from the US Fish and Wildlife Service has not been posted to the docket.

### **3.5.2 Wetlands**

A wetland determination during the natural resource survey indicated the presence of potential wetlands along the Project ROW (Docket #1 Appendix D Natural Resource Reports). Nine wetlands were mapped and a total of five waterbodies were mapped. During the inspection it was apparent that neither the wetlands nor the waterbodies had been impacted during construction (**Appendix A**, Photos 11, 14, 22).

### **3.5.3 Reporting**

Weekly construction reports indicated that no environmental incidents or issues occurred during construction (Docket #35, 41, 43-51, Weekly Construction Reports). There were no reports filed documenting the presence of threatened or endangered species or bald or golden eagles during construction or operation to date.

### **3.5.4 Reclamation & Reseeding**

At the time of the site inspection, the pipeline trench had been backfilled, soils had been recontoured, and reseeded had been completed in most grassland areas (**Appendix A**, Photos 13-16). Vegetation was fully established along most of the reseeded portion of the route, except for the areas near Highway 85 and the project (**Appendix A**, Photos 5-11).

Wenck recommends the PSC request documentation from ONEOK once vegetation has fully established in all reseeded areas of the project.

### **3.5.5 Tree & Shrub Mitigation**

It appeared that in general, major woody areas were avoided through Project siting (**Appendix A**, Photos 9-13). As required, a count of trees and shrubs was done within the area expected to be impacted by construction (Docket #1, p. 12-13). Mitigation for the trees and shrubs removed was done by SWCA Environmental Consultants, Inc. It is recommended that the PSC follow up with ONEOK to ensure that tree mitigation efforts continue to be successful.

## **3.6 CONSTRUCTION, RECLAMATION & SOILS**

### **3.6.1 Construction Management & Safety**

Weekly construction reports were submitted for the duration of construction (Docket #35, 41, 43-51, Weekly Construction Reports). Each report indicated whether any safety or environmental incidents had occurred and documented that construction of the Project proceeded in accordance with the Application and safety requirements. No major adverse weather occurred during construction, so no delay of construction was necessary (Docket #35, 41, 43-51, Weekly Construction Reports).

### **3.6.2 Pipeline Depth**

The pipeline must be buried to 48in in rangeland and 48in at the bottom of ditch for road crossings. The Route Application specifies minimum 4ft soil cover. Wenck did not visually confirm the depth of the pipeline, but ONEOK stated that the pipeline was buried to at least the specified depth and deeper where it bored under roads.

### **3.6.3 Erosion & Sedimentation**

The Project Applications state BMPs would be used during and after construction to minimize soil erosion and protect surface water. During the site inspection, it was apparent that BMPs had been used to minimize erosion and maintain drainage (**Appendix A**, Photos 7, 8, 11).

### **3.6.4 Soil Segregation & Staging**

In general it appeared that measures were taken to minimize the overall impact of the Project and the extent of land and soil disturbance. Wenck observed that topsoil appeared to be replaced to the required depth and separately from subsoils.

### **3.6.5 Reclamation & Roads**

Weekly construction reports indicated that cleanup and reclamation had occurred concurrently with construction activities (Docket #35, 41, 43-51, Weekly Construction Reports). At the time of the inspection, the pipeline trench had been backfilled, soils had been recontoured, and reseeded had been completed, with mulch and erosion control in place (**Appendix A**, Photos 1-24). Wenck recommends that the PSC request documentation from ONEOK when vegetation has fully established. No temporary roads had been used during construction. All roads within the Project area, that were bored under, appeared to be in good condition and properly maintained.

### **3.6.6 Fencing, Repairs & Waste**

There were existing fences or gates that were impacted by pipeline construction. Once pipeline construction was completed the fences or gates were repaired or replaced as needed.

### **3.6.7 Underground Facilities**

No reports of damage to underground facilities were reported to the PSC. Wenck confirmed with ONEOK that no damage to facilities occurred during construction.

## **3.7 OPERATION**

### **3.7.1 Safety & Record-keeping**

No concerns were identified during the site review that would indicate that Project operation was out of compliance with the Application or safety regulations. Examples of operational safety measures observed at the site include: use of personal protective equipment and warning signs marking the pipeline route (**Appendix A**, Photos 1-24). No reports of extraordinary events were filed to date with the PSC.

### **3.7.2 Maintenance**

ONEOK indicated that the pipeline is regularly inspected and maintained. There were no waste, debris, or abandoned equipment observed during the inspection. The site appeared to be regularly maintained.

### **3.7.3 Public Contact & Safety**

Warning signs marking the location of the pipeline had been installed and were in place at all fence lines and road crossings (**Appendix A**, Photos 6, 12, 14-16). ONEOK indicated that resident/landowner concerns and issues are handled promptly and makes every reasonable attempt to alleviate problems caused by the Project.

## 4.0 Issues to Resolve and Recommendations

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### 4.1 PROJECT SPECIFICATIONS NEEDING WRITTEN VERIFICATION

Several components of the Project were asserted in the Application or proposed construction and could be verified in writing, but have not been filed with the PSC. Table 2-1 summarizes these items, which are indicated as those shaded green in the "Written Verification" column, indicating no written verification was provided where applicable and necessary. Wenck does not consider any of these items to be critical for Project compliance. However Wenck suggests they be on file with the PSC to confirm compliance and recommends the PSC request from ONEOK the following list of "Necessary" items, and if the PSC deems appropriate, the list of "Potential" items could also be requested.

#### **Necessary Items**

- Provide as-built design drawings, specifications, and associated GIS files
- Provide documentation of Letter of Intent

#### **Potential Items**

- Written documentation that ONEOK participated in North Dakota One-Call
- Follow up with ONEOK to ensure continued success of tree mitigation

### 4.2 REVEGETATION & CROP PRODUCTION

There was an outstanding issue at the Project site related to reclamation. There is one area on the east end of the Project near Highway 85 where vegetation has not been fully established. Wenck recommends the PSC request monitoring and documentation of this issue to ensure the vegetation is established throughout the project.

## 5.0 Conclusions

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Overall, the Project appeared to have been constructed as designed with minimal impacts to the surrounding natural or human environment. The Project site was well-maintained and in good condition. There were a few minor issues that may need to be resolved before the Project is considered complete and in full compliance. This includes: Provide as-built design drawings, specifications, and associated GIS files, provide documentation of Letter of Intent, written documentation that ONEOK participated in North Dakota One-Call, and follow up with ONEOK to ensure continued success of tree mitigation. None of these are critical issues, but the PSC should determine which are necessary for the company to comply with and then notify the company what actions are required on their part.

## 6.0 References

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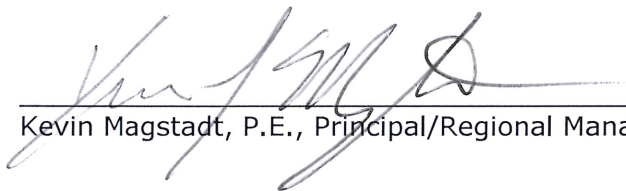
North Dakota Public Service Commission (ND PSC). 2015. Online Case Search. Available from: [http://www.psc.nd.gov/database/company\\_case\\_list.php](http://www.psc.nd.gov/database/company_case_list.php). Accessed August - November 2015.

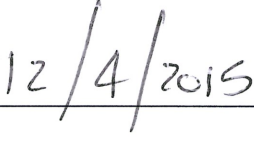
Swan, Tim. 2015. Environmental Inspection. Personal Communication: discussion during site visit.

# 7.0 Signatures

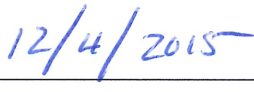
The services performed by Wenck staff for this project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by professionals currently practicing in this area under similar time and budget constraints. Recommendations and findings contained in this report represent our professional judgment and are based upon available information and technically-accepted practices at the present time and location. Other than this, no warranty is implied or expressed.

Lead Project Manager, Kevin Magstadt, and Secondary Project Manager, Luke Nelson, prepared the report.

  
Kevin Magstadt, P.E., Principal/Regional Manager

  
Date

  
Luke Nelson, Project Engineer

  
Date

# Photographs



**Photo 1.** Direction: Northwest. Pipeline with pig launcher, leaving the ONEOK Targa Little Missouri Site.



**Photo 2.** Direction: West. Row and pipeline corridor running east to west approaching the first crossing of an access road.



**Photo 3.** Direction: West. Row and pipeline corridor running east to west approaching the first crossing of an access road, four pipeline markers can be seen along the corridor.



**Photo 4.** Direction: West. Row and pipeline corridor running east to west approaching the second crossing of an access road, a pipeline marker can be seen along the corridor. The remediated corridor is also depicted.



**Photo 5.** Direction: West. Row and pipeline corridor running east to west, three pipelines marker can be seen along the corridor.



**Photo 6.** Direction: West. Row and pipeline corridor running east to west approaching the crossing of Highway 85, two pipeline markers can be seen along the corridor. Areas of the corridor that need to be seeded are shown as well.



**Photo 7.** Direction: East. Pictured above is the pipeline corridor running East to West that still needs to be seeded and monitored to verify reclamation.



**Photo 8.** Direction: West. Pictured above is the pipeline corridor running East to West that still needs to be seeded and monitored to verify reclamation. Several pipeline markers can be seen along the corridor. An access road that was bored under is also depicted.



**Photo 9.** Direction: West. Pictured above is the pipeline corridor running East to West that still needs to be seeded and monitored to verify reclamation. Several pipeline markers can be seen along the corridor.



**Photo 10.** Direction: South. Pictured above is the pipeline corridor running East to West that still needs to be seeded and monitored to verify reclamation. A pipeline marker can be seen along the corridor. An access road that was bored under is also depicted.



**Photo 11.** Direction: West. One of several wetlands that were delineated is shown above. No permanent impacts were observed during the inspection.



**Photo 12.** Direction: Northeast. Area of corridor near a rural property, a pipeline marker can be seen that will alert property owners. No impacts to the property were observed during the construction inspection.



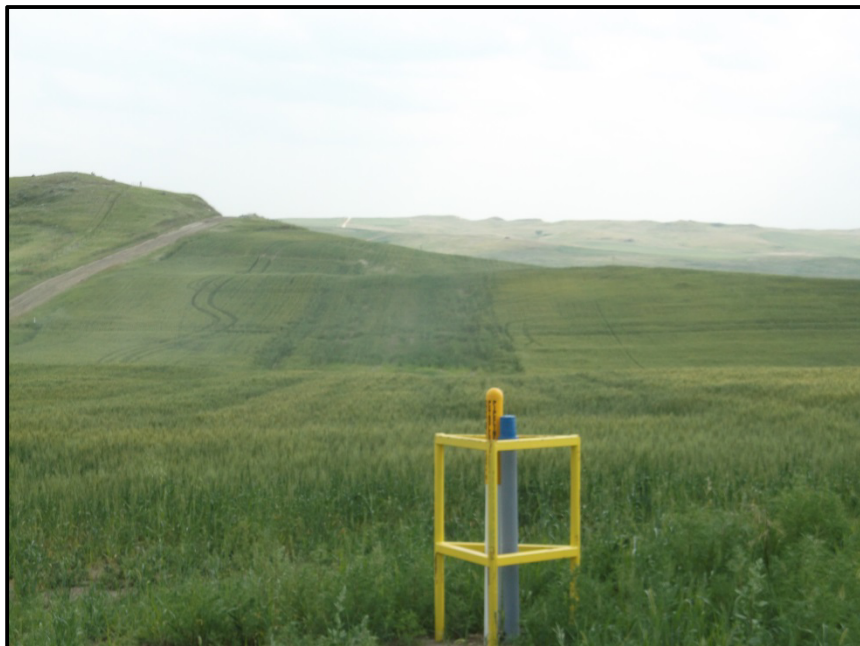
**Photo 13.** Direction: West. Additional areas of agricultural property that the pipeline passes through, again no permanent impacts to farmland. Crops were mitigated appropriately.



**Photo 14.** Direction: Northeast. Pictured above is the pipeline corridor running East to West that still needs to be seeded and monitored to verify reclamation. A pipeline marker can be seen along the corridor. An access road that was bored under is also depicted. Another delineated wetland is pictured that was not impacted.



**Photo 15.** Direction: Northwest. Additional areas of agricultural property that the pipeline passes through, again no permanent impacts to farmland. Crops were mitigated appropriately. Property fences shown were repaired as necessary and were not left damaged.



**Photo 16.** Direction: West. Additional areas of agricultural property that the pipeline passes through, again no permanent impacts to farmland. Crops were mitigated appropriately. This area of the corridor is an example of an area that has been completely reclaimed.



**Photo 17.** Direction: South. The pipeline runs parallel to 130 ½ Ave in the ROW which has been fully reclaimed.



**Photo 18.** Direction: East. The pipeline then bends west and crosses 130 ½ Ave (the road was bored under) before it bends to the north and continues to run parallel to the road.



**Photo 19.** Direction: East. This marker signifies a bend to the west where the pipeline will run parallel to 20<sup>th</sup> St. This area of rural land has been restored to preconstruction conditions.



**Photo 20.** Direction: North. Depicted here is a pipeline marker along 20<sup>th</sup> St.



**Photo 21.** Direction: Northwest. Pipeline corridor as it bends away from parallel route along 20<sup>th</sup> St and starts running through agricultural land to the northwest. This particular area needs to be continued to be monitored until seeding takes.



**Photo 22.** Direction: Southeast. Additional areas of agricultural property that the pipeline passes through, again no permanent impacts to farmland. Crops were mitigated appropriately. This area of the corridor is an example of an area that has been completely reclaimed. Also shown is a delineated wetland that was not impacted during construction.



**Photo 23.** Direction: Southwest. Two pipeline markers show another part of the corridor that has been fully reclaimed as the pipeline bends back to west before bending again to the north.

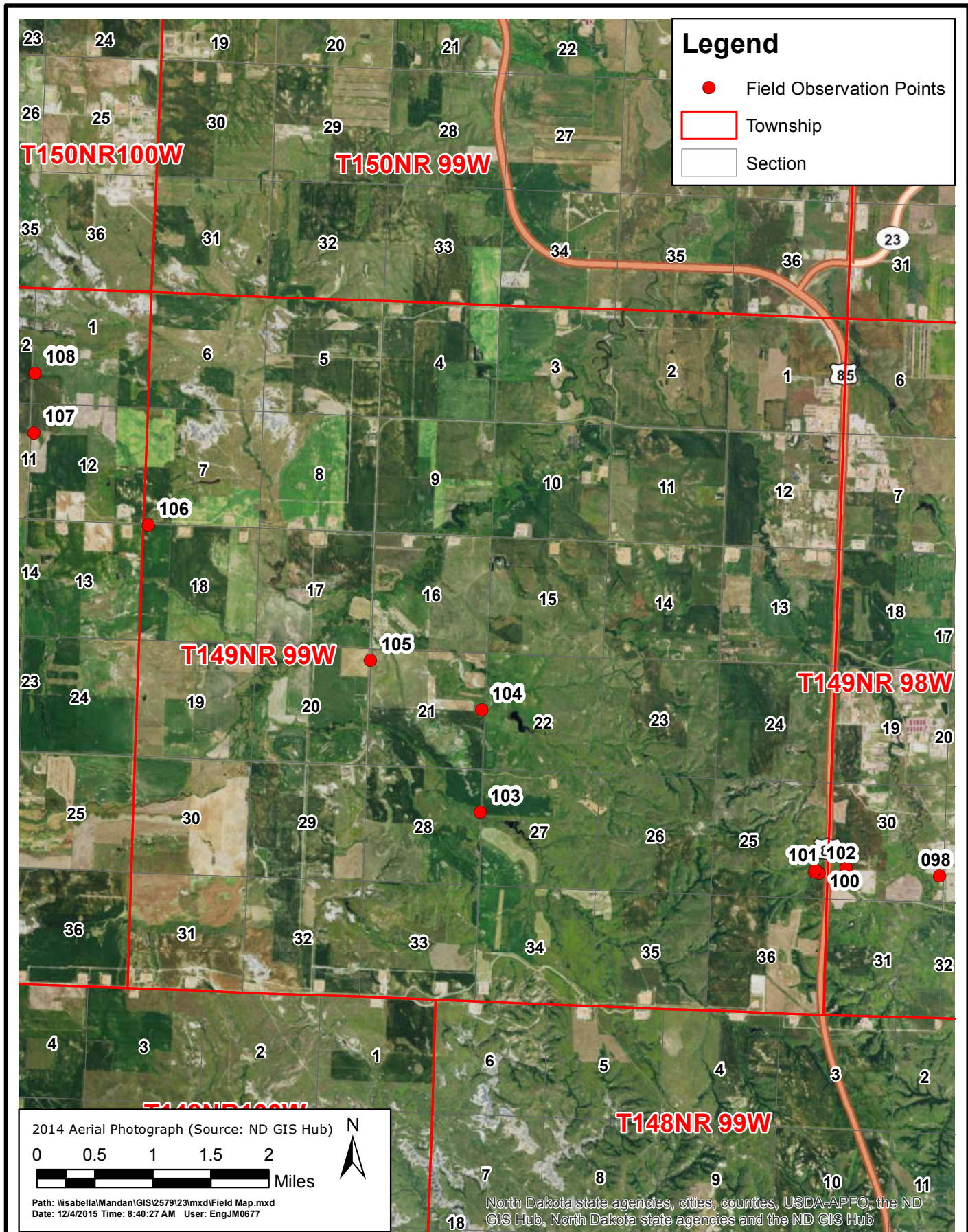


**Photo 24.** Direction: South. This is the section of the pipeline corridor that runs north and south, parallel to 133<sup>rd</sup> Ave. The ROW along the road has been completely reclaimed.



**Photo 25.** Direction: East. Pictured above is the pig receiver and the end of the Targa Lateral Pipeline Project.

## **Field Observation Points**





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