



PU-19-368
ONEOK Bakken Pipeline, L.L.C.
Tioga Lateral NGL Pipeline
As-Built Inspection Report

File No. 227701547.103

May 2021

Prepared for:

**North Dakota Public Service
Commission**
600 E. Boulevard Avenue
Bismarck, ND 58505-0480

Prepared by:

Stantec Consulting Services Inc.
3303 Fiechtner Drive, Ste 100
Fargo, ND 58103



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT

Table of Contents
May 2021

Table of Contents

1.0	EXECUTIVE SUMMARY	1.1
2.0	BACKGROUND AND SCOPE	2.1
2.1	INTRODUCTION.....	2.1
2.2	PURPOSE.....	2.1
2.3	METHODS AND SCOPE OF INSPECTION	2.1
2.3.1	Project Compliance Identification	2.1
2.3.2	Document Review	2.2
2.3.3	On-Site Inspection	2.2
3.0	FINDINGS OF FACT	3.1
3.1	NORTH DAKOTA AUTHORIZED BUSINESS	3.1
3.2	SIZE, TYPE, AND PREFERRED LOCATION OF FACILITY	3.1
3.2.1	Size and Type.....	3.1
3.2.2	Location	3.1
3.3	STUDY OF PREFERRED LOCATION.....	3.2
3.3.1	Cultural Resources	3.2
3.3.2	Environmental Resources	3.2
3.3.3	Interagency Notification and Correspondence	3.3
3.3.3.1	Presumption of State Agency Compliance	3.3
3.3.3.2	Agency Correspondence	3.3
3.4	SITING CRITERIA	3.3
3.4.1	Exclusion Areas.....	3.4
3.4.1.1	Designated or Registered National Assets.....	3.4
3.4.1.2	Designated or Registered State Assets.....	3.4
3.4.1.3	Local Governmental Assets.....	3.5
3.4.1.4	Threatened and Endangered.....	3.5
3.4.1.5	Intercontinental Ballistic Missile Facility.....	3.6
3.4.2	Avoidance Areas	3.6
3.4.2.1	Designated or Registered National Assets	3.6
3.4.2.2	Designated or Registered State Assets.....	3.7
3.4.2.3	Historical Resources.....	3.7
3.4.2.4	Geologically Unstable Areas	3.7
3.4.2.5	Occupied Structures	3.8
3.4.2.6	Water Supplies	3.9
3.4.2.7	Rural Water Districts.....	3.9
3.4.2.8	Irrigated Land	3.9
3.4.2.9	Areas of Recreational Significance.....	3.9
3.4.3	Selection Criteria	3.9
3.4.3.1	Agricultural Impacts	3.10



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
 TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Table of Contents
 May 2021

3.4.3.2	Other Impacts	3.10
3.4.4	Policy Criteria	3.11
3.5	ADDITIONAL MITIGATIVE MEASURES	3.11
3.5.1	Environmental Resources	3.11
3.5.1.1	Disturbance Minimization	3.12
3.5.1.2	Environmental Inspectors	3.12
3.5.1.3	Unanticipated Discoveries	3.12
3.5.2	Safety	3.12
3.5.2.1	North Dakota One-Call Excavation Notice	3.13
3.5.2.2	USDOT Pipeline and Hazardous Materials Safety Administration	3.13
3.5.2.3	Supervisory Control and Data Acquisition	3.13
3.5.2.4	Emergency Response	3.13
4.0	COMMISSION ORDERS	4.1
4.1	FINDINGS OF FACT	4.1
4.2	CERTIFICATE OF SITE COMPATIBILITY	4.1
4.3	ROUTE PERMIT	4.1
4.4	CERTIFICATION RELATING TO ORDER PROVISIONS	4.1
4.5	CERTIFICATION PROVISION SUPREMACY	4.2
4.6	PENDING APPLICATION MATERIALS	4.2
5.0	CERTIFICATION RELATING TO ORDER PROVISIONS	5.1
5.1	REGULATORY COMPLIANCE	5.1
5.1.1	Public Service Commission	5.1
5.1.1.1	Suspension or Revocation	5.1
5.1.1.2	Records	5.1
5.1.1.3	Modification	5.2
5.1.2	Interagency Compliance	5.2
5.1.2.1	Additional Agency Conditional Rules and/or Guidance/Recommendations	5.5
5.2	CONSTRUCTION	5.10
5.2.1	Pre-Construction Conference	5.10
5.2.2	Cultural Resources	5.11
5.2.3	Topsoil Segregation Commencement Oversight	5.11
5.2.4	Construction Notification of Intent and Progress Reporting	5.11
5.2.5	Pipeline Depth	5.12
5.2.6	Soil Management	5.12
5.2.6.1	Erosion and Sedimentation	5.12
5.2.7	Road Crossings	5.13
5.2.8	Staging Areas	5.13
5.2.9	Unanticipated Discoveries	5.14
5.2.10	Weather Conditions	5.14
5.2.11	Stop Work Authority	5.15
5.3	RESTORATION AND MAINTENANCE	5.15
5.3.1	Restoration	5.15
5.3.2	Roads	5.15



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
 TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Table of Contents
 May 2021

5.3.3	NRCS Recommendations	5.16
5.3.4	Continuing Commitment	5.16
5.3.5	Fences and Gates	5.16
5.3.6	Drain Tile	5.16
5.3.7	Tree and Shrub Mitigation	5.17
5.3.7.1	Inventory	5.17
5.3.7.2	Clearing	5.17
5.3.7.3	Replacement	5.17
5.3.8	Waste Disposal.....	5.17
5.3.9	Traffic Control	5.18
5.4	COMMUNICATION WITH LANDOWNERS AND PSC	5.18
5.4.1	Right-of-Way Liaison Notifications.....	5.18
5.4.2	Engineering Design Drawings	5.18
5.4.3	Extraordinary Event Notification	5.19
5.4.4	Significant Biological Discoveries	5.19
5.4.5	Modification	5.19
5.4.6	As-Built Documentation	5.19
5.4.7	Underground Facilities.....	5.20
5.4.8	Route Adjustments Before or During Construction.....	5.20
6.0	ISSUES TO RESOLVE AND RECOMMENDATIONS.....	6.1
6.1	DOCUMENTATION	6.1
6.2	AS-BUILT CONDITIONS	6.1
7.0	REFERENCES.....	7.1
8.0	SIGNATURES.....	8.1

LIST OF TABLES

Table1	Cross Reference Matrix	vi
Table 2	Summary of Agency Correspondence, Permits, and Approvals.....	5.2

FIGURES

Figures 1-16 As-built Observation Locations Map

APPENDICES

- Appendix A Observation Point Coordinates
- Appendix B Observation Point Photolog



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Table of Contents

May 2021

LIST OF ACRONYMS

ANS Aquatic Nuisance Species
BGEPA Bald and Golden Eagle Protection Act
BMP best management practice
bpd barrels per day
CFR Code of Federal Regulations
CMRP Construction Mitigation and Restoration Plan
CRP Conservation Reserve Program
EI environmental inspector
EO Executive Order
ESO Ecological Services Office
ETWS extra temporary workspace
F degrees Fahrenheit
FSA Farm Service Agency
GIS geographic information system
HESS Hess Corporation
HDD horizontal directional drill
ICBM Intercontinental Ballistic Missile
IPaC Information, Planning, and Conservation System
LWCF Land and Water Conservation Fund
MBTA Migratory Bird Treaty Act
MP milepost
MMcf/d million cubic feet per day
NDAC North Dakota Administrative Code
NDCC North Dakota Century Code
NDIC North Dakota Industrial Commission
NDDA North Dakota Department of Agriculture
NDDEQ North Dakota Department of Environmental Quality
NDDTL North Dakota Department of Trust Lands
NDGFD North Dakota Game and Fish Department
NDGS North Dakota Geological Survey
NDGIS North Dakota Geographic Information Systems
NDIC North Dakota Industrial Commission
NDPDES North Dakota Pollution Discharge Elimination System
NDPRD North Dakota Parks and Recreation Department
NDPSC or Commission North Dakota Public Service Commission
NDR North Dakota Rules
NDSWC North Dakota State Water Commission
NGL or NGLs natural gas liquid
NRCS Natural Resources Conservation Service
NRHP National Register of Historic Places
NWP Nationwide Permit



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Table of Contents

May 2021

NWR National Wildlife Refuge
ONEOK ONEOK Bakken Pipeline, L.L.C.
PCN Pre-Construction Notification
PLOTS Private Land Open to Sportsmen
Project Tioga Lateral Pipeline Project
psig pounds per square inch gauge
ROW right-of-way
SHPO State Historic Preservation Office
SWPPP Stormwater Pollution Prevention Plan
UDP Unanticipated Discoveries Plan
USACE U.S. Army Corps of Engineers
USDA U.S. Department of Agriculture
USDOD U.S. Department of Defense
USDOT U.S. Department of Transportation
USFWS U.S. Fish and Wildlife Service
USGS U.S. Geological Survey
USNPS U.S. National Park Service
WMD Wetland Management District
WAWSA Western Area Water Supply Authority
WHPA Wellhead Protection Area
WPA Waterfowl Production Area



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Table1 Cross Reference Matrix

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
GENERAL			
FINDINGS OF FACT 1.	ONEOK Bakken Pipeline, L.L.C. is a Delaware limited liability company. ONEOK Bakken Pipeline, L.L.C. has been authorized to do business in the State of North Dakota, as evidenced by the corporate papers filed with the Commission on February 7, 2019, in Case No. PU-13-739.	PU-13-739 - Docket 2: Corporate Papers	Section 3.1
SIZE, TYPE & LOCATION			
FINDINGS OF FACT 2.	"The Project consists of approximately 75 miles of 16-inch diameter steel pipeline, located in Williams County, North Dakota. The project includes four mainline block valves, one pig launcher facility, one pig launcher with receiver facility, and one pig receiver facility. The Project is capable of transporting up to 90,000 barrels of NGLs per day."	Docket 1: Consolidated Application	Section 3.2.1
FINDINGS OF FACT 3.	The Project will originate at the Hess Tioga Natural Gas Processing Plant and terminate at an interconnection near the ONEOK Stateline to Riverview NGL Pipeline.	Docket 1: Consolidated Application	Section 3.2.2
FINDINGS OF FACT 4.	The proposed facility corridor and pipeline route is identified in Exhibit B.2 of the Application.	Docket 1: Consolidated Application	Section 3.2.1
FINDINGS OF FACT 5.	The pipeline has a maximum operating pressure of 1,480 pounds per square inch.	Docket 1: Consolidated Application	Section 3.2.1
FINDINGS OF FACT 6.	The estimated cost of the project is \$100 million dollars.	Docket 1: Consolidated Application	Section 3.2.1
FINDINGS OF FACT 7.	ONEOK anticipates a fourth quarter 2020 in-service date for the facility.	Docket 1: Consolidated Application	Section 3.2.1



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
 TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
STUDY OF PREFERRED LOCATION			
FINDINGS OF FACT 8.	ONEOK conducted a Class I cultural resource literature review and a desktop analysis for wetlands, waterbodies, woodlands, and other sensitive environmental resources across a one-mile wide area centered on the pipeline route (Study Area).	Docket 1: Consolidated Application	Section 3.3.1
FINDINGS OF FACT 9.	"ONEOK conducted several surveys and a habitat assessment across an approximately 300-foot-wide area generally centered on the Project route (Survey Area). ONEOK conducted a natural resources survey across the Survey Area, which included wetland and waterbody surveys, noxious weed surveys, and a general habitat assessment for state- and federally-listed species. ONEOK also conducted a tree and shrub survey, an eagle nest survey, and a biological survey."	Docket 1: Consolidated Application	Section 3.3.2
FINDINGS OF FACT 10.	ONEOK conducted a Class III cultural resource inventory across the Survey Area. The Class III reports were submitted to the North Dakota State Historic Preservation Office.	Docket 63:Exhibit 7 - ND Historical Society letters dated 12-17-19 and 12-31-19	Section 3.3.1
FINDINGS OF FACT 11.	Section 49-22.1-13(4) of the North Dakota Century Code provides that a site shall not be designated that violates the rules of any state agency, and that compliance with an agency's rules shall be presumed if the agency fails to present its position with respect to the proposed facility at the public hearing.	NDCC 49-22.1-13(4)	Section 3.3.3.1
FINDINGS OF FACT 12.	ONEOK initiated correspondence with federal, state and local departments, agencies and entities as follows: a. Federal: (i) U.S. Fish and Wildlife Service (USFWS); (ii) U.S. Army Corps of Engineers; (iii) U.S. Department of Defense; and (iv) U.S. Department of Agriculture; b. State: (i) North Dakota State Historic Preservation Office (NDSHPO); (ii) North Dakota Parks and Recreation Department; (iii) North Dakota Department of Trust Lands; (iv) North Dakota Department of Environmental Quality; (v) North Dakota Geological Survey (NDGS); (vi) North Dakota State Water Commission; and (vii) North Dakota Game and Fish Department (NDGFD); c. Local: (i) The Williams County Board of Commissioners; (ii) Williams County Water District; (iii) The Williams County Weed Control Board; (iv) Western Area Water Supply Authority; (v) the cities of Tioga and Springbrook; and (vi) the townships of Buford, Trenton, Tioga and Sauk Valley	Docket #1, Consolidated Application, Table 6-1	Section 3.3.3.2



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
SITING CRITERIA			
Exclusion Areas			
FINDINGS OF FACT 14.	The Commission has developed criteria pursuant to North Dakota Century Code section 49-22.1-03 to guide the site, corridor, and route suitability evaluation and designation process. The criteria, as set forth in North Dakota Administrative Code 69- 06-08-02 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.	NDCC 49-22.1-03; NDAC 69-06-08-02	Section 3.4
FINDINGS OF FACT 15.	ONEOK evaluated the Survey Area and route regarding the Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.	Docket 1: Consolidated Application	Section 3.4
FINDINGS OF FACT 16.	An Exclusion Area is a geographic area that must be excluded in the consideration of a route for a transmission facility. An Exclusion Area may be located within a corridor, but at no given point may such an area or areas encompass more than fifty percent of the corridor unless there is no reasonable alternative. A transmission facility route must not be sited within an Exclusion Area.	NDAC 69-06-08-02(1)	Section 3.4.1
FINDINGS OF FACT 17.	ONEOK's studies and surveys did not record any known Exclusion Areas within the Survey Area.	Docket 1: Consolidated Application, Sec. 7.1.1	Section 3.4.1
Avoidance Areas			
FINDINGS OF FACT 18.	An Avoidance Area is a geographical area that may not be considered in the routing of a transmission facility unless the applicant demonstrates that under the circumstances, there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts, the orderly siting of facilities, system reliability and integrity, the efficient use of resources, and alternative routes. Economic considerations alone will not justify approval of these areas.	NDAC 69-06-08-02(2)	Section 3.4.2



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
FINDINGS OF FACT 19.	<p>" Areas that are geologically unstable or potentially unstable are an Avoidance Area. NDGS's October 16, 2019 correspondence identified five areas of potential geologic instability within the proposed corridor. ONEOK has avoided impacts to one area by shifting the Project route and will utilize horizontal directional drilling ("HDD") methods to avoid impacts to three potentially instable areas as set forth and committed to by ONEOK in December 18, 2019 correspondence to the NDGS. (Hearing Exhibit 6). In December 20. 2019 correspondence, the NDGS stated it reviewed ONEOK's proposed avoidance measures and did not note any additional concerns. With respect to the fifth area of potential geologic instability located at approximate milepost 56.4, ONEOK testified this location appears to be located outside of the Project's workspace; however, ONEOK will conduct additional review of this area and submit its findings to the NDGS. ONEOK testified it will submit updated correspondence from the NDGS to the Commission for the fifth location prior to commencing construction in this area."</p>	<p>Docket 1: Consolidated Application, Sec. 7.2.4; Docket 91: NDGS Correspondence</p>	<p>Section 3.4.2.4</p>
FINDINGS OF FACT 20.	<p>Areas within five hundred feet of a residence, school, or place of business are an Avoidance Area. ONEOK testified that it identified 20 occupied structures, consisting of 19 distinct landowners, within five hundred feet of the Project route. ONEOK has obtained waivers for 14 of these structures and submitted copies as Exhibit 4. ONEOK testified it will obtain the remaining landowner waivers prior to constructing the Project within 500 feet of said areas, or ONEOK will file a route adjustment with the Commission to be outside 500 feet of the occupied areas.</p>	<p>Docket 1: Consolidated Application, Sec. 7.2.5</p>	<p>Section 3.4.2.5</p>



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
FINDINGS OF FACT 21.	Areas containing historical resources not specifically designated as Exclusion or Avoidance Areas are an Avoidance Area. ONEOK's Class III cultural resource survey identified 10 cultural sites that remain unevaluated for inclusion on the National Register of Historic Places within the Project corridor but are not directly crossed by the Project route. ONEOK has applied NDSHPO recommended 100-foot avoidance buffers to these sites. In December 17, 2019 correspondence to the NDSHPO, ONEOK committed to various mitigative measures for nine of the unevaluated sites where full 100-foot buffers could not be maintained. On December 31, 2019, the NDSHPO issued a letter finding ONEOK's Class III Cultural Resource Survey acceptable and concurring with a "No Significant Sites Affected" determination provided the Project remains as proposed.	Docket 1: Consolidated Application, Sec. 7.2.3	Section 3.4.2.3
FINDINGS OF FACT 22.	ONEOK's surveys did not identify any other Avoidance Areas within the Survey Area.	Docket 1: Consolidated Application, Table 7.2-1	Section 3.4.2
<i>Selection Criteria</i>			
FINDINGS OF FACT 23.	The Commission's Selection Criteria is set forth in North Dakota Administrative Code section 69-06-08-02(3). A corridor or route shall be approved only if it is determined that any significant adverse effects that will result from the location, construction and operation of the facility as they relate to the selection criteria will be at an acceptable minimum, or will be managed and maintained at an acceptable minimum. ONEOK analyzed the effects that may result from the location, construction, and operation of the Project.	NDAC 69-06-08-02(3); Docket 1: Consolidated Application, Sec. 7.3	Section 3.4.3
<i>FINDINGS OF FACT 24.</i>	ONEOK will minimize and/or avoid impacts to wetlands or waterbodies by employing HDD where appropriate and by following best management practices where the trenching method is utilized. The Project will cross the Little Muddy River and Beaver Creek. ONEOK will avoid impacts to these crossings by utilizing the HDD method.	Docket 1: Consolidated Application, Sec. 5.2, 7.3.2, 7.3.7	Section 3.4.3.2



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
 TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
FINDINGS OF FACT 25.	ONEOK identified one wetland within the Survey Area with potentially suitable habitat for piping plover. To avoid potential impacts to the piping plover, ONEOK has committed to undertake certain conservation measures as set forth in its January 24, 2020 correspondence to the USFWS including additional surveys of suitable habitat and presence/absence surveys as necessary and based upon the timing of construction within the identified area. In January 24, 2020 correspondence from the USFWS, the USFWS stated it has no objections to the Project and concurs with ONEOK's proposed conservation measures.	Docket 1: Consolidated Application, Sec. 5.3.1.3	Section 3.4.3.2
FINDINGS OF FACT 26.	During construction, the increase in ambient sound will primarily be from the use of heavy equipment and trucks. Ambient sound will be minimal during pipeline operation.	Docket 1: Consolidated Application, Sec. 7.3.4	Section 3.4.3.2
FINDINGS OF FACT 27.	The proposed Project will affect 682 acres of private land in North Dakota, of which approximately 67% consists of privately-owned cropland. Once construction is complete, ONEOK will restore land to its pre-construction contours and land use. ONEOK will also provide settlements to landowners for crop loss caused by construction.	Docket 1: Consolidated Application, Sec. 7.3.1	Section 3.4.3.2
FINDINGS OF FACT 28.	The proposed Project will not have significant adverse impacts to extractive and storage resources, visual effects on adjacent areas, ground water flow patterns, or radio, television, and other communication or electronic facilities. If drainage patterns are disturbed during construction, ONEOK will restore those affected areas to their original local topography. Furthermore, the visual effect will be minimal and mainly consist of the installation of four above-ground mainline block valves along with the pig launcher and receiver facilities.	Docket 1: Consolidated Application, Sec. 7.3	Section 3.4.3.2
Additional Mitigative Measures			
FINDINGS OF FACT 29.	ONEOK has agreed to a number of measures to mitigate potential Project impacts, as indicated by the attached Certification Relating to Order Provisions - Transmission Facility Siting along with the attached Tree and Shrub Mitigation Specifications.	Docket 1: Consolidated Application, Exhibit H	Section 3.5.1



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
FINDINGS OF FACT 30.	ONEOK has developed several project control documents that will be utilized during construction activities to minimize and mitigate impacts on environmental resources including a: Construction Mitigation and Restoration Plan; Migratory Bird Plan; Storm Water Pollution Prevention Plan; Spill Prevention, Control and Countermeasure Plan; Unanticipated Discoveries Plan; Revegetation Plan; Weed Management Plan; and Dust Control Plan which are included in Exhibit H to the Application.	Docket 1: Consolidated Application, Exhibit H	Section 3.5.1
FINDINGS OF FACT 31.	NDSHPO has approved ONEOK's Unanticipated Discoveries Plan, which provides response measures to be followed in the event of a discovery of cultural or human remains.	Docket 63: Exhibit 7 - ND Historical Society letters dated 12-17-19 and 12-31-19	Section 3.5.1.3
FINDINGS OF FACT 32.	ONEOK will participate in the North Dakota One-Call Excavation Notice System.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 3.5.2.1
FINDINGS OF FACT 33.	Fifty-eight percent of the pipeline will be co-located within the corridor of an existing pipeline.	Docket 1: Consolidated Application, Sec. 1.3	Section 3.5.1.1
FINDINGS OF FACT 34.	ONEOK testified that they will comply with all applicable safety laws and standards.	Docket 1: Consolidated Application, Sec. 7.4.1	Section 3.5.2



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
FINDINGS OF FACT 35.	The Project will be designed, constructed, maintained, and inspected to the USDOT Pipeline and Hazardous Materials Safety Administration regulations utilizing industry standards.	Docket 1: Consolidated Application, Sec. 2.5	Section 3.5.2.2
FINDINGS OF FACT 36.	A Supervisory Control and Data Acquisition (SCADA) system will allow ONEOK to monitor the pipeline 24 hours a day, 7 days a week, and 365 days a year by trained controls personnel. The system will monitor the flow and pressure of the system, and the system will allow ONEOK to identify and respond to situations outside normal operating conditions.	Docket 1: Consolidated Application, Exhibit H, Emergency Official Agency Response Information Book	Section 3.5.2.3
FINDINGS OF FACT 37.	ONEOK will employ one or more environmental inspectors on site every day during construction, and will employ 3rd party inspectors to monitor the construction activities and ensure activities are in compliance with company processes and practices.	Docket 1: Consolidated Application, Sec. 9	Section 3.5.1.2
FINDINGS OF FACT 38.	ONEOK testified it has annual meetings to educate local emergency response officials and sends mailings to local response officials providing emergency contact information and details regarding leak identification and response procedures. ONEOK further testified its emergency response group is actively coordinating with the Williams County Emergency Officials to discuss emergency preparedness and response with respect to the Project.	Docket 1: Consolidated Application, Exhibit H, Emergency Official Agency Response Information Book	Section 3.5.2.4



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
COMMISSION ORDERS			
COMISSION ORDER 1	ONEOK shall construct, operate, and maintain the Project in accordance with the Commission's Findings of Fact.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.1
COMISSION ORDER 2	Certificate of Site Compatibility No. 214 is issued to ONEOK Bakken Pipeline, L.L.C., designating a corridor for the construction, operation, and maintenance of approximately 75 miles of 16-inch diameter natural gas liquids pipeline and associated facilities in Williams County, North Dakota. For purposes of this Certificate, the designated corridor generally consists of a 300-foot wide area centered on the designated route as depicted in Exhibit B.2 of the Application, Hearing Exhibit 1.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.2
COMISSION ORDER 3	Route Permit No. 224 is issued to ONEOK Bakken Pipeline, L.L.C., designating a route for the construction, operation, and maintenance of approximately 75 miles of 16- inch diameter natural gas liquids pipeline and associated facilities in Williams County, North Dakota. For purposes of this Permit, the designated route is the route of the Project as depicted in Exhibit B.2 of the Application, Hearing Exhibit 1.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.3
COMISSION ORDER 4	The Certification Relating to Order Provisions - Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed February 25, 2020 is incorporated by reference and attached to this Order.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.4
COMISSION ORDER 5	To the extent there are any conflicts or inconsistencies between ONEOK's Application and the Certification, the Certification provisions control.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.5



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
COMMISSION ORDER 6	ONEOK shall conduct additional review on the one remaining area of potential geologic instability within the Project corridor and consult with the NDGS regarding its review and proposed avoidance measures. ONEOK shall submit its consultation with the NDGS to the Commission prior to commencing construction in this area.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.6
COMMISSION ORDER 7	ONEOK shall obtain all remaining 500-foot waiver(s) and provide copies to the Commission prior to constructing the Project on such portion of the Project for which the waiver is applicable.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.6
COMMISSION ORDER 8	ONEOK shall obtain all other necessary licenses and permits prior to commencing construction on such portion of the Project for which the license and/or permit is required, and shall provide copies to the Commission prior to construction.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.6
COMMISSION ORDER 9	ONEOK is required to comply with all applicable laws, rules, and regulations in the event it desires to construct another or a different transmission pipeline facility than was specified in the Application within the corridor designated in this proceeding.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 4.6
CERTIFICATION RELATING TO ORDER PROVISIONS			
Transmission Facility Siting			
CERTIFICATION RELATING TO ORDER PROVISIONS 1.	Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22.1 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.1



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 2.	Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the transmission facility including all city, township, and county zoning regulations.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.2
CERTIFICATION RELATING TO ORDER PROVISIONS 3.	Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.2
CERTIFICATION RELATING TO ORDER PROVISIONS 4.	Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission's order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.1.1
CERTIFICATION RELATING TO ORDER PROVISIONS 5.	Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission 's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.1.2
CERTIFICATION RELATING TO ORDER PROVISIONS 6.	Company understands and agrees that the authorizations granted by any Certificate of Corridor Compatibility or Route Permit issued by the Commission for the transmission facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.1.1.3



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
Construction			
CERTIFICATION RELATING TO ORDER PROVISIONS 7.	Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order.	Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction	Section 5.2.1
CERTIFICATION RELATING TO ORDER PROVISIONS 8.	Company understands and agrees that all cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area.	Docket 63: ND Historical Society Letters	Section 5.2.2
CERTIFICATION RELATING TO ORDER PROVISIONS 9	Company understands and agrees that topsoil removal will begin when the Commission's third-party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference.	Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction; Docket 106: Topsoil Inspection Report; Docket 112: Construction Inspection Report	Section 5.2.3



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 10.	Company agrees to inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated on construction activities on a monthly basis.	Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction; Dockets 100, 107, 115, 116, 120, 124: Construction Progress Reports	Section 5.2.4
CERTIFICATION RELATING TO ORDER PROVISIONS 11.	Company understands and agrees that the pipeline will be 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.	Docket 33: Certification Relating to Order Provisions; Docket 112: Construction Inspection Report	Section 5.2.5
CERTIFICATION RELATING TO ORDER PROVISIONS 12.	Company understands and agrees that all topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. The stripped topsoil must not be stockpiled in natural drainages, and must be protected from water erosion. Care must be taken to prated topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.	Docket 72: Findings of Fact, Conclusions of Law and Order; Docket 106: Topsoil Inspection Report; Docket 112 construction Inspection Report	Section 5.2.6
CERTIFICATION RELATING TO ORDER PROVISIONS 13.	Company understands and agrees that all buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road.	Docket 93: Permits	Section 5.2.7



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 14.	Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.2.8
CERTIFICATION RELATING TO ORDER PROVISIONS 15.	Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society.	Docket 1: Consolidated Application, Exhibit H, Unanticipated Discoveries Plan	Section 5.2.9
CERTIFICATION RELATING TO ORDER PROVISIONS 16.	Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan	Section 5.2.10
CERTIFICATION RELATING TO ORDER PROVISIONS 17.	Company understands and agrees that the Commission has authority to stop Project construction activities in the event of a probable violation of the siting laws, siting rules, or applicable Commission Orders if, in the opinion of the Commission, construction activities are likely to result in irreparable or significant harm.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.2.11
Restoration and Maintenance			
CERTIFICATION RELATING TO ORDER PROVISIONS 18.	Company understands and agrees that it shall, as soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan, Revegetation Plan	Section 5.3.1



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 19.	Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan	Section 5.3.2
CERTIFICATION RELATING TO ORDER PROVISIONS 20.	Company understands and agrees that reclamation, fertilization, and reseeded is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.	Docket 1: Consolidated Application, Exhibit H, Revegetation Plan	Section 5.3.3
CERTIFICATION RELATING TO ORDER PROVISIONS 21.	Company will fulfill its obligation for reclamation and maintenance of the approved transmission facility right-of-way, transmission facility, and associated facilities continuing throughout the life of the transmission facility.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.3.4
CERTIFICATION RELATING TO ORDER PROVISIONS 22.	Company will repair all fences and gates removed or damaged during all phases of construction and operation of the transmission facility.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan	Section 5.3.5
CERTIFICATION RELATING TO ORDER PROVISIONS 23.	Company will repair or replace all drainage tile broken or damaged as a result of construction and operation of the transmission facility.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan	Section 5.3.6



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 24.	Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.	Docket 72: Findings of Fact, Conclusions of Law and Order; Docket 118: Tree Shrub Mitigation Plan	Section 5.3.7
CERTIFICATION RELATING TO ORDER PROVISIONS 25.	Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.	Docket 1: Consolidated Application, Sec. 9.2 & Exhibit H, Construction Mitigation and Restoration Plan	Section 5.3.8
CERTIFICATION RELATING TO ORDER PROVISIONS 26.	Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the transmission facility.	Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan	Section 5.3.9
Communication with Landowners and PSC			
CERTIFICATION RELATING TO ORDER PROVISIONS 27.	Company understands and agrees that, prior to beginning construction of the transmission facility at a location, it shall send a letter to each landowner with whom an easement was executed for that location specifying the name and phone number of the company representative who is responsible for receiving and resolving landowner issues for the life of the easement.	Docket 72: Findings of Fact, Conclusions of Law and Order; Docket 82: Preconstruction Conference Meeting and NOI	Section 5.4.1



**PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
 TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT**

Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 28.	Company understands and agrees that it will file with the commission the name and phone number of the current company representative who is responsible for receiving and resolving landowner issues for the transmission facility. The company will update this information whenever there is a change to the current company representative for the life of all easements for the transmission facility.	Docket 72: Findings of Fact, Conclusions of Law and Order; Docket 82 Preconstruction Conference Meeting and NOI	Section 5.4.1
CERTIFICATION RELATING TO ORDER PROVISIONS 29.	Upon request, Company agrees to provide the Commission with engineering design drawings of the transmission facility prior to construction.	Docket 1: Consolidated Application, Exhibit A, Engineering Documents	Section 5.4.2
CERTIFICATION RELATING TO ORDER PROVISIONS 30.	Company understands and agrees that it shall advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the transmission facility, including injuries to any person.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.3
CERTIFICATION RELATING TO ORDER PROVISIONS 31.	Company agrees to report to the Commission , as soon as reasonably possible, the presence in the permit area of any critical habitat or threatened or endangered species of which Company becomes aware and which were not previously reported to the Commission	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.4
CERTIFICATION RELATING TO ORDER PROVISIONS 32.	Company understands and agrees that it shall inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.5



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 33.	Company agrees to provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAO 83) UTM Zone 13N or 14N feet (NAO 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed .	Docket 125: Final Monthly Construction Report and As-Built maps	Section 5.4.6
CERTIFICATION RELATING TO ORDER PROVISIONS 34.	Company shall notify the Commission as soon as reasonably possible if any damage , as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.7
<i>Route Adjustments Before or During Construction</i>			
CERTIFICATION RELATING TO ORDER PROVISIONS 35.	Company agrees to utilize the following procedures if Company seeks a route adjustment before or during construction of the pipeline, pursuant under N.D.C.C.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.8
CERTIFICATION RELATING TO ORDER PROVISIONS 36.	Company will specifically identify which subsection of NDCC 49-22.1-15 it is requesting the adjustment under. Company will file the name and contact information for a key contact person for the purposes of notice and communication during the adjustment application.	Docket 72: Findings of Fact, Conclusions of Law and Order	Section 5.4.8



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Cross Reference Matrix
 May 2021

Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
CERTIFICATION RELATING TO ORDER PROVISIONS 37.	ROUTE ADJUSTMENT WITHIN DESIGNATED CORRIDOR, NO AVOIDANCE AREA AFFECTED.	Dockets 88, 128: Certification and documentation relating to NDCC Sec. 49-22.1-15(1)	Section 5.4.8
CERTIFICATION RELATING TO ORDER PROVISIONS 38.	ROUTE ADJUSTMENT WITHIN DESIGNATED CORRIDOR, AVOIDANCE AREA AFFECTED.	Dockets 92, 103: Certification and documentation relating to NDCC Sec. 49-22.1-15(2)	Section 5.4.8
CERTIFICATION RELATING TO ORDER PROVISIONS 39.	ROUTE ADJUSTMENT OUTSIDE DESIGNATED CORRIDOR, NO AVOIDANCE AREA AFFECTED.	Dockets 96, 101: Certification and documentation relating to NDCC Sec. 49-22.1-15(3)	Section 5.4.8
CERTIFICATION RELATING TO ORDER PROVISIONS 40.	ROUTE ADJUSTMENT OUTSIDE DESIGNATED CORRIDOR, AVOIDANCE AREA AFFECTED.	NA	NA
CERTIFICATION RELATING TO ORDER PROVISIONS 41.	When applicable, Company may submit the field studies from the original application for the corridor and route provided they cover the adjustment area.	NA	NA



Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
TREE AND SHRUB MITIGATION SPECIFICATIONS			
<i>Inventory</i>			
Tree and Shrub Mitigation Inventory	Prior to cutting or clearing trees or shrubs for construction: <ul style="list-style-type: none"> • All trees one-inch or greater in diameter at breast height must be inventoried to record the location, number, and species. • All shrubs and all coniferous trees of any diameter must be inventoried to record the location, number, and species. 	NA	Section 5.3.7
Clearing			
Tree and Shrub Mitigation Clearing	The maximum width of tree and shrub removal is 50 feet, unless otherwise approved by the Commission.	NA	Section 5.3.7



Source of Project Specification	Description of Project Specification	Written Verification	3 rd Party Verification
<i>Replacement</i>			
Tree and Shrub Mitigation Replacement 1-6	<p>1. Landowners must be given the option to have trees and shrubs that are removed from their property replaced on their property. The landowner may waive this option in writing. If the landowner waives this option, the company shall plant replacement trees and shrubs in an alternate location in the same region, if practical. 2. Trees and shrubs must be replaced on a minimum two-to-one basis. The company shall develop a Tree and Shrub Mitigation Plan (Plan) in consultation with landowners who are seeking replacement trees and shrubs and in accordance with USDA-NRCS-North Dakota Field Office Technical Guide: Windbreak and Woodland Tree Care and Management. The guidelines outlined in the Technical Guide shall be followed until filing of the Plan summary outlined in number 5 below. 3. The purpose of the company's Tree and Shrub Mitigation Plan is to create sustainable plantings, appropriate for the local soil and growing conditions that will provide long-term benefit to landowners, farmers and ranchers, the community, wildlife and the environment. 4. The Plan, including the proposed number, variety, type, location, and approximate date for plantings, shall be filed with and approved by the Commission. 5. Two years after completion of the plan, the company must file a summary documenting how the plan achieved the purpose outlined in number 3 above. The summary must also report the number of surviving replacement trees and shrubs. 6. The Commission will consider, on a limited basis as conditions warrant, mitigation plans that provide long-term wildlife habitat and conservation benefits but do not involve the replanting of trees and shrubs.</p>	NA	Section 5.3.7

***Note: Black shaded boxes represent potential non-compliance issues.**

****Note: PSC PU-19-368 Findings of Fact, Conclusions of Law and Order skips Finding of Fact #13.**

*****Note: Table does not include Conclusions of Law, as Conclusions of Law are held to be self-evident.**



1.0 EXECUTIVE SUMMARY

The North Dakota Public Service Commission (PSC) retained Wenck Associates, Inc. (Wenck, now Stantec) to complete site inspections for the construction of the ONEOK Tioga Lateral Natural Gas Liquid (NGL) Pipeline, constructed by ONEOK Bakken Pipeline, LLC (ONEOK). The Project is approximately 75.0 miles, and is entirely within Williams County, North Dakota. The purpose of the inspections was to ensure the project was constructed in compliance with the siting laws and rules and the applicable PSC Orders for the Project.

A pre-construction conference call was held for the Project 9 April 2020; Stantec attended the call. Stantec reviewed Project documents and plans to become familiar with applicable PSC Orders. Construction of the project was completed in January 2020, as documented by the Final Monthly Construction report (Docket Item 124, 11 November 2020). Commissioning of the pipeline occurred during the previous December, as reported to the Commission. Stantec conducted an as-built inspection of the Project area April 19 – 23, 2021.

At the time of the as-built inspection, the pipeline trench had been backfilled, soils had been recontoured, and topsoil replaced; however, croplands had not been planted and grasslands were devoid of vegetation. It is unclear if reseeding has occurred in some areas of the ROW.

As-built conditions in various settings along the route were generally satisfactory. However, some areas of the ROW require additional work to meet satisfactory conditions, such as reclaiming construction accesses and road ROWs, decompaction of portions of the ROW in particular staging areas, implementation of the SWPPP especially at drainage locations, and many grassland areas lacked vegetation. In general, severe erosion was not observed, however areas of minor erosion were noted as well as the need for additional or repaired BMPs. Observation Point 35 specifically notes sedimentation and erosion near an area of geologic instability. Soil appeared to be restored to original contours, and topsoil replacement was adequate, with minor mixing most common at HDD sites. Although reclamation was documented to be completed, there were still minor areas that require reclamation efforts such as decompaction, revegetation, and waste removal. In fall of 2021, pending confirmation of Project reseeding dates and assuming 2021 yields relatively normal climatic growing conditions to allow for suitable assessment of vegetative success, a revegetation and reclamation inspection will be performed.

Overall, the Project was well-maintained and appeared to have been constructed as planned with efforts to minimize impacts. However, some issues likely need to be resolved for the Project to be considered complete and in full compliance, including 1) obtaining written documentation of several items (listed below), 2) Implementation of the SWPPP including several areas requiring additional erosion control or repair, 3) vegetation establishment throughout the project area, and 4) verification of final reclamation activities (to be determined during the subsequent Reclamation and Revegetation inspection). Stantec recommends the PSC take the following steps to resolve these issues.



Recommended Action Steps

→ Request Now

- Status of potential Unanticipated Discovery compliance
- Status of refuse along ROW
- Status of SWPPP related deficiencies
- Status of responsibility of construction activities regarding section line roadway culverts that lack proper reclamation and erosion control measures
- Status of rockpiles with significant soil fractions located in drainageways
- Status of roadway ROW reclamation of access points
- Status of potential compaction issues at staging areas or access points
- USACE Section 404 Permit (Section 5.1.2)
- USFWS, Special Use Permit, Lostwood Wetland Management District (Section 5.1.2.1.1)
- Department of Transportation, Federal Highway Administration, Permit to Cross
- NDDTL – ROW Permits
- NDDEQ – NPDES Permit
- NDSHPO – Unanticipated Discovery (potential); communications, stop work (Section 5.2.9)
- NDGF – Notifications to inspect machinery prior to launch into waters of the State
- Williams County Approval Correspondence
 - Board of Commissioners
 - Conditional Use Permit
- Township Floodplain Administrators & City Approval Correspondence
 - Buford Township
 - Sauk Valley Township
 - Trenton Township
 - Tioga Township
 - City of Tioga
 - City of Springbrook
- USFWS and NDGF required construction MBTA and BGEPA surveys (Sections 5.1.2.1.1 and 5.1.2.1.3)
- USFWS required re-route concurrences and correspondence of determination
- NRCS seeding records and landowner negotiations (Section 5.1.2.1.2)
- Date of reseeding completion for the Project
- Tree and Shrub Mitigation Plan, Replacement (Section 5.3.7)

→ Future Verification

Successful re-seeding and revegetation in fall of 2021



2.0 BACKGROUND AND SCOPE

2.1 INTRODUCTION

The Project is comprised of a 16” natural gas liquids (NGLs) pipeline installation, all within Williams County. The Route is approximately 75 miles in length, originating from the Hess Corporations Tioga Gas Processing Plant T157N, R95W, Section 26. It crosses Williams County westward and terminates at an interconnection with ONEOK’s Stateline to Riverview NGL Pipeline in T155N, R103W, Section 21, northwest of Williston, ND. Approximately 58 percent of the Route is co-located with existing linear infrastructure.

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-19-368 on 1 April 2020, granting Certificate of Corridor Compatibility No. 214 and Route Permit No. 224 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 PSC Findings of Fact, Conclusions of Law, and Order (Order). The PSC retained Wenck Associates, Inc. (Wenck, now Stantec) to complete an as-built, post-construction inspection of the Project.

2.3 METHODS AND SCOPE OF INSPECTION

2.3.1 Project Compliance Identification

Stantec’s intent was to ensure the Projects obligations of compliance with specifications found in the Findings of Fact, Conclusions of Law and Order, Certifications Relating to Order Provisions, and Tree and Shrub Mitigation. These “Project Specifications” are listed in Table 1, column 1 (Source of Project Specification). Project Specifications originate from 1) siting laws and rules, 2) Project activities or specifications proposed in the Consolidated Application for a Certificate of Corridor Compatibility and Route Permit (Application), 3) Project plans described in the Findings of Fact, Conclusions of Law, and Order 4) Certification Relating to Order Provisions, and 5) regulations or recommendations from other agencies. A description of the Project Specification as it was written in the submitted docket is provided in Table 1, column 2 (Description of Project Specification).



2.3.2 Document Review

Stantec staff reviewed publicly-available Project documents in the PSC Online Case Search (ND PSC 2020) to find written verification of compliance for the Project Specifications listed in Table 1. If written verification was filed, the source and name of the documentation is listed in Table 1, column 3 (Written Verification). The findings of written verification are further elaborated upon in the section of this document as stated in Table 1, column 4 (3rd Party Verification). Project Specifications that require on-site inspection verification are elaborated upon in the associated sections of this document identified in Table 1, column 4 (3rd Party Verification). Black shaded boxes in the table represent Project specifications that are potentially non-compliant because they have no written verification, or there is an issue with the 3rd Party Verification findings.

2.3.3 On-Site Inspection

Joseph Sander, Stantec environmental scientist, inspected the Project route on April 21 & 22 2020. The site was inspected by driving to access points and visually inspecting the route within the Project area from those points. Geographic coordinates were recorded at observation points and potential problem areas using ESRI ArcGIS Collector and Survey123 software applications on a tablet utilizing internal satellite triangulation software or paired with a Trimble Global Positioning System (GPS) (**Appendix A**). Digital photographs were taken with the tablet utilizing the Survey123 application to geotag photo locations and associate all collected data from each Observation Point (Figures 1-10). Photographs were taken showing representative portions of the route, aboveground Project infrastructure, and problem areas (**Appendix B**).

If on-site inspection of a Project Specification was completed, the findings are described in the referenced section in Table 1, column 4 (3rd Party Verification). Black shaded boxes in the table represent Project specifications that are potentially non-compliant or may require additional documentation to be filed with the Commission.



3.0 FINDINGS OF FACT

3.1 NORTH DAKOTA AUTHORIZED BUSINESS

ONEOK Bakken Pipeline, L.L.C. is a Delaware limited liability company. ONEOK Bakken Pipeline, L.L.C. has been authorized to do business in the State of North Dakota, as evidenced by the corporate papers filed with the Commission on February 7, 2019, in Case No. PU-13-739 (Finding of Fact 1). Corporate papers filed on February 7, 2019, in Case No. PU-13-739 exist in the docket and are evidence of the above stated fact.

3.2 SIZE, TYPE, AND PREFERRED LOCATION OF FACILITY

The following subsections address Findings of Fact 8 through 12.

3.2.1 Size and Type

The Project consists of approximately 75 miles of 16-inch diameter steel pipeline, located in Williams County, North Dakota. The project includes four mainline block valves, one pig launcher facility, one pig launcher with receiver facility, and one pig receiver facility. The Project is capable of transporting up to 90,000 barrels of NGLs per day. (Finding of Fact 2; Docket 1: Application). The pipeline has a maximum operating pressure of 1,480 pounds per square inch (Finding of Fact 5; Docket 1: Application). The estimated cost of the Project is \$100 million dollars (Finding of Fact 6; Docket 1: Application). ONEOK anticipates a fourth quarter 2020 in-service date for the facility (Finding of Fact 7; Docket 1: Application).

The as-built shapefile length is 75.0 miles. Multiple points along the as-built corridor of the pipeline were observed. The site inspection observations coincided well with the as-built shapefiles (**Figure 1; Appendix A, Field Observation Coordinates**). Construction Inspections confirm pipe diameter. Aboveground facilities were observed, including: four mainline block valves, two pig launchers and 2 pig receivers located where stated in Docket 1, Consolidated Application. Observed aboveground structures were constructed upon engineered and graded aggregate pads with access roads constructed through roadway Right-of-Way (ROW) and chain link fences exist around the aboveground structures restricting access to authorized personnel only (**Observation Point 20**). Aboveground structures were found to be in good condition. Stantec cannot independently verify fully operational capacity, and the statement is not found in Docket 1: Consolidated Application. Stantec also cannot independently verify maximum operating pressure, cost estimates, or in-service dates; however, the Project was completed in November of 2020.

3.2.2 Location

The Project will originate at the Hess Tioga Natural Gas Processing Plant and terminate at an interconnection near the ONEOK Stateline to Riverview NGL Pipeline. (Finding of Fact 3; Docket 1:



Application). The proposed facility corridor and pipeline route is identified in Exhibit B.2 of the Application (Finding of Fact 4; Docket 1: Application).

The Project was observed to originate at the Hess Tioga Natural Gas Processing Plant and terminate at the interconnection near the ONEOK Stateline to Riverview NGL Pipeline, both in Williams County. The original proposed pipeline route and corridor identified in the Application is matched closely by the as-built alignment with minor adjustments, as indicated in Section 5.4.8.

3.3 STUDY OF PREFERRED LOCATION

The following subsections address Findings of Fact 8 through 12.

3.3.1 Cultural Resources

ONEOK conducted a Class I cultural resource literature review and a desktop analysis for wetlands, waterbodies, woodlands, and other sensitive environmental resources across a one-mile wide area centered on the pipeline route (Study Area) (Finding of Fact 8). ONEOK conducted a Class III cultural resource inventory across the Survey Area. The Class III reports were submitted to the North Dakota State Historic Preservation Office (Finding of Fact 10).

ONEOK submitted Docket 15: State Historical Society of North Dakota Agency Correspondence, filed 1/10/21; however, the document is unavailable for review within the case file online docket database. Stantec assumes Docket 15 is demonstrably similar to Docket 63: Exhibit 7 – ND Historical Society letters dated 12-17-19 and 12-20-19, filed 3/6/20, due to the dates of the letters occurring prior to submission of Docket 15 into the case file. Docket 63 contains NDSHPO acknowledgement of receipt of stated materials and concurrence with findings and mitigation, with the exception of erroneous contact information in the UDP; of which, no further formal correspondences or concurrences are provided. Stantec is of the opinion, ONEOK and its contractors have the resources required and are knowledgeable in their duties to appropriately contact the NDSHPO in the event of an unanticipated discovery.

3.3.2 Environmental Resources

ONEOK conducted several surveys and a habitat assessment across an approximately 300-foot-wide area generally centered on the Project route (Survey Area). ONEOK conducted a natural resources survey across the Survey Area, which included wetland and waterbody surveys, noxious weed surveys, and a general habitat assessment for state- and federally-listed species. ONEOK also conducted a tree and shrub survey, an eagle nest survey, and a biological survey. (Finding of Fact 9).

ONEOK submitted Docket 1: Consolidated Application, Exhibit D: Natural Resources Survey Report; filed 11/25/19. The natural resource survey report includes results for wetlands & waterbodies, noxious weeds, habitat assessment, and an eagle nest survey. The report states a pre-construction tree & shrub survey was conducted; however, does not include pre-construction survey data for the tree and shrub inventory. As far as Stantec can ascertain, the data is not present within the case file. Stantec recommends, the



PSC request pre-construction tree & shrub survey inventory data to be included in the case file for cross reference with post-construction tree & shrub removal (see Section 5.3.7 for additional information on tree and shrub mitigation compliance).

3.3.3 Interagency Notification and Correspondence

See Section 5.1.2 Interagency Compliance; for information pertaining to compliance with stated correspondence, procured licenses, and permits.

3.3.3.1 Presumption of State Agency Compliance

Section 49-22.1-13(4) of the North Dakota Century Code provides that a site shall not be designated that violates the rules of any state agency, and that compliance with an agency's rules shall be presumed if the agency fails to present its position with respect to the proposed facility at the public hearing (Finding of Fact 11).

No State agency presented a position of non-compliance at the public hearing; therefore, it is presumed the facility complies with all State agency rules (see Section 5.1.2).

3.3.3.2 Agency Correspondence

ONEOK initiated correspondence with federal, state and local departments, agencies and entities as follows: a. Federal: (i) U.S. Fish and Wildlife Service (USFWS); (ii) U.S. Army Corps of Engineers; (iii) U.S. Department of Defense; and (iv) U.S. Department of Agriculture; b. State: (i) North Dakota State Historic Preservation Office (NDSHPO); (ii) North Dakota Parks and Recreation Department; (iii) North Dakota Department of Trust Lands; (iv) North Dakota Department of Environmental Quality; (v) North Dakota Geological Survey (NDGS); (vi) North Dakota State Water Commission; and (vii) North Dakota Game and Fish Department (NDGFD); c. Local: (i) The Williams County Board of Commissioners; (ii) Williams County Water District; (iii) The Williams County Weed Control Board; (iv) Western Area Water Supply Authority; (v) the cities of Tioga and Springbrook; and (vi) the townships of Buford, Trenton, Tioga and Sauk Valley (Finding of Fact 12).

ONEOK initiated correspondence with all agencies stated in Finding of Fact 12, as evidenced by Docket 1: Application, Section 6.0 and Exhibit E.

3.4 SITING CRITERIA

The Commission has developed criteria pursuant to North Dakota Century Code section 49-22.1-03 to guide the site, corridor, and route suitability evaluation and designation process. The criteria, as set forth in North Dakota Administrative Code 69-06-08-02 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria (Finding of Fact 14).



ONEOK evaluated the Survey Area and route regarding the Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria (Finding of Fact 15).

Siting criteria (exclusion, avoidance, selection, and policy criteria) were analyzed in detail in the Application (Docket 1: Application) for the Project. The following subsections address Findings of Fact 16 through 29.

3.4.1 Exclusion Areas

The following geographical areas must be excluded in the consideration of a route for a transmission facility. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone [NDAA 69-06-08-02(1)].

An Exclusion Area is a geographic area that must be excluded in the consideration of a route for a transmission facility. An Exclusion Area may be located within a corridor, but at no given point may such an area or areas encompass more than fifty percent of the corridor unless there is no reasonable alternative. A transmission facility route must not be sited within an Exclusion Area (Finding of Fact 16).

ONEOK's studies and surveys did not record any known Exclusion Areas within the Survey Area (Finding of Fact 17).

Finding of Fact 17 is incorrect. The route encounters more than one category of Exclusion Areas, threatened and endangered species habitats (see Section 3.4.1.4). Justification for the route is given below. Stantec did not identify any other Exclusion Areas within the proposed route.

3.4.1.1 Designated or Registered National Assets

Designated or registered national parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas (NDAA 69-06-08-02(1)a).

The route does not cross any designated or registered national parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas (Docket 1: Application).

Stantec did not observe the corridor to occupy any designated or registered national assets during on-site inspections.

3.4.1.2 Designated or Registered State Assets

Designated or registered State Parks, historic sites, monuments, historical monuments, archaeological sites, and nature preserves (NDAA 69-06-08-02(1)b).

The route does not cross any designated or registered State Parks, historic sites, monuments, historical monuments, archaeological sites, and nature preserves (Docket 1: Application).



ONEOK submitted Docket 63: Exhibit 7, ND Historical society Letters dated 12-17-19 and 12-20-19. Docket 63 details NDSHPO concurrence with ineligible status of multiple cultural resource sites on record with the NDSHPO located within the Project Corridor. Stantec did not observe the corridor to occupy any other designated or registered state assets during on-site inspections.

3.4.1.3 Local Governmental Assets

County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions (NDAA 69-06-08-02(1)c).

The route does not cross county parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions (Docket 1: Application).

Stantec did not observe the corridor to occupy any local governmental parks or recreational areas during on-site inspections.

3.4.1.4 Threatened and Endangered

Areas critical to the life stages of threatened or endangered animal or plant species (NDAA 69-06-08-02(1)d) or areas where animal or plant species that are unique or rare to this state would be irreversibly damaged (NDAA 69-06-08-02(1)e).

The route does not cross any areas critical to the life stages of threatened or endangered animal or plant species or areas where animal or plant species that are unique or rare to this state would be irreversibly damaged (Docket 1: Application).

Stantec finds the above statement within Docket 1 and the resulting Finding of Fact 18 to be incorrect. ONEOK submitted Docket 1: Application, Appendix E, Agency Consultations, USFWS; and, Section 9.5; which details the known existence of potential Piping Plover habitat and recommendations to avoid disturbance. ONEOK submitted Docket 41 and 64: Agency Correspondence and Exhibit 8 – US Fish and Wildlife Service email dated 1-24-20, respectively, which document required conditions of compliance with regard to potential Piping Plover habitat.

Stantec is of the opinion, identified potential Piping Plover habitat is an exclusion area until it is cleared by the surveys required in USFWS correspondence or avoided altogether with a ½ mile buffer for the duration of the nesting period. For more information on USFWS compliance, refer to Section 5.1.2.1.1.

Stantec did not observe the corridor to occupy any previously unidentified areas important to Federal or State listed species of importance during on-site inspections. No reports of observations of threatened or endangered species were filed during construction.



3.4.1.5 Intercontinental Ballistic Missile Facility

Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility [NDAA 69-06-08-02(1)f]. Areas within thirty feet on either side of a direct line between intercontinental ballistic missile (ICBM) launch or launch control facilities to avoid microwave interference [NDAA 69-06-08-02(1)g].

ONEOK has confirmed the absence of ICBM launch or launch control facilities located within 1,200 feet of the Route. This was confirmed through consultation with the USDOD as described in Docket 1: Application, Section 6.5. Stantec cannot independently confirm the proposed corridor or subsequent re-routes do not occupy an area violating the buffers referenced above during on-site inspections or docket searches due to the sensitive nature of military installments.

3.4.2 Avoidance Areas

The following geographical areas may not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area will be included unless a distance is specified in the criteria. Natural screening may be considered in determining the width of the buffer zone [NDAA 69-06-08-02(2)].

An Avoidance Area is a geographical area that may not be considered in the routing of a transmission facility unless the applicant demonstrates that under the circumstances, there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts, the orderly siting of facilities, system reliability and integrity, the efficient use of resources, and alternative routes. Economic considerations alone will not justify approval of these areas (Finding of Fact 18).

The route encounters three categories of avoidance areas (Historical Resources not Specifically Designated as Exclusion or Avoidance Areas, Geologically Unstable Areas, and Within 500-feet of a Residence, School, or Place of Business). Justification for the route is given below in the appropriate subsections. Stantec did not identify any other Avoidance Areas within the proposed route.

ONEOK's surveys did not identify any other Avoidance Areas within the Survey Area (Finding of Fact 22).

3.4.2.1 Designated or Registered National Assets

Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands [NDAA 69-06-08-02(2)a].



The route does not cross any designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands (Docket 1: Application).

Stantec did not observe the corridor to occupy any previously unidentified designated or registered national assets during on-site inspections.

3.4.2.2 Designated or Registered State Assets

Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands [NDAA 69-06-08-02(2)b].

The route does not cross any designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands (Docket 1: Application).

Stantec did not observe the corridor to occupy any designated or registered state assets during on-site inspections.

3.4.2.3 Historical Resources

Historical resources which are not specifically designated as exclusion or avoidance areas [NDAA 69-06-08-02(2)c].

Areas containing historical resources not specifically designated as Exclusion or Avoidance Areas are an Avoidance Area. ONEOK's Class III cultural resource survey identified 10 cultural sites that remain unevaluated for inclusion on the National Register of Historic Places within the Project corridor but are not directly crossed by the Project route. ONEOK has applied NDSHPO recommended 100-foot avoidance buffers to these sites. In December 17, 2019 correspondence to the NDSHPO, ONEOK committed to various mitigative measures for nine of the unevaluated sites where full 100-foot buffers could not be maintained. On December 31, 2019, the NDSHPO issued a letter finding ONEOK's Class III Cultural Resource Survey acceptable and concurring with a "No Significant Sites Affected" determination provided the Project remains as proposed (Finding of Fact 21).

The route does not cross any other historical resources which are not specifically designated as exclusion or avoidance areas (Docket 1: Application).

ONEOK submitted Docket 63: Exhibit 7, ND Historical society Letters dated 12-17-19 and 12-20-19. Docket 63 details multiple cultural resource sites on record with the NDSHPO are located within the Project Corridor. ONEOK communicated to NDSHPO, through avoidance measures, construction would not impact the sites. NDSHPO concurred with a "no significant sites affected determination".

3.4.2.4 Geologically Unstable Areas

Areas which are geologically unstable [NDAA 69-06-08-02(2)d].



Areas that are geologically unstable or potentially unstable are an Avoidance Area. NDGS's October 16, 2019 correspondence identified five areas of potential geologic instability within the proposed corridor. ONEOK has avoided impacts to one area by shifting the Project route and will utilize horizontal directional drilling ("HDD") methods to avoid impacts to three potentially instable areas as set forth and committed to by ONEOK in December 18, 2019 correspondence to the NDGS. (Hearing Exhibit 6). In December 20, 2019 correspondence, the NDGS stated it reviewed ONEOK's proposed avoidance measures and did not note any additional concerns. With respect to the fifth area of potential geologic instability located at approximate milepost 56.4, ONEOK testified this location appears to be located outside of the Project's workspace; however, ONEOK will conduct additional review of this area and submit its findings to the NDGS. ONEOK testified it will submit updated correspondence from the NDGS to the Commission for the fifth location prior to commencing construction in this area (Finding of Fact 19).

ONEOK submitted Docket 91: North Dakota Geological Survey Correspondence on April 30, 2020. Docket 91 details NDGS correspondence with ONEOK concerning geotechnical evaluations at Site 5 and concurs no additional concerns. The Docket was submitted prior to construction in the area.

These correspondences with NDGS as elaborated in the Findings of Fact and the Dockets on geologically unstable areas satisfy Finding of Fact 19 and Commission Order 6 and provided guidance on avoidance and mitigation.

Stantec visited multiple identified locations of potential geological instability during field inspections to verify HDD methods were being used, as proposed. Stantec can confirm areas of geologic instability were avoided in compliance with NDGS guidance. Stantec did not observe the corridor to occupy any other recognized geologically unstable areas during on-site inspections. However, Stantec did observe the ROW near a geologic instable area to be lacking in erosion and sediment controls, in particular energy dissipation devices (**Observation Points 34 and 35**). Stantec is of the opinion greater controls are required to ensure runoff does not destabilize areas of geologic instability.

3.4.2.5 Occupied Structures

Within five hundred feet [152.4 meters] of a residence, school, or place of business. This criterion shall not apply to a water pipeline transmission facility [NDAA 69-06-08-02(2)e].

Areas within five hundred feet of a residence, school, or place of business are an Avoidance Area. ONEOK testified that it identified 20 occupied structures, consisting of 19 distinct landowners, within five hundred feet of the Project route. ONEOK has obtained waivers for 14 of these structures and submitted copies as Exhibit 4. ONEOK testified it will obtain the remaining landowner waivers prior to constructing the Project within 500 feet of said areas, or ONEOK will file a route adjustment with the Commission to be outside 500 feet of the occupied areas (Finding of Fact 20).

ONEOK submitted Dockets 75, 84, 87, 97, and 102 all regarding landowner setback waivers wherein, 5 out of 6 waivers had been obtained. Docket 97 detailed the nullification of need for a setback waiver for one of the structures due to a route adjustment detailed in Docket 96. Stantec did not observe the corridor to encroach upon any other occupied structure buffers during on-site inspections.



3.4.2.6 Water Supplies

Reservoirs and municipal water supplies [NDAA 69-06-08-02(2)f].

ONEOK has confirmed the absence of reservoirs or municipal source water protection areas for community water supply sources within the Project Corridor (Docket 1: Application, Section 7.2.6)

ONEOK confirmed the absence of reservoirs or municipal source water protection areas for community water supply sources within the Project Corridor. Stantec did not observe the corridor to occupy any recognized reservoirs or municipal water supplies during on-site inspections.

3.4.2.7 Rural Water Districts

Water sources for organized rural water districts [NDAA 69-06-08-02(2)g].

ONEOK is not aware any water sources for organized rural water districts within the Project Corridor (Docket 1: Application, Section 7.2.7).

ONEOK committed to on-going correspondence with WAWSA. Crossing permits are elaborated upon in (see Section 5.1.2). Stantec did not observe the corridor to occupy any known water sources for organized rural water districts with the Project Corridor during on-site inspections.

3.4.2.8 Irrigated Land

This criterion shall not apply to an underground transmission facility [NDAA 69-06-08-02(2)h].

3.4.2.9 Areas of Recreational Significance

Areas of recreational significance which are not designated as exclusion areas [NDAA 69-06-08-02(2)i].

ONEOK has not identified any areas of recreational significance within the Project Corridor. (Docket 1: Application, Section 7.2.9).

Stantec did not observe the corridor to occupy any areas of recreational significance during on-site inspections.

3.4.3 Selection Criteria

A corridor or route shall be designated only when it is demonstrated to the commission by the applicant that any significant adverse effects which will result from the location, construction, and maintenance of the facility as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include [NDAA 69-06-08-02(3)]:



The Commission's Selection Criteria is set forth in North Dakota Administrative Code section 69-06-08-02(3). A corridor or route shall be approved only if it is determined that any significant adverse effects that will result from the location, construction and operation of the facility as they relate to the selection criteria will be at an acceptable minimum, or will be managed and maintained at an acceptable minimum. ONEOK analyzed the effects that may result from the location, construction, and operation of the Project (Finding of Fact 23).

3.4.3.1 Agricultural Impacts

Agricultural production, Family farms and ranches, Land economically suitable for irrigation, Surface drainage patterns and ground water flow patterns [NDAA 69-06-08-02(3)a].

The proposed Project will affect 682 acres of private land in North Dakota, of which approximately 67% consists of privately-owned cropland. Once construction is complete, ONEOK will restore land to its pre-construction contours and land use. ONEOK will also provide settlements to landowners for crop loss caused by construction. (Finding of Fact 27).

At the time of the inspection, the land had been restored to its pre-construction contours. Generally, areas impacted by pipeline construction (except aboveground facilities) were returned to previous land use, including both crop land and rangeland. Stantec cannot confirm the status of settlements to landowners.

3.4.3.2 Other Impacts

Sound-sensitive land uses, visual effect on the adjacent area, extractive and storage resources, wetlands, woodlands, and wooded areas, radio and television reception, and other communication or electronic control facilities, human health and safety, animal health and safety, plant life [NDAA 69-06-08-02(3)b].

ONEOK will minimize and/or avoid impacts to wetlands or waterbodies by employing HDD where appropriate and by following best management practices where the trenching method is utilized. The Project will cross the Little Muddy River and Beaver Creek. ONEOK will avoid impacts to these crossings by utilizing the HDD method. (Finding of Fact 24).

Stantec observed ONEOK to adhere to the HDD avoidance requirement for the Little Muddy River and Beaver Creek crossings. In general, wetlands were avoided by HDD methods and best management practices were followed when utilizing trenching methods (additional information on interagency compliance with wetlands and waterbodies can be found in Section 5.1.2.1). However, trenching utilized at Observation Point 5 resulted in some mixing of topsoil/subsoils and erosion and sediment controls are lacking and require maintenance. In general, SWPPP implementation near bodies of water or drainageways are lacking in controls and not up to construction industry standards or installed to manufacturers specifications (for additional information on erosion and sedimentation, see Section 5.2.6.1).

ONEOK identified one wetland within the Survey Area with potentially suitable habitat for piping plover. To avoid potential impacts to the piping plover, ONEOK has committed to undertake certain conservation



measures as set forth in its January 24, 2020 correspondence to the USFWS including additional surveys of suitable habitat and presence/absence surveys as necessary and based upon the timing of construction within the identified area. In January 24, 2020 correspondence from the USFWS, the USFWS stated it has no objections to the Project and concurs with ONEOK's proposed conservation measures (Finding of Fact 25).

For information on Oneok's compliance with USFW and Finding of Fact 25, see Section 5.1.2.1.1.

During construction, the increase in ambient sound will primarily be from the use of heavy equipment and trucks. Ambient sound will be minimal during pipeline operation (Finding of Fact 26).

Stantec observed the increase in ambient sound to be comparable to similar operations.

The proposed Project will not have significant adverse impacts to extractive and storage resources, visual effects on adjacent areas, ground water flow patterns, or radio, television, and other communication or electronic facilities. If drainage patterns are disturbed during construction, ONEOK will restore those affected areas to their original local topography. Furthermore, the visual effect will be minimal and mainly consist of the installation of seven above-ground mainline block valves (Finding of Fact 28).

Stantec finds all impacts of Selective Criteria to be sufficiently protected and addressed, except for the specific instances noted and in sections referenced, from Docket 1: Application, and other mitigative documentation throughout, as well as the results of inspections.

3.4.4 Policy Criteria

Location and design, training and utilization of available labor in this state for the general and specialized skills required, economies of construction and operation, use of citizen coordinating committees, A commitment of a portion of the transmitted product for use in this state, labor relations, the coordination of facilities, monitoring of impacts, utilization of existing and proposed rights of way and corridors, Other existing or proposed transmission facilities [NDAA 69-06-08-02(3)c].

Stantec is of the opinion, Policy Criteria non-compliances are out of the scope for as-built construction inspections.

3.5 ADDITIONAL MITIGATIVE MEASURES

The following subsections address Findings of Fact 29 through 38.

3.5.1 Environmental Resources

ONEOK has agreed to a number of measures to mitigate potential Project impacts, as indicated by the attached Certification Relating to Order Provisions - Transmission Facility Siting along with the attached Tree and Shrub Mitigation Specifications (Finding of Fact 29). ONEOK has developed several project control documents that will be utilized during construction activities to minimize and mitigate impacts on



environmental resources including a: Construction Mitigation and Restoration Plan; Migratory Bird Plan; Storm Water Pollution Prevention Plan; Spill Prevention, Control and Countermeasure Plan; Unanticipated Discoveries Plan; Revegetation Plan; Weed Management Plan; and Dust Control Plan which are included in Exhibit H to the Application (Finding of Fact 30).

ONEOK submitted Docket 1: Application, Exhibit H; which contains all the stated documents and more, as well as several more documents under development. Refer to Section 5.3.7 of this document for compliance with Tree and Shrub Mitigation Specifications relating to Finding of Fact 29 and Certification Statement 24.

3.5.1.1 Disturbance Minimization

Fifty-eight percent of the pipeline will be co-located within the corridor of an existing pipeline (Finding of Fact 33).

Stantec cannot confirm collocation percentage of proposed or as-built conditions without prior knowledge of the as-built alignment of the other pipeline.

3.5.1.2 Environmental Inspectors

ONEOK will employ one or more environmental inspectors on site every day during construction, and will employ 3rd party inspectors to monitor the construction activities and ensure activities are in compliance with company processes and practices (Finding of Fact 37).

Stantec observed environmental and construction inspectors employed by ONEOK on the Project.

3.5.1.3 Unanticipated Discoveries

NDSHPO has approved ONEOK's Unanticipated Discoveries Plan, which provides response measures to be followed in the event of a discovery of cultural or human remains (Finding of Fact 31).

ONEOK submitted Docket 63: ND Historical Society letters dated 12-17-19 and 12-31-19; which provides approval for ONEOK's UDP. Stantec is unaware of any unanticipated cultural discovery reports during construction. Stantec did observe a potentially unanticipated discovery during the as-built inspection, refer to Section 5.2.9 for more information.

3.5.2 Safety

ONEOK testified that they will comply with all applicable safety laws and standards (Finding of Fact 34).

During inspections, it appeared that ONEOK had implemented examples of operational safety measures during construction, including the use of equipment spotters, personal protective equipment, pipeline construction warning signs, overhead electric powerline marking, evidence of one-call flags and paint markings for underground utilities, aboveground pipeline markers along the pipeline route, cathodic



protections, and fences with locked gates and warning signs were in place around all observed aboveground structures to prevent access by the public (**Photo 20**).

3.5.2.1 North Dakota One-Call Excavation Notice

ONEOK will participate in the North Dakota One-Call Excavation Notice System (Finding of Fact 32).

ONEOK committed to participate in North Dakota One-Call utility locates according to the Certification of Order Provisions (Docket 72) per verbal review of those provisions during the pre-construction conference call (Docket 82).

3.5.2.2 USDOT Pipeline and Hazardous Materials Safety Administration

The Project will be designed, constructed, maintained, and inspected to the USDOT Pipeline and Hazardous Materials Safety Administration regulations utilizing industry standards (Finding of Fact 35).

Stantec cannot independently verify compliance with PHMSA regulations based on the scope of inspections provided to and agreed upon by the PSC. Stantec can only assume compliance through the absence of official communication to the PSC by PHMSA inspectors through docketed items.

3.5.2.3 Supervisory Control and Data Acquisition

A Supervisory Control and Data Acquisition (SCADA) system will allow ONEOK to monitor the pipeline 24 hours a day, 7 days a week, and 365 days a year by trained controls personnel. The system will monitor the flow and pressure of the system, and the system will allow ONEOK to identify and respond to situations outside normal operating conditions (Finding of Fact 36).

ONEOK submitted Docket 1: Application, Appendix H, Emergency Official Agency Response Information Book; detailing SCADA information. Stantec cannot independently verify SCADA system components or operational status based on the scope of inspections provided to and agreed upon by the PSC.

3.5.2.4 Emergency Response

ONEOK testified it has annual meetings to educate local emergency response officials and sends mailings to local response officials providing emergency contact information and details regarding leak identification and response procedures. ONEOK further testified its emergency response group is actively coordinating with the Williams County Emergency Officials to discuss emergency preparedness and response with respect to the Project (Finding of Fact 38).

ONEOK submitted Docket 1: Application, Appendix H, Emergency Official Agency Response Information Book; detailing information and plans satisfying Finding of Fact 38. Stantec cannot independently verify communications with local emergency response officials. It appears, no spills or leaks have been reported to the PSC to date.



4.0 COMMISSION ORDERS

4.1 FINDINGS OF FACT

ONEOK shall construct, operate, and maintain the Project in accordance with the Commission's Findings of Fact (Commission Order 1).

Stantec has outlined the Findings of Fact and the Project's compliance as it pertains to each statement in Section 3.0, to the best of Stantec's ability given readily available information submitted to the PSC in docket review, site inspections, and communications with Project representatives. Any implied potential issues, discrepancies, or deviations from original application submittal is not intended to be interpreted as an absolute non-compliance with the Findings of Fact, but is included to inform the PSC of potential discrepancies before project closeout. Stantec provided potential discrepancy information to the PSC through inspection reports and communications during the course of construction; however, Stantec is unaware of any non-compliances issued by the PSC.

4.2 CERTIFICATE OF SITE COMPATIBILITY

Certificate of Site Compatibility No. 214 is issued to ONEOK Bakken Pipeline, L.L.C., designating a corridor for the construction, operation, and maintenance of approximately 75 miles of 16-inch diameter natural gas liquids pipeline and associated facilities in Williams County, North Dakota. For purposes of this Certificate, the designated corridor generally consists of a 300-foot wide area centered on the designated route as depicted in Exhibit B.2 of the Application, Hearing Exhibit 1 (Commission Order 2).

Stantec observed this to be accurate.

4.3 ROUTE PERMIT

Route Permit No. 224 is issued to ONEOK Bakken Pipeline, L.L.C., designating a route for the construction, operation, and maintenance of approximately 75 miles of 16- inch diameter natural gas liquids pipeline and associated facilities in Williams County, North Dakota. For purposes of this Permit, the designated route is the route of the Project as depicted in Exhibit B.2 of the Application, Hearing Exhibit 1 (Commission Order 3).

Stantec observed this to be accurate.

4.4 CERTIFICATION RELATING TO ORDER PROVISIONS

The Certification Relating to Order Provisions - Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed February 25, 2020 is incorporated by reference and attached to this Order (Commission Order 4).



Stantec observed this to be accurate.

4.5 CERTIFICATION PROVISION SUPREMACY

To the extent there are any conflicts or inconsistencies between ONEOK's Application and the Certification, the Certification provisions control (Commission Order 5).

Stantec is unaware of concerns of inconsistencies between the Application and the Certification, nor aware of such issues raised at the public hearing or formally submitted to the case files at any time thereafter.

4.6 PENDING APPLICATION MATERIALS

ONEOK shall conduct additional review on the one remaining area of potential geologic instability within the Project corridor and consult with the NDGS regarding its review and proposed avoidance measures. ONEOK shall submit its consultation with the NDGS to the Commission prior to commencing construction in this area (Commission Order 6).

Docket 91 details NDGS correspondence with ONEOK concerning geotechnical evaluations at Site 5 and concurs no additional concerns. The Docket was submitted prior to construction in the area. This Docket satisfies Finding of Fact 19 and Commission Order 6.

ONEOK shall obtain all remaining 500-foot waiver(s) and provide copies to the Commission prior to constructing the Project on such portion of the Project for which the waiver is applicable (Commission Order 7).

ONEOK submitted Dockets 75, 84, 87, 97, and 102 all regarding landowner setback waivers wherein, 5 out of 6 waivers had been obtained. Docket 97 detailed the nullification of need for a setback waiver for one of the structures due to a route adjustment detailed in Docket 96. Stantec did not observe the corridor to encroach upon other occupied structure buffers during on-site inspections. This Docket satisfies Finding of Fact 22 and Commission Order 7.

ONEOK shall obtain all other necessary licenses and permits prior to commencing construction on such portion of the Project for which the license and/or permit is required, and shall provide copies to the Commission prior to construction (Commission Order 9).

See Section 5.1.2 Interagency Compliance; for information pertaining to regulatory compliance with Commission Order 9.



5.0 CERTIFICATION RELATING TO ORDER PROVISIONS

5.1 REGULATORY COMPLIANCE

The following subsections address compliance with Certification Statements 1 through 6.

5.1.1 Public Service Commission

Any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22.1 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules (Certification Statement 1).

Project compliance with NDCC 69-06-08 is elaborated upon in Section 3.4, Siting Criteria. Project compliance with NDAA 49-22.1 is elaborated upon throughout the document. Refer to appropriate sections for compliance with Certification Statement 1.

5.1.1.1 Suspension or Revocation

Any Certificate of Corridor Compatibility or Route Permit issued by the Commission is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission's order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies (Certification Statement 4).

Stantec is unaware of any PSC initiated suspensions or revocations to the Certificate of Corridor Compatibility or Route Permit.

5.1.1.2 Records

Maintain records that will demonstrate that it has complied with the requirements of the Commission's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice (Certification Statement 5).

Stantec is of the opinion, several records and documents which correlate to the ability to demonstrate compliance with several PSC and other inter-agency rules and regulations are not required to be submitted to the PSC case files, and therefore, Stantec cannot independently verify complete compliance. Potential gaps in knowledge are explained throughout the document, with suggested PSC follow up, should it be deemed appropriate. Stantec also cannot verify company record maintenance.



Stantec has performed a review of the case file in comparison to statements made throughout the Application and the Findings of Fact, Conclusions of Law and Order and has made statements throughout this document regarding potential non-compliances or suggested PSC follow up, should it be deemed appropriate.

5.1.1.3 Modification

Authorizations granted by any Certificate of Corridor Compatibility or Route Permit issued by the Commission for the transmission facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment (Certification Statement 6).

Stantec is unaware of any PSC initiated modifications to the Certificate of Corridor Compatibility or Route Permit.

5.1.2 Interagency Compliance

Comply with the rules and regulations of all other agencies having jurisdiction over any phase of the transmission facility including all city, township, and county zoning regulations (Certification Statement 2). Obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit (Certification Statement 3).

A summary of applicable agencies with jurisdiction over the Project is presented in the table below, as referenced from Docket 1: Consolidated Application, Section 6, Table 6-1. The summary includes the known responses received at the time of application submittal and those that occurred after the PSC issuance of the Finding of Fact, Conclusion of Law and Order and the Corridor Compatibility Certificate and Route Permit, as well as follow up compliance with permit requirements and resolution of issues raised. Stantec is of the opinion, if official correspondence after the PSC issuance of the Finding of Fact, Conclusion of Law and Order is not required to be submitted to the case files, specific permit requirement compliance cannot be known.

Table 2 Summary of Agency Correspondence, Permits, and Approvals

Agency	Applicable Resource/Program	Approval Y/N	Permit Required Y/N	Proof Permit Obtained Y/N
USFWS North Dakota Field Office	Federally listed threatened and endangered species	Y	N	NA
	USFWS-managed lands	Y	N	NA
	MBTA and BGEPA consultation	Y	N	NA



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Certification Relating to Order Provisions
 May 2021

Agency	Applicable Resource/Program	Approval Y/N	Permit Required Y/N	Proof Permit Obtained Y/N
USACE, Regulatory Office	Crossings of Section 408 Civil Works projects or other USACE-owned or managed lands; any special requirements, restrictions, or specifications regarding constructing pipelines across or under USACE-regulated features; and any permits issued through USACE which may be applicable to the Project to include anticipated permitting timeframes	N	Y	N
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service-Williams County	Identification of impacts to NRCS-administered lands and programs	Y	N	NA
USDA Farm Services Agency (FSA)	Identification of impacts to FSA-administered lands and programs	N	N	NA
U.S. Department of Defense (USDOD) - Cable Affairs	Identification of intercontinental ballistic missiles and launch facilities locations relative to the route	Y	N	NA
North Dakota Game and Fish Department (NDGFD)	State Conservation Priority Species	Y	N	NA
	Game Refuges	Y	N	NA
	Game Management Areas	Y	N	NA
	Private Land Open to Sportsmen	Y	N	NA
	Bald and Golden Eagle Nest Data	Y	N	NA
North Dakota Parks and Recreation Department	North Dakota Natural Heritage Inventory system, State Parks, Recreation areas, Natural areas, and Land and Water Conservation Fund projects	Y	N	NA
North Dakota SHPO	Natural Register of Historic Places, Cultural Resources Consultation	Y	N	NA
North Dakota Geological Survey (NDGS)	Identification of impacts to NDGS-administered lands and programs	Y	N	NA
North Dakota Department of Environmental Quality (NDDEQ)	Identification of impacts to NDDEQ-administered programs	Y	Y	N
North Dakota State Water Commission (NDSWC)	Identification of impacts to rural water supply systems and NDSWC-administered projects	Y	N	NA



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
 Certification Relating to Order Provisions
 May 2021

Agency	Applicable Resource/Program	Approval Y/N	Permit Required Y/N	Proof Permit Obtained Y/N
North Dakota Department of Trust Lands (NDDTL) – School Trust	Identification of impacts to NDDTL- administered School Trust lands.	N	Y	N
NDDTL – Mineral Trust	Identification of impacts to NDDTL- administered Mineral Trust lands	Y	N	NA
Western Area Water Supply Authority (WAWSA)	Identification of impacts to rural water supply systems and WAWSA- administered projects	Y	Y	Y
Williams County Board of Commissioners	Confirmation of any local ordinances or other resources under Williams County jurisdiction applicable to the Project; any permits issued through the Board of Commissioners office which may be applicable to the Project; and a summary of any applicable permit process and anticipated timeframes	N	Y	N/NA
Williams County Water Resource Board	Locations of any county-regulated drains, ditches, and/or other drainage features; relevant special requirements, restrictions, or specifications; relevant local ordinances and/or permits; and a summary of permit process and anticipated timeframes	Y	N	NA
Williams County Weed Control Board	Confirmation of current listing of noxious weeds; known locations of noxious and/or invasive weed species along the proposed route; and guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options	N	N	NA
Buford Township Sauk Valley Township Trenton Township Tioga Township	Townships crossed by project with floodplain administration authority	N	UK	NA
City of Tioga City of Springbrook	City boundaries are not crossed; but are located within the 1-mile study area	N	UK	NA

Stantec recommends additional information from those agencies for which correspondence or follow up communications have not been recorded in the case files be submitted to the PSC for verification of compliance.



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
Certification Relating to Order Provisions
May 2021

Those agencies for which ONEOK filed permits and documentation within the case files:

- NDPSC – Route and Corridor Certificate
- NDDEQ – Dewatering Permit
- NDSWC – Temporary Water Permit
- NDDOT – Utility Occupancy Permit
- Williams County – Road/Section Line Crossing Permits
- WAWSA – Rural water utility crossing permits
 - Additionally, contains other organizational rural water crossing permits

Those agencies for which ONEOK filed permits but no documentation exists within the case files:

- USACE, Section 404 Permit
- NDDTL – ROW Permits
- NDDEQ – NPDES Permit
- NDDEQ – Section 401 Water Quality Certification (superseded by Section 404 Permit)

Those agencies for which ONEOK notified but no formal approval exists within in the case files:

- Williams County Weed Control Board (no formal approval process, unstaffed)
- Williams County Board of Commissioners
- Buford Township
- Sauk Valley Township
- Trenton Township
- Tioga Township
- City of Tioga
- City of Springbrook

Stantec is of the opinion, it has identified potentially required permits for which ONEOK has not provided copies to the case file. Those agencies and permits include:

- USFWS, Special Use Permit (see Section 5.1.2.1.1)
- Department of Transportation, Federal Highway Administration, Permit to Cross
- Williams County, Conditional Use Permit

Stantec recommends the PSC request verification of these permits to enter into the case file.

5.1.2.1 Additional Agency Conditional Rules and/or Guidance/Recommendations

Those agencies which indicated additional conditional rules and/or guidance and recommendations are outlined below. Stantec is of the opinion, conditional rules must be followed, while guidelines and recommendations do not hold the power of law; however, are not independent of approvals and are in fact conditional of approval. Therefore, deviances from guidelines or recommendations is grounds for revocation of approval. Stantec cannot locate a USACE permit or final concurrence within the dockets.



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
Certification Relating to Order Provisions
May 2021

Therefore, Stantec cannot confirm if USACE regulatory guidance was followed with respect to specific waterbody crossings.

United States Fish and Wildlife Service

- Threatened and Endangered Species
 - Whooping Crane Surveys (spring and fall)
 - Piping Plover Habitat Surveys (April 1 to August 31)
 - Northern Long Eared Bat Habitat Surveys (prior to construction)

Stantec observed construction timing avoidance over multiple areas along the pipeline route. Stantec cannot confirm or deny the reason for every instance of construction timing avoidance. Piping Plover potential habitat was found to be present at one wetland, and therefore to be avoided with a ½ mile buffer from April 1 to August 31. Whooping Crane surveys should occur during the migration through North Dakota during spring and fall. Northern Long Eared Bat roost surveys should be conducted prior to disturbance in habitat areas. Stantec is of the opinion, without evidence of on-going surveys, Stantec cannot confirm compliance.

- Bald and Golden Eagle Breeding Territory and Nest Surveys (March 1 to May 15)
 - Avoid construction near Bald Eagle breeding & nesting (February 1 to July 15)
 - Avoid construction near Golden Eagles at all times

ONEOK submitted Docket 1: Application, Appendix H.2, Migratory Bird Plan, prior to construction. This plan covers Bald and Golden Eagles. Stantec observed portions of project construction were postponed, presumably around nesting occupancy schedules during pipeline construction during 2020 on-site construction inspections. However, Stantec cannot locate any submittals in the Dockets for documentation of any eagle presence/absence surveys of active nests.

Stantec observed ONEOK's Environmental Inspectors performing nesting bird surveys ahead of construction while staking avoidance areas. Stantec is of the opinion, the guidance includes surveys to be conducted even in absence of nesting sites and without evidence of on-going surveys, Stantec cannot confirm total compliance. Stantec is unaware of potential Bald or Golden Eagle sightings, nests, or breeding territories reports made to the USFWS.

- Terrestrial Habitat Avoidance and Restoration
 - Native replanting should utilize warm and cool season grasses and forbs.
 - Seed varieties should be as local as possible.

Stantec is of the opinion, native seeding and planting following NRCS guidelines, as stated in the application satisfies this guidance. Stantec is also of the opinion, without proof of purchase or confirmation of seed mixes and rates utilized on specific properties, these guidelines cannot be confirmed. Stantec will follow up during reclamation inspections for further investigation into seeding practices.

- Mitigation
 - Mitigate impacts by NEPA definition



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
Certification Relating to Order Provisions
May 2021

Stantec is of the opinion, mitigation efforts are afforded by the permitting process, notifications, correspondence, and construction design and plans.

- Migratory Birds
 - Per 50 CFR 10.13, migratory birds are protected and require take permit

ONEOK submitted Docket 1: Application, Appendix H.2 Migratory Bird Plan, prior to construction. Stantec observed portions of project construction were postponed, presumably around nesting occupancy schedules during pipeline construction during 2020 on-site construction inspections. However, Stantec cannot locate any submittals in the Dockets for documentation of any migratory bird presence/absence surveys of active nests.

- Wetland/Grassland Easements
 - Coordinate potential impacts

USFWS stated ONEOK was in communication with the Lostwood Wetland Management District with regard to potential impacts upon USFWS property interests. Stantec cannot find within the case files a follow up approval or special use permit with regard to these interests. Stantec suggests the PSC follow up with ONEOK regarding compliance.

Natural Resource Conservation Service

- Impacts to wetlands should be avoided.
- Disturbance should be temporary.
- Drainage (temporary or permanent) is not allowed.
- Mechanized landscaping necessary for installation should be kept to a minimum and preconstruction contours maintained.
- Temporary side cast material must be placed in such a manner not to be dispersed in the wetland.
- All trenches in a wetland must be backfilled to original elevation.

ONEOK committed to implement appropriate minimization and mitigation measures at these features, which may include avoidance (e.g., workspace modification or HDD) or use of construction mats and other best management practices (BMPs) to minimize impacts when working in or around wetlands. ONEOK submitted Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan Storm Water Pollution Plan. These plans elaborate upon waterbody crossings and protections.

During inspections, multiple locations were observed where the pipeline was horizontally bored underneath stream channels, open cut, or temporary bridges were constructed. Most observed wetlands were bored via HDD techniques, but some were trenched. Stantec did not observe any major issues of adverse effects to Wetland or Waterbodies. In general, these inspections found the methods utilized to be adequate; however, SWPPP implementation was found to be inadequate (see Section 5.2.6.1). During as-built inspections, waterbody crossings were inspected and found to be generally in good conditions with a few minor exceptions. Additional reclamation activities are recommended at some observed wetland/waterbody areas (**Photo Observation Points 2 and 5**). Additional BMPs and maintenance/repair is recommended at many observed wetland/waterbody areas (**Photo Observation Points 2, 5, 10, 15,**



17, 19, 34, and 35). Removal of rockpiles with significant topsoil fraction (**Photo Observation Points 14 and 16**) and potential construction crossing stabilization sand (**Observation Point 26**) from drainageways is recommended.

North Dakota Game and Fish Department

General:

- Native prairie and wooded draws should be avoided to the extent possible.
- Additional precautions be implemented into the designs of pipes crossing state waterways.
- Wetlands should be avoided, but if they cannot be, no alterations should be made to existing drainage patterns.
- Aboveground appurtenances should not be placed in wetland areas.
- Unavoidable destruction or degradation of wetland acres should be mitigated in kind.
- Aquatic Nuisance Species are a major concern, State law requires the contractor to take appropriate precautions to prevent introduction or movement of ANS within the State. The contractor should provide the department reasonable opportunity to inspect equipment prior to launch or placement into waters of the State.
- Aerial surveys should be conducted for raptor nests before construction begins. One-half mile construction buffer be implemented around active eagle nest sites (Known occupied within the past 5 years).
- PLOTS lands are privately managed, disturbances could result in reduction or reimbursement of cost-share payments, NDGF encourages landowners to notify the department early in the process.

Project Specific:

- Install pressure sensing valves on both sides of the waterway (Little Muddy River and Beaver Creek). These valves should be placed as close to the waterway as possible while staying out of the floodplain to reduce potential damage from ice and other floating debris.
- Develop a maintenance schedule to ensure the integrity of the pipe for the life of the project.

In addition to the findings associated with wetlands and waterbodies as presented in Section 5.1.2.1.2; Stantec is of the opinion, communications with NDGF concerning notifications and opportunity to inspect equipment prior to launch into waters of the state are not required to be submitted to the PSC and therefore, Stantec cannot independently verify compliance.

Stantec is of the opinion, the maintenance schedule compliance is achieved by the outlined monitoring and maintenance schedule in Docket 1, Section 7.4.9. ONEOK referenced communication with NDGF about pressure sensing valves on both sides of the water, and ensured doing so, this condition was confirmed by Stantec during as-built inspections.

North Dakota Department of Environmental Quality

General:



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
Certification Relating to Order Provisions
May 2021

- Stormwater Permit required for disturbance over 1-acre with potential to impact waters of the state.
- Protect against compaction, vegetation loss, and unnecessary damage to wetlands, riparian zones, delicate flora, land resources, and other sensitive areas
- Manage construction to minimize impacts to aquatic systems through spill prevention and stream bank, bed, and vegetation disturbance avoidance and permitted pesticide use.
- Fill below the OHWM must be free of organics, debris, and wastes, temporary fill must be removed, and impacted areas restored to original condition.
- List of construction and environmental disturbance requirements
- Keep noise to a minimum by operating good working equipment and ensuring construction activities are not conducted during early or late hours.
- All spills must be immediately reported, and appropriate remedial actions performed
- All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules.
- Select locations that minimize the potential for impacts to human health and the environment during and after construction by avoiding when possible source water protection areas and sensitive surface and groundwater environments; and, select areas with natural barriers to these environments.
- Develop a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup.
- Proper surveillance monitoring for early detection of leaks should be required.

Project Specific:

- Special care to be taken with 303d listed waterbodies (Little Muddy River)
- Special care to be taken with aquifers (Little Muddy, Yellowstone River Channel, and Ray glacial drift; Little Muddy is a designated sensitive groundwater area) and domestic water supply wells (particularly south of Tioga) with regard to spills of any materials that may have an adverse effect on groundwater.

See Sections 5.1.2.13 and 5.1.2.12 for the wetland and waterbody findings associated with construction impacts. See Section 5.2.6, Soil Management for information on compliance regarding SWPPP related tasks such as soil handling, erosion, sedimentation, and BMPs.

ONEOK committed to several construction plans to mitigate the effects of construction as outlined by NDDEQ guidance and the PSC agreed no construction impacts are expected regarding impairment of the items of concern if all plans are followed. Stantec observed several accounts of unvegetated drainageways with little to no BMPs, an impacted streambank from a machinery crossing through a waterway, a few areas of potential compaction, and rock piles in drainageways with topsoil attached. Stantec is of the opinion, compliance by ONEOK includes addressing these disturbances.

State Water Commission

- Floodplain construction is permitted by the local Floodplain Administer
- Conditional or temporary water appropriations must be permitted through the OSE



- SWC water quality monitoring wells encountered during construction activities and must be removed, contact Water Appropriations Division to ensure proper abandonment.

ONEOK has contacted all local floodplain administrators. Stantec cannot find within the case files a follow up approval or communications regarding floodplain construction. Stantec suggests the PSC follow up with ONEOK regarding compliance.

Williams County Weed Board

Field surveys identified and recorded areas of noxious weeds within the Survey Area (Docket 1: Application, Section 5.5). ONEOK will minimize the potential for the establishment of undesirable species by minimizing the time duration between final grading and permanent seeding. ONEOK will also require that construction equipment be cleaned before arriving on the construction spread to prevent the introduction of undesirable species to the Project area, as described in the Project's Weed Management Plan and Revegetation Plan, which addresses weed control. The Williams County Weed Board does not require a Weed Management Plan be prepared and submitted for approval. ONEOK has developed a plan (Docket 1: Application, Section 5.5)

ONEOK submitted Docket 1: Application, Appendix H, Weed Management Plan, prior to construction.

Stantec was not able to visit areas of noxious weeds to confirm the areas were marked appropriately during the construction inspections. Stantec was also unable to observe or confirm if all specific protocols outlined in the plans were followed during inspections due to the nature and timing of inspections and construction schedules. No noxious weeds were observed at Observation Points during the as-built inspection. Noxious weeds will be monitored during revegetation inspections.

5.2 CONSTRUCTION

The following subsections address compliance with Certification Statements 7 through 17.

5.2.1 Pre-Construction Conference

Hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order (Certification Statement 7).

ONEOK submitted Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction. A pre-construction conference call was held on April 9, 2020. Meeting minutes were taken, as well as a list of attendees. Appropriate representatives were found to be in attendance and contact information for ONEOK representatives was provided during the meeting.



5.2.2 Cultural Resources

All cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area (Certification Statement 8).

ONEOK submitted Docket 63: ND Historical Society letters dated 12-17-19 and 12-31-19, on 3/6/20, prior to construction. The Docket provides approval for ONEOK's cultural resources avoidance and monitoring plan.

5.2.3 Topsoil Segregation Commencement Oversight

Topsoil removal will begin when the Commission's third-party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference (Certification Statement 9).

ONEOK submitted Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction. ONEOK provided the date and time for initiation of topsoil removal to Stantec.

Stantec submitted Docket 106: Topsoil Inspection Report; detailing adherence to the date and time of topsoil removal initiation and on-going compliance inspections. Stantec submitted Docket 112: Construction Inspection Report; detailing on-going observations of topsoil segregation and management. As-built inspections regarding soil management are discussed in Section 5.2.6.

5.2.4 Construction Notification of Intent and Progress Reporting

Inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated on construction activities on a monthly basis (Certification Statement 10).

ONEOK submitted Docket 82: Preconstruction Conference Minutes and NOI to Commence Construction, prior to commencement of construction. ONEOK submitted Dockets 100, 107, 115, 116, 120, 124; Monthly Construction reports, corresponding to the monthly intervals between April to November.

The timeframe of the start of construction and construction inspections was discussed during the pre-construction call. All monthly construction reports were submitted during on-going construction work on the project.



5.2.5 Pipeline Depth

Pipeline will be 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 (Certification Statement 11).

Stantec visually confirmed pipeline depth at select locations during construction inspections and pipe depth appeared to be buried to at least the specified depth (Docket 112: Construction Inspection).

5.2.6 Soil Management

All topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. The stripped topsoil must not be stockpiled in natural drainages, and must be protected from water erosion. Care must be taken to protect topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall/early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced. Topsoil must be segregated from subsoil (Certification Statement 12).

Stantec confirmed soil management conditions indicated that topsoil was removed, stored, and replaced properly for the majority of the length of the ROW at multiple locations during topsoil, construction, and as-built inspections. Soil management conditions appeared to be properly conducted with a few minor discrepancies (Dockets 106 and 112: Topsoil Inspection Report and Construction Inspection Report; respectively). The main concerns identified in the Construction Inspection Report were occurrences of minor mixing of subsoil with topsoil. Stantec visually confirmed proper subsoil and topsoil replacement and topographical grading during as-built inspections (**Appendix B**). Observations during the as-built inspection indicated that minor issues were resolved upon backfilling of trenches, and that topsoil replacement was adequate to support establishment of crops in cropland and grasses seeded in rangeland (**Appendix B**). However, some issues with topsoil replacement and grading were noted during as-built inspections (**Observation Points 1, 4, 5, 26, 28, and 33**).

5.2.6.1 Erosion and Sedimentation

The Project Application states throughout many sections, BMPs would be used during and after construction to minimize soil erosion and protect surface water (Docket 1: Application), as well as several mitigation documents including but not limited to: Construction Mitigation and Restoration Plan, Dust Control Plan, and SWPPP. Additionally, multiple Federal, State, and local regulatory agencies provided statements in correspondences to protect against erosion and sedimentation (see Section 5.1.2.1). Specifically, the NDDEQ provided guidance in Docket 65: Exhibit 9, NDDEQ letter dated 2-6-20; which is elaborated in Section 5.1.2.2 and expanded upon below.



Topsoil and construction inspections did not note locations where erosion controls were improperly installed; however, the construction report (Docket 112) did note the continued need to implement erosion controls in compliance with NPDES permit standards and ONEOK's SWPPP stated goals and desired outcomes utilizing construction industry standards.

As-built inspections noted several deficiencies in erosion and sediment control BMPs. BMPs were found to be improperly installed according to manufacturer's specifications and construction industry standards. Fiber rolls were not trenched in, inappropriately sized, lacking on slopes, and improperly utilized as the only perimeter sediment control device in areas lacking means of energy dissipation. Silt fences were inappropriately placed perpendicular to drainageway flows and improperly sized. Many BMPs were found to be requiring maintenance or replacement after the winter season, indicating SWPPP inspections and corrective actions are not occurring or are insufficient. Large portions of the ROW had evidence of crimped straw placement; however, at the time of inspection, most had blown away, evidence of a lack of proper placement. Other areas were lacking BMPs in accordance with construction industry standards and Oneok's SWPPP, such as slopes or conveyances. As such, conditions have allowed erosion along the ROW at some locations. Observation Points which elaborate upon specific locations of BMPs and/or erosion include: **2, 5, 10, 11, 12, 15, 17, 19, 29, 34, 35, 37**. Stantec recommends PSC follow up with ONEOK to address potential erosion issues and BMP maintenance.

5.2.7 Road Crossings

All buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road (Certification Statement 13).

ONEOK stated gravel roads would be open cut or bored (Docket 1: Application, Section 9.2). ONEOK submitted Docket 93: Permits, on 4/30/2020; which contains utility road and section line crossing permits issued prior to construction from NDDOT, Williams County, and a multitude of civil townships. A total of 14 road crossing bore permits issued by Williams County, 1 bore permit through NDDOT (for 3 road crossings of ND Highway 2/85, 2, and 40) and a multitude civil township road and section line bore permits. All road crossing permits detail specifications to be followed which include no disturbance and restoration clauses as well as a request that new utilities be at least 100 feet out from the centerline on each side of the road. Stantec visually confirmed all road crossings were conducted through boring operations and 100 foot setback from the centerline roadway ROW; however, some roadway ROW disturbances appeared to require a greater degree of reclamation (**Observation Points 8, 9, 11, 12, 13**).

5.2.8 Staging Areas

Staging areas or equipment shall not be located on land owned by a person other than the Company unless otherwise negotiated with landowners (Certification Statement 14).

Staging areas and equipment were located along the pipeline temporary construction ROW, within survey limits, typically adjacent to road crossings, and upon areas that had been stripped of topsoil prior to staging of equipment or materials. Stantec did not observe any staging areas outside of the pipeline



temporary construction ROW. Details of negotiations with landowners are not submitted to the PSC case files and cannot be independently verified.

5.2.9 Unanticipated Discoveries

If any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society (Certification Statement 15).

ONEOK did not file any notification or work stoppage as a result of an unanticipated discovery; therefore, there are no dockets detailing further professional examinations. Stantec is unaware of any unanticipated discoveries filed with the PSC occurring throughout construction.

Stantec observed debris scattered over a large area in and outside of the ROW (**Photo Observation Point 18**). The point occurs near a historic standing structure. Debris found at the site ranges from building debris to items which appear to be farming/ranching implements and in particular seemingly related to animal husbandry, though Stantec staff present on-site is not a qualified archaeologist the debris appeared historical in nature. This area of the Project Corridor was not designated as an exclusion or avoidance area by NDSHPO according to GIS files received from ONEOK. This leads Stantec to believe the area may have identified to NDSHPO and determined to be no effect. Stantec cannot determine this assumption independently as we are not privy the locations of cultural areas. Stantec is of the opinion, if a site is determined to be no effect but construction disturbances yield historical debris, further consultation with NDSHPO and work stoppage should occur. Stantec suggests the PSC follow up with ONEOK and NDSHPO, but Stantec is of the opinion a work stop order was appropriate upon finding the items.

There was also present in this area and abundance of metal fencing and other objects that were accumulated just off the ROW, as if removed from the pipeline ROW and cast aside. Stantec is of the opinion, debris determined to be refuse, to be removed from the ROW should be treated as such and disposed of properly.

5.2.10 Weather Conditions

Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company (Certification Statement 16).

Stantec was unable to be present on-site during or immediately following adverse weather conditions to document compliance with construction suspension due to weather conditions. Stantec however did observe ONEOK to be obtaining and following load haul road permits and restrictions.



5.2.11 Stop Work Authority

The Commission has authority to stop Project construction activities in the event of a probable violation of the siting laws, siting rules, or applicable Commission Orders if, in the opinion of the Commission, construction activities are likely to result in irreparable or significant harm (Certification Statement 17).

Stantec is unaware of PSC initiated Stop Work Authority being implemented.

5.3 RESTORATION AND MAINTENANCE

The following subsections address compliance with Certification Statements 18 through 26.

5.3.1 Restoration

As soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction (Certification Statement 18).

ONEOK submitted Docket 1: Consolidated Application, Exhibit H, Construction Mitigation and Restoration Plan & Revegetation Plan. At the time of the site inspection, the pipeline trench had been backfilled, soils had been recontoured, topsoil replaced, cropland had not yet been planted, and reseeded had been completed in non-cropland areas. Vegetative growth of desired species at seeded areas was not observed.

A revegetation inspection contracted by the PSC is planned one year from the last date of seeding to document establishment of vegetation and ultimate compliance with this Certification Statement.

5.3.2 Roads

All pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition (Certification Statement 19).

ONEOK submitted Docket 1: Exhibit H, Construction Mitigation and Restoration Plan. This plan outlines the procedure and standards to reclaim damaged roads. At the time of the as-built inspection, the majority of county, township, and access roads and ROWs appeared to be in satisfactory condition with the exception of a few areas (**Photo Observation Points 8, 9, 11, 12, 13, 29**). Vegetation growth within the ROW access roads adjacent to roads was sparse in most areas. Contouring in the ROW near roads generally matched adjacent topography.



5.3.3 NRCS Recommendations

Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the NRCS recommendations, unless otherwise specified by the landowner and approved by the Commission. (Certification Statement 20).

ONEOK submitted Docket 1: Exhibit H, Revegetation Plan. This plan outlines compliance with NRCS recommendations. It does not appear that ONEOK has filed any deviation from recommendations as negotiated with landowners, and no PSC approvals for such deviations exist within the case files. Stantec recommends the PSC to inquire ONEOK about landowner negotiations if warranted.

5.3.4 Continuing Commitment

Company will fulfill its obligation for reclamation and maintenance of the approved transmission facility right-of-way, transmission facility, and associated facilities continuing throughout the life of the transmission facility (Certification Statement 21).

At the time of as-built inspections, reclamation was complete and areas requiring additional maintenance have been addressed throughout this document and summarized in Section 6.0. A reclamation and revegetation inspection is to be conducted one year from date of final seeding.

5.3.5 Fences and Gates

Repair all fences and gates removed or damaged during all phases of construction and operation of the transmission facility (Certification Statement 22).

ONEOK committed to repairing and replacing all fences and gates (Docket 1: Application, Sections 2.18, 9.6). Existing fences or gates that were impacted by pipeline construction appeared to be replaced or repaired as needed.

5.3.6 Drain Tile

Repair or replace all drainage tile broken or damaged as a result of construction and operation of the transmission facility (Certification Statement 23).

ONEOK committed to repair or replace all damaged drainage tile (Docket 1: Consolidated Application, Sec. 9.6). ONEOK submitted Docket 1: Exhibit H, Construction Mitigation and Restoration Plan; which outlines specific protocols. Stantec did not observe any broken or damaged drainage tile during inspections. Currently there are no PSC protocols to report damaged drainage tiles to the case file, and Stantec is unaware of any landowner complaints regarding damaged drainage tiles.



5.3.7 Tree and Shrub Mitigation

Comply with the Tree and Shrub Mitigation Specifications (Certification Statement 24).

5.3.7.1 Inventory

Prior to cutting or clearing trees or shrubs for construction, all trees one-inch or greater in diameter at breast height must be inventoried to record the location, number, and species and, all shrubs and all coniferous trees of any diameter must be inventoried to record the location, number, and species (Tree and Shrub Mitigation Specifications, PSC).

ONEOK submitted Docket 118: Tree Shrub Mitigation Plan on 9/23/20. The Docket details tree and shrub surveys performed prior to clearing and post clearing, including re-routes. The Docket does not detail pre-clearing tree and shrub inventory (not required to be filed with the PSC). Stantec suggests the PSC require this data to be submitted to the case file, allowing review for compliance. The Docket details post-clearing inventory, with clonal species excluded from final counts. Stantec is unaware of PSC tree and shrub mitigation requirements allowing for exclusion of clonal species. Stantec suggests the PSC review its policies and amend accordingly or require ONEOK to revise the final count to include clonal species.

5.3.7.2 Clearing

The maximum width of tree and shrub removal is 50 feet, unless otherwise approved by the Commission (Tree and Shrub Mitigation Specifications, PSC).

ONEOK submitted Docket 86: Tree and Shrub Clearing Expansion Request; requesting a 75 foot clearing for 2 locations. PSC submitted Docket 89: Commission Motion to approve tree and shrub clearing expansion request; in response to Docket 86. ONEOK refined or necked down the construction ROW through woody areas so that tree and shrub loss was mitigated during construction. During inspections, Stantec observed this to be accurate in multiple areas. In general, major woody areas or planted shelterbelts were cleared in 50-foot construction ROWs (**Photo Observation Points 30, 32**).

5.3.7.3 Replacement

Docket 118 details proposed mitigation measures and satisfies sub-item #4; however, we understand landowner negotiations have not been finalized. Stantec recommends the PSC follow up with ONEOK on replacement plans and negotiations.

5.3.8 Waste Disposal

Remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis (Certification Statement 25).



ONEOK indicated that waste would be removed and disposed of properly before construction is completed (Docket 1: Application, Section 9.2). At the time of the as-built inspection, the majority of the ROW had no waste, debris, or abandoned equipment observed; however, there were a few discrepancies (Observation Points 18 and 21). Equipment and material staging areas in the vicinity of the as-built inspection points had been appropriately cleaned up post-construction.

5.3.9 Traffic Control

Provide any necessary safety measures for traffic control or to restrict public access to the transmission facility (Certification Statement 26).

ONEOK submitted Docket 1: Exhibit H, Construction Mitigation and Restoration. Traffic control measures are outlined within the document. Stantec observed traffic control measures during all inspections, near appropriate points during all phases of construction.

5.4 COMMUNICATION WITH LANDOWNERS AND PSC

The following subsections address compliance with Certification Statements 27 through 41.

5.4.1 Right-of-Way Liaison Notifications

Prior to beginning construction of the transmission facility at a location, it shall send a letter to each landowner with whom an easement was executed for that location specifying the name and phone number of the company representative who is responsible for receiving and resolving landowner issues for the life of the easement (Certification Statement 27). File with the commission the name and phone number of the current company representative who is responsible for receiving and resolving landowner issues for the transmission facility. The company will update this information whenever there is a change to the current company representative for the life of all easements for the transmission facility (Certification Statement 28).

Contact information for a company representative was provided during the pre-construction conference call (Docket 82: Preconstruction Conference Minutes and NOI). Stantec cannot independently verify if ONEOK sent landowner notifications of company representatives as no such information exists in the case files. Stantec is unaware of any landowner or community concerns filed with the PSC to date.

5.4.2 Engineering Design Drawings

Provide the Commission with engineering design drawings of the transmission facility prior to construction (Certification Statement 29).

ONEOK submitted Docket 1: Application, Exhibit A, Engineering Documents; detailing engineering design drawing typicals and standards; however, no project specific engineering designs were provided in the Application materials.



5.4.3 Extraordinary Event Notification

Advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the transmission facility, including injuries to any person (Certification Statement 30).

Stantec is unaware of any communication to the PSC and it does not appear ONEOK submitted documentation to the case file regarding extraordinary events. See Section 5.4.7 for a discussion relating to the abandoned line strike.

5.4.4 Significant Biological Discoveries

Report to the Commission, as soon as reasonably possible, the presence in the permit area of any critical habitat or threatened or endangered species of which Company becomes aware and which were not previously reported to the Commission (Certification Statement 31).

It appears ONEOK did not submit any reports to the PSC which describe previously unidentified critical habitat or threatened or endangered species. Stantec suggests the PSC require on-going survey documentation performed by environmental inspectors and natural resource surveyors employed in performing compliance with conditional rules and guidance approvals provided by agencies outlined in Section 5.1.2.1 as documentation of compliance with this certification. Stantec did not observe any significant biological discoveries during any inspections.

5.4.5 Modification

Inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility (Certification Statement 32).

Stantec is of the opinion, modification, does not include re-routes, which are discussed in Certification Statements 35 & 36, addressed in Section 5.4.8 of this document. Therefore, Stantec does not believe from a docket review and on-site inspections, that ONEOK performed modifications to the transmission facility.

5.4.6 As-Built Documentation

Provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must



be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAO 83) UTM Zone 13N or 14N feet (NAO 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed (Certification Statement 33).

ONEOK submitted Docket 125: Final Construction Report and As-Built Maps on 11/17/2020, within 3 months of construction completion. Stantec finds the docket to include paper maps and a reference to a thumb drive with GIS files containing as-built conditions.

5.4.7 Underground Facilities

Notify the Commission as soon as reasonably possible if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined (Certification Statement 34).

Stantec submitted Docket 112: Construction Inspection Report; which detailed an observation of an abandoned line strike. PSC submitted Docket 113: Warning Letter- 24 July 2020 Construction Inspection Report; warning ONEOK to comply with Certification Statement 34. ONEOK submitted Docket 114: Response to 29 July Warning Letter; detailing notification protocols. Stantec suggests proof of notifications of this manner be required to be included in case files; otherwise, Stantec cannot independently verify if ONEOK notified the PSC of such events.

5.4.8 Route Adjustments Before or During Construction

Utilize the following procedures if Company seeks a route adjustment before or during construction of the pipeline, pursuant under NDCC §49-22.1-15 (Certification Statement 35). Specifically identify which subsection of NDCC 49-22.1-15 it is requesting the adjustment under. Company will file the name and contact information for a key contact person for the purposes of notice and communication during the adjustment application (Certification Statement 36).

ONEOK filed for 6 certifications of route adjustments under NDCC 49-22.1 (Dockets 88, 92, 96, 101, 103, and 128), totaling 17 adjustments, 8 within the corridor no avoidance area affected (NDCC 49-22.1-15(1), 4 within the corridor avoidance area affected (NDCC 49-22.1-15(2), and 5 outside the corridor no avoidance area affected (NDCC 49-22.1-15(3)).

Stantec compared the as-built pipeline alignment with the proposed alignment and matched re-routes approved by the PSC. Stantec found that the as-built alignment matched the majority of the proposed route with the exception of the approved re-routes.



6.0 ISSUES TO RESOLVE AND RECOMMENDATIONS

6.1 DOCUMENTATION

Stantec recommends that ONEOK submits the following documentation to the PSC:

- USACE Section 404 Permit (Section 5.1.2)
- USFWS, Special Use Permit, Lostwood Wetland Management District (Section 5.1.2.1.1)
- Department of Transportation, Federal Highway Administration, Permit to Cross
- NDDTL – ROW Permits
- NDDEQ – NPDES Permit
- NDSHPO – Unanticipated Discovery (potential); communications, stop work (Section 5.2.9)
- NDGF – Notifications to inspect machinery prior to launch into waters of the State
- Williams County Approval Correspondence
 - Board of Commissioners
 - Conditional Use Permit
- Township Floodplain Administrators & City Approval Correspondence
 - Buford Township
 - Sauk Valley Township
 - Trenton Township
 - Tioga Township
 - City of Tioga
 - City of Springbrook
- USFWS and NDGF required construction MBTA and BGEPA surveys (Sections 5.1.2.1.1 and 5.1.2.1.3)
- USFWS required re-route concurrences and correspondence of determination
- NRCS seeding records and landowner negotiations (Section 5.1.2.1.2)
- Tree and Shrub Mitigation Plan, Replacement (Section 5.3.7)

6.2 AS-BUILT CONDITIONS

Stantec recommends the PSC follow up with ONEOK during or prior to the reclamation phase of inspections:

- Refuse cast aside near potential Unanticipated Discovery violation.
- Rockpiles with significant soil fractions placed in drainageways.
- Potential compaction in staging areas or access points.
- Removed temporary approaches or access points within the roadway ROW where additional minor reclamation is required.
- Repair/Replacement of non-functioning BMPs.
- Placement of BMPs in areas prone to erosion as indicated in the SWPPP.



PU-19-368 ONEOK BAKKEN PIPELINE, L.L.C.
TIOGA LATERAL NGL PIPELINE AS-BUILT INSPECTION REPORT
Issues to Resolve and Recommendations
May 2021

- Appropriate installation and selection of BMPs.
- Protection of drainageways from erosion and sedimentation.
- Erosion, sediment, energy dissipation controls near area of geologic instability.
- Conditions concerning reclamation at Observation Points 11-13.



7.0 REFERENCES

North Dakota Public Service Commission (ND PSC). 2020. Online Case Search. Available from:
http://www.psc.nd.gov/database/company_case_list.php. Accessed May 2021.



8.0 SIGNATURES

This document was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of North Dakota Public Service Commission (the “Client”). The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The findings in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. Recommendations and opinions 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.

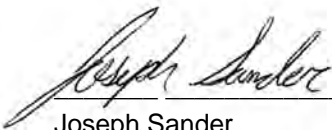
Lead Project Manager and Environmental Scientist, Matt Retka, and Environmental Scientist, Joseph Sander, prepared the report.



Matt Retka
Project Manager
Environmental Scientist

May 25, 2021

Date



Joseph Sander
Environmental Scientist

May 25, 2021

Date

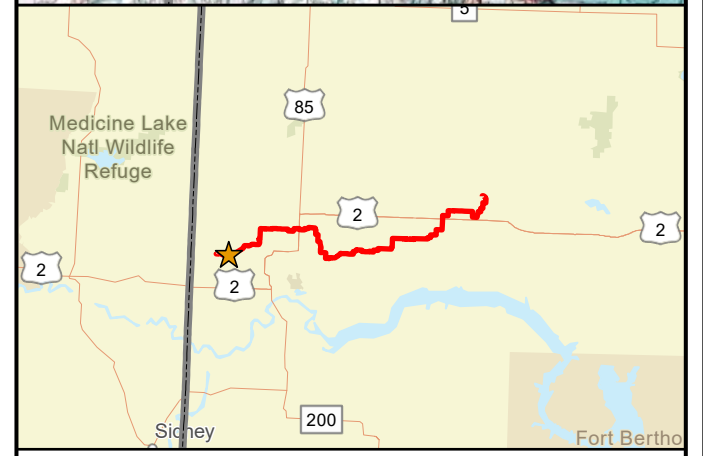
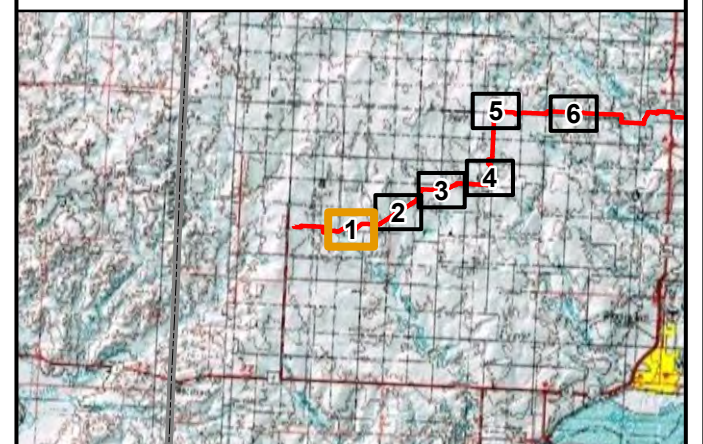


FIGURES

1-16 As-Built Observation Locations Map

Tioga Lateral Pipeline Figure 1

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:33 PM User: MueKJ0907

PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION




As-Built Observation Locations

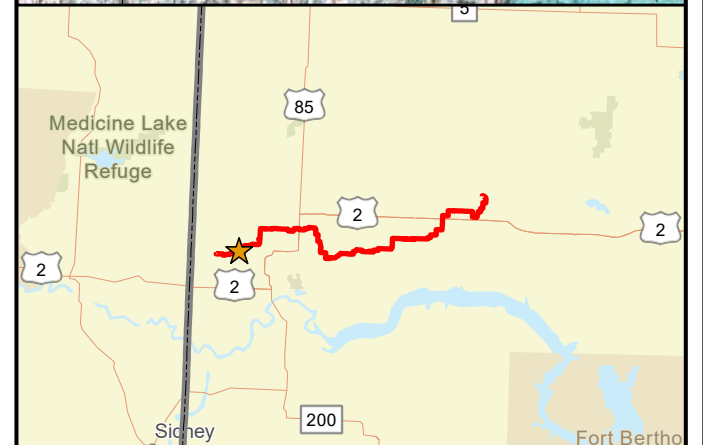
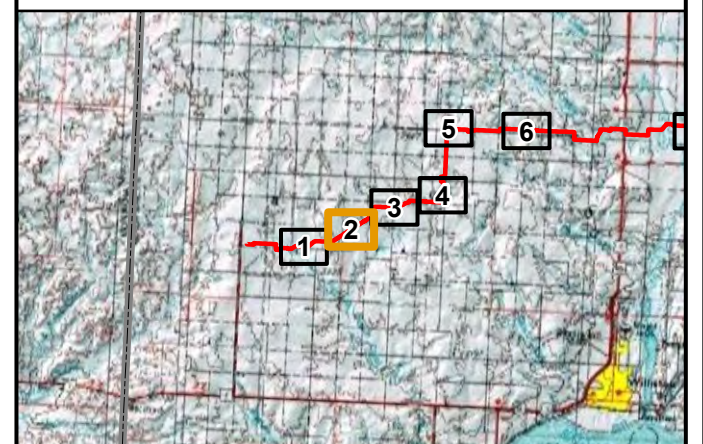


MAY 2021

Map 1 of 15

**Tioga Lateral Pipeline
Figure 2**

-  As-Built Observation Point Location
-  Tioga Lateral As-Built Centerline (PU-19-368)
-  Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:33 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations

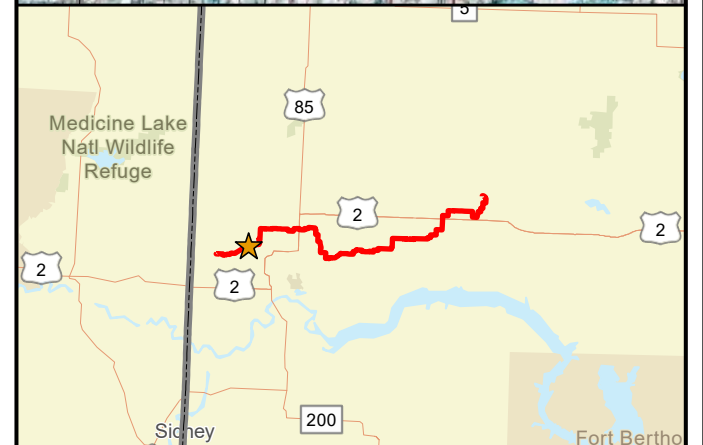
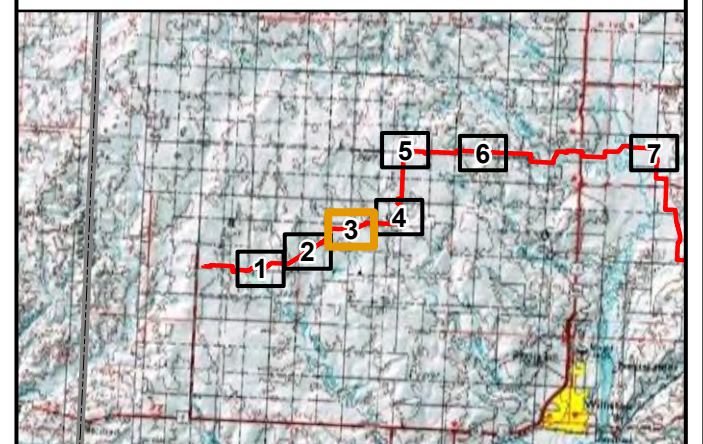


MAY 2021

Map 2 of 15

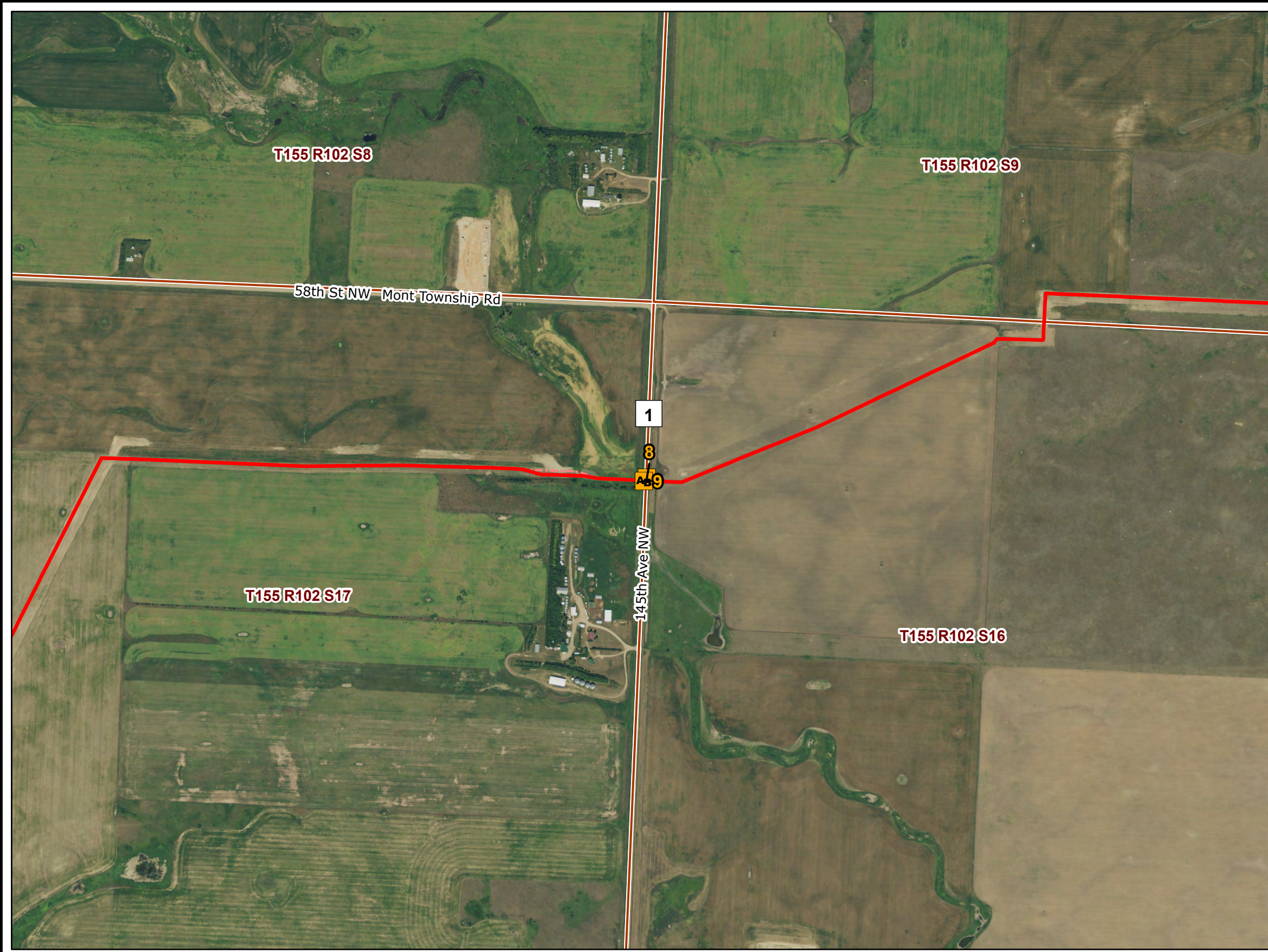
Tioga Lateral Pipeline
Figure 3

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)

Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:34 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations






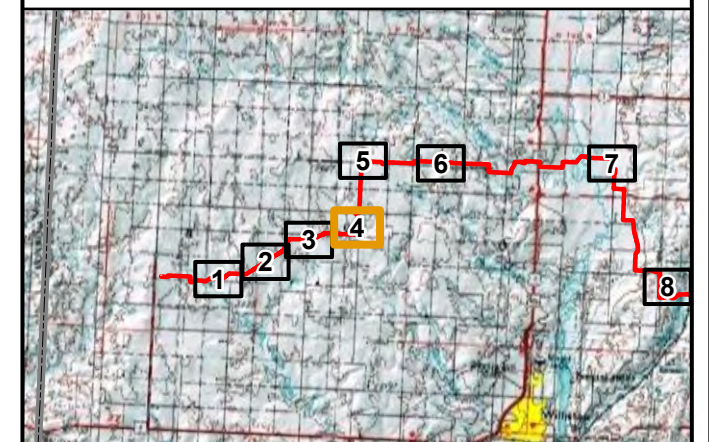
MAY 2021

Map 3 of 15

**North Dakota
Public Service Commission**

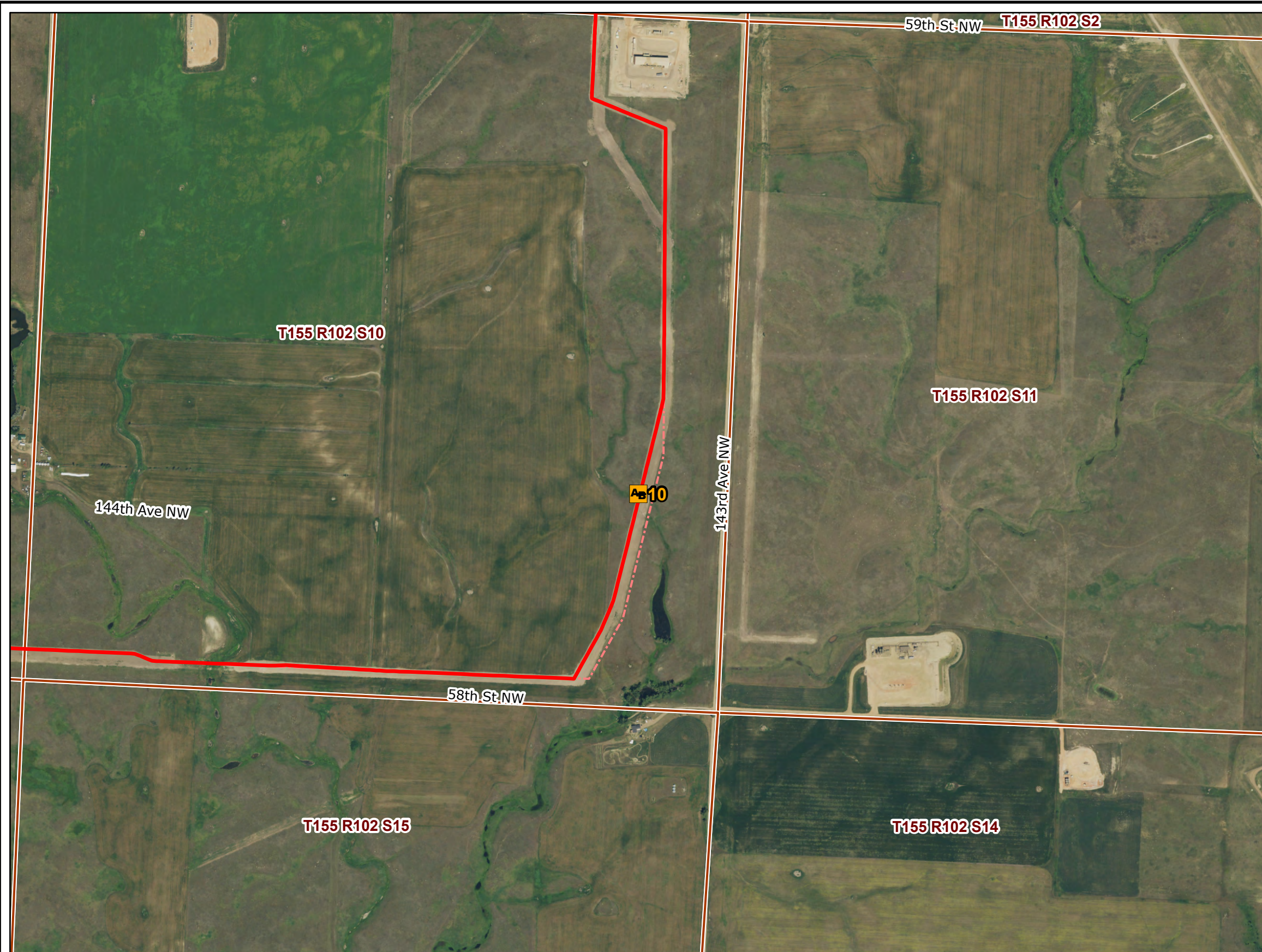
**Tioga Lateral Pipeline
Figure 4**

-  As-Built Observation Point Location
-  Tioga Lateral As-Built Centerline (PU-19-368)
-  Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)

Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:34 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



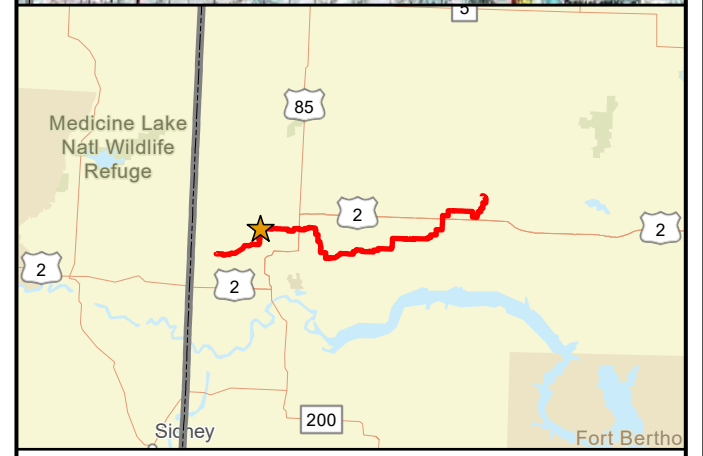
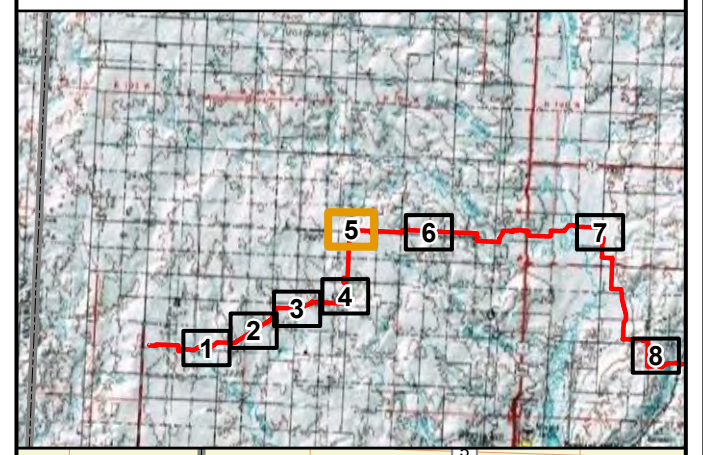
MAY 2021

Map 4 of 15

**North Dakota
Public Service Commission**

**Tioga Lateral Pipeline
Figure 5**

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:34 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION




As-Built Observation Locations

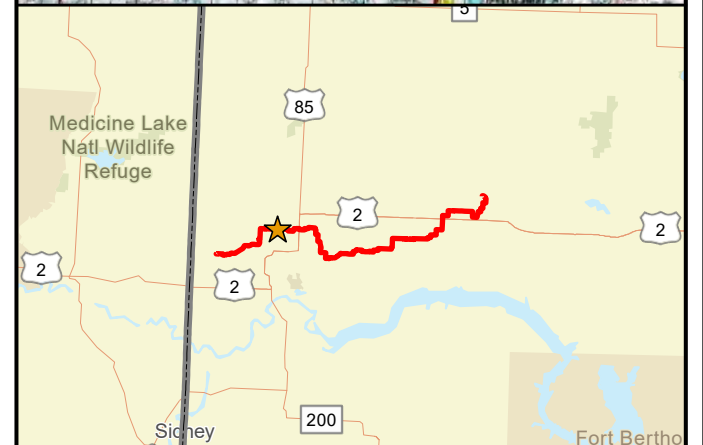
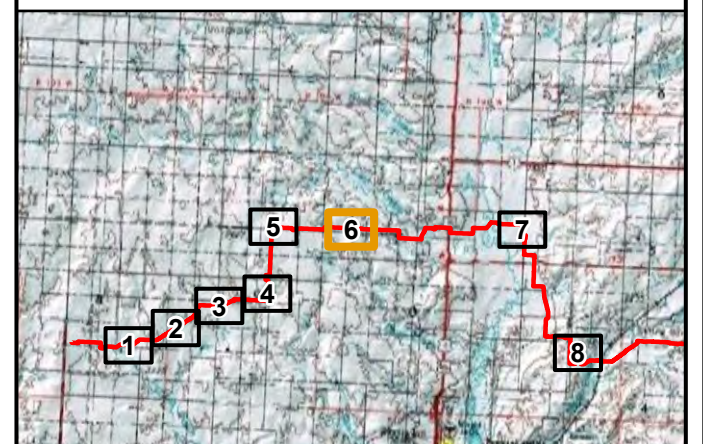


MAY 2021

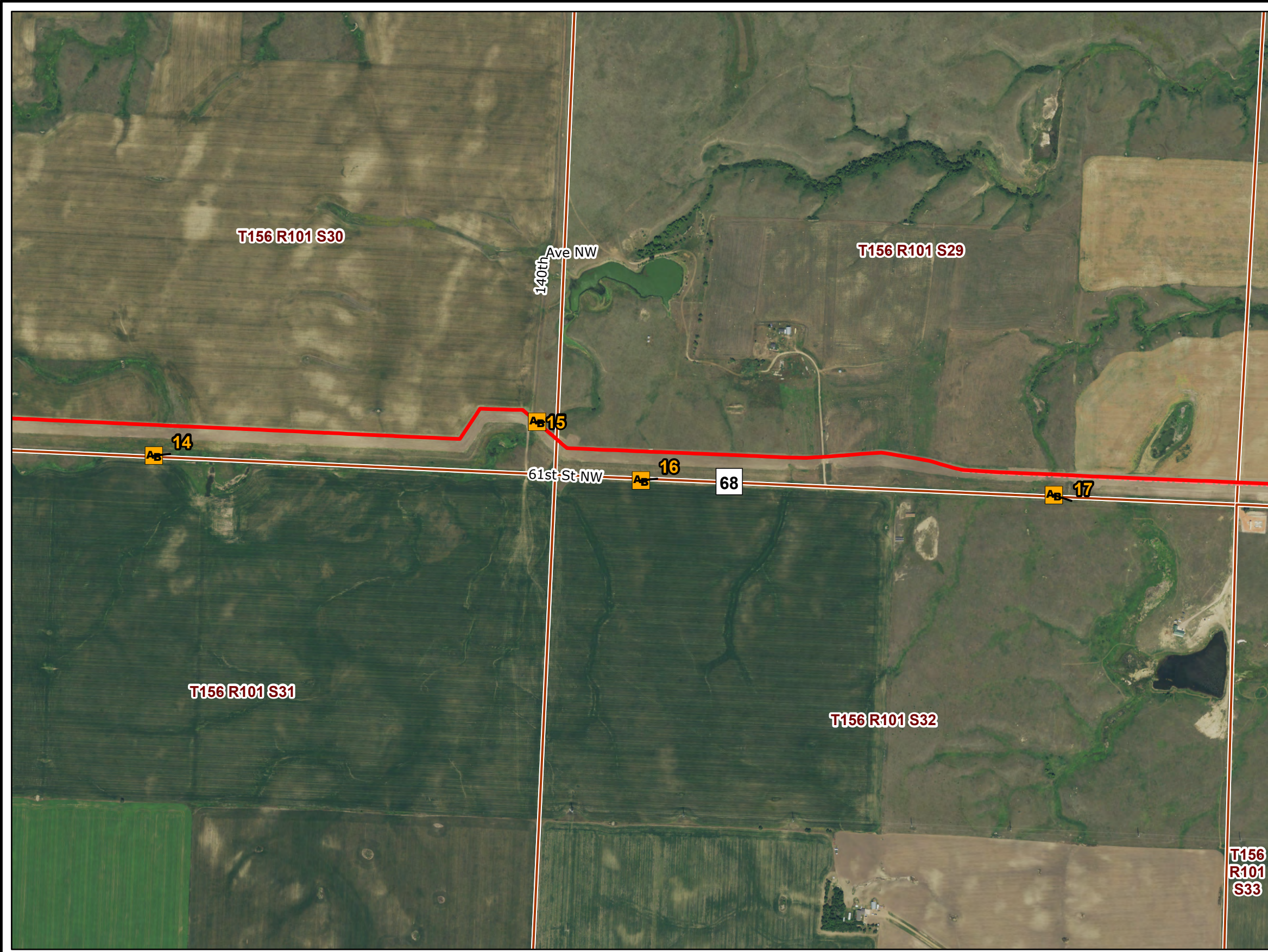
Map 5 of 15

**Tioga Lateral Pipeline
Figure 6**

-  As-Built Observation Point Location
-  Tioga Lateral As-Built Centerline (PU-19-368)
-  Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:34 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



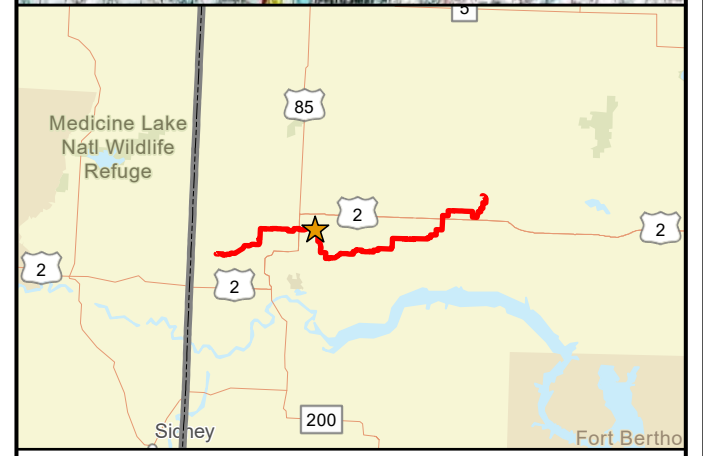
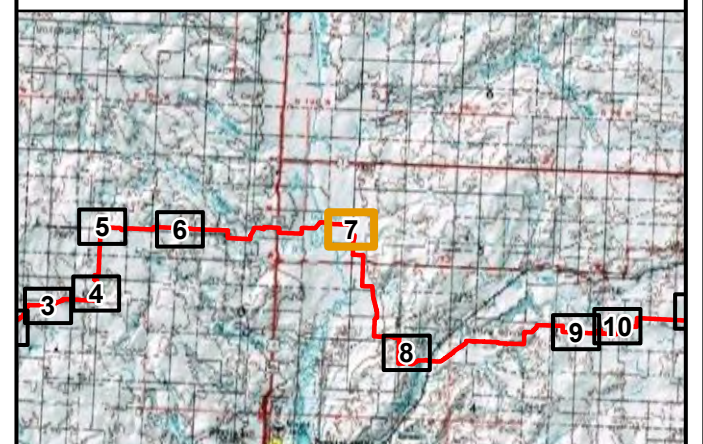
MAY 2021

Map 6 of 15

**North Dakota
Public Service Commission**

**Tioga Lateral Pipeline
Figure 7**

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:34 PM User: MueKJ0907

PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



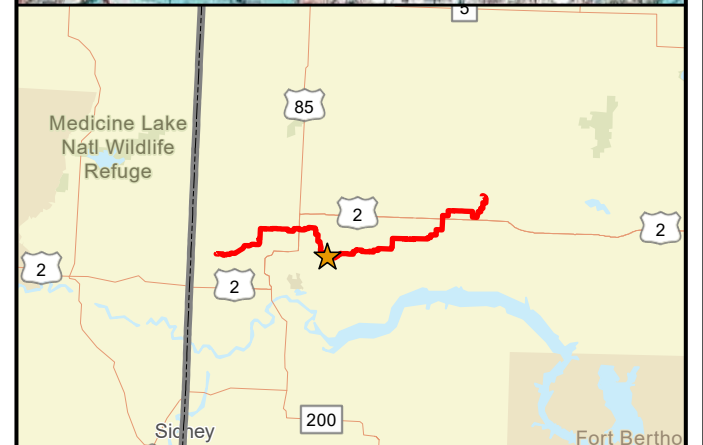
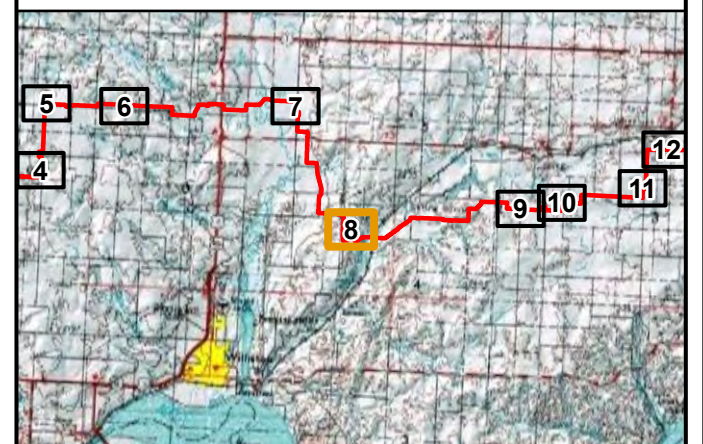
MAY 2021

Map 7 of 15

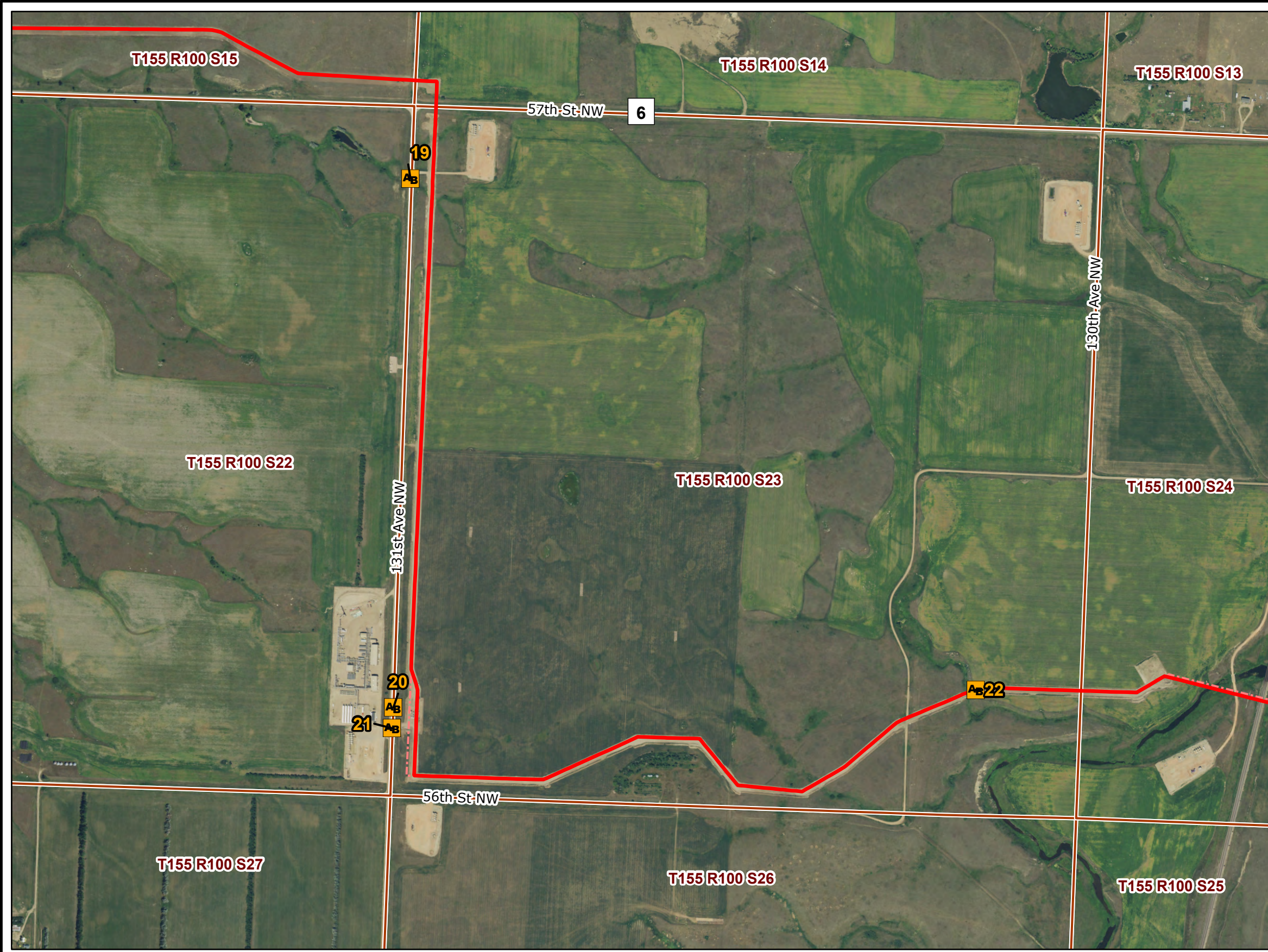
**North Dakota
Public Service Commission**

**Tioga Lateral Pipeline
Figure 8**

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:35 PM User: MueKJ0907



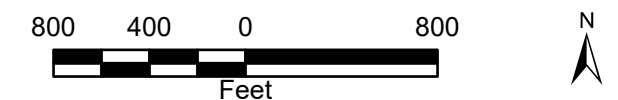
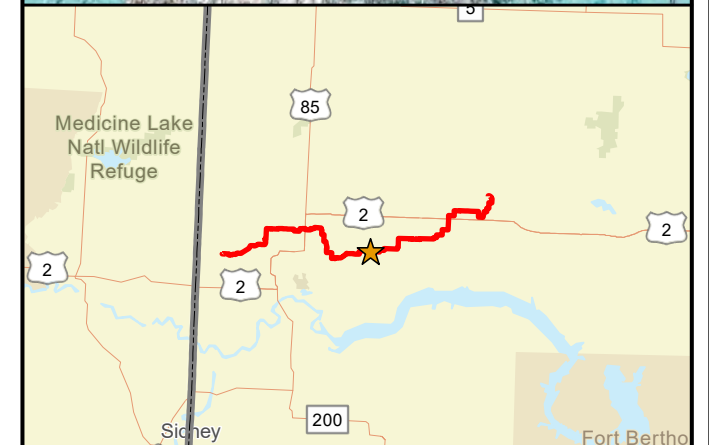
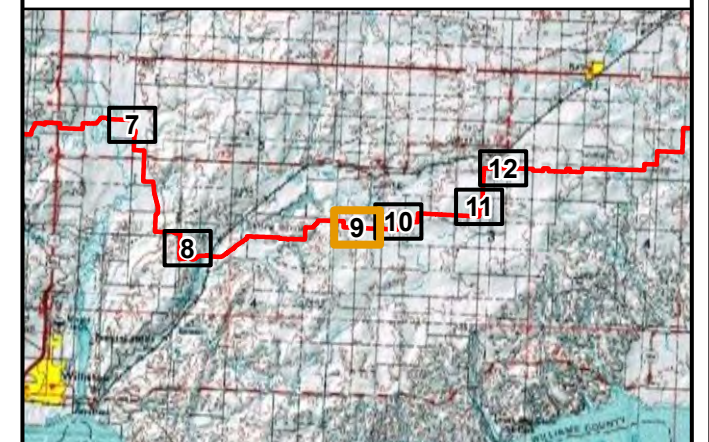
PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION
 As-Built Observation Locations



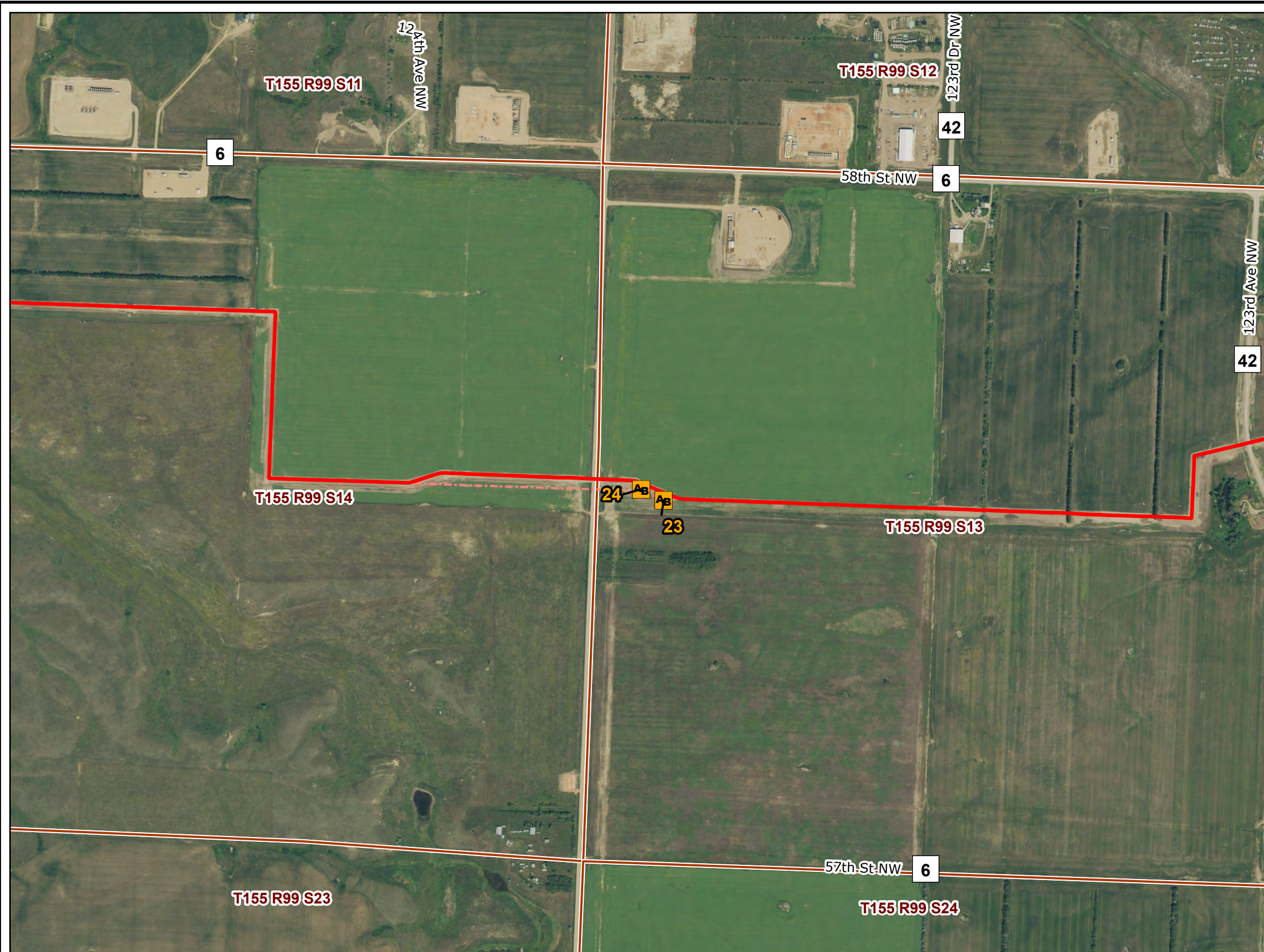
MAY 2021
 Map 8 of 15

Tioga Lateral Pipeline
Figure 9

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:35 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations

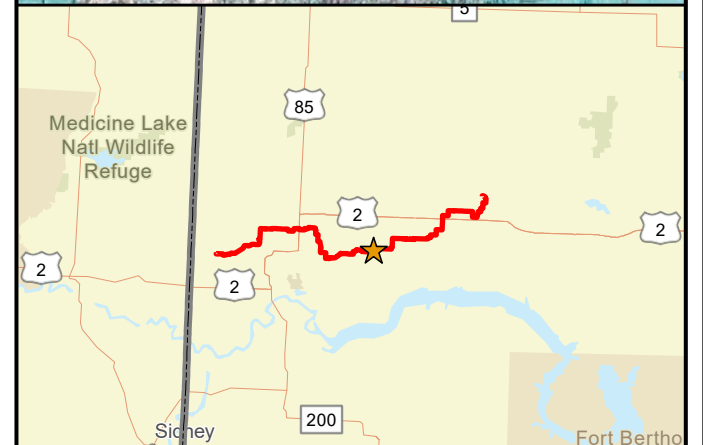
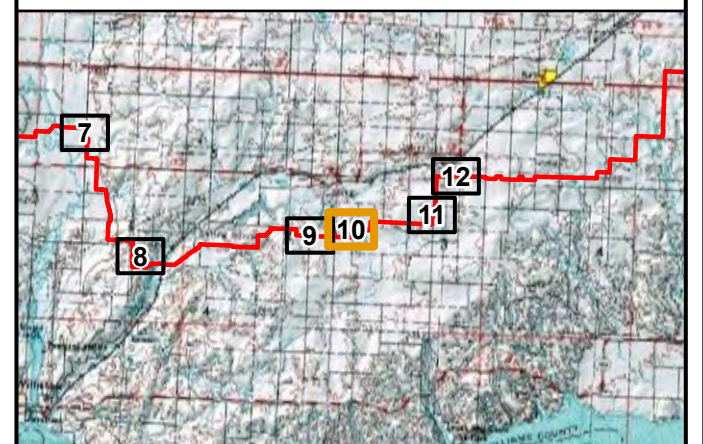


MAY 2021

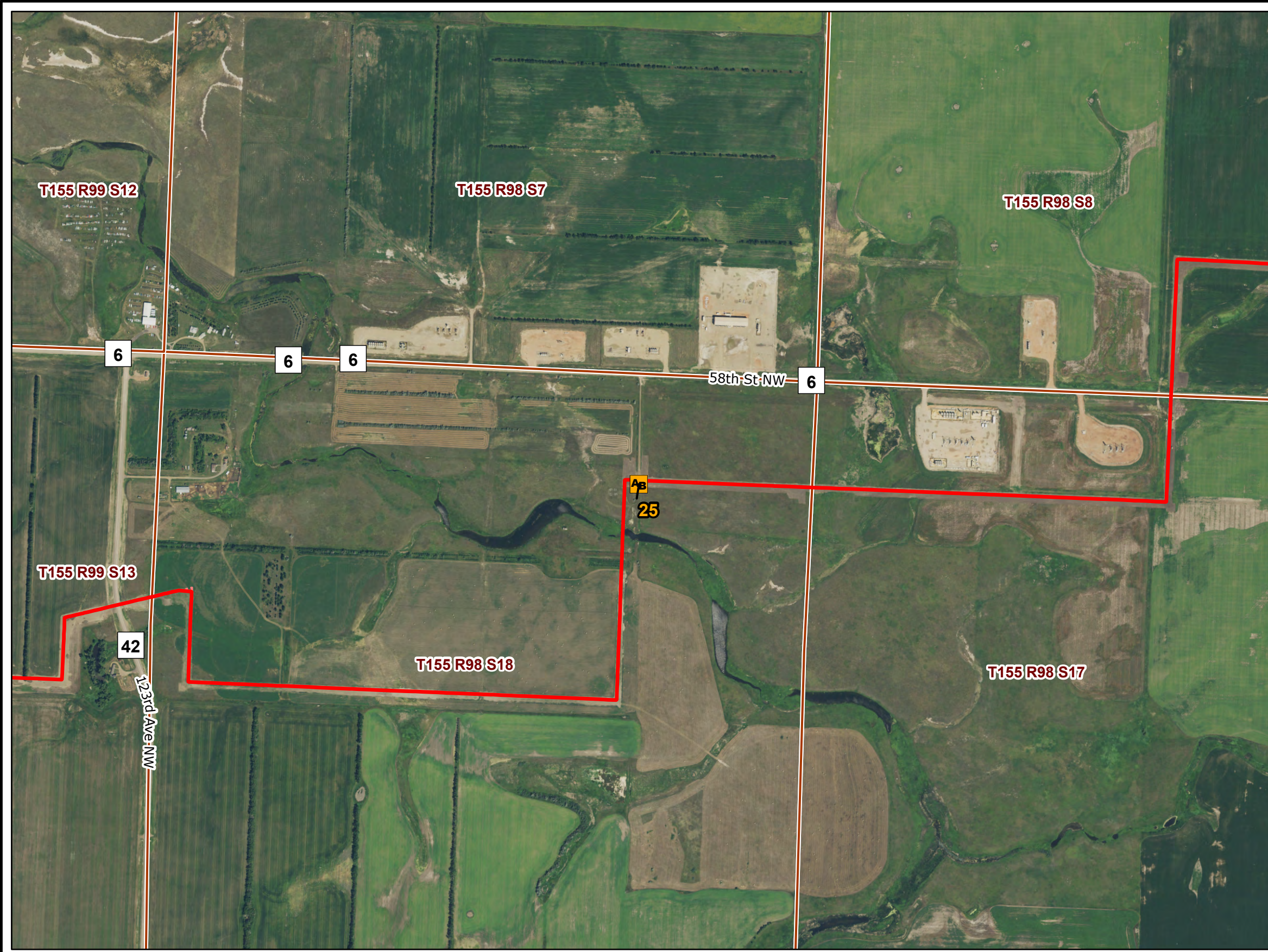
Map 9 of 15

**Tioga Lateral Pipeline
Figure 10**

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:35 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations

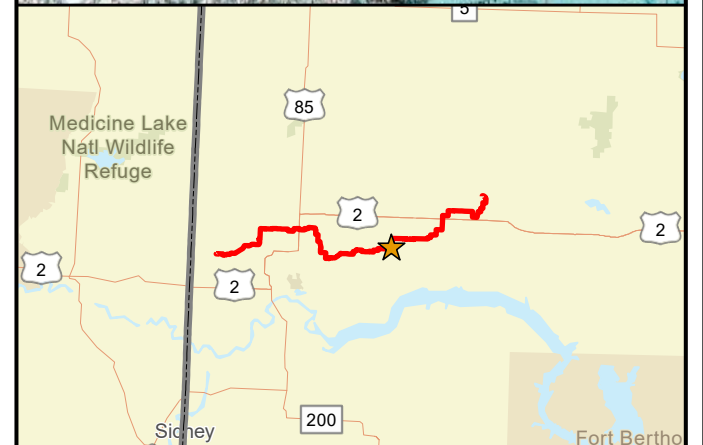
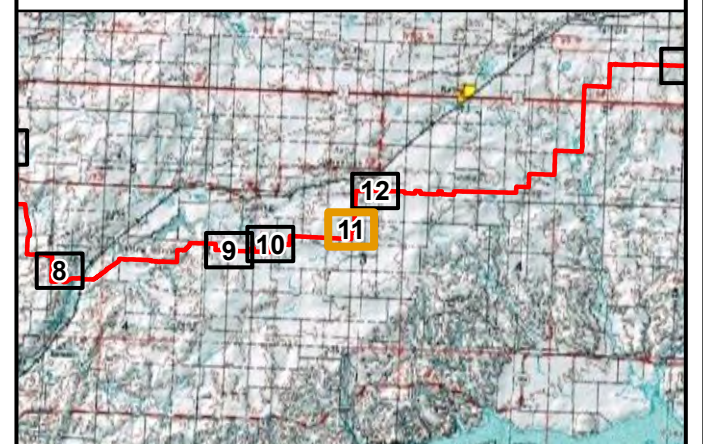


MAY 2021

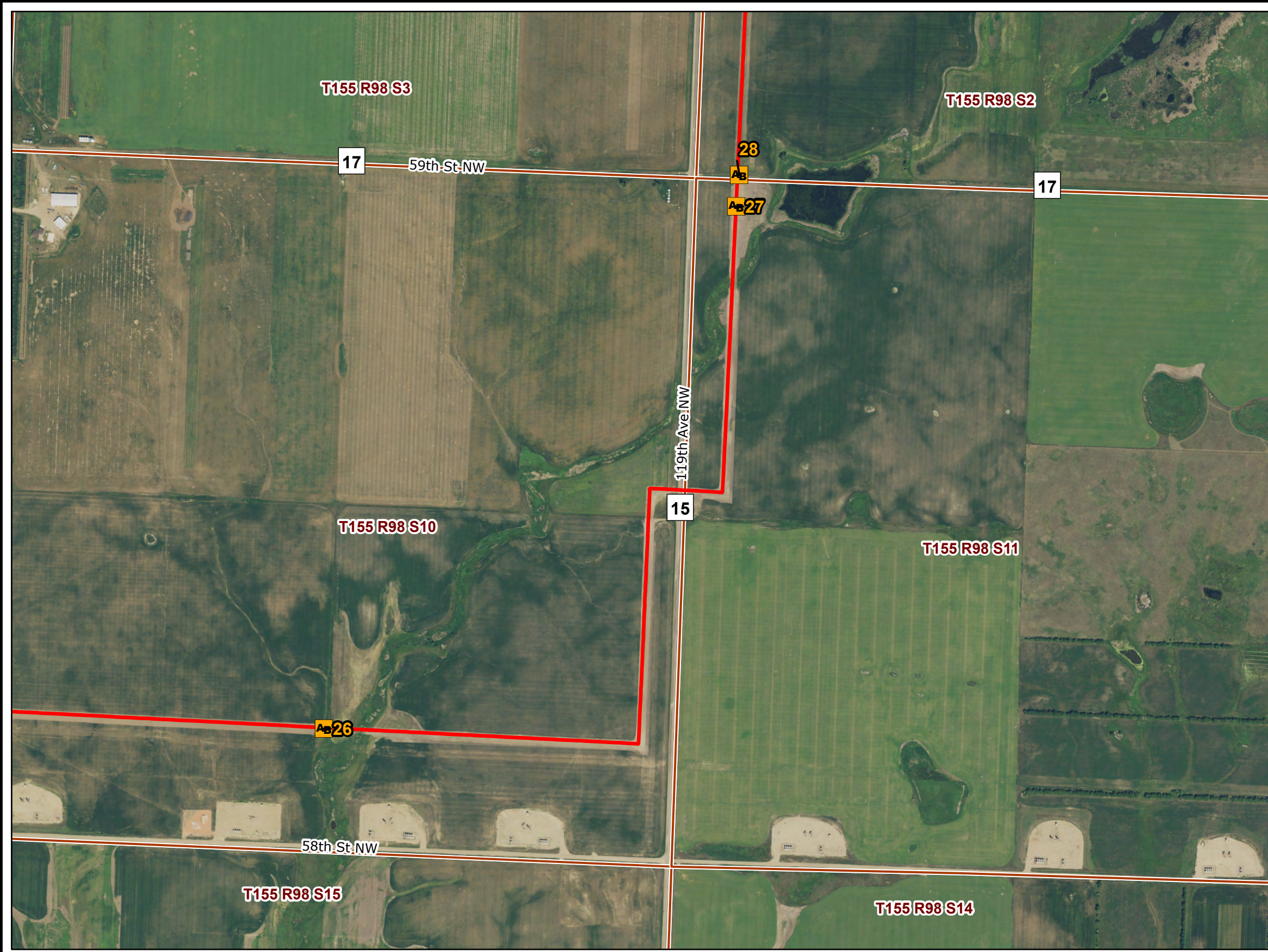
Map 10 of 15

Tioga Lateral Pipeline Figure 11

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:35 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations

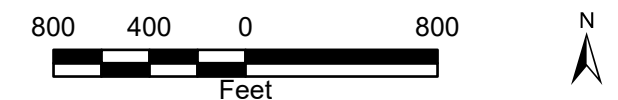
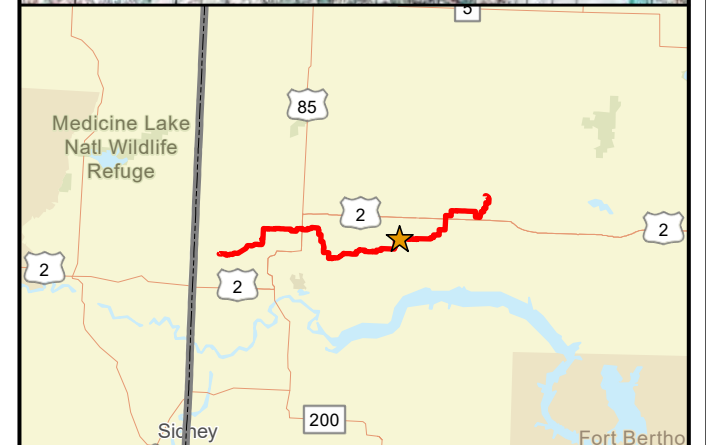
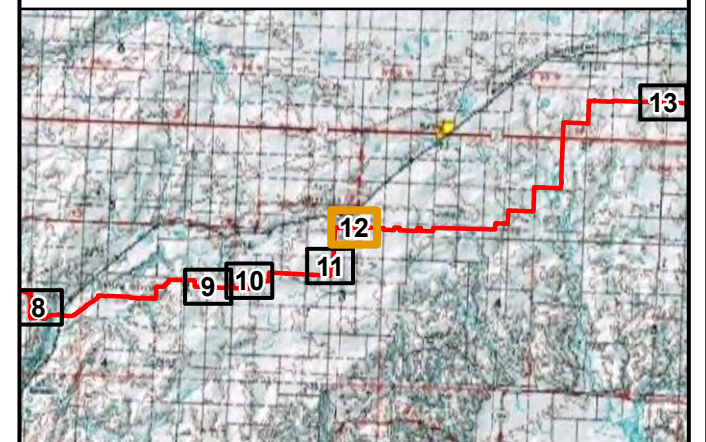


MAY 2021

Map 11 of 15

Tioga Lateral Pipeline
Figure 12

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)

Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:36 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



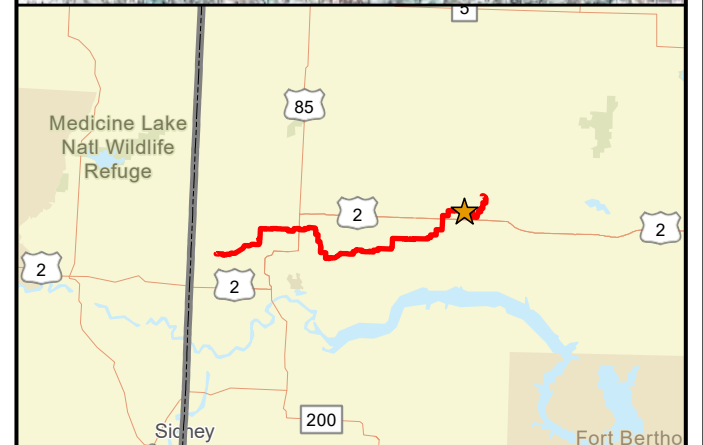
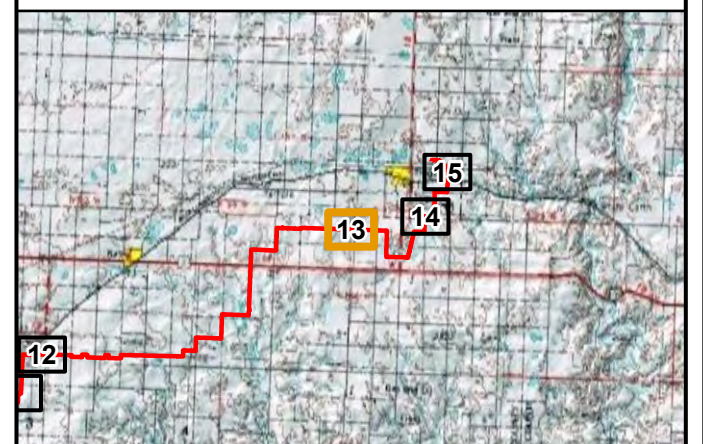
MAY 2021

Map 12 of 15

**North Dakota
Public Service Commission**

**Tioga Lateral Pipeline
Figure 13**

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)
 Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
 Date: 5/25/2021 Time: 2:36 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



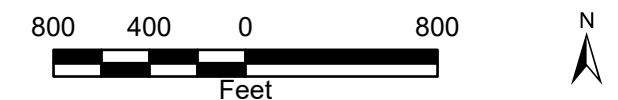
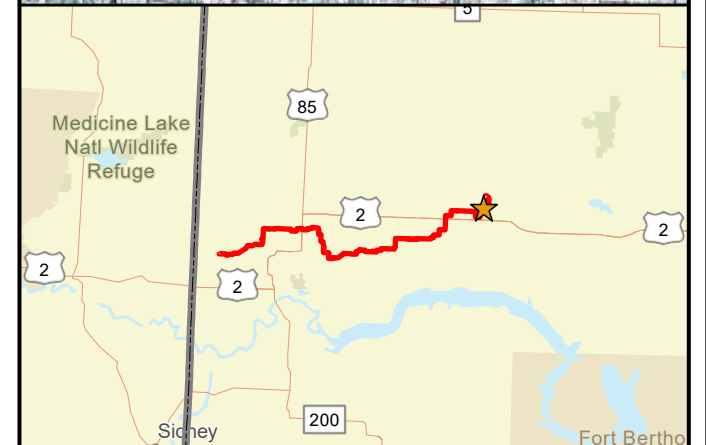
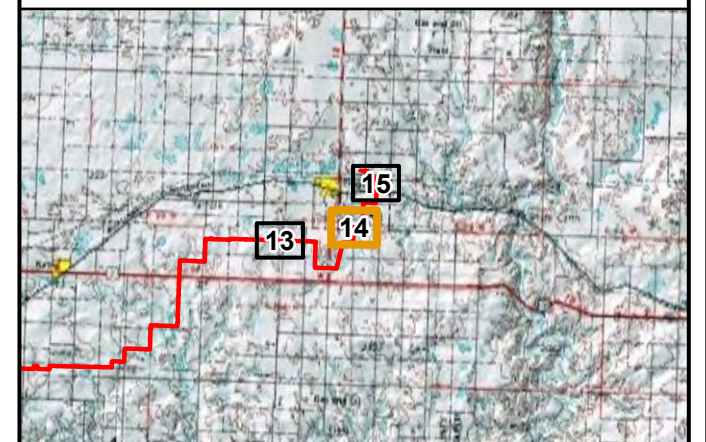
MAY 2021

Map 13 of 15

North Dakota
Public Service Commission

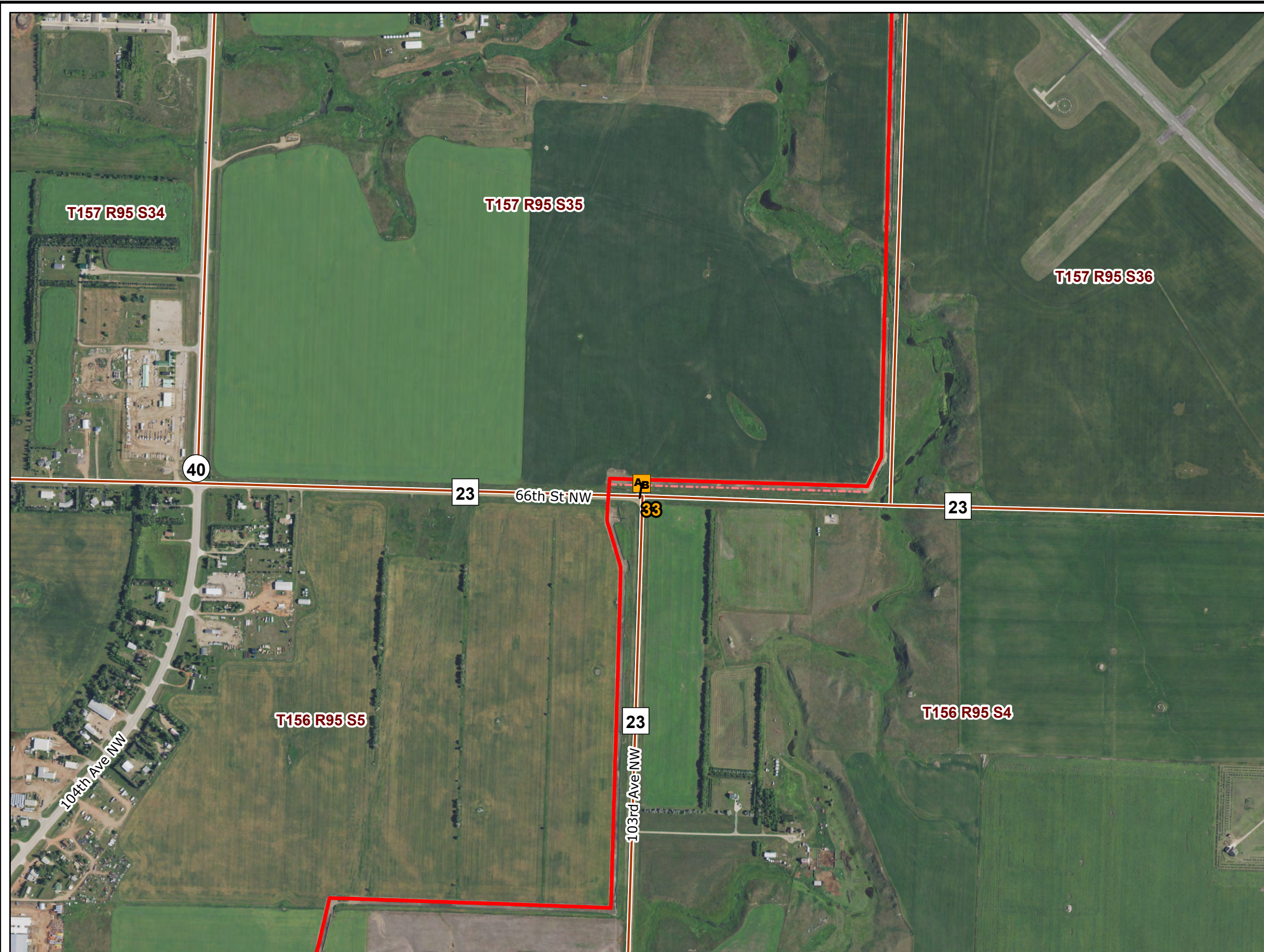
Tioga Lateral Pipeline
Figure 14

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)

Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:36 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations

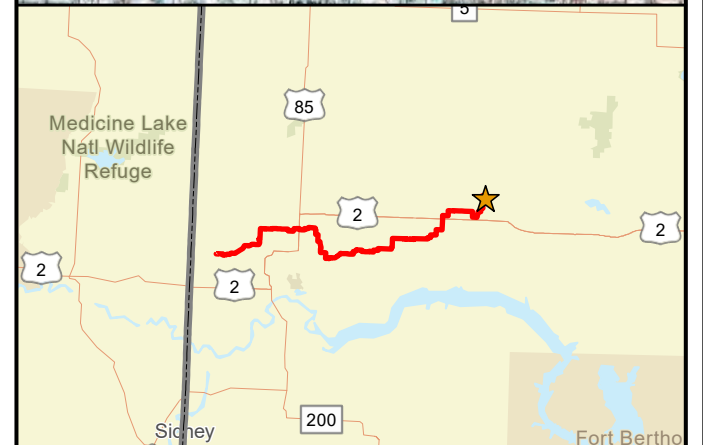
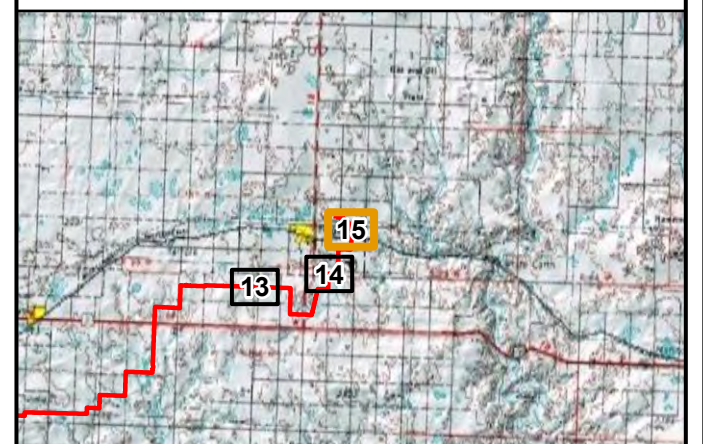


MAY 2021

Map 14 of 15

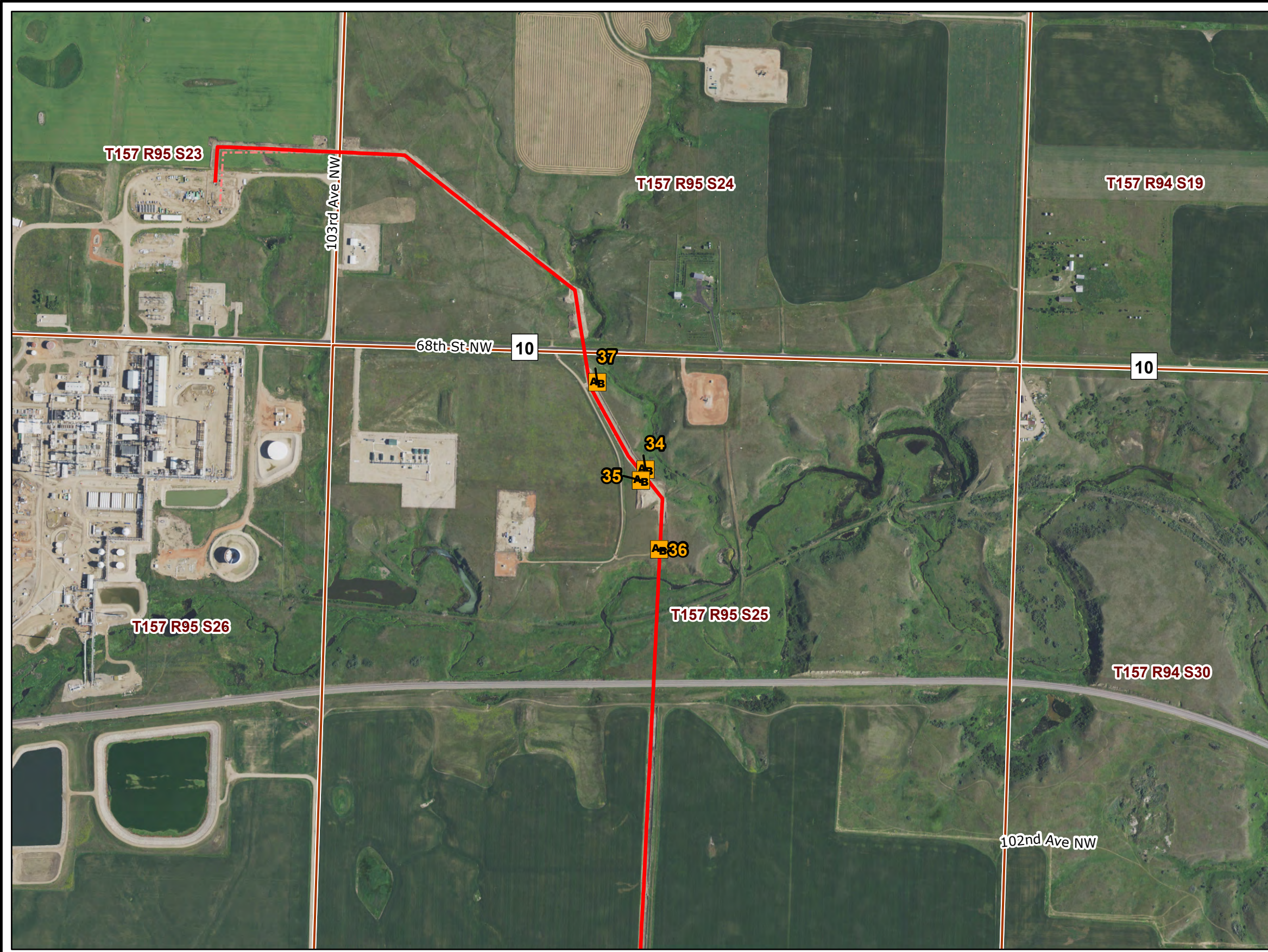
Tioga Lateral Pipeline Figure 15

- As-Built Observation Point Location
- Tioga Lateral As-Built Centerline (PU-19-368)
- Tioga Lateral Original Proposed Centerline (PU-19-368)



2020 Aerial Photograph (Source: NAIP)

Path: L:\2579\0038\pro\Tioga_Lateral\Tioga_Lateral.aprx
Date: 5/25/2021 Time: 2:36 PM User: MueKJ0907



PU-19-368 TIOGA LATERAL PIPELINE CONSTRUCTION INSPECTION

As-Built Observation Locations



MAY 2021

Map 15 of 15

APPENDIX A

Observation Point Coordinates

Observation Points

Observation Point #	Latitude	Longitude
1	48.225435	-103.90812667
2	48.22976	-103.889086667
3	48.229896667	-103.889281667
4	48.236683333	-103.860116667
5	48.239373334	-103.854376667
6	48.240206667	-103.85281
7	48.239835	-103.85319
8	48.252121666	-103.820278333
9	48.25205	-103.820363333
10	48.26015	-103.779576667
11	48.298751667	-103.777273334
12	48.298636667	-103.77673
13	48.298903333	-103.776858333
14	48.299293333	-103.725155
15	48.300341667	-103.713128333
16	48.2992	-103.709778333
17	48.299251667	-103.696758334
18	48.303915	-103.562803333
19	48.239766499	-103.518010251
20	48.228625	-103.517898334
21	48.228191666	-103.517915
22	48.229478857	-103.499601392
23	48.248825	-103.364683334
24	48.249036667	-103.3654
25	48.253421666	-103.330175
26	48.258108334	-103.270775
27	48.269405	-103.258383333
28	48.270066667	-103.258325
29	48.284563333	-103.258456666
30	48.286391667	-103.224806667
32	48.36409	-102.978943333
33	48.372878333	-102.915208334
34	48.399055	-102.897381667
35	48.39882	-102.897511666
36	48.397381667	-102.89687
37	48.400851667	-102.898985



APPENDIX B

Observation Point Photolog

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog

	<p>Observation Point: 1 Date Taken: April 21, 2021 12:02 PM Direction Photo is Taken: North Spread: 2</p> <p>Photo Description: Construction inspection revisit of staging and HDD area. Evidence of minor topsoil mixing. Visual evidence of decompaction is minimal and hand auger impedance is high.</p> <p>Latitude: 48.2254350000001 Longitude: -103.908126667</p>
---	--

	<p>Observation Point: 2 Date Taken: April 21, 2021 12:12 PM Direction Photo is Taken: Southwest Spread: 2</p> <p>Photo Description: Construction inspection revisit. The alternate route utilized by machinery to cross the stream does not appear to be reclaimed. Impacts to bank topography, vegetation, and no BMPs.</p> <p>Latitude: 48.2297600000001 Longitude: -103.889086667</p>
--	---

	<p>Observation Point: 3 Date Taken: April 21, 2021 12:15 PM Direction Photo is Taken: West Spread: 2</p> <p>Photo Description: Construction inspection revisit of constructed machinery crossing. BMPs present and in good condition. Revegetation has not occurred.</p> <p>Latitude: 48.229896667 Longitude: -103.889281667</p>
---	---

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog

	<p>Observation Point: 4 Date Taken: April 21, 2021 12:35 PM Direction Photo is Taken: East Spread: 2</p> <p>Photo Description: Evidence of minor topsoil/subsoil mixing.</p> <p>Latitude: 48.236683333 Longitude: -103.860116667</p>
---	---

	<p>Observation Point: 5 Date Taken: April 21, 2021 12:40 PM Direction Photo is Taken: North Spread: 2</p> <p>Photo Description: Construction inspection revisit of wetland trenching area. Evidence of minor topsoil mixing, erosion, and sedimentation. BMPs require replacement and additional BMPs recommended to inhibit erosion.</p> <p>Latitude: 48.239373334 Longitude: -103.854376667</p>
--	--

	<p>Observation Point: 6 Date Taken: April 21, 2021 12:48 PM Direction Photo is Taken: Northeast Spread: 2</p> <p>Photo Description: Landowner access improvements. Evidence of sedimentation down embankments.</p> <p>Latitude: 48.2402066670001 Longitude: -103.85281</p>
---	---

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 7

Date Taken: April 21, 2021 12:53 PM
Direction Photo is Taken: West
Spread: 2

Photo Description: Confirmation of landowner access route and appropriate reclamation to former conditions.

Latitude: 48.239835
Longitude: -103.85319



Observation Point: 8

Date Taken: April 21, 2021 1:12 PM
Direction Photo is Taken: East
Spread: 2

Photo Description: Construction access located in road ROW appears to be not reclaimed to original conditions, as evident by gravel present along the road ditch.

Latitude: 48.2521216660001
Longitude: -103.820278333



Observation Point: 9


Date Taken: April 21, 2021 1:14 PM
Direction Photo is Taken: West
Spread: 2

Photo Description: Construction access located in road ROW appears to show signs of minor rutting and potential soil compaction near HDD segment.

Latitude: 48.2520500000001
Longitude: -103.820363333

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog

	<p>Observation Point: 10 Date Taken: April 21, 2021 1:35 PM Direction Photo is Taken: South Spread: 2</p> <p>Photo Description: Drainageway through pipeline ROW absent proper BMP implementation. Requires greater erosion control devices. BMP present (fiber roll) appears improperly sized and installed (not trenched in).</p> <p>Latitude: 48.2601500000001 Longitude: -103.779576667</p>
---	--

	<p>Observation Point: 11 Date Taken: April 21, 2021 2:14 PM Direction Photo is Taken: East Spread: 2</p> <p>Photo Description: Apparent new culvert construction within road ROW improperly reclaimed and does not have BMPs. It is unclear if this was an action performed by Oneok contractors.</p> <p>Latitude: 48.298751667 Longitude: -103.777273334</p>
--	--

	<p>Observation Point: 12 Date Taken: April 21, 2021 2:18 PM Direction Photo is Taken: West Spread: 2</p> <p>Photo Description: Apparent new culvert construction within road ROW improperly reclaimed and does not have BMPs. It is unclear if this was an action performed by Oneok contractors.</p> <p>Latitude: 48.298636667 Longitude: -103.77673</p>
---	--

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 13

Date Taken: April 21, 2021 2:19 PM

Direction Photo is Taken: West

Spread: 2

Photo Description: Construction access from road ROW not reclaimed on both sides.

Latitude: 48.2989033330001

Longitude: -103.776858333



Observation Point: 14

Date Taken: April 21, 2021 2:28 PM

Direction Photo is Taken: Northeast

Spread: 2

Photo Description: Rock pile with significant topsoil fraction stockpiled in drainageway within ROW.

Latitude: 48.299293333

Longitude: -103.725155



Observation Point: 15

Date Taken: April 21, 2021 2:33 PM

Direction Photo is Taken: Southeast

Spread: 2

Photo Description: Crimped straw in drainageway is inappropriate for erosion control. Fiber roll appears inappropriately sized and improperly installed (not trenched in). Overall lack of appropriate BMPs.

Latitude: 48.3003416670001

Longitude: -103.713128333

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 16

Date Taken: April 21, 2021 2:35 PM
Direction Photo is Taken: North
Spread: 2

Photo Description: Stockpile of rocks with significant portion of topsoil located in a minor drainageway within ROW.

Latitude: 48.2992
Longitude: -103.709778333



Observation Point: 17

Date Taken: April 21, 2021 2:38 PM
Direction Photo is Taken: North
Spread: 2

Photo Description: Improper BMP choice. Silt fence placement perpendicular to flow within drainage is not considered to be construction industry standard practice.

Latitude: 48.2992516670001
Longitude: -103.696758334



Observation Point: 18

Date Taken: April 21, 2021 4:05 PM
Direction Photo is Taken: South
Spread: 2

Photo Description: Abundance of fencing and historical debris (structural and other) located on and off pipeline ROW.

Latitude: 48.3039150000001
Longitude: -103.562803333

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 19
Date Taken: April 22, 2021 8:47 AM
Direction Photo is Taken: West
Spread: 2

Photo Description: Lack of appropriate BMPs in drainageway. BMP maintenance required.

Latitude: 48.239766499
Longitude: -103.518010251



Observation Point: 20
Date Taken: April 22, 2021 8:52 AM
Direction Photo is Taken: East
Spread: 2

Photo Description: Aboveground infrastructure. Security fence, lighting, and well maintained.

Latitude: 48.2286250000001
Longitude: -103.517898334



Observation Point: 21
Date Taken: April 22, 2021 8:55 AM
Direction Photo is Taken: East
Spread: 2

Photo Description: Left over pipe lengths from construction phase should be removed from the ROW.

Latitude: 48.228191666
Longitude: -103.517915

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 22

Date Taken: April 22, 2021 9:08 AM

Direction Photo is Taken: West

Spread: 2

Photo Description: ECB properly installed and toed in. Slope is not completely covered. Consider utilizing natural fiber net ECB to avoid wildlife entanglement.

Latitude: 48.2294788570001

Longitude: -103.499601392



Observation Point: 23

Date Taken: April 22, 2021 9:41 AM

Direction Photo is Taken: East

Spread: 1

Photo Description: Overview of well graded and plowed pipeline ROW.

Latitude: 48.2488250000001

Longitude: -103.364683334



Observation Point: 24

Date Taken: April 22, 2021 9:43 AM

Direction Photo is Taken: East

Spread: 1

Photo Description: Greater presence of rocks on ROW than off ROW. Topsoil replacement looks satisfactory.

Latitude: 48.249036667

Longitude: -103.3654

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 25

Date Taken: April 22, 2021 9:56 AM

Direction Photo is Taken: East

Spread: 1

Photo Description: Overview of well graded and plowed pipeline ROW.

Latitude: 48.2534216660001

Longitude: -103.330175



Observation Point: 26

Date Taken: April 22, 2021 10:17 AM

Direction Photo is Taken: East

Spread: 1

Photo Description: Evidence of minor soil mixing. Stantec is unsure the crossing method utilized; however, the area was crossed with machines. The area does not appear compacted and evidence of wood planking exists. An abundance of sand exists on the west side (foreground). The sand does not appear to be natural and should be reclaimed.

Latitude: 48.258108334

Longitude: -103.270775



Observation Point: 27

Date Taken: April 22, 2021 10:32 AM

Direction Photo is Taken: South

Spread: 1

Photo Description: Poor grading and abundance of rocks greater in ROW than off.

Latitude: 48.2694050000001

Longitude: -103.258383333

PU-19-368 (ONEOK Tioga Lateral): Observation Point Photolog



Observation Point: 28
Date Taken: April 22, 2021 10:34 AM
Direction Photo is Taken: South
Spread: 1

Photo Description: Evidence of minor topsoil mixing. Area does not appear plowed for decompaction like the rest of the ROW.

Latitude: 48.270066667
Longitude: -103.258325



Observation Point: 29
Date Taken: April 22, 2021 10:51 AM
Direction Photo is Taken: Southeast
Spread: 1

Photo Description: Lack of inlet and outlet BMPs on newly installed access within ROW of road.

Latitude: 48.2845633330001
Longitude: -103.258456666



Observation Point: 30
Date Taken: April 22, 2021 11:01 AM
Direction Photo is Taken: West
Spread: 1

Photo Description: Evidence of proper tree width clearing.

Latitude: 48.286391667
Longitude: -103.224806667

: Observation Point Photolog



Observation Point: 32
Date Taken: April 22, 2021 1:13 PM
Direction Photo is Taken: East
Spread: 1

Photo Description: Overview of well graded, plowed, and proper tree clearing.

Latitude: 48.36409
Longitude: -102.978943333



Observation Point: 33
Date Taken: April 22, 2021 1:31 PM
Direction Photo is Taken: East
Spread: 1

Photo Description: Evidence of minor topsoil mixing.

Latitude: 48.3728783330001
Longitude: -102.915208334



Observation Point: 34
Date Taken: April 22, 2021 1:45 PM
Direction Photo is Taken: North
Spread: 1

Photo Description: Near areas of geologic instability. Greater abundance of BMPs required to ensure runoff does not destabilize slopes.

Latitude: 48.399055
Longitude: -102.897381667

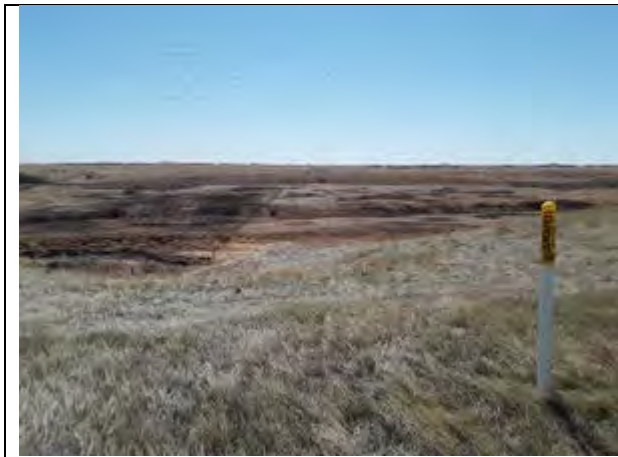
: Observation Point Photolog



Observation Point: 35
Date Taken: April 22, 2021 1:47 PM
Direction Photo is Taken: Southeast
Spread: 1

Photo Description: Near areas of geologic instability. Evidence of rill erosion and sedimentation. Inappropriate BMP choice. Stabilize with proper BMPs.

Latitude: 48.3988200000001
Longitude: -102.897511666



Observation Point: 36
Date Taken: April 22, 2021 1:54 PM
Direction Photo is Taken: South
Spread: 1

Photo Description: Evidence of HDD avoidance of geologic instability areas.

Latitude: 48.397381667
Longitude: -102.89687



Observation Point: 37
Date Taken: April 22, 2021 1:59 PM
Direction Photo is Taken: North
Spread: 1

Photo Description: Crimped straw BMP may not hold up. Consider other BMPs to ensure geologic stability.

Latitude: 48.400851667
Longitude: -102.898985

