Consolidated Application for a Certificate of Corridor Compatibility & Route Permit

Dunn and Stark Counties, North Dakota

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Introduction

Bakken Oil Express (BOE) Pipeline is submitting this consolidated application for a Certificate of Corridor Compatibility and a Route Permit to the North Dakota Public Service Commission (PSC) to construct a proposed crude oil pipeline. The BOE Pipeline (Project) would receive crude oil from a pump station southwest of Killdeer, North Dakota (ND) near ND Highway 200 and pump the crude oil to the BOE Rail Hub southwest of Dickinson, ND. The pipeline is not a common carrier pipeline because the pipeline owner would own all the crude oil carried by the pipeline. This Project would not receive federal funding or be subject to new Federal review for this proposal. All crude oil in the pipeline would be the property of BOE Pipeline. The Project would consist of burying approximately 38 miles of 16-inch steel crude oil pipeline to accommodate the increased oil production currently underway in the Bakken oil field. It would provide a peak transmission volume of approximately 165,000 barrels per day (bpd), which would decrease truck traffic in Dunn and Stark counties. Construction for this Project is anticipated to begin in the fourth quarter of 2013 and conclude during the first quarter of 2014.

BOE Pipeline has disclosed information in this application to the best of its ability as required by the North Dakota Energy Conversion and Transmission Facility Siting Act, in order to meet established criteria in the North Dakota Century Code (NDCC) 49-22 and associated guidance. Exclusion and avoidance areas, along with policy criteria were considered during the selection of the Route and are discussed further in this application. Information regarding Project design, resources and technical information has been included in this document to allow a thorough understanding of the Project and to aid in review by the PSC, regulatory agencies, the public and individuals with vested interests. The narrative developed for this consolidated application is responsive to all PSC instructions. A table (TABLE 1) has been developed to show where responses to all application requirements are located. Key phrases and descriptions of the requirements have been included in the table to reference both the alpha-numerical and written descriptions of the requirements along with the section of the application where the response is located. It is the intent of the table to assist in demonstrating the consolidated application includes all required information and show its location in the document.

The potential for environmental, cultural, noise, human and other impacts are being considered through this evaluation process and have been and continue to be a very important component of the selection of the Project Route. The final Project design and boundaries would consider the Project's potential for impacts while balancing the overall benefits of the Project for the local community and property owners' willingness to allow access and construction.

Table 1. Consolidated Application Checklist

STATE AUTHORITY	DESCRIPTION	SECTION
CENTURY CODE – Title 49		
Chapter 49-22	*ENERGY CONVERSION AND TRANSMISSION FACILITY SITING ACT*	
49-22-03	Applicable Definitions	
49-22-04	Ten Year Plan Contents	
1.	The general location, size, and type of all facilities to be owned or operated by the utility during the ensuing ten years.	1.1, 1.3, 1.4, Appendix H
2.	The tentative location of all transmission facilities on which construction is intended to be commenced within the ensuing five years.	1.4, 2.3
3.	A description of the efforts by the utility to coordinate the plan with other utilities.	4.3
4.	Efforts to involve environmental protection and land-use planning agencies in the planning process, efforts to identify and minimize environmental problems at the earliest possible stage.	1.1.1, 1.4, 1.5, 4.3
5.	Projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumptions for the projection.	2.1
6.	Any other relevant information as may be requested by the commission.	1.1.2, 1.1.3
49-22-05.1	Exclusion and avoidance areas - Criteria	
	500 foot for inhabited rural residence	3.4.1.2.1
49-22-07	Route Permit Required	
49-22-07.2	Waiver of procedures and time schedules	1.6.3, Appendix H
49-22-08	Application for a certificate for a Corridor	
1.a	Description of size and type of facility	1.1, 1.3
1.b	Summary of environmental impacts	3.1-3.18
1.c	Need for the facility	2.1
1.d	Site for energy conversion facility	N/A
1.e	Preferred transmission (pipeline) corridor	1.1.1, 1.4
1.f	Analysis of merits and detriments of facility location	1.4, 2.1, 3.1–3.18
1.g	Mitigating measures	3.1-3.18
1.h	Corridor evaluation pursuant to 49-22-09 and 49-22-05.1	2.2, 3.1–3.18, 4.2.1, 4.2.4
1.i	Other relevant information	1.2, 1.5, 1.6, 4.1
49-22-08.1	Application for Route Permit	
1.a	Description of size and type of facility	1.1, 1.3
1.b	Description of the location	1.4
1.c	Route evaluation relative to 49-22-09 and 49-22-05.1	2.2, 3.1–3.18, 4.2.1, 4.2.4
1.d	Mitigating measures	3.1-3.18
1.e	Describe right-or-way preparation, construction, and reclamation	1.6.4
1.f	Statement identifying how: 1. Landowners informed of right-of-way acquisition 2. How landowners will be compensated	1.6.4, 3.1, 3.9
1.g	Other relevant information	1.5, 1.6, 2.1, 4.1

STATE AUTHORITY	DESCRIPTION	SECTION
49-22-09	Factors to be considered in evaluating corridor and route applications	
1.	Research and investigation into effects of the project on public health, welfare, natural resources, and the environment	3.1–3.18
2.	Effects of transmission technology and design to minimize adverse effects	1.1.3, 1.5
3.	Potential beneficial uses of waste energy from energy conversion facility	N/A
4.	Unavoidable adverse direct and indirect environmental effects	3.1-3.18
5.	Corridor or route alternatives developed during the hearing which minimize adverse effects	2.2, 3.1–3.18
6.	Irreversible and irretrievable commitments of natural resources if designated	3.18
7.	Direct and indirect economic impacts of the facility	3.9
8.	Existing plans for other developments at or in the vicinity	1.2
9.	Effect of project on scenic areas, historic sites and structures, paleontological and archaeological sites	3.7, 3.8
10.	Effect of route on unique biological areas	3.16
11.	Problems raised by federal, state, or local entities	4.3
ADMINISTRATIVE CODE – Title 69		
69-06-05-01	Application for a Transmission Facility Permit	
2.a. (1)	Type of facility proposed	1.1
2. a. (2)	Purpose of facility	1.1.2, 2.1
2.a.(3)	Technology to be deployed	1.1.3
2.a.(4)	Type of product to be transmitted	1.2
2.a.(5)	Source of product being transmitted	1.1.2, 2.1
2.a.(6)	Final destination of product being transmitted	1.1, 1.2, 2.1
2.a.(7)	Size and design detail	1.3
2.a.(7)(a)	The width of right of way	1.6.4
2.a.(7)(b)	The approximate length of facility	1..3
2.a.(7)(c)	The estimated span length for electric facilities	N/A
2.a.(7)(d)	The anticipated type of structure for electric facilities	N/A
2.a.(7)(e)	The voltage for electric facilities	N/A
2.a.(7)(f)	The requirement for and general location of any new associated facilities	1.3
2.a.(7)(g)	The estimated distance between pipeline surface structures	1.3
2.a.(7)(h)	The pipe size	1.3
2.a.(7)(i)	The maximum design for pipeline operating pressure and temperature	1.3
2.a.(7)(j)	The maximum design pipeline flow rate	1.3
2.a.(7)(k)	The number and general location of compressor or pumping stations	1.3
2.b.	Time Schedule	1.6.2–1.6.8
2.b.(1)	Obtaining the certificate of corridor compatibility	1.6.3

STATE AUTHORITY	DESCRIPTION	SECTION
2.b.(2)	Obtaining the route permit	1.6.3
2.b.(3)	Completing right of way acquisition	1.6.2
2.b.(4)	Starting construction	1.6.5
2.b.(5)	Completing construction	1.6.6
2.b.(6)	Testing operations	1.6.7
2.b.(7)	Commencing operations	1.6.8
2.c.	A copy of each evaluative study or assessment of the environmental impact of the proposed facility submitted to the agencies listed in section 69-06-01-05 and each response received	4.3, Appendix E
2.d.	Need for the facility	2.1
2.e.	Description of alternatives	2.2
2.f.	Corridor width	1.1.1
2.g.	Study area to enable the Commission to evaluate the factors in the Century Code section 49-22-09;	1.4
2.h.	Discussion of factors in Century Code 49-22-09 to aid Commission's evaluation	2.2, 3.1–3.18, 4.3
2.i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of the board resolutions and management directives	4.1
2.j.	Map of criteria that led to route location	Figure 1-10
2.k.	Discuss relative value of each criteria and how the location was selected; how operation will affect criteria	3.1–3.18
2.l.	Mitigating measures	3.1–3.17
2.m.	Qualifications of each person involved in location study	5
2.n.	Map identifying criteria that led to the route location and new facilities	Figure 1–10
2.o.	81/2 X 11 black and white map suitable for newspaper publication	Appendix M
2.p.	Discussion of present and future natural resource development in the area	2.1
2.q.	Map meeting PSC requirements	Figure 1
69-06-06-01	Application for Waiver of Procedures and Time Schedules	
2.a.	Type of facility, including the purpose and technology	1.1, 1.12, 1.1.3, 2.1
2.b.	Description of products transmitted in pipeline	1.2
2.c.	Capacity and design of facility	1.3
2.d.	Map showing location of proposed pipeline	Figure 1
2.e.	Description of area served by facility	1.1, 2.1
2.f.	Anticipated time schedule	1.6.2-1.6.8
2.g.	Future expansion plans	1.1,2.1
2.h.	Need for facility based on present and projected demand	2.1
2.i.	Reasonable alternatives	2.2
2.j.	Deviation from ten-year plan	2.3
2.k.	Estimated cost of construction	1.1
2.l.	Specific provisions of law that the applicant requests the commission waive or modify, with separate justifications	1.6.3, Appendix G, H, and I

STATE AUTHORITY	DESCRIPTION	SECTION
2.m.	Factual basis demonstrating facility will produce minimal effects	3.1-3.18
2.n.	Nature of emergency justifying immediate authority	N/A
69-06-08-02	Transmission Facility Corridor and Route Criteria	
1.	Exclusion areas	4.2.1
1.a.	Designated or registered national: parks, sites , landmarks, monuments, wilderness	3.8
1.b.	Designated or registered state: parks, sites, monuments, archeological sites, nature preserves	3.7, 3.8
1.c.	County parks and recreational areas, municipal parks, parks owned or administered by other governmental subdivisions	3.8
1.d.	Areas of critical habitat	3.16
1.e.	Areas where unique or rare species would be irreversibly damaged	3.16, 3.18
1.f.	Area within one thousand two hundred feet of ICBM facility	N/A
1.g.	Areas within thirty feet of direct line of ICBM launch facilities	N/A
2.	Avoidance areas	4.2.2
2.a.	Designated or registered national: historic districts, wildlife areas, wild, scenic or recreational rivers, wildlife refuges, grasslands	3.8
2.b	Designated or registered state: wild, scenic, recreational rivers, game refuges, game management areas, forest management lands, grasslands	3.8,3.9
2.c.	Historical resources which are not specifically designated as exclusion or avoidance areas	3.7
2.d.	Areas which are geologically unstable	3.11
2.e.	Within five hundred feet of a residence, school, or place of business	3.4
2.f.	Reservoirs and municipal water supplies	3.11
2.g.	Water sources for organized rural water districts	3.11
2.h.	Irrigated land	3.2
2.i.	Area of recreational significance but not designated exclusion areas	3.8
3.	Selection criteria. Impact on:	4.2.3
3.a.(1)	Agricultural production	3.2
3.a.(2)	Family farms and ranches	3.2, 3.4, 3.6
3.a.(3)	Land economically suitable for irrigation	3.2
3.a.(4)	Surface drainage patterns and ground water flow patterns	3.11
3.b.(1)	Sound sensitive land uses	3.5
3.b.(2)	Visual effect on adjacent area	3.6
3.b.(3)	Extractive and storage resources	3.4
3.b.(4)	Wetlands, woodlands, and wooded areas	3.9, 3.13
3.b.(5)	Radio and tv reception and other communication or electronic facilities	3.3
3.b.(6)	Human health and safety	3.3
3.b.(7)	Animal health and safety	3.15, 3.16
3.b.(8)	Plant life	3.14, 3.16

STATE AUTHORITY	DESCRIPTION	SECTION
4.	Policy criteria	4.2.4
4.a.	Location and design	1.3, 1.4
4.b.	Training and utilization of instate labor	3.1
4.c.	Economies of construction and operation	3.1, 3.9
4.d.	Use of citizen coordinating committees	1.1.1, 3.1
4.e.	Commitment of portion of transmitted product for use in state	1.2, 2.1
4.f.	Labor relations	3.1
4.g.	Coordination of facilities	1.1.1
4.h.	Monitoring of impacts	4.1
4.i.	Using existing and proposed rights of way and corridors	1.6.4
4.j.	Other existing or proposed transmission facilities	1.1–1.4

1. Project Description

1.1. Type of Facility

The proposed Project would pass through rural portions of Dunn and Stark Counties in southwest North Dakota, and would consist of a 16-inch diameter steel crude oil pipeline, buried a minimum of 48 inches with a total approximate length of 38 miles. Please refer to FIGURE 1. LOCATION MAP OF PROJECT CORRIDOR. The pipeline would comply with U.S. Department of Transportation (DOT) regulations, specifically the design, installation, pressure testing, and operation requirements as outlined in 49 CFR Part 195. The pipeline would be owned by Bakken Oil Express Pipeline, LLC and operated by New Frontier Midstream, LLC, and would have an estimated construction cost of $14 million. Above-ground mainline valves sets would be installed along the pipeline Route to assist with pipeline maintenance and possible leak segregation and/or flow termination. The Project would connect to a tanker truck unloading and pumping facility currently being constructed near Killdeer, ND. A New Frontier operations and maintenance team would be responsible for daily operations and scheduled and unscheduled monitoring and maintenance. The pipeline would connect with an existing BOE Rail Hub facility located to the southwest of Dickinson, ND. The BOE Rail Hub is an existing "open access" unit train loading facility, providing producers and marketers access to the many destinations served by local rail. BOE Rail Hub is connected by pipeline to oil originating from the Williston Basin oil play. BOE Rail Hub consists of a 300 acre lot, and includes 4 rail loops (each approximately 8,000 feet long), a "truck Center" with multiple independent bays, and tank storage, which is currently being expanded from 215,000 barrels to accept and contain 435,000 barrels.

1.1.1. Identification of Route

The Route identified for the Project was chosen to provide critical market access to existing crude oil producers and future production sites. It also represents an alignment through which property owners within the Project Corridor are willing to allow construction of the pipeline across their property.

Based on publicly available data, data received through agency agreements, agency feedback, literature reviews and Corridor studies, the current Project Corridor has been sited to provide the least amount of impacts, based on North Dakota Century Code (NDCC) 49-22, and North Dakota Administrative Code (NDAC) 69-06-08-02. The Project Corridor is five miles wide with land use primarily consisting of agricultural and grazing activities and is in a rural location with sparsely scattered farmsteads occurring throughout (FIGURE 1).

The pipeline Route is sited to provide an efficient route from the pumping station near Killdeer to the BOE Rail Hub loading facility near Dickinson while avoiding sensitive environmental features, cultural resources, and property owner concerns.

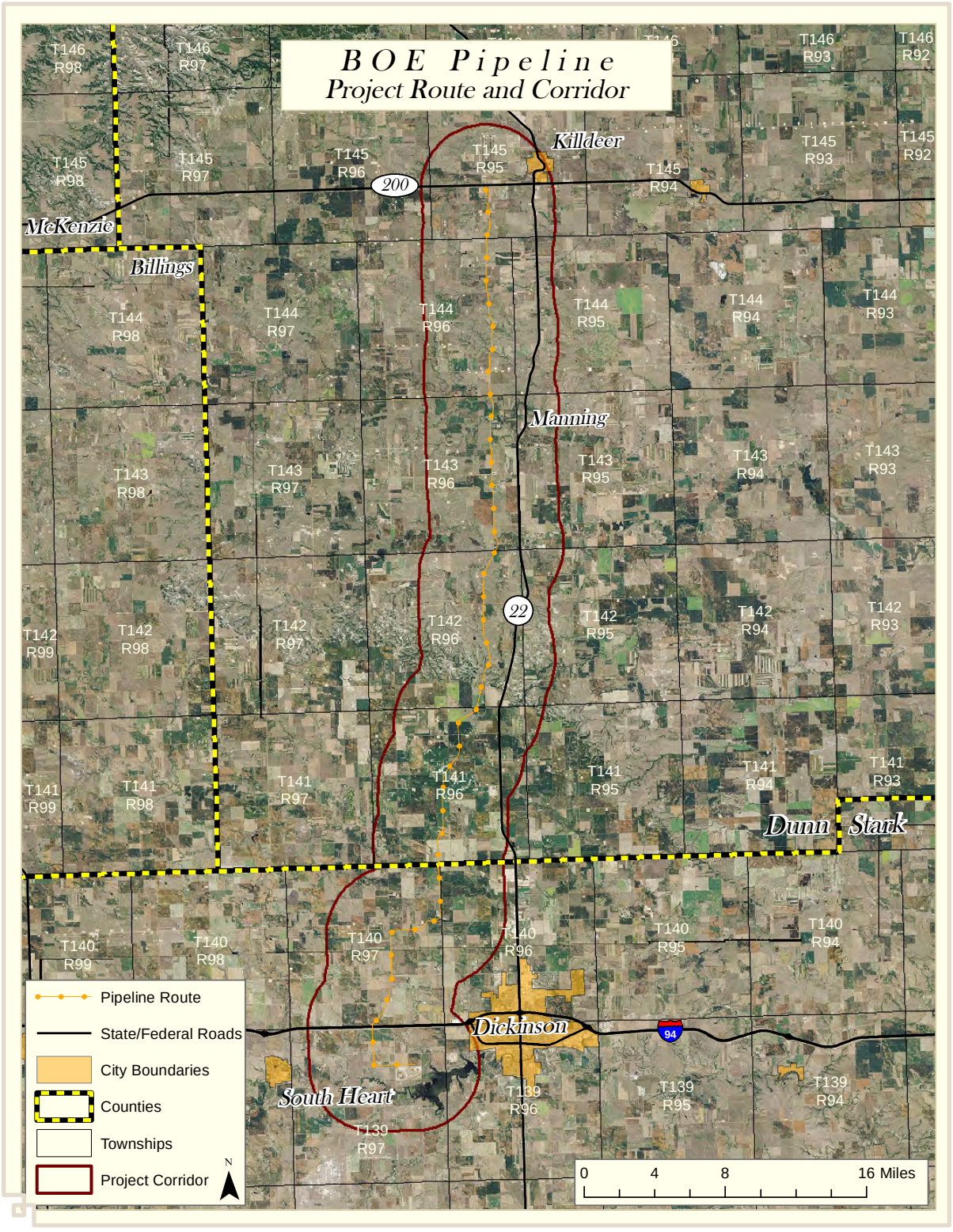

Figure 1. Location Map of Project Corridor

1.1.2. Necessity

The development of hydrocarbon production in the Williston Basin has increased significantly in recent years due to advancements in deep horizontal directional drilling (HDD) techniques and subsequent oil extraction in the Bakken and Three Forks shale formations. This recent and rapid increase in crude oil production in North Dakota has outpaced the development of efficient transportation methods. Current crude oil transportation from oil wells to distribution points is primarily accomplished by tanker truck, or limited pipeline transportation. Increased production of crude oil and limited pipeline access combine to increase tanker truck traffic on North Dakota highways. In turn this increases road damage, the need to update or repair highways, increases emissions levels and raises concern for driver safety. The construction of additional pipelines would have a positive effect on efficient transportation of crude oil and would relieve some of the impacts resulting from trucking the crude oil. Construction of the Project would provide a reliable transportation method for up to 165,000 bpd, equivalent to reducing the traffic activity from Killdeer to Dickinson via Highway 22 by up to 825 tanker trucks per day.

1.1.3. Technology

The proposed Project would be constructed with conventional, open-cut construction practices. Certain portions of the Project, including rivers, roads, Interstate 94, wetlands and other identified areas, would be constructed by boring beneath them using HDD technology, leaving no surface disturbance between the drill entrance and exit points. There would be a pigging equipment/infrastructure at the source pumping station and at BOE Rail Hub, to aid in cleaning and inspecting the pipeline.

1.2. Product

The proposed 16-inch diameter steel pipeline would transmit crude oil from the pumping/offloading station southwest of Killdeer, ND to the BOE Rail Hub station just southwest of Dickinson, ND. Crude oil would be delivered to the pumping/offloading station by tanker truck. After the BOE Rail Hub has received the crude oil it would be disseminated to BOE Rail Hub clients for refinement of the product.

1.3. Size and Design

The proposed Project is a 16-inch diameter steel pipeline, with a wall thickness of 0.281-inch for open-cut installation, and 0.344-inch where HDD is needed. It would carry crude oil from about 2.4 miles southwest of Killdeer, ND to just southwest of Dickinson, ND, a distance of about 38 miles. Per 49 CFR Part 195, the pipe would be buried at a minimum depth of 48 inches and would be located in its permanent rights-of-way (ROW). When the pipeline crosses undeveloped section lines, it would be buried at a minimum depth of 72 inches. The pipeline would have a yield strength of 70,000 pound-force per square-inch gauge (psig), and welding procedures would be performed under the regulations referenced in 49 CFR part 195. The proposed Project would have a maximum temperature rating of 120 degrees Fahrenheit and a maximum allowable operating pressure (MAOP) of 1,480 psig. The Project would typically operate at 60 degrees Fahrenheit and between 200 to 1,440 psig. Current commitments of crude oil to the pipeline are estimated at about 55,000 bpd and are based on current supply available in within the Killdeer area. The proposed Project would have a maximum daily output of 165,000 bpd.

The proposed Project includes two automated mainline valves sets located at the associated pumping/offloading station and BOE Rail Hub facility. Additionally, seven automated mainline valve sets would be

installed along the Project Route. Mainline valves would be located on either side of the Green and Knife rivers as well as Duck Creek to isolate the pipeline if there is a rupture or break. At least one of the mainline valve sets would have the capability of receiving crude oil if a gathering line is connected. Please refer to FIGURE A-2. LOCATION MAPS OF PROJECT ROUTE ON PAGE A-5 IN APPENDIX A. These facilities would meet U.S. DOT regulations and would allow for the isolation of select segments of the pipeline for inspection and maintenance purposes. Mainline valve set areas would be fenced off for safety and security purposes, and would be the pipeline Project's only permanently impacted areas. Additionally, the pipeline would be designed to be cleaned and inspected using internal tools, such as cleaning pigs and smart pigs.

1.4. Location

The proposed Project Route crosses portions of 47 sections of predominantly rural grasslands and agricultural lands in Dunn and Stark Counties, ND. It was chosen because it provides market access for existing and future producers. It is situated between the communities of Dickinson and Killdeer. The Project Route is characterized by rolling hills with occasional small creeks and drainages, and sparsely scattered farmsteads. Based on publicly available data, data received through agency agreements, agency feedback, literature reviews and Corridor surveys, the current Project Route has been sited to provide the least amount of impacts, based on NDCC 49-22, and NDAC 69-06-08-02. Please refer to FIGURE A-2. LOCATION MAPS OF PROJECT ROUTE IN APPENDIX A and TABLE 2. SITE LOCATION.

Table 2. Site location

COUNTY	TOWNSHIP	RANGE	SECTIONS
Dunn	145	95	28, 33
	144	96	1, 12, 13, 14, 24, 25, 26, 35, 36
	143	96	1, 2, 11, 14, 23, 24, 25, 36
	142	96	1, 2, 11, 14, 23, 26, 35
	141	96	2, 3, 10, 15, 16, 21, 28, 33
Stark	140	97	1, 6, 7, 12, 13, 14, 23, 26, 27, 34
	139	97	3, 10, 11

The Route layout takes into account the natural geomorphology, while avoiding sensitive environmental features, cultural resources, and geotechnical constraints as well as other property owners' ROW agreements. This effort makes the pipeline Route the most direct feasible route from the off-loading and pumping station near Killdeer to the BOE Rail Hub loading facility near Dickinson.

1.5. Methods to Minimize Adverse Environmental Effects

Environmental effects from the project include any damage caused by construction to the environment in and around the Project Route. This may include, but is not limited to, displacement of wildlife, damage or degradation of vegetation, wetlands, streams, soil composition, and air quality. Pipeline construction may affect the environment by vegetation removal, wetland drainage, or increased noise, sedimentation, or carbon dioxide emissions. Best Management Practices (BMPs) would be utilized to avoid, minimize, or mitigate impacts and are discussed where appropriate. BMPs may include HDD, as well as the use of mufflers, silt

fences, straw wattles, earth berms, retention ponds, culverts, and/or rock check dams. Furthermore, machinery used for construction would be selected to lessen impacts to vegetation and soil compaction.

1.6. Project Schedule

1.6.1. Certificate of Corridor Compatibility Application

The documentation for an application for a Certificate of Corridor Compatibility is included herein.

1.6.2. Route Permit Application

The documentation for an application for a Route Permit is included herein.

1.6.3. Certificate of Corridor Compatibility and Route Permit

BOE Pipeline is seeking a Certificate of Corridor Compatibility and Route Permit granted in or before November 2013. A Waiver of Procedures and Time Schedules is provided in APPENDIX G.

1.6.4. Right-of-way Acquisition

ROW for the proposed Project would consist of approximately 372 acres and include interests of 52 different property owners. Currently, 90 percent of the Project Route's ROW has been secured. It is anticipated 100% of the ROW options will be obtained by October 8th. The construction ROW would be 80 feet in width (30-foot permanent ROW, and an additional 50-foot temporary ROW). Additional temporary workspace could be acquired in the event that additional area is needed for HDD pullback or if limited additional area is needed for construction. The width of the temporary construction ROW may be reduced in some areas as necessary to avoid impacts to environmentally sensitive areas. All analyses of temporary and permanent impacts anticipate an 80-foot construction ROW width. Execution of ROW terms would be completed in compliance with North Dakota State law in place at the time of the agreements. Some existing pipelines occur within the Corridor. Where practical and in agreement with property owners, the proposed pipeline would run parallel with the existing lines. The ROW would be reclaimed to property owner satisfaction by reseeding at the appropriate time to blend with existing vegetation. The topography would be reshaped to preconstruction contours.

1.6.5. Construction Start Date

BOE Pipeline has scheduled construction to commence as early as November 2013. All pipeline construction activities would be contained within the boundaries of the ROW.

1.6.6. Construction Completion Date

BOE Pipeline predicts construction would take approximately 8 weeks to complete installation of the 38-mile pipeline.

1.6.7. Facility Testing

BOE Pipeline would hydrotest the proposed pipeline immediately after construction is completed and prior to commissioning.

1.6.8. Commercial Operation Date

The production date would follow testing and is anticipated to begin transporting crude oil in February 2014.

1.6.9. General Maintenance Duties

The Pipeline and Hazardous Materials Safety Administration (PHMSA) continuously updates the rules and regulations stipulating how pipeline owner/operators should design, construct, operate and monitor pipelines. The pipeline is designed and would be constructed and operated to meet every requirement put forth by the most recent edition of 49 CFR Part 195. Lines would be designed to be cleaned and inspected via internal tools (e.g., cleaning pigs and smart pigs) to assess pipeline conditions in order to maintain the integrity of the pipeline system. The pipeline would receive regular inspections along the ROW for any indications of leaks and other maintenance issues.

The steel pipeline meets U.S. DOT regulations, specifically the design, installation, pressure testing, operation, welding and maintenance requirements as outlined in 49 CFR Part 195.

2. Need for Facility

2.1. Needs Analysis

The development of hydrocarbon production in the Williston Basin has increased significantly in recent years due to advancements in deep HDD techniques and subsequent oil extraction in the Bakken and Three Forks shale formations. In 2008, the United States Geological Survey (USGS) released an estimate of 3.65 billion barrels of oil awaiting discovery in those formations. Studies released by the North Dakota Department of Mineral Resources (DMR) and USGS in 2013 for the Bakken and Three Forks formations estimated mean undiscovered volumes of 7.4 billion barrels of recoverable crude oil reserves may be available in North Dakota's deep shale formations. There is speculation that much more oil may be recoverable than the 2013 estimate. One projection states that production from the Williston Basin is anticipated to last 25–30 years. Oil production statistics from North Dakota indicate that oil production has increased dramatically over the past five years from nearly 124,000 bpd in 2007 to nearly 822,000 in June, 2013. Oil production is expected to increase by 50–100 percent by 2015. All of these projections and reports highlight increasing production over time. Existing infrastructure for transporting oil was not developed in anticipation of the current level of production; a greater capacity is needed.

A major constraint in transporting hydrocarbons from North Dakota to distribution centers and eventual end users throughout the United States is the lack of pipeline capacity. To relieve the limited pipeline capability, several projects have been planned to address the growing volumes of crude oil, natural gas and natural gas liquids; however, pipeline capacity is not expected to keep pace with increasing production, leaving companies with a need to find alternative transportation methods, including rail or other surface transportation alternatives.

Construction of the Project would provide reliable service for up to 165,000 bpd and provide a more efficient link between some of the production from the oilfields of northwestern North Dakota and the railway transporting facilities near Dickinson where the product would be shipped via rail to end users throughout the United States and Canada. The availability of this pipeline would provide an opportunity to decrease the number of trucks traveling between Killdeer and Dickinson. A reduction in tanker truck traffic would enhance traffic safety and reduce negative impacts to air quality and the environment.

2.2. Alternatives

Two alternatives were analyzed regarding construction of the proposed pipeline Project. Under Alternative A (No Build), the Project would not be constructed and there would be no impacts to the surrounding environment from construction. Under Alternative B (Build), the Project would be constructed and mitigating measures would be implemented to minimize impacts.

2.2.1. Alternative A (No Build)

Under the no build alternative (Alternative A), there would be no action or environmental impacts from the proposed Project; however, transporting oil to the rail hub would be less efficient without the pipeline, local landowners would not receive ROW payments, and the local communities would not see the economic benefits associated with construction and operation of the pipeline. In addition, significant volumes of oil would continue to be transported on public roadways via commercial truck traffic.

2.2.2. Alternative B (Build)

Under the build alternative (Alternative B), the proposed pipeline Project would be constructed within the Project Route. Please refer to FIGURE A-2. LOCATION MAPS OF PROJECT ROUTE ON PAGE A-5 IN APPENDIX A. The final location of all project components under the build alternative were selected to avoid or minimize environmental impacts associated with the construction and operation of the Project. Any impacts that cannot be avoided or minimized shall be mitigated as identified in the impacts discussions for each resource.

2.3. Ten-Year Plan

The Ten-Year Plan is located in APPENDIX F.

3. Environmental Analysis

This section describes the existing conditions of resources within the Project Route, as well as the alternatives, and how each resource would be impacted. A 200-foot wide pedestrian survey was conducted for cultural, wetland, and other biological resources along the length of the Project Route. This section discusses the direct environmental impacts of each Project alternative. Indirect impacts are identified in the resource discussions where applicable. Measures, such as BMPs, which would avoid, minimize, or mitigate impacts, are discussed when impacts are identified.

The Project Route is located in rural portions of Dunn and Stark Counties in North Dakota. The Project Route extends within a Corridor between the pumping station near the intersection of ND State Highway 200 and ND State Highway 22 and the BOE Rail Hub. The pipeline would be bored under rivers, roads, Interstate 94, wetlands, and other identified areas. Roadways in the Project Corridor range from well-maintained county and city gravel roadways which run through the Project Corridor, to very low or minimum maintenance roadways and dirt trails. Cities and small towns near the Project Route include Dickinson (population 17,787), South Heart (population 301), Manning (population 74) and Killdeer (population 751).

The primary objective of this analysis is to identify potential issues within the Project Route, and identify mitigating measures to minimize Project impacts. The exclusion and avoidance criteria outlined in the North Dakota Conversion Facility Siting Act were used as the basis for the analysis. A GIS database has been developed for the Project Corridor for the purpose of assisting with the analysis. The analysis incorporated data from field surveys, literature reviews, data use agreements, and office studies.

3.1. Demographics

The Project is located in rural areas of southwestern ND. The Project Route is located within the proximity of Dickinson and South Heart in Stark County and Manning, and Killdeer in Dunn County. Major employment industries within these counties include oil and gas related activities, educational, health, social services, agriculture, construction, and manufacturing. Both Dunn and Stark County have a lower than statewide average of individuals living below the poverty level. Dunn County has a higher per capita income than the state average where Stark County has a lower per capita income than the state average. Please refer to TABLE 3. DEMOGRAPHIC TRENDS ON PAGE 16.

Table 3. Demographic Trends

COUNTY/TOWNSHIP	POPULATION IN 2010	% OF COUNTY POPULATION	PER CAPITA INCOME	% OF INDIVIDUALS BELOW POVERTY LEVEL
Dunn County	3,536	—	$28,816	8.7%
Killdeer	751	21.2%	$29,620	8.6%
Manning	74	2.1%	$36,189	2.1%
Stark County	24,199	—	$26,678	9.3%
Dickinson	17,787	73.5%	$26,423	8.7%
South Heart	301	1.2%	$25,949	11.6%
Statewide	672,591	—	$27,305	12.3%

Source: US Bureau of the Census, Census 2010.

3.1.1. Demographic Impacts/Mitigation

3.1.1.1. Alternative A (No Build)

Alternative A would not affect area demographics.

3.1.1.2. Alternative B (Build)

Impacts

The Project would result in increased income to property owners receiving ROW payments. Local contractors would be used during construction when possible and no impact to local labor relations is anticipated. This would provide a temporary increase in property owners' and laborer's annual income; however, the number of permanent jobs created by this Pipeline Project is projected to be low. It is not anticipated that the Project would alter long-term population trends within Dunn or Stark Counties.

Mitigation

No mitigation for demographic impacts is required.

3.2. Land Use

The Project Route is located in a rural setting predominantly comprised of agricultural cropland and grasslands, which are primarily used for grazing. Grasslands make up approximately 54.4 percent and cultivated lands account for approximately 42.8 percent of the Project Route, the remainder is made up of woody wetlands, barren, shrubland, and developed areas. Please refer to TABLE 4. LAND USE, and FIGURE A-3. LAND USE MAPS ON PAGE A-21 OF APPENDIX A.

Table 4. Land Use

LAND CLASSIFICATION*	ACREAGE IN PROJECT ROUTE (WITHIN 200-FOOT BUFFER)	% OF PROJECT ROUTE	PERMANENT IMPACTS (ACRES, MAINLINE VALVE SETS)	TEMPORARY IMPACTS (ACRES, 80-FOOT ROW)
Grasslands	505.9	56.4%	0.055	201.5
Cultivated	398	40.5%	0.084	157.5
Woody Wetlands	0.9	0.1%	0	0
Deciduous Forest	1.6	0.2%	0	0.4
Developed	23.6	2.8%	0	10
Barren	0.4	0.0%	0	0
Shrubland	0.2	0.0%	0	0
Total	930.6	100%	0.14	369.4

*Source: National Agricultural Statistics Service (NASS), 2012

3.2.1. Land Use Impacts/Mitigation

3.2.1.1. *Alternative A (No Build)*

Alternative A would not impact land use.

3.2.1.2. *Alternative B (Build)*

Impacts

Construction of the Project would result in a temporary disturbance (80-foot ROW) of approximately 369.4 acres of the total land within the Project Route from the existing land uses into a pipeline Route. Above-ground mainline valve sets would be the only permanent land conversion associated with the Project and would consist of approximately 0.14 acres. Temporary land conversion associated with installation of the pipeline would cease following construction and the land would be returned to preconstruction land uses, which primarily consist of ranching and agricultural practices on grasslands and cultivated lands. It is not anticipated that the conversion of existing land use would result in a trend toward modification of existing land use patterns. No impacted property owners have expressed concerns over land that is economically suitable for irrigation. No conflicts are anticipated with existing state, local, or private development plans within the Project Route.

Mitigation

Long term adverse impacts to land use are not anticipated; therefore, mitigation would be limited to construction reclamation.

3.3. Public Services

Electrical Services

There are several electrical lines that traverse the proposed Route. The pipeline would cross some of these electrical lines and the line owners would be contacted to avoid service interruption. Please refer to FIGURE A-4. PUBLIC SERVICE INFRASTRUCTURE MAPS ON PAGE A-37 IN APPENDIX A.

3.3.1. Electrical Impacts/Mitigation

3.3.1.1. Alternative A (No Build)

Alternative A would not impact electrical service.

3.3.1.2. Alternative B (Build)

Impacts

Power consumed by the proposed pipeline would be minimal and limited to infrequent valve operation. The electrical usage would not pose an adverse effect to the region's power supply. Additionally, the power lines that intersect the Route would not be impacted by the Project.

Mitigation

No impact or interference to electrical services is anticipated, therefore no mitigation is needed.

Local Services

The Project Route is located in a rural part of North Dakota composed primarily of grasslands or cultivated land. No towns are located within the Project Route; however, there are four towns within 5 miles of the Route including Dickinson, South Heart, Manning, and Killdeer. These towns provide sewer, water, and utility services. St. Joseph's Hospital, located in Dickinson, is the closest facility providing medical services. The facility includes a Level III Trauma Center and has a 49-bed capacity. In addition, The Great Plains Clinic P.C. in Dickinson is a locally owned and operated multi-specialty clinic specializing in Family Practice, Internal Medicine, General Surgery Pediatric and Podiatry care.

3.3.2. Local Services Impacts/Mitigation

3.3.2.1. Alternative A (No Build)

Alternative A would not impact local services.

3.3.2.2. Alternative B (Build)

Impacts

The Project would not intersect any communities or local services.

Mitigation

Impacts to local services in and around the Project Route are not anticipated; no mitigation is required.

Roads

Major roadways near the Project Corridor include ND Highway 200 north of the Project Corridor and ND Highway 22 to the east. Neither would be intersected by the Project. Interstate 94 intersects the south end of the Project and would be bored under to avoid any conflict with traffic and commerce. Other roadways in the Project Corridor range from well-maintained county gravel roadways, to roadways and dirt trails

which receive a low level of maintenance. All maintained roadways would be bored with the exception of undeveloped section lines. Please refer to FIGURE A-4. PUBLIC SERVICE INFRASTRUCTURE MAPS ON PAGE A-37 IN APPENDIX A.

3.3.3. Roads Impacts/Mitigation

3.3.3.1. Alternative A (No Build)

Alternative A would not impact roads.

3.3.3.2. Alternative B (Build)

Impacts

The Build option would utilize existing roadways for access to the pipeline Route. Haul road permits would be acquired from Dunn and Stark Counties, and the NDDOT, where required. There is potential for damage to existing roadways during construction. Due to truck and equipment movement on gravel and dirt roads, dust control measures would be used if necessary.

Mitigation

Any damage to property owners' land or existing roads caused by construction traffic would be repaired. If dust becomes an issue, BOE Pipeline would use dust prevention methods including decreasing speeds or watering the roadways.

Telephone, Radio, Antenna, and Microwave Structures

No radio, antenna, or microwave structures are within the Project Route. The Route has been selected to avoid telephone, radio, antenna, or microwave structures. There are several wireless communication towers within 2 miles of the Project Route.

3.3.4. Telephone, Fiber Optic and Microwave Impacts/Mitigation

3.3.4.1. Alternative A (No Build)

Alternative A would not impact telephone, radio, antenna, or microwave structures.

3.3.4.2. Alternative B (Build)

Impacts

No impacts to telephone, radio antenna or microwave structures are anticipated during the construction of the proposed Project. Location of telephone, radio, antenna, or microwave structures have been taken into consideration during routing of the proposed pipeline Route. No impacts are anticipated.

Mitigation

If it is found that the proposed Project would cause impacts to telephone, radio, antenna, or microwave structures, mitigation measures would be coordinated with the impacted companies or residences.

Traffic

The pipeline begins at the pumping station southwest of Killdeer along ND Highway 200 approximately 2.4 miles west of the ND Highway 22 intersection. Based on the NDDOT 2013 average annual daily traffic (AADT) volume information, ND Highway 22 near Killdeer has an AADT of 5,850 vehicles per day with commercial truck traffic making up approximately 1,965. This represents a 260 percent increase in AADT and a 389 percent increase in AADT of commercial truck traffic along Highway 22 since 2009. ND Highway 200 near Killdeer has an AADT of 3,395, and an AADT commercial truck traffic rate of 1,370, with AADT increasing by 300 percent and commercial truck traffic AADT increasing by 480 percent since 2009. These dramatic AADT increases within the last four years affirm the need for an alternative to transporting oil via tanker truck. Traffic counts along much of the Corridor's non-paved roads have not been conducted due to the limited rural use of these roadways. Most of the traffic loads on these roadways can be attributed to local agricultural traffic and commuting from rural residences, as well as oil-related activities.

3.3.5. Traffic Impacts/Mitigation

3.3.5.1. Alternative A (No Build):

Alternative A would not impact traffic.

3.3.5.2. Alternative B (Build):

Impacts

It is anticipated that traffic volumes would increase temporarily and only slightly during construction of the proposed Project. At its peak the pipeline would be capable to transmitting 165,000 bpd. It would take approximately 825 tanker trucks per day to transport that amount of oil via roadway. The pipeline would help reduce tanker truck traffic between Killdeer and Dickinson. Traffic related to maintenance of the proposed facilities is anticipated to be minor. The increase in traffic is not expected to be at a volume that would alter travel patterns in the area. Permits for transportation of large equipment would be acquired from the NDDOT and counties prior to construction and would be the responsibility of the contractor.

Mitigation

Although there would be a slight increase in tanker truck traffic to the pumping station, it is not anticipated to have a negative effect to roadways as overall truck transportation of oil should be reduced. NDDOT has stated that the Project would have no adverse effect to ND highways.

Water Supply

It is common for rural residences in the area to use private wells for domestic and agricultural purposes. According to North Dakota State Water Commission data, there is one domestic well located outside of the ROW but within the Project Route (200-foot wide area inventoried). The Project area is located above the Lower Tertiary aquifer and the Killdeer surface aquifer. Please refer to FIGURE A-5. GEOLOGIC AND GROUND WATER MAPS ON PAGE A-53 IN APPENDIX A.

3.3.6. Water Supply Impacts/Mitigation

3.3.6.1. Alternative A (No Build):

Alternative A would not impact water supply.

3.3.6.2. Alternative B (Build)

Impacts

The water supply for residents within the Project Corridor is not anticipated to be impacted by the proposed Project. It is not anticipated that the proposed Project would impact existing or proposed water lines. Coordination would occur with the area's water associations and private landowners prior to construction to identify water line locations and avoid and/or minimize potential service disruptions, as needed. None of the identified stock/domestic wells are anticipated to be impacted by construction of the proposed pipeline. There is no interference with the Southwest Pipeline Project (SWPP).

Mitigation

No impacts to water supplies are anticipated, thus no mitigation is needed. If it is found that the proposed Project would cause impacts, mitigation measures would be coordinated with the impacted companies or residences.

3.4. Human Health and Safety

Hazardous Materials/Hazardous Waste

It is not anticipated that hazardous waste sites would be encountered within the Project Route during construction. If hazardous waste sites are encountered, construction would be suspended and the North Dakota Department of Health would be contacted immediately to determine the best method for removal or clean up.

All potential hazardous materials encountered or used during construction would be contained according to the North Dakota Pollutant Discharge Elimination System (NDPDES) permit.

3.4.1. Hazardous Materials/Hazardous Waste Impacts/Mitigation

3.4.1.1. Alternative A (No Build)

Alternative A would not impact hazardous materials or hazardous waste sites.

3.4.1.2. Alternative B (Build)

Impacts

Transporting crude oil by pipeline does involve some risk of release of hazardous material by way of a break or leak in the pipeline; however, this risk is minimal, as the pipeline is designed and would be constructed and maintained in accordance with PHMSA part 195. Additionally, the Pipeline must be pressure tested for leaks prior to commissioning. Transporting the oil via pipeline also decreases the potential release of hazardous materials onto a roadway or adjacent land resulting from tanker truck accidents. Any hazardous

materials used for the construction of the Project would be contained according to the NDPDES Permit. The pipeline would be 500 feet or more from all inhabited rural residences except for two. One resident has requested the BOE Pipeline parallel an existing pipeline, which is less than 500 feet from their residence. Due to recently determined land owner preferences, the line will be less than 500 feet from a second residence. One signed waiver is in APPENDIX H. WAIVER OF AVOIDANCE AREA. The second waiver will be transmitted to the PSC when it is received. There would be no impact to extractive and storage resources.

Mitigation

The pipeline would be marked with signs at road and river crossings. No further mitigation is anticipated at this time.

Security

The Project Route is located in rural portions of Dunn and Stark Counties west of ND Highway 22. Most of the access to the proposed Project requires permission from property owners. This minimizes general public access and should reduce the need for additional security during construction. Farms and rural residences are located in and around the Project Route. No towns are within the boundary of the Project Route.

3.4.2. Security Impacts/Mitigation

3.4.2.1. Alternative A (No Build)

Alternative A would not impact Security.

3.4.2.2. Alternative B (Build)

Impacts

The build option is not anticipated to compromise the security of the rural Project Route.

Mitigation

No mitigation is anticipated.

3.5. Noise

The Project is located in a rural setting. Noise contributions in the Project Route typically include farm machinery and roadway traffic. Noise levels in rural settings typically range from 35 to 45 decibels (dBA). These noise levels are comparable to that of a quiet room.

3.5.1. Noise Impacts/Mitigation

3.5.1.1. Alternative A (No Build)

Alternative A would not result in increased noise.

3.5.1.2. *Alternative B (Build)*

Impacts

Construction would cause a temporary local increase in noise levels. Little additional noise would be introduced into the environment by operation of the pipeline, except for vehicles used during inspections and maintenance.

Mitigation

No mitigation is anticipated at this time.

3.6. Aesthetics

The visual landscape of the Project Route consists of a rural setting including agricultural fields, pastureland, and native prairie with occasional wetlands, small creeks and drainages. The Project Route lacks large-scale developments and is dotted with farmsteads. No visually sensitive areas, such as National Parks, exist in or directly adjacent to the Project Route.

3.6.1. Visual Impacts/Mitigation

3.6.1.1. *Alternative A (No Build)*

Alternative A would not result in visual impacts.

3.6.1.2. *Alternative B (Build)*

Impacts

Measuring the aesthetic value of a specific landscape is difficult, and may vary based on an individual's personal values, experiences, or preferences. Temporary disturbances would occur during construction of the pipeline Route, in the form of construction operations. Installation of mainline valves along with pipeline signage and markers would leave permanent although minor visual impacts.

Mitigation

Following construction, the topography would be returned to its preconstruction contours and plant cover would be replaced and reclaimed to landowner satisfaction. It is anticipated that the Route would be revegetated and blended with the surrounding environment. No additional mitigation is anticipated at this time.

3.7. Cultural and Archaeological Resources

A Class I Literature Review was conducted in April 2013 for the proposed pipeline Project. The literature review revealed that there was one previously recorded site within the Project Corridor. Additionally, the literature review revealed that 25 previous inventories had been conducted within the Project Corridor. The results of the literature review were supplied to BOE Pipeline in an effort to allow for avoidance of all previously known historic properties. Because the majority of the Project Corridor had not been previously inventoried, KLJ performed a Class III cultural resource Inventory of the Pipeline Route. There were several site

leads identified within the Project Corridor. Site leads indicate a possibility of cultural material in the area however they were not previously inventoried by professional archeologists.

The Class III Inventory was conducted from May 16, 2013 to August 28, 2013. The inventory had a minimum width of 200 feet, but if a site was identified, the site was mapped even if it extended outside the 200-foot inventory corridor unless it extended onto property for which there was no permission to access. When the pipeline route was closer than 100 feet, it was adjusted to maintain a distance of no less than 100 feet of surface disturbance from a prehistoric site and no less than 50 feet for a historic site. Several route adjustments were made to maintain the distance to maintain separation from various sites. During the survey, 27 previously undocumented cultural resources were identified consisting of 7 historic, 19 prehistoric and 1 multi-component resource. Previously documented and newly found cultural resources were taken into account during pipeline route design.

3.7.1. Cultural and Archaeological Resources Impacts/Mitigation

3.7.1.1. Alternative A (No Build)

Alternative A would not impact cultural or archaeological resources.

3.7.1.2. Alternative B (Build)

Impacts

Pending concurrence from SHPO, KLJ recommends a finding of *No Historic Properties Affected*. The pipeline and associated facilities were sited to avoid archaeological sites and traditional cultural properties based on NDCC 49-22, and NDAC 69-06-08-02. The Project would avoid surface disturbing activities within a 100-foot buffer from prehistoric sites and a 50-foot buffer from all historic sites. Areas where site leads were crossed by the pipeline Route were surveyed according to Class III cultural resource inventory standards. As no cultural materials were identified, either related to the site leads or to previously unrecorded sites, it is recommended that no adverse effect would occur. In areas in which this buffer is abutting the area of potential effect, KLJ recommends that a cultural monitor be present to insure the historic properties are avoided. If previously undefined cultural resources are identified during the construction process, construction would halt until KLJ cultural staff arrive to advise on how to proceed. It is the intent of BOE Pipeline to avoid cultural resource impacts, thus if a site is identified during construction, the Route would be changed to buffer the cultural resource while staying within the Project Corridor. An Inadvertent Discovery Plan would also be created and submitted to SHPO. This plan would include details regarding the procedures that would be followed in the event subsurface cultural resources are found during excavation for the proposed Project.

Mitigation

No impact to cultural and archaeological resources is anticipated, thus no mitigation is anticipated.

3.8. Recreation

Numerous recreational opportunities exist some distance from the Project Corridor. There are opportunities for hiking, fishing, horseback riding and bird watching within and near the project corridor as well. Within a few miles there are opportunities for scenic drives, including the Killdeer Mountain Four Bears Scenic Byway which goes from Killdeer to New Town on ND Highway 22. North Dakota is located in the central

flyway for waterfowl migration, attracting recreationists, such as hunters, birdwatchers and nature enthusiasts to the region. There are no state or national parks or other significant recreational opportunities within the Project Corridor. The following state and national parks are the closest such areas within the vicinity of the Project Corridor:

Little Missouri State Park is located approximately 12 miles northeast of the Project Route. This park offers picturesque badlands along the Little Missouri River. The park offers visitors picnic shelters, hiking, horseback trails, and camping.

Theodore Roosevelt National Park is located approximately 15 miles west of the Project Route. This park offers picturesque natural scenery and abundant wildlife as well as opportunities to explore significant historic sites including Teddy Roosevelt's Elkhorn Ranch.

Killdeer Mountain Battlefield State Historic Site: This historic site marks the battle General Alfred Sully's troops fought against the Sioux in 1864. The historic site includes a portion of the battlefield and a small museum which is located approximately 5 miles north of the Project Route.

3.8.1. Recreational Resources Impacts/Mitigation

3.8.1.1. Alternative A (No Build)

Alternative A would not impact recreational resources in the area.

3.8.1.2. Alternative B (Build)

Impacts

The distance to public recreational facilities is great enough that no impacts are anticipated.

Mitigation

No mitigation is planned at this time

3.9. Economics

Agriculture/Farming

According to the 2007 U.S. Department of Agriculture (USDA) Census of Agriculture, Dunn County contains 563 farms which primarily produce wheat, corn, sunflower and other grains along with cattle. The 2007 market value of all agricultural products sold which were produced in Dunn County was $68.7 million. Stark County contains 865 farms, which also primarily produces wheat, corn, sunflower and other grains along with raising cattle. The 2007 market value of all agricultural products sold which were produced in Stark County was $96.8 million.

There are approximately 930 acres of land within the Project Route's 200-foot buffer area. Of this, approximately 12.3 acres contain soil types which are considered prime farmland and approximately 325.7 acres contain soils which are considered to be farmland of statewide importance. Please refer to FIGURE A-6. PRIME AND UNIQUE FARMLAND MAPS ON PAGE A-69 IN APPENDIX A.

3.9.1. Agriculture and Farming Impacts/Mitigation

3.9.1.1. Alternative A (No Build)

Alternative A would not impact agriculture or farming.

3.9.1.2. Alternative B (Build)

Impacts

Construction of the proposed Project would result in the permanent conversion of approximately 0.14 acres (mainline valve set and infrastructure) and the temporary conversion of approximately 369.4 acres (80-foot ROW) of land that may be currently used for agricultural production into a pipeline Route. Seven mainline valves sets would be installed along the Route. These valve stations would permanently convert approximately 0.06 acres of grasslands, and 0.08 acres of cultivated land. Though the Project would result in the conversion of potential farmland into a pipeline Route, economic losses to producers due to this land conversion are anticipated to be minor and temporary in nature. Long-term benefits would be seen in the payment to property owners who signed ROW agreements with BOE Pipeline. This additional income may also be reflected as an increase to the county tax base. Additional money brought into the community would most likely be seen in increased spending at local businesses and improvements to the communities and counties.

Mitigation

Following construction the topography would be returned to its preconstruction contours and vegetation would be replaced, blending in with surrounding areas, and reclaimed to landowner satisfaction. No further mitigation is needed.

Woodlands

Wooded zones within the Project Corridor consist of shelter belts and wooded ravines. There is no economically significant forestry resource located within the Project Corridor. Trees or large shrubs which are removed during construction would be replaced.

3.9.2. Woodlands Impacts/Mitigation

3.9.2.1. Alternative A (No Build)

Alternative A would not impact woodlands

3.9.2.2. Alternative B (Build)

Impacts

Impacts to trees are anticipated to be minimal.

Mitigation

Trees and shrubs removed during pipeline construction would be replaced at a 2-to-1 ratio, as necessary, and would be monitored for survival.

3.10. Soils

There are 107 soil types found within the Project Route (within the 200-foot wide cultural and biological survey area). The majority of these soil types are loamy soils, which are a broad textural class of soils that contain a mixture of sand, silt, and clay particles. While most soils contain some mixture of these three particles, an ideal loam exhibits the properties of sand, silt, and clay in approximately equal proportions (not equal amounts). The presence of clay in a soil has a greater influence on a soil than the presence of silt or sand; therefore, a soil name can include the modifier "clay" with as little as 20 percent clay, while a soil must contain at least 40 percent sand or 45 percent silt in order to contain those respective modifiers in its name. Soils identified as sandy loams have moderately coarse textures, silt loams have medium textures, and clay loams have moderately fine textures. Soil types located within the Project Route include loams, silt loams, sandy loams, and clay loams.

Of the 107 soil types within the Project Route, 61 soil types are classified by the Natural Resource Conservation Service (NRCS) as not being prime or statewide important farmland. Of the remaining soil types, 5 are classified as prime farmland and 41 are classified as farmland of statewide importance. Please refer to TABLE B-1. SOIL SUMMARY ON PAGE B-1 IN APPENDIX B.

3.10.1. Soils Impacts/Mitigation

3.10.1.1. Alternative A (No Build)

Alternative A would not impact soils.

3.10.1.2. Alternative B (Build)

Impacts

Impacts to soils associated with the Project are not expected to be significant. Soil impacts would be localized and BMP would be implemented to minimize these impacts. Surface disturbance caused by construction of the pipeline and associated infrastructure would be temporary and returned to pre-construction conditions after the pipeline is installed. Another soil resource issue is soil compaction, which can occur by use of heavy equipment. Silt and clay soils are especially susceptible to this.

Mitigation

Topsoil would be segregated during the construction process and backfilled to the appropriate depth once construction is complete. BMP's would be used to decrease silting and erosion issues. BMPs may include the use of erosion and sediment control devices during and after construction, segregating topsoil from subsurface materials, reseeding of disturbed areas to their natural state, use of construction equipment appropriately sized to the scope and scale of the Project, and maintaining proper drainage. No further mitigation is anticipated.

3.11. Geology and Groundwater Resources

The Project Route is located in a region of North Dakota known as the Missouri Plateau. The Missouri plateau consists of the "wide open spaces" of the American West. The topography of this ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage pattern. The Missouri

plateau is a moderately dissected level to rolling plain with isolated sandstone buttes. The geology is characterized by tertiary sandstone, shale and some coal. The Project Route is located above the Lower Tertiary aquifer, and the Killdeer surface aquifer. The North Dakota Geological Survey, 100k sheets do not indicate any landslide areas within the Project Route. The Killdeer landslide 1:24,000 map for Manning SE quadrant also shows no conflict with the Project Route. No landslide data was available for Stark county due to lack of landslide activity. Please refer to FIGURE A-5. GEOLOGIC AND GROUND WATER MAPS ON PAGE A-53IN APPENDIX A.

3.11.1. Geologic and Groundwater Resources Impacts/Mitigation

3.11.1.1. Alternative A (No Build)

Alternative A would not impact geologic and groundwater resources.

3.11.1.2. Alternative B (Build)

Impacts

Impacts to geologic and/or groundwater resources are not anticipated.

Mitigation

Following construction the topography would be returned to its preconstruction contours and vegetation would be replaced and reclaimed to landowner satisfaction. No further mitigation is needed.

3.12. Surface Water and Floodplain Resources

Several drainage ways, wetlands and smaller streams/creeks are crossed by the Project Route. These water complexes may be used by wildlife, and cattle, and may support hydrophytic vegetation, and in some cases large woody vegetation. Surface water also provides crucial areas for hunting, bird watching, and fishing. The North Dakota Game and Fish Department has classified the Green and Knife Rivers, as well as Spring Creek as fisheries. Three floodplains have been identified in Stark County. These flood plains are mainly associated with rivers and would be bored to minimize disturbance and impacts. Please refer to FIGURE A-8. STARK COUNTY FLOOD PLAINS ON PAGE A-101 IN APPENDIX A.

3.12.1. Surface Water Resources Impacts/Mitigation

3.12.1.1. Alternative A (No Build)

Alternative A would not impact surface water or floodplain resources.

3.12.1.2. Alternative B (Build)

Impacts

The pipeline Route and associated facilities have been sited to avoid surface water. Impacts to surface water would be avoided and/or minimized through use of BMPs such as silt fences, straw wattles, earth berms, retention ponds, culverts, HDD and/or rock check dams.

Mitigation

Measures would be taken to avoid disruption of the natural flow of any river, creek, stream, or wetland within the Project Corridor, and boring would be utilized when necessary. HDD would be used to minimize impacts to rivers, creeks, streams, and wetlands. In addition to HDD, BMP's such as silt fences, straw wattles, earth berms, retention ponds, culverts, and/or rock check dams may be used as necessary to minimize impacts.

3.13. Wetlands

Wetlands are defined in both the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or ground water with a frequency to support and, under normal circumstances, do or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wetlands containing various hydrology and vegetation exist within the Project Corridor. Wetlands are found along several perennial streams, intermittent streams and drainages within the Project Corridor. Wetlands associated with streams and drainages may fall under United States Army Corps of Engineers (USACE) jurisdiction as waters of the United States. BOE Pipeline would comply with the USACE Nationwide Permit 12 and General Conditions for Nationwide Permits.

Field wetland delineations were completed from April through August 2013 by KLJ to document wetlands so they may be avoided or wetland impacts from the proposed construction minimized. A total of 18 wetlands were delineated within the Project Route. Please refer to FIGURE A-7. WETLANDS MAPS ON PAGE A-85 IN APPENDIX A.

3.13.1. Wetlands Impacts/Mitigation

3.13.1.1. Alternative A (No Build)

Alternative A would not impact wetlands.

3.13.1.2. Alternative B (Build)

Impacts

The pipeline is routed to avoid any U.S. Fish and Wildlife Service (USFWS) wetlands. According the Corps of Engineers' NWP-12, delineated wetlands may be trenched through to lay the pipeline. However, any wetland that has been delineated and cannot be avoided during the construction of the pipeline would be bored to avoid negative impacts to wetlands.

Mitigation

Any wetland that is unavoidable would be bored using HDD. Using this technology should avoid impacts to wetlands within the Project Route. If any impact to a wetland occurs, it would be restored to preconstruction contours and reseeded at the appropriate time. Construction would take place during the winter months, lessening impacts to the wetlands. Any reclamation would occur during a time which optimizes the likelihood for success. Property owners would also be consulted regarding reclamation adequacy.

3.14. Vegetation

Primary vegetation communities in North Dakota include short grass prairie in the drier western part of the state and tall grass prairie in the eastern part of the state. In between the short and tall grass prairies is a transitional area called the mixed grass prairie, which consists of a mixture of both short and tall grasses. The Project Route is located on the edge of the mixed grass prairie and short grass prairie of western North Dakota. Vegetation of the mixed grass prairie consists mainly of brome (*Bromus inermis)*, western wheatgrass (*Pascopyrum smithii*), bluestem (*Andropogon gerardii* and *Schizachyrium scoparium*), and needlegrass (*Achnatherum sp.*), with short grass prairie mainly comprised of blue grama (*Bouteloua gracilis)*, little bluestem (*Schizachyrium scoparium)*, and side oats grama (*Bouteloua curtipendula)*.

Cropland and native rangeland were identified within the Project Route during field surveys. Native rangeland is highly valued by resource agencies due to the diversity of habitat it provides for wildlife and insect species. However, the presence of cropland in the area fragments these habitat areas and restricts native rangeland to areas adjacent to active agricultural areas and to areas around drainages and hilly areas. No USFWS grassland easements are located within the Project Route.

3.14.1. Vegetation Impacts/Mitigation

3.14.1.1. Alternative A (No Build)

Alternative A would not impact vegetation.

3.14.1.2. Alternative B (Build)

Impacts

Temporary vegetation impacts would occur during construction. The majority of the Project Route would be constructed through cropland and Grassland. Approximately 0.14 acres (mainline valve set and infrastructure) would be permanently impacted and approximately 369.4 acres (80-foot ROW) would be temporarily impacted by Project construction. Following such impacts, it is common for some weed species to grow in disturbed areas until the desired revegetation of the site is complete.

Mitigation

Following construction the topography would be returned to its preconstruction contours and plant cover would be replaced, blended with surrounding areas, and reclaimed to landowner satisfaction. Once revegetated, these areas would be available for their present use (i.e., cultivation, grazing, and prairie). BMPs that minimize impacts to surrounding vegetation would be used to protect exposed soil from erosion or runoff, contain temporary spoil piles, weed prevention, and provide for material stabilization. If noxious weeds become an issue while the pipeline Route is being reclaimed to preconstruction conditions, BOE would use noxious weed management practices approved by the appropriate local weed board and coordinated with the landowner.

3.15. Wildlife

Mammal Species

White-tailed *(Odocoileus virginianus*) and mule (*Odocoileus hemionus*) deer flourish in the vicinity of the Project Corridor due to the ample forage from surrounding cropland intermingled with the native rangeland, ridge lines, and draws. Numerous other mammals such as Eastern cottontail rabbit (*Sylvilagus floridanus*), long-tailed weasels (*Mustela frenata*), red fox (*Vulpes vulpes*), beaver (*Castor canadensis*), muskrats (*Ondatra zibethicus*), black-tailed prairie dog (*Cynomys ludovicianus)* and coyotes (*Canis latrans*) also inhabit this part of the state.

3.15.1. Mammal Impacts/Mitigation

3.15.1.1. Alternative A (No Build)

Alternative A would not impact mammal species.

3.15.1.2. Alternative B (Build)

Impacts

Ground clearing activities associated with construction of the pipeline may temporarily impact habitat for ground dwelling mammals and other wildlife species. While wildlife may use the Project Route for breeding and feeding, wildlife are anticipated to adapt to changing conditions and continue to thrive. Additionally, the proposed surface disturbances are minimal, and would be temporary. A black-tailed prairie dog colony was identified within the Project Corridor. The colony is 31 acres and the Project would impact approximately 0.05 acres of the colony. Based on currently occupied prairie dog burrows, only two burrows would be directly impacted. Approximately one-half of the Project Route has been previously and continues to be disturbed due to farming practices.

Mitigation

Construction would take place during winter months, when there is usually a decrease in utilization by grazing animals within the Corridor. The disturbed areas would be returned to preconstruction conditions. No further mitigation is needed.

Avian Species

The Project Corridor lies in the central flyway of North America. As such, this area is used as resting grounds for many birds on their spring and fall migrations, as well as nesting and breeding grounds for many song, wading, shore, upland, and waterfowl species. The closest USFWS Waterfowl Production Area is located approximately 25 miles from the proposed Project Corridor.

Protection is provided for the bald (*Haliaeetus leucocephalus)* and golden eagle (*Aquila chrysaetos)*, as well as other migratory birds, through the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA of 1940, 16 U.S.C. 668–668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. The MBTA, 916 U.S.C. 703–711, regulates impacts to these species such as taking, direct mortality, habitat degradation, and/or displacement of individual birds. The MBTA defines "taking" to

include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations. The BGEPA provides additional protection to all bald and golden eagles. Under the BGEPA, "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein "disturb" means to agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment. Additionally red-tailed (*Buteo jamaicensis)*, Swainson (*Buteo swainsoni)*, and ferruginous (*Buteo regalis*) hawk are provided protection under the MBTA and by North Dakota Game and Fish (NDGF).

Aerial and several pedestrian surveys for raptor nests and sharp-tailed grouse leks were completed by KLJ staff in the spring of 2013. The surveys identified 14 raptor nests and 1 sharp-tailed grouse lek within the 5-mile-wide Project Corridor. Construction and reclamation would occur outside the nesting and migratory season and it is not anticipated to adversely affect raptor or lek activities. Please refer to FIGURE A-9. RAPTOR NEST AND SHARP-TAILED GROUSE LEKS LOCATIONS ON PAGE A-109 IN APPENDIX A.

3.15.2. Avian Species Impacts/Mitigation

3.15.2.1. Alternative A (No Build)

Alternative A would not impact avian species.

3.15.2.2. Alternative B (Build)

Impacts

The Project may result in local disruption of avian species or habitat through ground trenching activities and noise associated with construction; however, these impacts would be temporary, and construction would take place in late fall and early winter when bird presence and activity is minimal. No eagle nests were observed within the raptor survey area.

Mitigation

Impacts to avian species are primarily mitigated by constructing during the late fall and early winter when bird presence and activity is minimal.

Setbacks and buffers do not appear to be necessary. However, if there are any construction delays, the following have been incorporated in the Project layout:

- Minimum setback of ¼-mile construction buffer for the red-tailed hawks and Swainson's hawks nests from March 15 to July 15.
- A construction buffer of ½-mile from all active eagle and ferruginous hawk nests from March 15 to July 15.
- A ¼-mile construction buffer for sharp-tailed grouse from March 15 to May 15 would be put in place on all active lek sites.

No further mitigation is anticipated.

3.16. Rare and Unique Natural Resources

Threatened and Endangered Species

The Project Route was evaluated to determine the potential for occurrences of federally-listed threatened, endangered, and candidate species. The USFWS has identified the whooping crane (*Grus americana*), interior least tern (*Sterna antillarum*), black footed ferret (*Mustela nigripes*), pallid sturgeon (*Scaphirhynchus albus*), gray wolf (*Canis lupus*), piping plover (*Charadrius melodus*), Dakota skipper (*Hesperia dacotae*) and Sprague's pipit (*Anthus spragueii*) for Dunn County and whooping crane, black footed ferret, gray wolf and Sprague's pipit for Stark County. In addition, Dunn County contains designated critical habitat for the piping plover. Habitat requirements and other information regarding listed species for Dunn and Stark Counties are discussed below.

The whooping crane (endangered) is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota, south to Texas, and west into Colorado. Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. Currently, there are three wild populations of whooping cranes, yielding a total species population of about 384. Of these flocks, only the Aransas-Wood Buffalo population, comprised of approximately 247 cranes, is self-sustaining.

The proposed Project is located on the western edge of the whooping crane migration corridor, away from where 95 percent of the sightings occur. The closest whooping crane observation to the Project was approximately 5.5 miles east of the Project Corridor.

It is understood that whooping cranes are opportunistic and the potential exists for whooping cranes to fly over the area during migration. Habitat for migrating whooping cranes exists in and around the Project Corridor. However, Project construction is planned to begin during the fall and winter months and would be concluded before the spring migration and nesting season and around the conclusion of fall migration.

The piping plover (endangered) is a small migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains, and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River and saline wetlands. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands, and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover within Dunn County along the Missouri River and Lake Sakakawea shorelines approximately 12.5 miles northeast. Additionally the North Dakota Natural Heritage Biological Database indicated no occurrences of piping plover within the Project Corridor.

Wetlands were surveyed and delineated according to NWP-12 standards and included aerials photos and NWI data. The Project is within the piping plover's range; however, no piping plovers were identified during the survey. In addition, there was no preferred piping plover habitat identified within the survey area.

The Dakota skipper (candidate) is a small sized butterfly which is endemic to the northern prairies. The Dakota skipper has been rapidly disappearing from much of its historic range. This is attributed to the conversion of native prairie to cropland and overgrazing of grasslands. The adult Dakota skipper is active for approximately three weeks during June and July. Surveys were conducted during this time, and no Dakota skippers were identified within the Project Route.

The interior least tern (endangered) nests along inland rivers. It is found in isolated areas along the Missouri, Mississippi, Ohio, Red, and Rio Grande Rivers. In North Dakota, it is sighted along the Missouri River during the summer nesting season and can be found in its preferred habitat from mid-April into September. The interior least tern nests on sandbars or barren beaches, preferably in the middle of a river for increased safety while nesting. These birds nest close together, using safety in numbers to scare away predators. No interior least terns or preferred habitat were identified within the Project Corridor.

The pallid sturgeon (endangered) is known to exist in the Yellowstone, Missouri, middle and lower Mississippi, and Atchafalaya Rivers, and seasonally in some tributaries. In North Dakota, the pallid sturgeon is found primarily in the Missouri River and upstream of Lake Sakakawea in the Yellowstone River. Dating to prehistoric times, the pallid sturgeon has become well adapted to living close to the bottom of silty river systems. According to the USFWS, its preferred habitat includes a diversity of water depths and velocities formed by braided river channels, sand bars, sand flats, and gravel bars. Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age. The closest habitat for the pallid sturgeon is located approximately 12.5 miles northeast of the Project Route at Lake Sakakawea.

The Sprague's pipit (candidate) is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie of intermediate height with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance. Historically, natural disturbances such as fire and bison grazing were major drivers in maintaining a healthy prairie ecosystem that provided ideal habitat for the Sprague's pipit. Today, fire is no longer a widespread regular phenomenon as it was in earlier times, and bison grazing has largely been replaced by cattle grazing. Little information exists at this time to conclusively determine how grazing or substituting cattle for bison throughout much of the range has impacted the Sprague's pipit, but from the information available, it is believed that grazing cattle are not a significant threat to the species. The proposed Project would temporarily convert potential habitat into a pipeline Route and then be returned to its preexisting condition. Project construction is planned to begin during the fall and winter months and concluded before the spring nesting season.

The black-footed ferrets (endangered) are the only ferret species endemic to North America and have been classified as an endangered species by the USFWS since 1967. Most of the Great Plains was once home to the black-footed ferret. Specifically, in North Dakota, the southwestern corner of the State provided suitable habitat and supported the black-footed ferret. The black-footed ferret is no longer considered present within the state due to a lack of sightings or evidence of their occurrence. The last known population in the wild was found at Meeteetse, Wyoming, in 1981 and included 18 animals. These individuals were trapped and bred in captivity until 1991 when 49 were reintroduced into the wild in Wyoming. In 1994, 40 ferrets were released in Montana and 36 into South Dakota. From 1994 to 2009, ferrets were reintroduced to sites in seven different states, Canada, and Mexico. Black-footed ferrets have not been reintroduced in North Dakota, and the proposed Project would likely have no effect on the black-footed ferret or its associated habitat.

The gray wolf (endangered) is the largest wild canine species in North America. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The Project Corridor is located far from known wolf populations.

3.16.1. Threatened and Endangered Species Impacts/Mitigation

3.16.1.1. Alternative A (No Build)

Alternative A would have no effect on threatened or endangered species.

3.16.1.2. Alternative B (Build)

Impacts

Whooping Crane. According to *Whooping Crane Recovery Activities November 2007–September 2008* by T. Stehn, and *Predicting Availability of Stopover Roosting Habitat for Migrant Whooping Cranes in the Northern Great Plains* by D.A. Stahlecker, suitable stopover habitat is prevalent throughout the Dakotas and Nebraska. All land area within the Project Corridor, as well as most of the prairie pothole region, would likely be suitable habitat for whooping cranes. Since construction activities would take place outside of the whooping crane's migration season, the Project is not likely to adversely affect the whooping crane or its associated habitat.

Piping Plover. Due to the minimal potential piping plover habitat identified within the Project Corridor, and the lack of species observances, the Project would have no adverse effect on the piping plover.

Dakota skipper. Although there was potential Dakota skipper habitat within the Project Corridor, no individuals were identified. The Project would have no impact on the Dakota skipper.

Interior Least Tern. No least tern habitat or individuals were identified within the Project Corridor. The Project would have no adverse effect on the least tern.

Pallid sturgeon. No pallid sturgeon habitat or individuals were identified within the Project Corridor. The Project would have no adverse effect on the pallid sturgeon.

Sprague's pipit. Although there was potential Sprague's pipit habitat within the Project Corridor, no individuals were identified. The Project would have no impact on the Sprague's pipit.

Black-footed ferret. No black-footed ferrets were identified within the prairie dog colony. The Project would have no adverse effect on black-footed ferrets

Gray wolf. There is potential for a transient gray wolf to pass through the Project Corridor. However, due to the lack of recent species observances, and the distance to known populations, the Project may affect, but is not likely to adversely affect the gray wolf.

Mitigation

The Project avoided siting structures within or near designated critical habitat; therefore, the Project would not destroy or adversely modify critical habitat and is not likely to affect endangered, threatened, or listed species. No further mitigation is anticipated.

Rare and Sensitive Species

BOE Pipeline has coordinated with the USFWS, NDGF, and North Dakota Parks and Recreation Department (NDPRD) to help identify sensitive species and sensitive habitat that may exist within the Project Corridor.

The USFWS recommended that a survey of raptor nests and grouse leks be completed prior to siting to avoid impacts to extents possible. Environmental scientists from KLJ have visited the Project Route to identify any areas of potential impact to rare species or habitats.

The NDPRD administers the North Dakota Natural Heritage Inventory. North Dakota Natural Heritage Inventory provides a comprehensive system (Heritage System) for identifying and prioritizing ecologically significant natural features in the state. The Natural Heritage Database emphasizes features that are exemplary, unique, or endangered on a statewide or national level. The basis for inclusion on the Natural Heritage Database includes species occurrence, vulnerability, types of threats, degree of protection and Taxonomy. The NDPRD noted that because their information is not based on a comprehensive survey, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database.

GIS shapefiles of species listed on the Natural Heritage Database that occur within or adjacent to Project Route were provided to KLJ by the NDPRD. The North Dakota Natural Heritage Biological Database identified sturgeon chub within the Green River approximately, 1.7 miles west of where the pipeline would be bored under the River. The sturgeon chub is ranked in North Dakota as an S2 (Imperiled) species and considered endangered in the State. Please refer to APPENDIX E, North Dakota Natural Heritage Inventory SOV response.

North Dakota has identified 100 Species of Conservation Priority within the state and has ranked those species into three levels (Level I, Level II and Level III). Level I species are in decline and receive little or no monetary support or conservation effort. NDGF has an obligation to use State Wildlife Grant (SWG) funding to implement conservation actions that directly benefit these Level I species. Level II species receive state wildlife grant funding to implement conservation actions to benefit these species if SWG funding for Level I species is sufficient or conservations needs have been met. Level III species receive a moderate level of conservation priority, but are believed to be peripheral or nonbreeding in North Dakota. KLJ conducted surveys to identify any North Dakota Species of Conservation Priority within the Project Route. There were several of these species identified along the Project Route. Please refer to TABLE 5 for a complete list of surveyed for and identified North Dakota Species of Conservation Priority. KLJ also conducted raptor nest and grouse lek surveys within the Project Corridor to identify breeding or nesting habitat for these North Dakota Conservation Priority species. The Project Route was sited to avoid active raptor nests. Construction is planned to avoid conflicts with nesting raptors and sharp-tail grouse leks. A total of 14 raptor nests, none of which were active at the time of survey, were identified within the proposed Project Corridor. In addition, one active sharp-tail grouse lek was identified approximately 250 feet away from the pipeline. Please refer to FIGURE A-9. RAPTOR NEST AND SHARP-TAILED GROUSE LEKS LOCATIONS ON PAGE A-109 IN APPENDIX A.

Table 5. List of North Dakota Species of Conservation Priority Surveyed for in Project Route

COMMON NAME	SCIENTIFIC NAME	LEVEL	OBSERVED
Baird's Sparrow	*Ammodramus bairdii*	I	No
Black Tern	*Chlidonias niger*	I	No
Black-tailed Prairie Dog	*Cynomys ludovicianus*	I	Yes
Chestnut-collared Longspur	*Calcarius ornatus*	I	No
Ferruginous Hawk	*Buteo regalis*	I	No
Franklin's Gull	*Larus pipixcan*	I	No
Grasshopper Sparrow	*Ammodramus savannarum*	I	Yes
Lark Bunting	*Calamospiza melanocorys*	I	No
Marbled Godwit	*Limosa fedoa*	I	No
Nelson's Sharp-tailed Sparrow	*Ammodramus nelsonii*	I	No
Smooth Green Snake	*Liochlorophis vernalis*	I	Yes
Sprague's Pipit	*Anthus spragueii*	I	No
Swainson's Hawk	*Buteo swainsoni*	I	Yes
Upland Sandpiper	*Bartramia longicauda*	I	Yes
Western Hognose Snake	*Heterodon nasicus*	I	No
Willet	*Catoptrophorus semipalmatus*	I	No
Yellow Rail	*Coturnicops noveboracensis*	I	No
Bald Eagle	*Haliaeetus leucocephalus*	II	No
Bobolink	*Dolichonyx oryzivorus*	II	Yes
Brewer's Sparrow	*Spizella breweri*	II	No
Burrowing Owl	*Athene cunicularia*	II	No
Golden Eagle	*Aquila chrysaetos*	II	No
Loggerhead Shrike	*Lanius ludovicianus*	II	No
Northern Harrier	*Circus cyaneus*	II	Yes
Prairie Falcon	*Falco mexicanus*	II	No
Sharp-tailed Grouse	*Tympanuchus phasianellus*	II	Yes

3.16.2. Rare and Sensitive Species Impacts/Mitigation

3.16.2.1. Alternative A (No Build)

Alternative A would not impact rare and sensitive species.

3.16.2.2. Alternative B (Build)

Impacts

The Project Route would pass through the southwest edge of a prairie dog colony. However, based on current burrow occupancy, only two burrows would be impacted. The impacted area would cover approximately 0.05 acres of the 31-acre colony. Construction of the proposed pipeline is not anticipated to cause permanent impacts to rare or sensitive species or irretrievable natural resources.

Mitigation

The pipeline and associated structures have been routed to avoid impacts to rare and sensitive species and ecological communities. Construction would occur outside the nesting season, which is between March 15 and May 15 for sharp-tail grouse leks, and between March 15 and July 15 for raptors and migratory birds. All North Dakota Species of Conservation Priority are expected to have migrated out of the state or would be

hibernating during the construction process, with the exception of the black-tailed prairie dog. The construction timing would minimize impacts to species of concern. Following construction the topography would be returned to its preconstruction contours and vegetation would be replaced, blending with surrounding areas, and reclaimed to landowner satisfaction. No further mitigation is anticipated at this time.

Communities of Ecological Importance

The North Dakota Natural Heritage Inventory indicated that a brackish wet meadow, which is considered a significant ecological community, may be within the Project Corridor. After multiple pedestrian surveys to locate the meadow, this community was not identified within the Project Corridor. There are several western floodplain forests along the Green and Heart rivers. All examples are significant ecological communities and are outside of the Project Corridor. There are occasional trees representing several species in and near the selected Route, none of which include a community or species of concern. For every tree that is removed during the construction process two new trees, of the same species, would be replanted in the same general vicinity of where it was removed from.

3.16.3. Communities of Ecological Importance Impacts/Mitigation

3.16.3.1. Alternative A (No Build)

Alternative A would not impact Communities of Ecological Importance.

3.16.3.2. Alternative B (Build)

Impacts

Construction is not likely to impact or adversely affect North Dakota Natural Heritage brackish wet meadow, or western floodplain forests along the Green and Heart rivers that were identified by the North Dakota Natural Heritage Inventory.

Mitigation

No mitigation is needed.

3.17. Summary of Mitigation Needed

Please refer to TABLE 6. SUMMARY COMPARISON OF PROJECT ALTERNATIVES AND IMPACTS.

Table 6. Summary Comparison of Project Alternatives and Impacts

RESOURCE		ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Land Use		No impacts.	Temporary impacts totaling 369.4 acres and permanent impacts totaling 0.14 acres are anticipated along the Project Route.	Land would be reseeded according to agreements with property owners and contours would be reshaped to original contours. No mitigation is proposed for general land use conversion.
Public Services		No impacts.	Construction of the Project would impact local roadways through a temporary increase in traffic and equipment hauling. Construction would also decrease tanker truck traffic, especially on State Highway 22.	Local utility companies would be contacted prior to construction. If any damages to roadways should occur they would be returned to pre-existing conditions unless otherwise requested by County authorities during coordination.
Cultural and Archaeological Resources		No impacts.	Identified cultural resource sites would be avoided; therefore, no historic properties would be affected.	No mitigation is proposed. Surface disturbance from the pipeline and associated facilities have been setback 50 or 100 feet depending on the nature of the site. In addition, an Avoidance Plan and Inadvertent Discovery Plan would be developed and implemented.
Economics		No impacts.	Permanent conversion of 0.14 acres and temporary conversion of 157.5 acres (TABLE 4) of potential farmland. Project construction is anticipated to occur outside the growing season and completed prior to the spring planting season. Additionally property owners would be compensated for allowing a ROW easement on their land	Areas of temporary disturbance would be returned to pre-existing conditions and revegetated, as appropriate, following construction. For every tree that is removed during the construction process, two new trees, of a desired species, would be replanted in the same general vicinity of where it was removed from.
Soils		No impacts.	Topsoil would be removed and stockpiled prior to construction and replaced after completion of the Project.	Erosion and sediment controls would be put in place during and after construction Topsoil would be segregated and respreads following construction and disturbed areas would be reseeded to landowner satisfaction.
Surface Water Resources		No impacts.	No adverse impacts anticipated.	Use of BMPs such as HDD, silt fences, straw wattles, earth berms, retention ponds, and/or rock check dams would be put in place to minimize impacts to water quality. Mainline valve sets would be installed on either side of the Green and Knife rivers, as well as Spring Creek to segregate flow in the rare case of a crude oil leak.
Wetlands		No impacts.	There are 18 wetlands within the Project Route. Any wetland that has been delineated and cannot be avoided during the construction of the pipeline would be bored to avoid negative impacts to wetlands.	All wetlands would be bored. BMPs would be put in place where needed. No further mitigation is proposed.
Vegetation		No impacts.	Temporary and permanent vegetation impacts would occur during construction. Approximately 0.14 acres would be permanently impacted and approximately 369.4 acres (Table 4) of would be temporarily impacted by construction of the Project.	Following construction, disturbed areas would be revegetated, as appropriate. If noxious weeds become an issue while the pipeline ROW is being reclaimed to preconstruction conditions, BOE would use noxious weed management practices approved by the appropriate local weed board and coordinated with the landowner.
Wildlife	Mammal Species	No impacts.	The Project would temporarily impact potential habitat for ground dwelling mammals. It would also impact 0.05 acres of a prairie dog colony.	Construction would take place during winter months; which may decreases the utilization of grazing animals within the Corridor. The disturbed areas would be revegetated and returned to preconstruction conditions.
	Avian Species	No impacts.	The Project would temporarily impact potential habitat for ground dwelling birds, however, construction would occur outside the migratory/nesting season.	Primary mitigation includes construction outside of the time when high concentrations of avian species occur within the construction area. Setbacks and buffers have been incorporated for sharp-tailed grouse and raptors.

3.18. Irreversible and Irretrievable Commitment of Natural Resources

As with any construction project, certain irreversible and irretrievable commitments of natural resources, manpower, materials, and fiscal resources are required. Fossil fuels, labor, and construction materials would be expended to complete the Project. Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials, such as concrete, aggregate, and steel. These materials are generally not retrievable. However, they are not in short supply, and their use would not have an adverse effect on the availability of these resources. Any construction would require a one-time expenditure of funds, which are not retrievable. However, the anticipated benefits would balance the irretrievable commitment of resources caused by the construction of the build alternative. By constructing the build alternative, up to 825 tanker trucks per day could be eliminated on an approximate 35 miles of highway between Killdeer and Dickinson, ND. This would decrease the consumption of fossil fuels and reduce the emissions of greenhouse gasses.

4. Criteria for Transmission Facility Corridor and Route Selection

4.1. Environmental Policy Statement

The Bakken Oil Express Pipeline, LLC expresses an environmental commitment and goal to use industry standards, practices, and quality equipment, and to have the best assets to operate in an environmentally responsible manner. BOE Pipeline recognizes its operations must embrace its responsibility to the communities, the public, and its employees to operate its assets in a safe and environmentally sound manner. BOE Pipeline would contract KLJ to inspect and monitor the reclamation progress every 2 weeks or after a significant weather event, until 70% revegetation of preconstruction standards are achieved. Please refer to APPENDIX K. BOE ENVIRONMENTAL AND STEWARDSHIP STATEMENT.

4.2. Corridor and Route Siting and Evaluation Criteria

4.2.1. Exclusion Areas

Per Section 69-06-08-02(1) of the NDAC, certain geographical areas shall be excluded from transmission facility siting consideration. In addition, a buffer zone shall be implemented around these areas to protect their integrity. There are no exclusionary features which encompass 50 percent of the Project Corridor. Please refer to FIGURE A-10. EXCLUSION AND AVOIDANCE AREAS ON PAGE A-125 IN APPENDIX A and TABLE 7.

Table 7. Summary of Exclusion Areas

EXCLUSION AREA	PRESENT WITHIN PROJECT AREA	PROPOSED BUFFER
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments and wilderness area.	None	N/A
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.	Present	For surface disturbance, a 100-foot setback is being used from identified prehistoric archaeological sites and a 50-foot setback for historic sites.
County parks and recreation areas; municipal parks; and parks owned or administered by other governmental subdivisions.	None	N/A
Areas critical to life stages of threatened or endangered animal or plant species.	None	N/A
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.	None	N/A
Areas within 1,200 feet of the geographic center of an Intercontinental Ballistic Missile (ICBM) launch or launch control facility.	None	N/A
Areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	None	N/A

4.2.2. Avoidance Areas

Per section 69-06-08-02(2) of the NDAC, certain geographical areas shall not be approved for use as transmission facilities 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 PSC may consider the following: the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. In addition, a buffer zone shall be implemented around these areas to protect their integrity. There are no avoidance features which encompass 50 percent of the Project Corridor. Please refer to FIGURE A-10. EXCLUSION AND AVOIDANCE AREAS ON PAGE A-125 IN APPENDIX A and TABLE 8.

Table 8. Summary of Avoidance Areas

AVOIDANCE AREA	PRESENT WITHIN PROJECT SITE	PROPOSED BUFFER
Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges and grasslands.	None	N/A
Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	None	N/A
Historical resources which are not specifically designated as exclusion or avoidance areas.	None	N/A
Areas which are geologically unstable.	None	N/A
Within 500 feet (152.4 meters) of a residence, school, or place of business.	Present	A minimum 500-foot buffer was used from all residences with the Project Route. One residence fell within the 500-foot buffer and a waiver was obtained from the property owner to allow for pipeline construction.
Reservoirs and municipal water supplies.	Present	No impacts are anticipated.
Water resources for organized rural water districts.	None	N/A
Areas of recreational significance which are not designated as exclusion areas.	None	N/A

4.2.3. Selection Criteria

Per section 69-06-08-02(3) of the NDAC, a site shall be approved in an area only when it is demonstrated to the PSC by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area, as they relate to the following, would be at an acceptable minimum, or that those effects would be managed and maintained at an acceptable minimum. Exclusion and avoidance areas, along with selection criteria described in the above section, were evaluated and taken into account when determining the Project Corridor. Please refer to TABLE 9. SUMMARY OF SELECTION CRITERIA.

Table 9. Summary of Selection Criteria

SELECTION CRITERIA	POTENTIAL ADVERSE EFFECT FROM PROJECT
(1) Agricultural production.	Approximately 201.5 acres of grasslands and 157.5 acres of potential cropland would be temporarily impacted during pipeline installation and returned to preexisting conditions after construction.
(2) Family farms and ranches.	Economic losses to producers are anticipated to be minor in comparison to additional income provided by ROW agreements. Additionally, construction is planned to occur outside the growing season.
(3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	No impacted property owners have expressed concerns over land that is economically suitable for irrigation. No adverse impacts are anticipated.
(4) Surface drainage patterns and ground water flow patterns.	No adverse impacts are anticipated to surface drainage or groundwater flow patterns.
(a)(1) Sound sensitive land uses.	A small increase in the overall noise of the rural area may occur during construction activities. These impacts would be temporary in nature
(a)(2) The visual effect on the adjacent area.	Visual impacts would occur in the form of pipeline identification markings and signs along the Route and road crossings, as well as, a temporary trenching scar.
(a)(3) Extractive and storage resources.	No adverse impacts to extractive and storage resources are anticipated.
(a)(4) Wetlands, woodlands and wooded areas.	No adverse impacts to wetlands are anticipated, all wetlands would be bored
(a)(5) Radio and television reception, and other communication or electronic control facilities.	No adverse impacts to Radio and television reception, and other communication or electronic control facilities are anticipated.
(a)(6) Human health and safety.	There would be an increase in truck traffic during construction activities. However, the pipeline could reduce overall commercial tanker truck traffic to Dickinson after its commission. All waste would be stored and disposed of in accordance with local, state, and federal regulations.
(a)(7) Animal health and safety.	Construction of the pipeline Corridor would temporarily displace potential wildlife habitat but would be returned to preexisting conditions after construction.
(a)(8) Plant life.	Impacts to vegetation would be temporary, the Route would be revegetated after construction and actions to minimize the spread of invasive species would be taken.

4.3. Agency Comments

A letter soliciting the views of its recipients was distributed to local state and federal agencies and other interested parties on June 24, 2013. Comments were requested to address potential effects and propose mitigation, if needed. At the end of a 30-day comment period, 17 responses were received from the 72 agencies solicited. One comment was received later but has been included and addressed with the other comments. The following is a summary of the responding agencies comments and proposed mitigation. The scoping letter, agencies solicited, and detailed response letters may be found in APPENDIX E. Potential impacts and items of concern identified through agency scoping were addressed in the application and avoidance, minimization, or mitigating measures were identified to address them.

4.3.1. City of Killdeer

The City of Killdeer requested a more detailed map of the proposed pipeline. They were particularly interested in the pipeline location in reference to the City of Killdeer.

4.3.2. Department of Energy – Western Area Power Administration

The Department of Energy stated that Western Area Power Administration owns and operates two separate transmission lines within the general Project Area. Their lines are within the general Project area, but the pipeline would not cross the existing transmission lines; therefore, no impact is anticipated. They requested additional information if the Projects scope changes, or work is planned in the vicinity of their transmission lines.

4.3.3. Natural Resource Conservation Service

The Natural Resource Conservation Service stated that the Project is not supported by federal funding, therefore, the Farmland Protection Policy Act does not apply and no further action is needed. They also recommended that impacts to wetlands should be avoided. If wetland avoidance is not feasible, the following criteria should be followed:

1. Disturbance must be temporary
2. No drainage of wetland is allowed
3. Mechanized landscaping must be kept to a minimum and preconstruction contours must be maintained
4. Side cast material may not disperse into wetland
5. All trenches must be backfilled to original bottom elevation

4.3.4. North Dakota Department of Commerce

The North Dakota Department of Commerce gave clearance to the Project. They request that if the Project changes in duration, scope, description, budget, location or area of impact that the application is submitted for further review.

4.3.5. North Dakota Department of Health

The North Dakota Department of Health responded that they believe environmental impacts would be minor and can be controlled by proper construction methods. They had the following comments with regards to the construction methods:

1. Fugitive dust emissions must be minimized
2. Care must be taken during construction activity near any water of the state
3. Oil- and gas-related construction disturbing five or more acres requires a permit to discharge storm water runoff until the site is stabilized by reestablishment of vegetation or other permanent cover
4. Construction equipment must be equipped with proper mufflers

5. An air pollution control permit to construct/operate may be required

4.3.6. North Dakota Department of Transportation

The North Dakota Department of Transportation responded that the Project should have no adverse effect on North Dakota highways. If any work needs to be done within the highway right-of-way, permits and risk management documents would need to be obtained.

4.3.7. North Dakota Forest Service

The North Dakota Forest Service responded that they own no land in or adjacent to the proposed Project and believe that impacts to North Dakota's forest resources from the Project would be minor. They also encourage the replacement of any trees destroyed during the construction process.

4.3.8. North Dakota Game and Fish Department

The North Dakota Game and Fish Department commented that the Project would not have significant adverse effects on wildlife or wildlife habitat, including species of concern. They also stated that wetlands and drainage patterns may not be altered, and above-ground appurtenances should not be placed in wetland areas. They also stated that the crossing of the Green and Knife Rivers, as well as Spring Creek, should be completed by boring.

4.3.9. North Dakota Geological Survey – Department of Mineral Resources

The North Dakota Geological Survey (NDGS) identified a few isolated landslides in the vicinity of the Project Area (T141N, R97W). The NDGS did not have any specific concerns regarding these areas within the Project Area.

4.3.10. North Dakota Parks and Recreation – Natural Heritage

The North Dakota Parks and Recreation conducted a review to determine if current or historic plant or animal species of concern or other significant ecological communities were within a one-mile radius of the Project Area. Based on their review, several occurrences were identified within or adjacent to the Project Area. They defer further comments to NDGF and USFWS. No further recommendations were provided.

4.3.11. North Dakota State Water Commission

The North Dakota State Water Commission stated that floodplains were identified or mapped within the Project Area and suggested further contact with the County Floodplain Administrators. They also requested contact with Southwest Pipeline Project prior to crossing any exiting water pipeline.

4.3.12. State Historical Society of North Dakota

The State Historical Society of North Dakota recommended a Class I, Class II and Class III cultural resource inventory be completed on the proposed Project. They also request to review and comment on each specific inventory.

4.3.13. United States Department of Defense – Army Corps of Engineers, North Dakota Regulatory Office

The US Army Corps of Engineers, North Dakota Regulatory Office defined section 10 and 404 regulations, and stated that if the Project requires a Section 10 and/or 404 Permit, that it should be submitted to the US Army Corps of Engineers.

The proposed Project would meet NWP 12 requirements, thus no permits are needed.

4.3.14. United States Department of Defense – Corps of Engineers, Omaha District

The US Army Corps of Engineers, Omaha District provided no floodplain or flood risk information. They suggest consulting with US Fish and Wildlife Service, NDGF, and North Dakota State Historic Preservation Office, all of which were already solicited.

4.3.15. United States Department of Interior – Bureau of Indian Affairs

The United States Department of Interior – Bureau of Indian Affairs has no environmental objections to the proposed BOE Pipeline. They also found no affect to cultural resources on Tribal or individual landholdings in which they are responsible.

4.3.16. United States Department of Interior – Bureau of Reclamation

The United States Department of Interior responded that should the Project need to cross federal Reclamation project lands, they request to review the designs. If appropriate they would comment on crossing requirements or Special Use Permits if needed.

4.3.17. United States Department of Interior – Fish and Wildlife Service

The United States Department of Interior – Fish and Wildlife Service responded that the Project should comply with the Migratory Bird Treaty Act, Bald, and Golden Eagle Protection Act, and Endangered Species Act. They also advised conducting nest searches using aerial means if possible, as well as incorporating a buffer around active eagle nests.

4.3.18. United States Department of Transportation – Federal Aviation Administration

The United States Department of Transportation – Federal Aviation Administration responded with no objection, provided the Federal Aviation is notified of construction or alterations as required by Federal Aviation Regulations, Part 77 paragraph 77.9

4.4. Potential Permits Needed from Various State and Local Agencies

Please refer to TABLE 10.

Table 10. Permits

AGENCY	PERMIT	APPLICABILITY
North Dakota PSC	Corridor Certificate & Route Permit	Construction of a transmission facility
Division of Water Quality	Stormwater Discharge Related to Construction	O&G related construction activities disturbing five or more acres
Air Pollution Control	Compliance with ND Air Pollution Control Requirements	As may be required by Chapter 33-15-14 of the North Dakota Air Pollution Control Rules
NDDOT	Haul Permits	Hauling heavy equipment and pipe
Counties/Townships	Conditional Use Permit – Dunn County	Construction related activities
	Crossing/Road Use	Boring county roads, Hauling heavy equipment and pipe

Qualification of Contributors to Siting Study

Glenn Carpenter

Glenn Carpenter graduated with a BS in Range Science from Brigham Young University and pursued a Masters of Public Administration at California State University, Bakersfield. He has been involved with developing environmental documentation and field services for over 40 years in various states and habitats. Glenn's specialties at KLJ include conducting biological and botanical surveys, environmental impact analysis, resource reclamation, and permitting. He previously worked for the Bureau of Land Management as a line manager and staff specialist. Through those positions, he was able to gain knowledge of a variety of biological resources as well as the administrative responsibilities associated with permitting major facilities.

Steve Czeczok

Steve Czeczok graduated with a BS in Natural Resources Management from North Dakota State University. Steve is well versed in completing wetland delineations under the USACE 1987 Manual and Regional Supplements, assessing impacts, conducting wetland delineations/mitigation, biological and botanical surveys, environmental impact analysis, and permitting. He often works from project initiation to completion. This has included work on NDDOT, FEMA, utility, residential, commercial, and oil/gas projects across South Dakota, North Dakota, and Montana. Steve has approximately nine years of experience in the environmental field, five years with current firm. He previously worked for the Natural Resource Conservation Service—Plant Materials Center where he assisted with raising native grasses for native grass plantings. Steve also has worked as an environmental assistant for North American Coal Corporation at the where he gained experience conducting waterfowl, songbird, and wildlife surveys, as well as the monitoring of active and post mining areas.

Timothy Dodson

Tim holds a BA in Biology from Carthage College and a MA in Maritime Archaeology from the University of Southampton (United Kingdom). He has over 4 years of experience identifying, recording, managing and studying cultural resources at the local, state and federal levels. He has multiple experiences within North American, Europe and the Middle East which has helped him develop a unique and insightful approach in understanding past cultures. Tim's experience includes terrestrial and underwater excavations and surveys, Ground Penetrating Radar, magnetometry, historical research and public outreach. Tim's diverse background facilitates in clearing proposed construction sites of cultural resources through surveys and report writing.

Nathan Frickel

Nathan has a BA in Environmental Studies from Montana State University, with an emphasis on organismal biology, ecology and environmental science. Nathan's main areas of focus include environmental ecology, geographical information systems (ArcView) and environmental policy/law (National Environmental Policy Act, Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation and Liability). Nathan has also conducted field work in the Custer National Forest collecting soil samples and stream channel monitoring for the US Forest Service

Emily Geralds

Emily holds a Master of Natural Resources Management from North Dakota State University and a Bachelor of Architecture from Iowa State University. She has 3 years of experience in both the environmental and

architecture industries. Prior to joining KLJ, Emily worked for the Cass County Soil Conservation District where she promoted urban conservation practices and aided in water quality sampling throughout the county. Additional skills include field investigations, GIS mapping, scenario planning, statistical analysis and the NEPA process. Emily uses her diverse background to develop complex documentation for public and private entities.

Mike Huffington

Mike holds a BA in Biology from St. John's University and a MS degree in Natural Resources Management from North Dakota State University. He has experience in numerous fields ranging from ecology to rangeland management, geological exploration and botany. Mike's responsibilities at KLJ include environmental documentation; impact assessment; public and agency coordination; scoping; and wetland permitting, mitigation and monitoring. Mike is also a certified wetland delineation specialist and has conducted numerous delineations throughout the state of North Dakota

Derek Klostermeier

Derek has a M.S. Natural Resources Management from North Dakota State University and a B.S. Biology, Minor Chemistry from Bemidji State University. Derek has been an Environmental Planner with KLJ since June 2012. Since coming to KLJ, Derek has worked on several environmental assessments, biological assessments, impact/mitigation analysis, wetland delineations and reporting, section 404 permitting, and nationwide permitting. Derek is also a wetland delineation specialist. Derek is responsible for performing wetland delineations, writing wetland delineation reports, and permitting wetland impacts and mitigation. He has been involved with numerous projects involving wetlands throughout North Dakota and the Upper Great Plains. Previously, Derek has conducted research on wildlife and vegetative species, stream and riparian habitat restoration and monitoring, endangered species assessment and monitoring, and forest inventory and trend analysis.

Adam Leroy

Adam graduated with a BA in Anthropology from the University of New Mexico and a MA in Anthropology from the University of Idaho. He has worked as an archaeologist for one year for the U.S. Government and for five years for various private cultural resource management firms. As an archaeologist for the Forest Service, Adam conducted surveys for cultural resources and worked on excavations prior to public timber sales. As an archaeologist for CRM firms, Adam has led survey crews, designed and conducted excavations, and produced and submitted professional cultural reports for numerous clients in compliance of Sections 106 and 110 of the National Historic Preservation Act (NHPA) and the Archaeological Resource Protection Act (ARPA). Adam is a member of the Idaho Historical Society, the Archaeological Institute of America (AlA), and the Society of American Archaeology (SAA).

Aaron Montplaisir

Aaron is currently pursuing a BS degree in Range Science at North Dakota State University. Aaron previously worked with Braun Intertec as a Field Technician doing soil and concrete testing. He is currently working with KLJ as an Environmental Planner Intern and has helped to complete wetland delineations, botanical, noxious weed and raptor surveys, along with writing and reviewing wetland reports and addendums. He looks forward to gaining more experience and knowledge in the environmental field throughout the course of his internship.

Andrew Robinson

Andrew graduated with a BA in Anthropology and History from Washington State University and holds his MA in Anthropology from Western Michigan University. While in graduate school he took advanced courses in geosciences including ground penetrating radar, magnetometry, and soil analysis labs. He has been an archaeological technician for KLJ for over a year. In addition, he has more than six years of archaeological field, laboratory, and report writing experience throughout North American, from Alaska to Florida.

Mark Suchy

Mark graduated with a MS in Marine and Environmental Biology from Nicholls State University and BS degrees in Zoology and Natural Resources Management from North Dakota State University. Mark has worked with various state and federal agencies conducting field surveys including habitat sampling, botanical surveys, wetland delineation, mark-recapture, and mammal and avian species identification using direct monitoring, audible calls, tracks, scat, and feather molts. Mark also has experience conducting noxious weeds inventories, and threatened and endangered species habitat assessments. Marks background is well adapted to identifying species, and areas of concern, which may need potential avoidance or mitigation measures in order to facilitate project development.

Cole Ude

Cole Ude is currently pursuing an Associate's degree in GIS from Bismarck State College. Cole's specialties at KLJ include conducting class I archeological file searches, class III archeological topographic map preparation, project location exhibits, and wetland delineations/impacts maps. At KLJ Cole has learned a multifaceted approach to GIS, as well as how to deal with multiple project and changing deadlines. This experience allows Cole to create highly detailed, project specific maps in a timely manner, which aids in project development.

References

Brady, Nyle C. and Ray R. Weil. (1999). The Nature and Properties of Soils (12th ed.). Upper Saddle River, NJ: Prentice Hall, Inc.

Canadian Wildlife Service and U.S. Fish & Wildlife Service. (2007). International Recovery Plan for the Whooping Crane. Ottawa: Recovery of Nationally Endangered Wildlife (RENEW), and U.S. Fish & Wildlife Service, Albuquerque, New Mexico.

City Data. Retrieved July 28 2013, from http://www.city-data.com

Hagen, Sandra K., Patrick T. Isakson, and Steve R. Dyke. (2005). North Dakota Comprehensive Wildlife Conservation Strategy. Bismarck: North Dakota Game & Fish Department. Retrieved April 27, 2010, from http://gf.nd.gov/gnf/conservation/docs/North-Dakota-Wildlife-Action-Plan.pdf

Leonardo Maugeri. "The Shale Oil Boom: A U.S. Phenomenon" Discussion Paper 2013-05, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 2013.

Major Research Gives New Insights into the Needs of Whooping Cranes. Guadalupe-Blanco River Trust. (2009, April 29). Retrieved from http://www.gbra.org/news/2009/042901.aspx

National Park Service, retrieved July 2, 2013, from http://www.nps.gov/thro/index.htm

North Dakota Department of Transportation, retrieved July 28, 2013, from http://www.dot.nd.gov/road-map/traffic/

North Dakota Geological Survey, retrieved June 28, 2013, from https://www.dmr.nd.gov/ndgs/landslides/Killdeer/24K.100K.Killdeer.asp

North Dakota Industrial Commissions, Department of Mineral Resources, Oil and Gas Division, retrieved July 18, 2013, from https://www.dmr.nd.gov/oilgas/

North Dakota Parks and Recreation Department, retrieved July 2, 2013, from http://www.parkrec.nd.gov/parks/lmosp/lmosp.html

North Dakota State Water Commission, retrieved July, 21 2013, from http://www.swc.nd.gov/4dlink9/4dcgi/redirect/index.html

North Dakota State Water Commission and U.S. Geological Survey. (2010a). USGS Digital Elevation Models for North Dakota [Data file]. Retrieved from http://www.nd.gov/gis/

North Dakota State Water Commission and U.S. Geological Survey. (2010b). Hydrography for North Dakota [Data file]. Retrieved from http://nhd.usgs.gov/

Stahlecker, D.A. (1997). Predicting Availability of Stopover Roosting Habitat for Migrant Whooping Cranes in the Northern Great Plains. Rept. by Eagle Ecological Services for US Fish & Wildlife Service.

State Historical Society of North Dakota. (2013) Killdeer Mountain Battlefield Historic Site. Retrieved July 2, 2013, from http://www.history.nd.gov/historicsites/kmb/index.html

State of North Dakota. (2009b). EMPOWER North Dakota: Comprehensive State Energy Policy. Retrieved June 28, 2013, from http://www.communityservices.nd.gov/uploads/resources/626/empower-nd-policy-03.17.09.pdf

U.S. Army Corps of Engineers, retrieved July 2, 2013, from http://www.usace.army.mil/

U.S. Census Bureau. (2010). Census 2010. Retrieved from http://www.census.gov

U.S. Department of Agriculture, retrieved July 29, 2013, from http://www.agcensus.usda.gov/index.php

U.S. Department of Agriculture. (2007). USDA 2007 Census of Agriculture. Retrieved from http://www.agcensus.usda.gov/Publications/2007/Full_Report/Census_by_State/North_Dakota/index.asp

U.S. Department of Agriculture. Web Soil Survey. Retrieved from http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

U.S. Fish & Wildlife Service. (2010a). County Occurrence of Endangered, Threatened, and Candidate Species and Designated Critical Habitat in North Dakota. Retrieved June 3, 2013, from http://www.fws.gov/northdakota-fieldoffice/county_list.htm

U.S. Fish & Wildlife Service. (2010b). National Wildlife Refuges in the Mountain-Prairie Region. Retrieved July 8, 2013, from http://www.fws.gov/mountain-prairie/refuges/nd/

U.S. Fish & Wildlife Service. County Occurrence of Endangered, Threatened, and Candidate Species and Designated Critical Habitat in North Dakota. Retrieved June 3, 2013, from http://www.fws.gov/northdakotafieldoffice/county_list.htm

U.S. Geological Survey, retrieved June 29, 2013, from http://water.usgs.gov/ogw/aquiferbasics/lowtert.html

U.S. Geological Survey. (2006). The Cranes: Status Survey and Conservation Action Plan, Whooping Crane (Grus americana). Retrieved June 7, 2013, from http://www.npwrc.usgs.gov/resource/birds/cranes/grusamer.htm

U.S. Geological Survey. (2006). Northern Prairie Wildlife Research Center. Retrieved July 8, 2013, from http://www.npwrc.usgs.gov/resource/habitat/ndsdeco/nodak.htm

U.S. Geological Survey. USGS Releases New Oil and Gas Assessment for Bakken and Three Forks Formation. Retrieved June 25, 2013

U.S. Geological Survey. Assessment of Undiscovered Oil Resources in the Bakken and Three Forks Formations, Williston Basin Province, Montana, North Dakota, and South Dakota, 2013. Retrieved June 25, 2013.

U.S. Geological Survey. Assessment of Undiscovered Oil Resources in the Devonian-Mississippian Bakken Formations, Williston Basin Province, Montana, and North Dakota. 2013. Retrieved June 25, 2013.

Web Soil Survey, retrieved August 23 2013, from http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

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Appendix A. Figures

Figure A-1. Location Map of Project Corridor

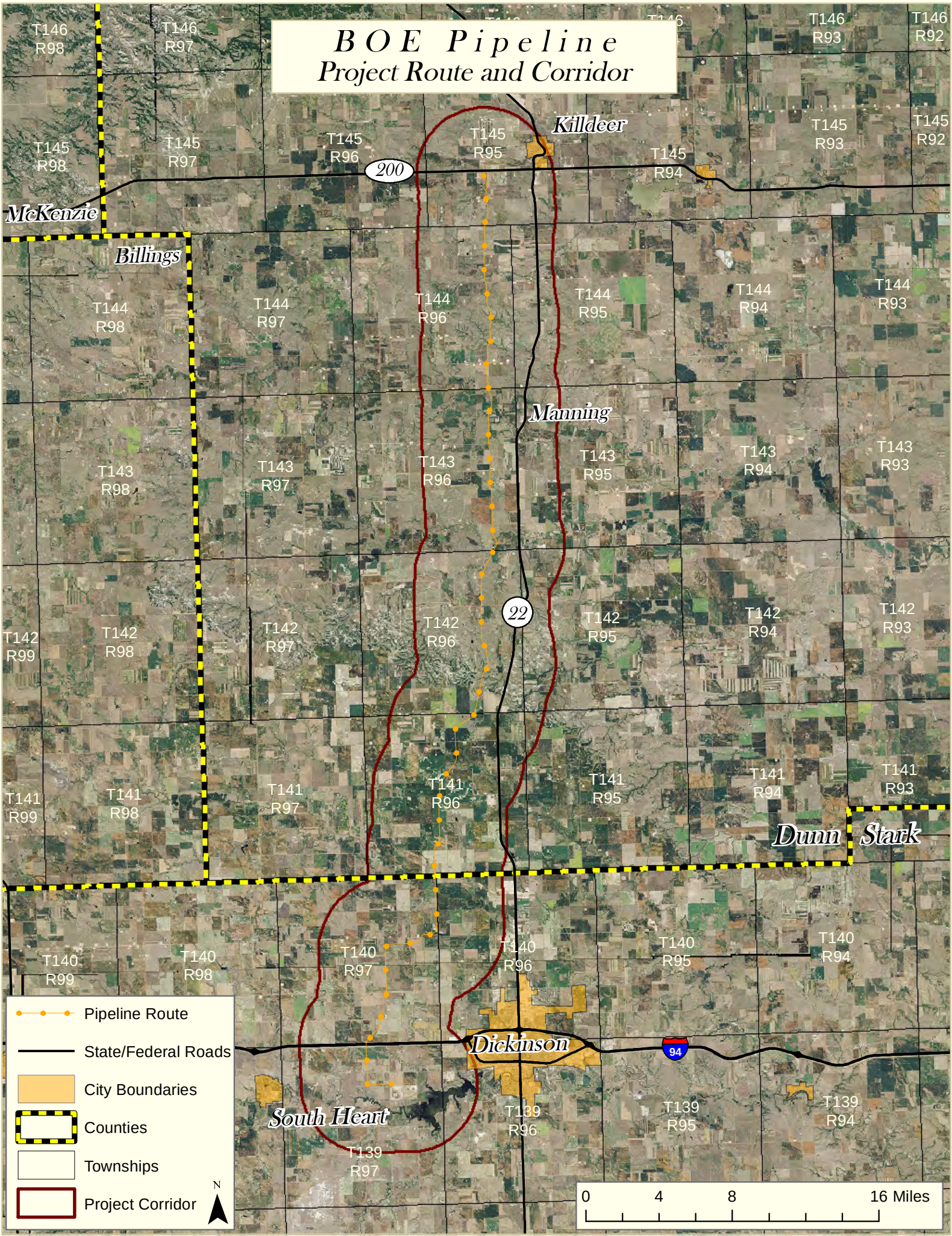
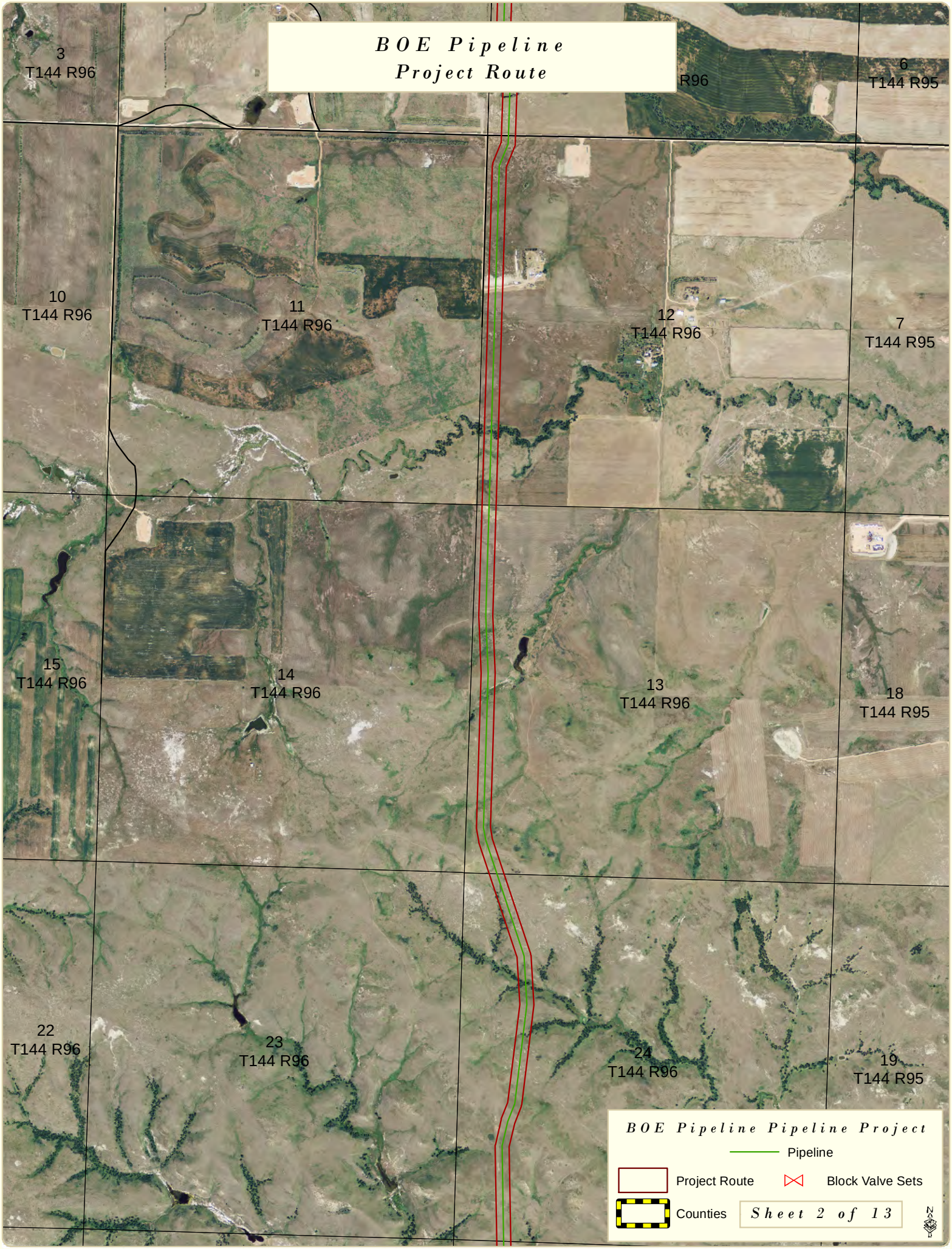
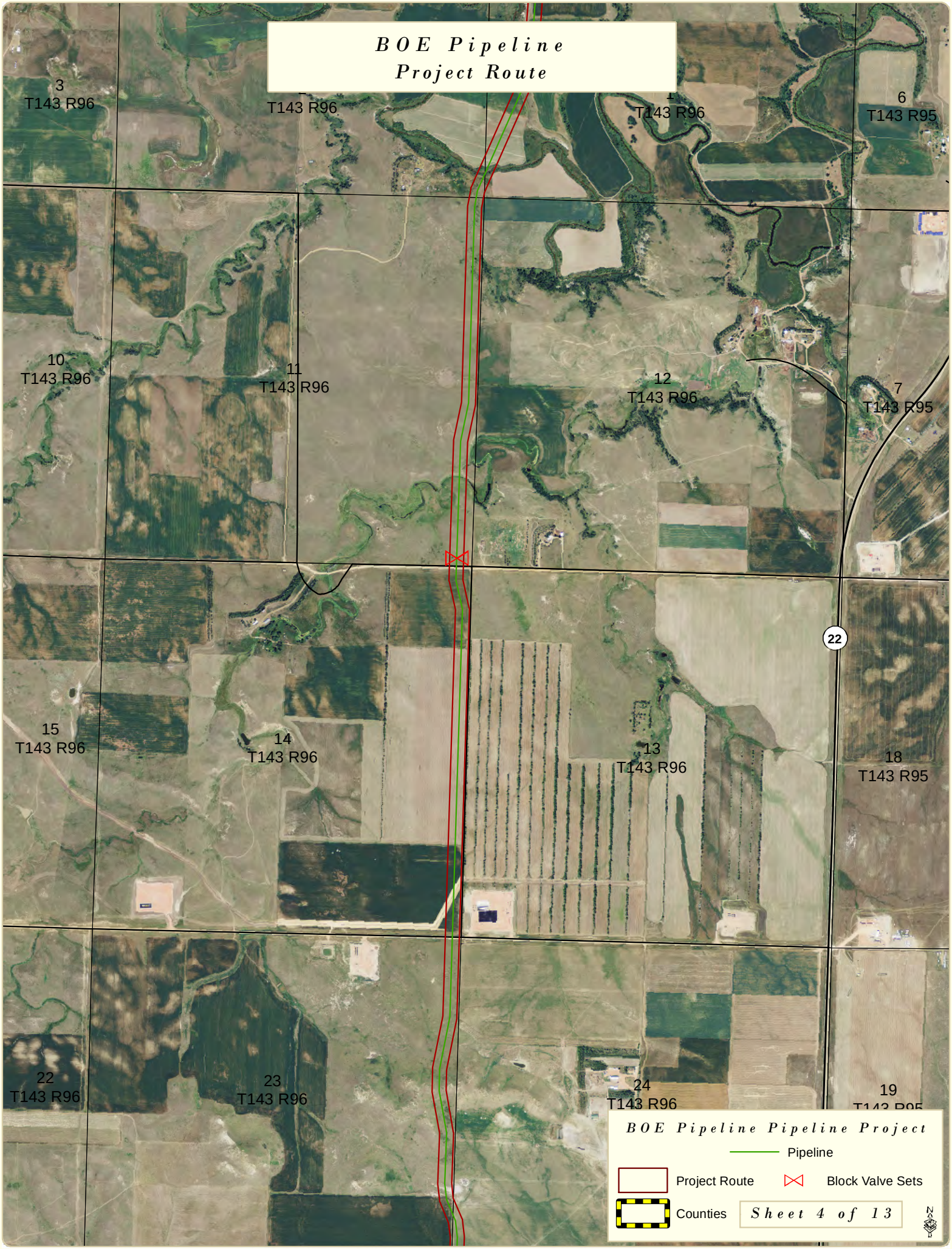

BOE Pipeline
Project Route and Corridor
Killdeer
McKenzie
Billings
Manning
Dunn
Stark
Dickinson
South Heart
200
22
94
T146 R98
T146 R97
T146 R93
T146 R92
T145 R98
T145 R97
T145 R96
T145 R95
T145 R94
T145 R93
T145 R92
T144 R98
T144 R97
T144 R96
T144 R95
T144 R94
T144 R93
T143 R98
T143 R97
T143 R96
T143 R95
T143 R94
T143 R93
T142 R99
T142 R98
T142 R97
T142 R96
T142 R95
T142 R94
T142 R93
T141 R99
T141 R98
T141 R97
T141 R96
T141 R95
T141 R94
T141 R93
T140 R99
T140 R98
T140 R97
T140 R96
T140 R95
T140 R94
T139 R97
T139 R96
T139 R95
T139 R94
Pipeline Route
State/Federal Roads
City Boundaries
Counties
Townships
Project Corridor
N
0
4
8
16 Miles

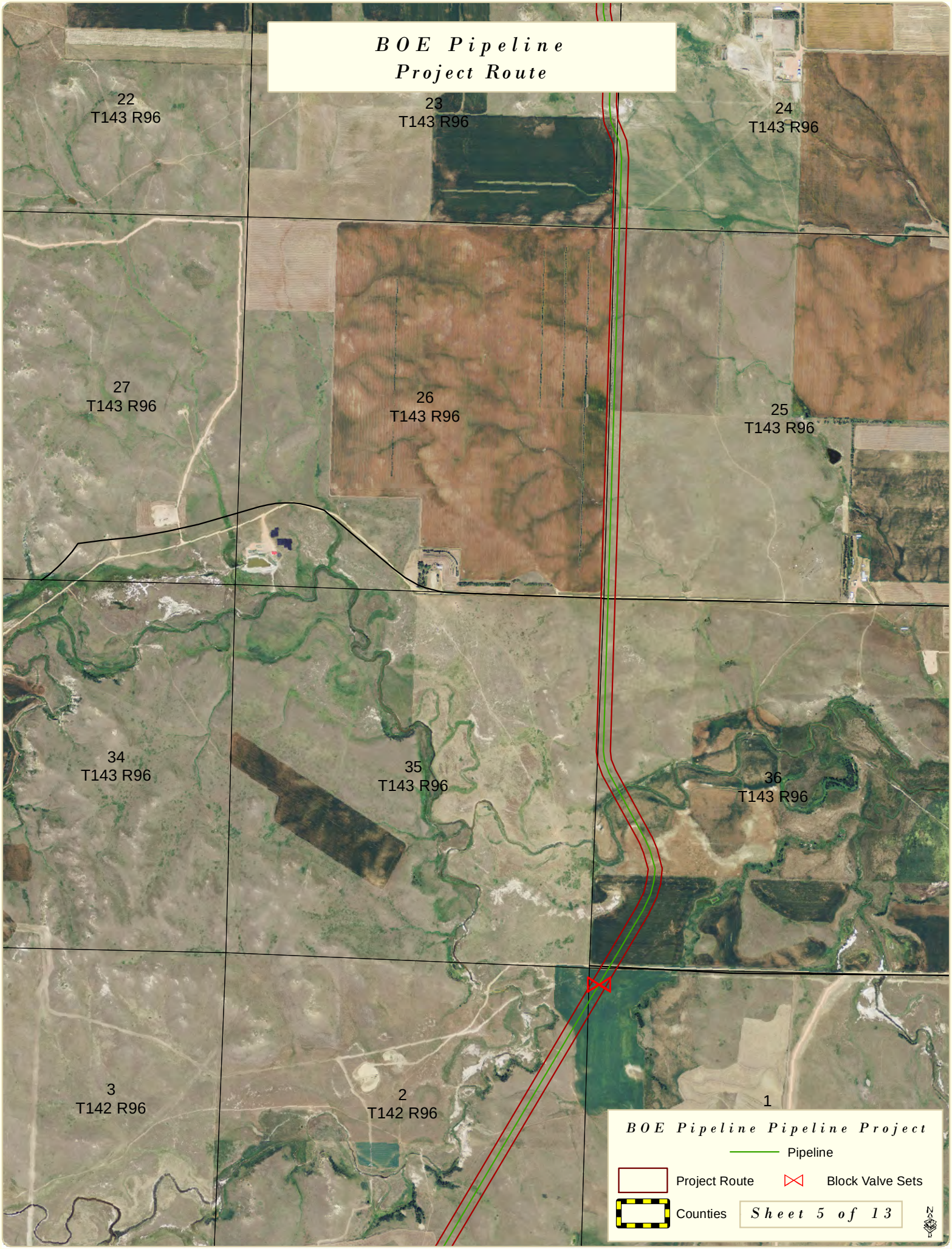
Figure A-2. Location Maps of Project Route

BOE Pipeline
Project Route
19
T145 R95
200
22
T145 R95
30
T145 R95
29
T145 R95
28
T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
1
T144 R96
6
T144 R95
10
T144 R96
11
T144 R96
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 1 of 13
N


BOE Pipeline
Project Route
3
T144 R96
R96
6
T144 R95
10
T144 R96
11
T144 R96
12
T144 R96
7
T144 R95
15
T144 R96
14
T144 R96
13
T144 R96
18
T144 R95
22
T144 R96
23
T144 R96
24
T144 R96
19
T144 R95
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 2 of 13
N

BOE Pipeline
Project Route
22
T144 R96
19
T144 R95
27
T144 R96
26
T144 R96
25
T144 R96
30
T144 R95
34
T144 R96
35
T144 R96
36
T144 R96
31
T144 R95
2
T143 R96
1
T143 R96
6
T143 R95
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 3 of 13


BOE Pipeline
Project Route
3
T143 R96
T143 R96
T143 R96
6
T143 R95
10
T143 R96
11
T143 R96
12
T143 R96
7
T143 R95
22
15
T143 R96
14
T143 R96
13
T143 R96
18
T143 R95
22
T143 R96
23
T143 R96
24
T143 R96
19
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 4 of 13


BOE Pipeline
Project Route
22
T143 R96
23
T143 R96
24
T143 R96
27
T143 R96
26
T143 R96
25
T143 R96
34
T143 R96
35
T143 R96
36
T143 R96
3
T142 R96
2
T142 R96
1
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 5 of 13

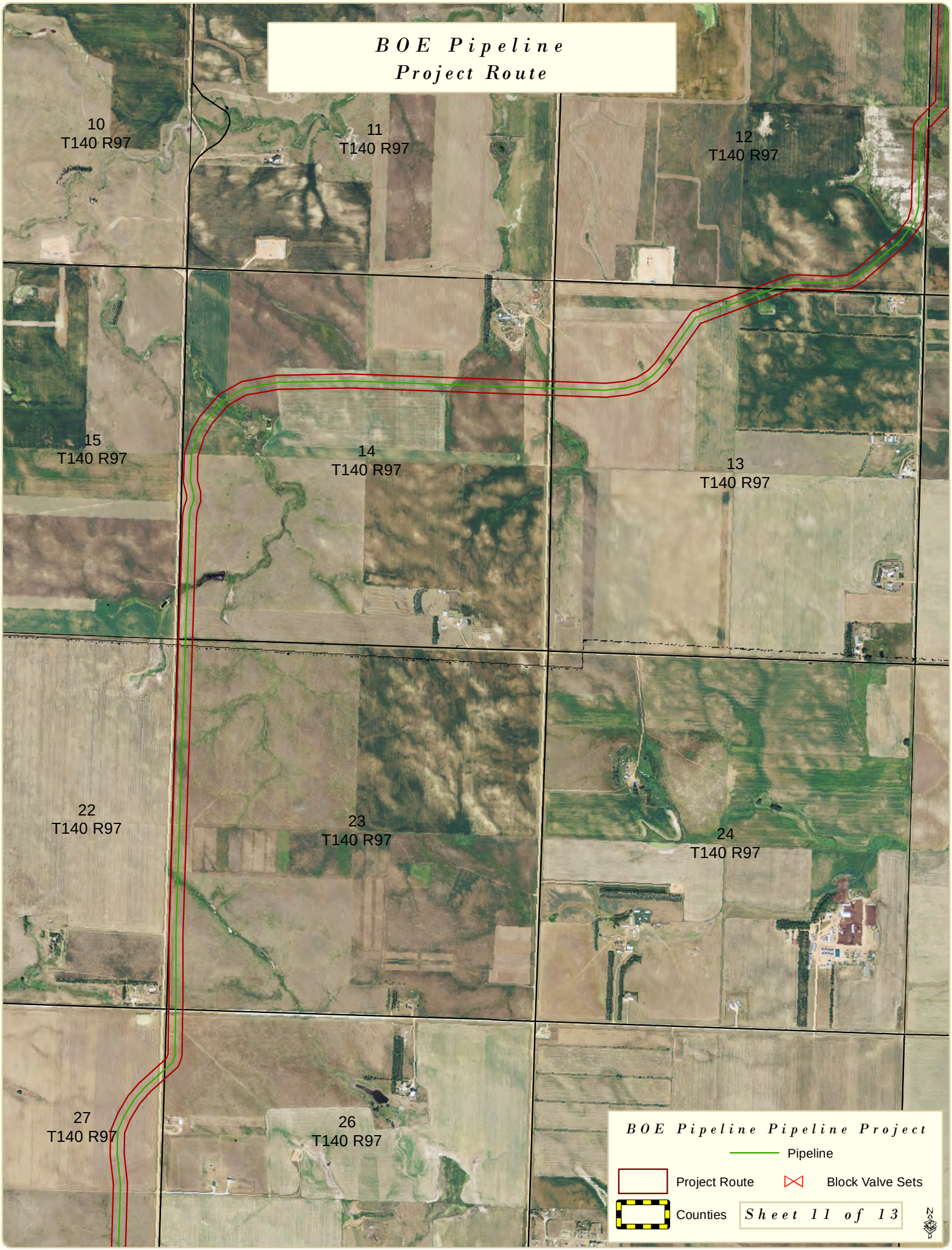
BOE Pipeline
Project Route
3
T142 R96
2
T142 R96
1
T142 R96
10
T142 R96
11
T142 R96
12
T142 R96
15
T142 R96
14
T142 R96
13
T142 R96
22
22
T142 R96
23
T142 R96
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 6 of 13
N

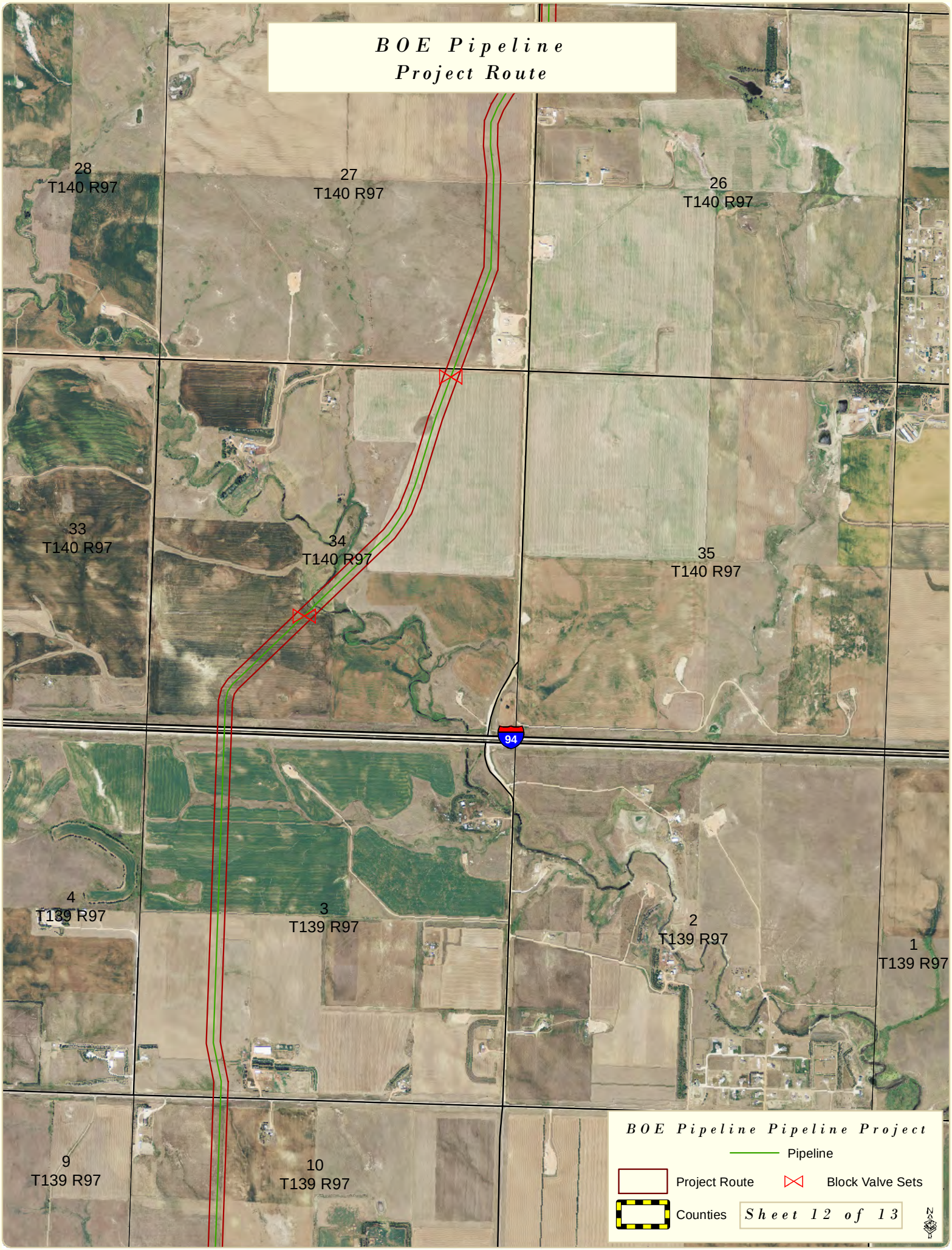
BOE Pipeline
Project Route
22
T142 R96
23
T142 R96
24
T142 R96
27
T142 R96
26
T142 R96
25
T142 R96
22
34
T142 R96
35
T142 R96
36
T142 R96
3
T141 R96
2
T141 R96
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 7 of 13

BOE Pipeline
Project Route
33
T142 R96
35
T142 R96
4
T141 R96
3
T141 R96
2
T141 R96
9
T141 R96
10
T141 R96
11
T141 R96
16
T141 R96
15
T141 R96
14
T141 R96
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 8 of 13

BOE Pipeline
Project Route
17
T141 R96
16
T141 R96
15
T141 R96
20
T141 R96
21
T141 R96
22
T141 R96
29
T141 R96
28
T141 R96
27
T141 R96
32
T141 R96
33
T141 R96
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 9 of 13

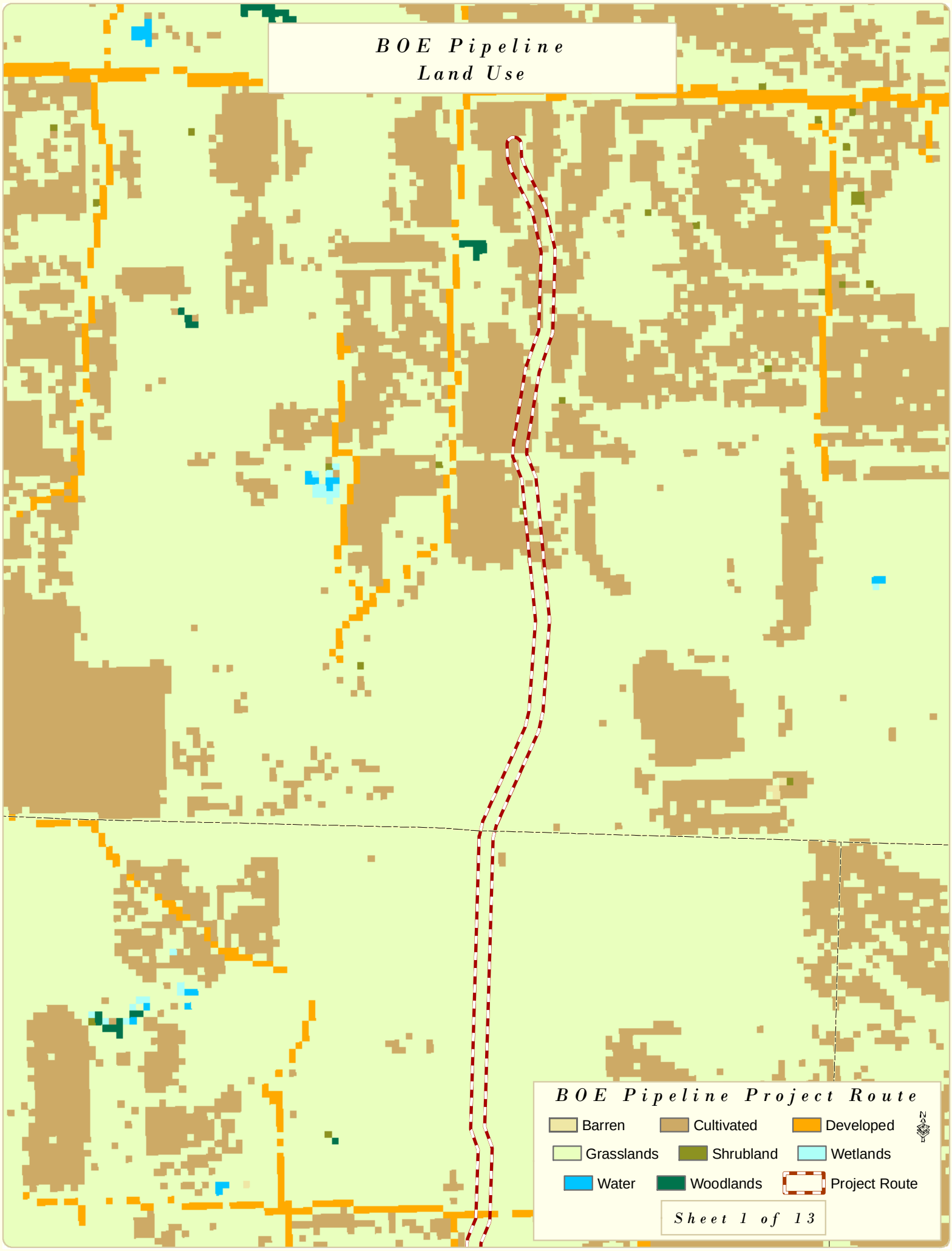
BOE Pipeline
Project Route
32
T141 R96
33
T141 R96
34
T141 R96
Dunn
Stark
2
T140 R97
1
T140 R97
6
T140 R96
11
T140 R97
12
T140 R97
7
T140 R96
14
T140 R97
13
T140 R97
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 10 of 13

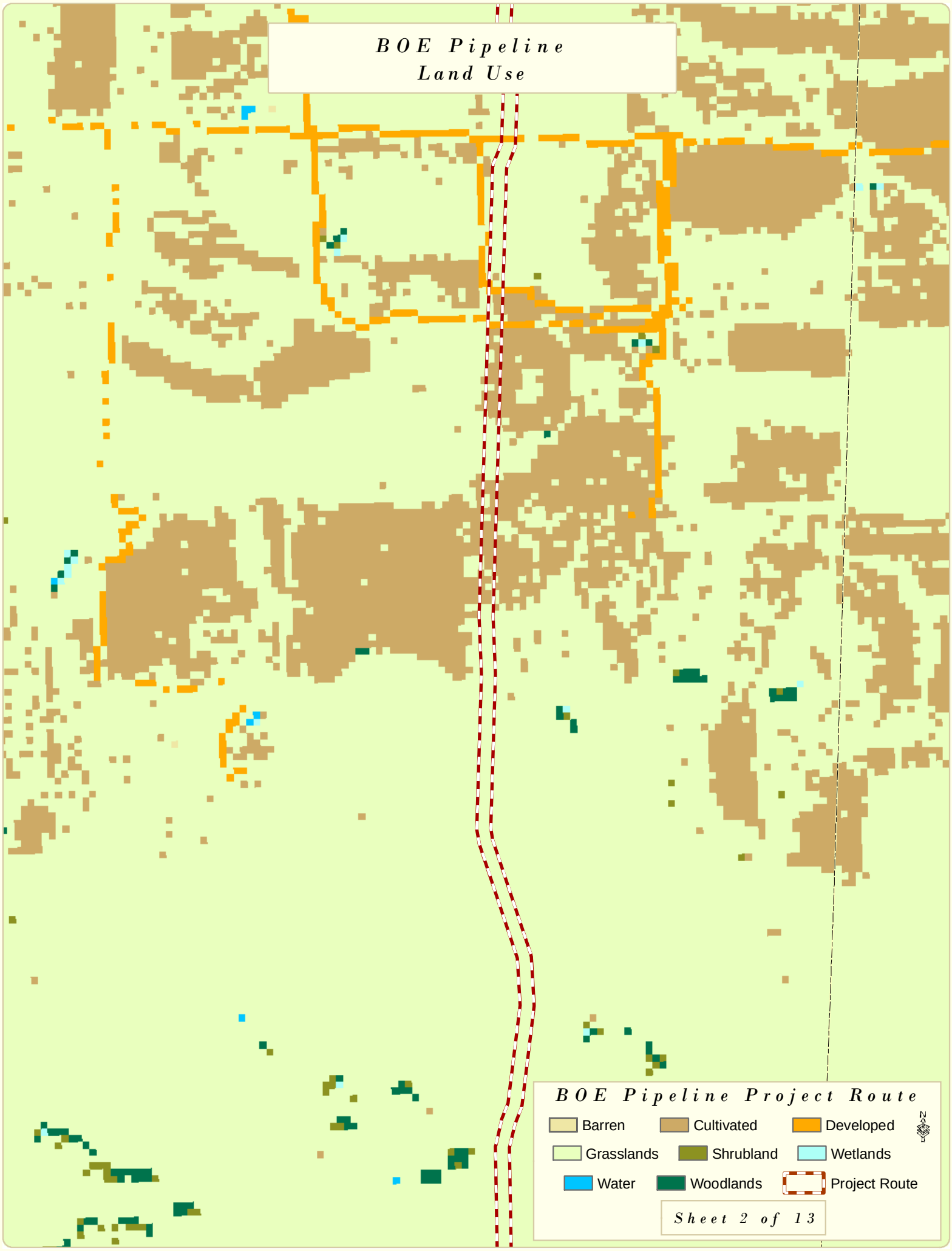

BOE Pipeline
Project Route
10
T140 R97
11
T140 R97
12
T140 R97
15
T140 R97
14
T140 R97
13
T140 R97
22
T140 R97
23
T140 R97
24
T140 R97
27
T140 R97
26
T140 R97
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 11 of 13

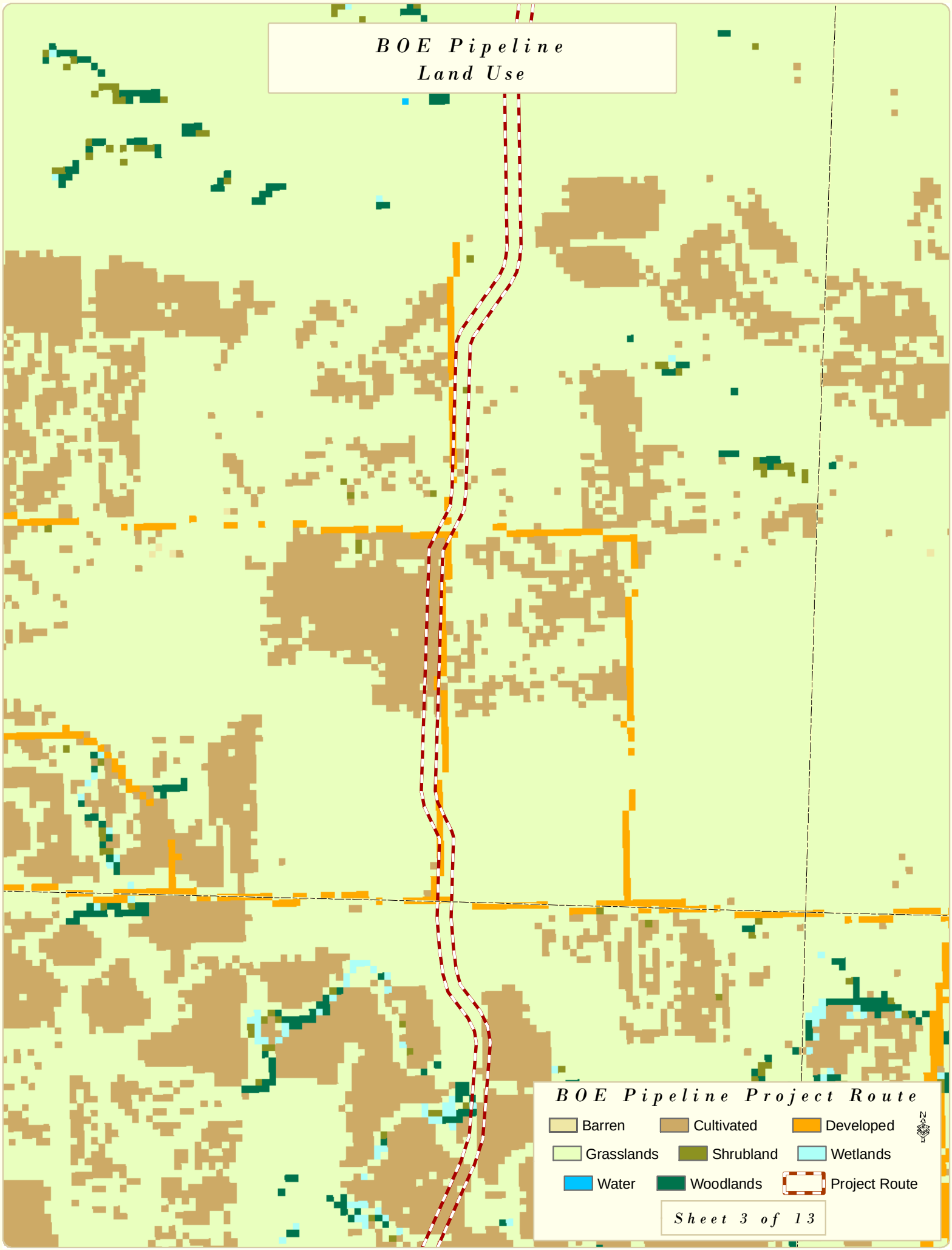

BOE Pipeline
Project Route
28
T140 R97
27
T140 R97
26
T140 R97
33
T140 R97
34
T140 R97
35
T140 R97
94
4
T139 R97
3
T139 R97
2
T139 R97
1
T139 R97
9
T139 R97
10
T139 R97
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 12 of 13
N

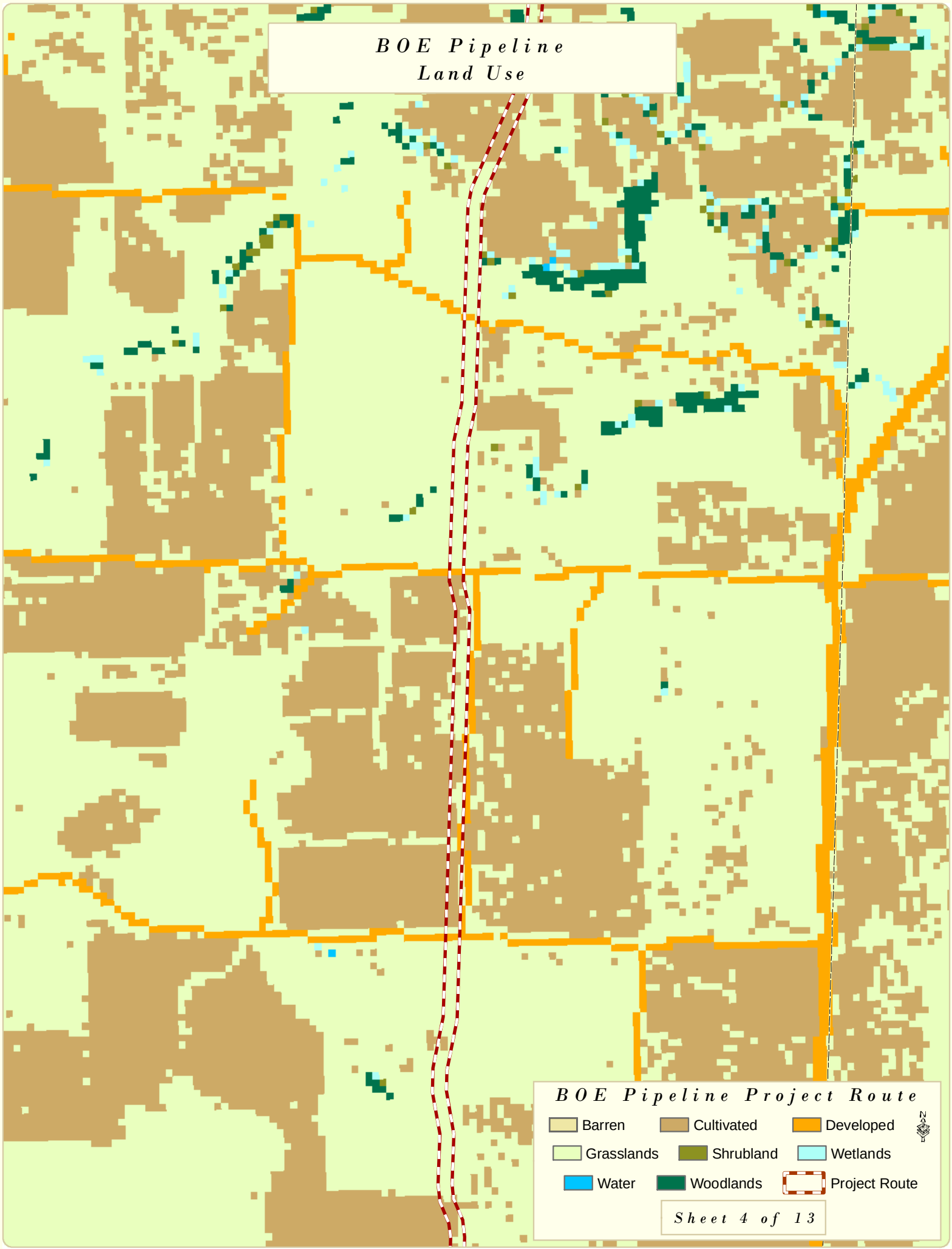
BOE Pipeline
Project Route
4
T139 R97
T139 R97
2
T139 R97
9
T139 R97
10
T139 R97
11
T139 R97
16
T139 R97
15
T139 R97
14
T139 R97
13
T139 R97
21
T139 R97
22
T139 R97
23
24
BOE Pipeline Pipeline Project
Pipeline
Project Route
Block Valve Sets
Counties
Sheet 13 of 13
N

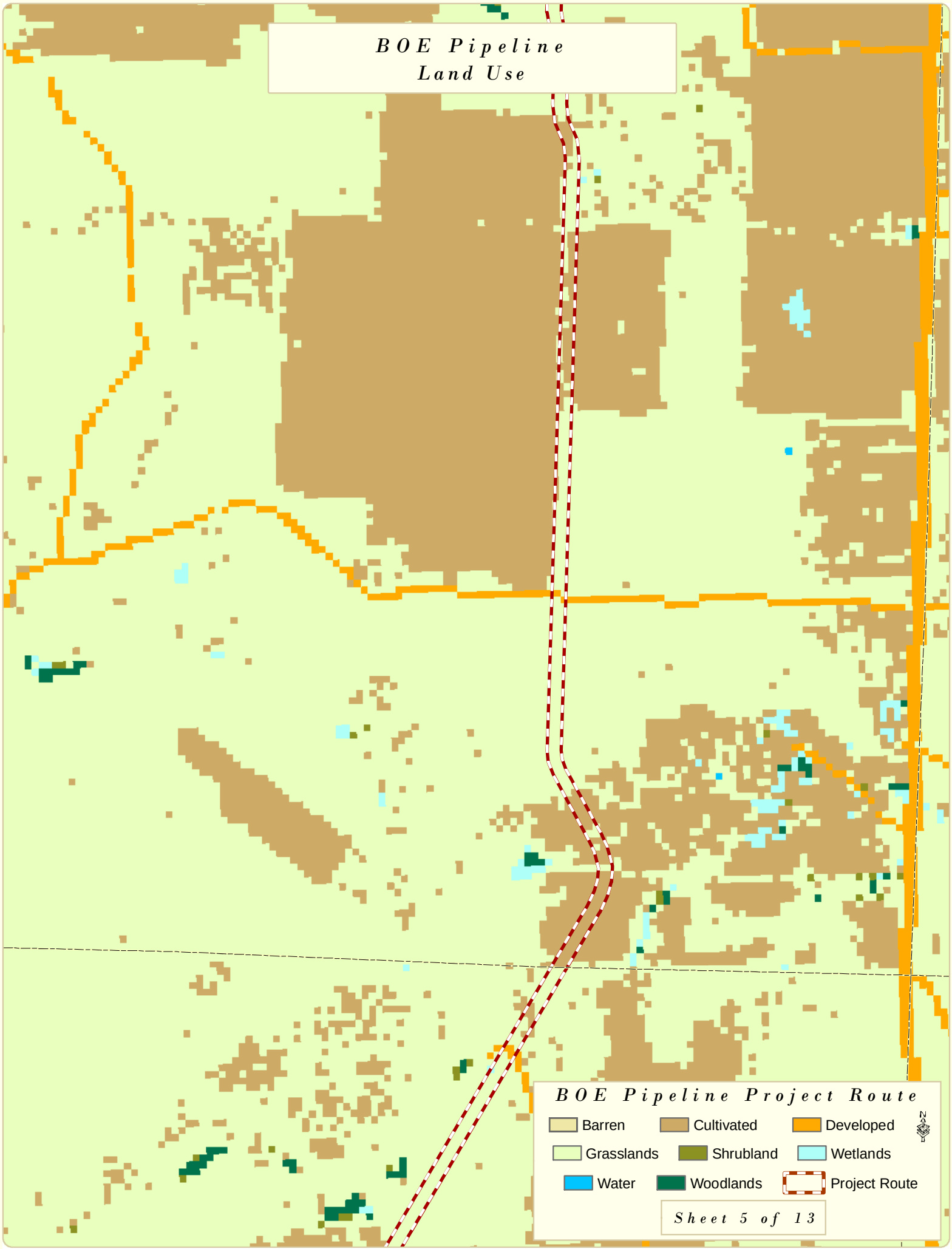
Figure A-3. Land Use Maps

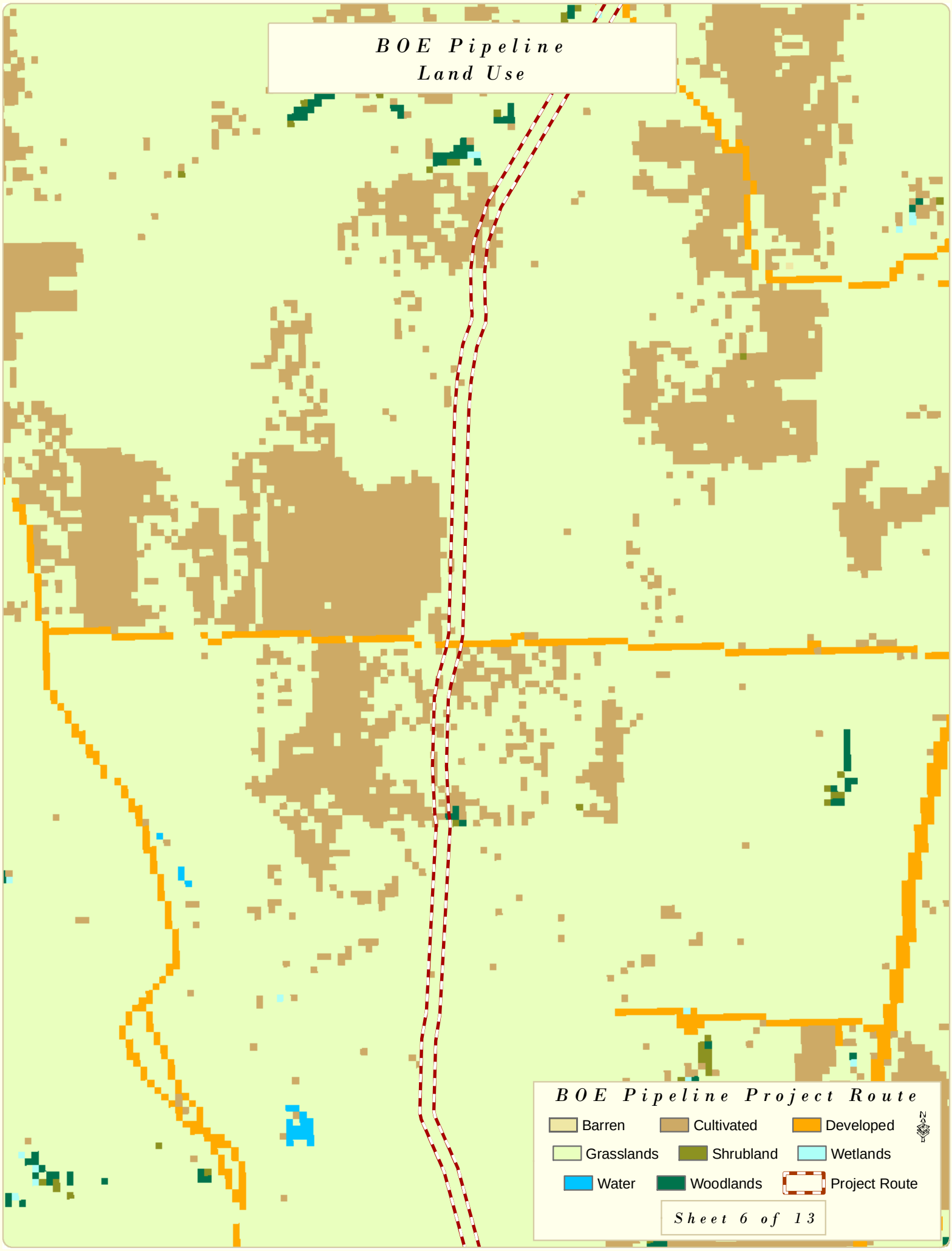

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 1 of 13

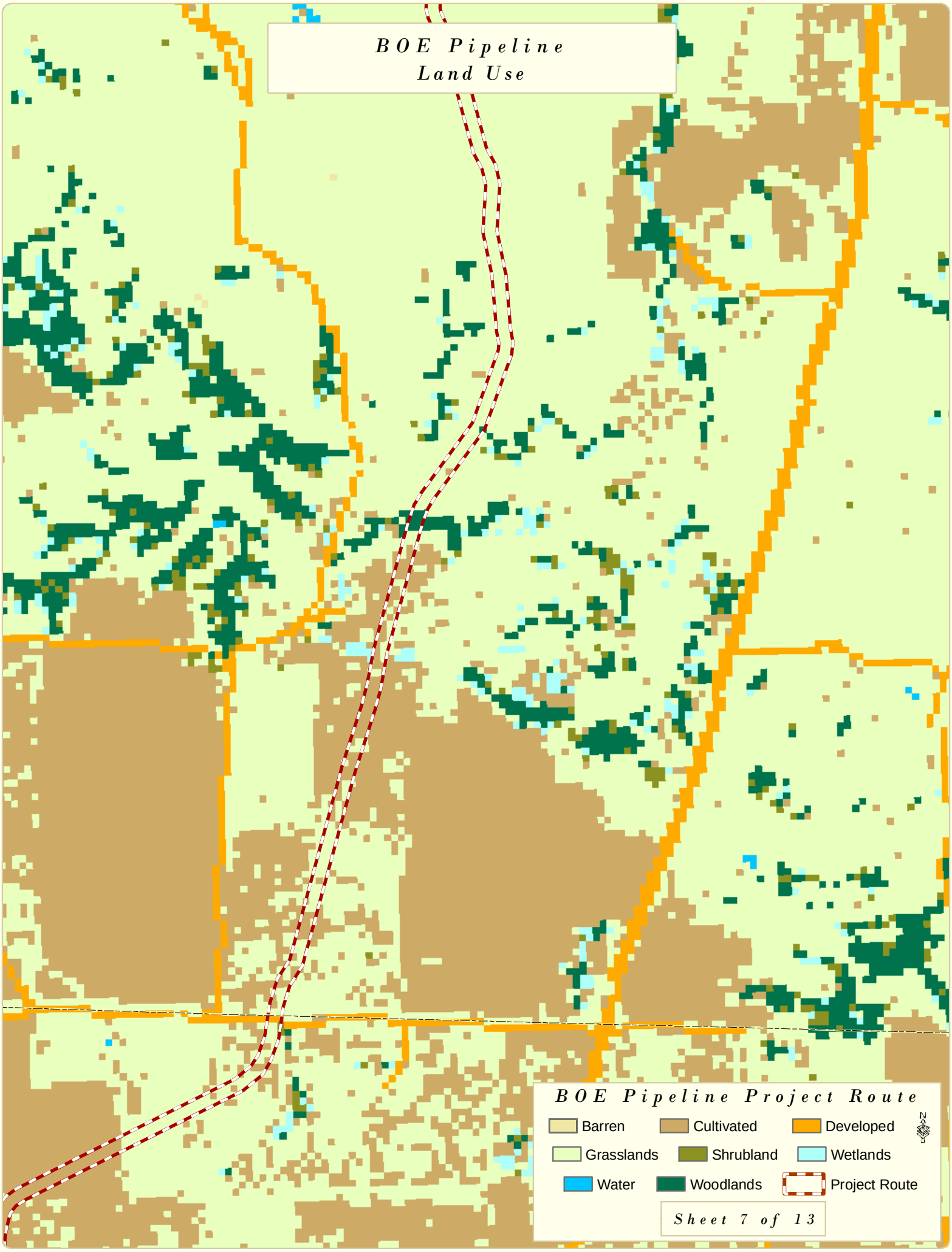

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 2 of 13

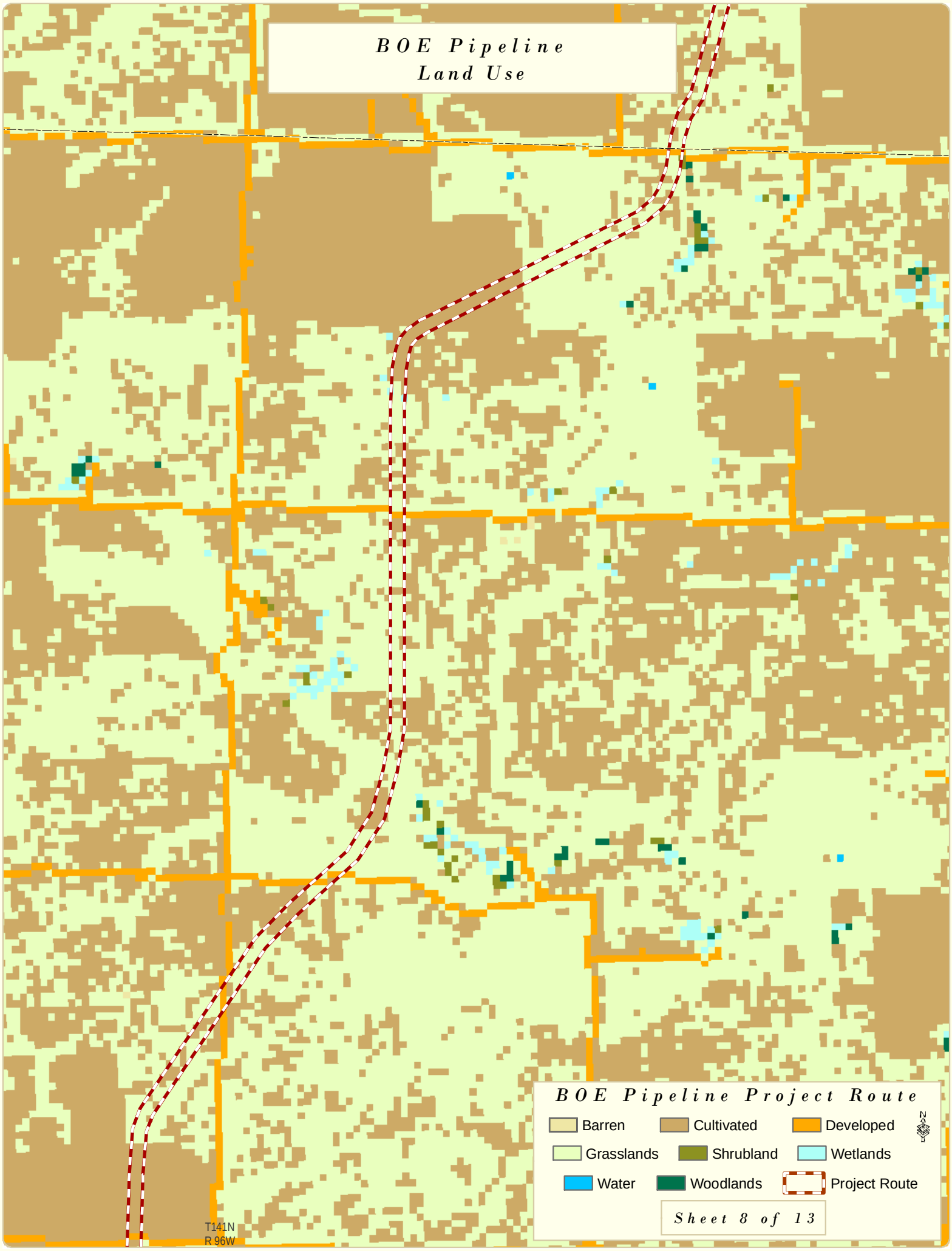

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 3 of 13

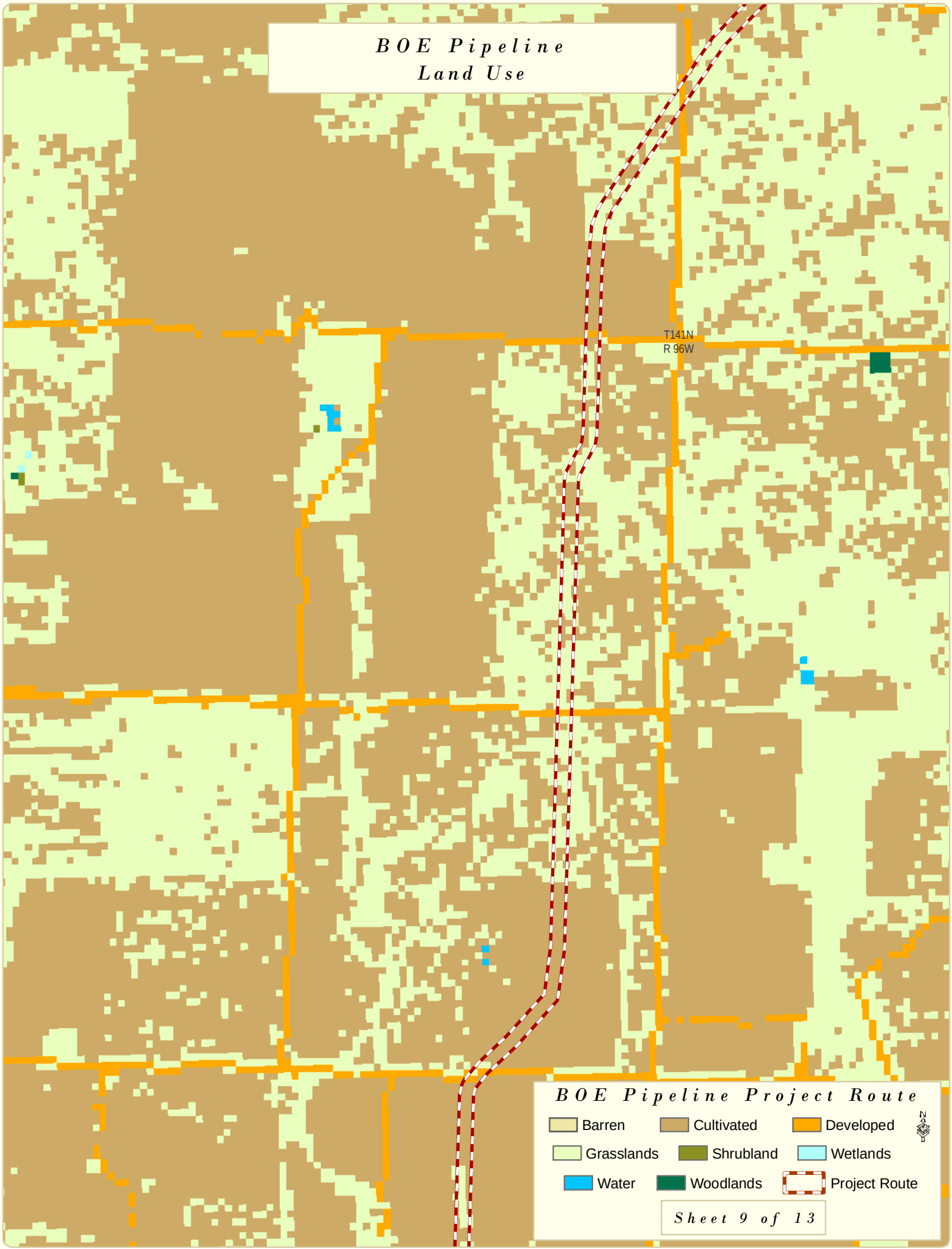

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 4 of 13

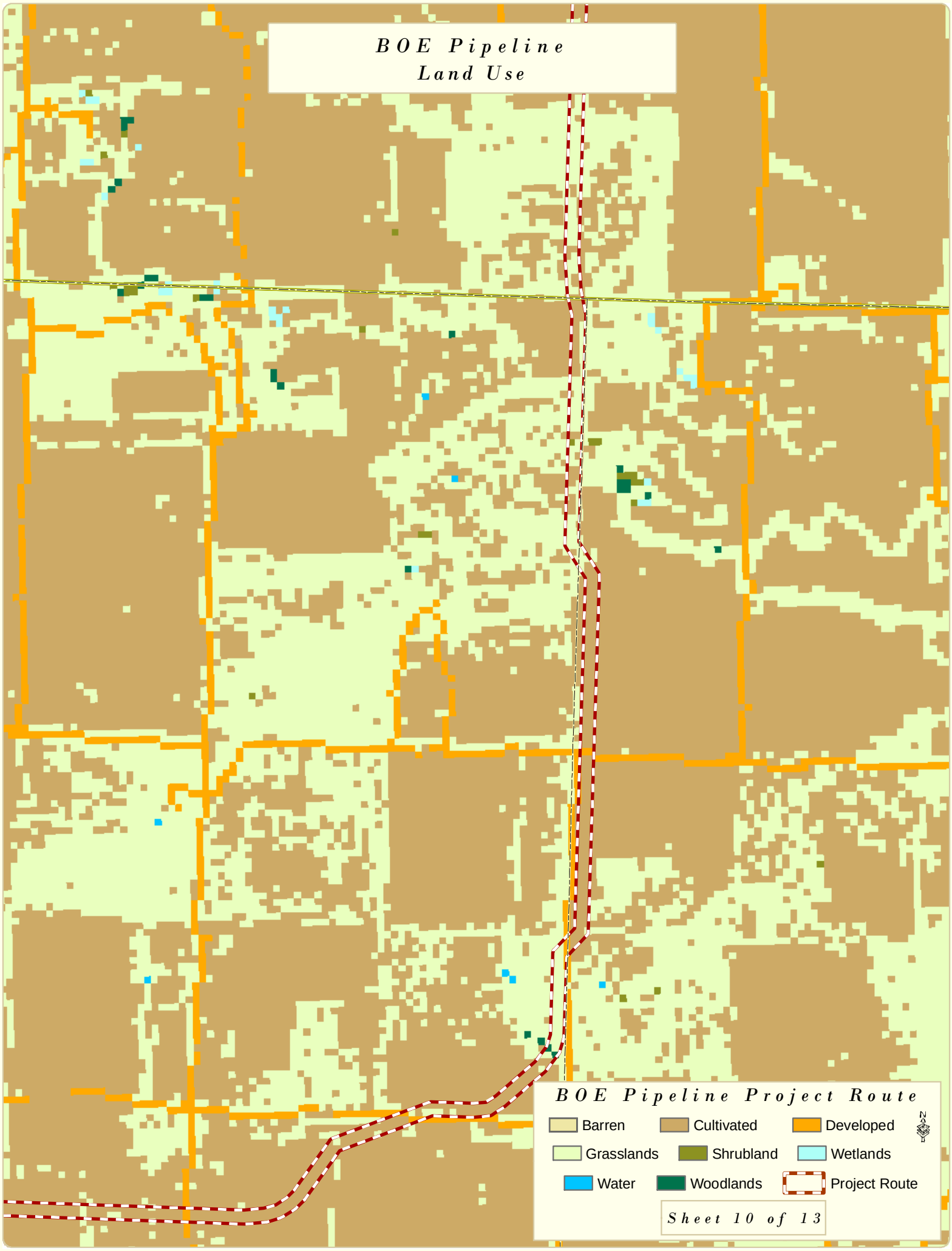

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 5 of 13

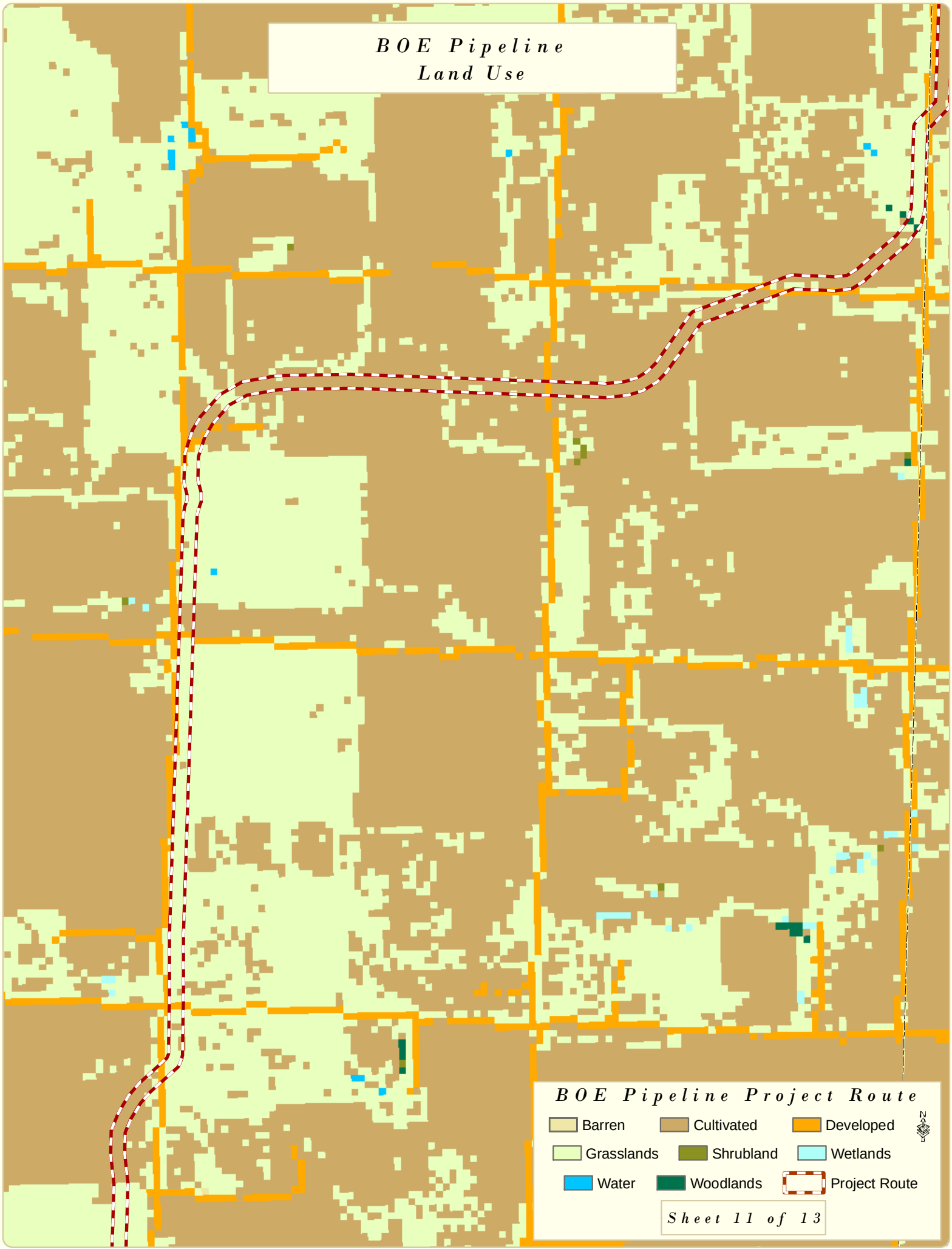

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 6 of 13

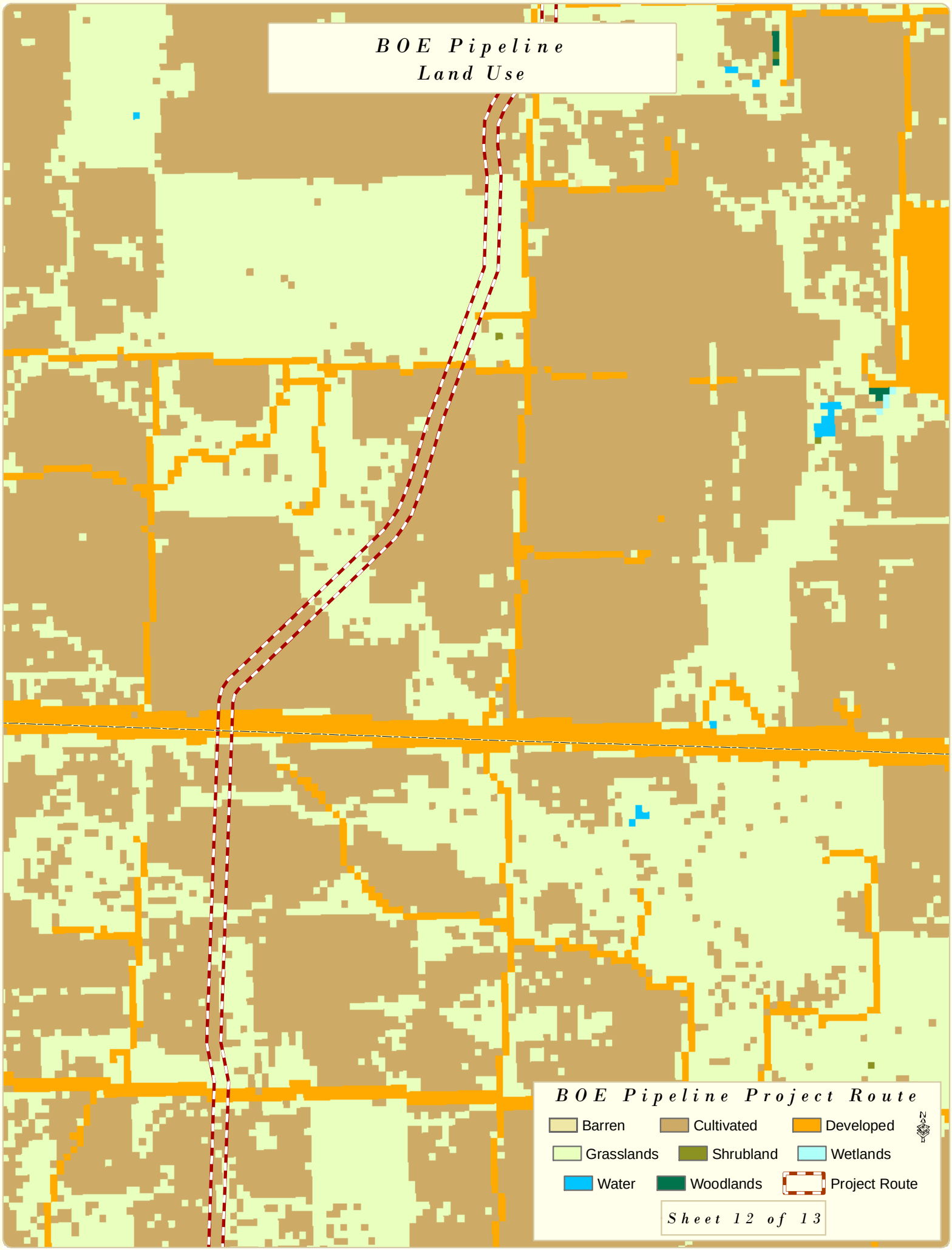

BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 7 of 13


BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 8 of 13
T141N
R 96W


BOE Pipeline
Land Use
T141N
R 96W
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 9 of 13


BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 10 of 13


BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 11 of 13


BOE Pipeline
Land Use
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 12 of 13

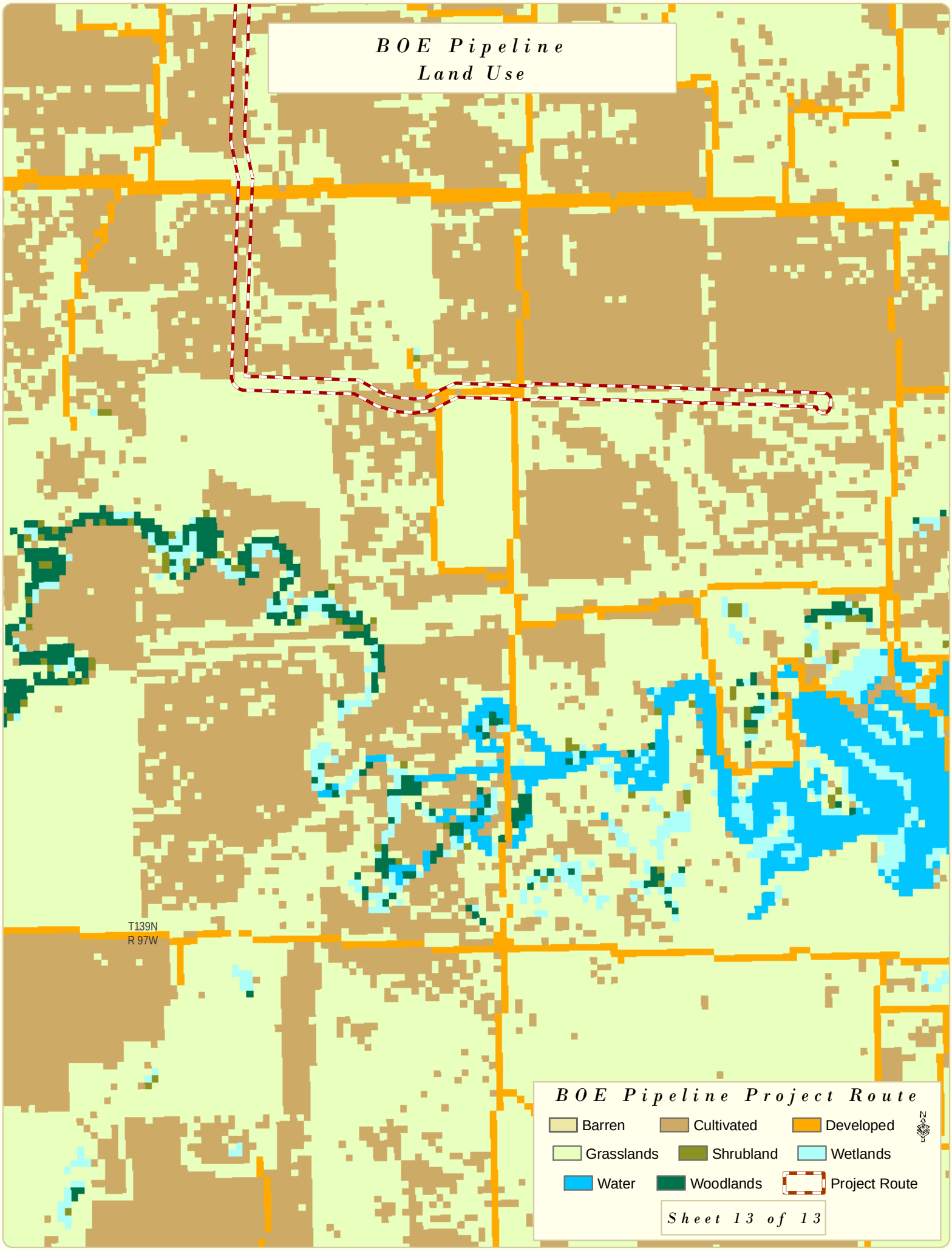
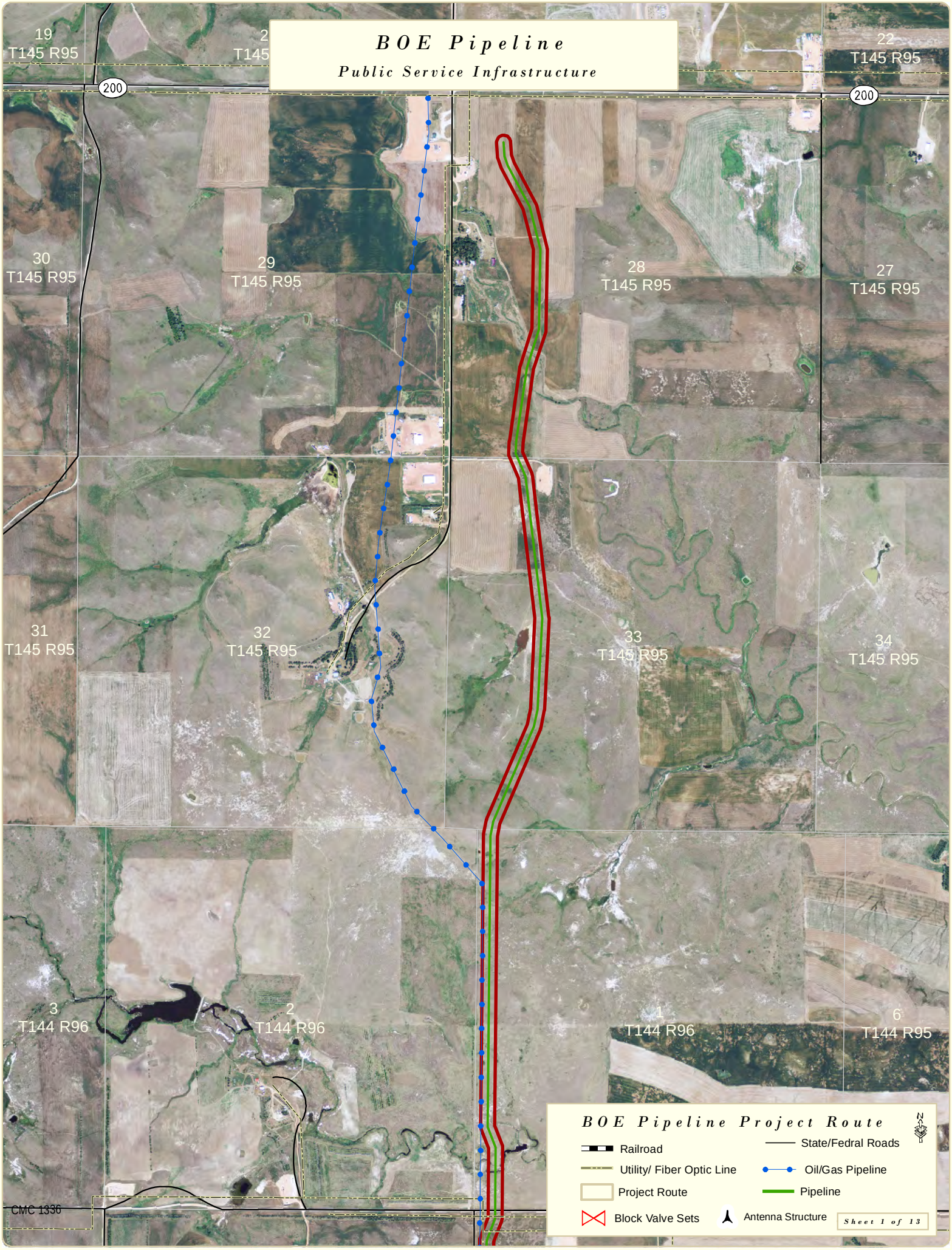
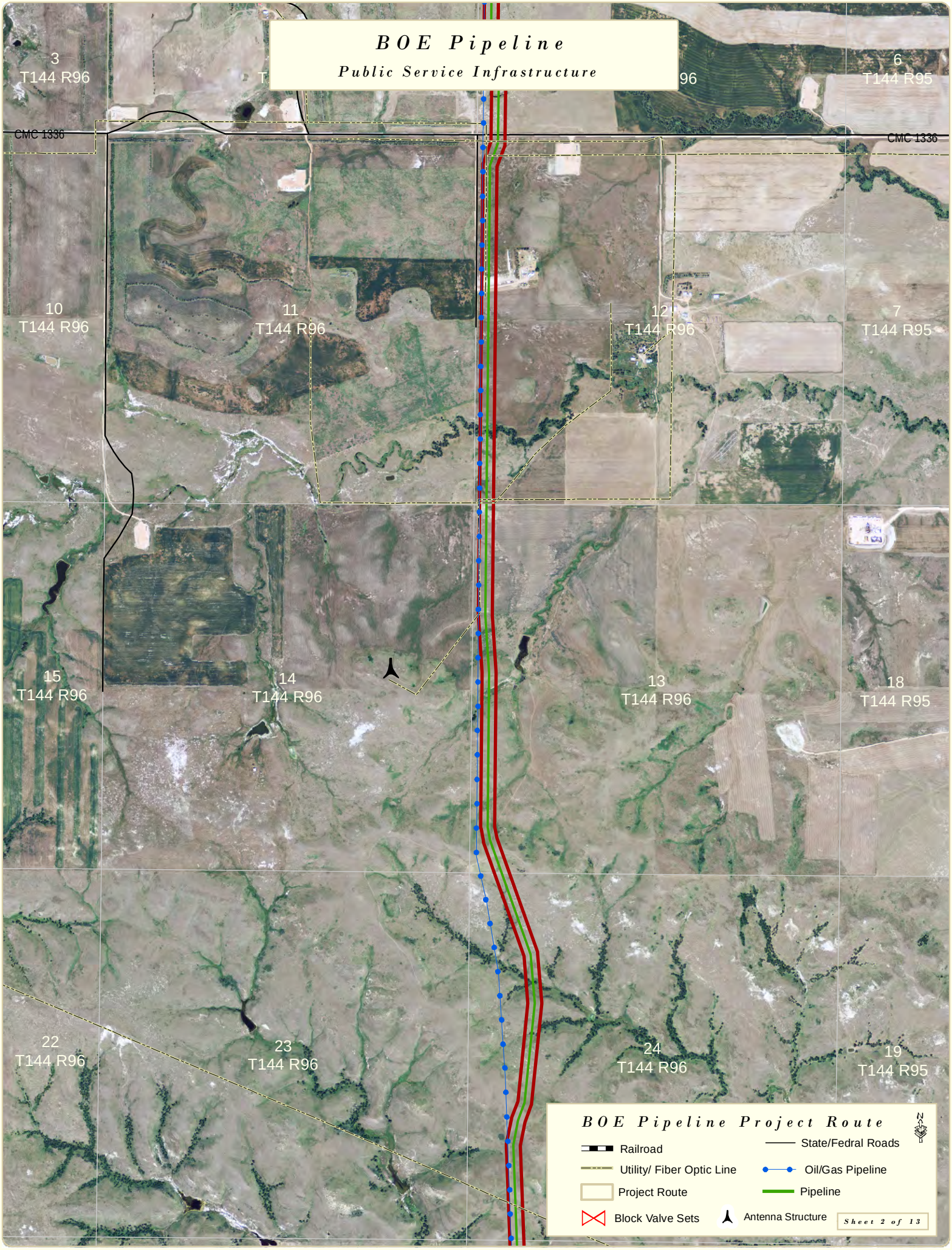
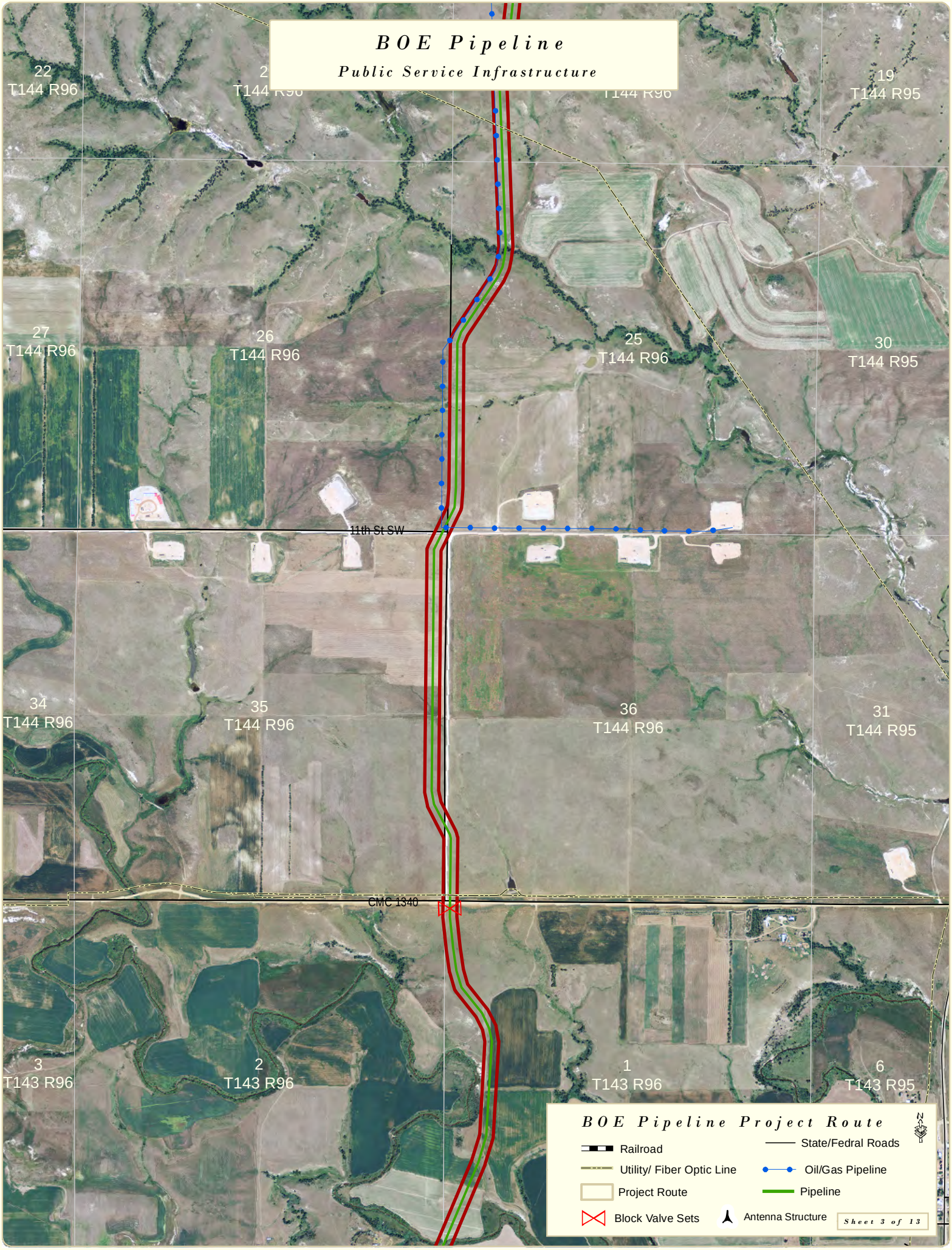
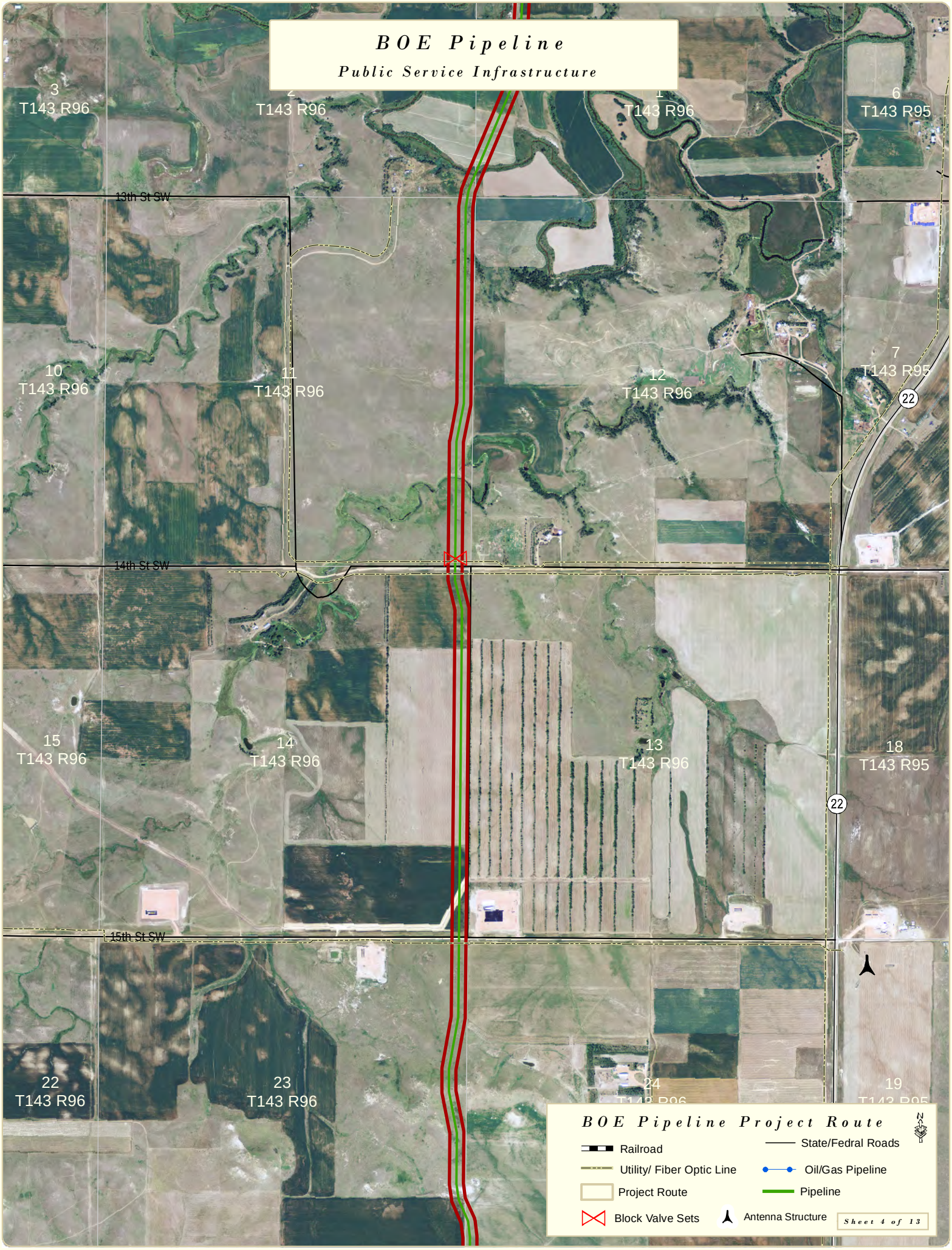

BOE Pipeline
Land Use
T139N
R 97W
BOE Pipeline Project Route
Barren
Cultivated
Developed
Grasslands
Shrubland
Wetlands
Water
Woodlands
Project Route
Sheet 13 of 13

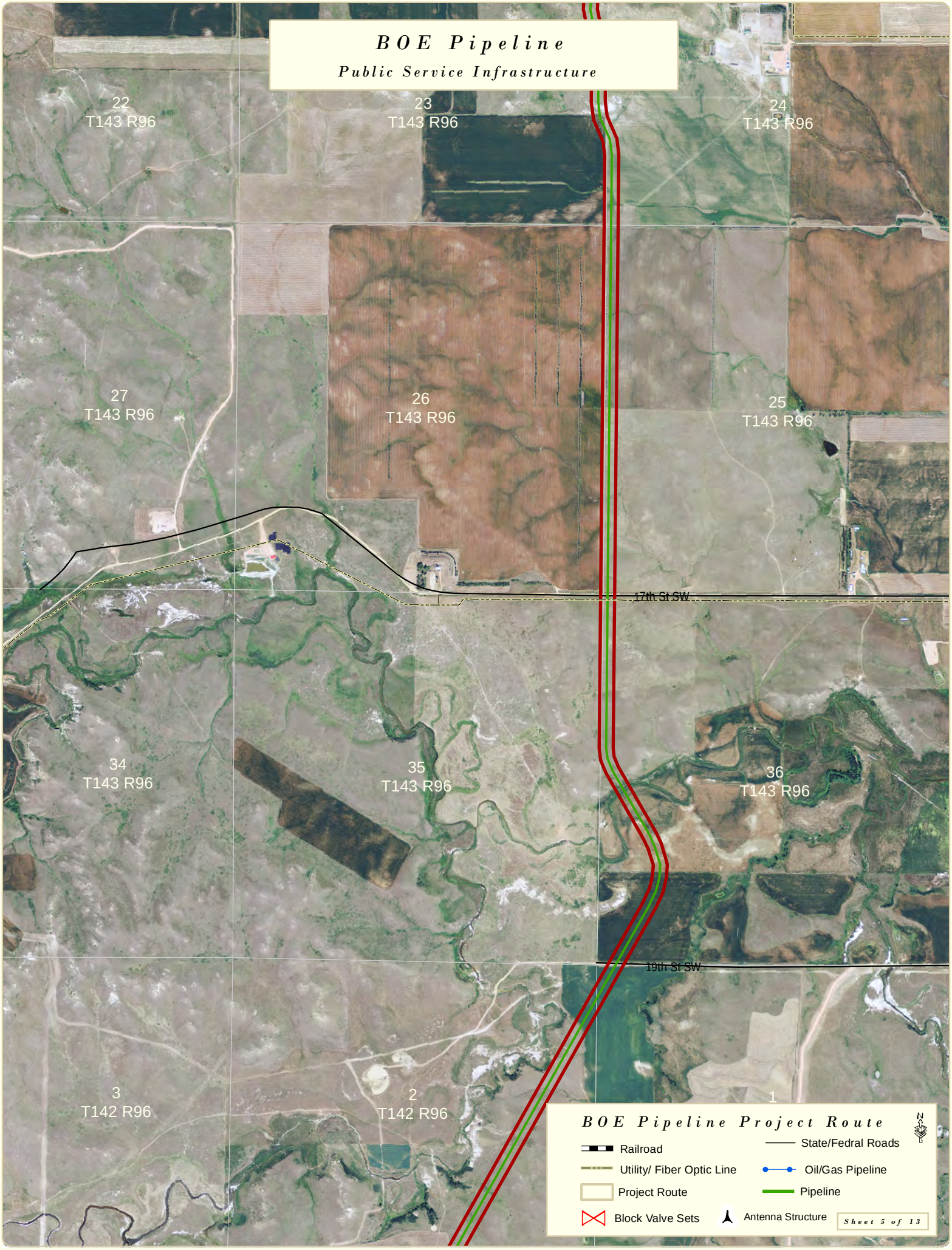
Figure A-4. Public Service Infrastructure Maps

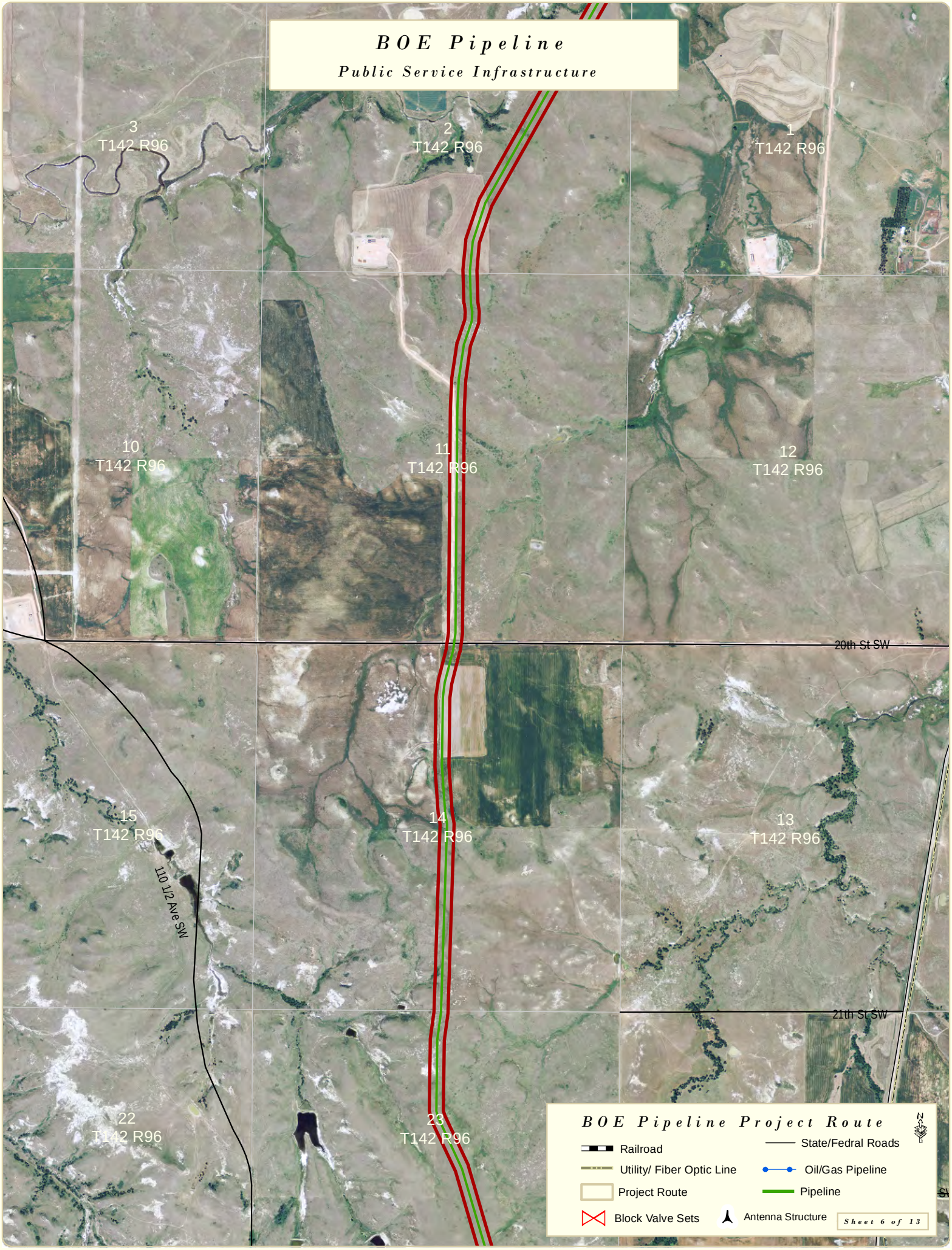

BOE Pipeline
Public Service Infrastructure
19
T145 R95
2
T145
22
T145 R95
200
200
30
T145 R95
29
T145 R95
28
T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
1
T144 R96
6
T144 R95
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 1 of 13
CMC 1336

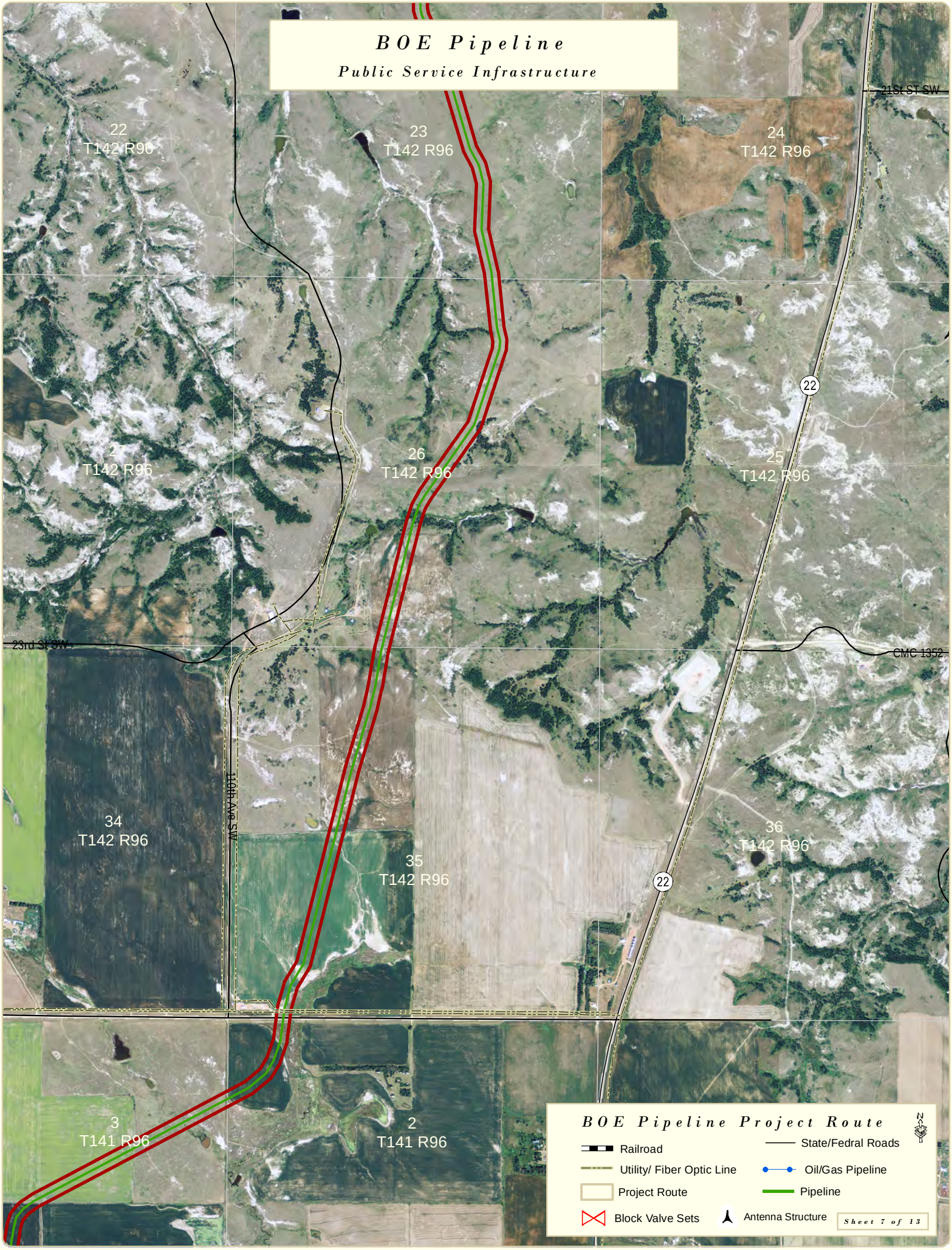

BOE Pipeline
Public Service Infrastructure
3
T144 R96
6
T144 R95
CMC 1336
CMC 1336
10
T144 R96
11
T144 R96
12
T144 R96
7
T144 R95
15
T144 R96
14
T144 R96
13
T144 R96
18
T144 R95
22
T144 R96
23
T144 R96
24
T144 R96
19
T144 R95
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 2 of 13

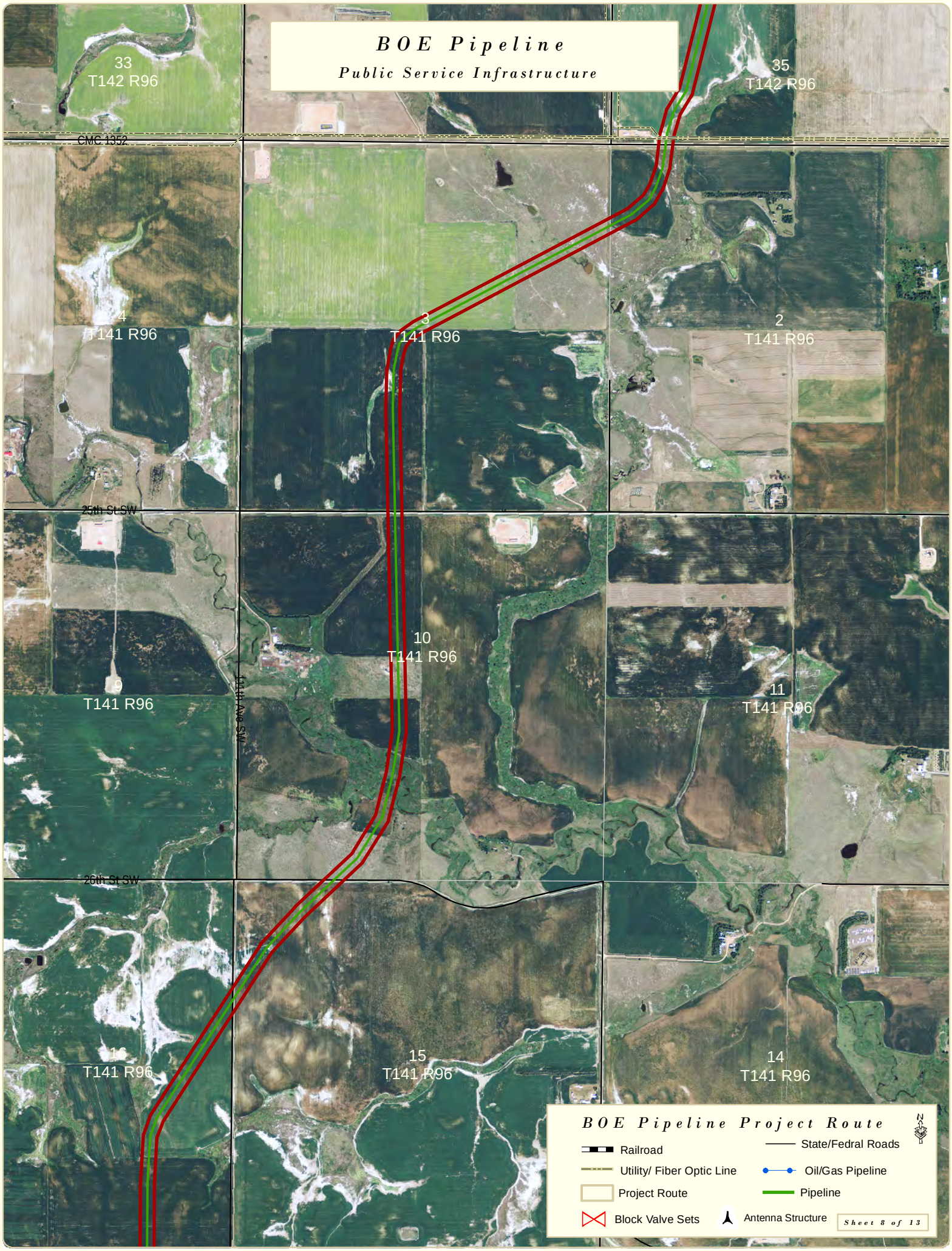

BOE Pipeline
Public Service Infrastructure
22
T144 R96
19
T144 R95
27
T144 R96
26
T144 R96
25
T144 R96
30
T144 R95
11th St SW
34
T144 R96
35
T144 R96
36
T144 R96
31
T144 R95
CMC 1340
3
T143 R96
2
T143 R96
1
T143 R96
6
T143 R95
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 3 of 13


BOE Pipeline
Public Service Infrastructure
3
T143 R96
2
T143 R96
1
T143 R96
6
T143 R95
13th St SW
10
T143 R96
11
T143 R96
12
T143 R96
7
T143 R95
22
14th St SW
15
T143 R96
14
T143 R96
13
T143 R96
18
T143 R95
22
15th St SW
22
T143 R96
23
T143 R96
24
19
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 4 of 13


BOE Pipeline
Public Service Infrastructure
22
T143 R96
23
T143 R96
24
T143 R96
27
T143 R96
26
T143 R96
25
T143 R96
17th St SW
34
T143 R96
35
T143 R96
36
T143 R96
19th St SW
3
T142 R96
2
T142 R96
1
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 5 of 13


BOE Pipeline
Public Service Infrastructure
3
T142 R96
2
T142 R96
1
T142 R96
10
T142 R96
11
T142 R96
12
T142 R96
20th St SW
15
T142 R96
14
T142 R96
13
T142 R96
110 1/2 Ave SW
21th St SW
22
T142 R96
23
T142 R96
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 6 of 13


BOE Pipeline
Public Service Infrastructure
22
T142 R96
23
T142 R96
24
T142 R96
21St ST SW
22
27
T142 R96
26
T142 R96
25
T142 R96
23rd St SW
CMC 1352
10th Ave SW
34
T142 R96
35
T142 R96
36
T142 R96
22
3
T141 R96
2
T141 R96
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 7 of 13


BOE Pipeline
Public Service Infrastructure
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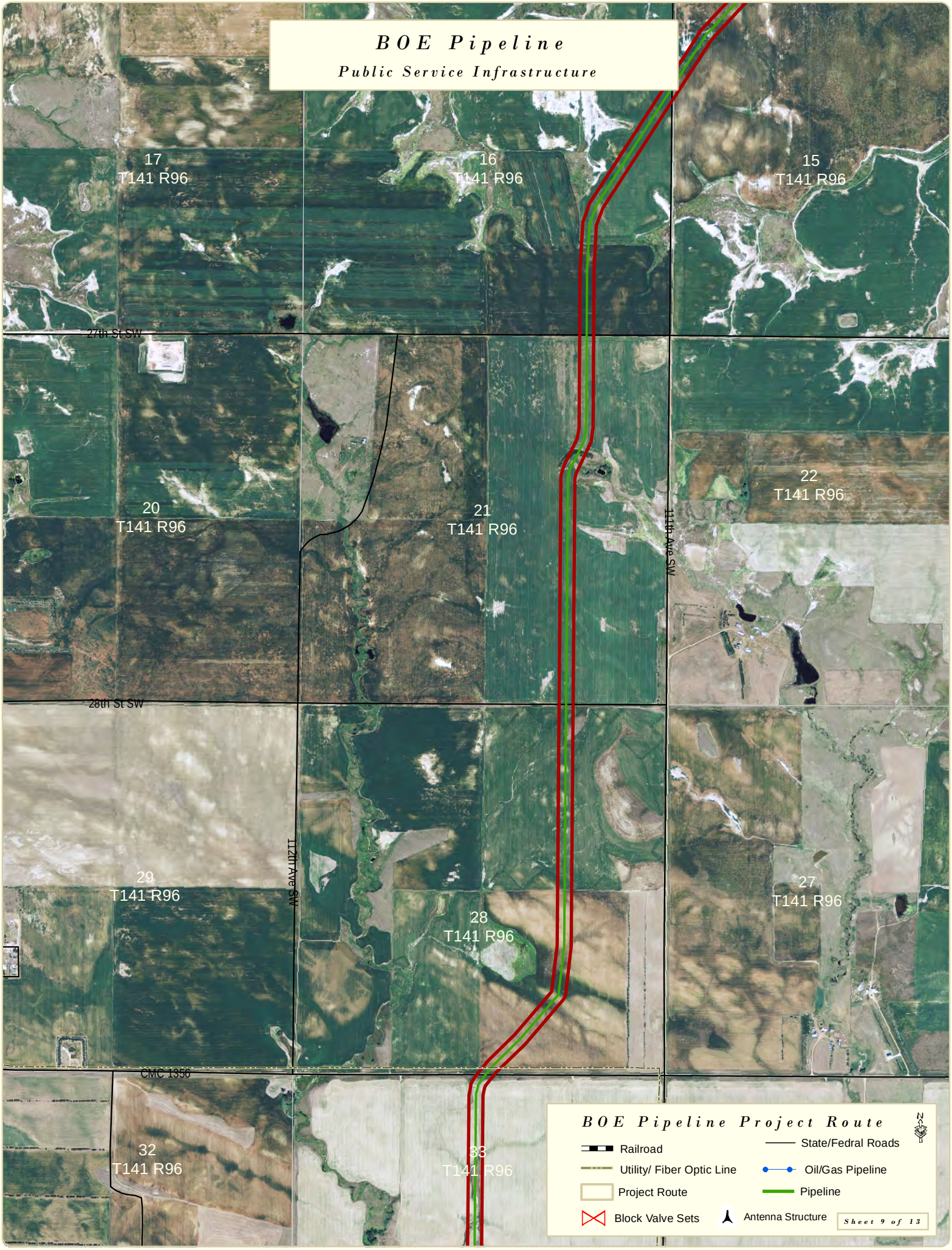
T142 R96
35
T142 R96
CMC 1352
4
T141 R96
3
T141 R96
2
T141 R96
25th St SW
10
T141 R96
9
T141 R96
141st Ave SW
11
T141 R96
26th St SW
16
T141 R96
15
T141 R96
14
T141 R96
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 8 of 13


BOE Pipeline
Public Service Infrastructure
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T141 R96
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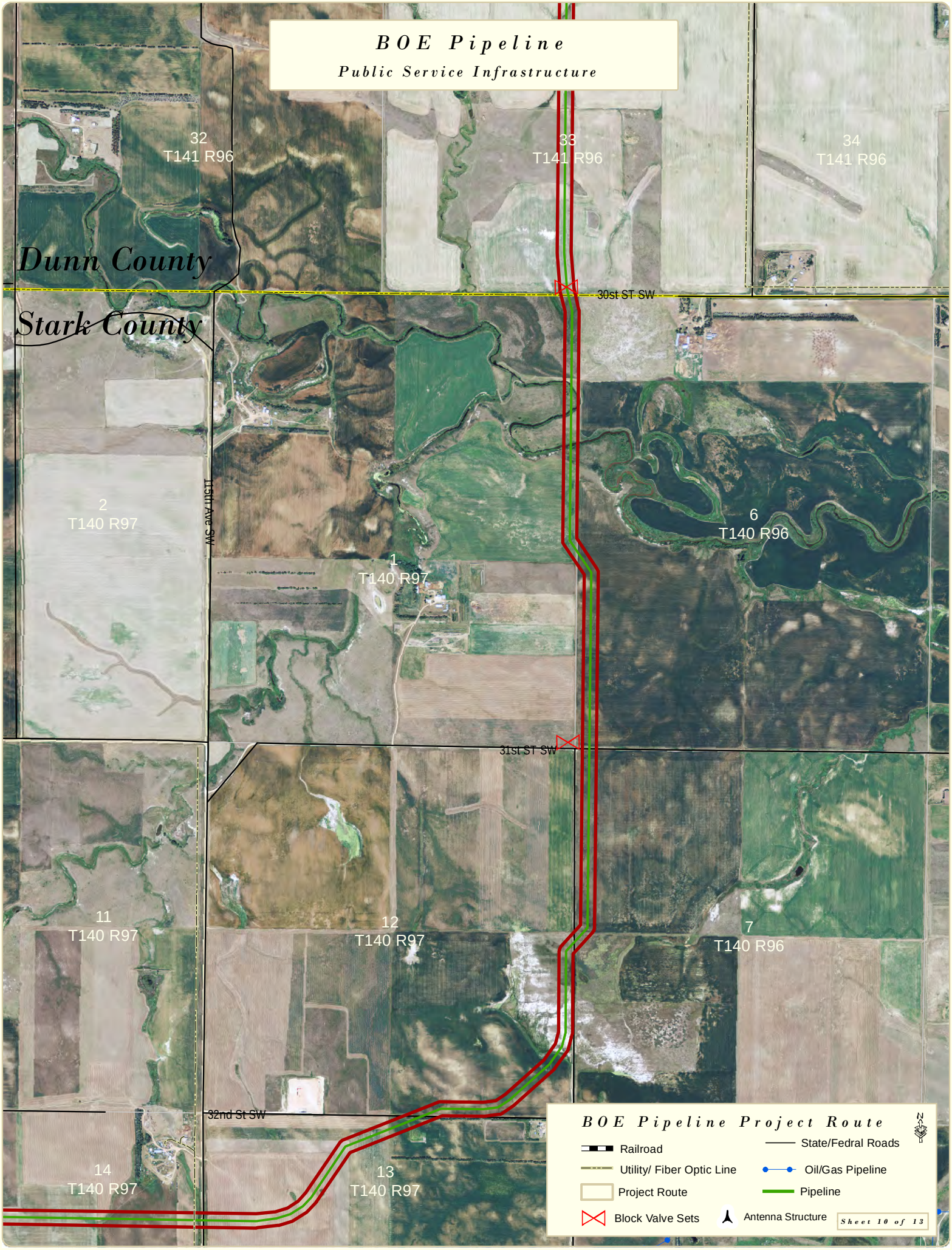
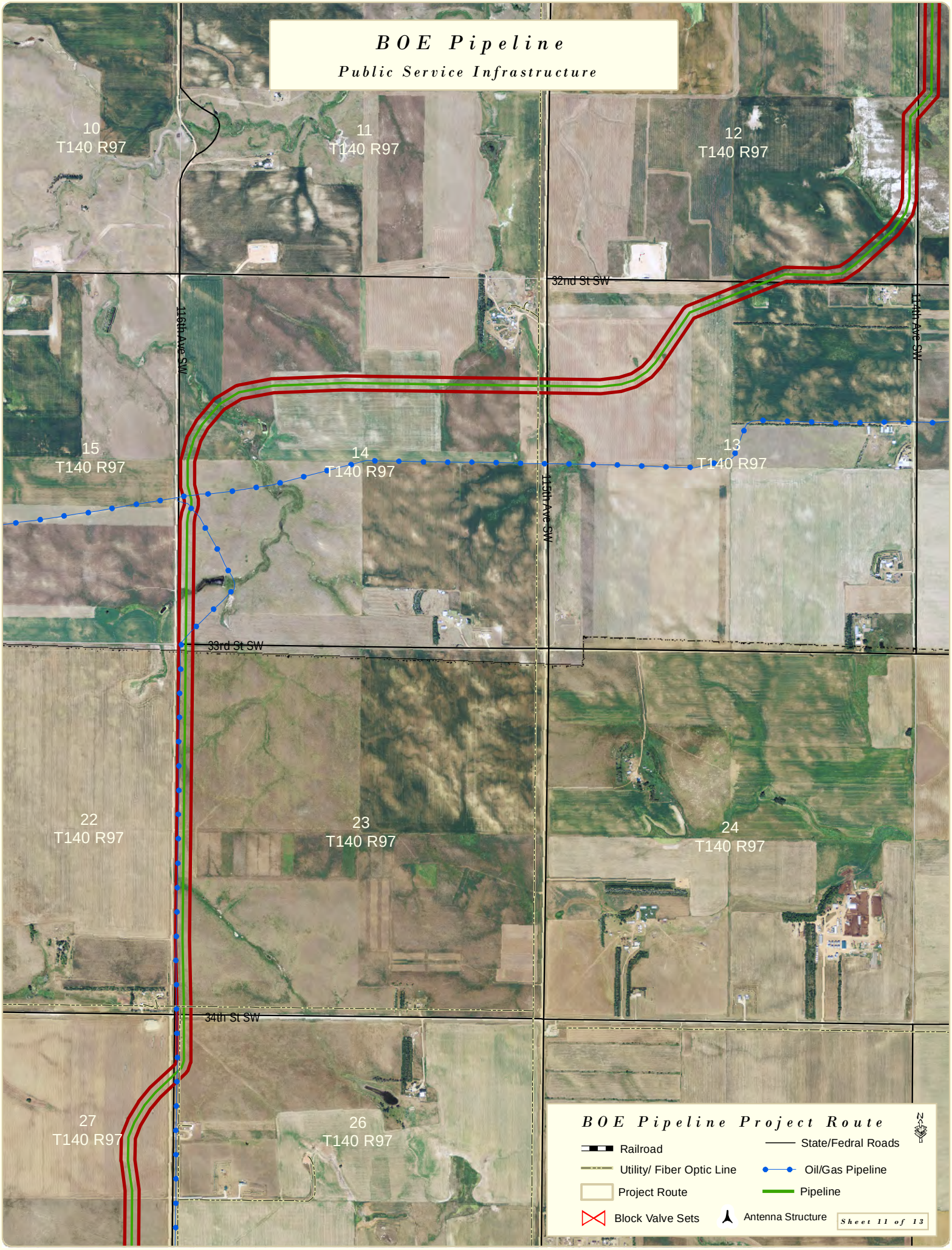
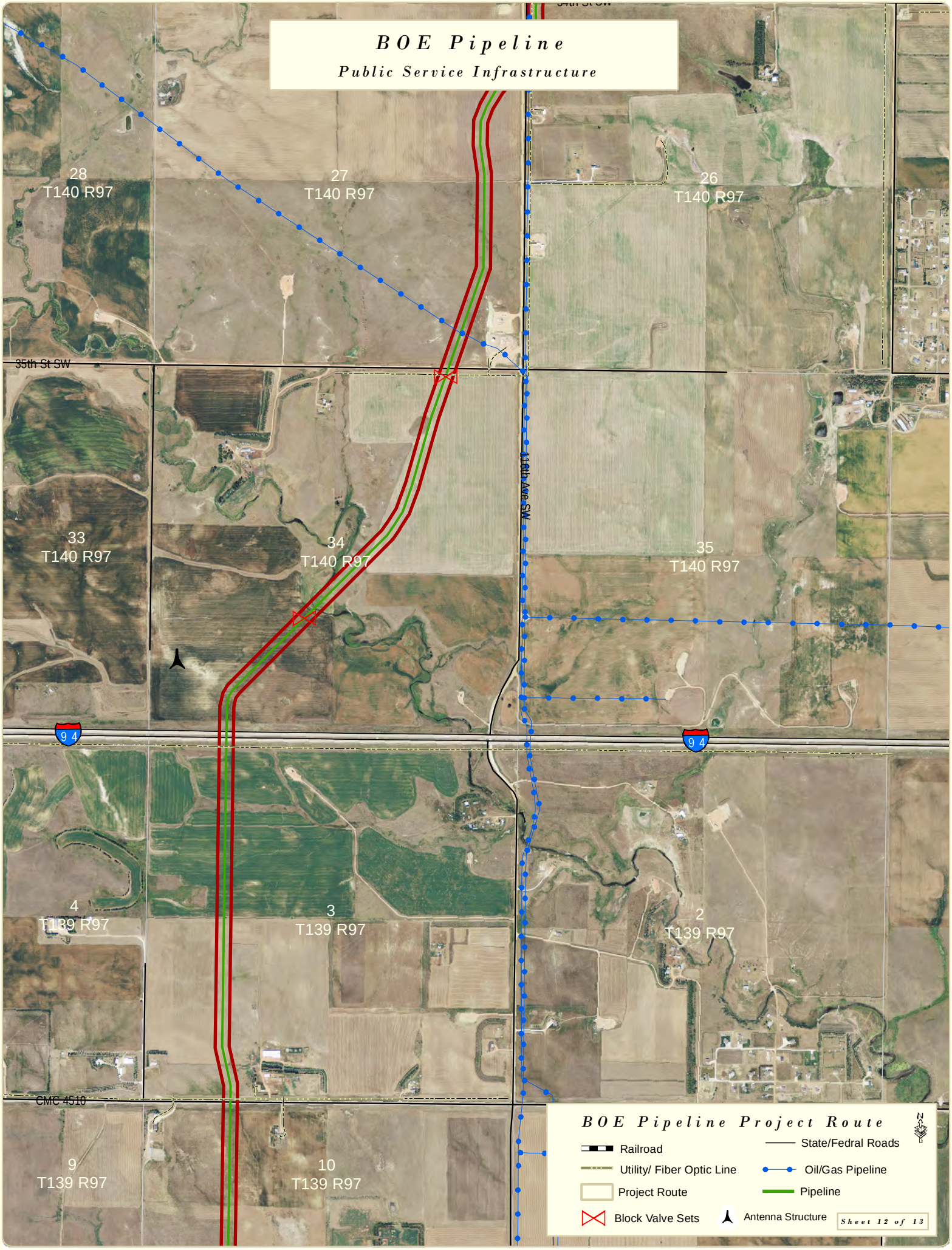
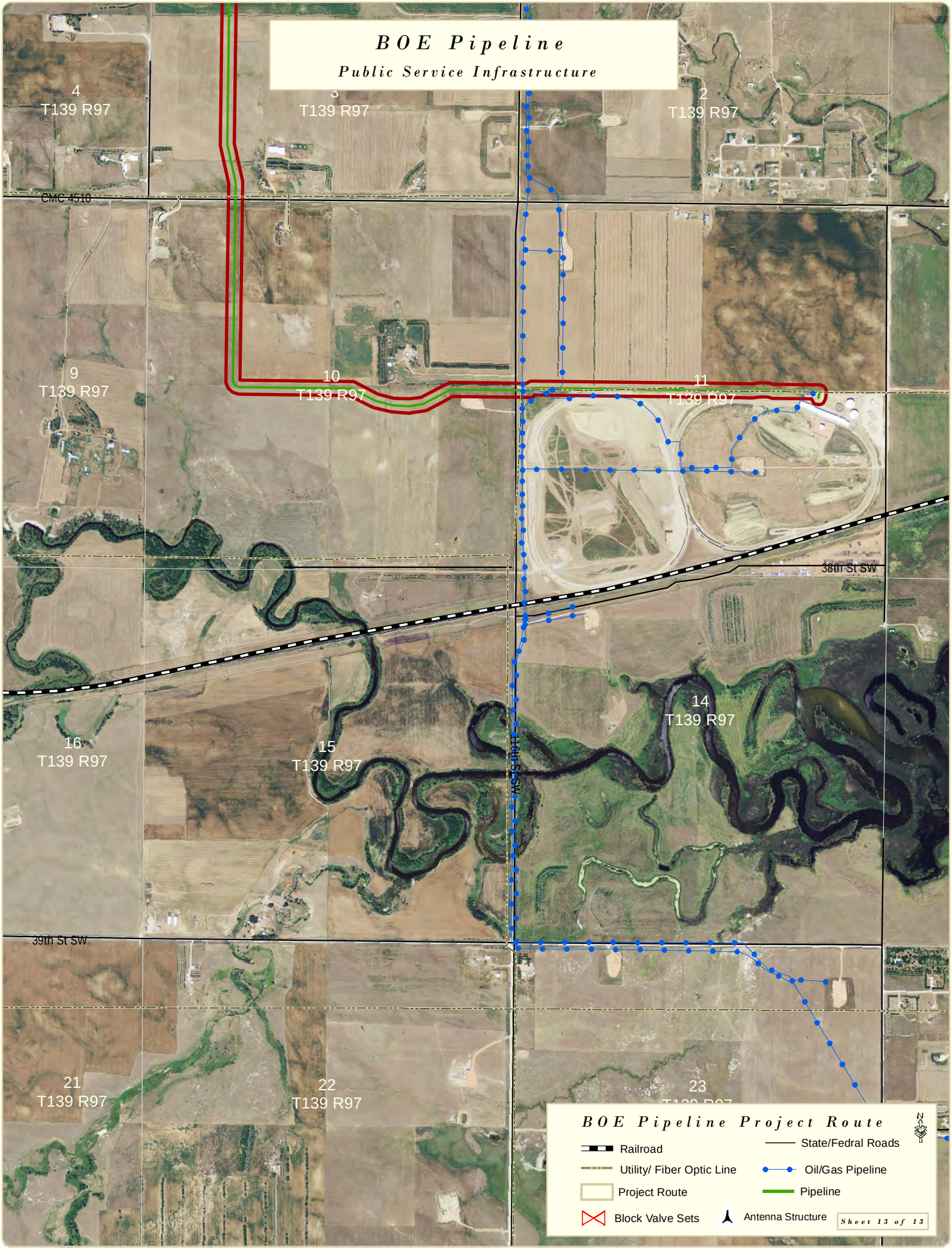
T141 R96
15
T141 R96
27th St SW
20
T141 R96
21
T141 R96
22
T141 R96
111th Ave SW
28th St SW
29
T141 R96
112th Ave SW
28
T141 R96
27
T141 R96
CMC 1356
32
T141 R96
33
T141 R96
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 9 of 13


BOE Pipeline
Public Service Infrastructure
32
T141 R96
33
T141 R96
34
T141 R96
Dunn County
Stark County
30st ST SW
115th Ave SW
2
T140 R97
1
T140 R97
6
T140 R96
31st ST SW
11
T140 R97
12
T140 R97
7
T140 R96
32nd St SW
14
T140 R97
13
T140 R97
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 10 of 13


BOE Pipeline
Public Service Infrastructure
10
T140 R97
11
T140 R97
12
T140 R97
32nd St SW
116th Ave SW
114th Ave SW
15
T140 R97
14
T140 R97
13
T140 R97
115th Ave SW
33rd St SW
22
T140 R97
23
T140 R97
24
T140 R97
34th St SW
27
T140 R97
26
T140 R97
BOE Pipeline Project Route
Railroad
State/Fedral Roads
Utility/ Fiber Optic Line
Oil/Gas Pipeline
Project Route
Pipeline
Block Valve Sets
Antenna Structure
Sheet 11 of 13


BOE Pipeline
Public Service Infrastructure
28
T140 R97
27
T140 R97
26
T140 R97
35th St SW
116th Ave SW
33
T140 R97
34
T140 R97
35
T140 R97
9 4
9 4
4
T139 R97
3
T139 R97
2
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 12 of 13


BOE Pipeline
Public Service Infrastructure
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T139 R97
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T139 R97
2
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
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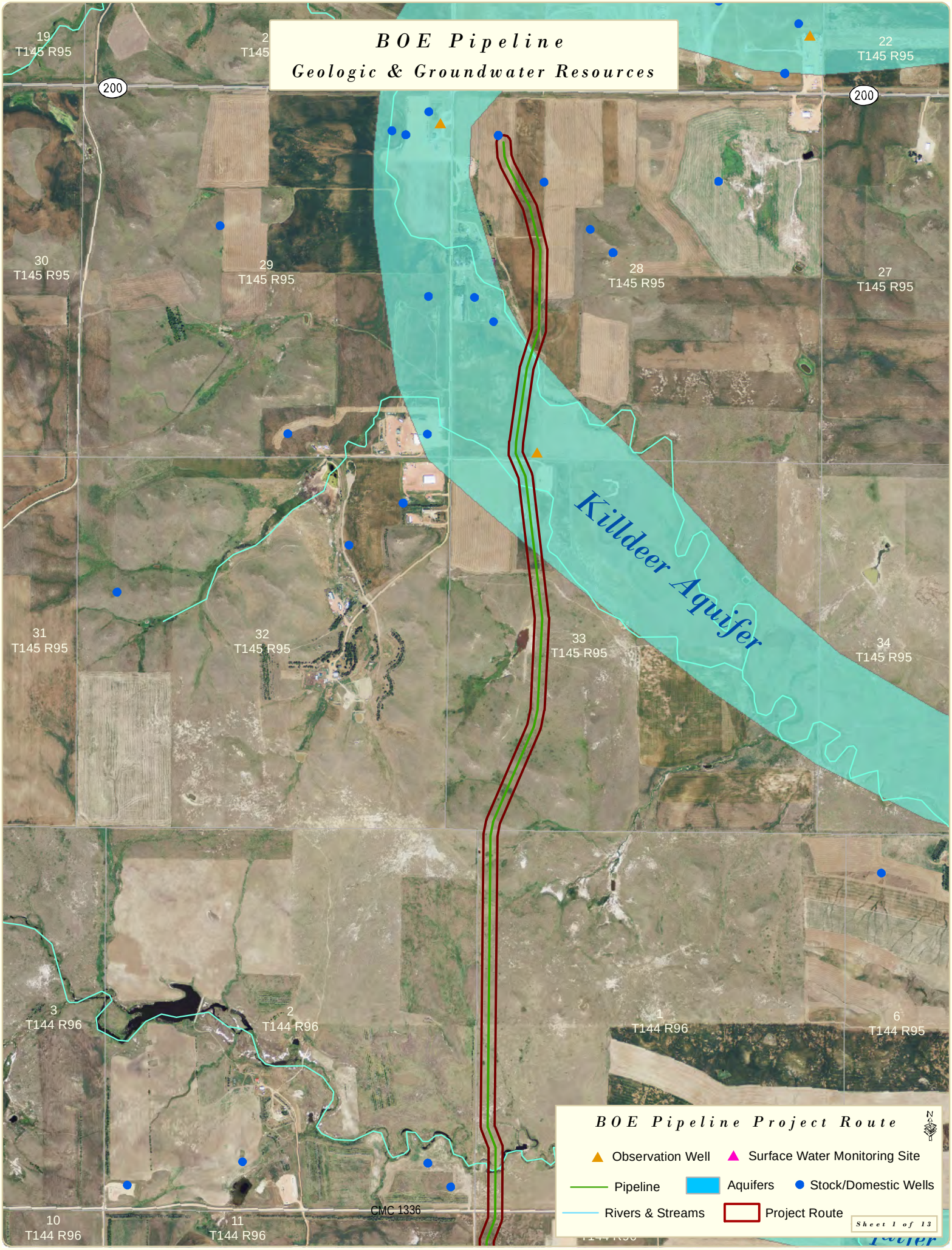
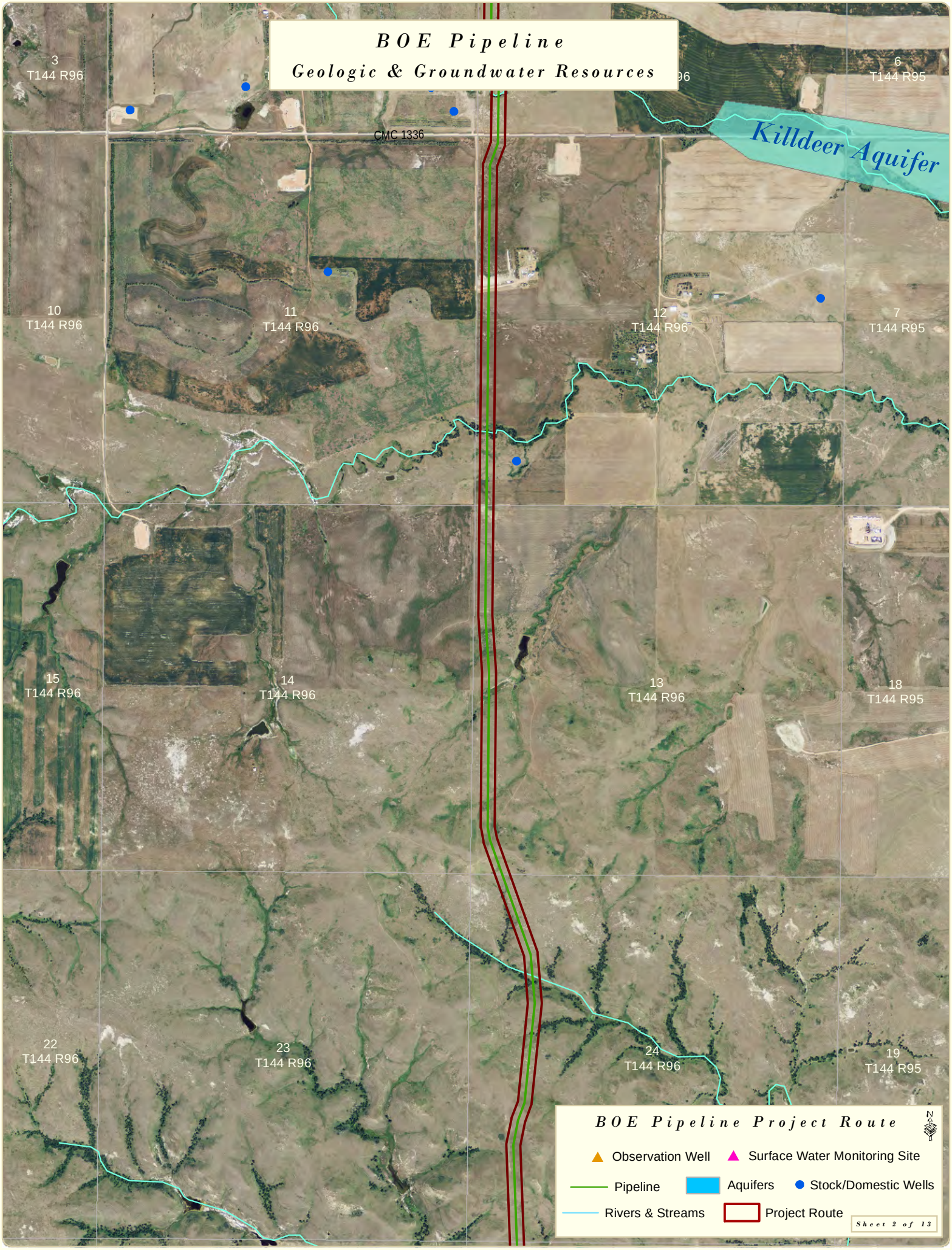
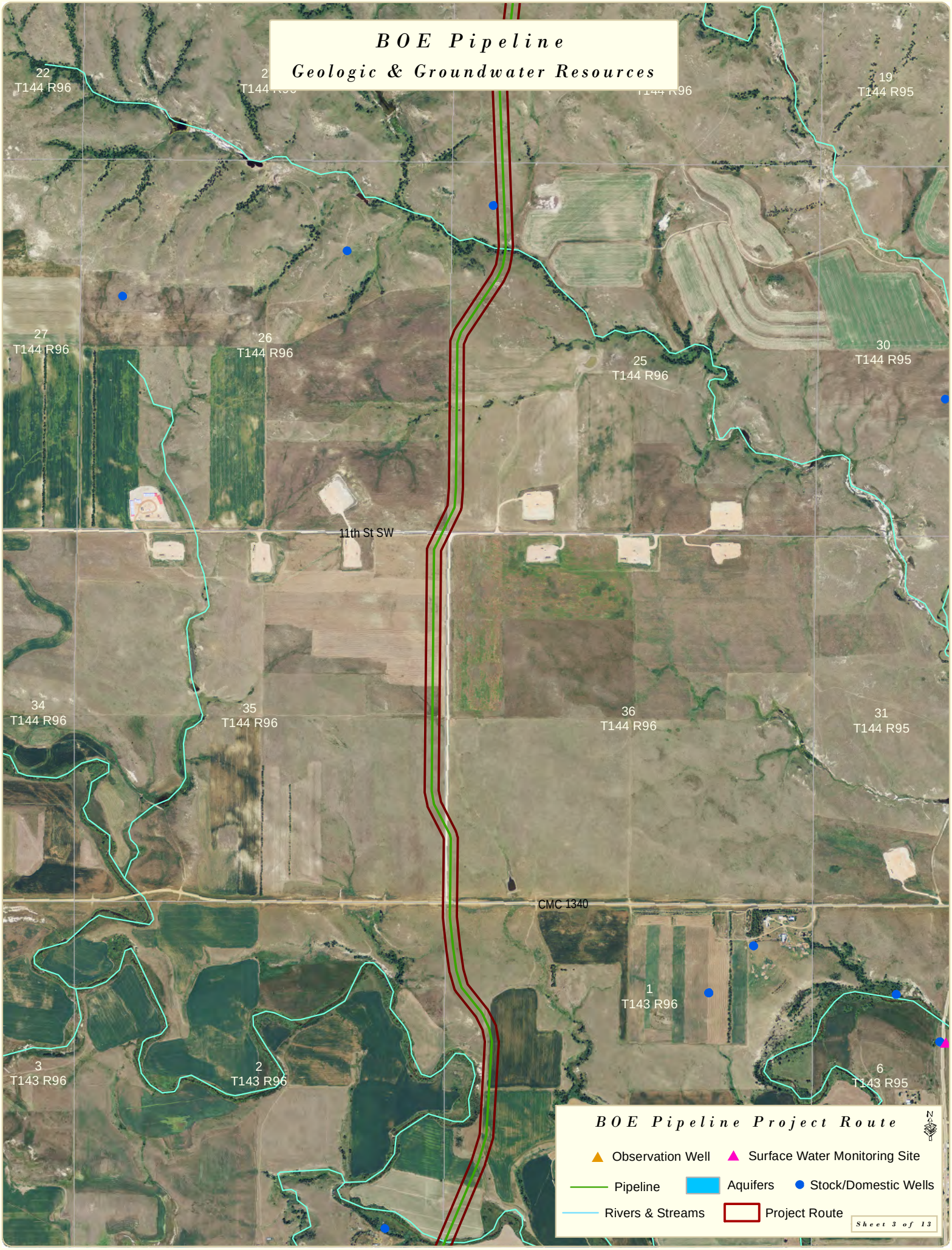
T139 R97
38th St SW
14
T139 R97
16
T139 R97
15
T139 R97
14th St SW
39th St SW
21
T139 R97
22
T139 R97
23
BOE Pipeline Project Route
Railroad
Utility/ Fiber Optic Line
Project Route
Block Valve Sets
State/Fedral Roads
Oil/Gas Pipeline
Pipeline
Antenna Structure
Sheet 13 of 13

Figure A-5. Geologic and Ground Water Maps


BOE Pipeline
Geologic & Groundwater Resources
Killdeer Aquifer
19
T145 R95
2
T145
22
T145 R95
200
200
30
T145 R95
29
T145 R95
28
T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
1
T144 R96
6
T144 R95
10
T144 R96
11
T144 R96
CMC 1336
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 1 of 13


BOE Pipeline
Geologic & Groundwater Resources
3
T144 R96
6
T144 R95
CMC 1336
Killdeer Aquifer
10
T144 R96
11
T144 R96
12
T144 R96
7
T144 R95
15
T144 R96
14
T144 R96
13
T144 R96
18
T144 R95
22
T144 R96
23
T144 R96
24
T144 R96
19
T144 R95
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 2 of 13


BOE Pipeline
Geologic & Groundwater Resources
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T144 R96
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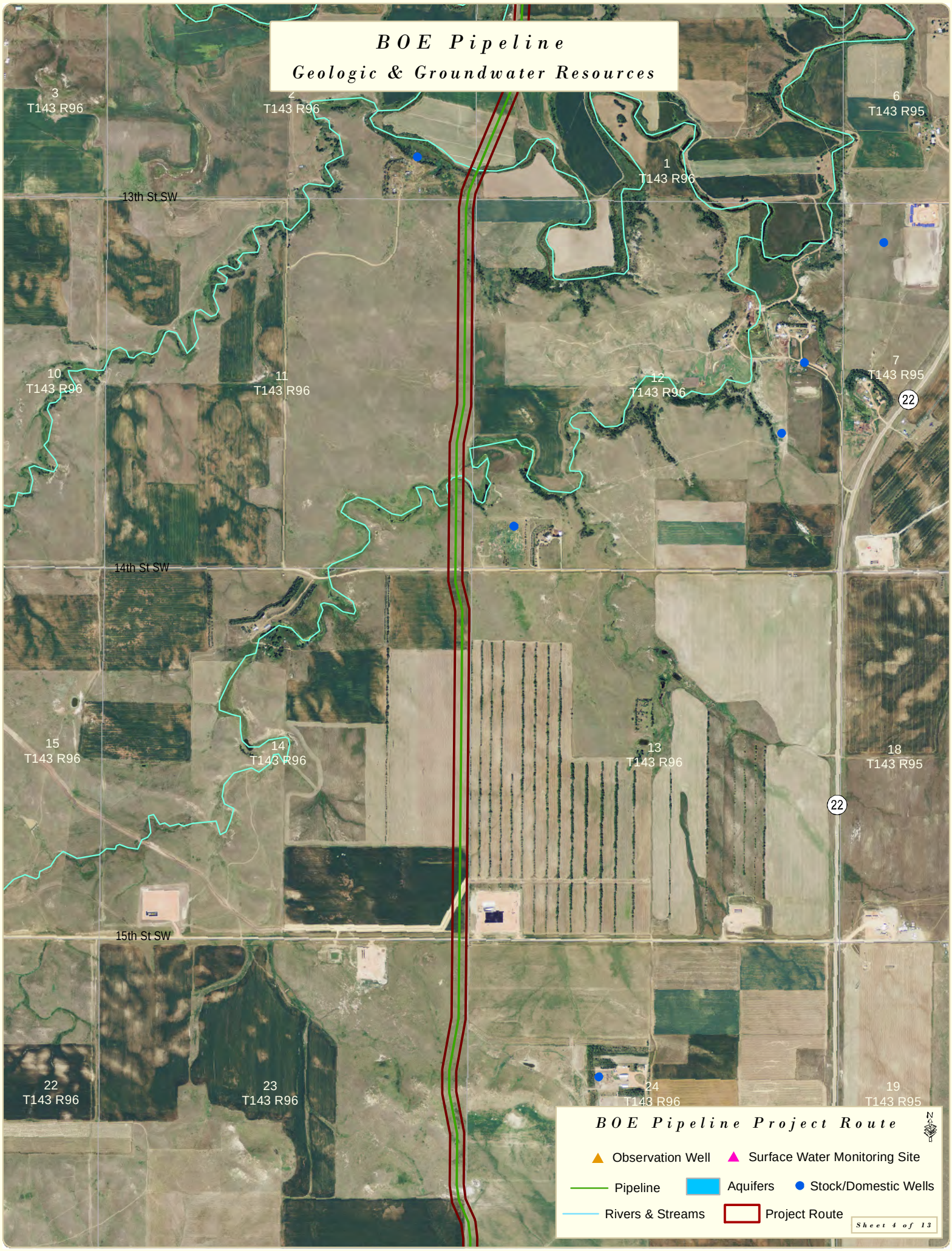
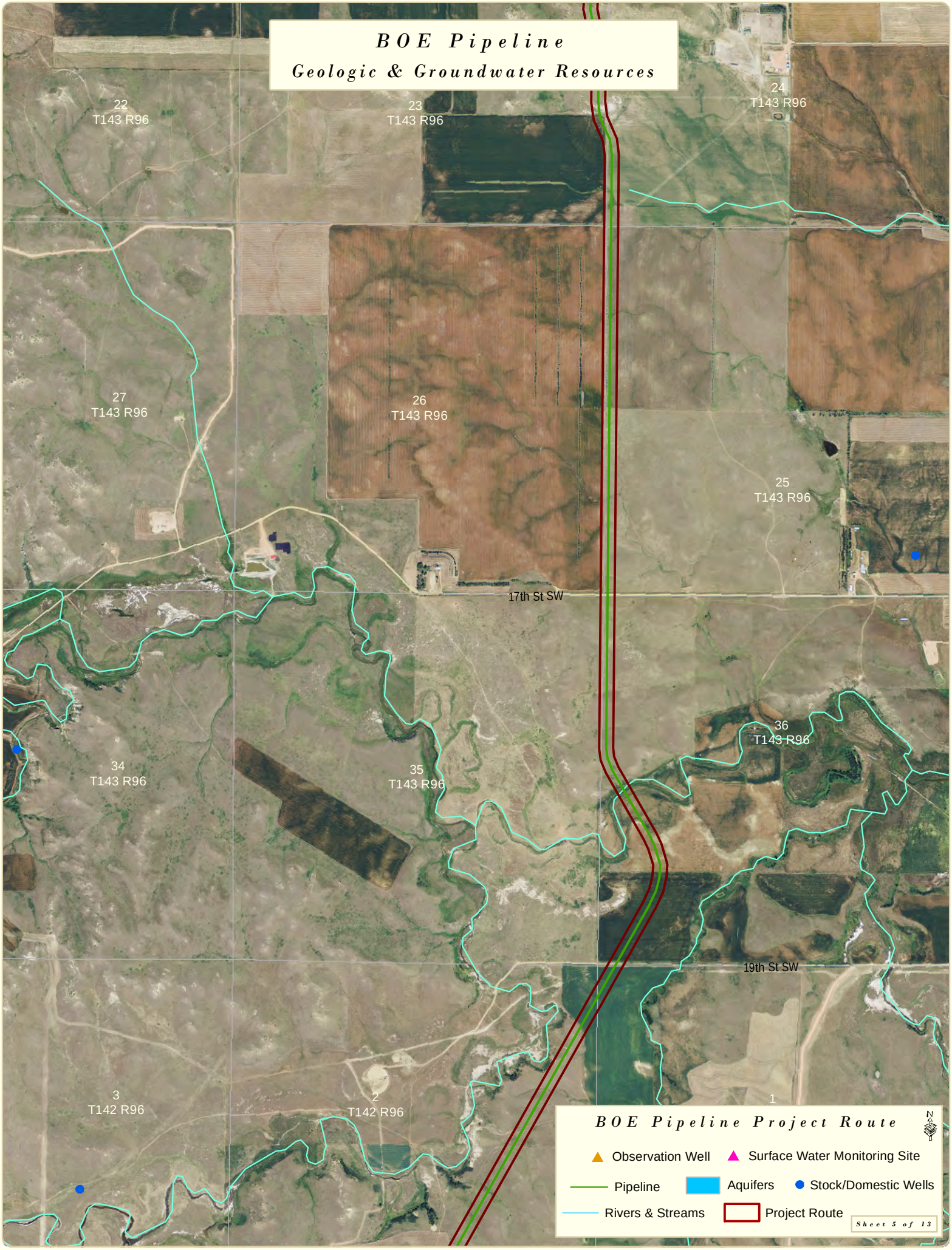
T144 R95
27
T144 R96
26
T144 R96
25
T144 R96
30
T144 R95
11th St SW
34
T144 R96
35
T144 R96
36
T144 R96
31
T144 R95
CMC 1340
1
T143 R96
3
T143 R96
2
T143 R96
6
T143 R95
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 3 of 13


BOE Pipeline
Geologic & Groundwater Resources
3
T143 R96
2
T143 R96
6
T143 R95
1
T143 R96
13th St SW
10
T143 R96
11
T143 R96
12
T143 R96
7
T143 R95
22
14th St SW
15
T143 R96
14
T143 R96
13
T143 R96
18
T143 R95
22
15th St SW
22
T143 R96
23
T143 R96
24
T143 R96
19
T143 R95
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 4 of 13


BOE Pipeline
Geologic & Groundwater Resources
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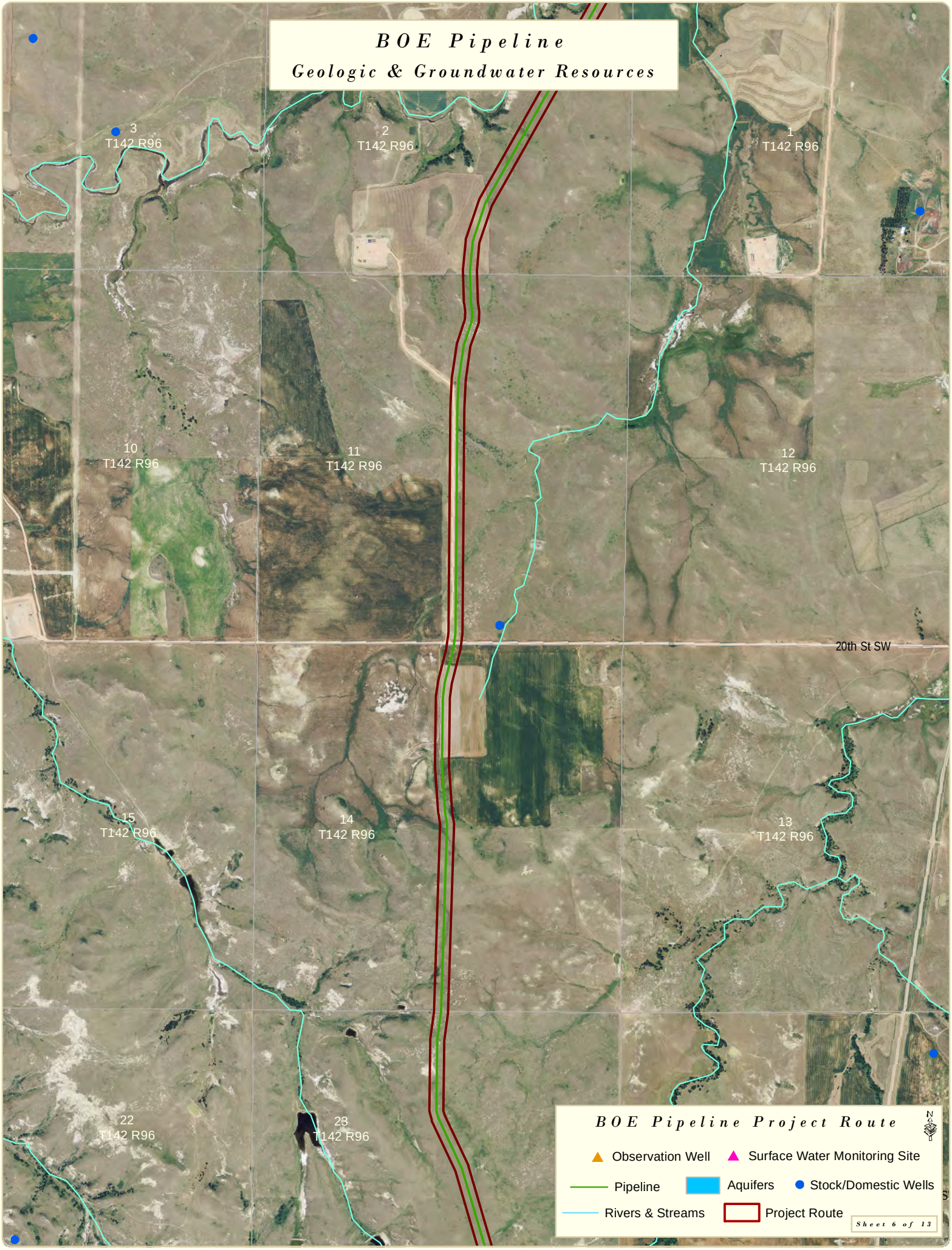
T143 R96
23
T143 R96
24
T143 R96
27
T143 R96
26
T143 R96
25
T143 R96
17th St SW
36
T143 R96
34
T143 R96
35
T143 R96
19th St SW
3
T142 R96
2
T142 R96
1
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 5 of 13


BOE Pipeline
Geologic & Groundwater Resources
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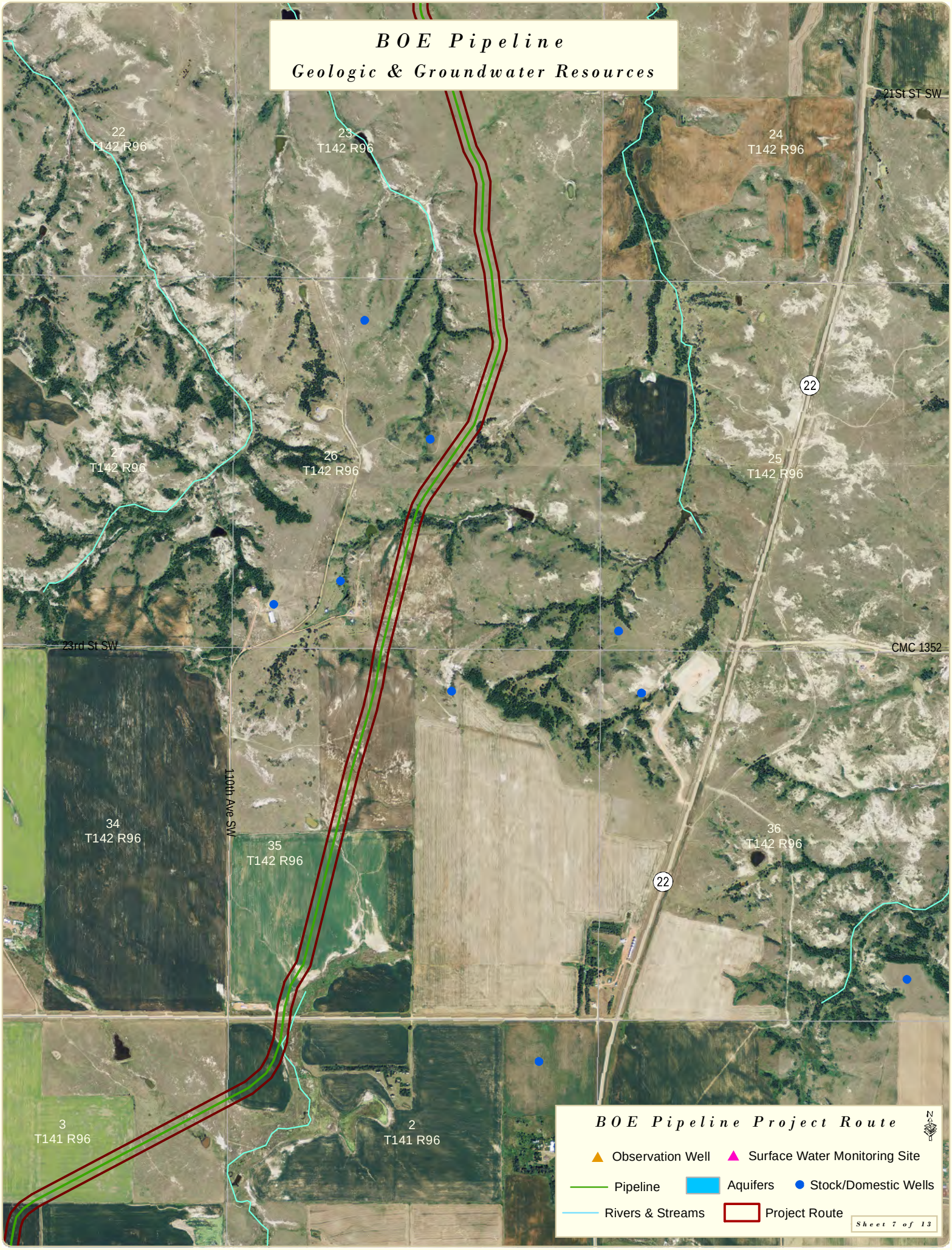
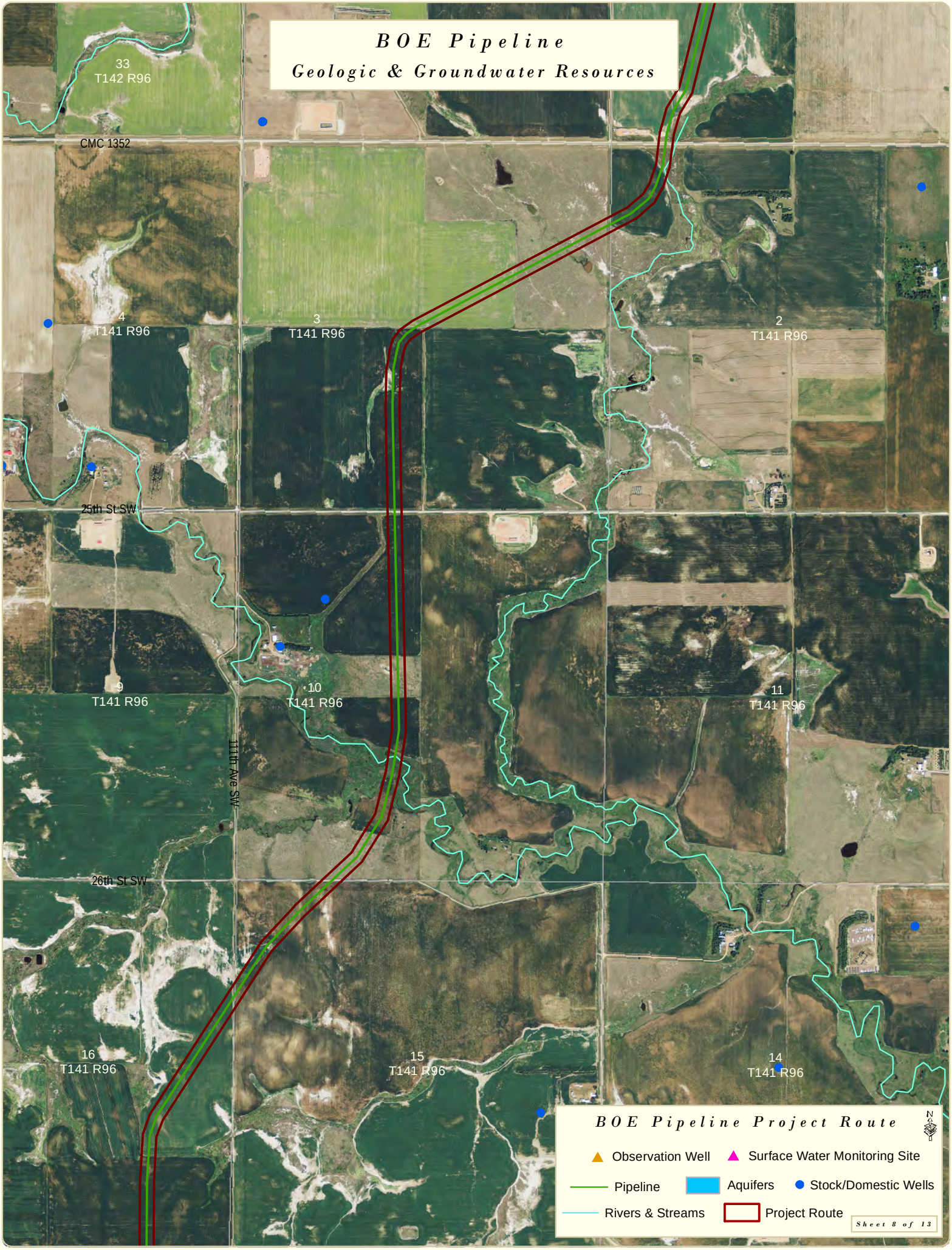
T142 R96
2
T142 R96
1
T142 R96
10
T142 R96
11
T142 R96
12
T142 R96
20th St SW
15
T142 R96
14
T142 R96
13
T142 R96
22
T142 R96
28
T142 R96
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 6 of 13


BOE Pipeline
Geologic & Groundwater Resources
21St ST SW
22
T142 R96
23
T142 R96
24
T142 R96
22
27
T142 R96
26
T142 R96
25
T142 R96
23rd St SW
CMC 1352
110th Ave SW
34
T142 R96
35
T142 R96
36
T142 R96
22
3
T141 R96
2
T141 R96
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 7 of 13


BOE Pipeline
Geologic & Groundwater Resources
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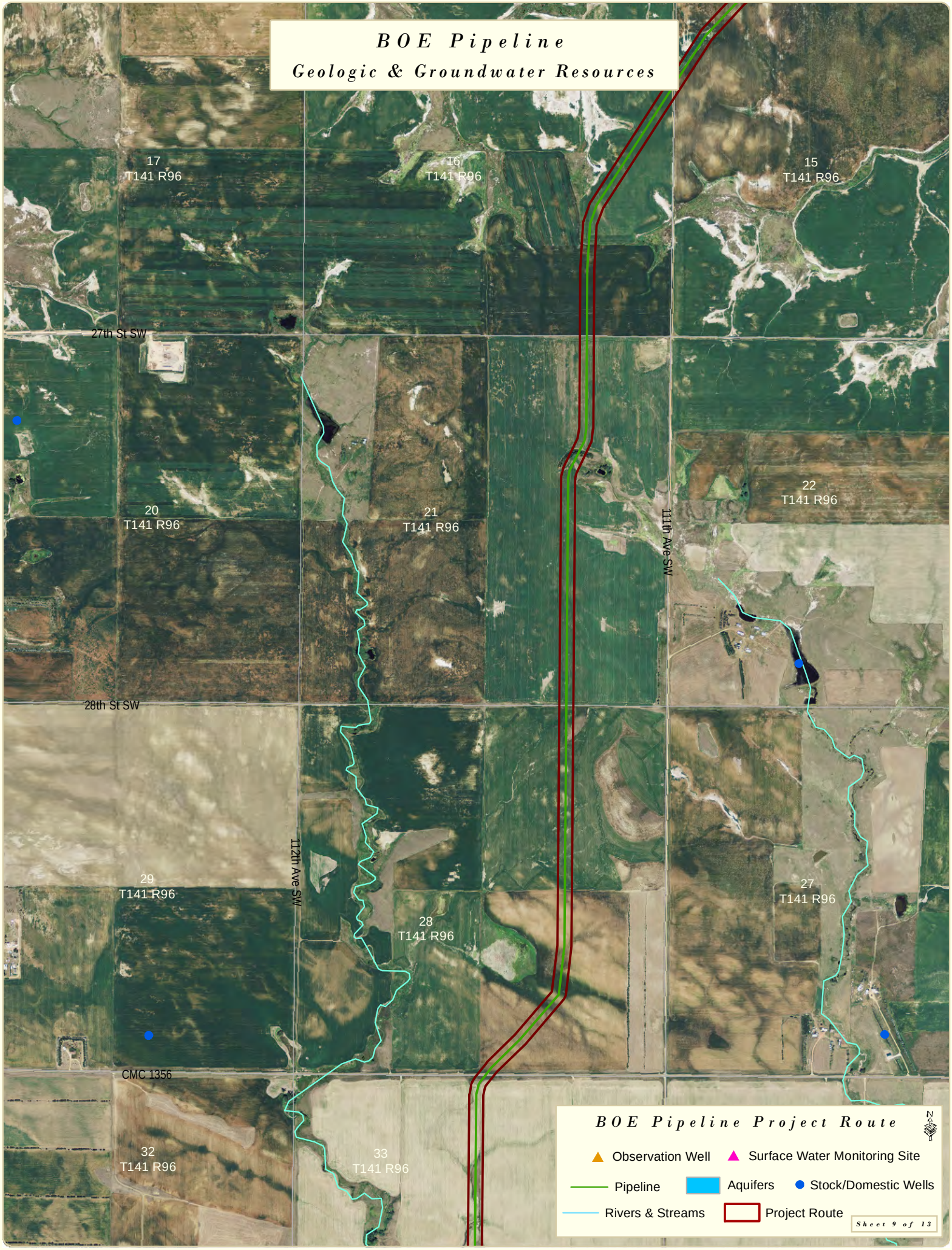
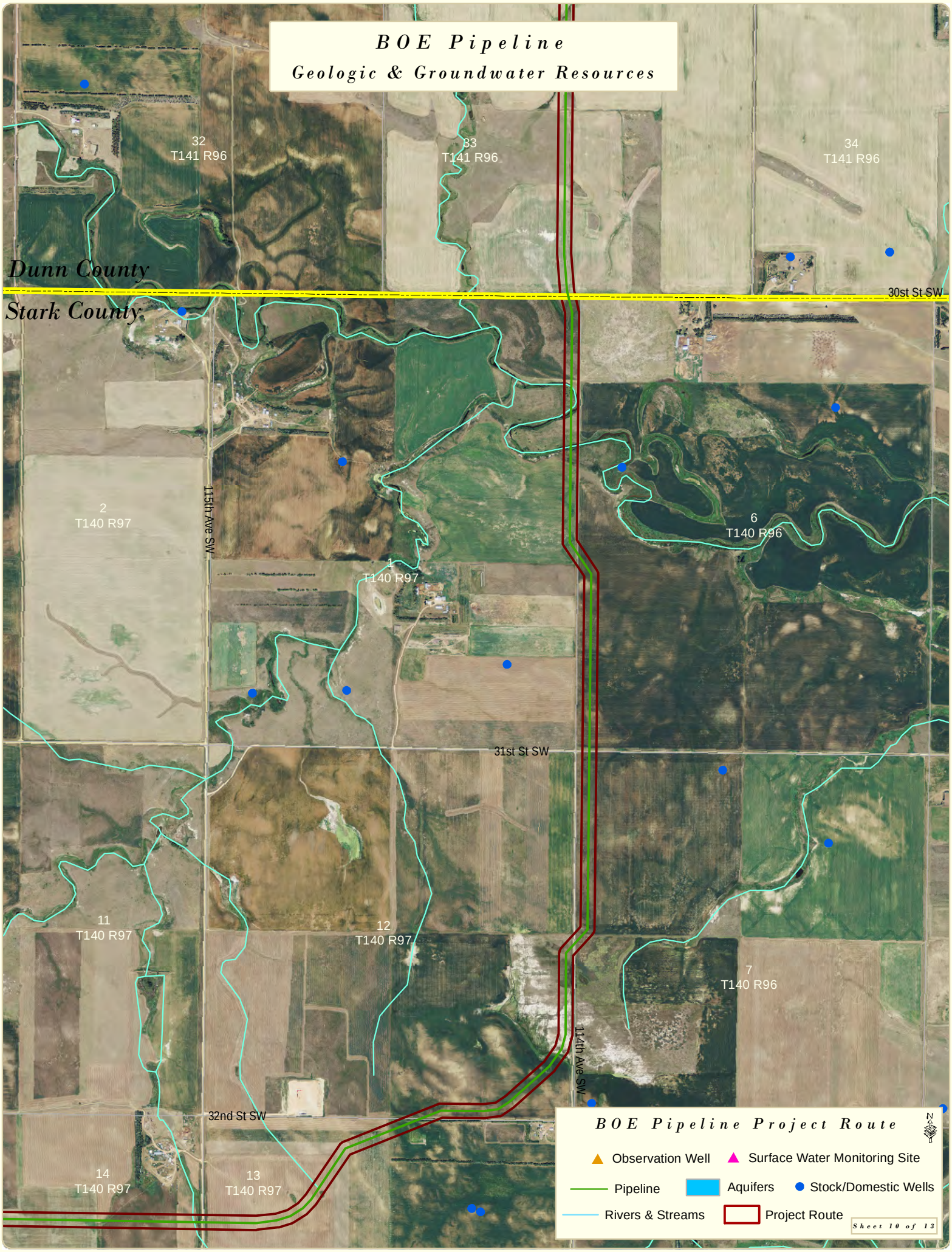
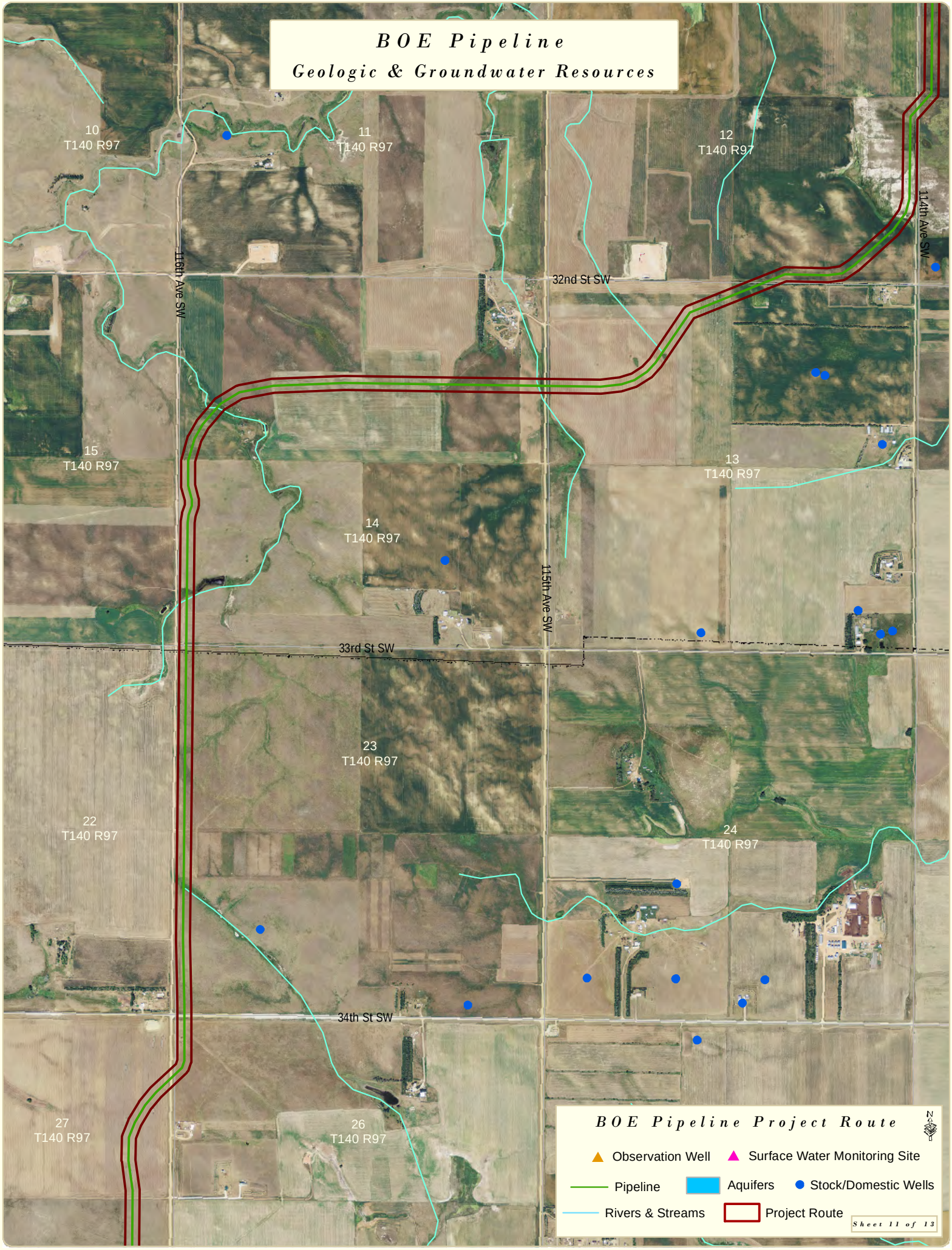
T142 R96
CMC 1352
4
T141 R96
3
T141 R96
2
T141 R96
25th St SW
9
T141 R96
10
T141 R96
11
T141 R96
111th Ave SW
26th St SW
16
T141 R96
15
T141 R96
14
T141 R96
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 8 of 13


BOE Pipeline
Geologic & Groundwater Resources
17
T141 R96
16
T141 R96
15
T141 R96
27th St SW
20
T141 R96
21
T141 R96
22
T141 R96
111th Ave SW
28th St SW
112th Ave SW
29
T141 R96
28
T141 R96
27
T141 R96
CMC 1356
32
T141 R96
33
T141 R96
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 9 of 13


BOE Pipeline
Geologic & Groundwater Resources
32
T141 R96
33
T141 R96
34
T141 R96
Dunn County
Stark County
30st St SW
2
T140 R97
115th Ave SW
6
T140 R96
1
T140 R97
31st St SW
11
T140 R97
12
T140 R97
7
T140 R96
114th Ave SW
32nd St SW
14
T140 R97
13
T140 R97
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 10 of 13


BOE Pipeline
Geologic & Groundwater Resources
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T140 R97
12
T140 R97
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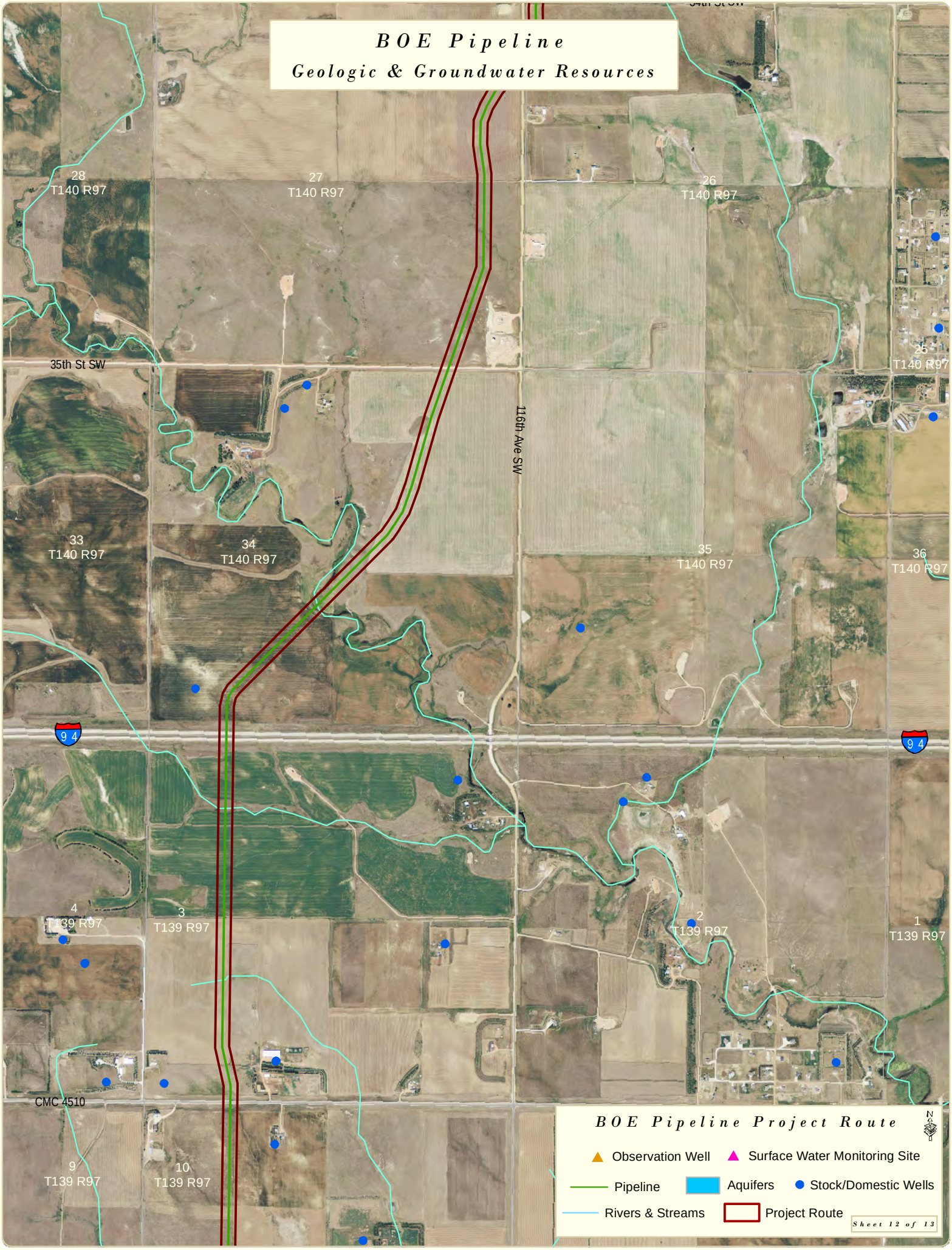
T140 R97
13
T140 R97
14
T140 R97
23
T140 R97
22
T140 R97
24
T140 R97
27
T140 R97
26
T140 R97
116th Ave SW
115th Ave SW
114th Ave SW
32nd St SW
33rd St SW
34th St SW
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 11 of 13


BOE Pipeline
Geologic & Groundwater Resources
28
T140 R97
27
T140 R97
26
T140 R97
25
T140 R97
35th St SW
116th Ave SW
33
T140 R97
34
T140 R97
35
T140 R97
36
T140 R97
94
94
4
T139 R97
3
T139 R97
2
T139 R97
1
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 12 of 13

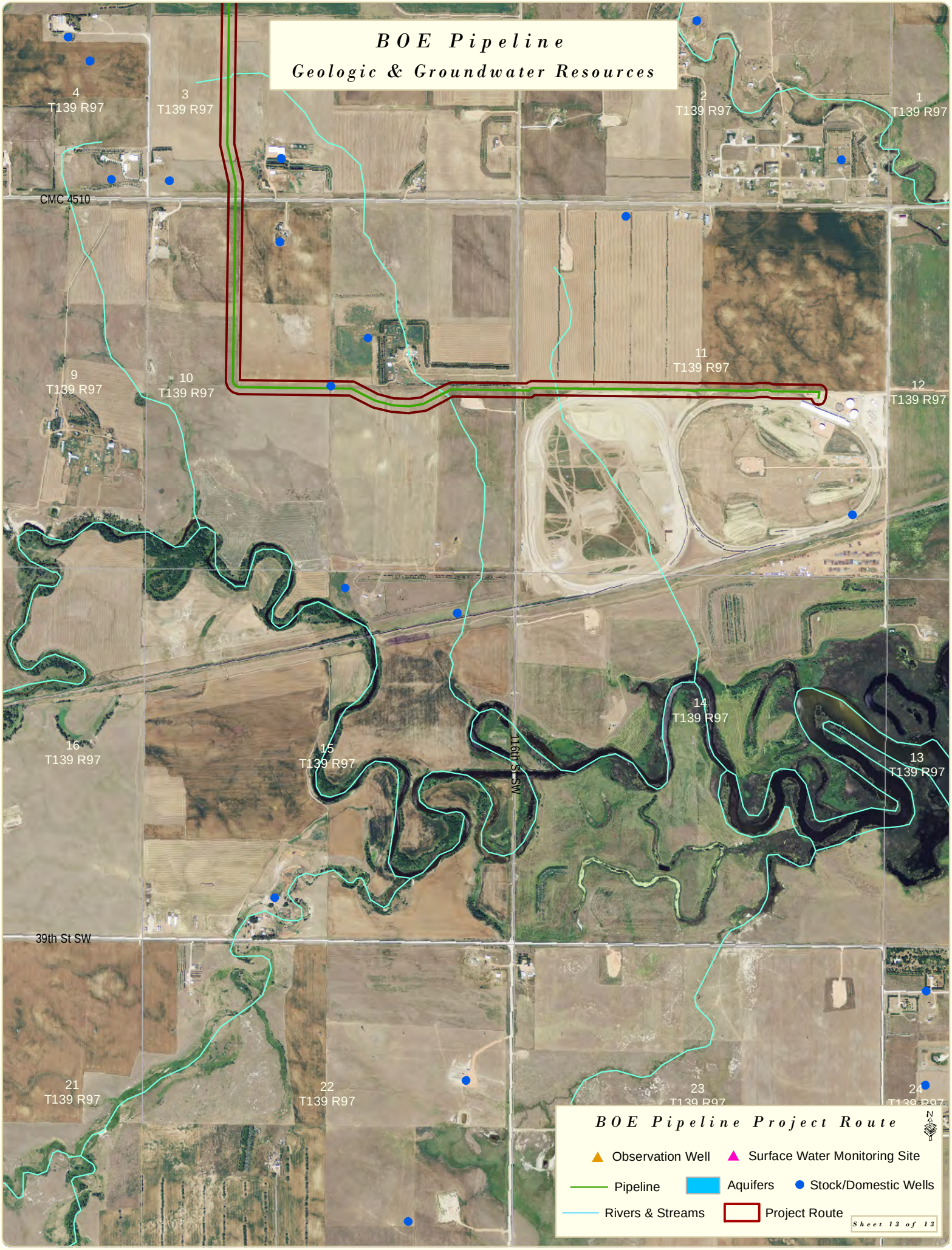
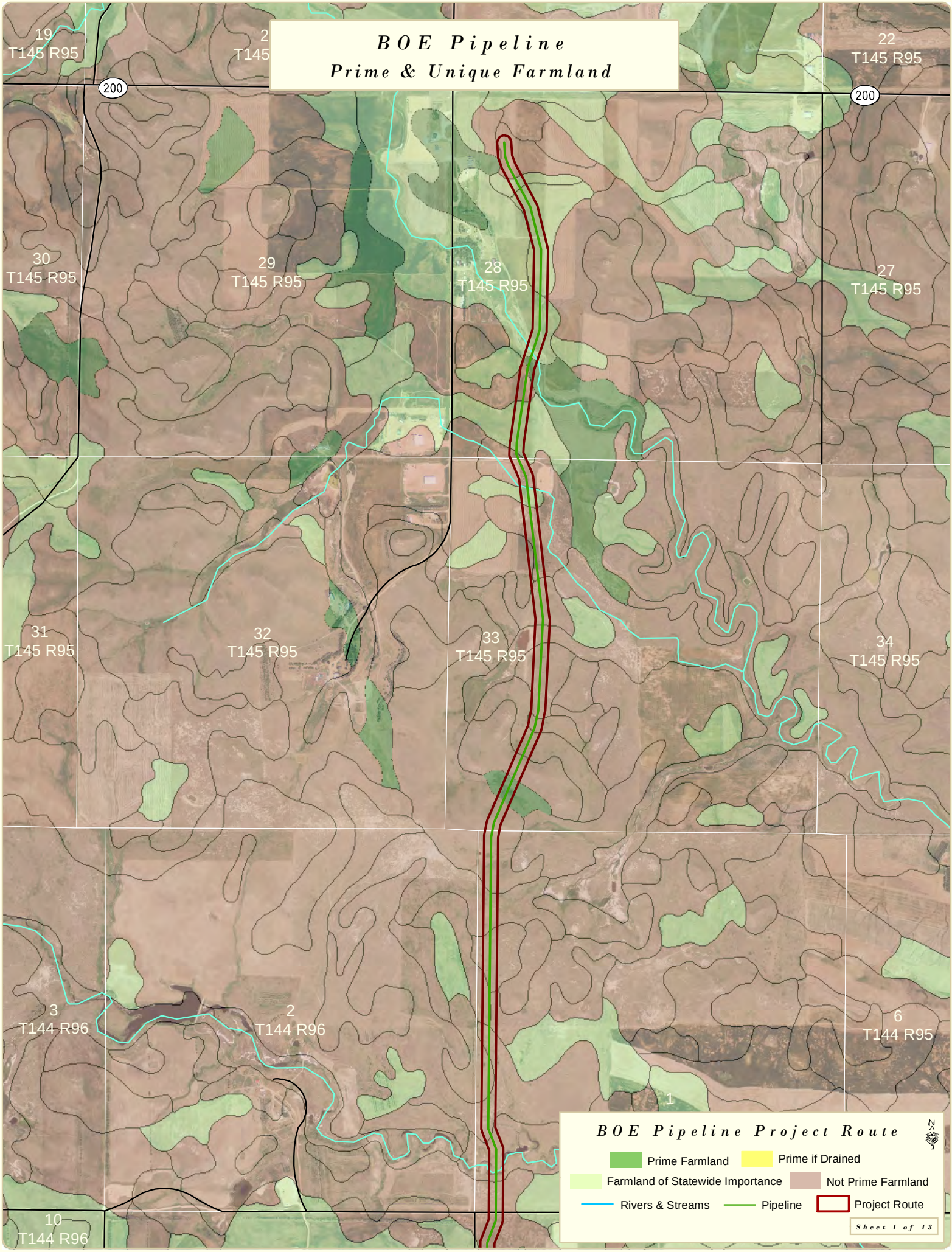
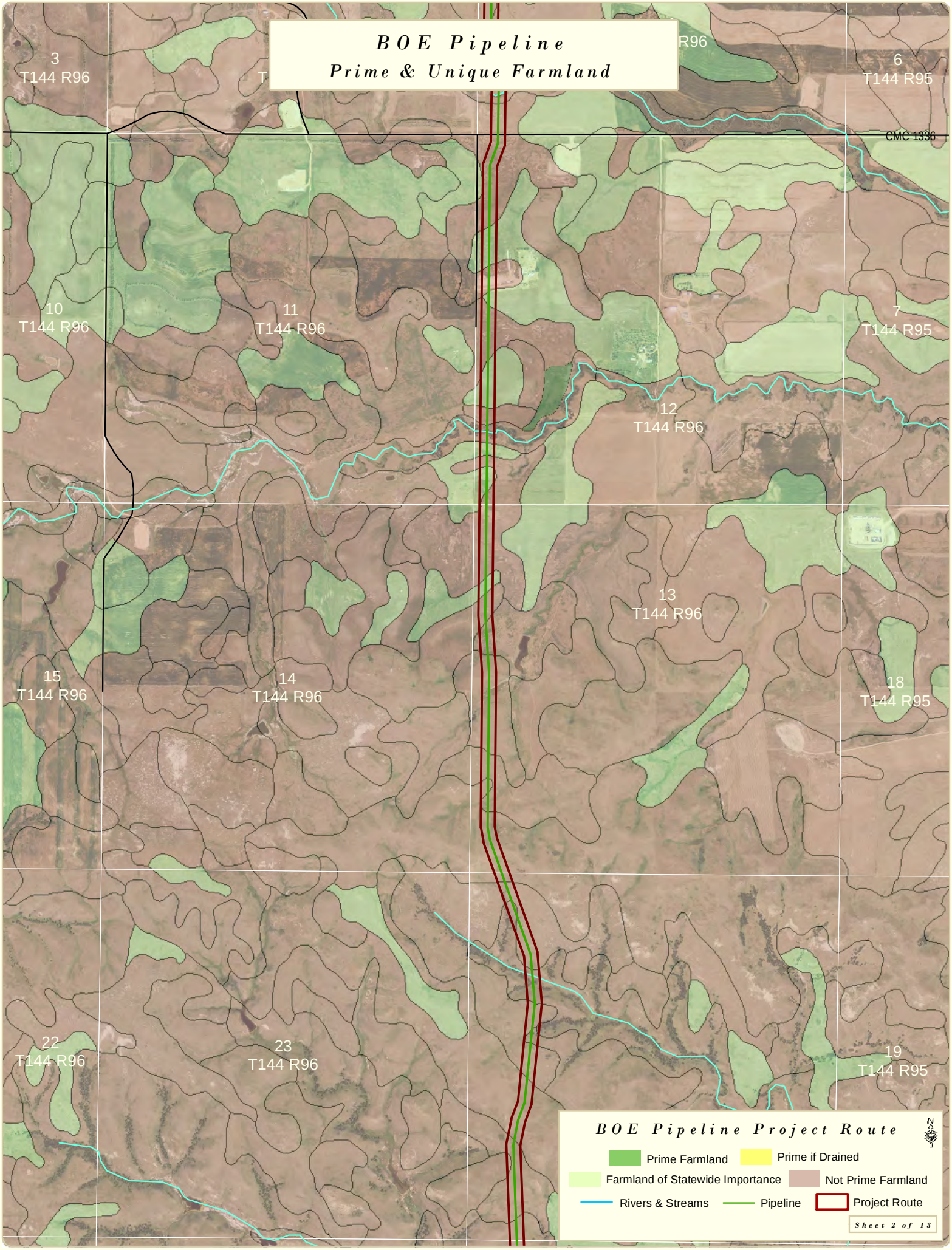

BOE Pipeline
Geologic & Groundwater Resources
4
T139 R97
3
T139 R97
2
T139 R97
1
T139 R97
CMC 4510
11
T139 R97
9
T139 R97
10
T139 R97
12
T139 R97
14
T139 R97
16
T139 R97
15
T139 R97
116th St SW
13
T139 R97
39th St SW
21
T139 R97
22
T139 R97
23
T139 R97
24
T139 R97
BOE Pipeline Project Route
Observation Well
Surface Water Monitoring Site
Pipeline
Aquifers
Stock/Domestic Wells
Rivers & Streams
Project Route
Sheet 13 of 13

Figure A-6. Prime and Unique Farmland Maps


BOE Pipeline
Prime & Unique Farmland
19
T145 R95
2
T145
22
T145 R95
200
200
30
T145 R95
29
T145 R95
28
T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
6
T144 R95
1
10
T144 R96
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 1 of 13


BOE Pipeline
Prime & Unique Farmland
3
T144 R96
R96
6
T144 R95
CMC 1336
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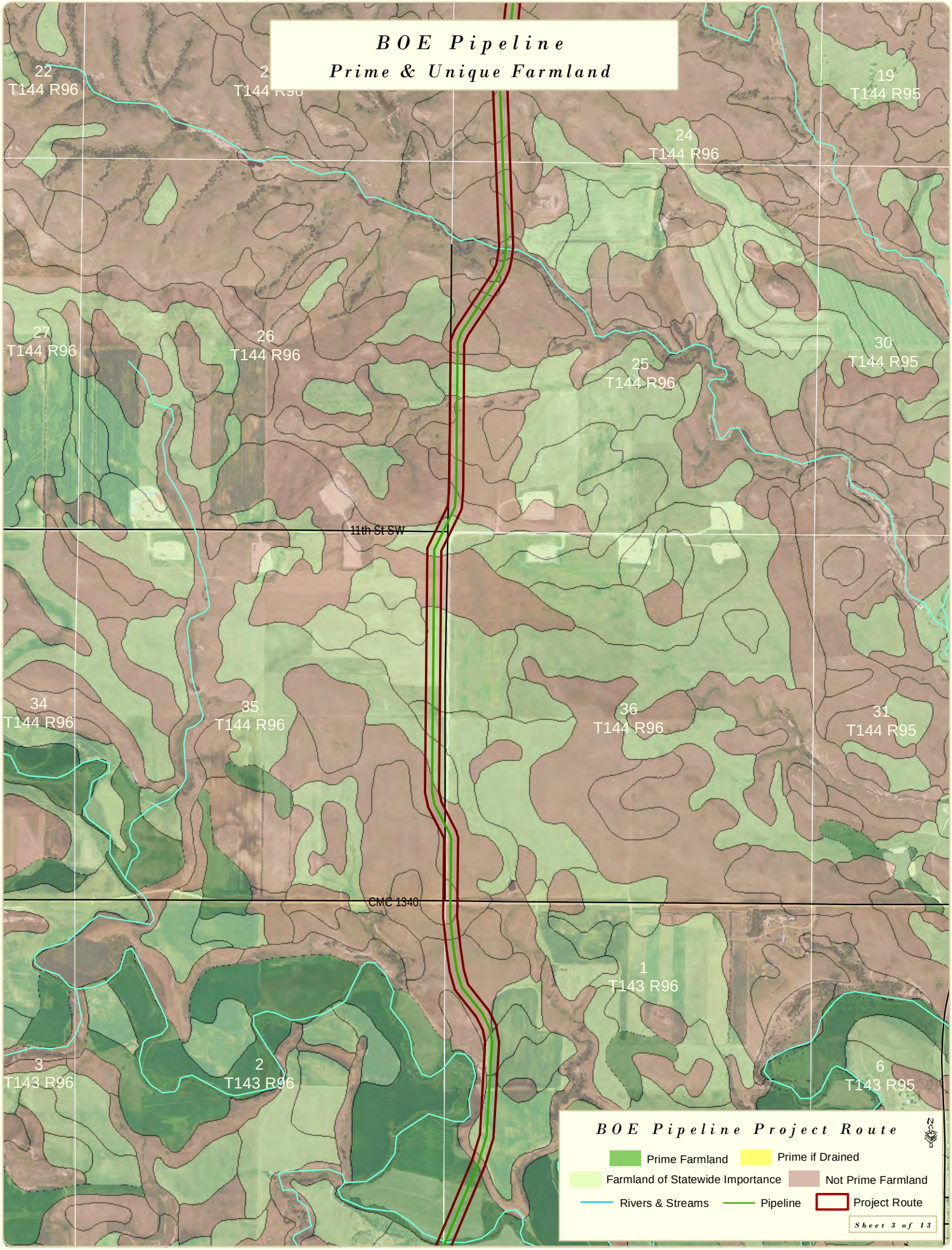
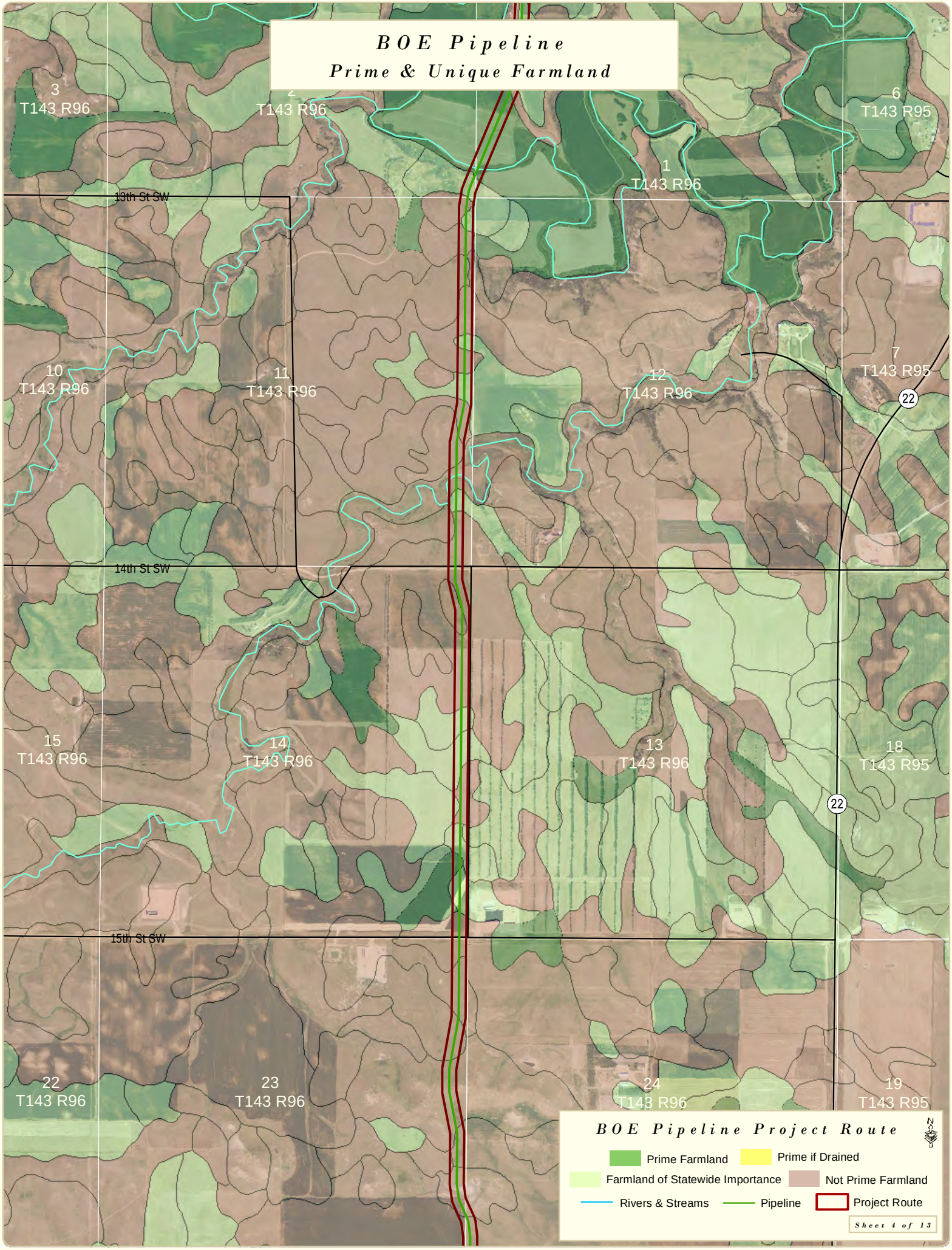
T144 R96
11
T144 R96
7
T144 R95
12
T144 R96
13
T144 R96
15
T144 R96
14
T144 R96
18
T144 R95
22
T144 R96
23
T144 R96
19
T144 R95
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 2 of 13


BOE Pipeline
Prime & Unique Farmland
22
T144 R96
19
T144 R95
24
T144 R96
27
T144 R96
26
T144 R96
30
T144 R95
25
T144 R96
11th St SW
34
T144 R96
35
T144 R96
36
T144 R96
31
T144 R95
CMC 1340
1
T143 R96
3
T143 R96
2
T143 R96
6
T143 R95
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 3 of 13


BOE Pipeline
Prime & Unique Farmland
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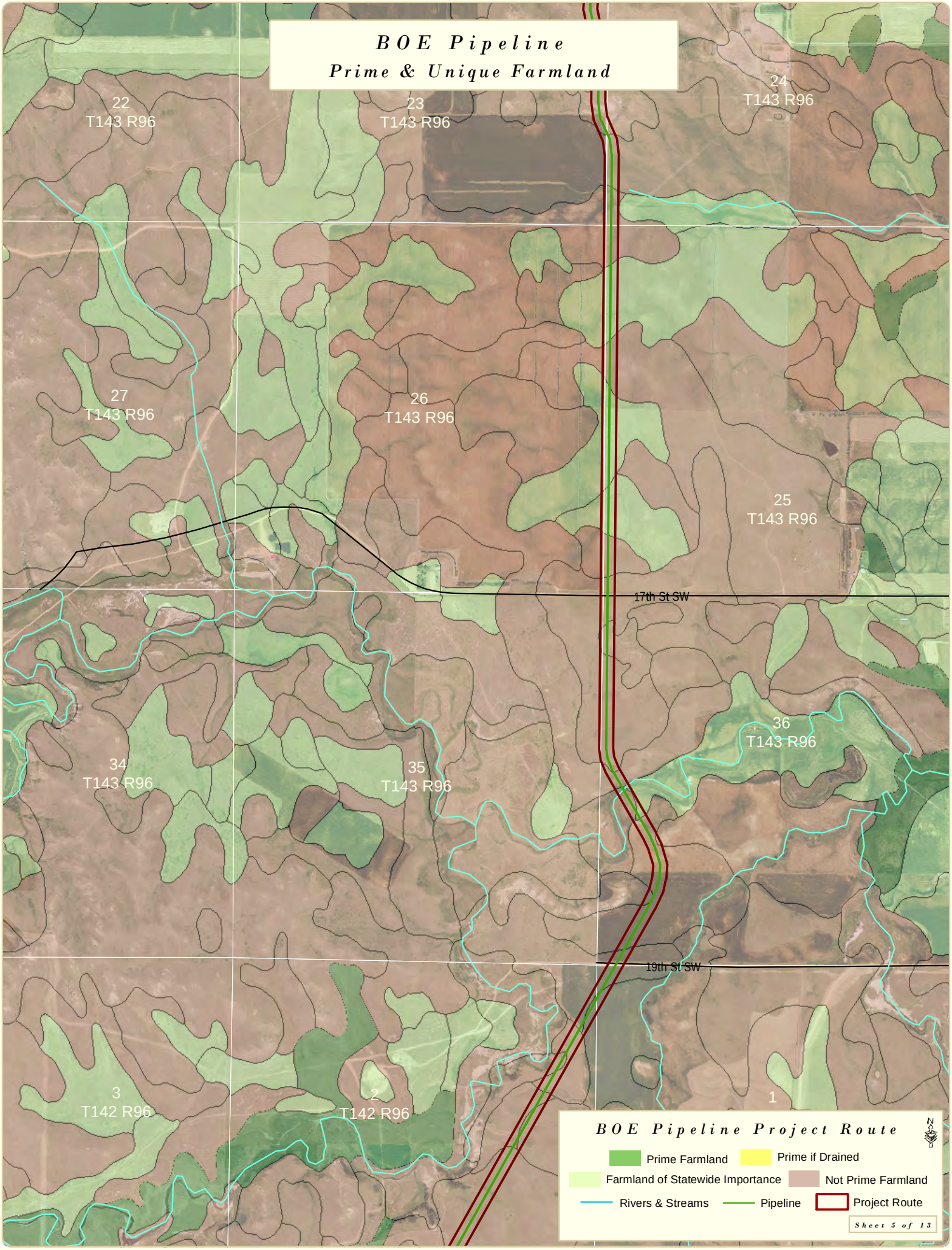
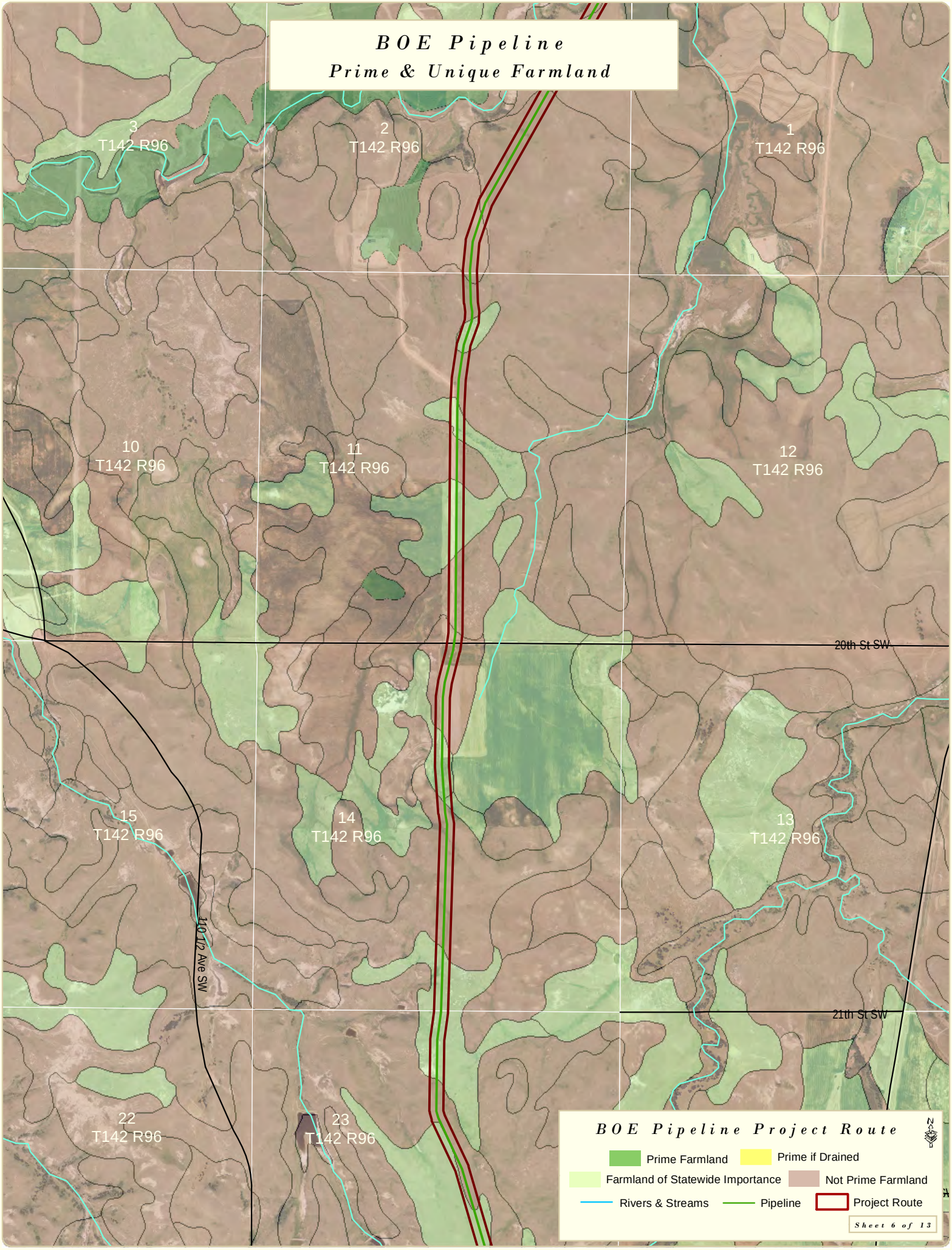
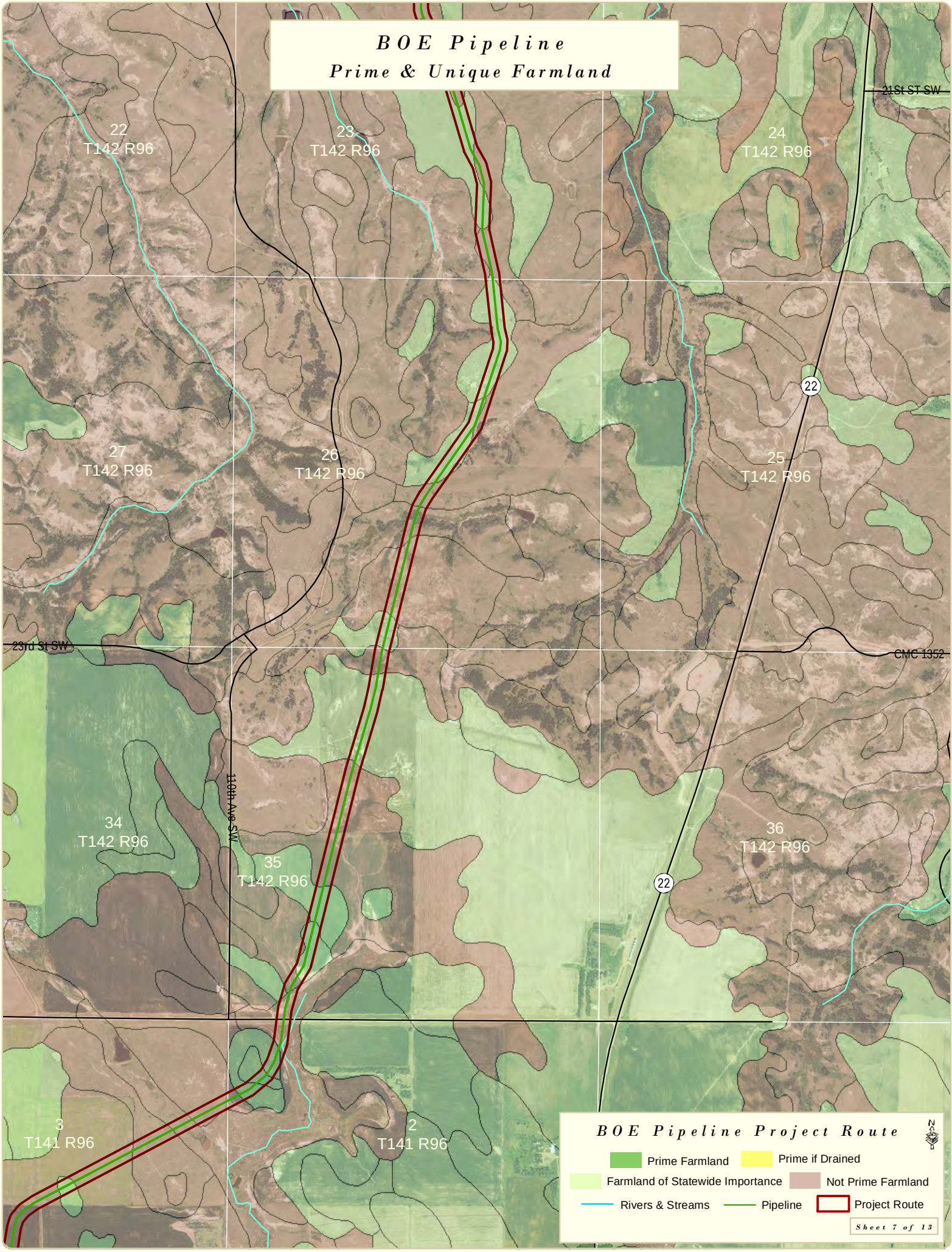
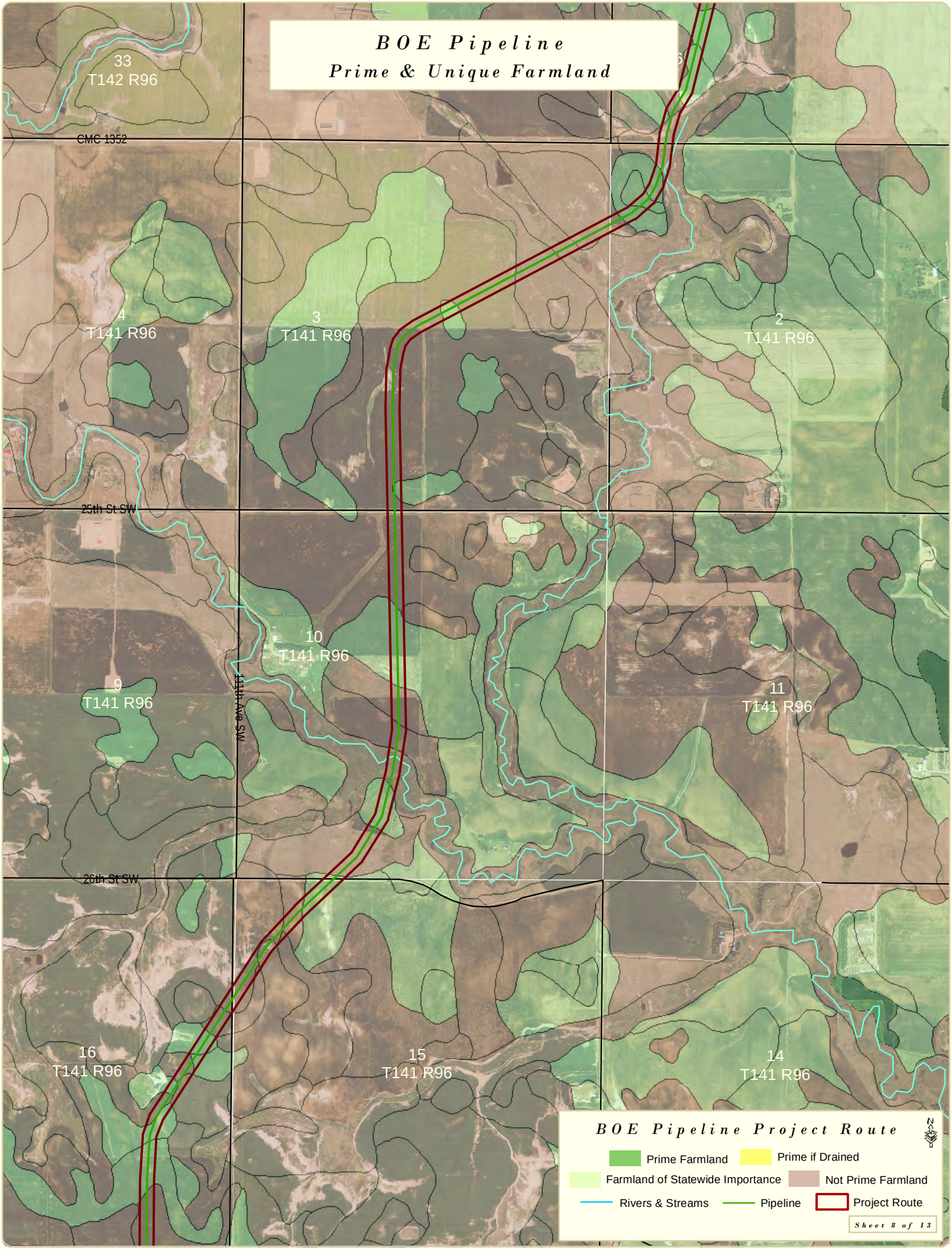
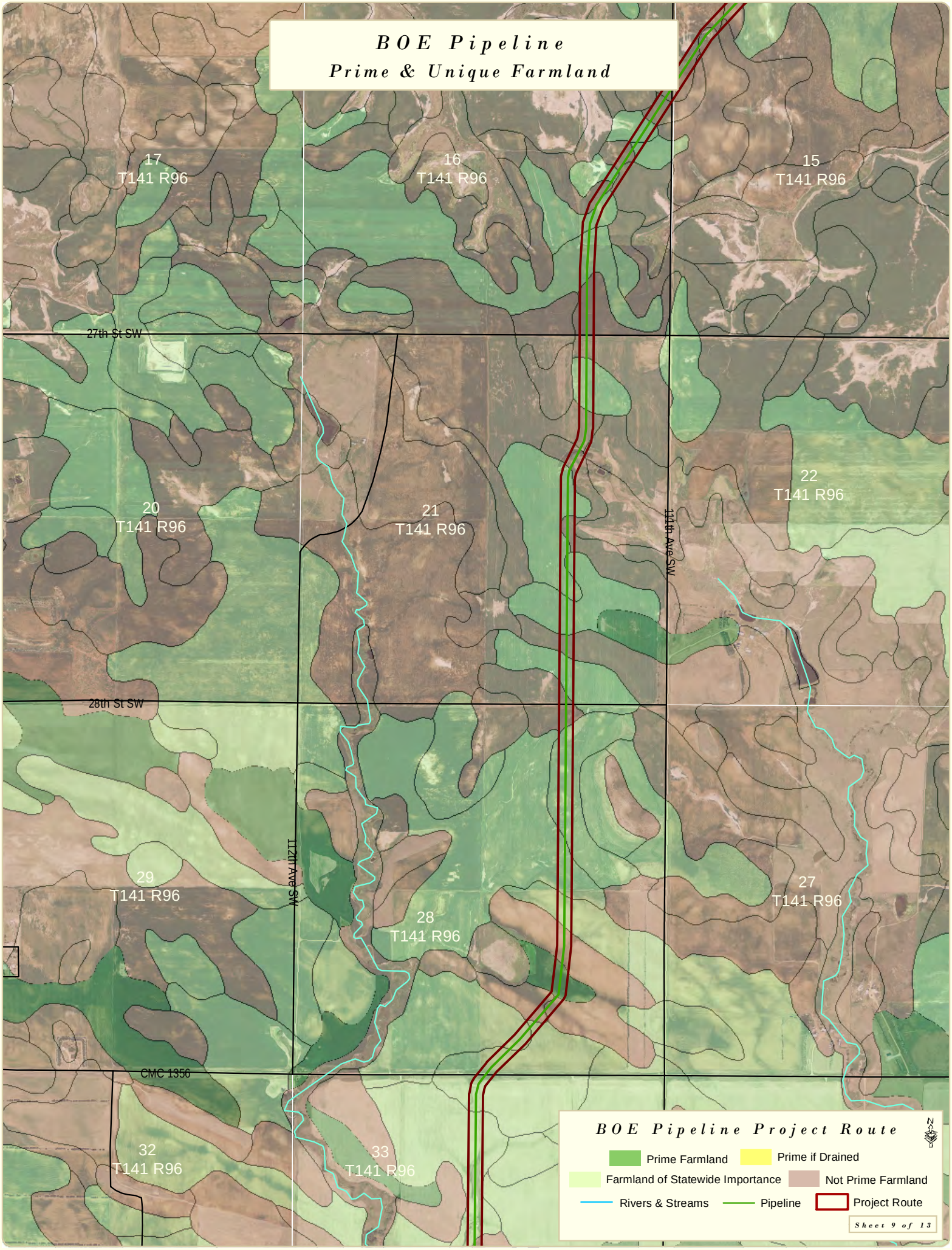
T143 R96
2
T143 R96
6
T143 R95
1
T143 R96
13th St SW
10
T143 R96
11
T143 R96
12
T143 R96
7
T143 R95
22
14th St SW
15
T143 R96
14
T143 R96
13
T143 R96
18
T143 R95
22
15th St SW
22
T143 R96
23
T143 R96
24
T143 R96
19
T143 R95
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 4 of 13

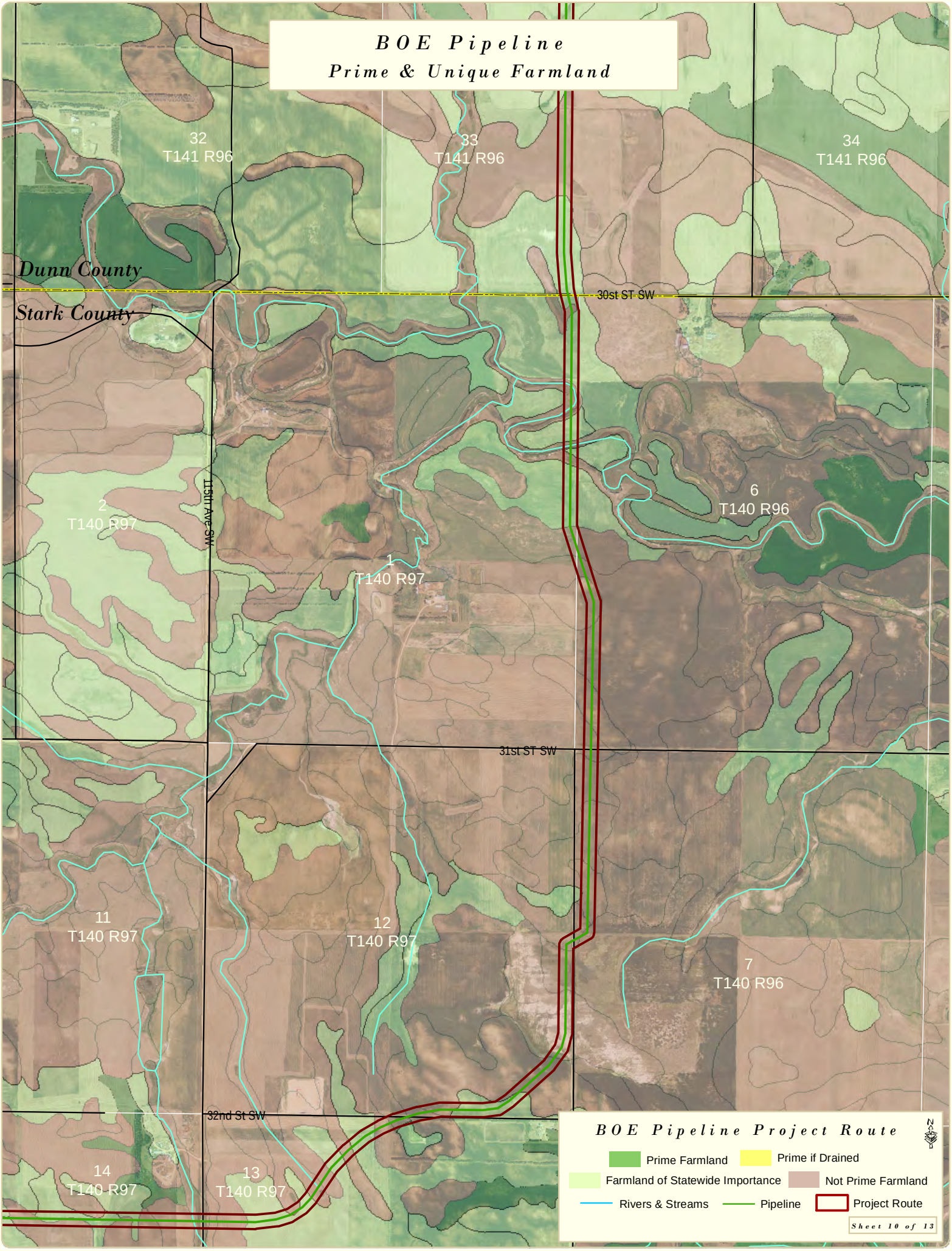

BOE Pipeline
Prime & Unique Farmland
22
T143 R96
23
T143 R96
24
T143 R96
27
T143 R96
26
T143 R96
25
T143 R96
17th St SW
36
T143 R96
34
T143 R96
35
T143 R96
19th St SW
3
T142 R96
2
T142 R96
1
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 5 of 13

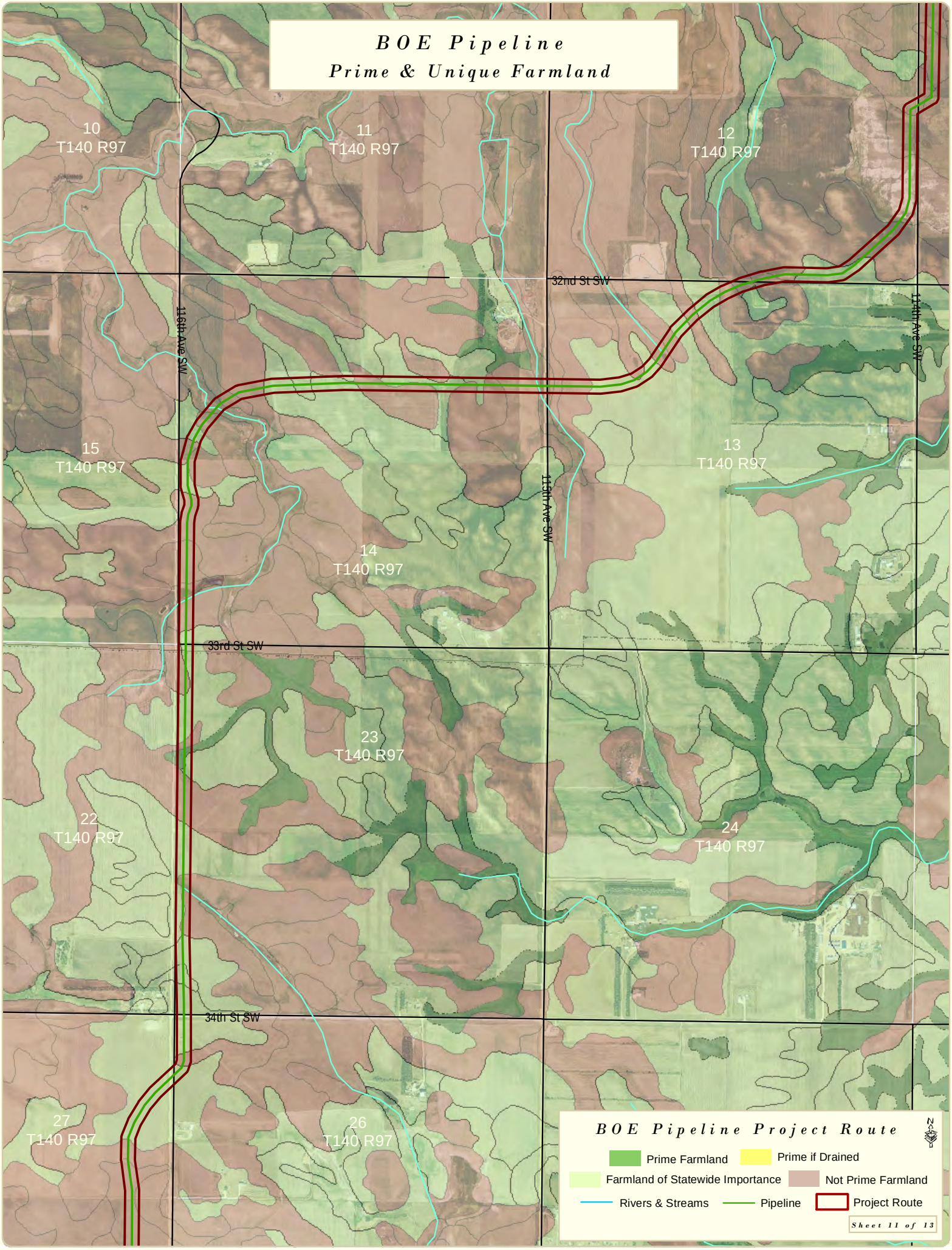

BOE Pipeline
Prime & Unique Farmland
3
T142 R96
2
T142 R96
1
T142 R96
10
T142 R96
11
T142 R96
12
T142 R96
20th St SW
15
T142 R96
14
T142 R96
13
T142 R96
110 1/2 Ave SW
21th St SW
22
T142 R96
23
T142 R96
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 6 of 13

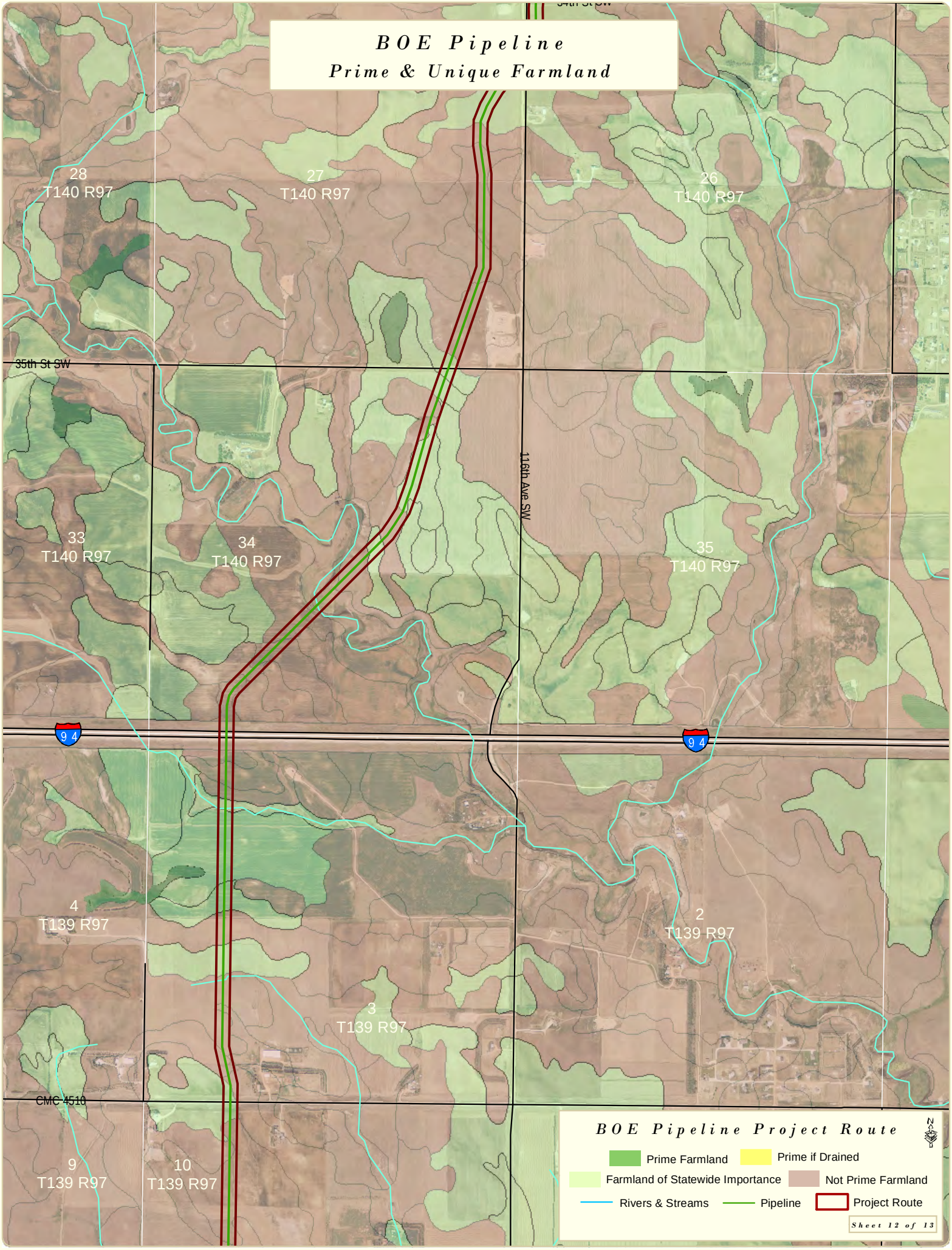

BOE Pipeline
Prime & Unique Farmland
22
T142 R96
23
T142 R96
24
T142 R96
21St ST SW
27
T142 R96
26
T142 R96
25
T142 R96
22
23rd St SW
CMC 1352
34
T142 R96
110th Ave SW
35
T142 R96
36
T142 R96
22
3
T141 R96
2
T141 R96
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 7 of 13


BOE Pipeline
Prime & Unique Farmland
33
T142 R96
CMC 1352
4
T141 R96
3
T141 R96
2
T141 R96
25th St SW
10
T141 R96
9
T141 R96
11
T141 R96
111th Ave SW
26th St SW
16
T141 R96
15
T141 R96
14
T141 R96
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 8 of 13


BOE Pipeline
Prime & Unique Farmland
17
T141 R96
16
T141 R96
15
T141 R96
27th St SW
20
T141 R96
21
T141 R96
22
T141 R96
111th Ave SW
28th St SW
29
T141 R96
112th Ave SW
28
T141 R96
27
T141 R96
CMC 1356
32
T141 R96
33
T141 R96
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 9 of 13


BOE Pipeline
Prime & Unique Farmland
32
T141 R96
33
T141 R96
34
T141 R96
Dunn County
Stark County
30st ST SW
115th Ave SW
2
T140 R97
1
T140 R97
6
T140 R96
31st ST SW
11
T140 R97
12
T140 R97
7
T140 R96
32nd St SW
14
T140 R97
13
T140 R97
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 10 of 13


BOE Pipeline
Prime & Unique Farmland
10
T140 R97
11
T140 R97
12
T140 R97
32nd St SW
116th Ave SW
114th Ave SW
15
T140 R97
13
T140 R97
115th Ave SW
14
T140 R97
33rd St SW
23
T140 R97
22
T140 R97
24
T140 R97
34th St SW
27
T140 R97
26
T140 R97
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 11 of 13


BOE Pipeline
Prime & Unique Farmland
28
T140 R97
27
T140 R97
26
T140 R97
35th St SW
116th Ave SW
33
T140 R97
34
T140 R97
35
T140 R97
94
94
4
T139 R97
2
T139 R97
3
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 12 of 13

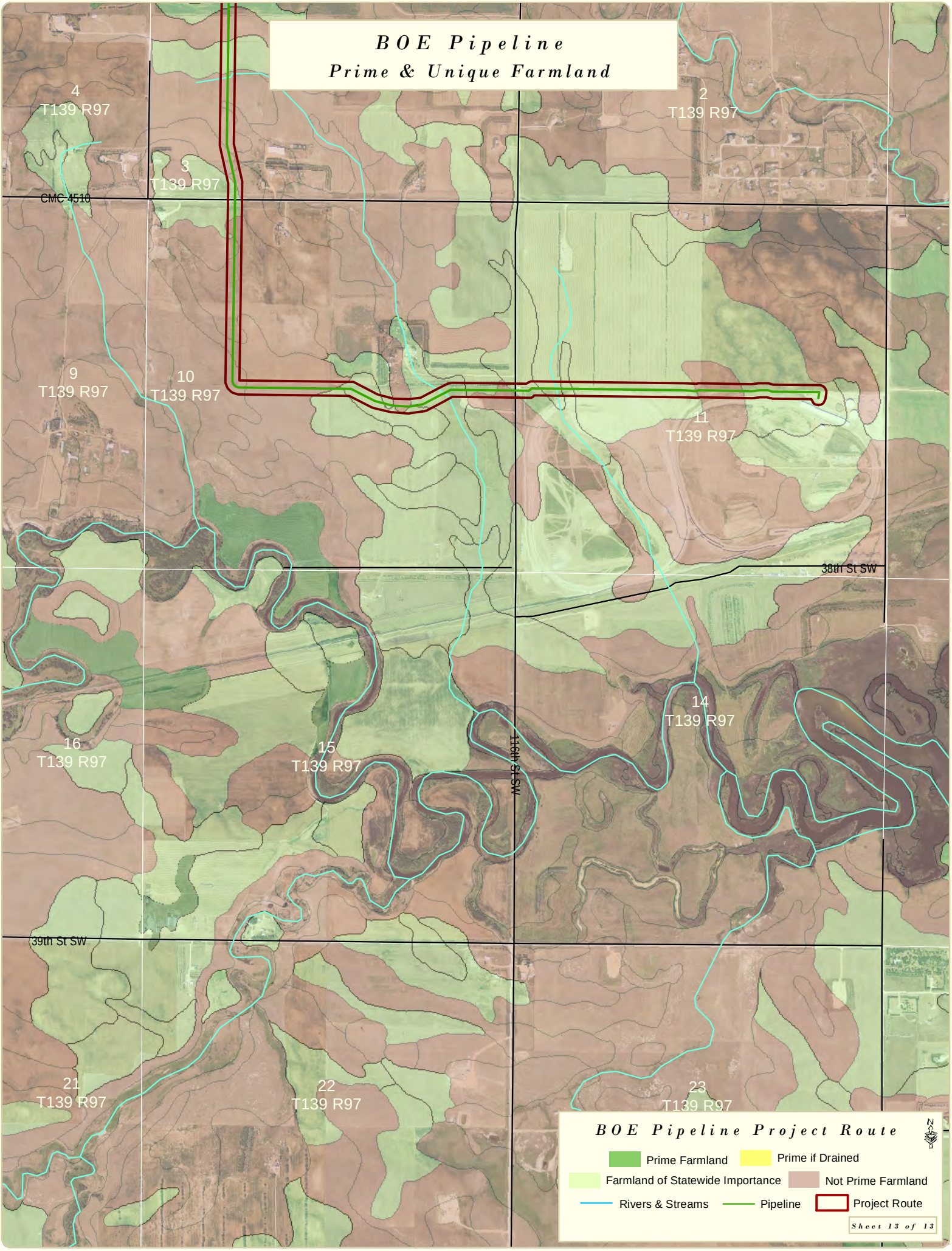
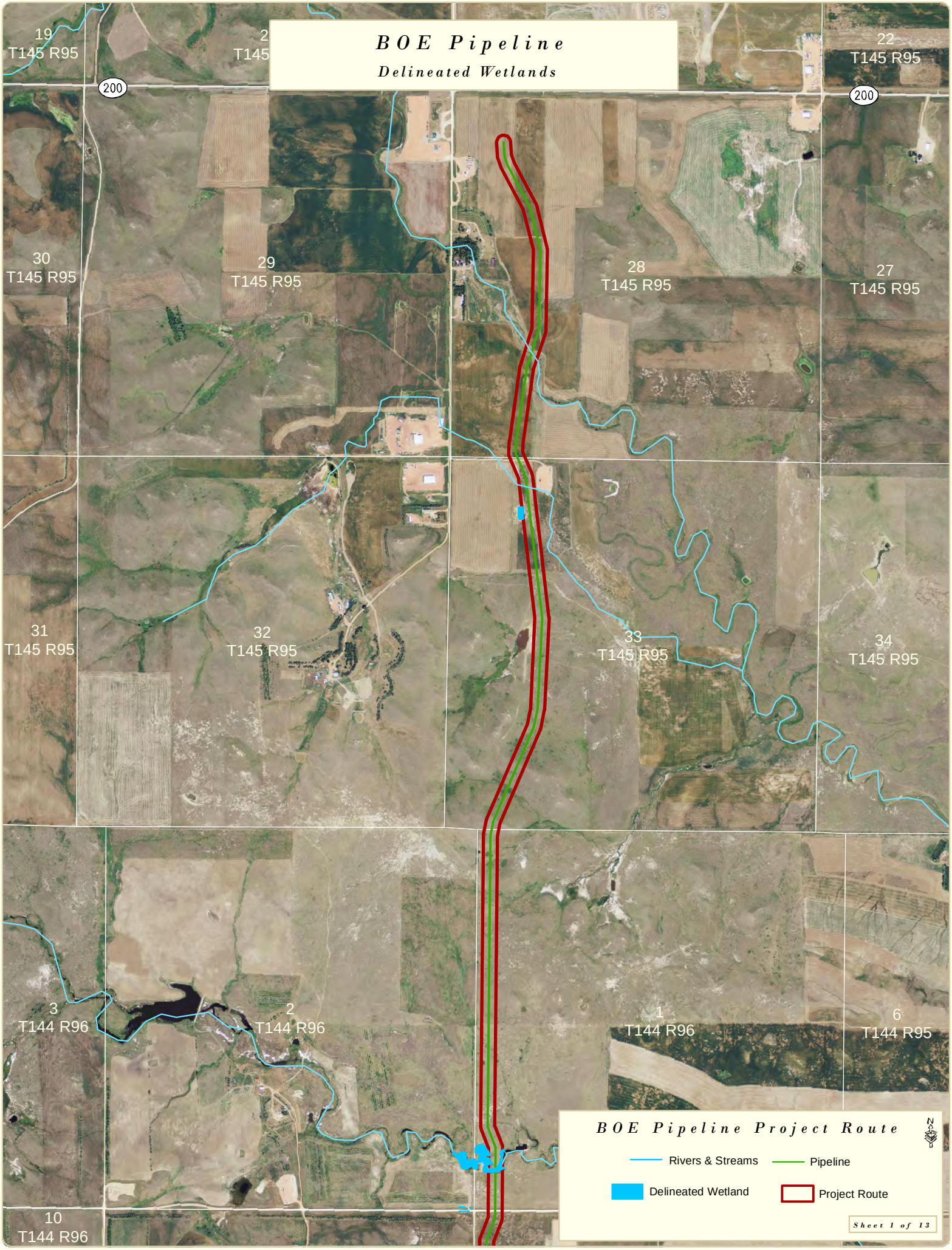
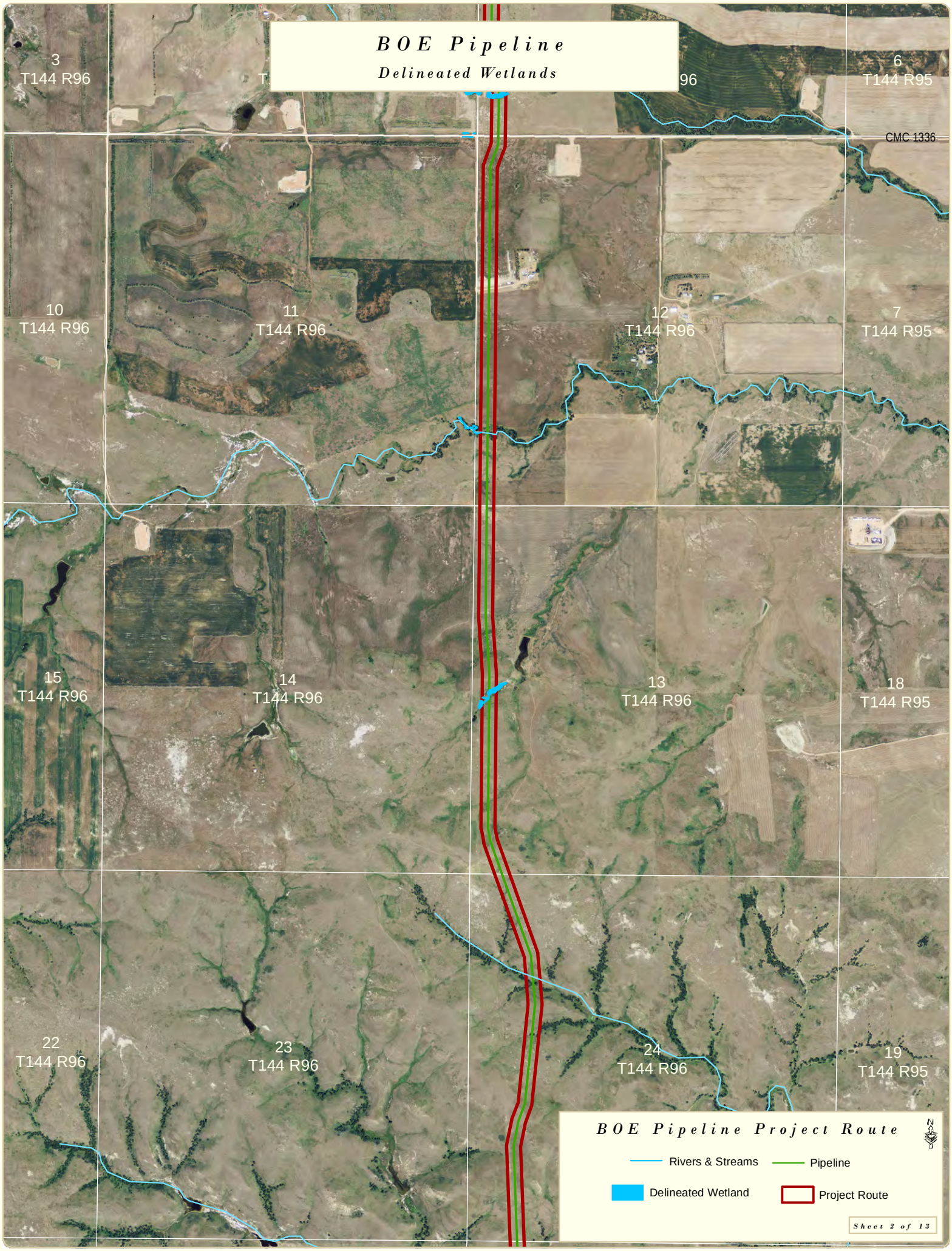
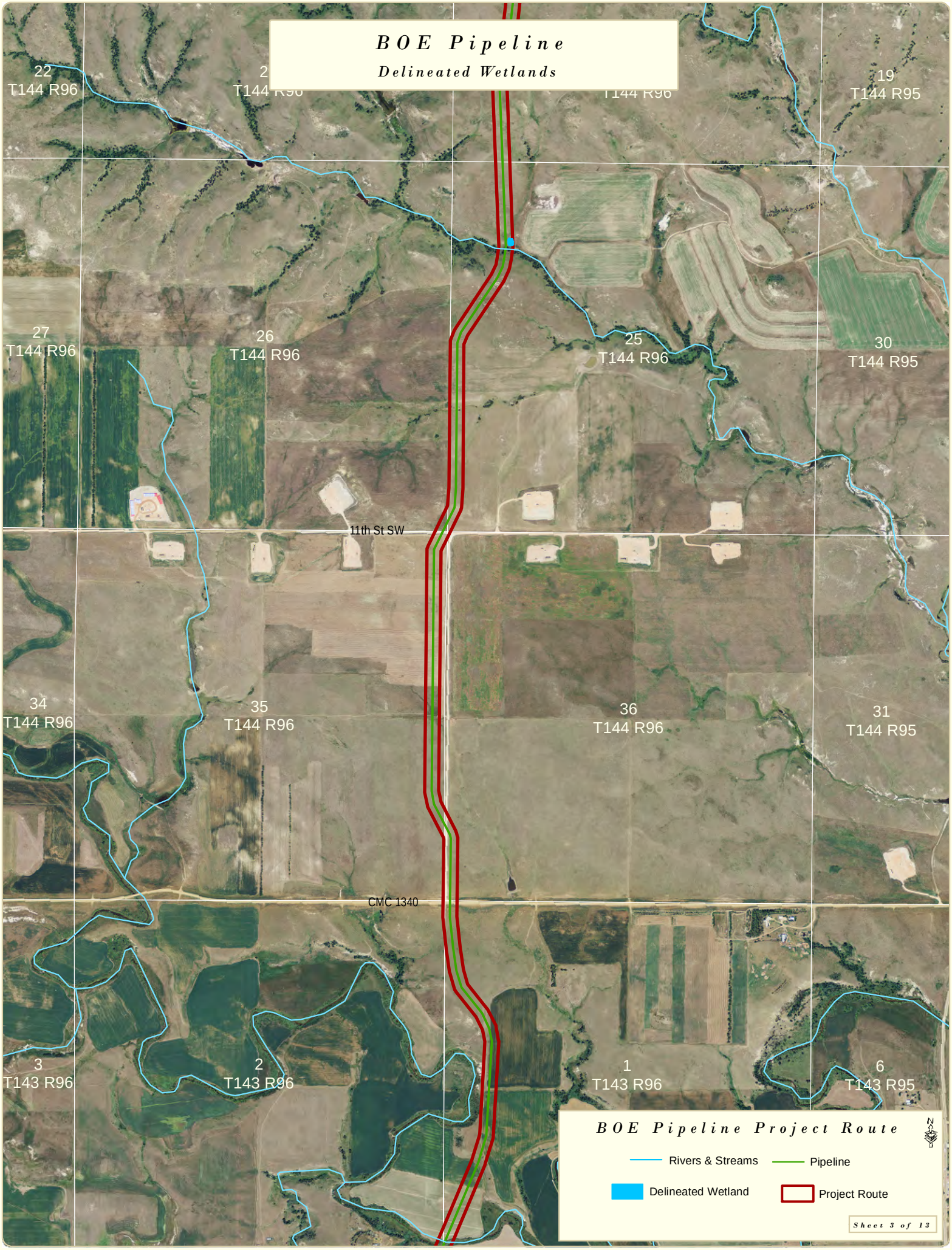
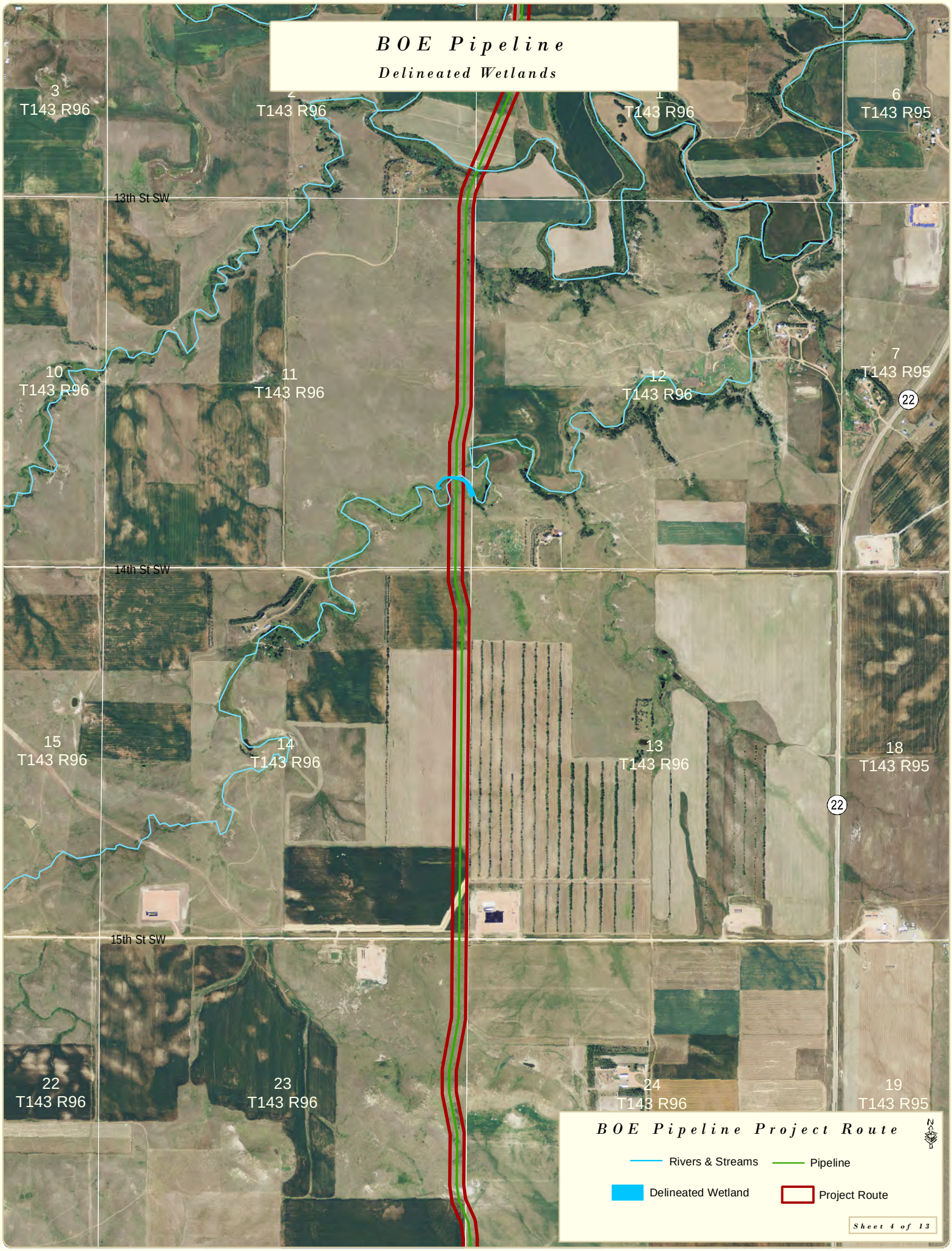

BOE Pipeline
Prime & Unique Farmland
4
T139 R97
3
T139 R97
2
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
11
T139 R97
38th St SW
14
T139 R97
16
T139 R97
15
T139 R97
116th St SW
39th St SW
21
T139 R97
22
T139 R97
23
T139 R97
BOE Pipeline Project Route
Prime Farmland
Prime if Drained
Farmland of Statewide Importance
Not Prime Farmland
Rivers & Streams
Pipeline
Project Route
Sheet 13 of 13

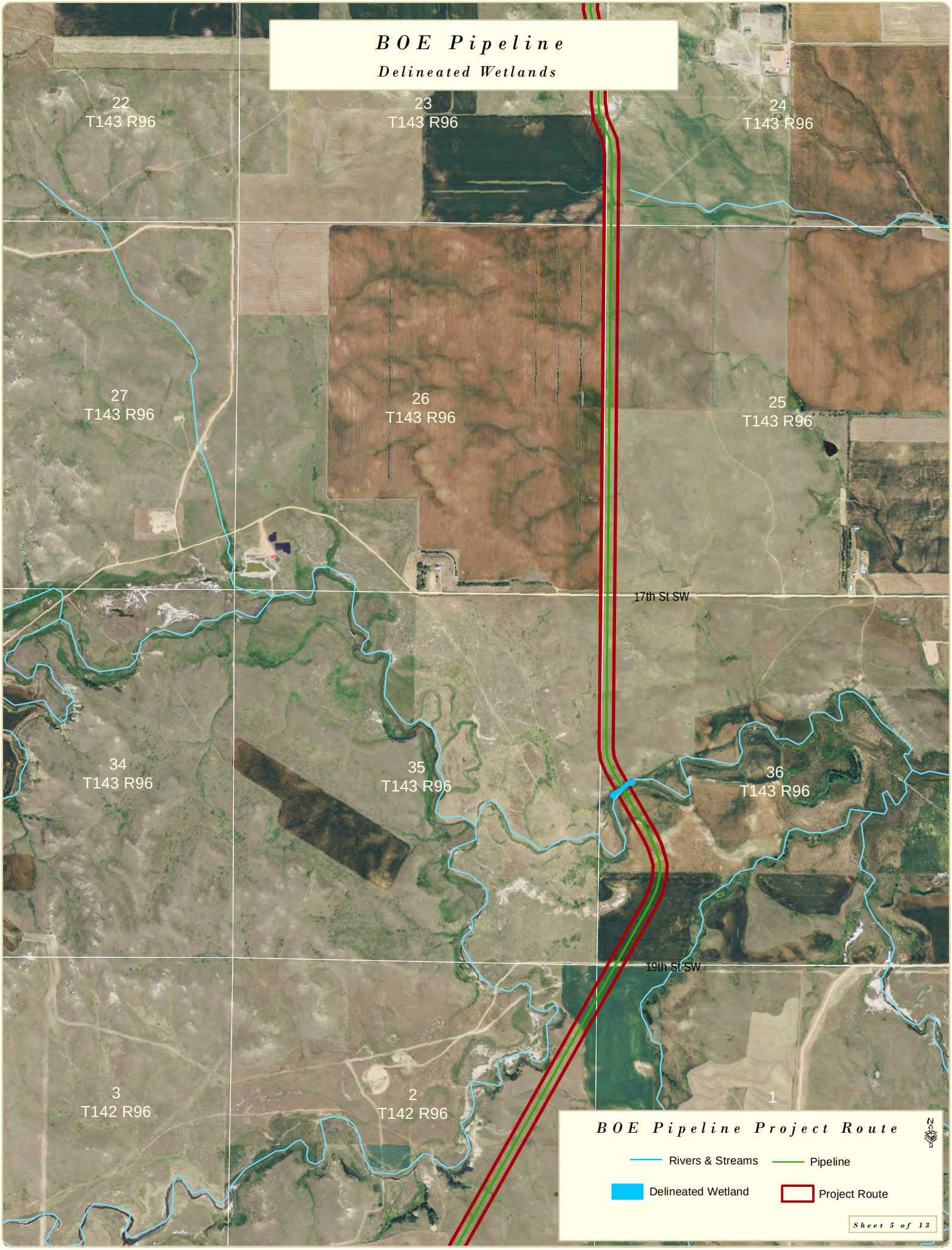
Figure A-7. Wetlands Maps

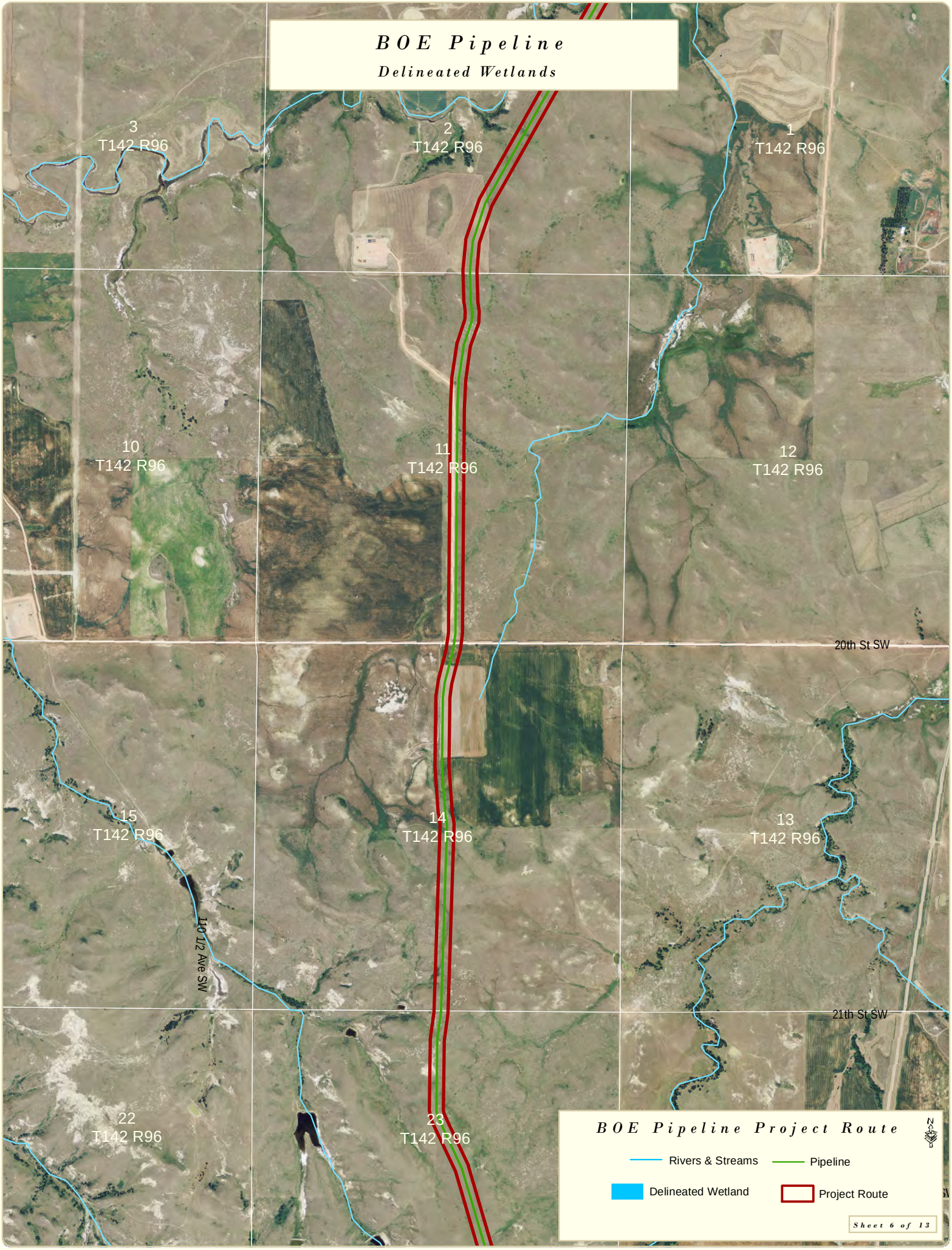

BOE Pipeline
Delineated Wetlands
19
T145 R95
2
T145
22
T145 R95
200
200
30
T145 R95
29
T145 R95
28
T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
1
T144 R96
6
T144 R95
10
T144 R96
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 1 of 13

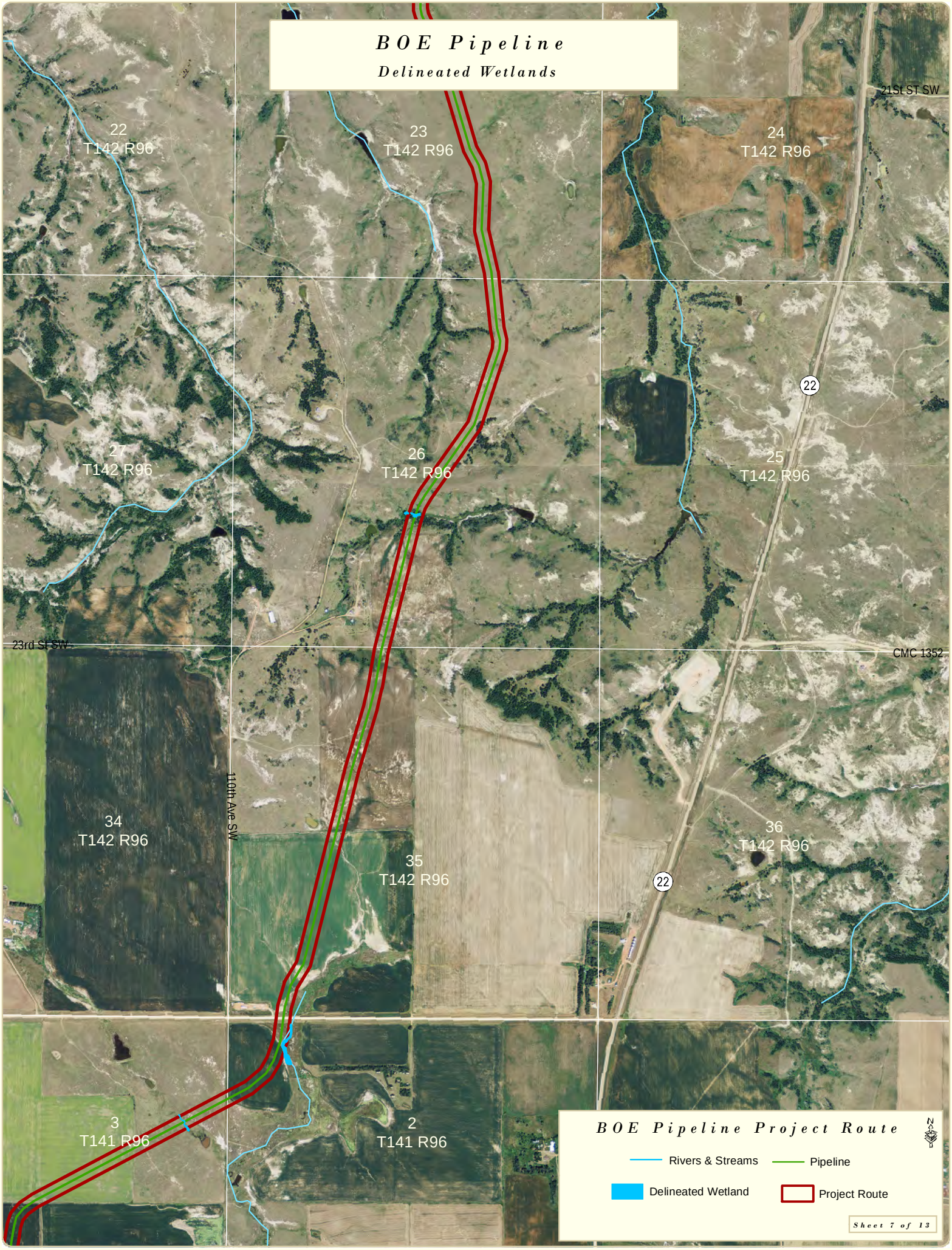

BOE Pipeline
Delineated Wetlands
3
T144 R96
6
T144 R95
CMC 1336
10
T144 R96
11
T144 R96
12
T144 R96
7
T144 R95
15
T144 R96
14
T144 R96
13
T144 R96
18
T144 R95
22
T144 R96
23
T144 R96
24
T144 R96
19
T144 R95
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 2 of 13

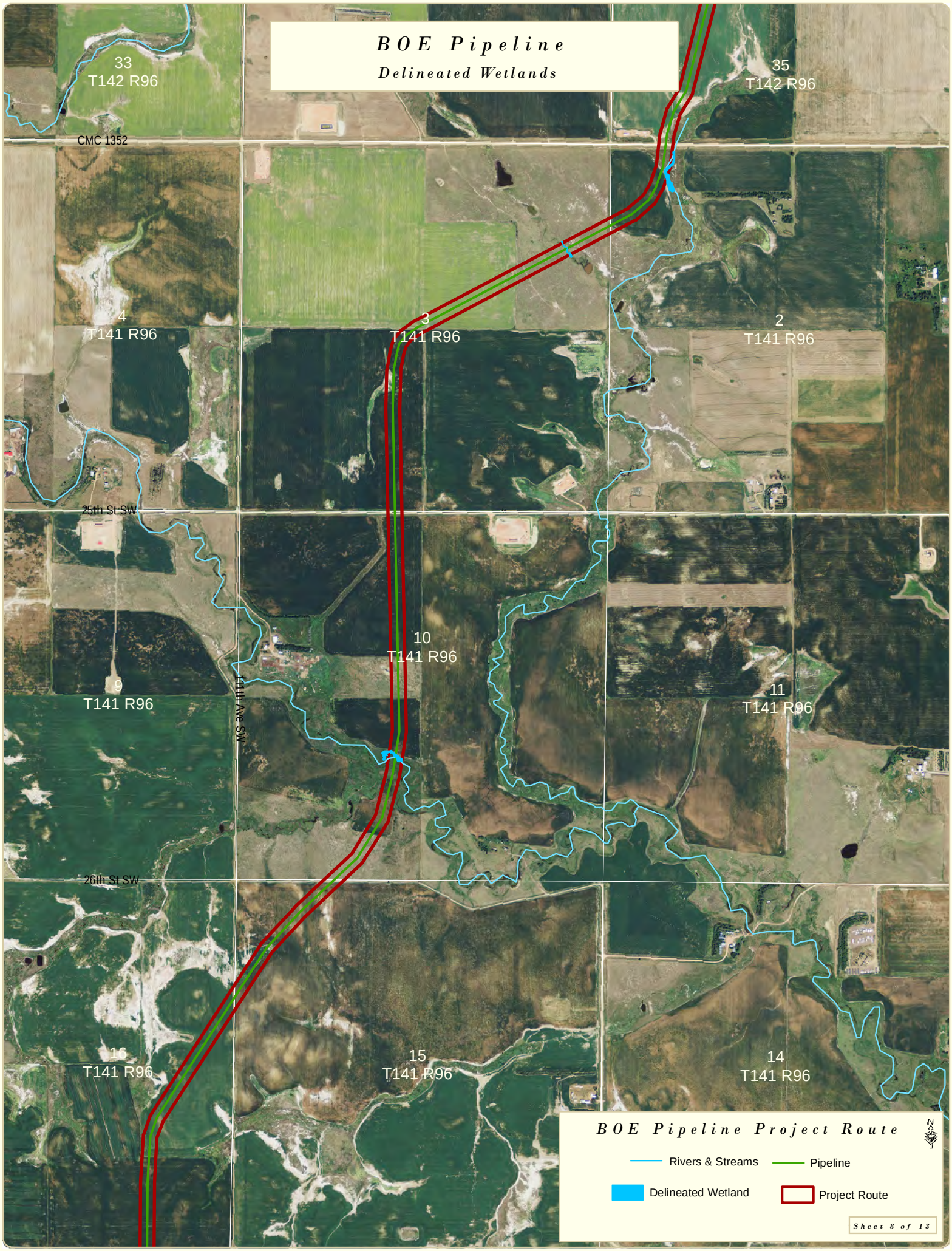

BOE Pipeline
Delineated Wetlands
22
T144 R96
19
T144 R95
27
T144 R96
26
T144 R96
25
T144 R96
30
T144 R95
11th St SW
34
T144 R96
35
T144 R96
36
T144 R96
31
T144 R95
CMC 1340
3
T143 R96
2
T143 R96
1
T143 R96
6
T143 R95
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 3 of 13

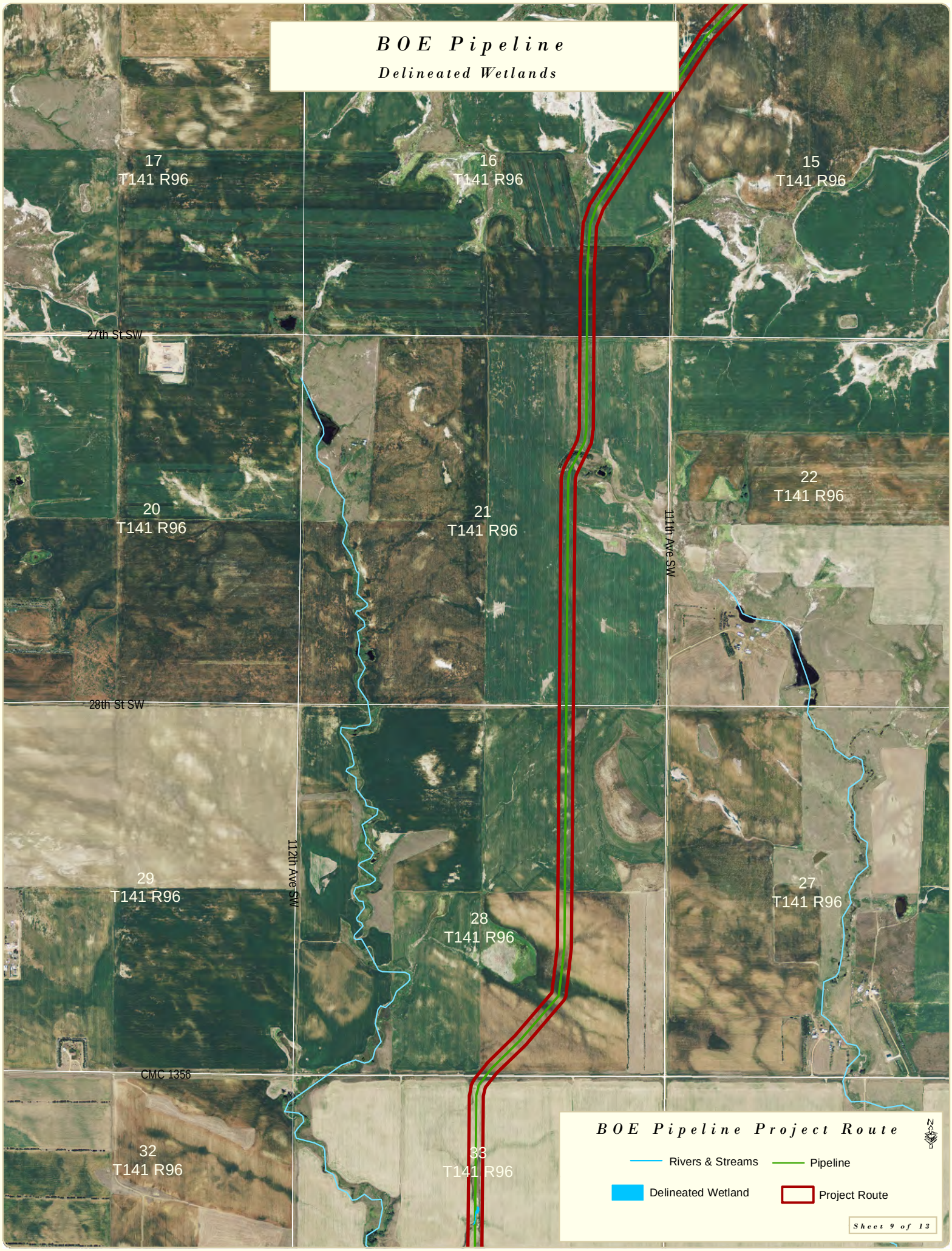

BOE Pipeline
Delineated Wetlands
3
T143 R96
2
T143 R96
1
T143 R96
6
T143 R95
13th St SW
10
T143 R96
11
T143 R96
12
T143 R96
7
T143 R95
22
14th St SW
15
T143 R96
14
T143 R96
13
T143 R96
18
T143 R95
22
15th St SW
22
T143 R96
23
T143 R96
24
T143 R96
19
T143 R95
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 4 of 13

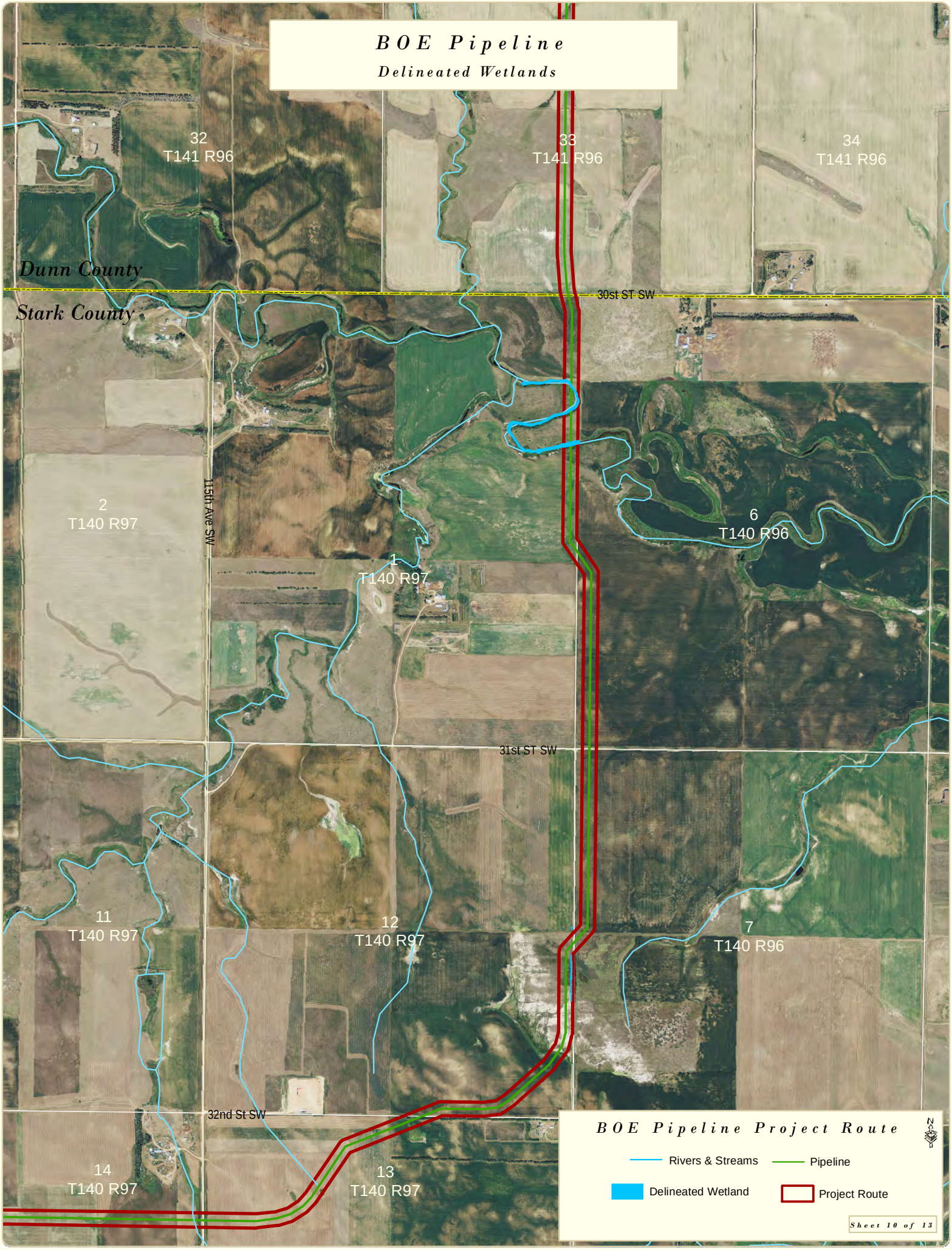

BOE Pipeline
Delineated Wetlands
22
T143 R96
23
T143 R96
24
T143 R96
27
T143 R96
26
T143 R96
25
T143 R96
17th St SW
34
T143 R96
35
T143 R96
36
T143 R96
19th St SW
3
T142 R96
2
T142 R96
1
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 5 of 13

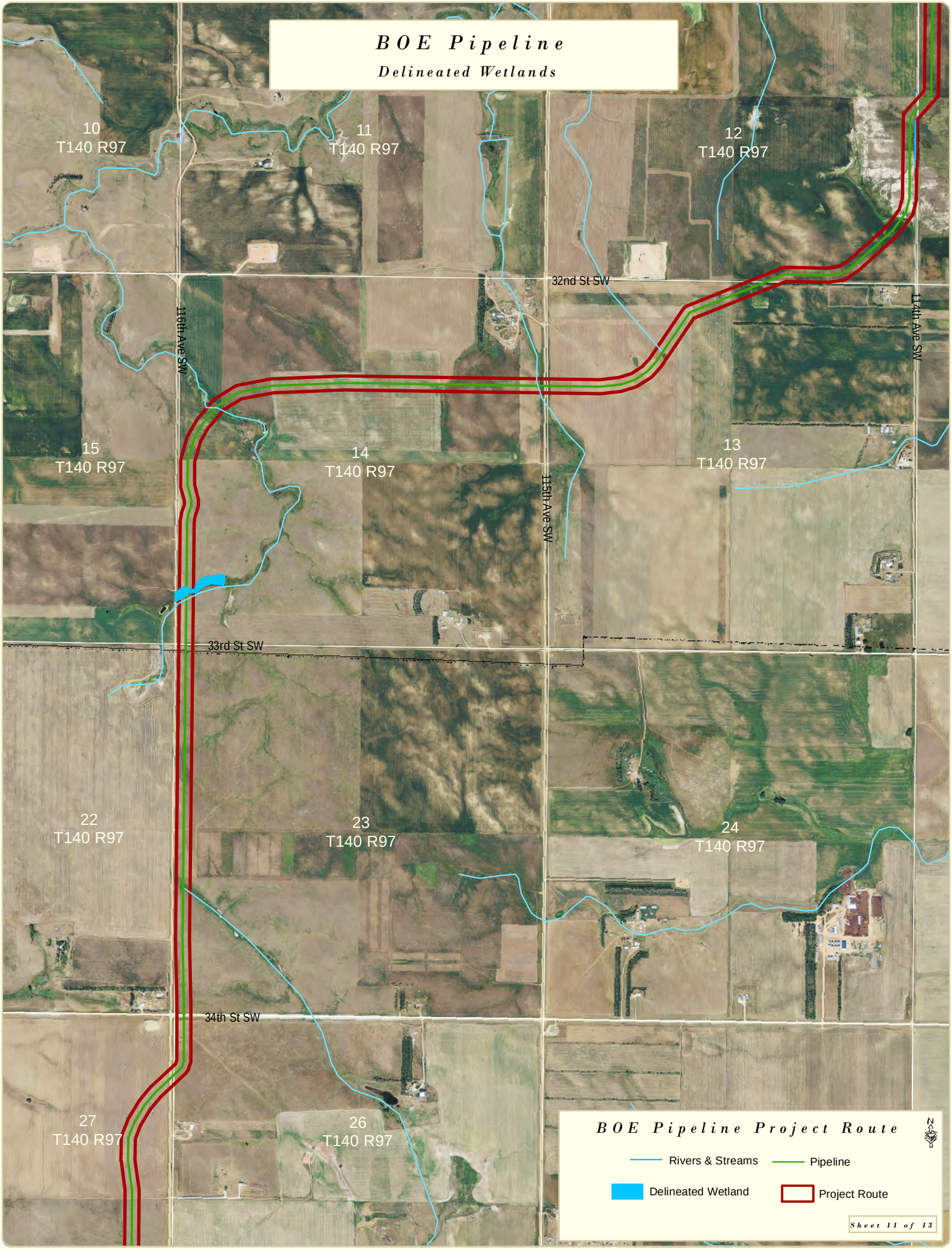

BOE Pipeline
Delineated Wetlands
3
T142 R96
2
T142 R96
1
T142 R96
10
T142 R96
11
T142 R96
12
T142 R96
20th St SW
15
T142 R96
14
T142 R96
13
T142 R96
110 1/2 Ave SW
21th St SW
22
T142 R96
23
T142 R96
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 6 of 13


BOE Pipeline
Delineated Wetlands
22
T142 R96
23
T142 R96
24
T142 R96
21St ST SW
27
T142 R96
26
T142 R96
25
T142 R96
22
23rd ST SW
CMC 1352
110th Ave SW
34
T142 R96
35
T142 R96
36
T142 R96
22
3
T141 R96
2
T141 R96
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 7 of 13


BOE Pipeline
Delineated Wetlands
33
T142 R96
35
T142 R96
CMC 1352
4
T141 R96
3
T141 R96
2
T141 R96
25th St SW
10
T141 R96
9
T141 R96
11
T141 R96
111th Ave SW
26th St SW
16
T141 R96
15
T141 R96
14
T141 R96
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 8 of 13


BOE Pipeline
Delineated Wetlands
17
T141 R96
16
T141 R96
15
T141 R96
27th St SW
20
T141 R96
21
T141 R96
22
T141 R96
111th Ave SW
28th St SW
29
T141 R96
112th Ave SW
28
T141 R96
27
T141 R96
CMC 1356
32
T141 R96
33
T141 R96
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 9 of 13

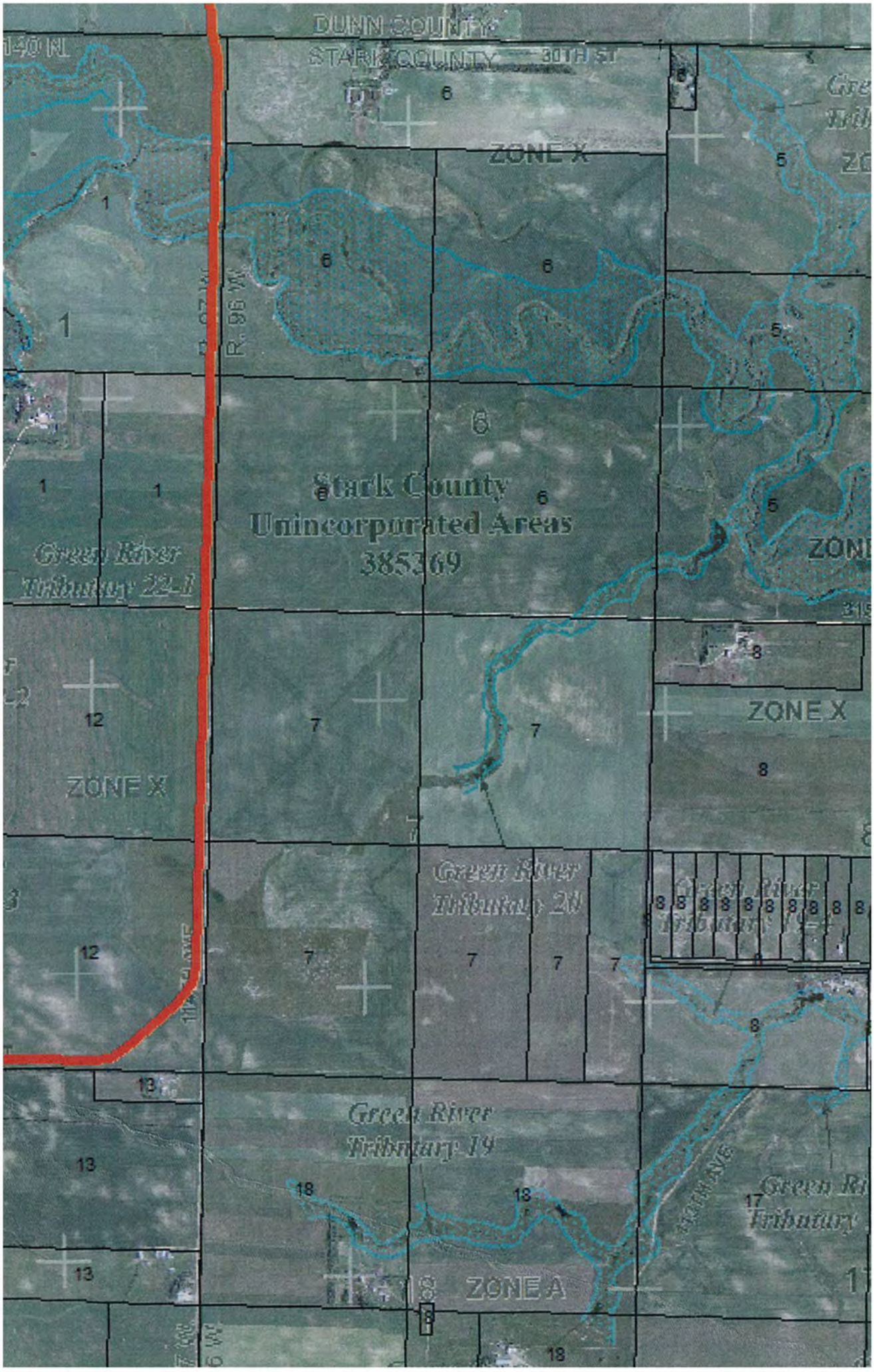

BOE Pipeline
Delineated Wetlands
32
T141 R96
33
T141 R96
34
T141 R96
Dunn County
Stark County
30st ST SW
115th Ave SW
2
T140 R97
1
T140 R97
6
T140 R96
31st ST SW
11
T140 R97
12
T140 R97
7
T140 R96
32nd St SW
14
T140 R97
13
T140 R97
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 10 of 13

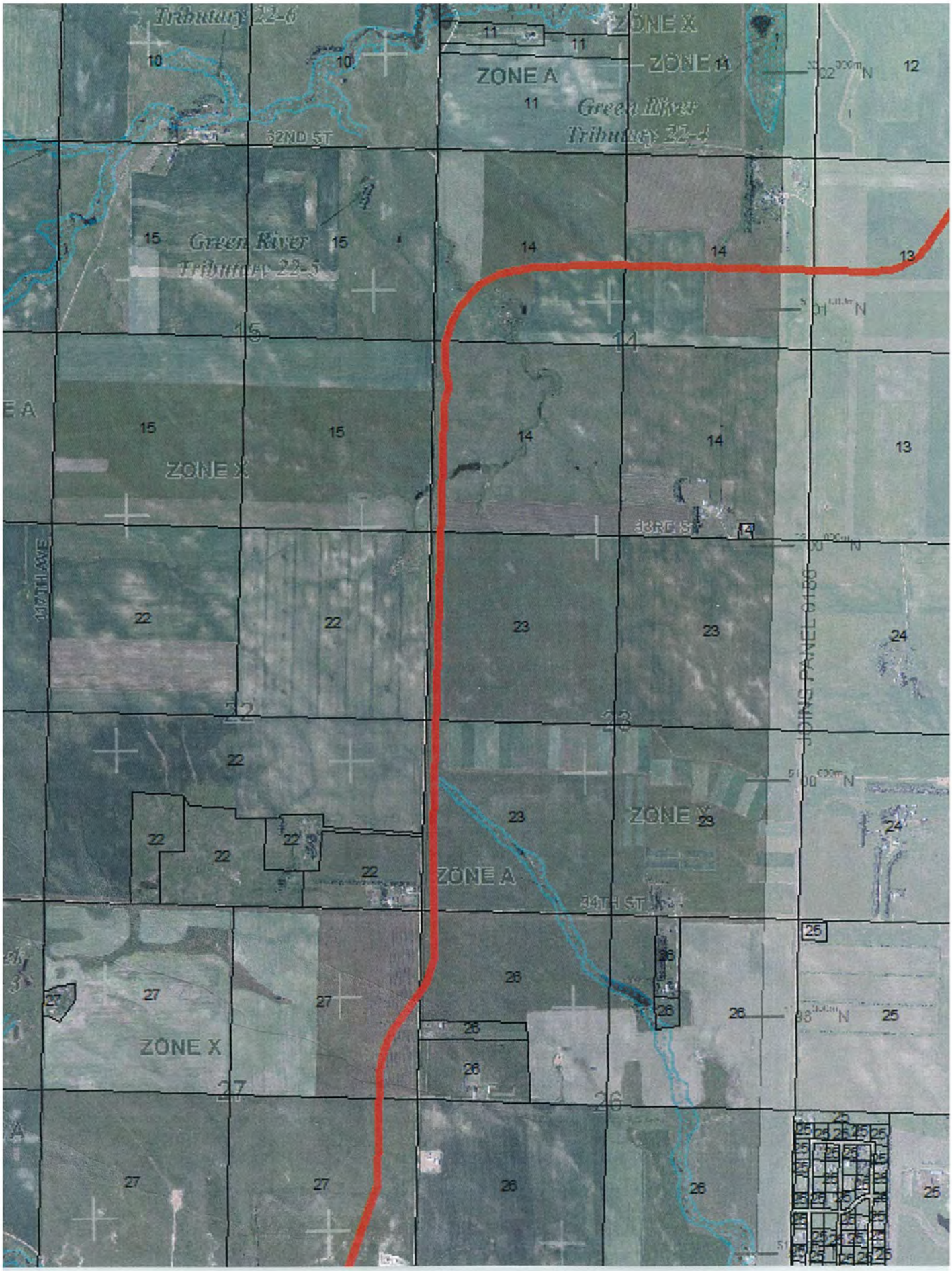

BOE Pipeline
Delineated Wetlands
10
T140 R97
11
T140 R97
12
T140 R97
32nd St SW
116th Ave SW
114th Ave SW
15
T140 R97
14
T140 R97
13
T140 R97
115th Ave SW
33rd St SW
22
T140 R97
23
T140 R97
24
T140 R97
34th St SW
27
T140 R97
26
T140 R97
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 11 of 13

BOE Pipeline
Delineated Wetlands
28
T140 R97
27
T140 R97
26
T140 R97
35th St SW
116th Ave SW
33
T140 R97
34
T140 R97
35
T140 R97
94
94
4
T139 R97
3
T139 R97
2
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 12 of 13

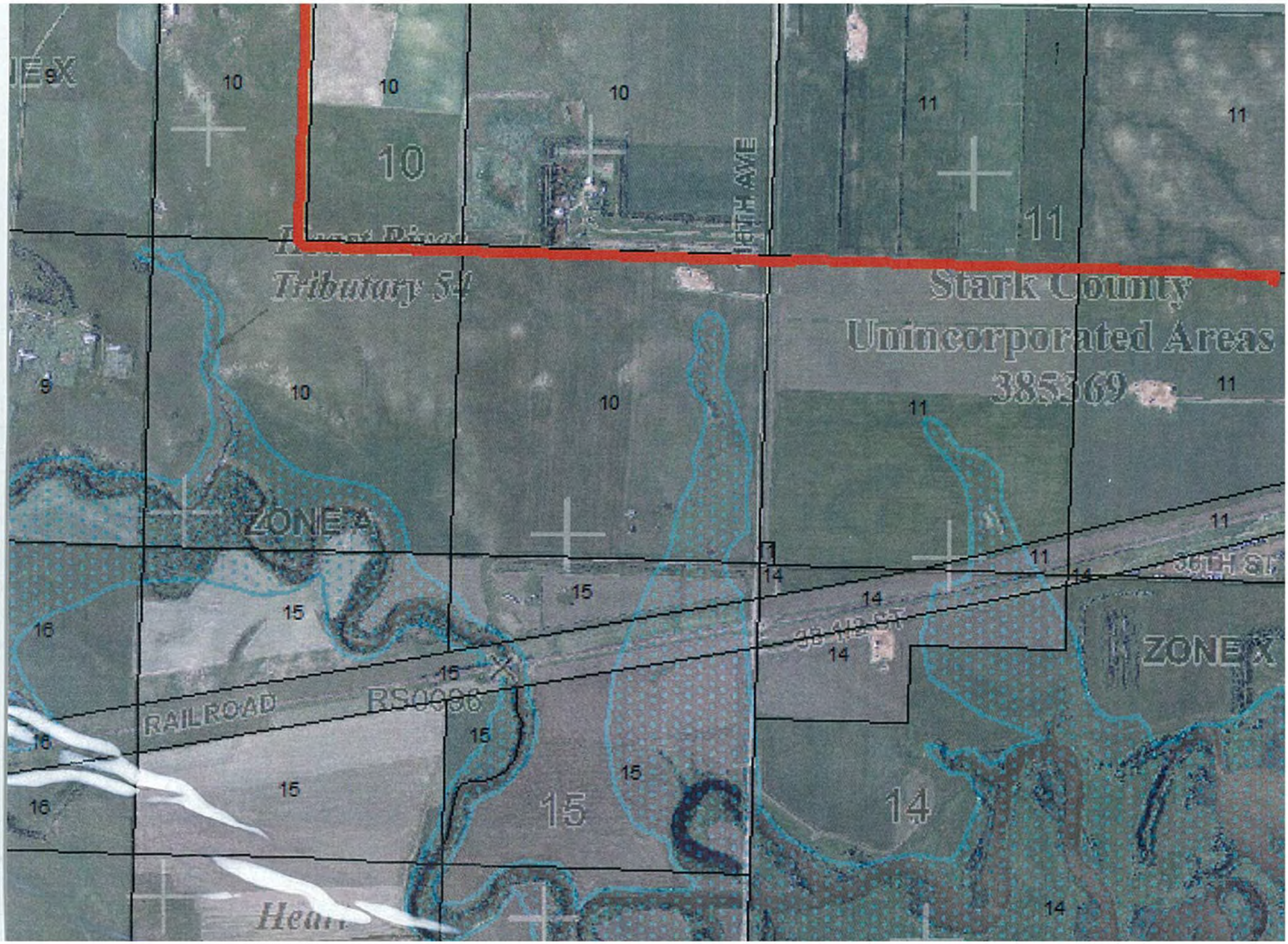
BOE Pipeline
Delineated Wetlands
4
T139 R97
3
T139 R97
2
T139 R97
CMC 4510
9
T139 R97
10
T139 R97
11
T139 R97
38th St SW
14
T139 R97
16
T139 R97
15
T139 R97
116th St SW
39th St SW
21
T139 R97
22
T139 R97
23
T139 R97
BOE Pipeline Project Route
Rivers & Streams
Pipeline
Delineated Wetland
Project Route
Sheet 13 of 13

Figure A-8. Stark County Flood Plains

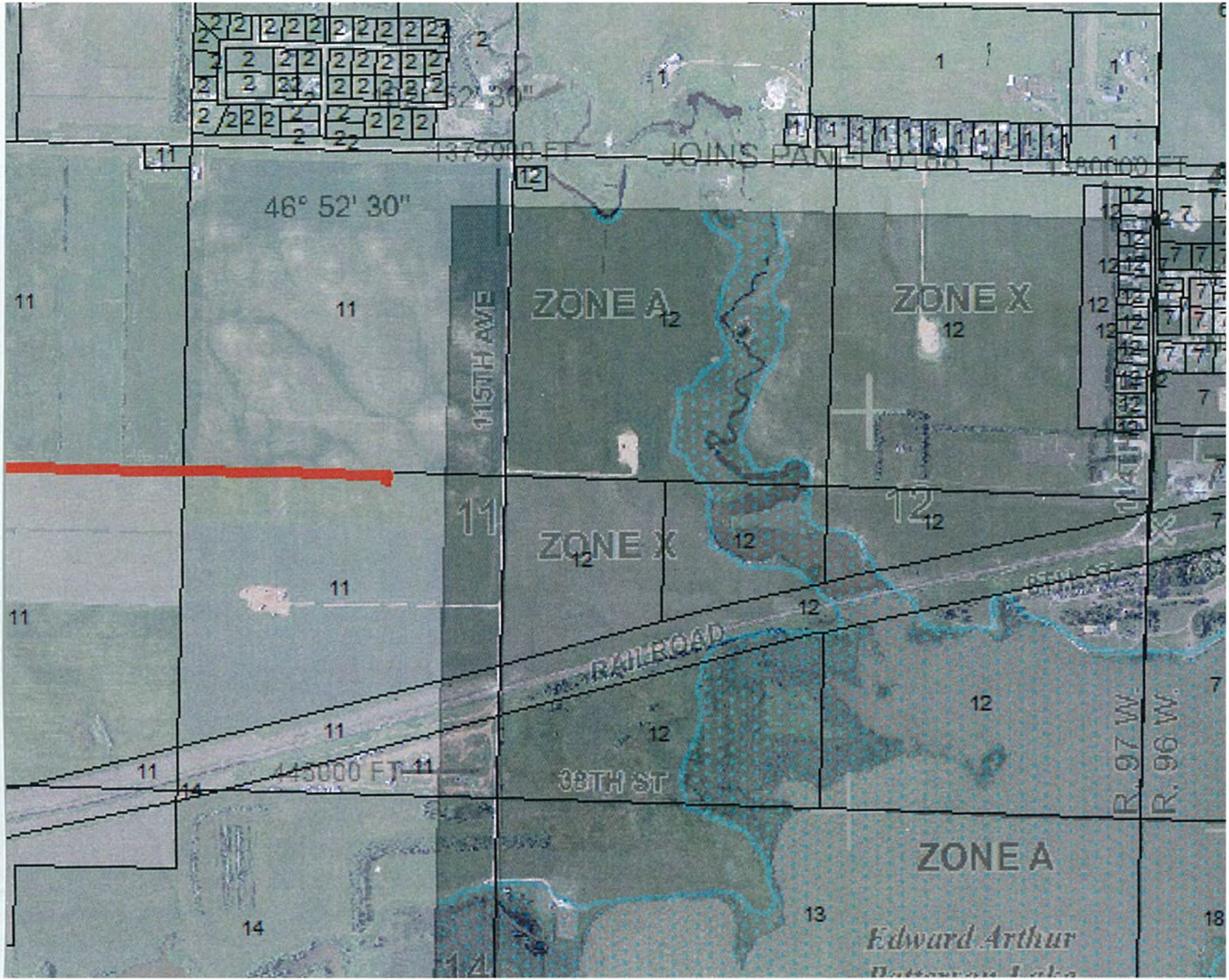

DUNN COUNTY
STARK COUNTY
30TH ST
140 N
ZONE X
Stark County
Unincorporated Areas
385369
Green River
Tributary 22-1
Green River
Tributary 20
Green River
Tributary 19
ZONE A
R. 96 W.


Tributary 22-6
ZONE X
ZONE A
Green River
Tributary 22-4
32ND ST
Green River
Tributary 22-5
ZONE X
33RD ST
17TH AVE
JOINS PANEL 0150
ZONE X
ZONE A
34TH ST
ZONE X

ZONE A
ZONE A
ZONE A
ZONE X
Duck Creek Tributary 1
Duck Creek Tributary 2
Duck Creek
Heart River Tributary 55-1
RS0309
RS0308
35TH ST
37TH ST
116TH AVE
117TH AVE
27
26
28
33
34
35
4
3
2
9
10



Tributary 54
Stark County
Unincorporated Areas
385369
ZONE A
ZONE X
RAILROAD
RS0096
36TH ST
10
11
14
15
16



46° 52' 30"
1375000 FT
JOINS PANEL
1380000 FT
ZONE A
ZONE X
115TH AVE
ZONE X
RAILROAD
445000 FT
38TH ST
ZONE A
R. 97 W.
R. 96 W.
Edward Arthur

Figure A-9. Raptor Nest and Sharp-Tailed Grouse Leks Locations

BOE Pipeline
Raptor Nest and Sharp-tailed Grouse Lek Locations
19
T145 R95
2
T145
22
T145 R95
200
200
30
T145 R95
29
T145 R95
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T145 R95
27
T145 R95
31
T145 R95
32
T145 R95
33
T145 R95
34
T145 R95
3
T144 R96
2
T144 R96
1
T144 R96
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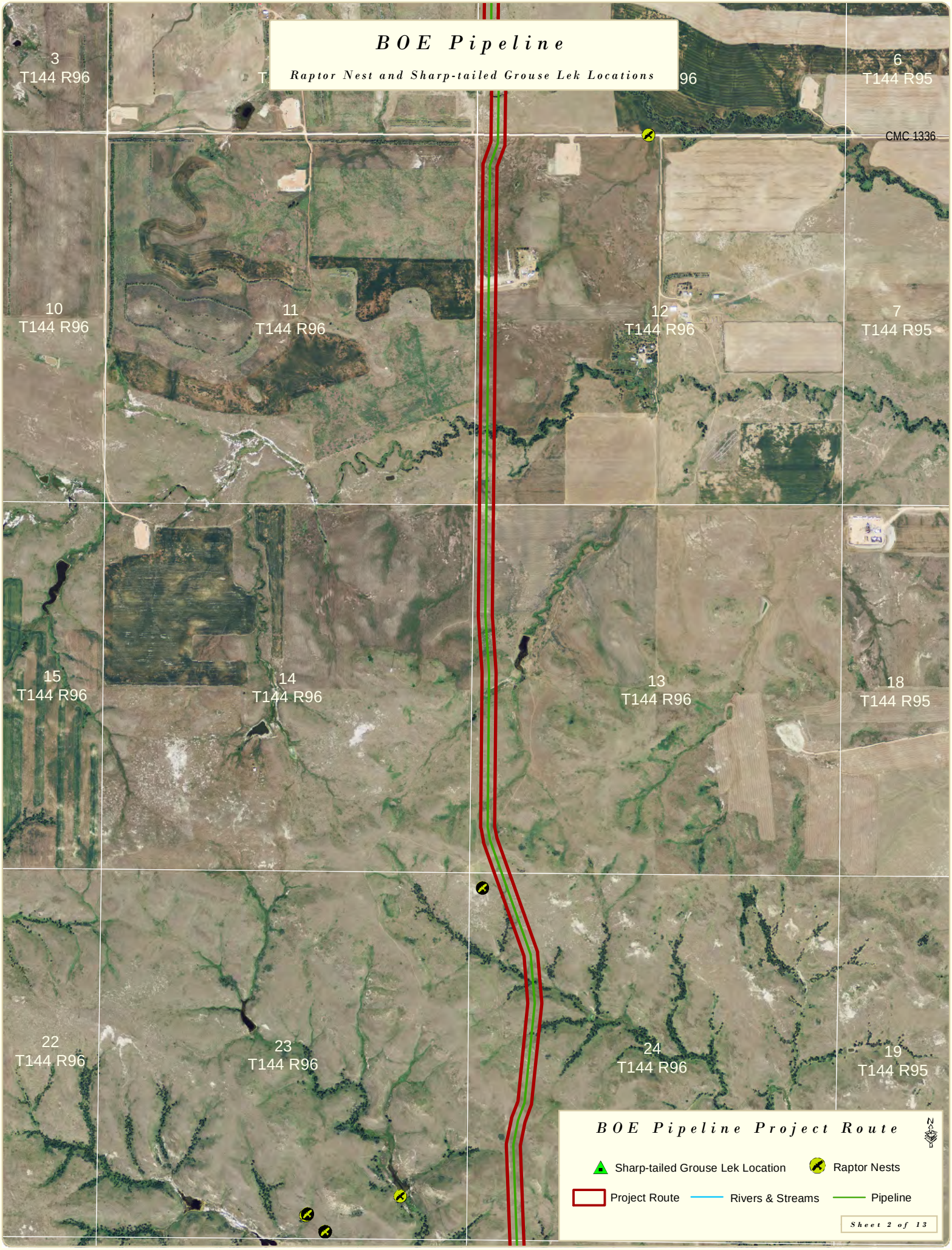
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 1 of 13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T144 R95
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T144 R96
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T144 R96
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T144 R96
23
T144 R96
24
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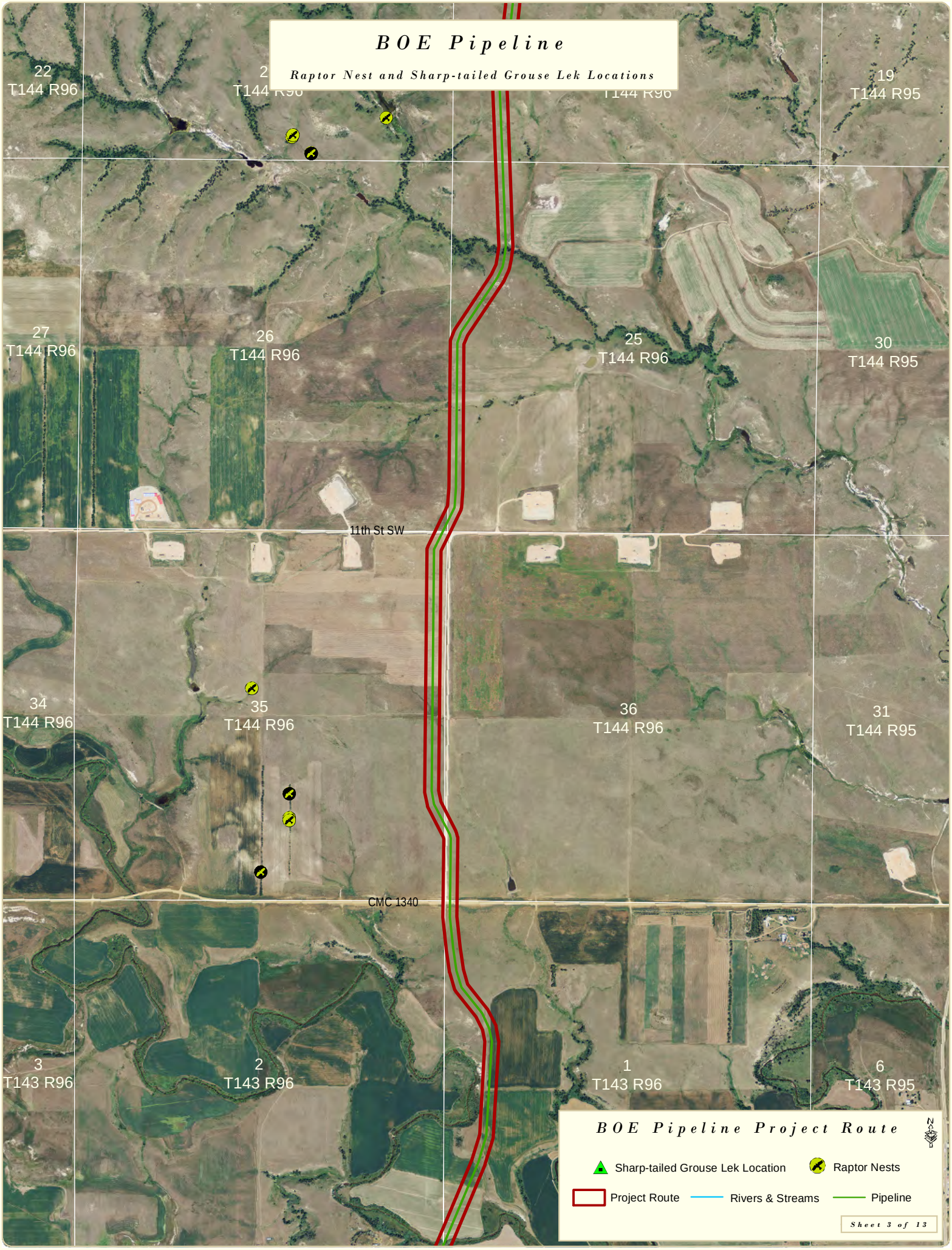
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 2 of 13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T144 R96
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T144 R95
CMC 1340
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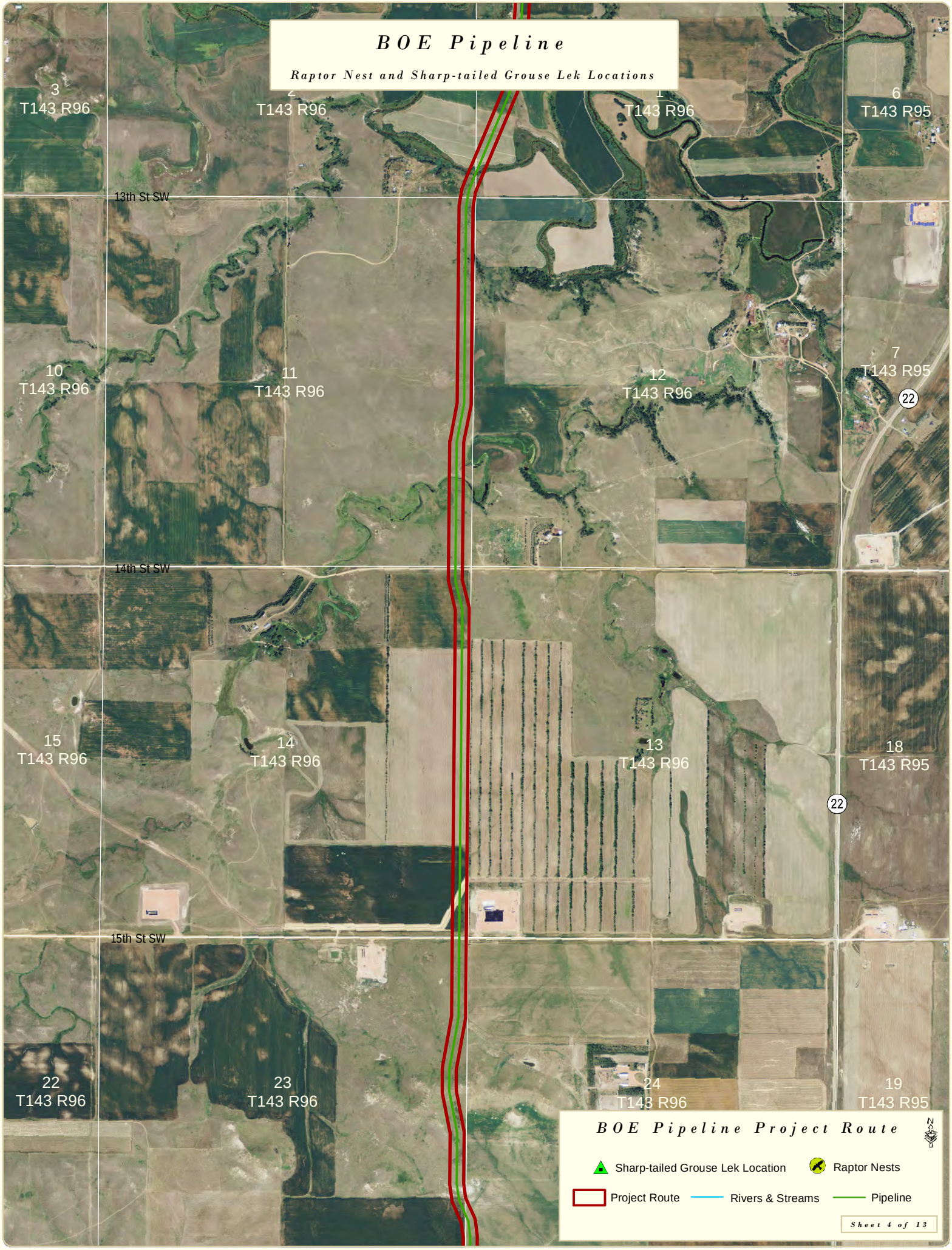
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 3 of 13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T143 R96
12
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7
T143 R95
22
14th St SW
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14
T143 R96
13
T143 R96
18
T143 R95
22
15th St SW
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T143 R96
23
T143 R96
24
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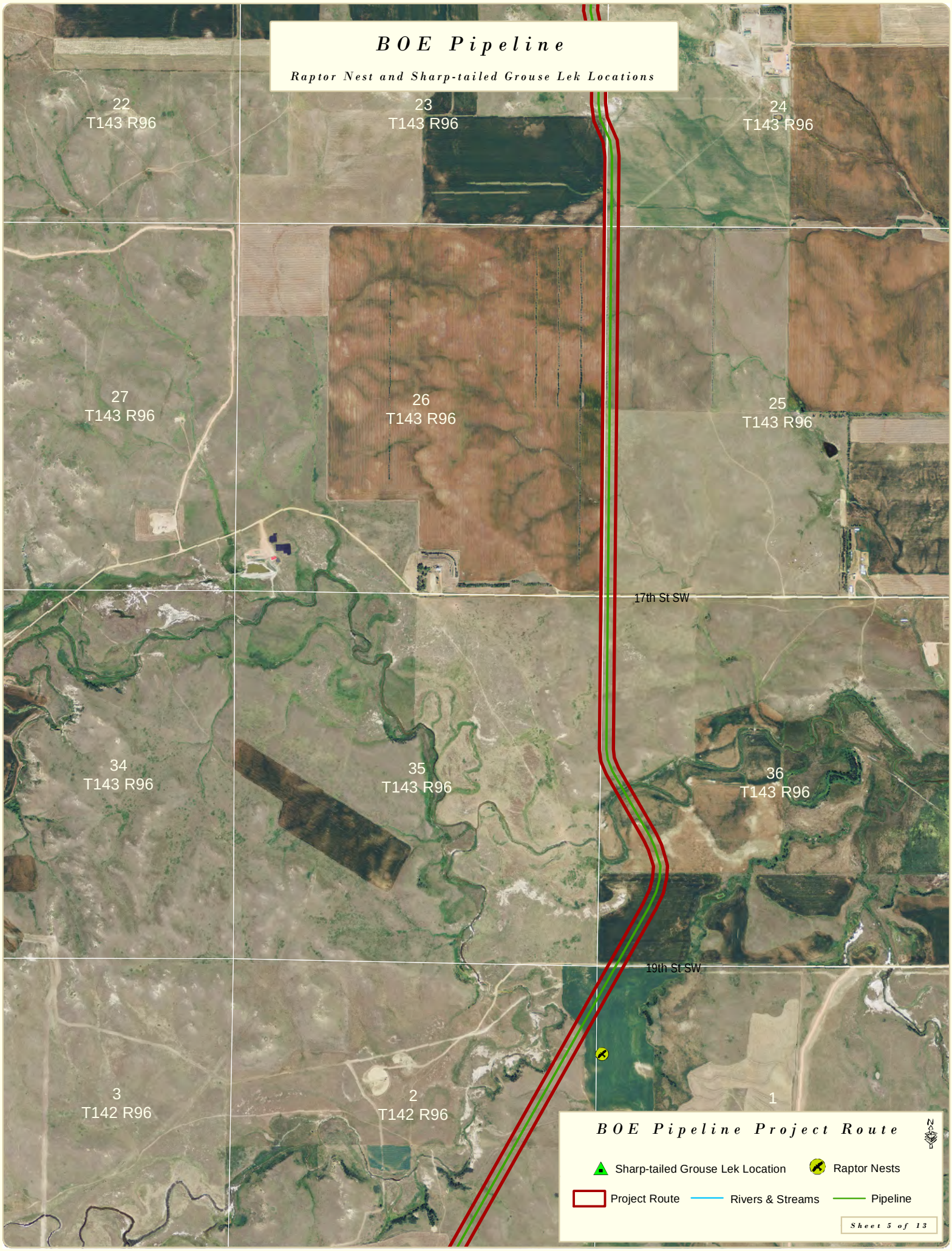
BOE Pipeline Project Route
N
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 4 of 13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T143 R96
17th St SW
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T143 R96
35
T143 R96
36
T143 R96
19th St SW
3
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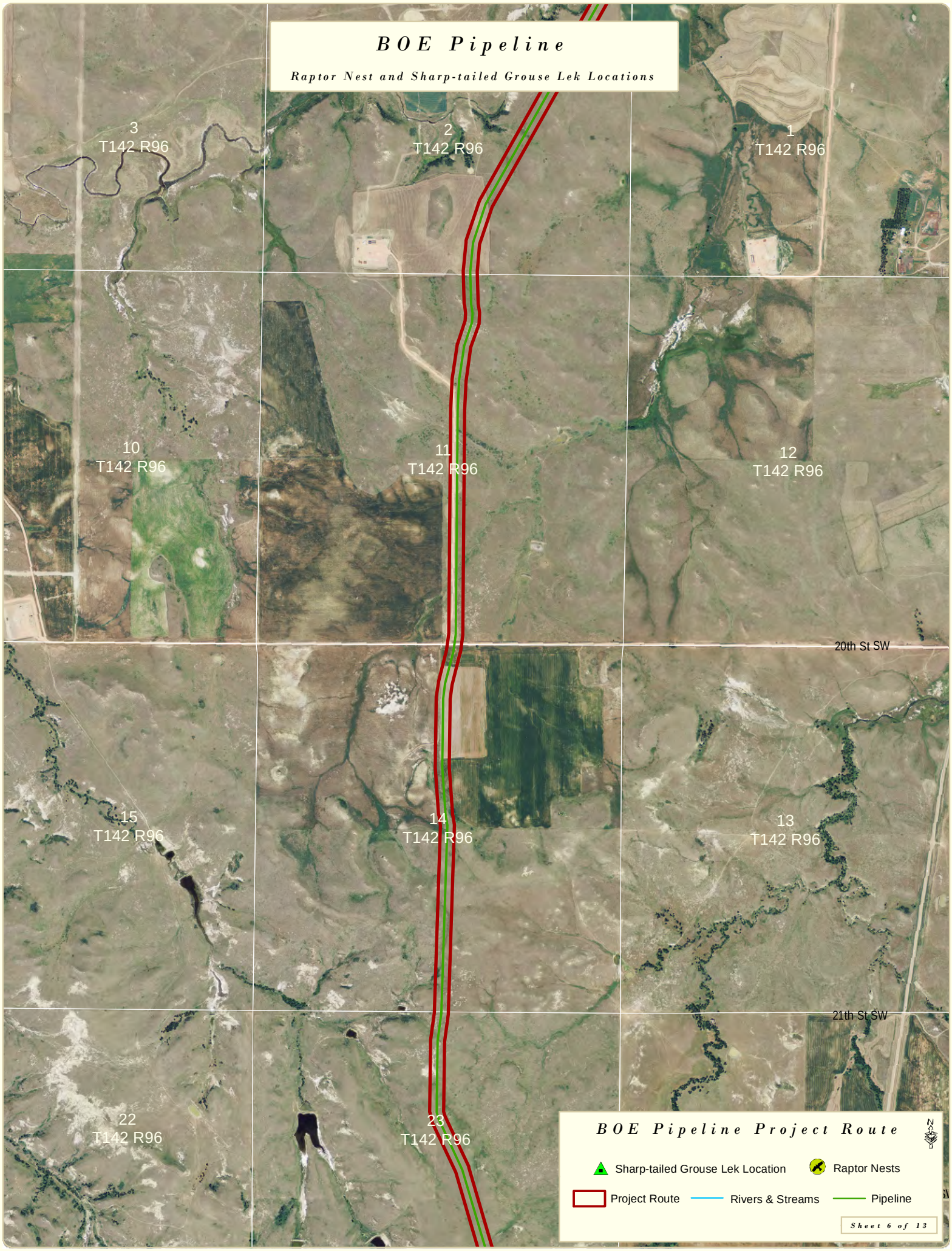
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 5 of 13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12
T142 R96
20th St SW
15
T142 R96
14
T142 R96
13
T142 R96
21th St SW
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T142 R96
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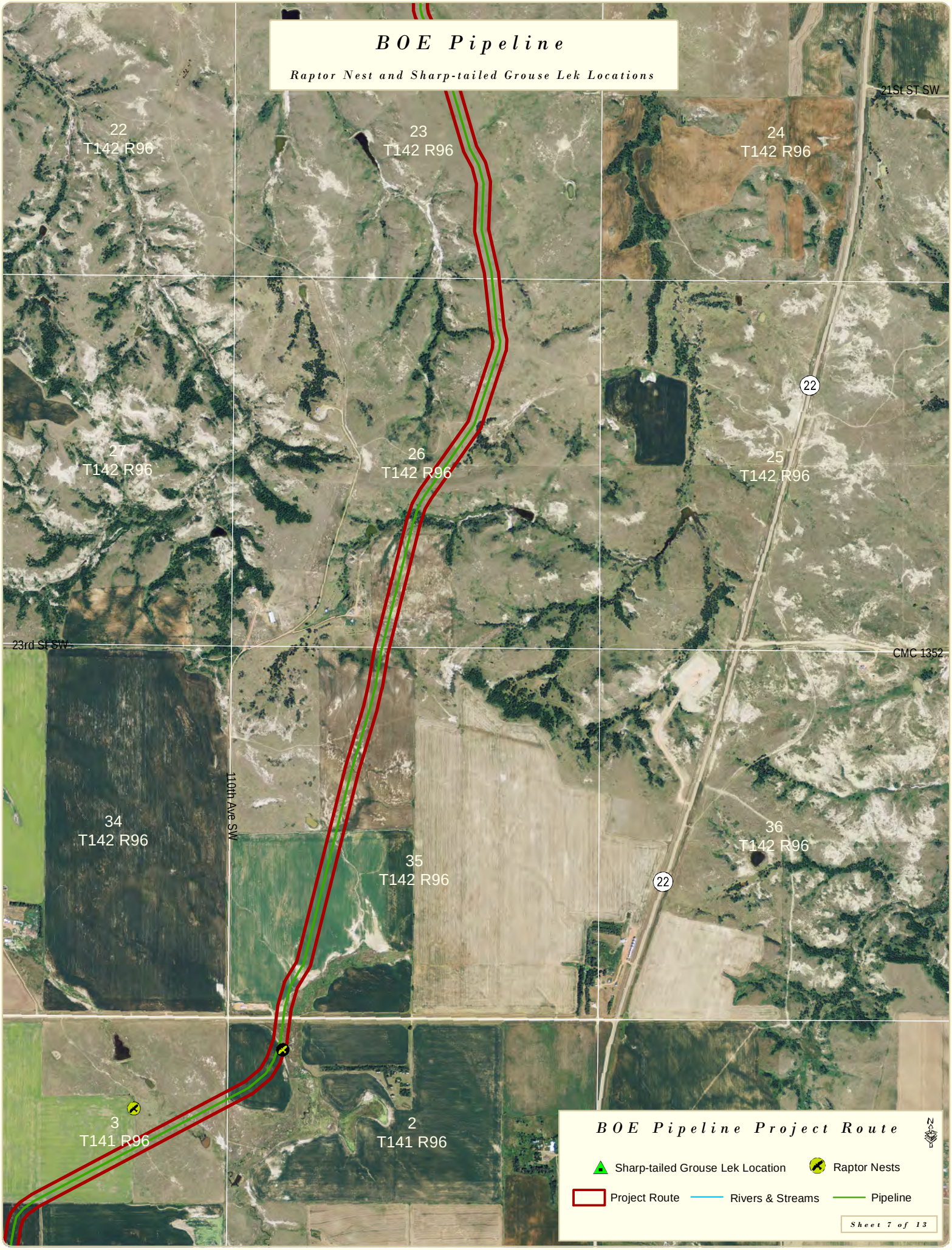
T142 R96
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 6 of 13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26
T142 R96
25
T142 R96
22
23rd ST SW
CMC 1352
34
T142 R96
110th Ave SW
35
T142 R96
36
T142 R96
22
3
T141 R96
2
T141 R96
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
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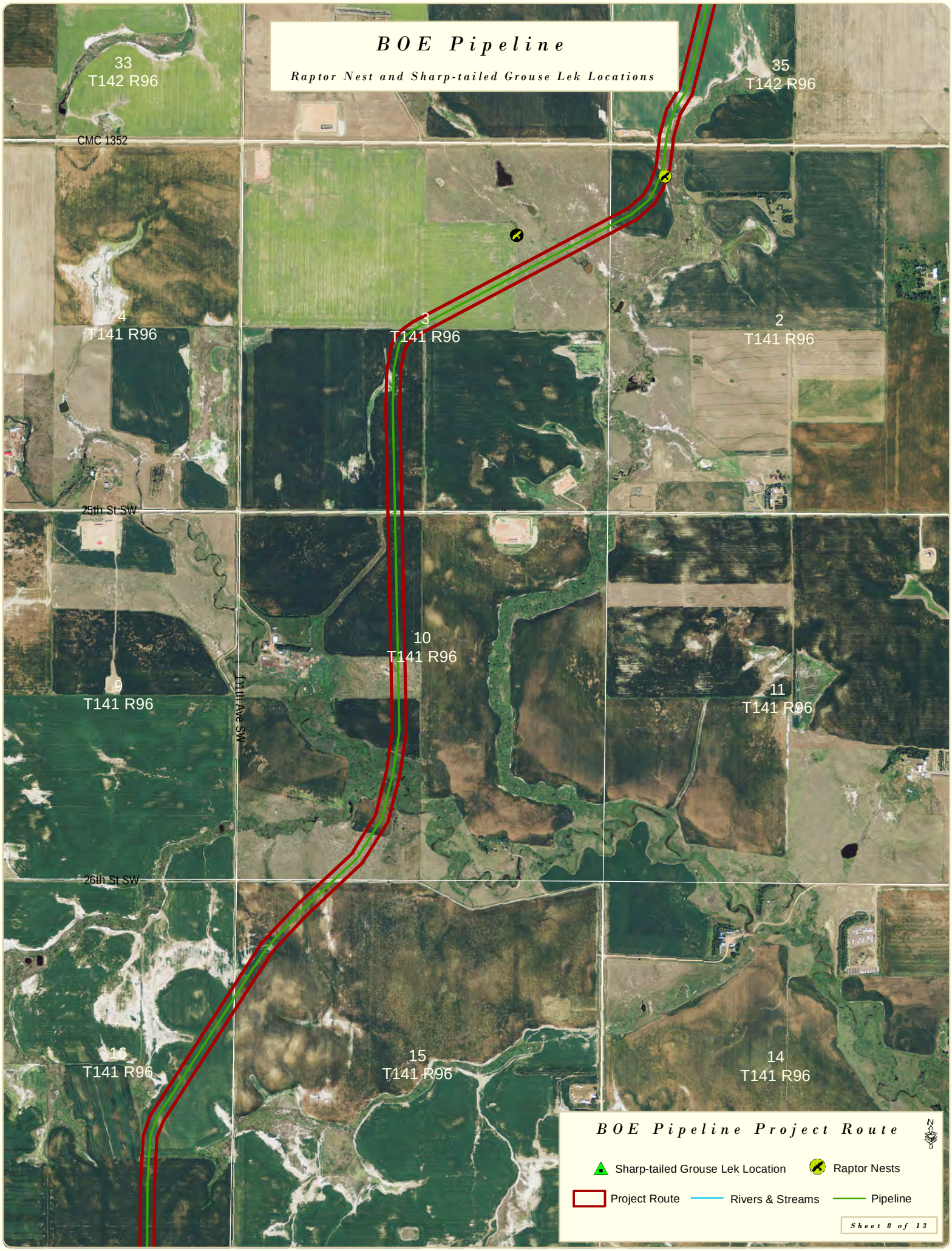
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T141 R96
2
T141 R96
25th St SW
10
T141 R96
9
T141 R96
141st Ave SW
11
T141 R96
26th St SW
16
T141 R96
15
T141 R96
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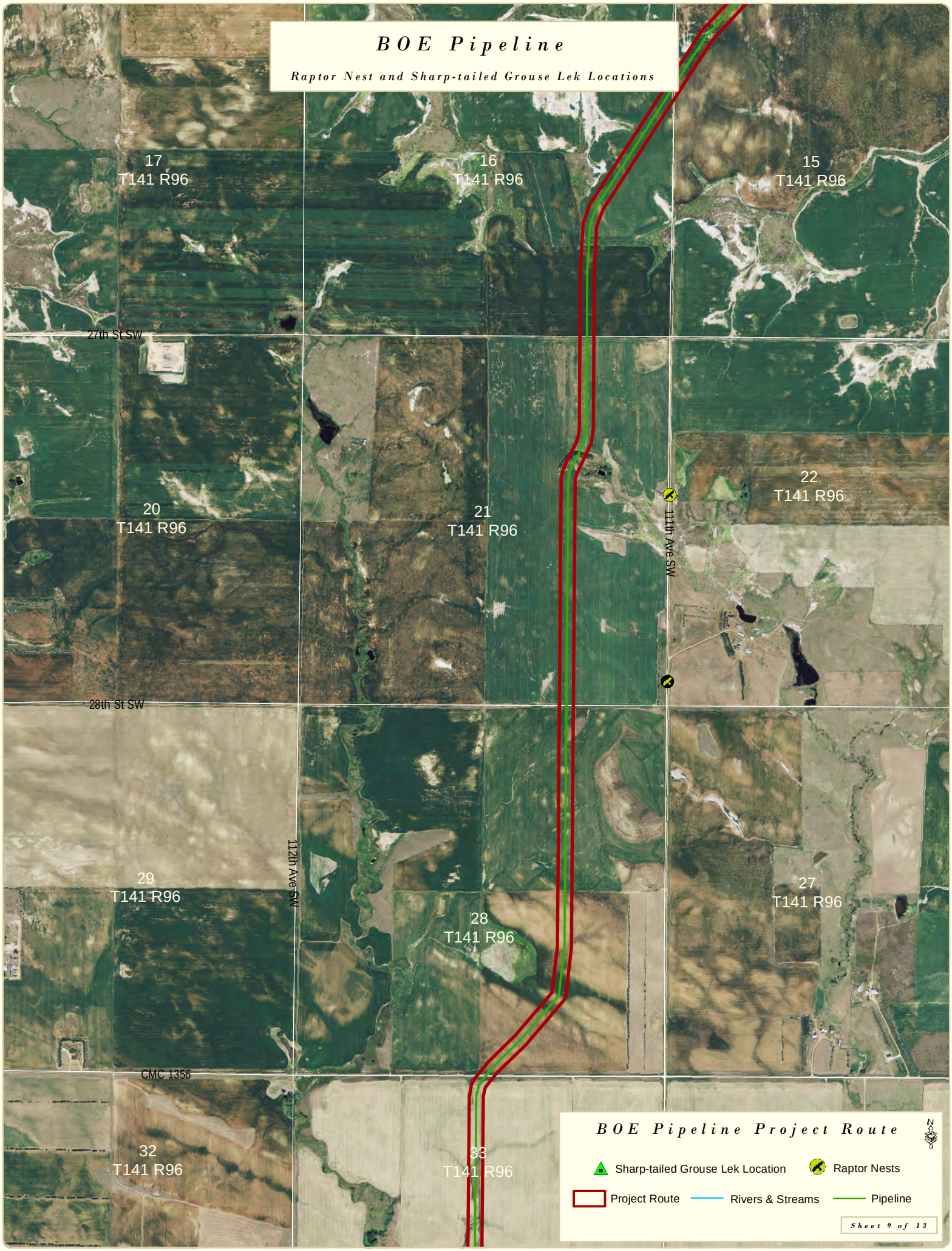
T141 R96
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 8 of 13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21
T141 R96
22
T141 R96
111th Ave SW
28th St SW
29
T141 R96
112th Ave SW
28
T141 R96
27
T141 R96
CMC 1356
32
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33
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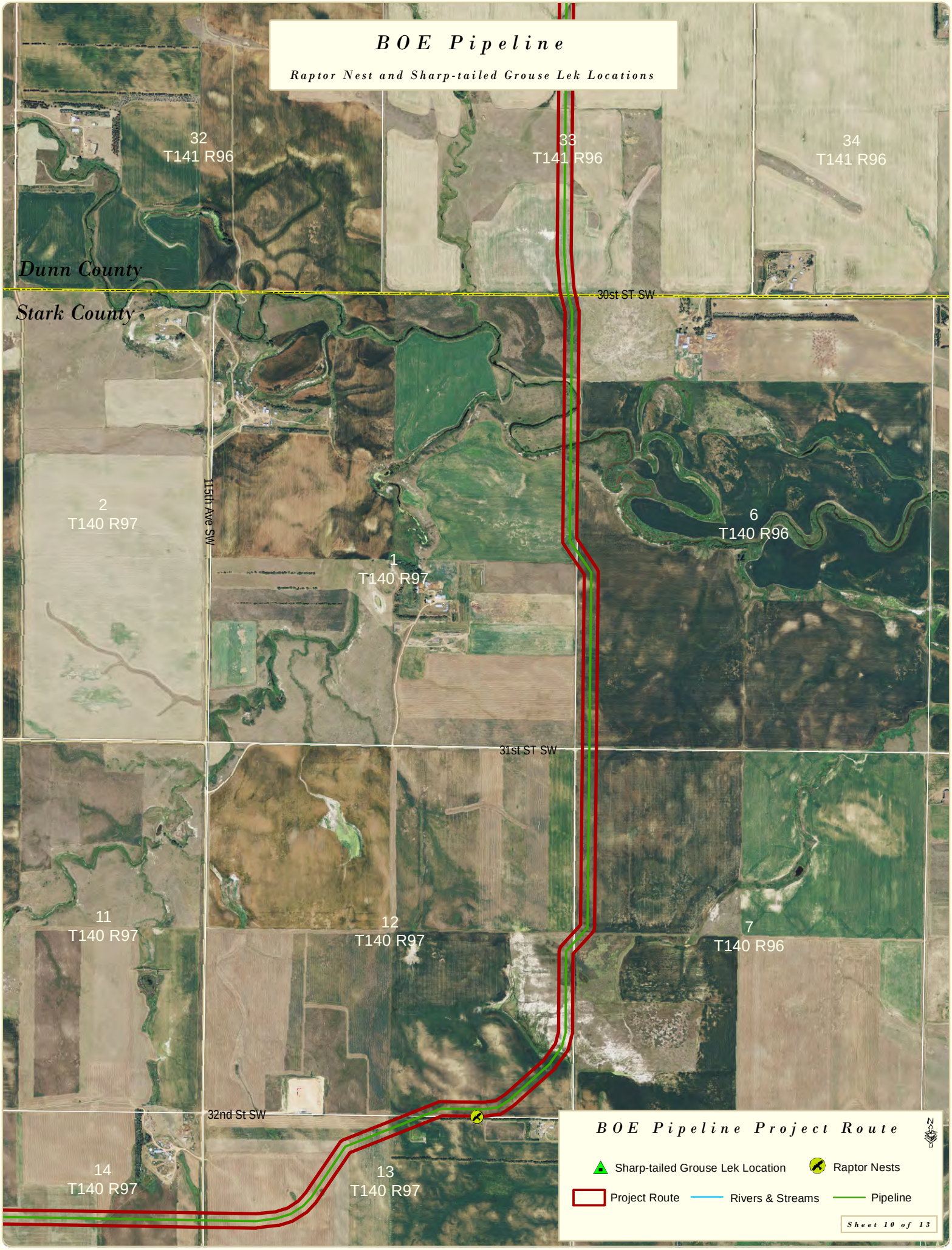
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 9 of 13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Raptor Nest and Sharp-tailed Grouse Lek Locations
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Stark County
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115th Ave SW
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T140 R97
1
T140 R97
6
T140 R96
31st ST SW
11
T140 R97
12
T140 R97
7
T140 R96
32nd St SW
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T140 R97
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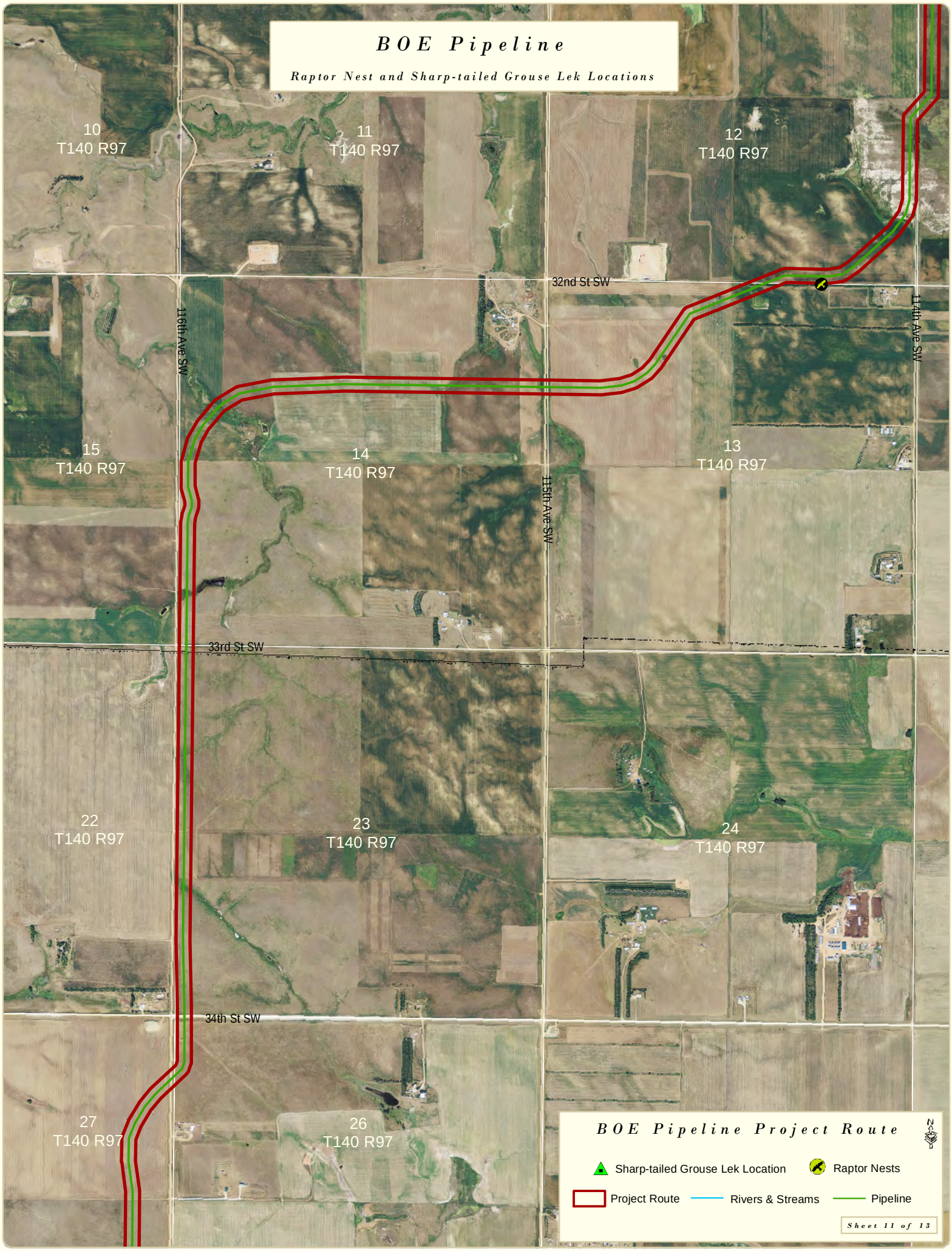
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 10 of 13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Raptor Nest and Sharp-tailed Grouse Lek Locations
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114th Ave SW
15
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14
T140 R97
13
T140 R97
115th Ave SW
33rd St SW
22
T140 R97
23
T140 R97
24
T140 R97
34th St SW
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T140 R97
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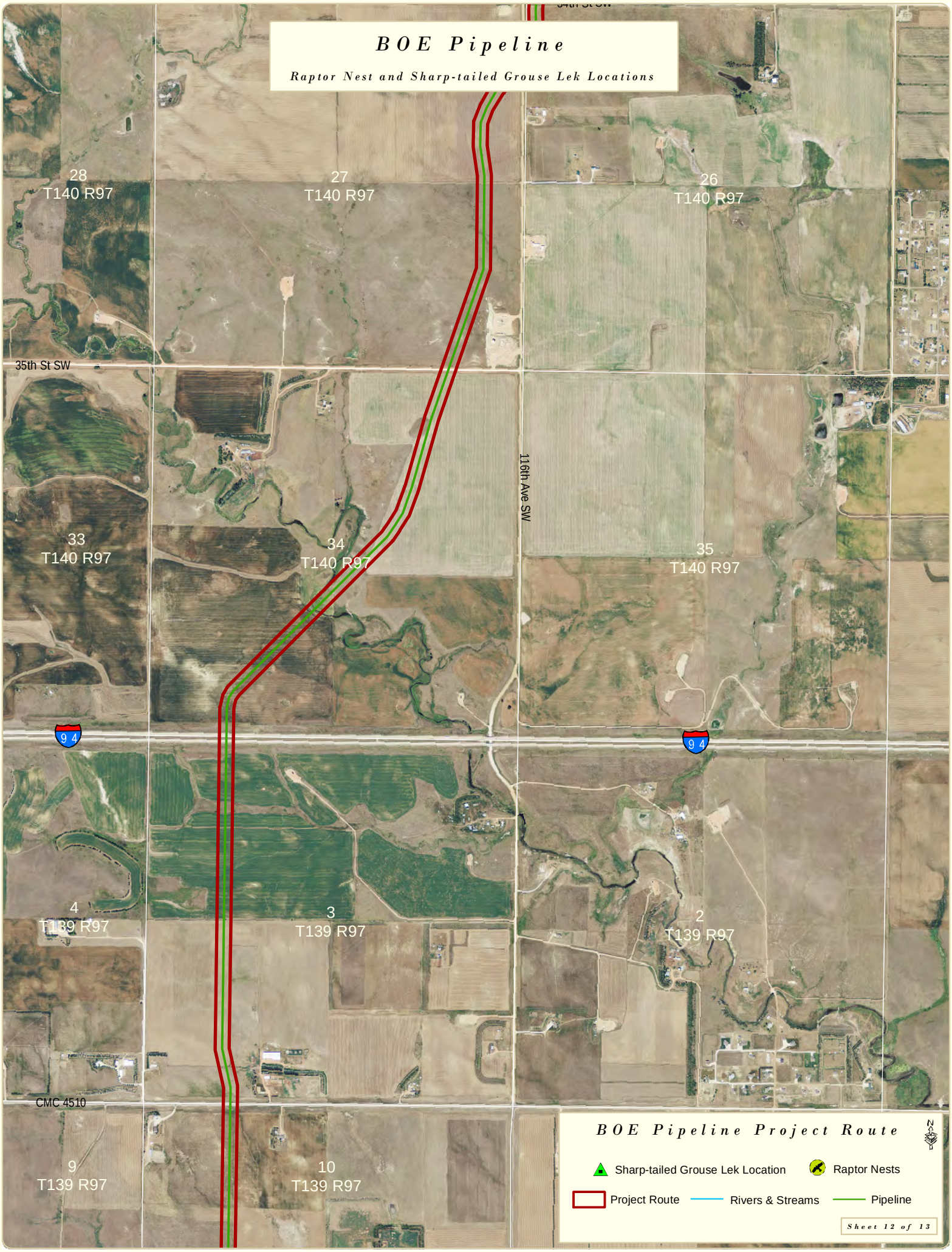
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 11 of 13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94
94
4
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3
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2
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CMC 4510
9
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10
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BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
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BOE Pipeline
Raptor Nest and Sharp-tailed Grouse Lek Locations
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T139 R97
3
T139 R97
2
T139 R97
CMC 4510
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T139 R97
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T139 R97
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38th St SW
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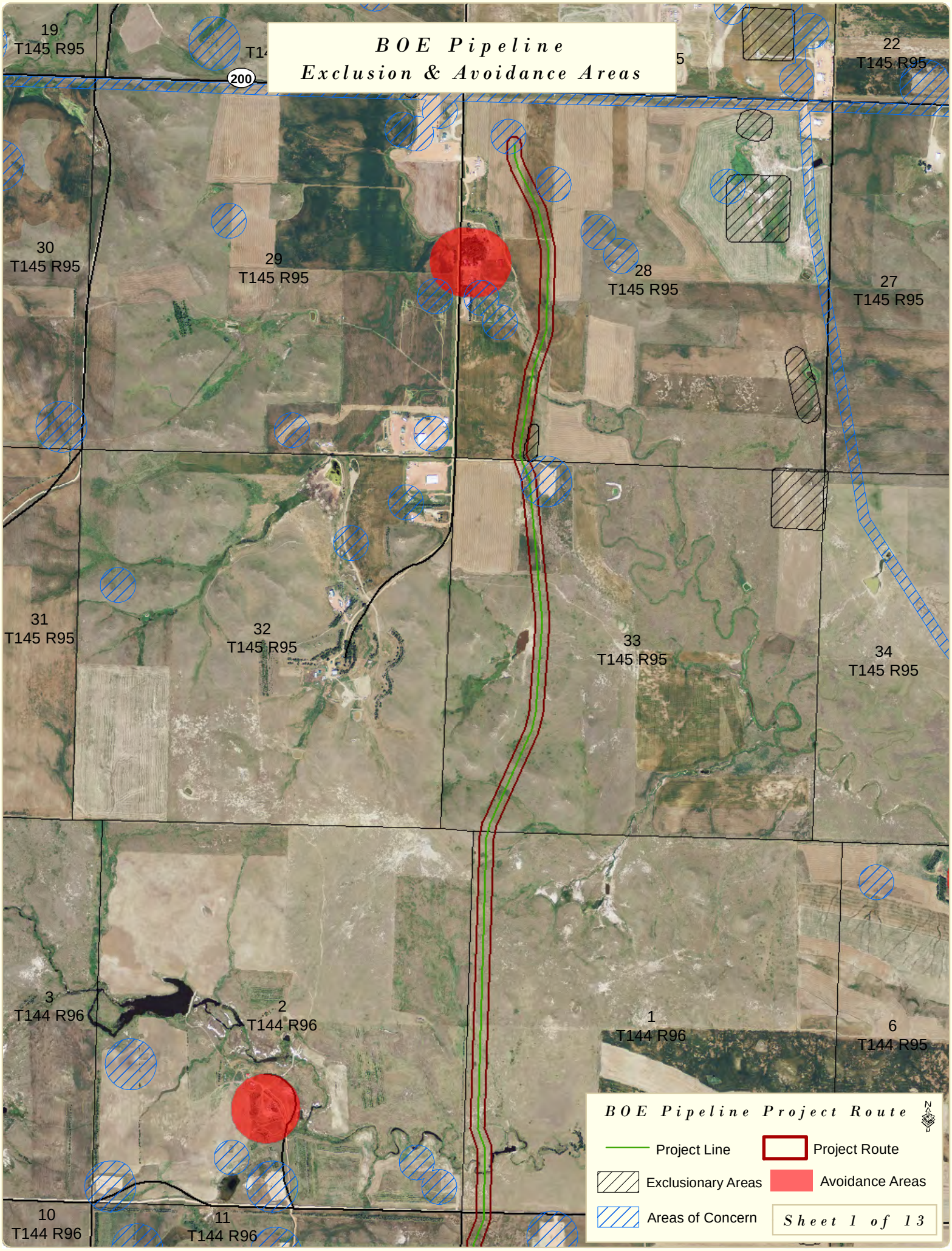
T139 R97
16
T139 R97
15
T139 R97
116th St SW
39th St SW
21
T139 R97
22
T139 R97
23
T139 R97
BOE Pipeline Project Route
Sharp-tailed Grouse Lek Location
Raptor Nests
Project Route
Rivers & Streams
Pipeline
Sheet 13 of 13

Figure A-10. Exclusion and Avoidance Areas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T145 R95
34
T145 R95
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T144 R96
2
T144 R96
1
T144 R96
6
T144 R95
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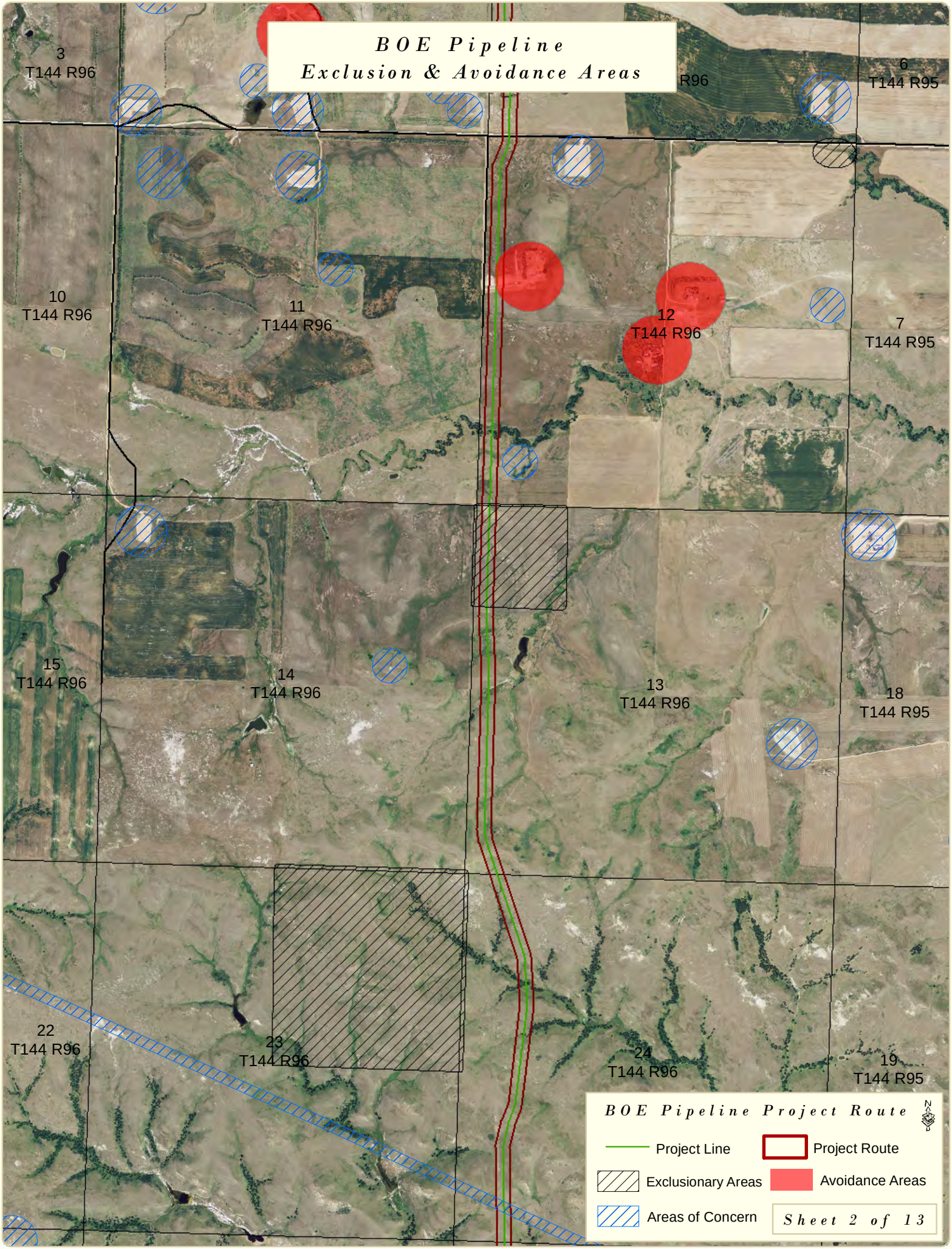
T144 R96
11
T144 R96
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 1 of 13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T144 R95
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T144 R96
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T144 R96
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T144 R95
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T144 R96
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T144 R96
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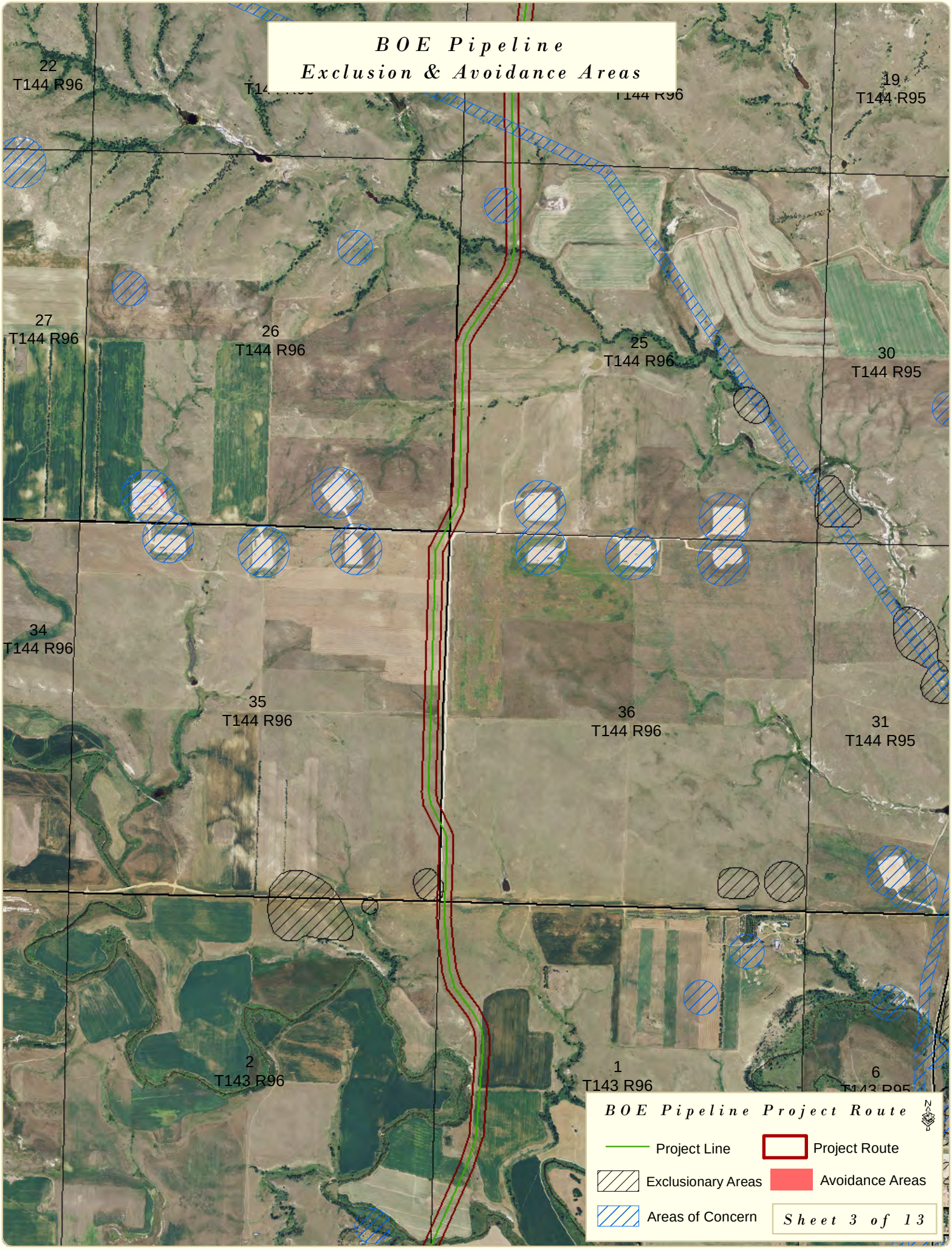
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 2 of 13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T144 R96
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T144 R95
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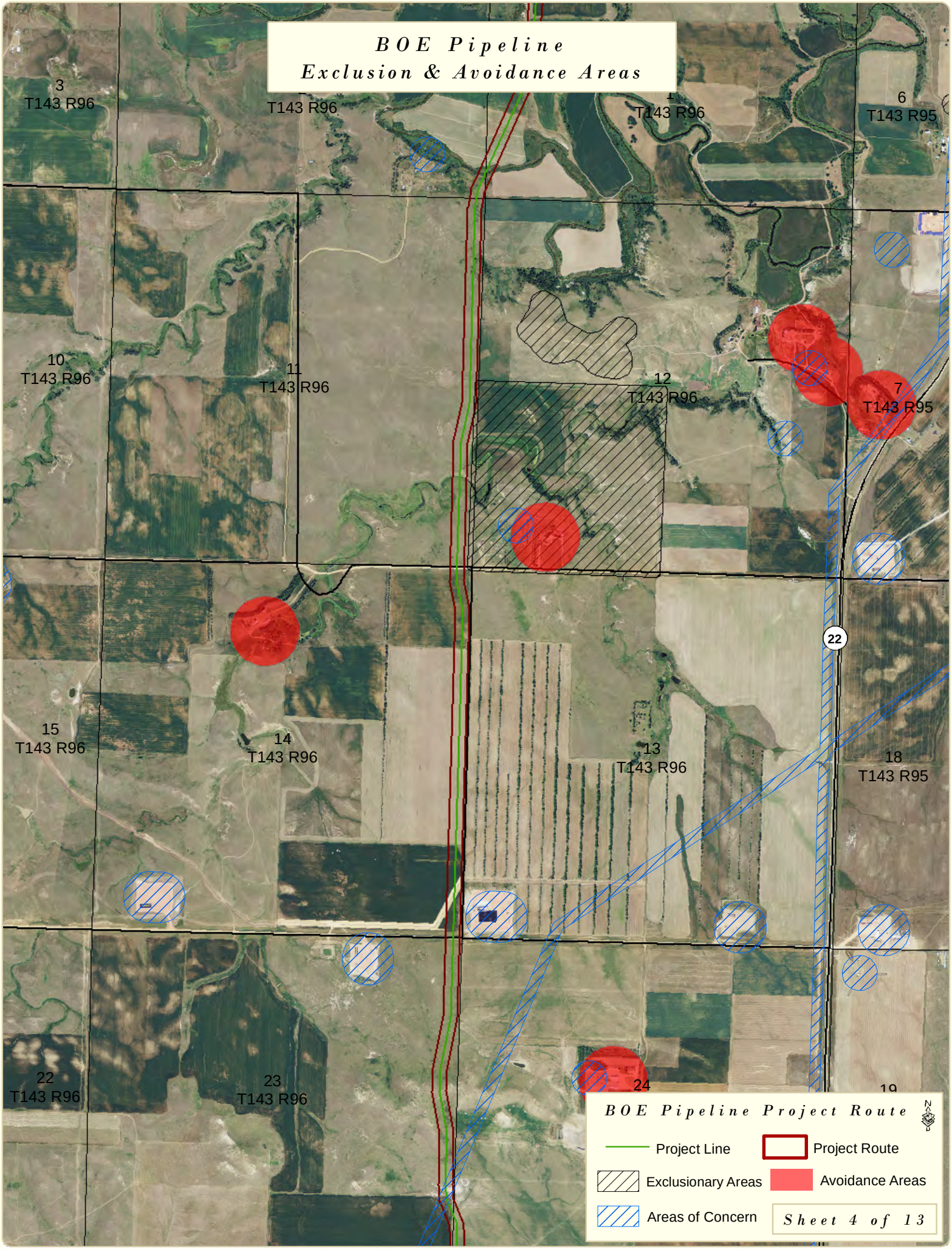
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 3 of 13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T143 R95
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T143 R96
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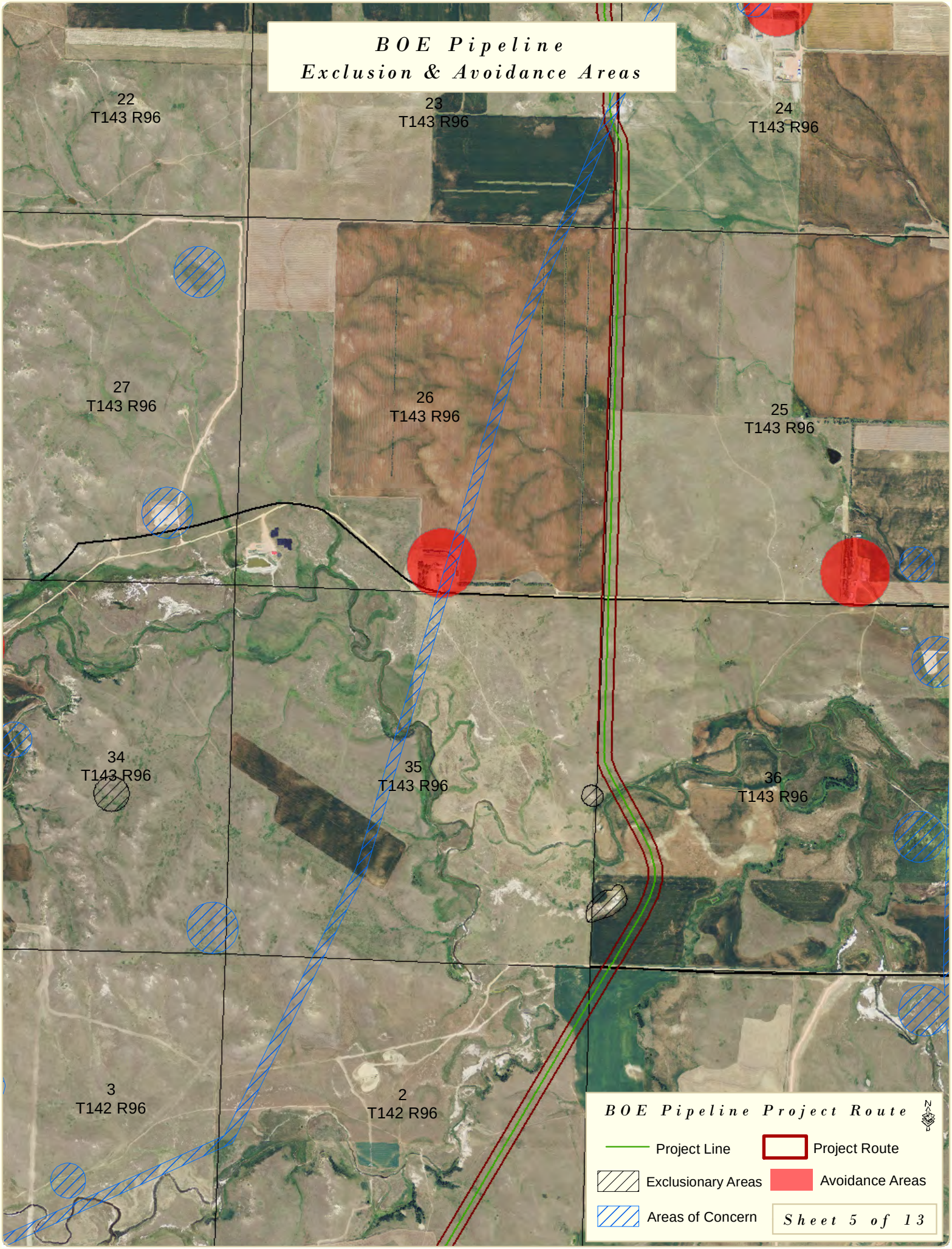
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 4 of 13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BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 5 of 13

BOE Pipeline
Exclusion & Avoidance Areas
3
T142 R96
2
T142 R96
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T142 R96
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T142 R96
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T142 R96
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T142 R96
13
T142 R96
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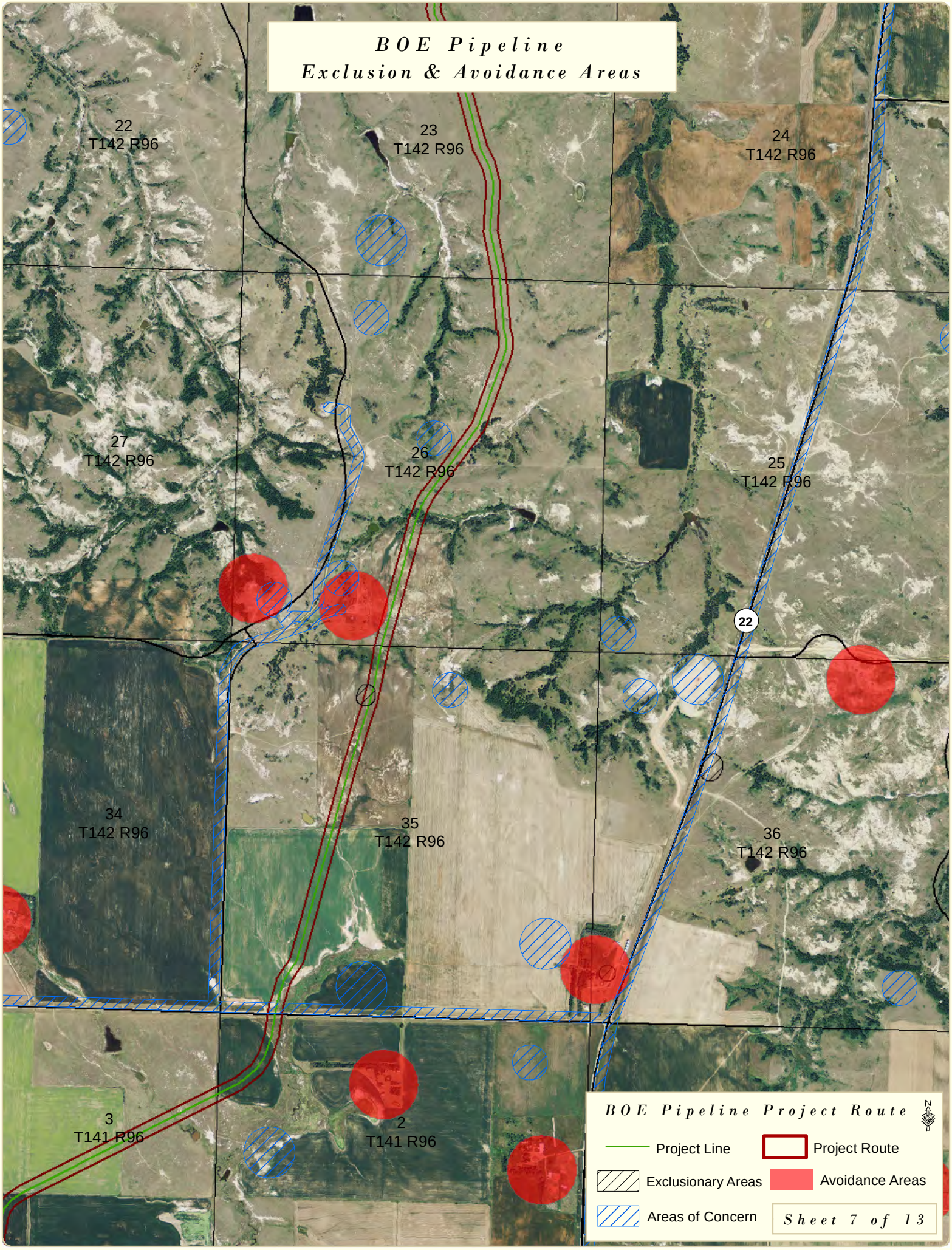
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 6 of 13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36
T142 R96
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BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
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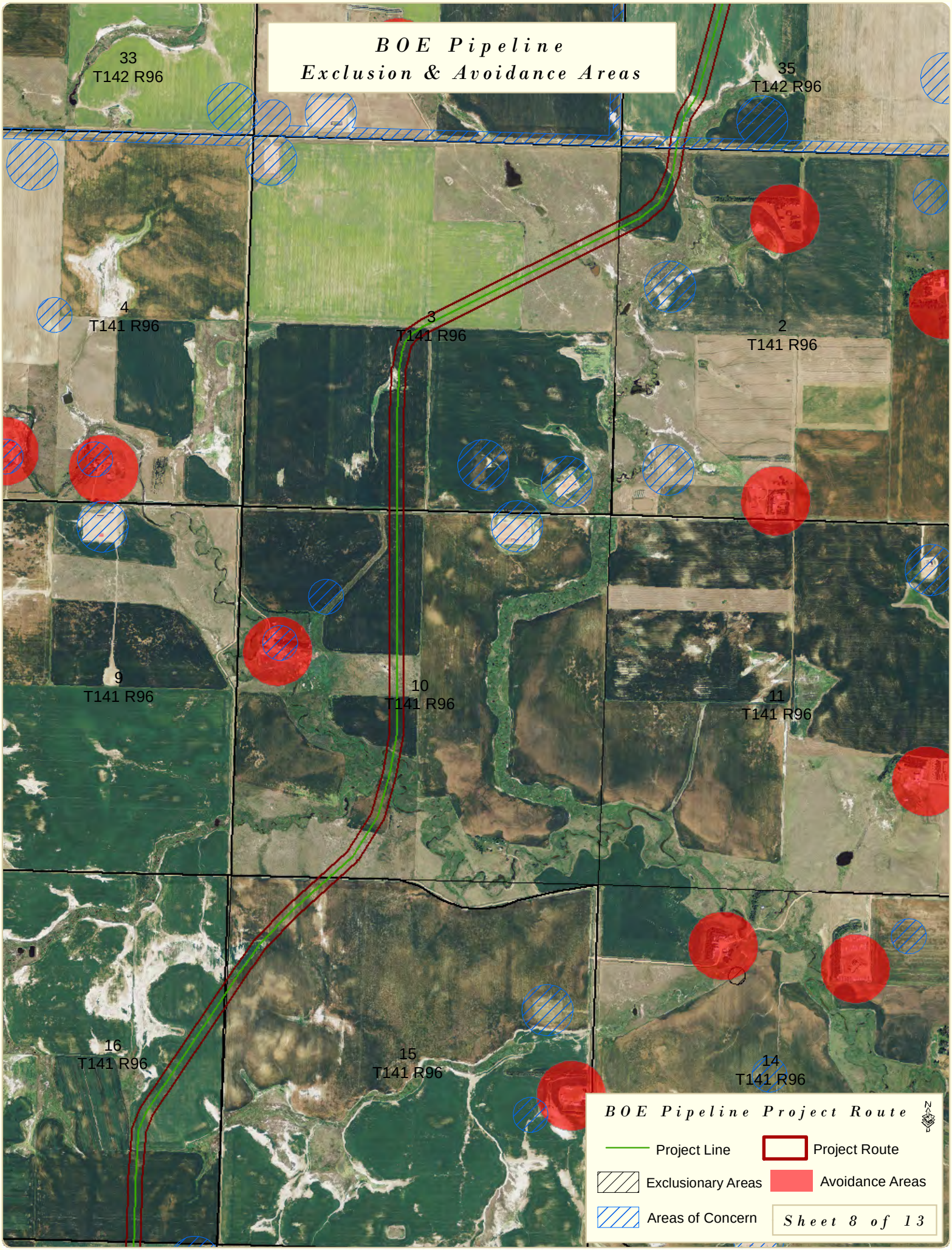
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Exclusion & Avoidance Areas
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T141 R96
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BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
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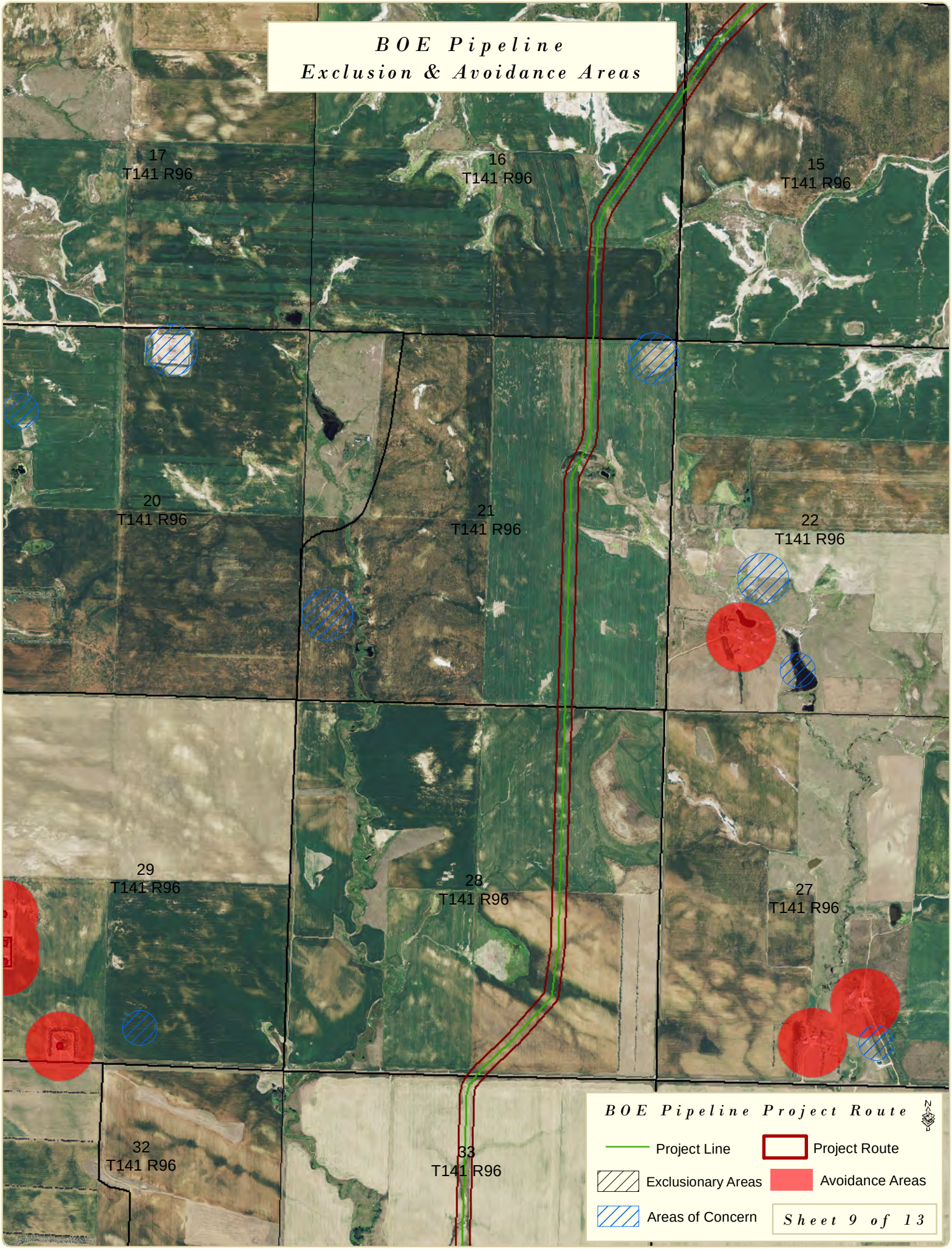
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27
T141 R96
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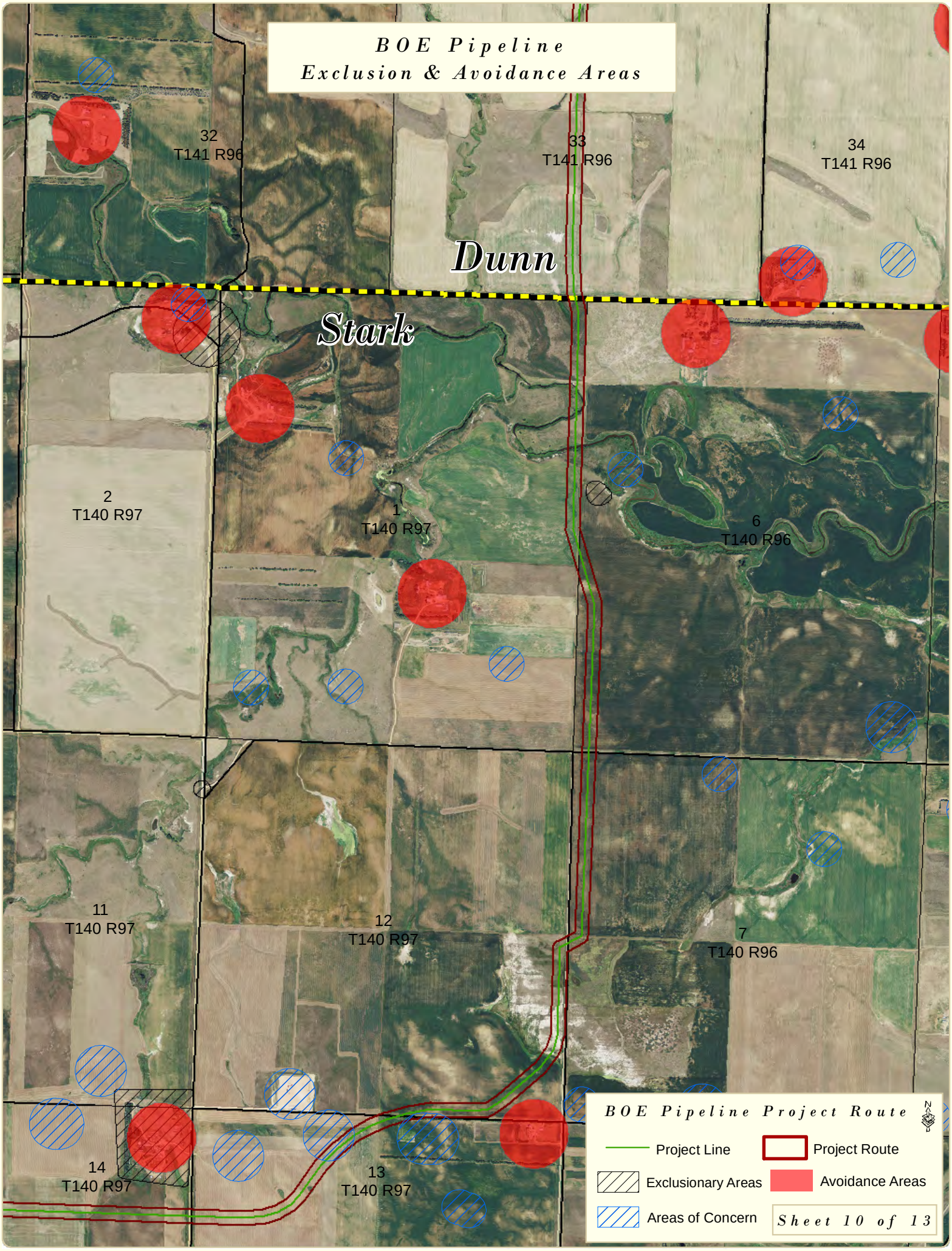
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 9 of 13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Stark
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12
T140 R97
7
T140 R96
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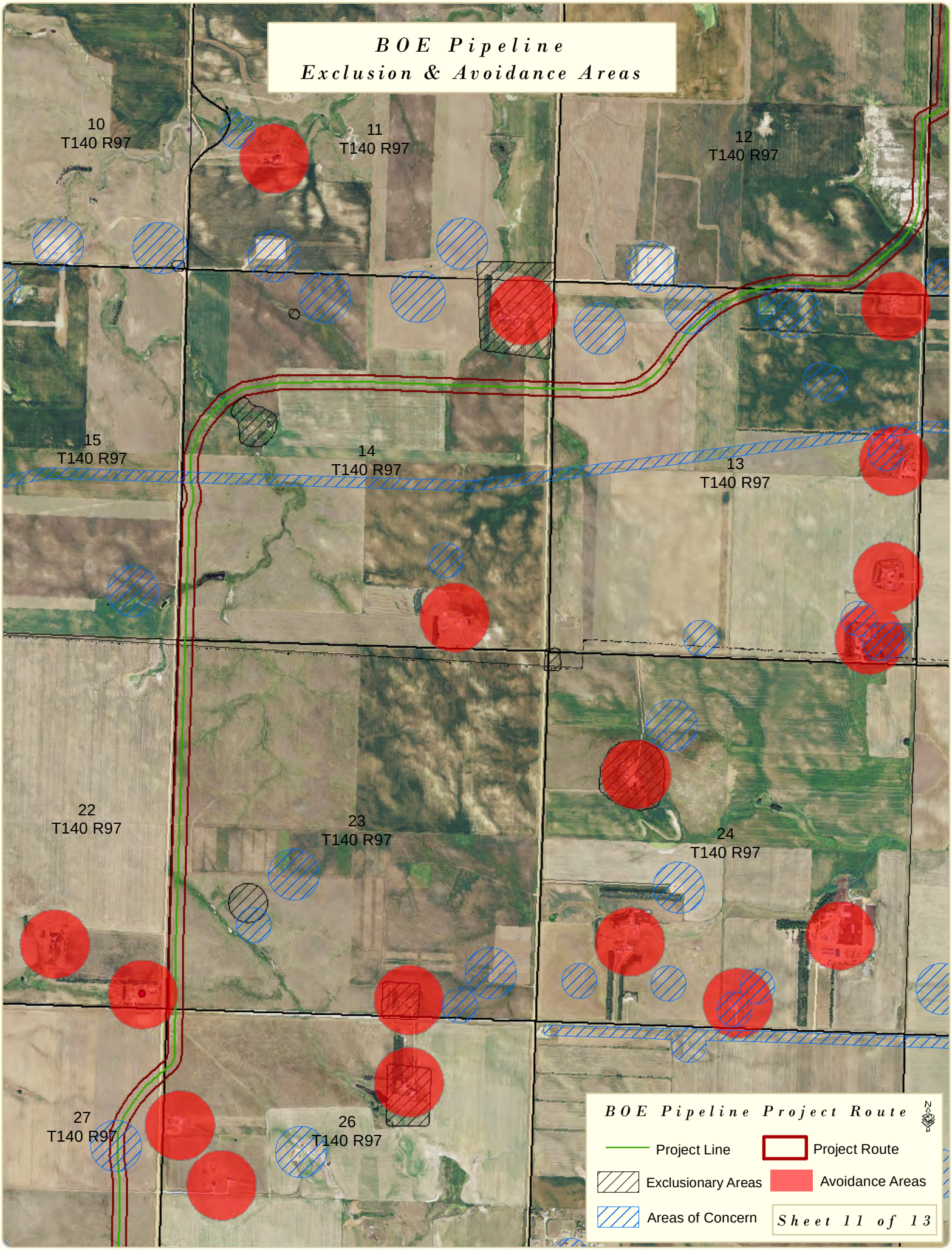
BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 10 of 13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T140 R97
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T140 R97
24
T140 R97
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T140 R97
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BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
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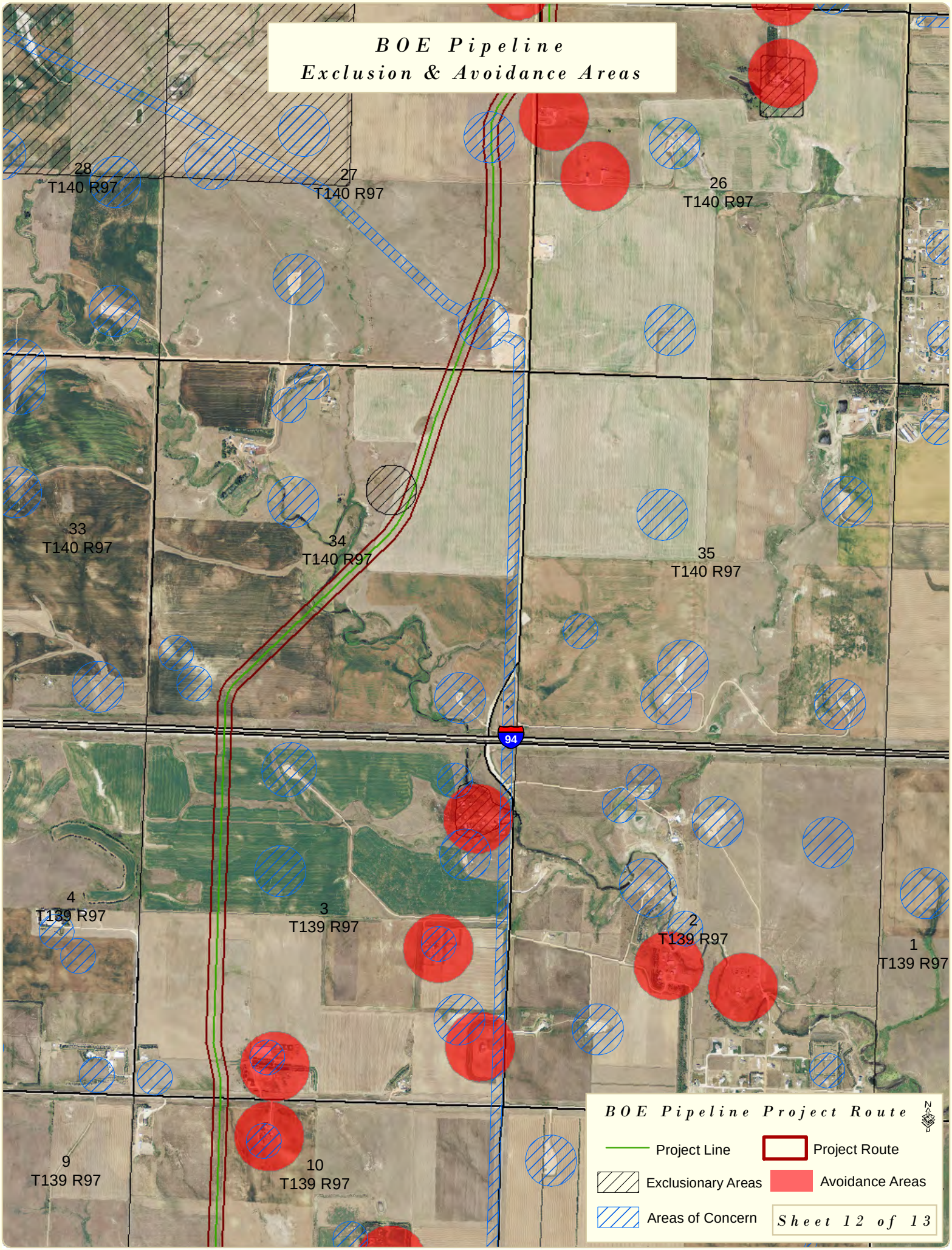
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T139 R97
3
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2
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1
T139 R97
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BOE Pipeline Project Route
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
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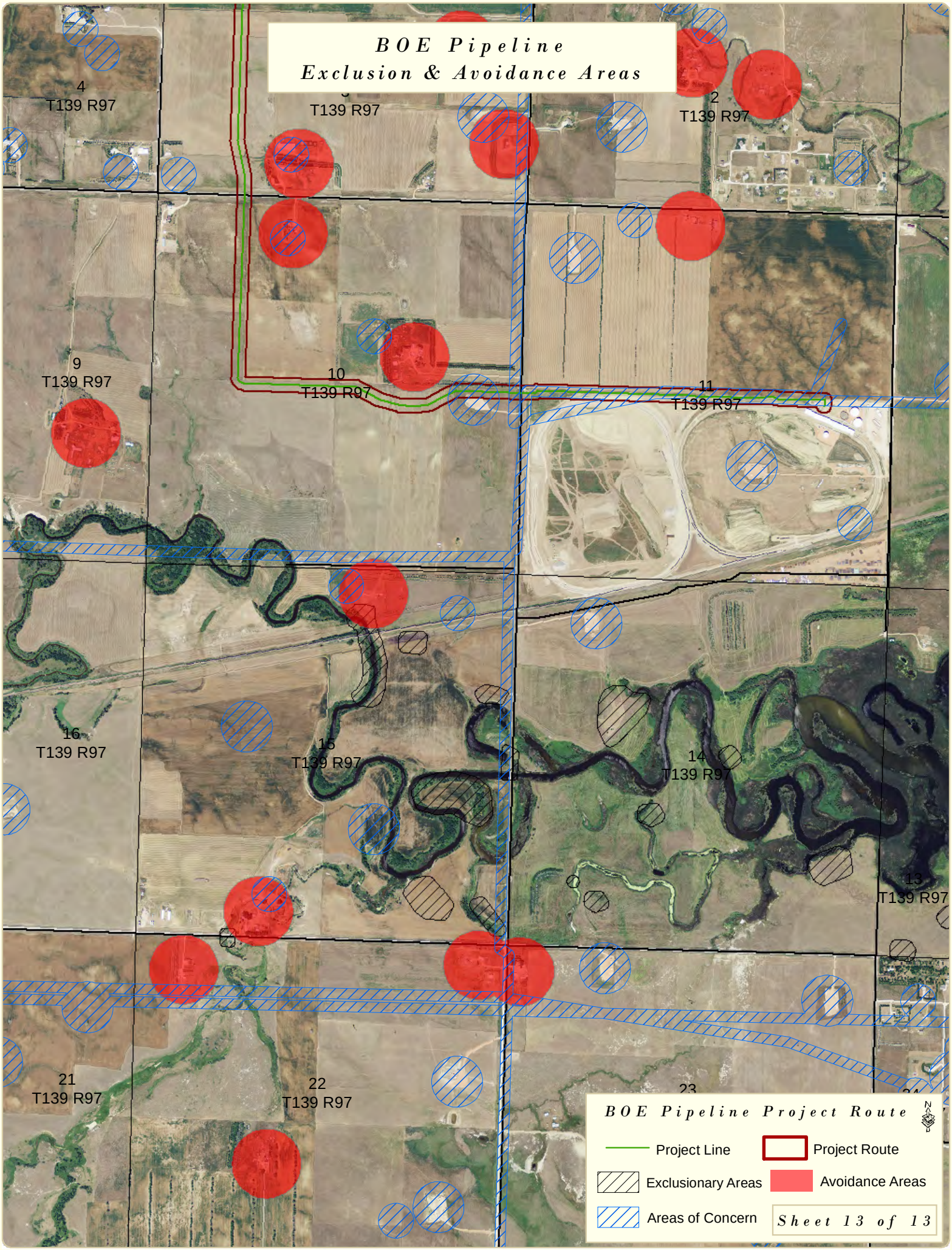
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T139 R97
21
T139 R97
22
T139 R97
23
BOE Pipeline Project Route
N
Project Line
Project Route
Exclusionary Areas
Avoidance Areas
Areas of Concern
Sheet 13 of 13

Figure A-11. Prehistoric and Historic Recorded Sites

Appendix B. Soil Table

Table B-1. Soil Summary

MAP UNIT SYMBOL	SOIL TYPE	IDENTIFIED WITHIN CORRIDOR		PRIME FARMLAND	FARMLAND OF STATEWIDE IMPORTANCE	TOTAL ACRES WITHIN PROJECT ROUTE (200 FOOT ROW)
		DUNN	STARK			
3	Straw loam, channeled, 0 to 2 percent slopes	X				3
4	Arnegard loam, 0 to 2 percent slopes	X		X		2.2
4B	Arnegard loam, 2 to 6 percent slopes	X		X		1.6
7	Straw-Rhoades loams, 0 to 2 percent slopes	X				3.2
8C	Cabba-Chama silt loams, 6 to 9 percent slopes	X				7.7
9D	Amor-Cabba loams, 9 to 15 percent slopes	X				15
9E	Cabba loam, 15 to 45 percent slopes	X				36.9
13D	Wabek gravelly loam, 2 to 15 percent slopes	X				3.6
15	Belfield-Farland silt loams, 0 to 2 percent slopes	X			X	17.6
16B	Belfield-Savage silty clay loams, 0 to 6 percent slopes	X			X	2.7
18	Belfield-Grail silty clay loams, 0 to 2 percent slopes	X			X	5.1
19B	Belfield-Morton silt loams, 0 to 6 percent slopes	X			X	9.9
21B	Cherry silty clay loam, 0 to 6 percent slopes	X			X	8.6
27	Farland silt loam, 0 to 2 percent slopes	X			X	2.6
27B	Farland silt loam, 2 to 6 percent slopes	X			X	0.4
29B	Farland-Rhoades silt loam, 0 to 6 percent slopes	X				6
30E	Cohagen-Vebar fine sandy loams, 9 to 25 percent slopes	X				52.9
31F	Cohagen-Vebar-Rock outcrop complex, 15 to 40 percent slopes	X				12
33	Grail silt loam, 0 to 2 percent slopes	X		X		0.8
39	Havrelon silt loam, 0 to 2 percent slopes	X			X	0.7
44D	Lihen loamy fine sand, 6 to 15 percent slopes	X				2
46	Bowdle loam, 0 to 2 percent slopes	X			X	3
47	Moreau silty clay, 0 to 3 percent slopes	X			X	7.6
47B	Moreau silty clay, 3 to 6 percent slopes	X			X	16.8
47C	Moreau silty clay, 6 to 9 percent slopes	X				2.1
49B	Morton silt loam, 3 to 6 percent slopes	X			X	5.3
49C	Morton silt loam, 6 to 9 percent slopes	X			X	1.1
52B	Morton-Dogtooth silt loams, 0 to 6 percent slopes	X				22.6
52C	Morton-Dogtooth silt loams, 6 to 9 percent slopes	X				0.9
54B	Parshall fine sandy loam, 0 to 6 percent slopes	X			X	5
58B	Regent silty clay loam, 3 to 6 percent slopes	X			X	7.5
58C	Regent silty clay loam, 6 to 9 percent slopes	X			X	2.9

MAP UNIT SYMBOL	SOIL TYPE	IDENTIFIED WITHIN CORRIDOR		PRIME FARMLAND	FARMLAND OF STATEWIDE IMPORTANCE	TOTAL ACRES WITHIN PROJECT ROUTE (200 FOOT ROW)
		DUNN	STARK			
61B	Regent-Dogtooth silty clay loams, 0 to 6 percent slopes	X				68.3
61C	Regent-Dogtooth silty clay loams, 6 to 9 percent slopes	X				1.3
62B	Rhoades silt loam, 0 to 6 percent slopes	X				73.6
67	Savage silty clay loam, 0 to 2 percent slopes	X			X	9
69B	Savage-Rhoades silty clay loams, 0 to 6 percent slopes	X				14.4
71B	Sen silt loam, 3 to 6 percent slopes	X			X	15.7
71C	Sen silt loam, 6 to 9 percent slopes	X			X	3.2
75	Straw loam, 0 to 2 percent slopes	X		X		6.8
79	Velva fine sandy loam, 0 to 2 percent slopes	X			X	4.3
81B	Vebar-Parshall fine sandy loams, 0 to 6 percent slopes	X			X	28.7
81C	Vebar-Parshall fine sandy loams, 6 to 9 percent slopes	X				56.6
81D	Vebar fine sandy loams, 9 to 15 percent slopes	X				27.1
94E	Wayden silty clay, 9 to 25 percent slopes	X				4.6
101B	Amor-Shambo loams, 3 to 6 percent slopes	X			X	33.3
101C	Amor loam, 6 to 9 percent slopes	X			X	10.5
102	Shambo loam, 0 to 2 percent slopes	X			X	5.1
102B	Shambo loam, 2 to 6 percent slopes	X			X	2.6
105	Harriet silt loam, 0 to 2 percent slopes	X				6.7
106B	Daglum silt loam, 0 to 6 percent slopes	X				8.9
E0611B	Belfield-Savage silty clay loams, 2 to 6 percent slopes	X	X		X	11.7
E4173A	Straw loam, channeled, 0 to 2 percent slopes	X				2.4
E0415A	Belfield-Daglum silt loams, 0 to 2 percent slopes		X			4.5
E0453A	Daglum-Rhoades complex, 0 to 2 percent slopes		X			3.3
E0515A	Rhoades-Daglum complex, 0 to 2 percent slopes		X			5.9
E0543A	Rhoades-Daglum complex, saline, 0 to 2 percent slopes		X			4.6
E0563B	Janesburg-Dogtooth silt loams, 3 to 6 percent slopes		X			0.5
E0605A	Belfield-Grail silty clay loams, 0 to 2 percent slopes		X		X	8.3
E0651A	Regent-Janesburg complex, 0 to 3 percent slopes		X			4.2
E0651B	Regent-Janesburg complex, 3 to 6 percent slopes		X			9.7
E0835A	Savage silty clay loam, 0 to 2 percent slopes		X		X	1.4
E1025B	Regent-Savage silty clay loams, 3 to 6 percent slopes		X		X	4.7
E1351C	Vebar-Flasher complex, 6 to 9 percent slopes		X			18

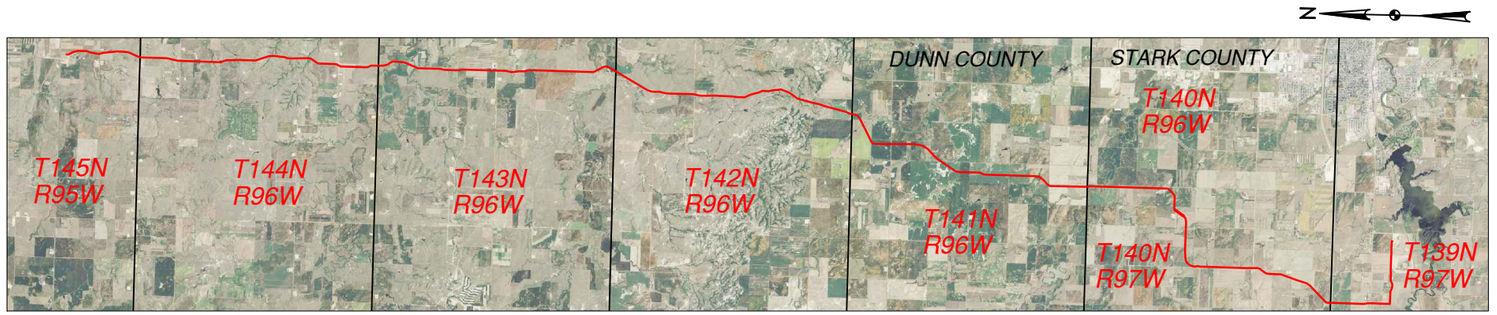
MAP UNIT SYMBOL	SOIL TYPE	IDENTIFIED WITHIN CORRIDOR		PRIME FARMLAND	FARMLAND OF STATEWIDE IMPORTANCE	TOTAL ACRES WITHIN PROJECT ROUTE (200 FOOT ROW)
		DUNN	STARK			
E1355D	Vebar-Flasher-Tally complex, 9 to 15 percent slopes		X			6.2
E1423F	Flasher-Vebar-Parshall complex, 9 to 35 percent slopes		X			1
E1625B	Vebar-Parshall fine sandy loams, 3 to 6 percent slopes		X		X	27.3
E1635C	Vebar-Tally fine sandy loams, 6 to 9 percent slopes		X			2.4
E1823A	Parshall fine sandy loam, 0 to 2 percent slopes		X		X	5.2
E2145B	Shambo loam, 2 to 6 percent slopes		X		X	4
E2439B	Sen-Janesburg silt loams, 3 to 6 percent slopes		X			13.3
E2601C	Amor-Cabba loams, 6 to 9 percent slopes		X			6.1
E2601D	Amor-Cabba loams, 9 to 15 percent slopes		X			1.1
E2617F	Cabba-Amor loams, 15 to 50 percent slopes		X			2.8
E2737C	Chama-Cabba-Sen silt loams, 6 to 9 percent slopes		X			4.4
E2803B	Amor-Shambo loams, 3 to 6 percent slopes		X		X	2.2
E3003E	Amor-Brandenburg complex, 3 to 25 percent slopes		X			0.2
E3107F	Cabba-Badland outcrop complex, 6 to 70 percent slopes		X			0.7
E4005A	Harriet silt loam, 0 to 2 percent slopes		X			2.6
E4121A	Havrelon silt loam, 0 to 2 percent slopes		X		X	2
E4123A	Havrelon silt loam, channeled, 0 to 2 percent slopes		X			2.6
E4180A	Straw-Daglum complex, channeled, 0 to 2 percent slopes		X			2.2
E4585B	Manning fine sandy loam, 2 to 6 percent slopes		X			0.8
E4729A	Heil silt loam, 0 to 1 percent slopes		X			0.6
E4981F	Orthents-Highway complex, 0 to 35 percent slopes		X			1.9
E6045B	Belfield-Daglum silt loams, golden valley, 2 to 6 percent slopes		X			2.1
E6060A	Belfield-Grail silty clay loams, golden valley, 0 to 2 percent slopes		X		X	0.3
E6065B	Regent-Janesburg complex, golden valley, 3 to 6 percent slopes		X			6
E6065C	Regent-Janesburg complex, golden valley, 6 to 9 percent slopes		X			2.6
E6067A	Savage-Daglum silt loams, golden valley, 0 to 2 percent slopes		X			2.8
E6085B	Savage silty clay loam, golden valley, 2 to 6 percent slopes		X		X	0.9
E6131C	Vebar-Cohagen fine sandy loams, golden valley, 3 to 9 percent slopes		X			10.6
E6135D	Vebar-Flasher-Tally complex, golden valley, 9 to 15 percent slopes		X			20.6

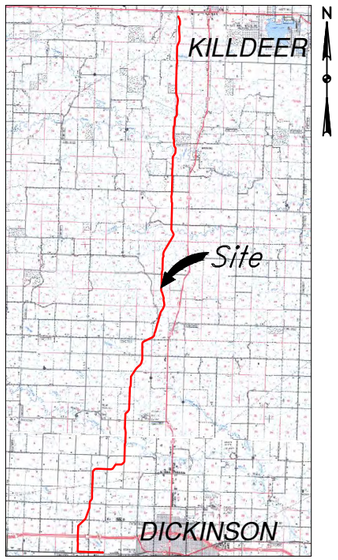
MAP UNIT SYMBOL	SOIL TYPE	IDENTIFIED WITHIN CORRIDOR		PRIME FARMLAND	FARMLAND OF STATEWIDE IMPORTANCE	TOTAL ACRES WITHIN PROJECT ROUTE (200 FOOT ROW)
		DUNN	STARK			
E6141D	Beisigl-Flasher-Telfer loamy fine sands, golden valley, 6 to 15 percent slopes		X			3.4
E6153D	Lefor-Cohagen fine sandy loam, golden valley, 6 to 15 slopes		X			0.3
E6163B	Vebar-Parshall fine sandy loams, golden valley, 3 to 6 percent slopes		X		X	39.3
E6165C	Vebar-Tally fine sandy loams, golden valley, 6 to 9 percent slopes		X			2.2
E6183A	Parshall fine sandy loam, golden valley, 0 to 2 percent slopes		X		X	5
E6215A	Shambo loam, golden valley, 0 to 2 percent slopes		X		X	1.1
E6215B	Shambo loam, golden valley, 2 to 6 percent slopes		X		X	1.6
E6217A	Arnegard loam, golden valley, 0 to 2 percent slopes		X	X		0.9
E6249B	Sen-Janesburg silt loams, golden valley, 3 to 6 percent slopes		X			1.1
E6261C	Amor-Cabba loams, golden valley, 6 to 9 percent slopes		X			1.4
E6261D	Amor-Cabba loams, golden valley, 9 to 15 percent slopes		X			5.1
E6289B	Reeder-Farnuf loams, golden valley, 3 to 6 percent slopes		X		X	1.5
E6410A	Straw-Daglum complex, channeled, golden valley, 0 to 2 percent slopes		X			1.9
E6451E	Manning-Schaller-Wabek complex, golden valley, 6 to 25 percent slopes		X			1.4
Total	*Dunn*	*53*	*-*	*4*	*26*	*656.4*
	Stark	*-*	*55*	*1*	*16*	*274.5*
	Total	***107***		***5***	***41***	***930.9***

Appendix C. Engineering Documents

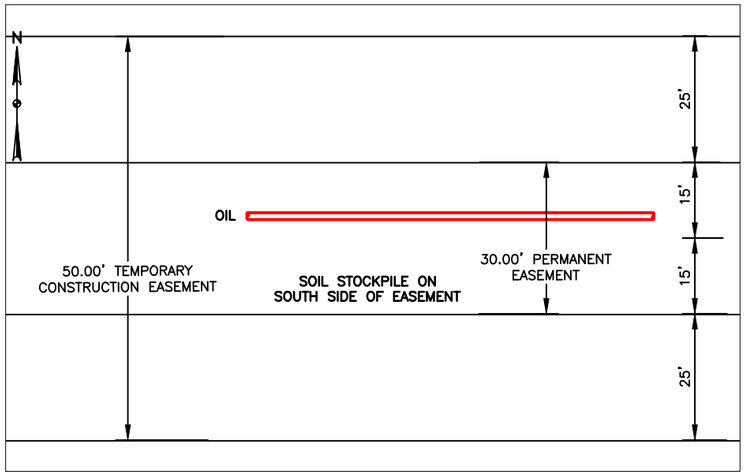
Figure C-1. Pipeline Alignment

BAKKEN OIL EXPRESS PIPELINE
PRELIMINARY ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA

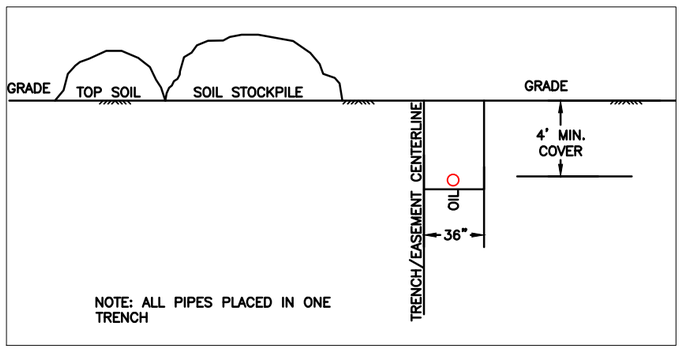




Location Map



EASEMENT TRENCH PLAN VIEW
NTS



EASEMENT TRENCH PROFILE
NTS

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3. LANDOWNER STIPULATIONS (2)
4. BORE LIST
5. TEST STATION SCHEDULE
6. PLAN AND PROFILE- ALIGNMENT SHEET 1
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50. DUCK CREEK CROSSING, BORE #40
51. INTERSTATE 94 CROSSING, BORE #41
52. VALVE SETTING WITH FUTURE PLAN & PROFILE VIEW
53. VALVE SETTING PLAN & PROFILE VIEW
54. RISER DETAIL PLAN & PROFILE VIEW

THIS DOCUMENT AND THE DATA AND INFORMATION UPON WHICH THIS DOCUMENT IS BASED IS THE PROPERTY OF, AND PROPRIETARY TO, THE OWNERS OF HESS CORPORATION AND NEITHER THIS DOCUMENT NOR THE INFORMATION CONTAINED HEREIN SHALL BE DUPLICATED, USED, OR DISCLOSED EXCEPT AS AUTHORIZED, BY SAID OWNERS OR THE OWNER'S AGENT.

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Dakota North Zone, International Foot. Azimuths shown are Grid Azimuths, distances shown are grid distance. Combined scale factor = 1.000165099 to go from grid distance to ground distance.

PRELIMINARY

CALL BEFORE YOU DIG

10000' 0 10000' 20000'
scale feet

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	193,000'	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	15,000'	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1:20000
DRAWN BY: D. DIONNE
DATE: 08/19/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: _ SHEET: 1

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
INDEX SHEET
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01_New.dwg

© KLJ !!!!

BAKKEN OIL EXPRESS PIPELINE
PRELIMINARY ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA

SPECIFIC LANDOWNER'S STIPULATIONS

NAME	LEGALS	COMMENTS
MANLEY TRUCHAN	E1/2W1/2 & W1/2W1/2 LESS 4.02 ACRES & LESS 18.77 ACRES TRACT 28–145–95, NW1/4, SW1/4 & SE1/4 33–145–95	
ALVIN SADOWSKY	S1/2NW1/4, LOTS 3 & 4 & SW1/4 1–144–96	
GERALD KULISH	SE1/4 2–144–96	
JOAN & ANDREW KULISH	ALL 11–144–96	
ROBERT K. & DONNA J. KOVALOFF	NE1/4 14–144–96	
LANCE & CHRISTY LARSEN	NW1/4 & SW1/4 13–144–96, NW1/4 24–144–96	
WALTER STEFFEN	SW1/4 & SE1/4 24–144–96, NW1/4 & NE1/4 25–144–96	
AGNES M SCOTT	SW1/4 25–144–96	
LEO W. & SUSAN E. KRENZEL	SE1/4 & NE 1/4 LESS 1.08 ACRES 26–144–96	
ROGER & LINDA BREW	NE1/4 & NW1/4 35–144–96	
AGNES M. & BILLY K. SCOTT AS TRUSTEES OF WILLIAM D. & AGNES M. SCOTT FAMILY TRUST	SE1/4 LESS 2.51 ACRES 35–144–96	
ND TRUST LANDS	SW1/4 36–144–96	
GERALD & DONNA J ELKINS	LOTS 3 & 4, S1/2NW1/4 1–143–96	
SHAWN & JENNIFER BREW	SW1/4 LESS 13 ACRES IN SE1/4SW1/4 1–153–96, S1/2NE1/4, NE1/4SE1/4 & N1/2SE1/4SE1/4 2–143–96	
MELVIN KADRMAS	S1/2SE1/4SE1/4 2–143–96	
GEORGE KUBIK	NE1/4 & SE1/4 11–143–96	
WILLIAM & BEATRICE KUBISCHTA	NE1/4 LESS 1.50 ACRES & N1/2SE1/4 14–143–96	
BYRON & CARLA KUBIK	S1/2SE1/4 14–143–96, NE1/4 LESS 2.51 ACRES & SE1/4 23–143–96	

SPECIFIC LANDOWNER'S STIPULATIONS

NAME	LEGALS	COMMENTS
TED & REANN KAUTZMAN	NW1/4 LESS 2.41 ACRES & SW1/4 24–143–96	
TIM STROH	NW1/4 & SW1/4 25–143–96, N1/2NW1/4, N1/2NE1/4, S1/2NW1/4 & N1/2SW1/4 LESS 2.11 ACRES 36–143–96	
HENRY & LILLIAN KOVASH	S1/2S1/2 LESS 1.78 ACRES HWY ROW 36–143–96	
DAVID SADOWSKY	S1/2NW1/4, LOTS 3 & 4 & SW1/4 1–142–96	
DAVID & LAURA SADOWSKY	LOTS 1–4, S1/2NE1/4, S1/2NW1/4 2–142–9, NW1/4 & SE1/4 14–142–966	
LAVONNE BULLINGER	E1/2SW1/4 & SE1/4 2–142–96	
DAVID & PAULINE SADOWSKY FAMILY TRUST	ALL 11–142–96	
MARK & TINA KOVASH	NE1/4 14–142–96	
HARLAN & BUDDINE BULLINGER	ALL 23–142–96, W1/2 LESS 19.96, 76.76, 94.28, 20.70 ACRES, NE1/4 & SE1/4 26–142–96, NW1/4 35–142–96	
LEE & CORRINE PAVLICEK	SW1/4 LESS 2.52 ACRES & 1.98 ACRES 35–142–96, S1/2NW1/4 LOTS 3 & 4 LESS 2.52 ACRES 2–141–96	
DON & MARJORIE BINSTOCK	S1/2NE1/4, LOTS 1 & 2 LESS 2.52 ACRES & S1/2NW1/4, LOTS 3 & 4 LESS 2.52 ACRES 3–141–96	
KENNETH & RENA KADRMAS	SW1/4 3–141–96, NW1/4 LESS 1 ACRE & SW1/4 10–141–96 NE1/4 & SE1/4 21–141–96	
WILLARD & EMMA JAEGER	NE1/4SE1/4 16–141–96 NW1/4 15–141–96	
JOHN JR. & EMMA JAEGER	E1/2NE1/4 16–141–96	

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NONE
DRAWN BY: S. IRWIN
DATE: 8/20/2013
CHECKED BY: S. FOSTER
APPROVED BY: J. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 2

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
LANDOWNER STIPULATION
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01–Landowners–Bores–Cathodic Testing.dwg

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BAKKEN OIL EXPRESS PIPELINE
PRELIMINARY ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA

SPECIFIC LANDOWNER'S STIPULATIONS		
NAME	LEGALS	COMMENTS
MARTHA A. KOSTELECY	W1/2SE1/4 & SE1/4SE1/4 16–141–96	
DELMAR FICEK	NE1/4, E1/2SW1/4 LESS .21 & 1.06 ACRES 28–141–96, LOTS 1, 2, 7, 8, 9, & 10 1–140–97	
NORBERT & GLADYS ZASTOUPIL	SE1/4 LESS .42 & 2.09 ACRES 28–141–96	
EUGENE & KATHLEEN KINZEL	W1/2E1/2 LESS 1.06 ACRES, SW1/4, NW1/4 LESS 2.12 ACRES & LESS 5 ACRES TRACT (440X495) 33–141–96	
GEORGE R KUCHYNSKI FAMILY TRUST	E1/2SE1/4 & SW1/4 1–140–97	
HILDEGARD KUCHYNSKI FAMILY TRUST	NE1/4 & SW1/4 12–140–97	
MJK FAMILY LIMITED PARTNERSHIP	SE1/4 12–140–97	
DOUGLAS & KATHLEEN SCHMIDT	NW1/4 13–140–97, NW1/4 & NE1/4 14–140–97	
CLARENCE TUHY	SW1/4 14–140–97	
STATE OF NORTH DAKOTA	NW1/4, SW1/4 & SE1/4 23–140–97	
ARTHUR S RIDL, ETAL	NW1/4 26–140–97, NE1/4 27–140–97	
FALLER FAMILY REVOKABLE TRUST	SE1/4 27–140–97	
ROGETTE SHANNON	NE1/4 & SE1/4 34–140–97	
GORDON & RODNEY KOSTELECKY	SW1/4 34–140–97	
RUDOLOPH PAZOUREK	NW1/4, S1/2NE1/4 & LOTS 1 & 2 3–139–97	
MELISSA CHRUSZCH	SW1/4 LESS SW1/4SW1/4 & 1 TRACT 3–139–97	

SPECIFIC LANDOWNER'S STIPULATIONS		
NAME	LEGALS	COMMENTS
DARRELL A CHRUSZCH	SW1/4SW1/4 3–139–97	
KEN & LEONA BARNHART	W1/2NW1/4 10–139–97	
EDOG MANIFEST, LLC	SW1/4 & SE1/4 10–139–97	
BOE MATERIALS LLC	SW1/4 LESS 16.287 11–139–97	
BAKKEN OIL EXPRESS LLC	SE1/4 11–139–97	

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NONE
DRAWN BY: S. IRWIN
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 3

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
LANDOWNER STIPULATION
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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BAKKEN OIL EXPRESS PIPELINE
PRELIMINARY ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA

BORE LIST						
BORE NO.	STATIONING	TYPE	COMMENTS	LENGTH	SECTION	SHEET
1	27+78.39 34+01.02	PRIVATE	WETLAND	580'	28–145–95	5
2	45+88.44 47+63.44	COUNTY	ACCESS ROAD	175'	28–145–95 33–145–95	5
3	147+87.84 151+49.16	PRIVATE	MURPHY CREEK	200'	1–144–96	7
4	156+05.09	COUNTY	7TH ST SW	300'	1–144–96 12–144–96	8
5	196+30.10 200+30.10	PRIVATE	WETLAND	400'	12–144–96	8
6	234+78.98 238+28.98	PRIVATE	WETLAND	350'	13–144–96	9
7	277+53.47 280+03.47	PRIVATE	WETLAND	250'	24–144–96	10
8	286+10.05	PRIVATE	DRAINAGE	250'	24–144–96	10
9	327+73.13 329+68.68	PRIVATE	WOLF CREEK	196'	25–144–96	11
10	371+24.30	COUNTY	11TH ST SW	500'	25–144–96 26–144–96 35–144–96	12
11	413+90.68	COUNTY	109TH AVE SW	268'	35–144–96 36–144–96	13
12	424+95.27	COUNTY	12TH ST SW	250'	36–144–96 1–143–96	13
13	473+79.38 479+99.19	PRIVATE	KNIFE RIVER	623.0'	2–143–96	14
14	518+37.92 522+37.92	PRIVATE	WETLAND	400'	11–143–96	15
15	533+56.94	COUNTY	14TH ST SW	300'	11–143–96 14–143–96	15
16	586+47.80	COUNTY	15TH ST SW	300'	14–143–96 23–143–96	16
17	692+55.86	COUNTY	17TH ST SW	300'	25–144–96 36–143–96	18
18	718+70.43 722+70.43	PRIVATE	CROOKED CREEK	400'	36–143–96	19
19	748+69.60	COUNTY	18TH ST SW	300'	36–143–96 1–142–96	19
20	848+96.36 850+96.36	PRIVATE	WETLAND	200'	11–142–96	21
21	860+78.92	COUNTY	20TH ST SW	250'	11–142–96 14–142–96	22
22	1004+15.56 1006+69.66	PRIVATE	WETLAND	347'	26–142–96	25
23	1030+38.67 1033+83.71	PRIVATE	AVOIDANCE AREA	300'	35–142–96	25
24	1079+97.34	COUNTY	24TH ST SW	300'	35–142–96 2–141–96	26
25	1100+16.53 1103+66.53	PRIVATE	WETLAND	350'	3–141–96	27
26	1153+91.49	COUNTY	25TH ST SW	300'	3–141–96 10–141–96	28
27	1186+38.11 1190+38.11	PRIVATE	RUSSIAN SPRING CREEK	400'	10–141–96	28
28	1209+33.43	COUNTY	26TH ST SW	300'	10–141–96 15–141–96	29
29	1285+62.82 1290+40.13	PRIVATE	WETLAND	516'	21–141–96	30

BORE LIST						
BORE NO.	STATIONING	TYPE	COMMENTS	LENGTH	SECTION	SHEET
30	1380+68.57	COUNTY	29TH ST SW	272'	28–141–96 33–141–96	32
31	1398+76.28 1403+76.28	PRIVATE	WETLAND	500'	33–141–96	33
32	1444+37.84 1459+96.65	PRIVATE	GREEN RIVER	1566.4'	6–140–96	34
33	1498+87.84	COUNTY	31ST ST SW	300'	1–140–97 12–140–97	35
34	1604+30.07	COUNTY	115TH AVE SW	300'	13–140–97 14–140–97	37
35	1651+74.05 1655+54.03	PRIVATE	WETLAND	575'	14–140–97	38
36	1677+93.87 1681+93.87	PRIVATE	WETLAND	400'	14–140–97	39
37	1740+10.56	COUNTY	34TH ST SW	274'	23–140–97 26–140–97	40
38	1751+89.13	COUNTY	116TH AVE SW	300'	26–140–97 27–140–97	40
39	1795+69.78	COUNTY	35TH ST SW	300'	27–140–97 34–140–97	41
40	1833+61.35 1839+58.81	PRIVATE	DUCK CREEK	600.4'	34–140–97	42
41	1856+48.83 1861+61.91	STATE	INTERSTATE 94	514.7'	34–140–97 3–139–97	42
42	1911+79.50	STATE	HIGHWAY 10	300'	3–139–97 10–139–97	43
43	1979+78.34	COUNTY	116TH AVE SW	350'	10–139–97 11–139–97	45

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NONE
DRAWN BY: S. IRWIN
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: _ SHEET: 4

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
BORE LIST
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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BAKKEN OIL EXPRESS PIPELINE
PRELIMINARY ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA

TEST STATION SCHEDULE		
STATION	TYPE	NOTE
0+00.00	TYPE–1	PIPELINE START
45+69.20	TYPE–2A	ONEOK PIPELINE CROSSING
101+14.33	TYPE–1	INSTALL TEST STATION IN FENCE LINE
155+29.33	TYPE–2A	FOREIGN CROSSING HUNT PIPELINE
209+87.18	TYPE–2A	FOREIGN CROSSING ONEOK PIPELINE
289+61.53	TYPE–1	INSTALL TEST STATION IN FENCE LINE
311+06.73	TYPE–3	INSTALL TEST STATION AT POWER LINE CROSSING
369+29.41	TYPE–1	11TH STREET SW CROSSING – INSTALL IN ROW FENCING
424+19.04	TYPE–1	12TH STREET SW CROSSING – INSTALL IN ROW FENCING
477+28.92	TYPE–1	INSTALL TEST STATION IN FENCE LINE
533+23.15	TYPE–1	14TH STREET SW CROSSING – INSTALL IN ROW FENCING
587+23.04	TYPE–1	15TH STREET SW CROSSING – INSTALL IN ROW FENCING
626+50.45	TYPE–2A	FOREIGN CROSSING PIPELINE
692+16.46	TYPE–1	17TH STREET SW CROSSING – INSTALL IN ROW FENCING
748+33.28	TYPE–1	18TH STREET SW CROSSING – INSTALL IN ROW FENCING
807+26.32	TYPE–2A	FOREIGN CROSSING HILAND PARTNERS PIPELINE
853+28.78	TYPE–2A	FOREIGN CROSSING HILAND PARTNERS PIPELINE
914+24.43	TYPE–1	INSTALL TEST STATION IN FENCE LINE
977+73.90	TYPE–2A	FOREIGN CROSSING IN HILAND PARTNERS PIPELINE
1051+87.60	TYPE–1	INSTALL TEST STATION IN FENCE LINE
1071+86.33	TYPE–2A	FOREIGN CROSSING HILAND PARTNERS PIPELINE
1126+35.63	TYPE–1	INSTALL TEST STATION IN FENCE LINE
1154+29.08	TYPE–1	25TH STREET SW CROSSING – INSTALL IN ROW FENCING
1208+92.18	TYPE–1	26TH STREET SW CROSSING – INSTALL IN ROW FENCING
1270+65.48	TYPE–1	INSTALL TEST STATION AT SECTION LINE
1323+93.56	TYPE–1	INSTALL TEST STATION AT SECTION LINE
1380+35.21	TYPE–1	29TH STREET SW CROSSING – INSTALL IN ROW FENCING
1433+52.38	TYPE–1	INSTALL TEST STATION IN FENCE LINE
1476+86.58	TYPE–1	INSTALL TEST STATION IN FENCE LINE
1541+66.68	TYPE–1	INSTALL TEST STATION IN FENCE LINE ALONG ROAD

TEST STATION SCHEDULE		
STATION	TYPE	NOTE
1604+60	TYPE–1	115TH AVE SW CROSSING – INSTALL IN ROW FENCING
1660+56.16	TYPE–1	INSTALL TEST STATION IN FENCE LINE
1666+19.41	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1666+39.00	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1666+47.40	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1667+60.12	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1685+56.72	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1742+07.02	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1750+69.94	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE
1775+48.78	TYPE–2A	FOREIGN CROSSING ONEOK PIPELINE
1775+63.97	TYPE–2A	FOREIGN CROSSING ONEOK PIPELINE
1785+32.62	TYPE–2A	FOREIGN CROSSING CLINE PIPELINE
1790+50.81	TYPE–2A	FOREIGN CROSSING BELLE FOUCHE PIPELINE
1857+21.73	TYPE–1	I–94 INTERSTATE CROSSING – INSTALL IN ROW FENCING
1910+75.83	TYPE–1	HWY 10 CROSSING – INSTALL IN ROW FENCING
1978+53.66	TYPE–2A	FOREIGN CROSSING PIPELINE
1980+85.91	TYPE–2A	FOREIGN CROSSING BELLE FOUCHE PIPELINE
1982+76.80	TYPE–2A	FOREIGN CROSSING BELLE FOUCHE PIPELINE
1986+30.55	TYPE–2A	FOREIGN CROSSING ONEOK PIPELINE
1987+02.09	TYPE–2A	FOREIGN CROSSING BRIDGER PIPELINE

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NONE
DRAWN BY: S. IRWIN
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 5

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
TEST STATION SCHEDULE
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP	0+00.00	MANLEY TRUCHAN E1/2W1/2 & W1/2W1/2 LESS 4.02 ACRES & LESS 18.77 ACRES TRACT 283.54 RODS	46+78.48 MANLEY TRUCHAN NW1/4 & SW1/4 19.49 RODS 50+00.00
STATIONING	0+00.00 BEGIN STA. 2+02.49 P.I. 155°02'07" LT. 3+42.71 P.I. 9°00'01" LT. 10+09.86 P.I. 14°10'29" RT. 16+28.30 P.I. 14°39'58" RT. 19+96.90 1/4 LINE 27+78.39 P.I. 17°01'58" RT. 30+91.94 EXISTING FENCE 31+18.72 EXISTING WETLAND 31+40.82 EXISTING WETLAND 31+80.99 EXISTING FENCE 32+54.21 OVERHEAD POWER LINES 33+58.44 P.I. 9°43'00" LT. 44+24.12 P.I. 41°42'06" LT. 45+69.20 EXISTING ONEOK PIPELINE 45+88.44 P.I. 26°37'11" LT. 46+78.48 SECTION LINE 46+80.82 CL OF ROAD 49+43.14 P.I. 16°24'49" RT.		
PLAN	DUNN COUNTY, NORTH DAKOTA EXISTING DENBURY ONSHORE, LLC PIPELINE EXTRA TEMPORARY WORKSPACE XTO ENERGY, INC. TRUCHAN 11X-33H SEE DETAIL "C" RISER DETAIL MATCHLINE STA. 0+00.00 MATCHLINE STA. 50+00.00 STA=0+00 STA=5+00 STA=10+00 STA=15+00 STA=20+00 STA=25+00 STA=30+00 STA=35+00 STA=40+00 STA=45+00 STA=50+00 STA=55+00 1=BOP 2 3 4 5 6 7 8 9 10 SEC. 28 T.145N., R.95W. 1/4 Line Section Line SEC. 33 T.145N., R.95W. 25.0' 15.0' 15.0' 25.0' N		
EASEMENT WORKSPACE PERMANENT EASEMENT TEMPORARY EASEMENT EXTRA TEMPORARY WORK SPACE			
CLASS			
PIPE BAND	2778' (1) 27+78.39 580' (2) 33+58.44 1230' (1) 45+69.20 175' (2) 45+88.44 237' (1) 47+63.44 T1 0+00.00 T2 45+69.20 50+00.00 PRELIMINARY		
PROFILE	2350 2325 2300 2275 2250 2225 2200 2175 5+00 10+00 15+00 20+00 25+00 30+00 35+00 40+00 45+00 200' 0 200' 400' scale feet		

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4245 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	755 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: 6

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 28 & 33, T145N, R95W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP

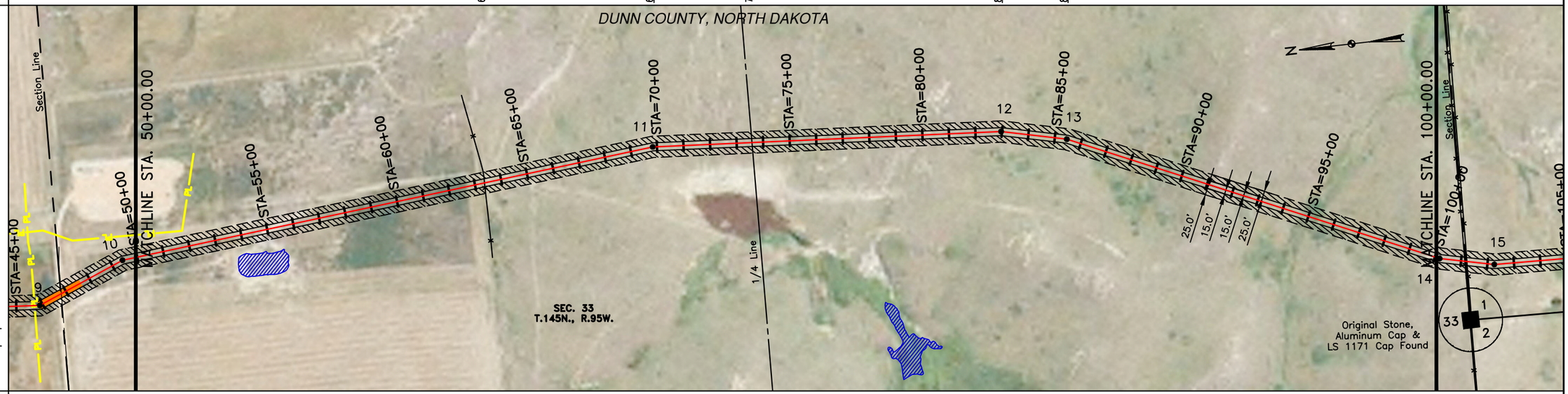
MANLEY TRUCHAN
NW1/4 & SW1/4
303.03 RODS

50+00.00 — 100+00.00

STATIONING

63+36.72 EXISTING FENCE
69+63.95 P.I. 93°26'56" RT.
73+58.07 1/4 LINE
82+96.58 P.I. 97°08'22" RT.
86+45.67 P.I. 111°07'23" RT.

PLAN



EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

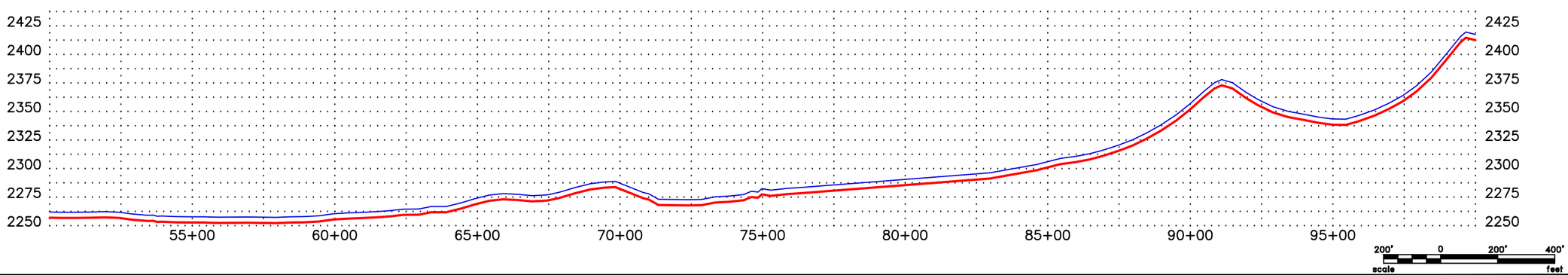
CLASS

PIPE BAND

5000'
①
50+00.00 — 100+00.00

PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	5000 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 7

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 33, T145N, R95W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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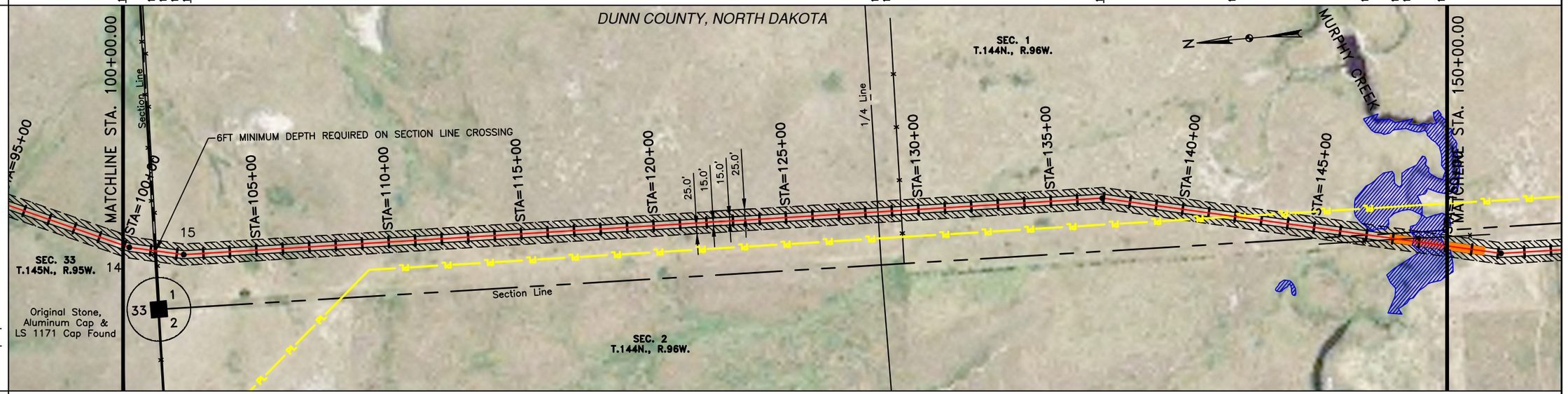
OWNERSHIP	100+00.00 – 101+18.24	MANLEY TRUCHAN NW1/4 & SW1/4 7.17 RODS	ALVIN SADOWSKY S1/2NW1/4, LOTS 3 & 4 & SW1/4 278.03 RODS
	147+05.81 – 150+00.00	GERALD KULISH SE1/4 17.83 RODS	

STATIONING

100+18.79 P.I. 11°28'33" LT.
101+14.33 EXISTING FENCE
101+18.24 SECTION LINE
101+22.32 EXISTING FENCE
102+25.82 P.I. 11°08'34" LT.
128+47.37 1/4 LINE
129+34.81 EXISTING FENCE
136+94.97 P.I. 11°24'24" RT.
142+00.32 EXISTING ONEOK PIPELINE
147+05.81 SECTION LINE
148+20.71 EXISTING FENCE
148+77.74 EXISTING WETLAND
149+96.07 EXISTING WETLAND

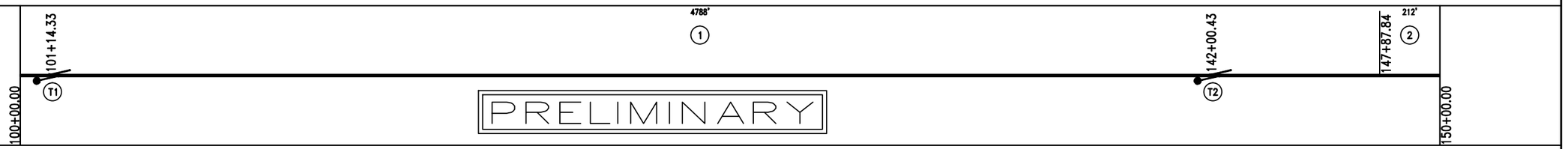
PLAN



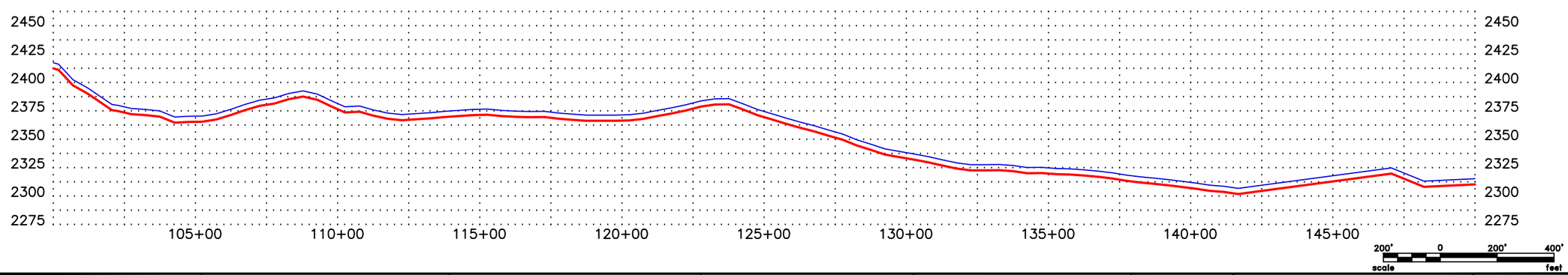
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4788 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	212 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 8

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 33, T145N, R95W & SECTIONS 1 & 2, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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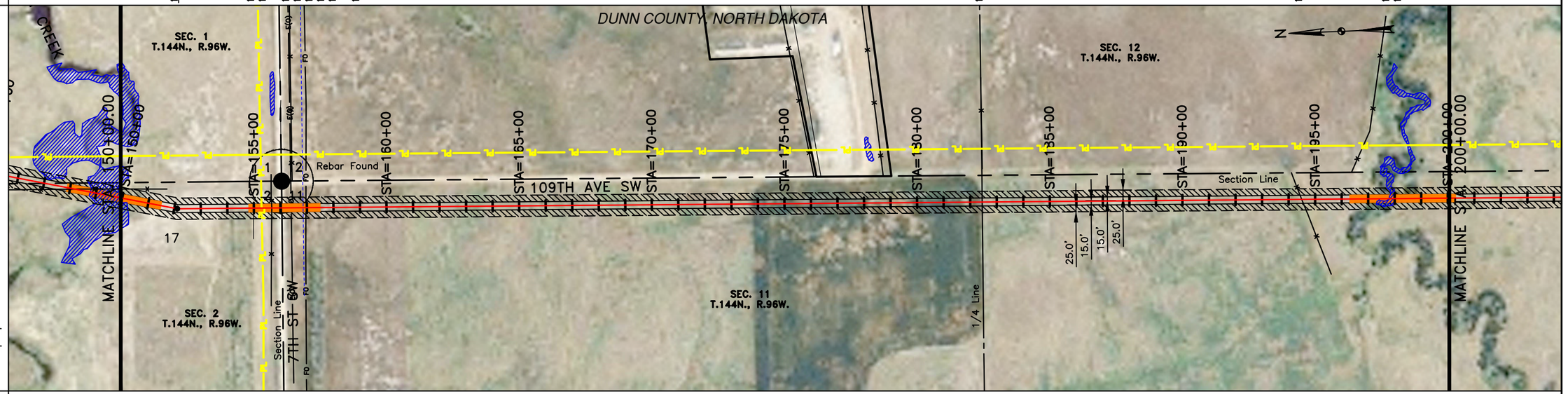
OWNERSHIP	150+00.00	GERALD KULISH SE1/4 36.69 RODS	156+05.43
		JOAN & ANDREW KULISH ALL 266.34 RODS	200+00.00

STATIONING

152+11.27 P.I. 112°07' LT.
154+98.98 EXISTING TREE LINE
155+29.33 EXISTING PETRO HUNT PIPELINE
155+67.48 EXISTING FENCE
156+05.09 CL OF ROAD
156+05.43 SECTION LINE
156+40.81 OVERHEAD POWER LINES
156+85.64 EXISTING NORTHWESTERN BELL TELEPHONE
156+95.86 CONSOLIDATED ENTERPRISES FIBEROPTICS
182+45.49 1/4 LINE
194+49.57 EXISTING FENCE
197+77.87 EXISTING WETLAND
197+98.16 EXISTING WETLAND

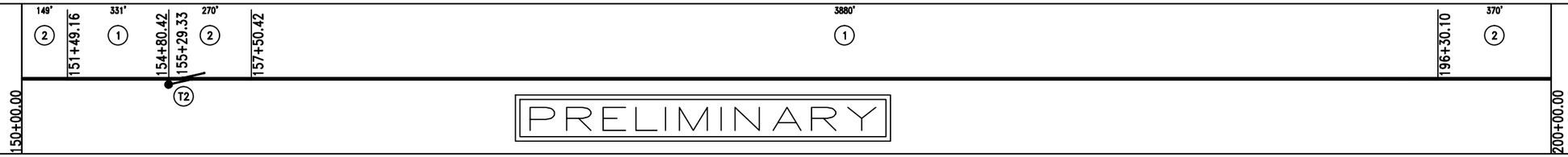
PLAN



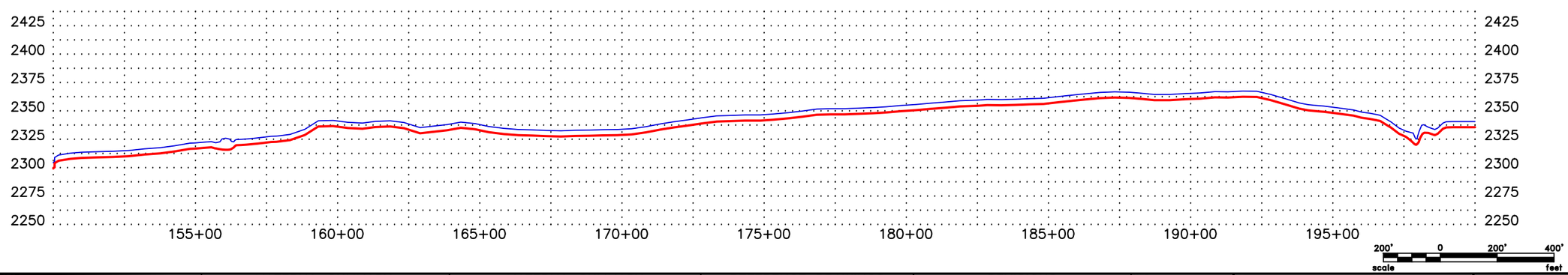
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

PRELIMINARY

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4211 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	789 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 9

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 2 & 11, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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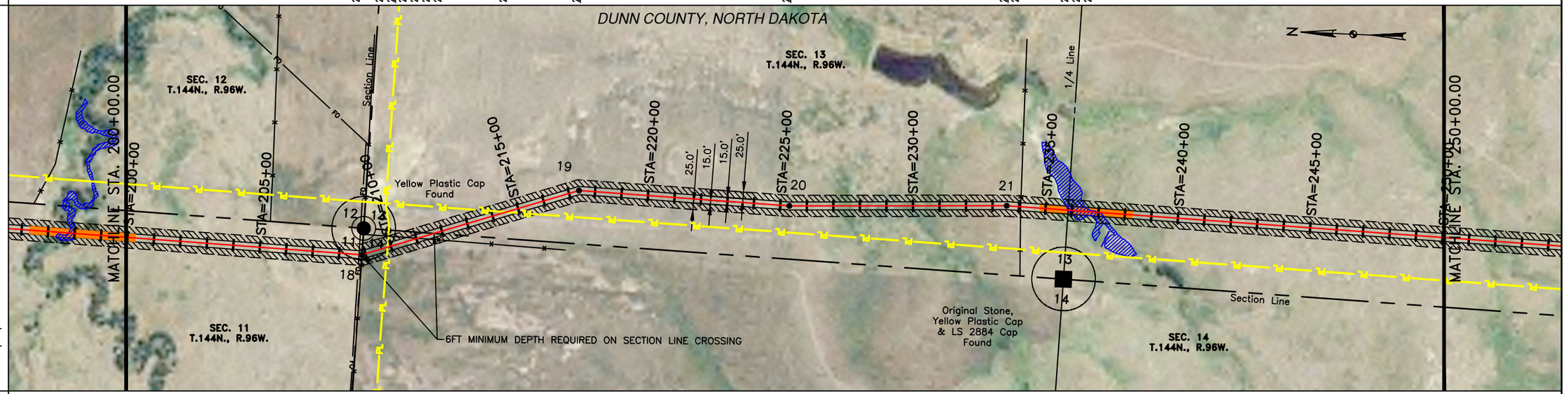
OWNERSHIP	200+00.00	JOAN & ANDREW KULISH ALL 53.67 RODS	208+85.61 / 211+69.58
		ROBERT R. & DONNA J. KOVALOFF NE1/4 17.21 RODS	LANCE & CHRISTY LARSEN NW1/4 & SW1/4 249.77 RODS 250+00.00
STATIONING		208+75.05 CONSOLIDATED ENTERPRISES FIBEROPTICS 208+85.61 SECTION LINE 208+85.62 P.I. 20°43'20" LT. 208+86.61 EXISTING FENCE 209+87.18 EXISTING ONEOK PIPELINE 211+04.93 EXISTING FENCE 211+69.58 SECTION LINE	214+53.43 EXISTING ONEOK PIPELINE 217+39.28 P.I. 20°39'34" RT. 225+33.99 P.I. 4°14'26" LT. 233+53.27 P.I. 4°12'15" RT. 234+06.25 EXISTING FENCE 235+63.61 EXISTING WETLAND 235+85.08 1/4 LINE 237+05.79 EXISTING WETLAND

PLAN

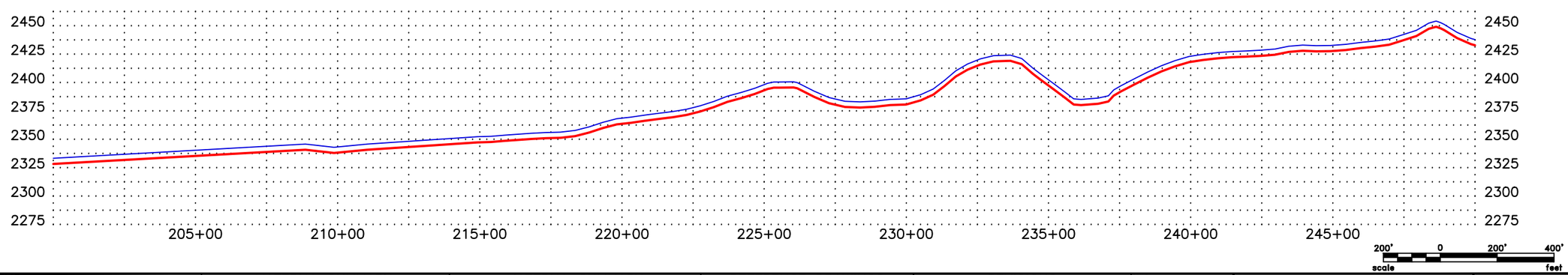


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4620 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	380 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	2 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 10

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 11, 14 & 13, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

128 Soo Line Drive
Bismarck, ND 58502

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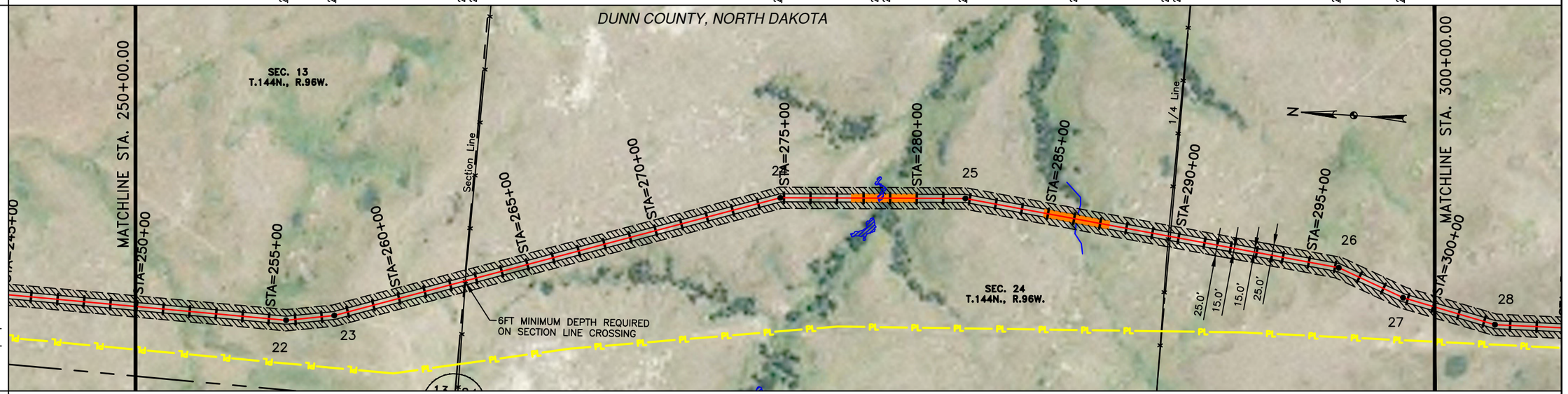
OWNERSHIP	250+00.00	LANCE & CHRISTY LARSEN NW1/4 & SW1/4 76.12 RODS	262+55.90
	262+55.90	LANCE & CHRISTY LARSEN NW1/4 168.07 RODS	289+68.55
	289+68.55	WALTER STEFFEN SW1/4 62.51 RODS	300+00.00
STATIONING	255+64.89 P.I. 10°49'22" LT. 257+47.58 P.I. 9°10'50" LT. 262+55.90 SECTION LINE 262+58.64 EXISTING FENCE 274+86.02 P.I. 14°57'47" RT. 278+53.33 EXISTING WETLAND 278+70.48 EXISTING WETLAND 281+83.28 P.I. 10°17'28" RT. 286+10.06 EXISTING DRAINAGE 289+61.53 EXISTING FENCE 289+68.55 1/4 LINE 296+14.70 P.I. 14°29'23" RT. 298+81.82 P.I. 6°37'39" LT.		

PLAN

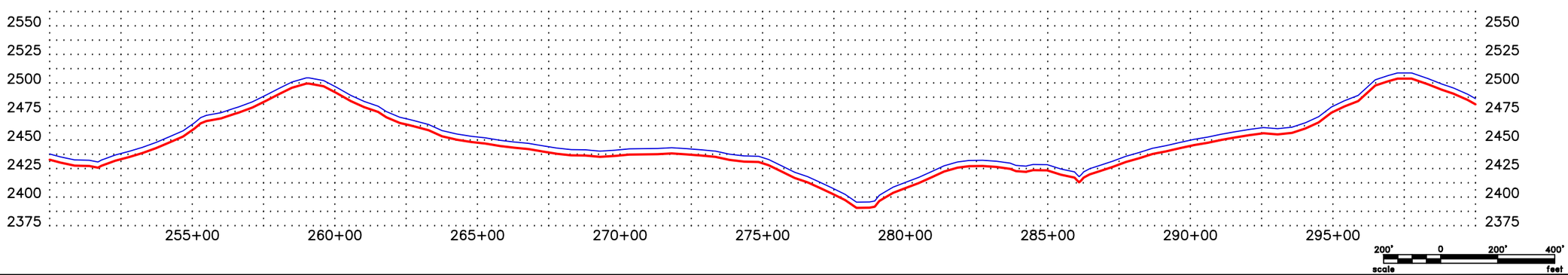


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4500 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	500 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 11

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 13 & 24, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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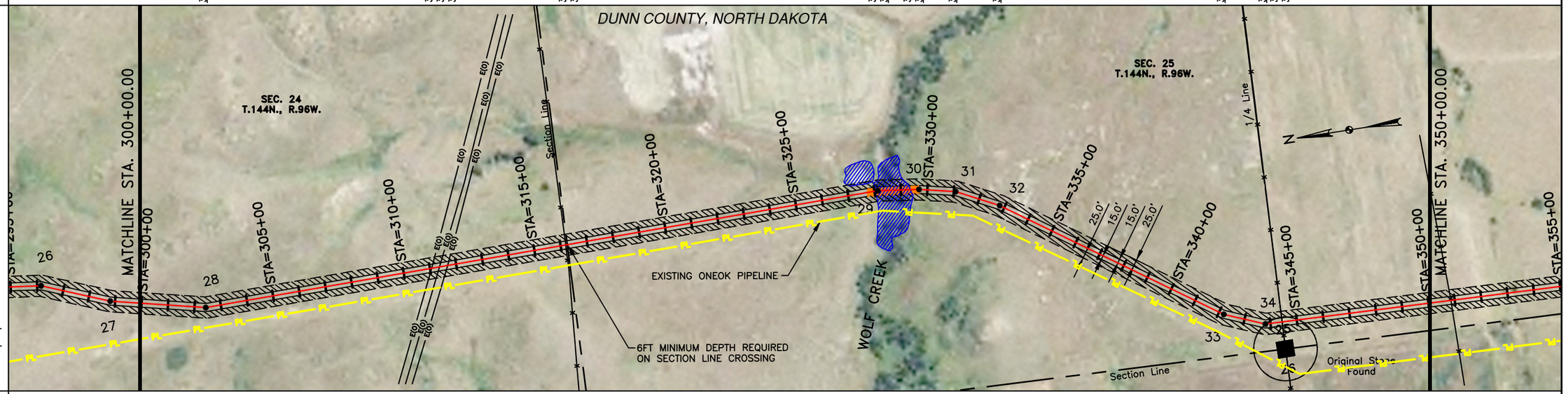
OWNERSHIP	300+00.00	WALTER STEFFEN SW1/4 98.51 RODS	316+25.37
	316+25.37	WALTER STEFFEN NW1/4 170.83 RODS	344+44.12
	344+44.12	AGNES M SCOTT SW1/4 37.36 RODS	350+00.00

STATIONING

302+42.69 P.I. 13°42'12" LT.
311+06.73 OVERHEAD POWER LINES
311+36.42 OVERHEAD POWER LINES
311+67.56 OVERHEAD POWER LINES
316+19.40 EXISTING FENCE
316+25.37 SECTION LINE
328+04.01 EXISTING WETLAND
328+13.10 P.I. 8°09'11" RT.
329+36.34 EXISTING WETLAND
329+68.68 P.I. 5°01'58" RT.
331+06.69 P.I. 14°12'10" RT.
332+81.03 P.I. 6°19'59" RT.
342+19.80 P.I. 12°52'08" LT.
343+80.93 P.I. 20°15'50" LT.
344+44.12 1/4 LINE
344+44.61 EXISTING FENCE

PLAN



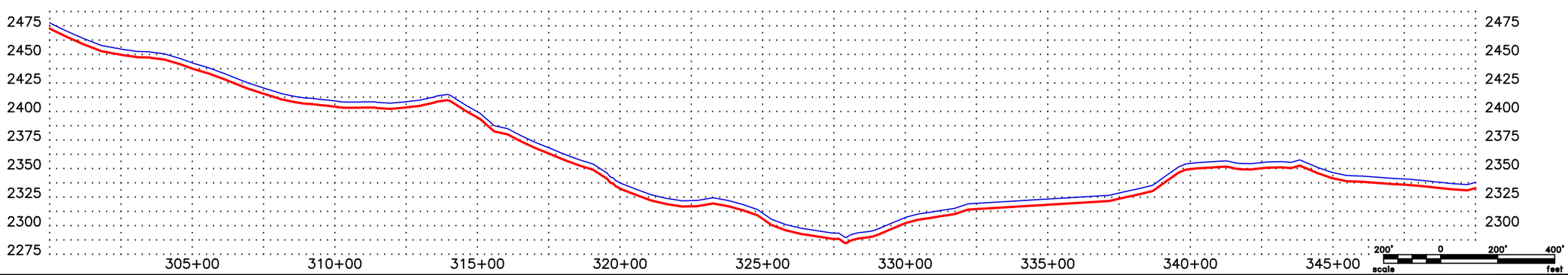
EASEMENT WORKSPACE

- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4805 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	195 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T3	1 EA	TYPE-3

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 12

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 24 & 25, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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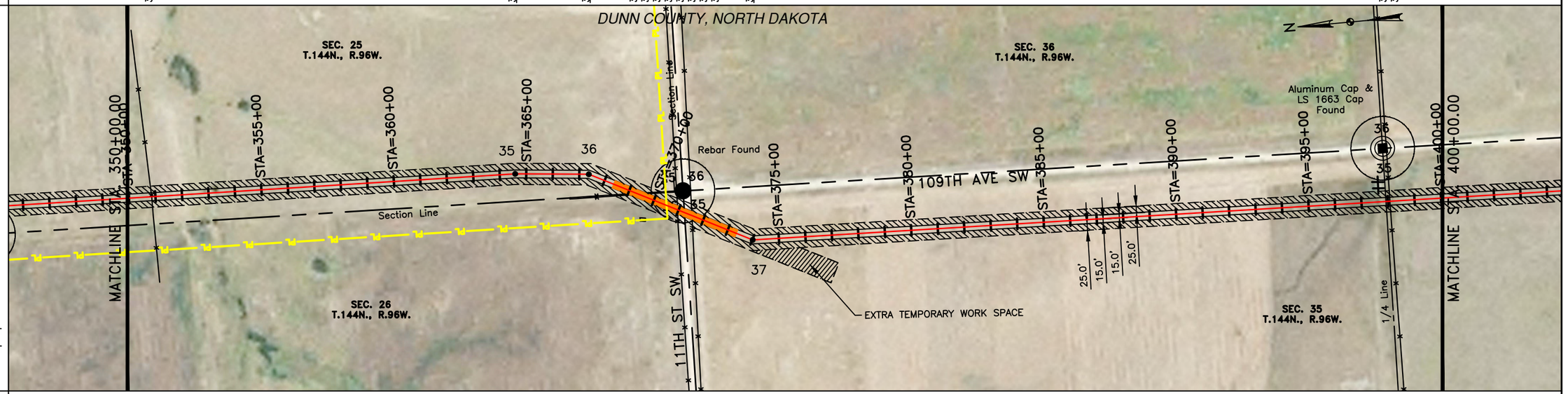
OWNERSHIP	350+00.00	AGNES M SCOTT SW1/4 117.18 RODS	369+33.39	371+23.91 LEO W. & SUSAN E. KRENZEL SE1/4 & NE 1/4 LESS 1.08 ACRES 11.55 RODS	ROGER & LINDA BREW NE1/4 & NW1/4 165.40 RODS	AGNES M. & BILLY K. SCOTT AS TRUSTEES OF WILLIAM D. & AGNES M. SCOTT FAMILY TRUST SE1/4 LESS 2.51 ACRES 12.58 RODS 397+92.44	400+00.00
STATIONING	350+85.70 EXISTING FENCE	364+58.54 P.I. 352°29" RT. 367+35.92 P.I. 213°100" RT.	369+29.41 EXISTING FENCE 369+33.39 SECTION LINE 369+38.66 EXISTING FENCE	370+51.50 EXISTING ONEOK PIPELINE 370+96.50 EXISTING FENCE 371+23.91 SECTION LINE 371+24.21 CL OF ROAD 371+54.34 EXISTING FENCE	374+00.98 P.I. 25°16'48" LT.	397+92.44 1/4 LINE 398+07.11 EXISTING FENCE	

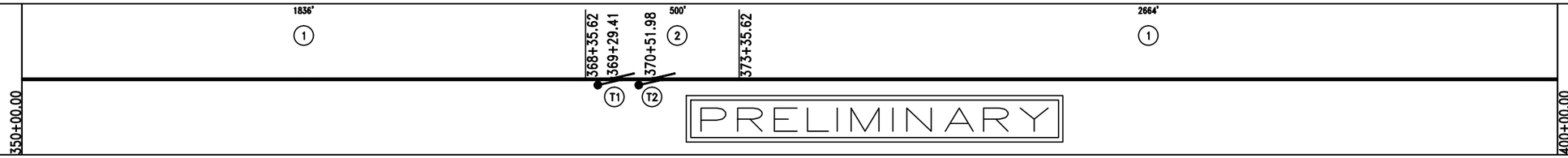
PLAN



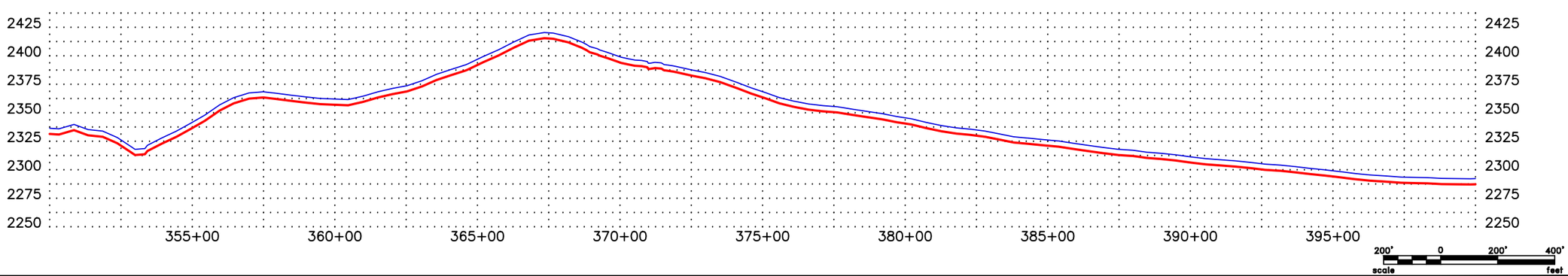
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4500 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	500 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 13

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 25, 26 & 35, T144N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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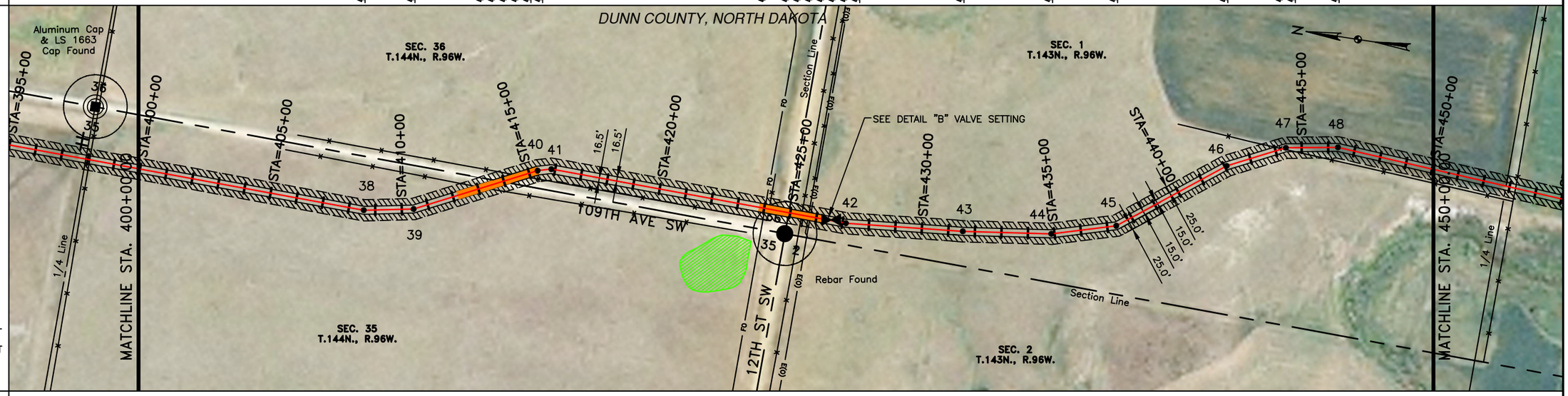
OWNERSHIP	400+00.00	AGNES M. & BILLY K. SCOTT AS TRUSTEES OF WILLIAM D. & AGNES M. SCOTT FAMILY TRUST SE1/4 LESS 2.51 ACRES 84.43 RODS	413+33.11	ND TRUST LANDS SW1/4 71.28 RODS
STATIONING	424+84.23	GERALD & DONNA J ELKINS LOTS 3 & 4, S1/2NW1/4 154.87 RODS	450+00.00	

STATIONING:
408+56.65 P.I. 11°50'19" LT
410+44.47 P.I. 15°41'56" LT
413+17.50 EXISTING FENCE
413+90.68 CL OF ROAD
413+93.11 SECTION LINE
414+66.62 EXISTING FENCE
415+33.33 P.I. 10°44'25" RT
415+85.18 P.I. 16°30'32" RT
424+03.46 CONSOLIDATED ENTERPRISES FIBEROPTICS
424+19.04 EXISTING FENCE
424+94.23 SECTION LINE
424+95.30 CL OF ROAD
425+43.91 EXISTING FENCE
425+69.41 EXISTING FENCE
425+76.94 OVERHEAD POWER LINES
427+12.85 P.I. 6°28'31" LT
431+54.49 P.I. 2°19'13" LT
434+87.83 P.I. 8°38'46" LT
437+34.45 P.I. 21°27'26" LT
442+06.93 P.I. 11°31'34" RT
444+26.90 EXISTING FENCE
444+40.53 P.I. 16°28'27" RT
446+36.61 P.I. 13°27'34" RT

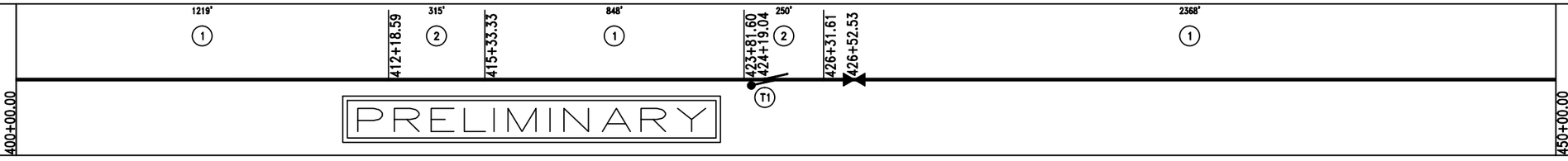
PLAN



EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

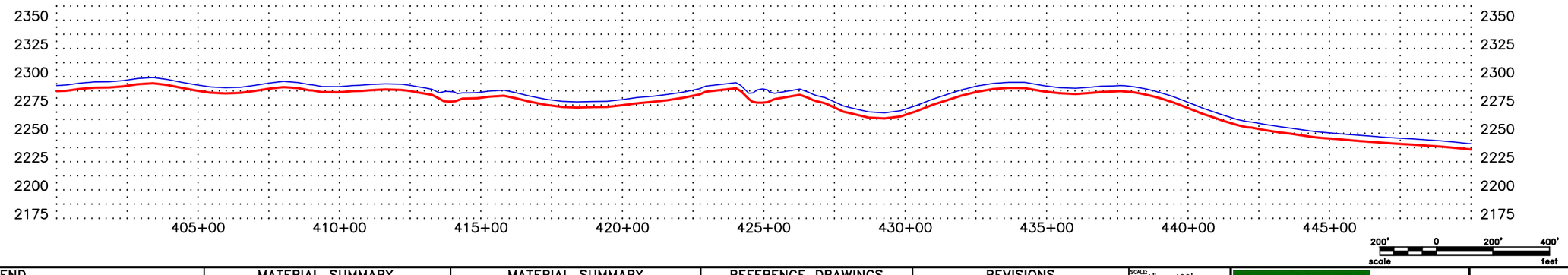
CLASS

PIPE BAND



PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4435 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	565 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: S. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 14

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 35 & 36, T144N, R96W & SECTION 1, T143N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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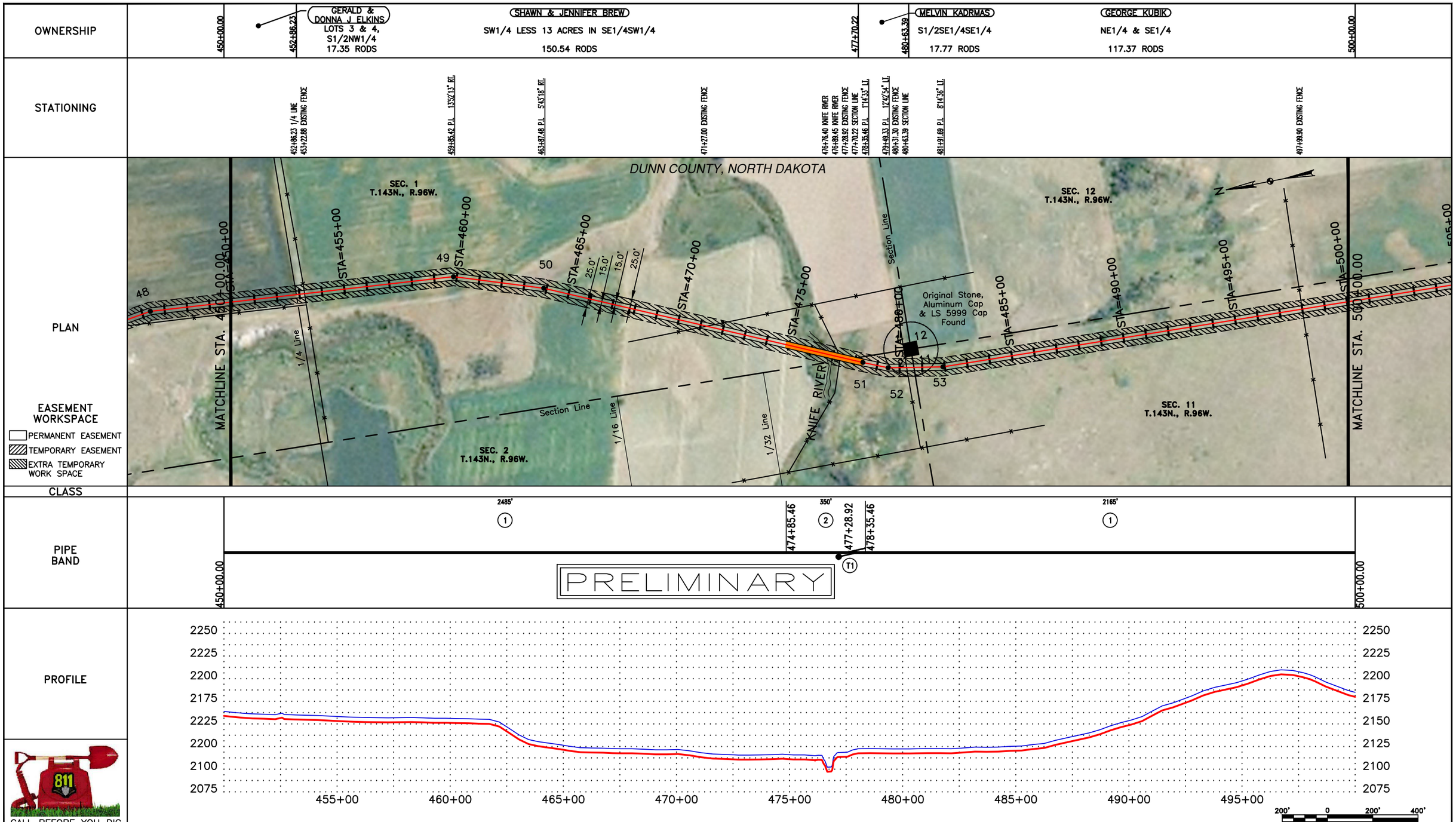

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4650 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	350 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 15

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 1, 2 & 11, T143N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP	500+00.00	GEORGE KUBIK NE1/4 & SE1/4 203.35 RODS	533+55.24 WILLIAM & BEATRICE KUBISCHTA NE1/4 LESS 1.50 ACRES & N1/2SE1/4 99.68 RODS 550+00.00
STATIONING		507+05.28 1/4 LINE 509+92.20 P.I. 10°19'33" RT. 515+50.27 P.I. 10°19'33" LT. 520+34.33 EXISTING WETLAND 520+75.51 EXISTING WETLAND 532+63.84 CONSOLIDATED ENTERPRISES FIBEROPTICS 533+15.34 OVERHEAD POWER LINES 533+23.15 EXISTING FENCE 533+55.24 SECTION LINE 533+56.94 CL OF ROAD 534+24.79 EXISTING FENCE 534+36.71 CONSOLIDATED ENTERPRISES FIBEROPTICS 535+36.80 P.I. 13°50'34" LT. 538+57.48 P.I. 13°49'05" RT.	
PLAN		DUNN COUNTY, NORTH DAKOTA SEC. 12 T.143N., R.96W. SEC. 13 T.143N., R.96W. SEC. 11 T.143N., R.96W. SEC. 14 T.143N., R.96W. MATCHLINE STA. 500+00.00 MATCHLINE STA. 550+00.00 STA=505+00 STA=510+00 STA=515+00 STA=520+00 STA=525+00 STA=530+00 STA=535+00 STA=540+00 STA=545+00 Section Line 1/4 Line Rebar Found 14TH ST SW SEE DETAIL "B" VALVE SETTING 25.0' 15.0' 15.0' 25.0' 54 55 56 57 12 13 14 FO	
EASEMENT WORKSPACE PERMANENT EASEMENT TEMPORARY EASEMENT EXTRA TEMPORARY WORK SPACE			
CLASS			
PIPE BAND	500+00.00	1838' (1) 518+37.92 400' (2) 522+37.92 999' (1) 532+04.85 300' (2) 533+23.15 1463' (1) 535+36.80 T1 532+36.80 550+00.00	
PROFILE		2350 2325 2300 2275 2250 2225 2200 2175 505+00 510+00 515+00 520+00 525+00 530+00 535+00 540+00 545+00 200' 0 200' 400' scale feet	

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4300 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	700 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: J. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 16

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 11 & 14, T142N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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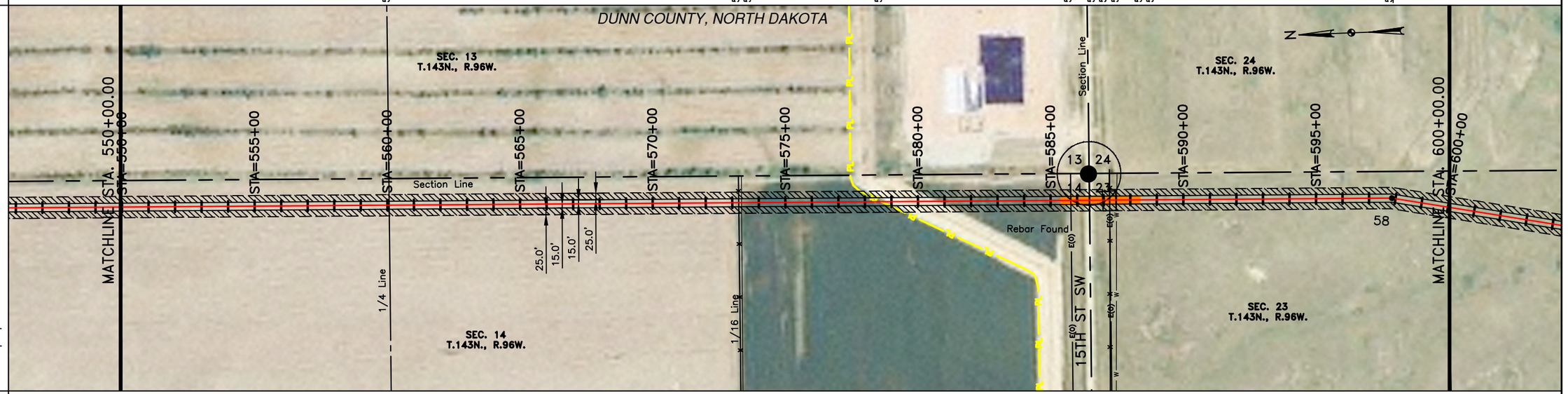
OWNERSHIP	550+00.00	WILLIAM & BEATRICE KUBISCHTA NE1/4 LESS 1.50 ACRES & N1/2SE1/4 141.54 RODS	573+35.34
	573+35.34	BYRON & CARLA KUBIK S1/2SE1/4 79.44 RODS	586+46.18
	586+46.18	BYRON & CARLA KUBIK NE1/4 LESS 2.51 ACRES & SE1/4 82.05 RODS	600+00.00

STATIONING

560+06.59 1/4 LINE
573+24.38 EXISTING FENCE
573+35.34 1/16 LINE
578+62.40 EXISTING PIPELINE
585+76.20 EXISTING ROUGHORDER ELECTRIC COOPERATIVE POWER LINES
586+46.18 SECTION LINE
586+47.80 CL OF ROAD
587+22.00 EXISTING ROUGHORDER ELECTRIC COOPERATIVE POWER LINES
587+23.04 EXISTING FENCE
587+48.58 EXISTING UNDERGROUND WATER MAINLINE
597+86.06 P.I. 9°30'47" RT.

PLAN

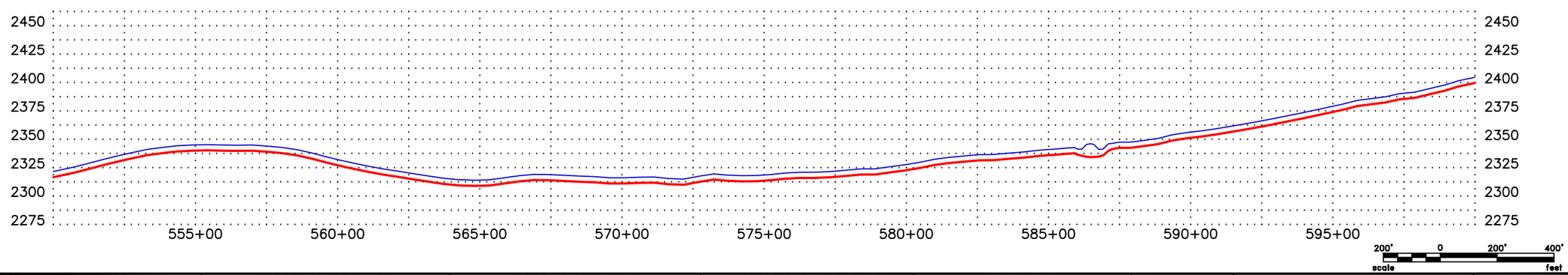


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 17

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 14 & 23, T142N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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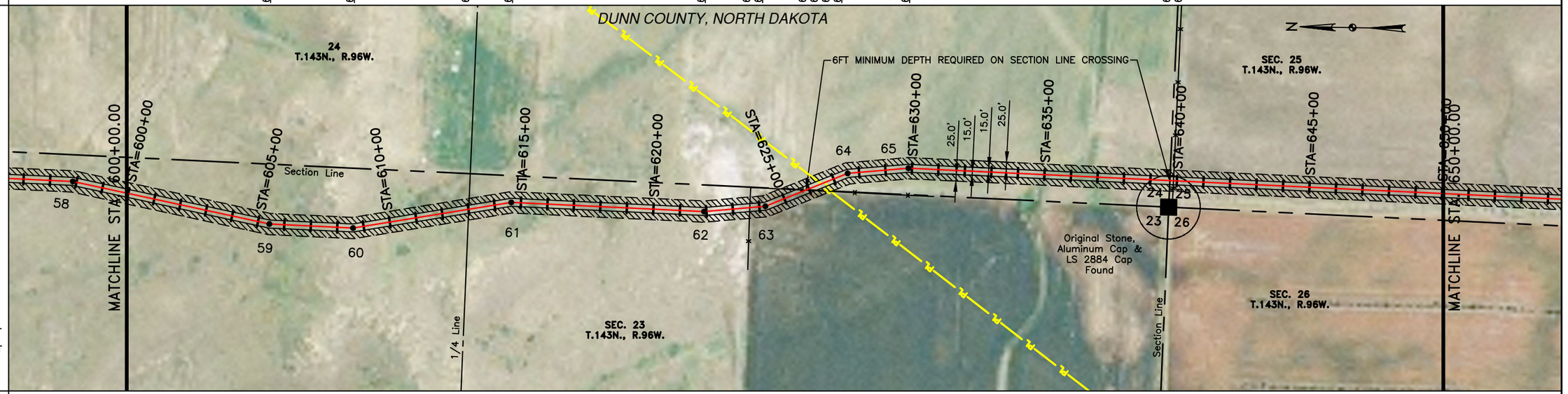
OWNERSHIP	600+00.00	BYRON & CARLA KUBIK NE1/4 LESS 2.51 ACRES & SE1/4 156.98 RODS	625+90.25	TED & REANN KAUTZMAN NW1/4 LESS 2.41 ACRES & SW1/4 83.81 RODS	639+73.16	TIM STROH NW1/4 & SW1/4 62.23 RODS	650+00.00
STATIONING	605+43.60 P.I. 9°28'29" LT. 608+59.62 P.I. 11°56'38" LT. 613+01.35 1/4 LINE 614+63.83 P.I. 11°56'14" RT. 621+91.24 P.I. 7°36'11" LT. 623+63.91 EXISTING FENCE 624+23.02 P.I. 16°54'15" LT. 625+86.67 EXISTING FENCE 625+90.25 SECTION LINE 626+50.45 WBI - 16" STEEL PIPELINE 627+56.78 P.I. 16°54'00" RT. 629+86.91 P.I. 7°34'55" RT. 639+73.16 SECTION LINE 639+86.98 EXISTING FENCE						

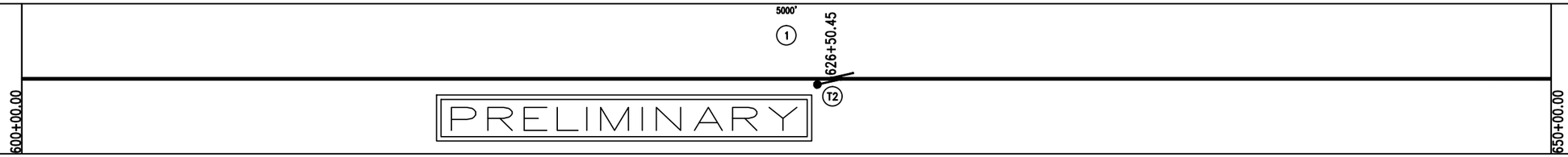


PLAN

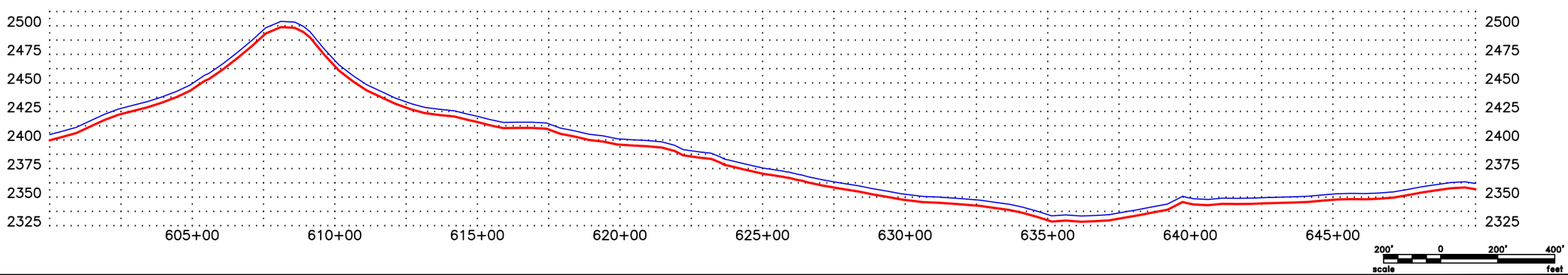
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	5000 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 18

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 23, 24 & 25, T142N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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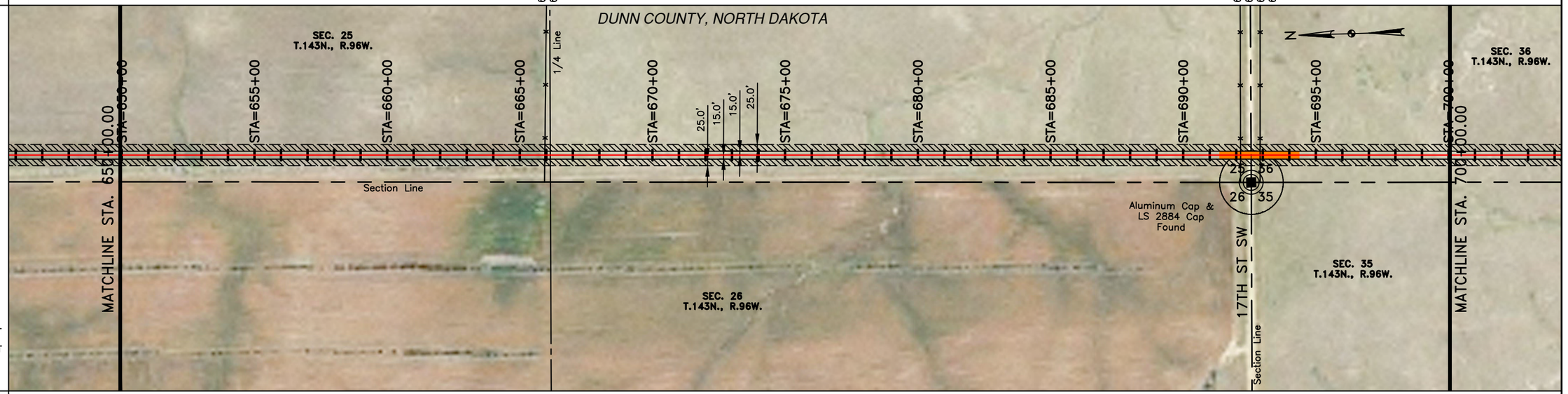
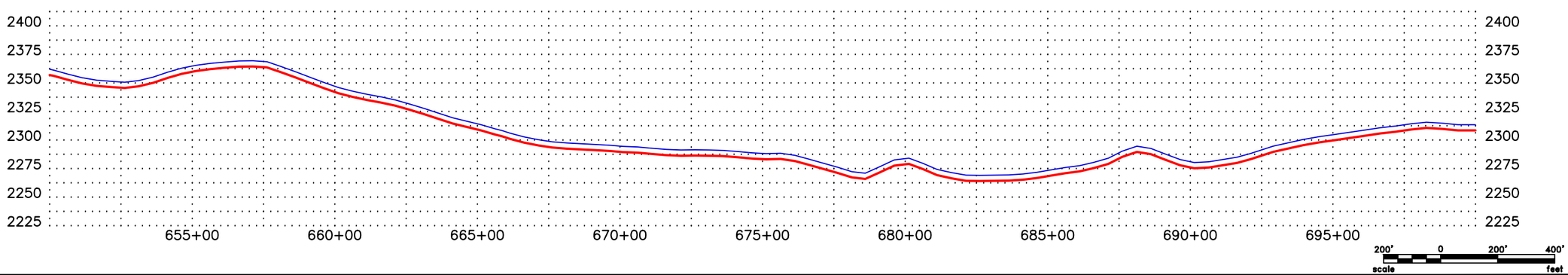
OWNERSHIP	650+00.00 — TIM STROH, NW1/4 & SW1/4, 257.96 RODS — 692+56.37 — TIM STROH, N1/2NW1/4, N1/2NE1/4, S1/2NW1/4 & N1/2SW1/4 LESS 2.11 ACRES, 45.07 RODS — 700+00.00
STATIONING	665+94.27 EXISTING FENCE; 666+14.76 1/4 LINE; 692+16.46 EXISTING FENCE; 692+55.86 CL OF ROAD; 692+56.37 SECTION LINE; 692+89.89 EXISTING FENCE
PLAN	DUNN COUNTY, NORTH DAKOTA
EASEMENT WORKSPACE	PERMANENT EASEMENT; TEMPORARY EASEMENT; EXTRA TEMPORARY WORK SPACE
CLASS	
PIPE BAND	
PROFILE	



PRELIMINARY



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 19

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 25 & 36, T142N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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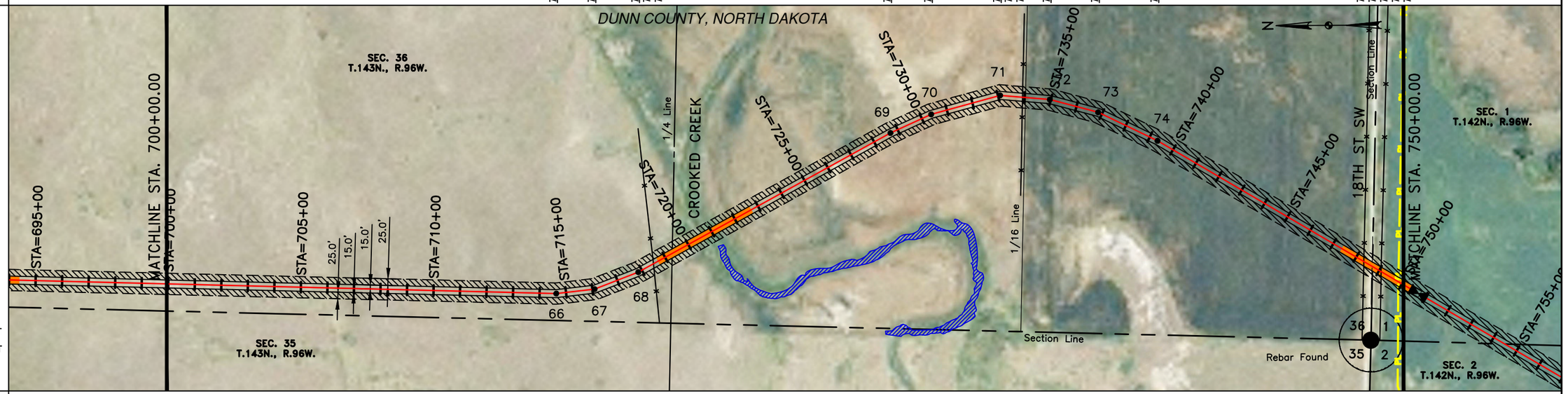
OWNERSHIP	700+00.00	TIM STROH N1/2NW1/4, N1/2NE1/4, S1/2NW1/4 & N1/2SW1/4 LESS 2.11 ACRES 206.31 RODS	734+04.14
	734+04.14	HENRY & LILLIAN KOVASH S1/2S1/2 LESS 1.78 ACRES HWY ROW 88.89 RODS	748+70.79
	750+00.00	DAVID SADOWSKY S1/2NW1/4, LOTS 3 & 4 & SW1/4 7.83 RODS	

STATIONING

714+62.66 P.I. 6°07'05" LT.
716+08.23 P.I. 14°26'10" LT.
717+84.74 P.I. 7°44'19" LT.
718+50.07 EXISTING FENCE
719+30.39 1/4 LINE
728+69.83 P.I. 4°24'44" RT.
730+38.68 P.I. 9°04'58" RT.
733+07.97 P.I. 20°09'59" RT.
733+92.98 EXISTING FENCE
734+04.14 1/16 LINE
734+96.14 P.I. 9°58'29" RT.
736+84.31 P.I. 10°49'37" RT.
739+32.68 P.I. 4°42'14" RT.
748+33.28 EXISTING FENCE
748+69.62 CL OF ROAD
748+70.79 SECTION LINE
749+08.63 EXISTING FENCE
749+83.47 EXISTING ONEOK PIPELINE

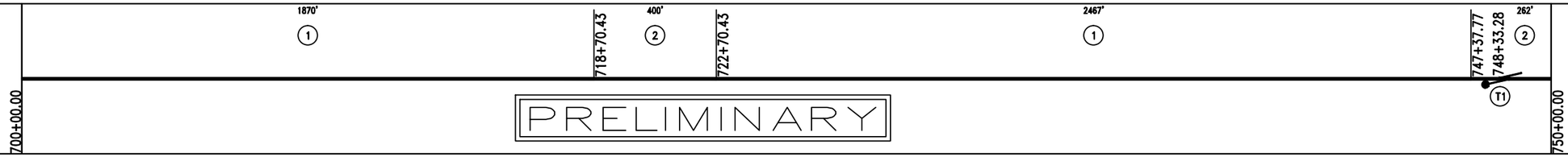
PLAN



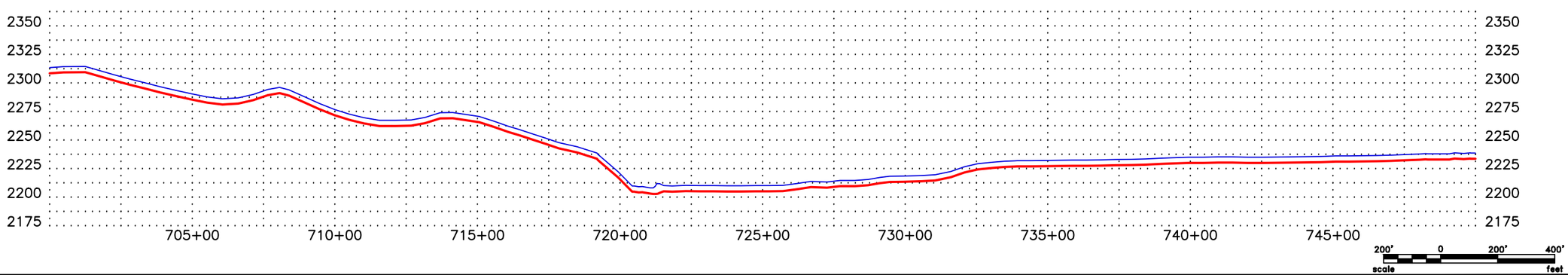
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4338 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	662 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 20

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE

SECTION 36, T142N, R96W & SECTION 1, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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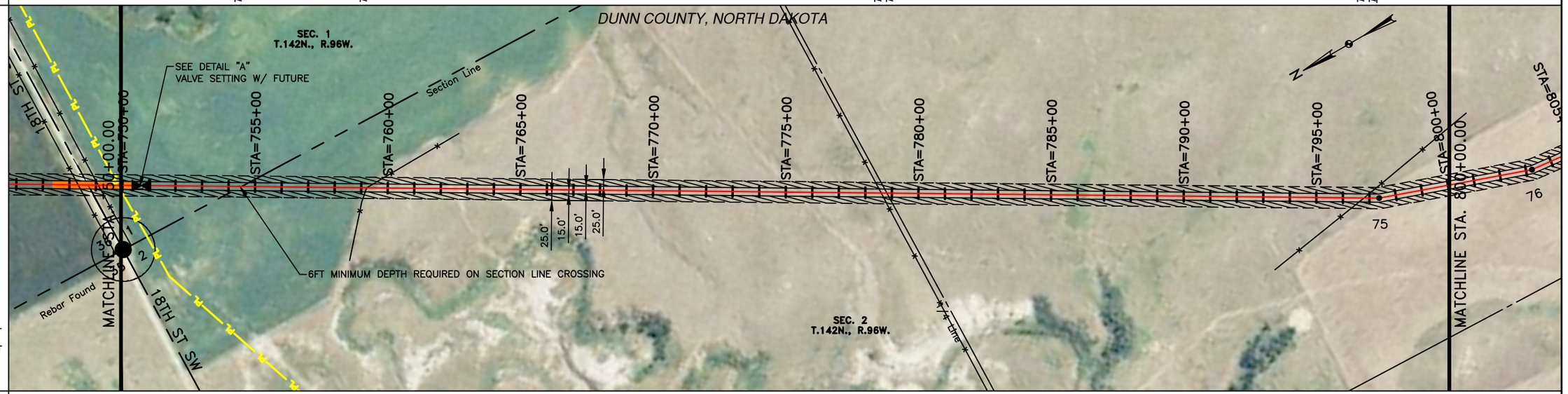
OWNERSHIP	750+00.00	DAVID SADOWSKY S1/2NW1/4, LOTS 3 & 4 27.17 RODS	754+48.34
	754+48.34	DAVID & LAURA SADOWSKY LOTS 1–4, S1/2NE1/4, S1/2NW1/4 147.44 RODS	778+81.02
	778+81.02	LAVONNE BULLINGER E1/2SW1/4 & SE1/4 128.42 RODS	800+00.00
STATIONING	754+48.34 SECTION LINE	759+20.06 EXISTING FENCE	778+59.76 EXISTING FENCE 778+81.03 1/4 LINE
	796+79.91 EXISTING FENCE 797+36.66 P.I. 11°07'07" LT.		

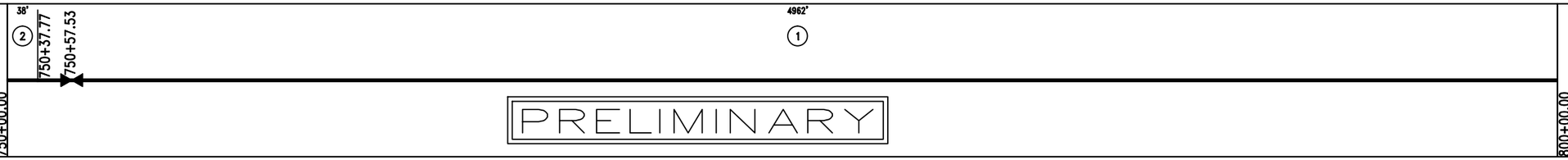
PLAN



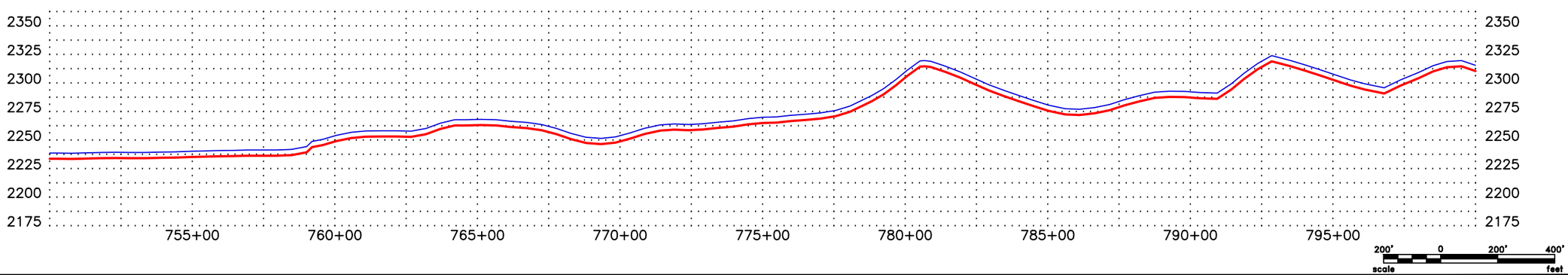
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4962 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	38 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
3	1 LF	16" 150 ANSI CHECK VALVE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 21

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 1 & 2, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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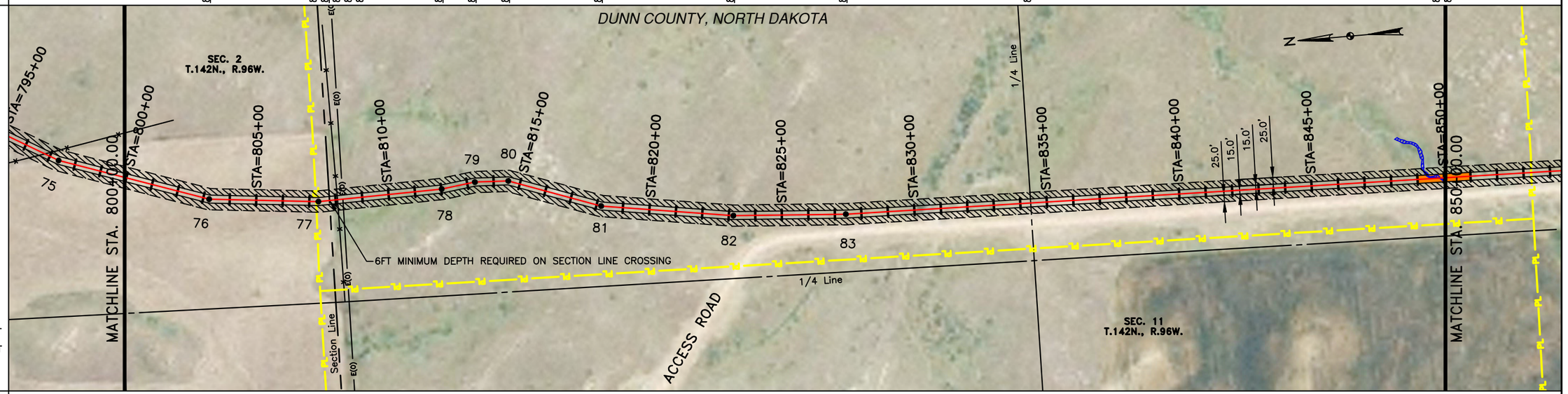
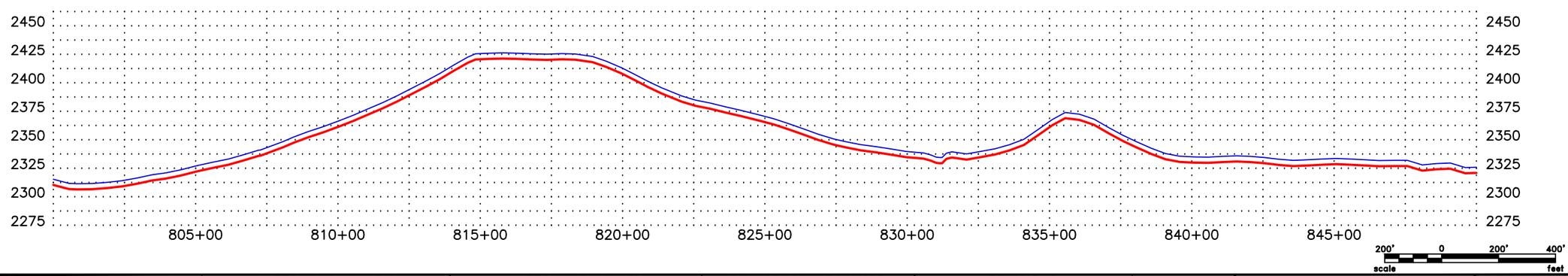
PRELIMINARY

OWNERSHIP	800+00.00	LAVONNE BULLINGER E1/2SW1/4 & SE1/4 47.06 RODS	807+76.42
		DAVID & PAULINE SADOWSKY FAMILY TRUST ALL 255.97 RODS	850+00.00
STATIONING		803+22.53 P.I. 13°06'38" LT. 807+26.32 EXISTING HILAND PIPELINE 807+34.27 P.I. 70°27" LT. 807+76.42 SECTION LINE 808+06.94 EXISTING FENCE 808+26.81 EXISTING ROUGHRIDER ELECTRIC COOPERATIVE POWER LINES 812+01.42 P.I. 5°58'55" LT. 813+28.17 P.I. 9°50'15" RT. 814+55.20 P.I. 17°04'31" RT. 818+17.63 P.I. 10°56'09" LT. 823+17.21 P.I. 4°54'55" LT. 827+41.26 P.I. 2°43'09" LT. 834+38.98 1/4 LINE 849+82.35 EXISTING WETLAND 849+88.07 EXISTING WETLAND	
PLAN			
EASEMENT WORKSPACE PERMANENT EASEMENT TEMPORARY EASEMENT EXTRA TEMPORARY WORK SPACE			
CLASS			
PIPE BAND	800+00.00	4896' (1) 807+26.32 (T2) 848+96.36 104' (2) PRELIMINARY	850+00.00
PROFILE			

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4896 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	104 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 22

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 2 & 11, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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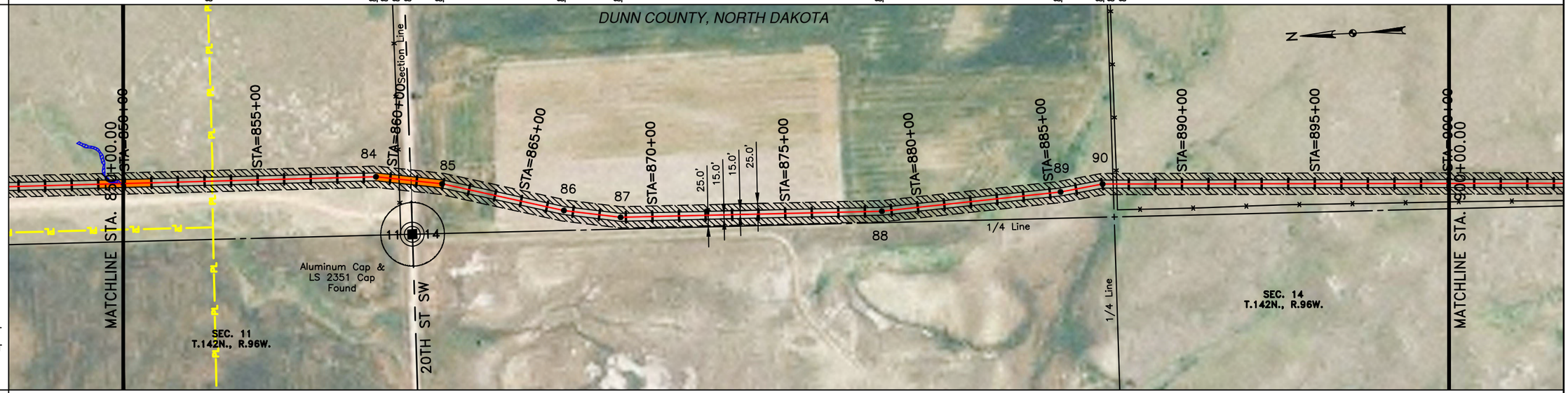
OWNERSHIP	850+00.00	DAVID & PAULINE SADOWSKY FAMILY TRUST ALL 65.28 RODS	860+77.04	MARK & TINA KOVASH NE1/4 161.45 RODS
	887+41.02	DAVID & LAURA M. SADOWSKY NW1/4 & SE1/4 76.30 RODS	900+00.00	

STATIONING

853+28.78 EXISTING HUAND PIPELINE
859+45.66 P.I. 7°41'47" RT.
860+33.47 EXISTING FENCE
860+77.04 SECTION LINE
860+78.92 CL OF ROAD
861+96.10 P.I. 6°10'05" RT.
866+65.43 P.I. 5°26'47" LT.
868+80.28 P.I. 8°12'48" LT.
878+63.74 P.I. 4°48'40" LT.
885+40.51 P.I. 4°31'37" LT.
887+01.26 P.I. 10°35'55" RT.
887+41.02 1/4 LINE
887+94.36 EXISTING FENCE

PLAN



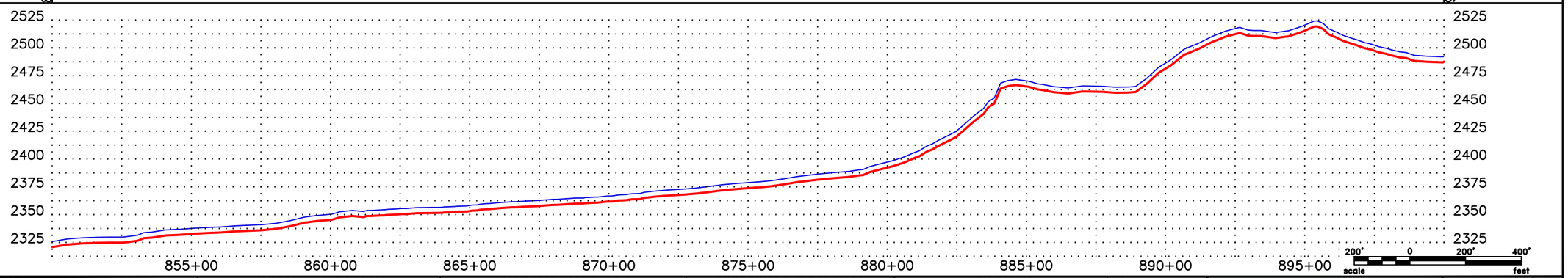
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4653 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	347 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 23

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 11 & 14, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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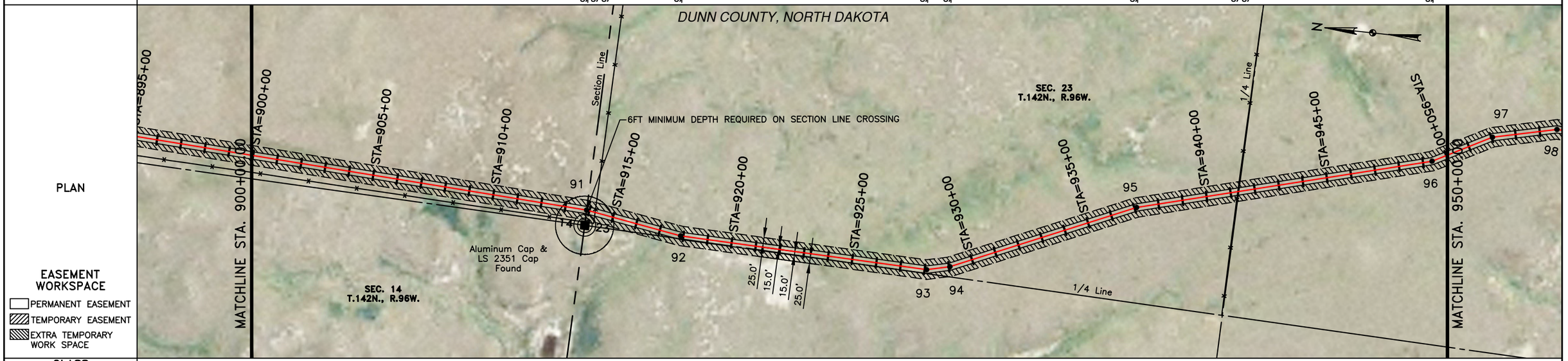
OWNERSHIP	900+00.00	DAVID & LAURA M. SADOWSKY NW1/4 & SE1/4 84.13 RODS	913+88.12	HARLAN & BUDDINE BULLINGER ALL 218.90 RODS	950+00.00

STATIONING

913+88.10 P.I. 6°06'37" RT.
913+88.12 SECTION LINE
914+24.43 EXISTING FENCE
917+88.54 P.I. 7°34'59" LT.
928+08.23 P.I. 14°52'44" LT.
929+04.60 P.I. 10°31'52" LT.
937+08.97 P.I. 8°41'44" RT.
941+29.51 EXISTING FENCE
941+34.15 1/4 LINE
949+37.42 P.I. 12°43'12" LT.

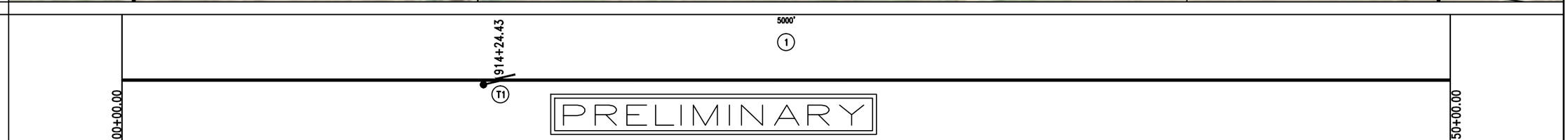
PLAN



EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



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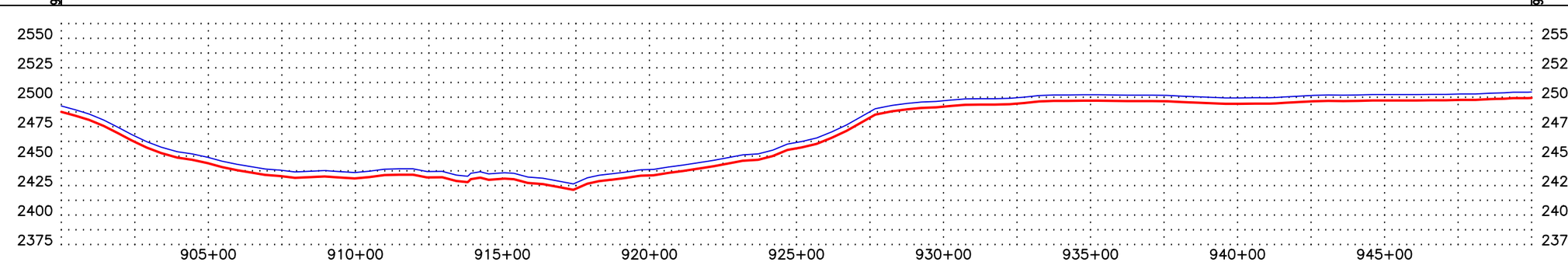

200' 0 200' 400'
scale feet

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	5000 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 24

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 14 & 23, T141N, R96N
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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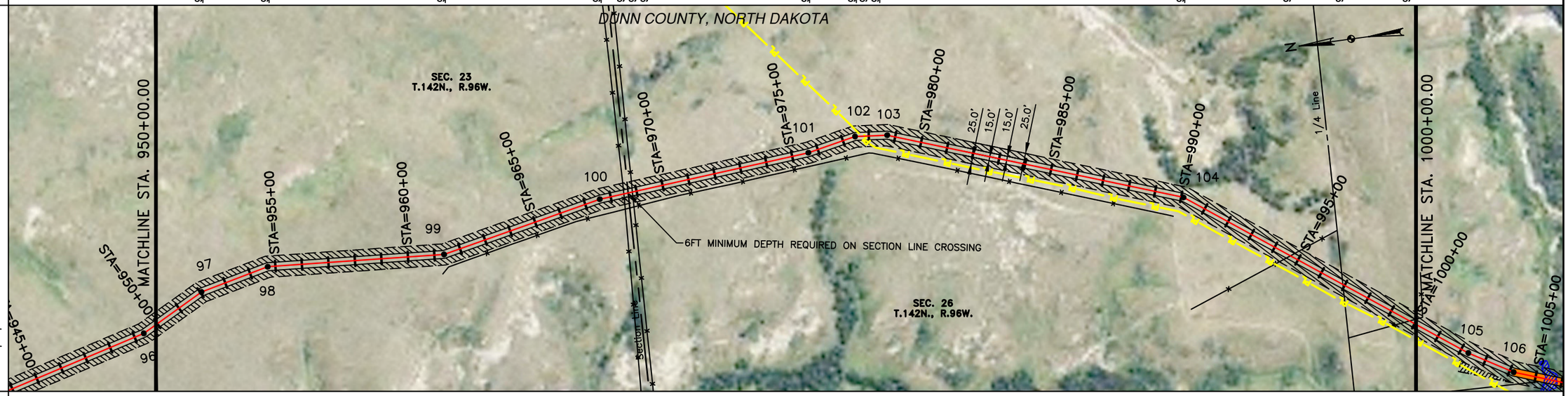
OWNERSHIP	950+00.00	HARLAN & BUDDINE BULLINGER ALL 113.21 RODS	968+67.91
	968+67.91	HARLAN & BUDDINE BULLINGER W1/2 LESS 19.96, 76.76, 94.28, 20.70 ACRES, NE1/4 & SE1/4 189.82 RODS	1000+00.00

STATIONING

952+04.04 P.I. 14°27'24" RT.
954+71.19 P.I. 16°53'01" RT.
961+36.27 P.I. 15°31'04" LT.
967+58.27 P.I. 6°57'53" RT.
968+51.28 EXISTING FENCE
968+67.91 SECTION LINE
968+84.02 EXISTING FENCE
975+82.50 P.I. 6°35'52" LT.
977+48.46 P.I. 16°45'51" RT.
977+73.90 EXISTING HILAND PIPELINE
978+69.52 P.I. 14°13'06" RT.
990+09.30 P.I. 16°46'24" RT.
994+67.51 EXISTING FENCE
996+92.11 1/4 LINE
999+70.89 EXISTING FENCE

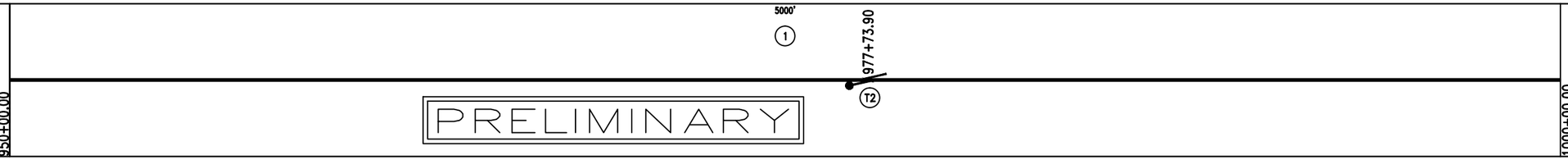
PLAN



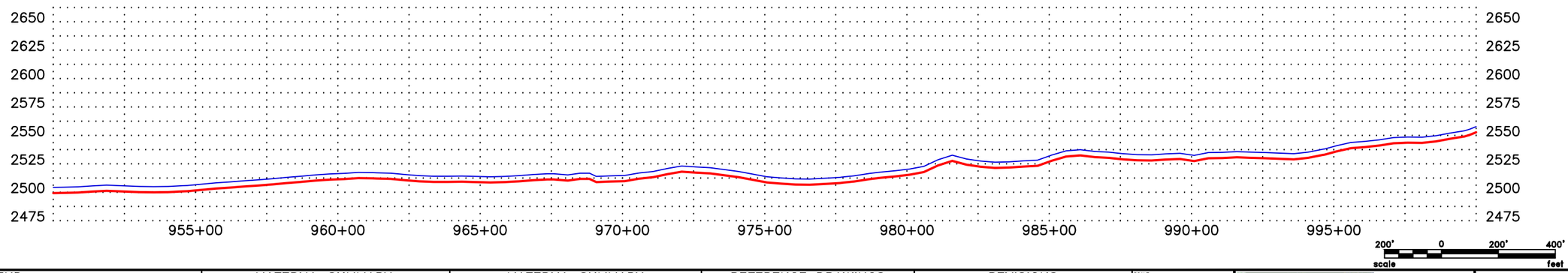
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	5000 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 25

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 23 & 26, T142N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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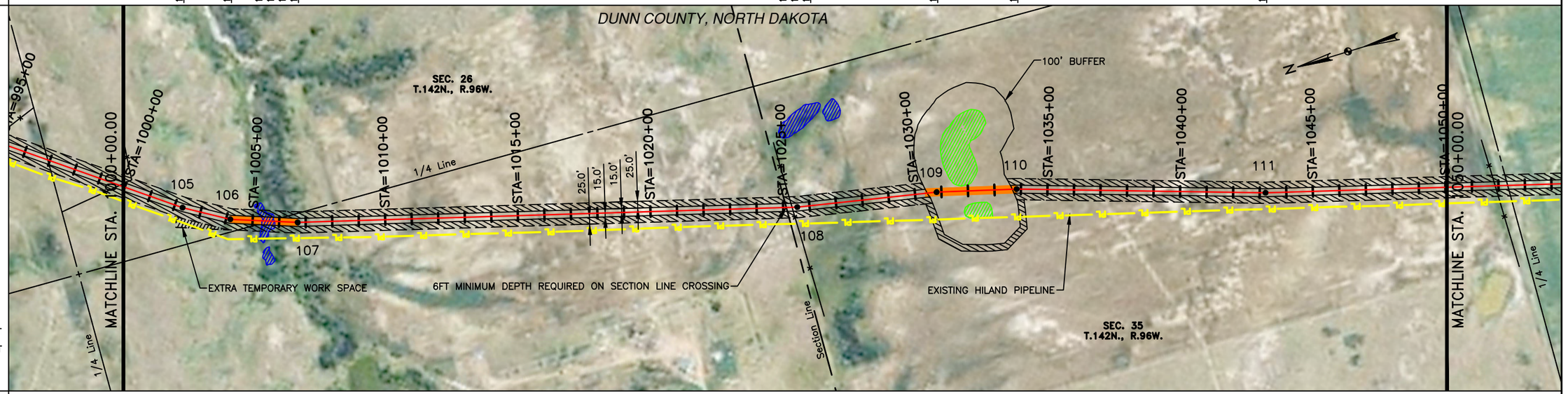
OWNERSHIP	1000+00.00	HARLAN & BUDDINE BULLINGER W1/2 LESS 19.96, 76.76, 94.28, 20.70 ACRES, NE1/4 & SE1/4 152.24 RODS	1025+11.84
		HARLAN & BUDDINE BULLINGER NW1/4 150.79 RODS	1050+00.00
STATIONING		1002+30.31 P.I. 5°44'45" LT. 1004+15.56 P.I. 11°02'16" LT. 1005+35.73 EXISTING WETLAND 1005+63.83 1/4 LINE 1005+82.23 EXISTING WETLAND 1006+69.66 P.I. 4°25'18" LT. 1025+11.94 SECTION LINE 1025+33.95 EXISTING FENCE 1026+55.53 P.I. 4°24'06" LT. 1030+81.70 P.I. 4°01'59" RT. 1033+83.71 P.I. 2°57'50" RT. 1043+21.80 P.I. 2°35'43" LT.	

PLAN

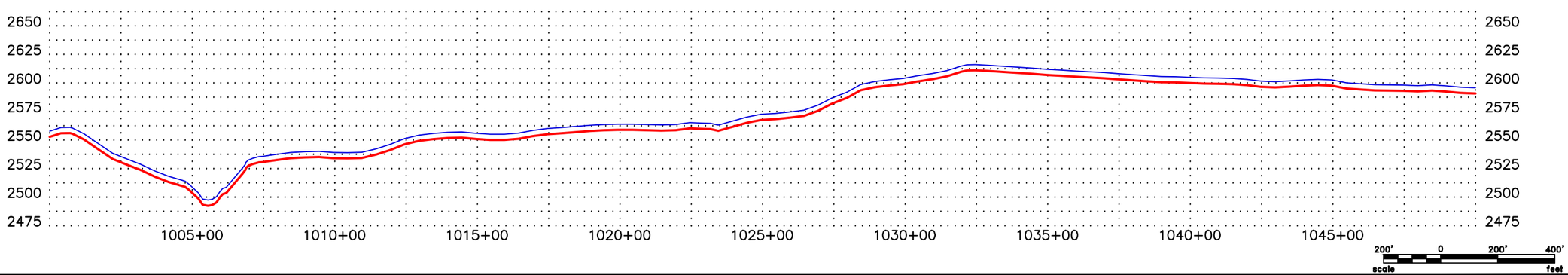


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4401 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	599 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 26

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 26 & 35, T142N, R96N
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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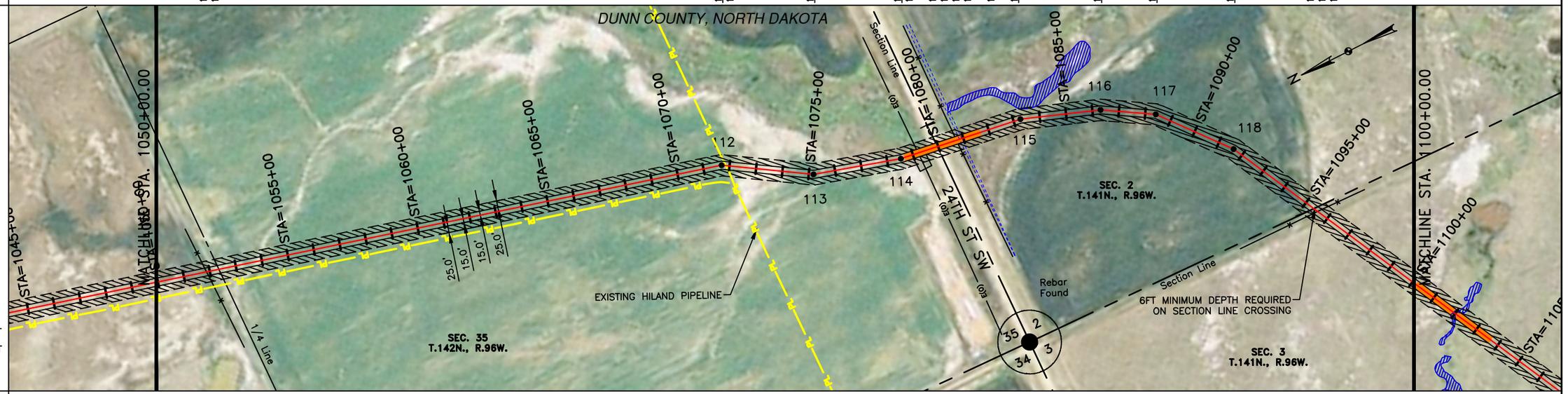
OWNERSHIP	1050+00.00	HARLAN & BUDDINE BULLINGER NW1/4 14.24 RODS	1052+35.01	LEE & CORRINE PAVLICEK SW1/4 LESS 2.52 ACRES & 1.98 ACRES 167.42 RODS	1079+97.51	LEE & CORRINE PAVLICEK S1/2NW1/4 LOTS 3 & 4 LESS 2.52 ACRES 93.31 RODS	1095+37.07	DON & MARJORIE BINSTOCK S1/2NE1/4, LOTS 1 & 2 LESS 2.52 ACRES 28.06 RODS	1100+00.00

STATIONING

1051+87.60 EXISTING FENCE
1052+35.01 1/4 LINE
1071+86.76 P.I. 172°1'59" RT.
1071+86.33 EXISTING HILAND PIPELINE
1075+17.79 P.I. 175°0'56" LT.
1078+52.22 P.I. 8°08'33" LT.
1079+20.76 EXISTING CONSOLIDATED ENTERPRISES ELECTRICAL LINES
1079+97.34 CL OF ROAD
1079+97.51 SECTION LINE
1080+72.86 EXISTING FENCE
1080+85.10 EXISTING UNDERGROUND CENTURY LINK TELEPHONE
1080+94.08 EXISTING UNDERGROUND CENTURY LINK TELEPHONE
1083+26.81 P.I. 11°43'57" RT.
1086+30.83 P.I. 11°12'00" RT.
1088+38.65 P.I. 19°21'58" RT.
1091+60.84 P.I. 12°33'31" RT.
1095+36.07 CL OF ROAD
1095+37.07 SECTION LINE
1095+55.08 EXISTING FENCE

PLAN

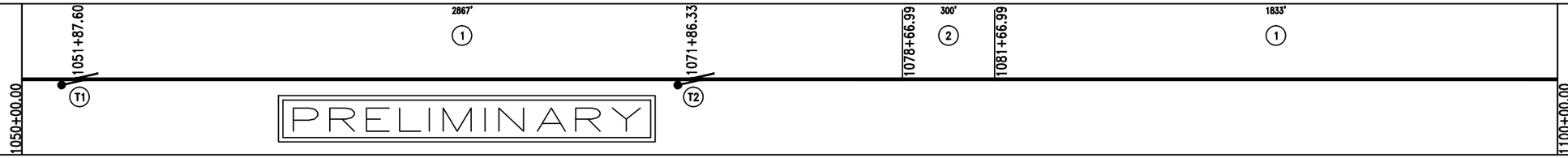


EASEMENT WORKSPACE

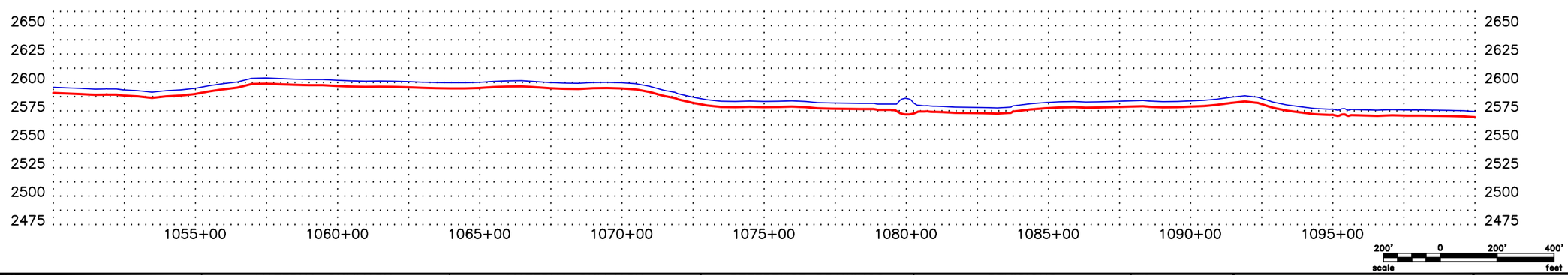
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 27

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE

SECTION 35, T142N, R96W & SECTIONS 2 & 3, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

128 Soo Line Drive
Bismarck, ND 58502

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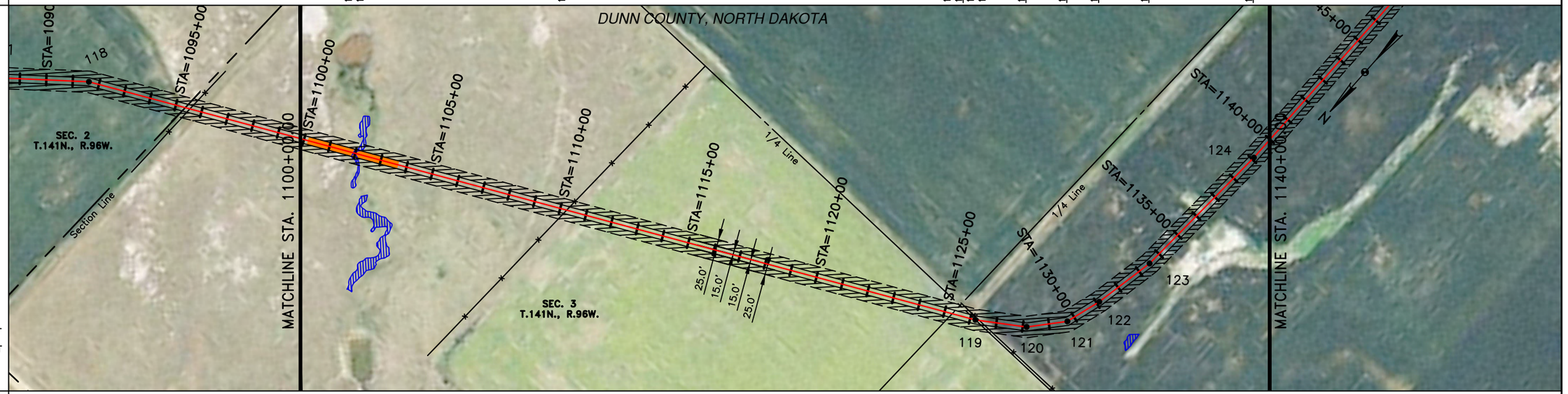
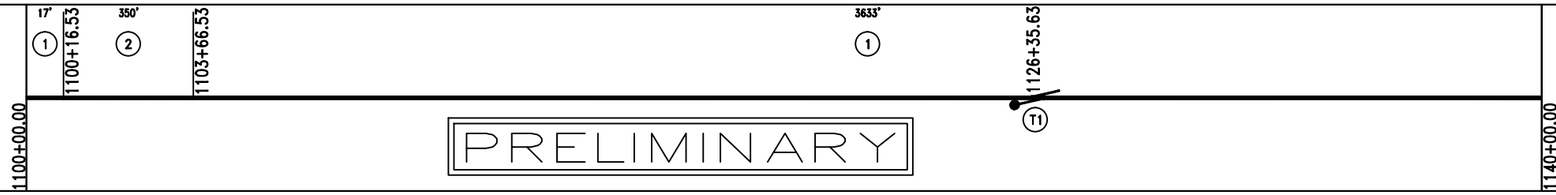
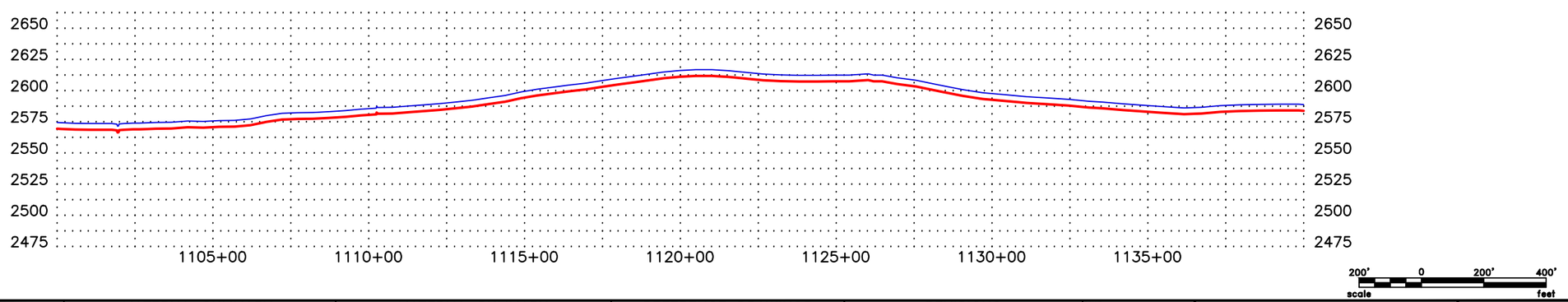
OWNERSHIP	1100+00.00	DON & MARJORIE BINSTOCK S1/2NE1/4, LOTS 1 & 2 LESS 2.52 ACRES & S1/2NW1/4, LOTS 3 & 4 LESS 2.52 ACRES 158.79 RODS	1126+19.96 KENNETH & RENA KADRMAS SW1/4 83.64 RODS 1140+00.00
STATIONING		1101+92.67 EXISTING WETLAND 1102+00.57 EXISTING WETLAND 1110+25.40 EXISTING FENCE 1125+29.32 1/4 LINE 1126+19.96 P.I. 7°11'45" LT. 1126+19.96 1/4 LINE 1126+35.63 EXISTING FENCE 1128+14.79 P.I. 15°39'01" LT. 1129+70.05 P.I. 27°41'33" LT. 1131+10.95 P.I. 5°42'29" LT. 1133+49.17 P.I. 8°07'47" LT. 1139+09.08 P.I. 3°00'36" LT.	
PLAN			
EASEMENT WORKSPACE PERMANENT EASEMENT TEMPORARY EASEMENT EXTRA TEMPORARY WORK SPACE			
CLASS			
PIPE BAND			
PROFILE			

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	3650 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	350 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 28

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 3, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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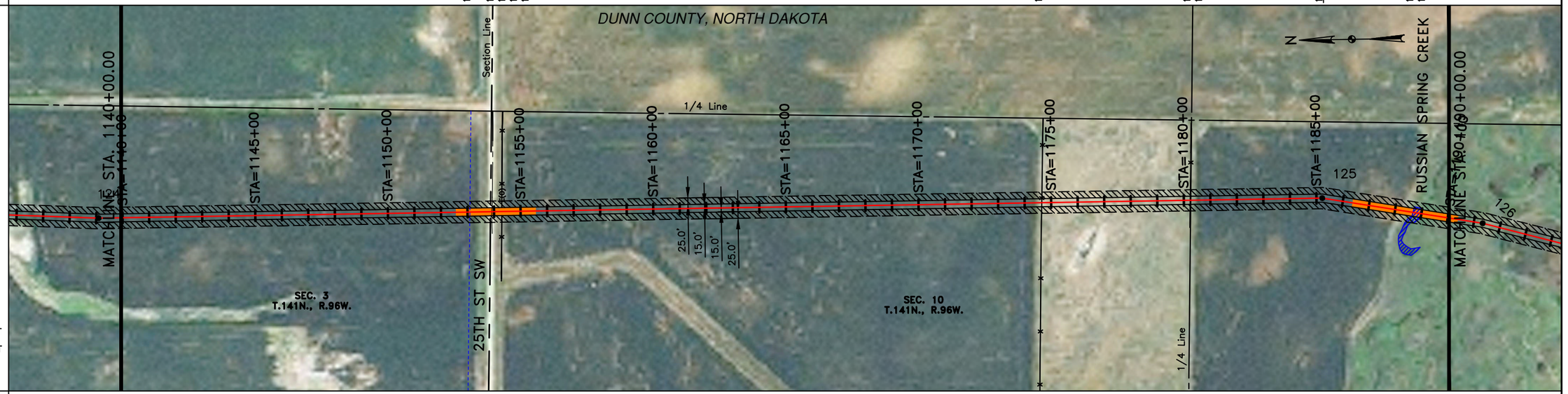
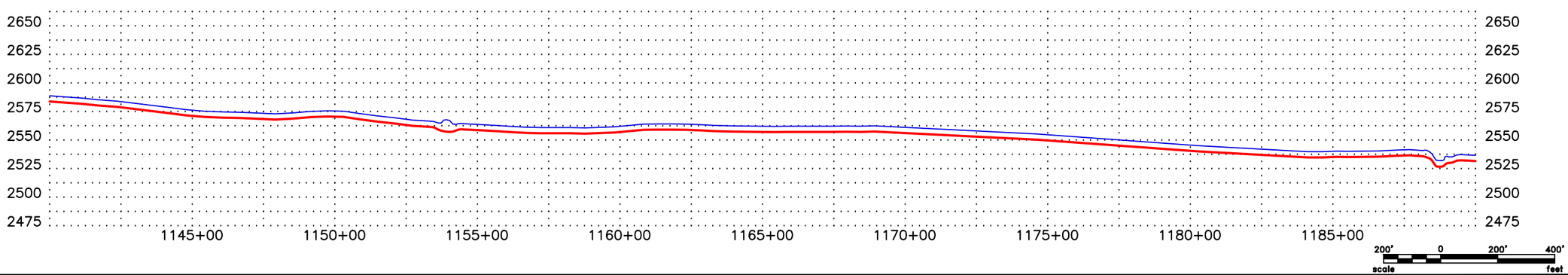
OWNERSHIP	1140+00.00	KENNETH & RENA KADRMAS SW1/4 84.04 RODS	1153+86.70
	1153+86.70	KENNETH & RENA KADRMAS NW1/4 LESS 1 ACRE & SW1/4 218.99 RODS	1190+00.00
STATIONING	1153+08.77 EXISTING NORTHWESTERN BELL TELEPHONE 1153+86.70 SECTION LINE 1153+91.49 CL OF ROAD 1154+29.04 OVERHEAD POWER LINES 1154+29.08 EXISTING FENCE 1174+64.31 EXISTING FENCE 1180+24.28 EXISTING FENCE 1180+25.80 1/4 LINE 1185+21.76 P.I. 9°30'01" RT. 1188+68.12 EXISTING WETLAND 1188+97.92 EXISTING WETLAND		
PLAN			
EASEMENT WORKSPACE PERMANENT EASEMENT TEMPORARY EASEMENT EXTRA TEMPORARY WORK SPACE			
CLASS			
PIPE BAND	1257' (1) 1140+00.00 1152+56.78 300' (2) 1154+29.08 T1 1155+56.78 3081' (1) 1186+38.11 362' (2) 1190+00.00 PRELIMINARY		
PROFILE			

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4338 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	662 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 29

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 3 & 10, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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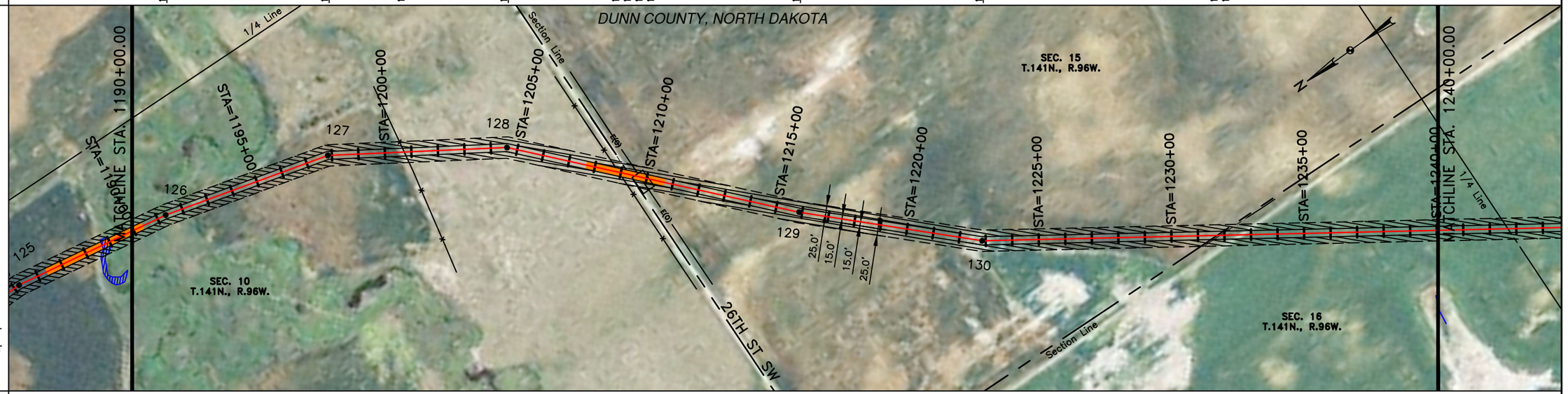
OWNERSHIP	1190+00.00	KENNETH & RENA KADRMAS NW1/4 LESS 1 ACRE & SW1/4 117.18 RODS	1209+33.43
	1209+33.43	WILLARD & EMMA JAEGER NW1/4 & SW1/4 135.74 RODS	1231+73.16
	1231+73.16	JOHN JR & EMMA JAEGER E1/2NE1/4 & W1/2NE1/4 50.11 RODS	1240+00.00
STATIONING	1191+33.51 P.I. 52°27' RT.	1197+84.73 P.I. 17°37'44" RT.	1200+73.18 EXISTING FENCE
	1204+60.76 P.I. 14°50'03" RT.	1208+92.18 EXISTING FENCE 1209+32.54 CL OF ROAD 1209+33.43 SECTION LINE 1208+74.86 OVERHEAD POWER LINES	
	1215+86.63 P.I. 3°35'37" LT.	1222+86.58 P.I. 10°11'04" LT.	1231+73.16 SECTION LINE 1231+84.05 CL OF ROAD

PLAN

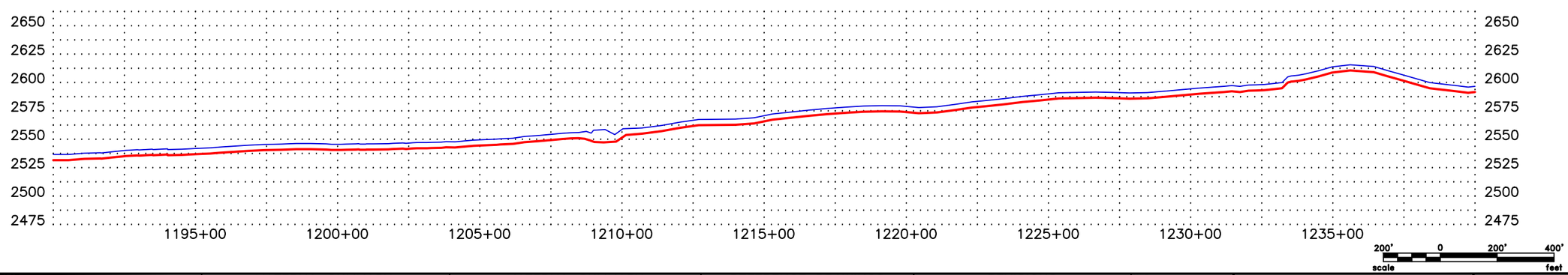


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4662 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	338 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 30

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 10, 15 & 16, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

128 Soo Line Drive
Bismarck, ND 58502

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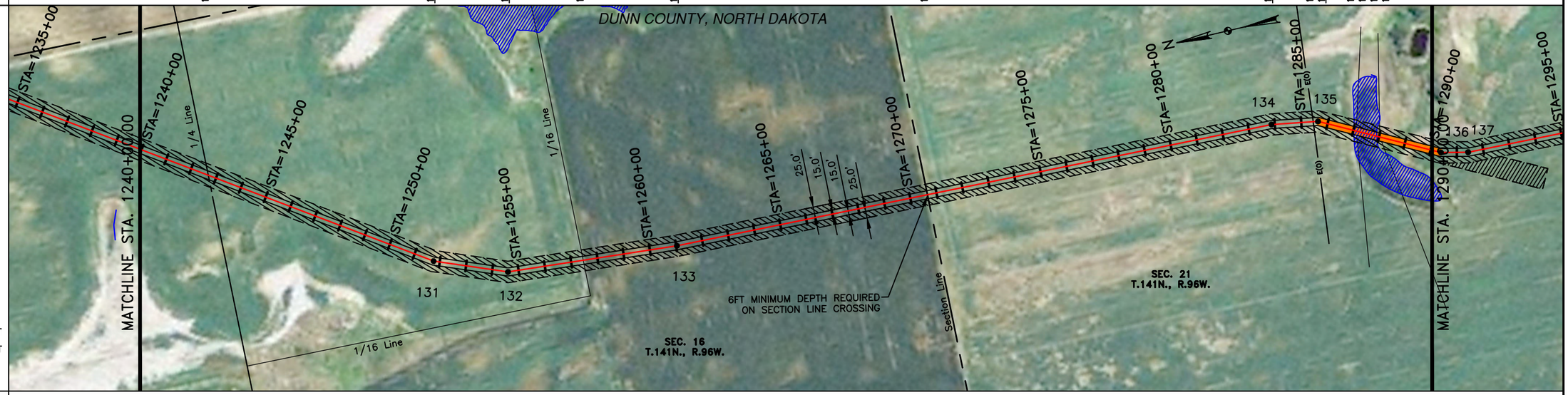
OWNERSHIP	1240+00.00	JOHN JR & EMMA JAEGER E1/2NE1/4 & W1/2NE1/4 16.29 RODS	1242+68.76	WILLARD & EMMA JAEGER NE1/4SE1/4 89.53 RODS	1257+45.97	MARTHA A. KOSTELECY W1/2SE1/4 & SE1/4SE1/4 79.97 RODS	1270+65.48	KENNETH & RENA KADRMAS NE1/4 & SE1/4 117.24 RODS	1290+00.00

STATIONING

1242+68.76 1/4 LINE
1251+76.46 P.I. 12°35'15" LT.
1254+59.52 P.I. 17°06'36" LT.
1257+45.97 1/16 LINE
1261+03.18 P.I. 2°42'32" LT.
1270+65.48 SECTION LINE
1283+87.20 P.I. 7°45'06" RT.
1285+44.52 OVERHEAD POWER LINES
1285+62.82 P.I. 17°55'15" RT.
1287+01.95 EXISTING WETLAND
1287+12.25 EXISTING TREE LINE
1287+91.88 EXISTING WETLAND
1288+02.80 EXISTING TREE LINE

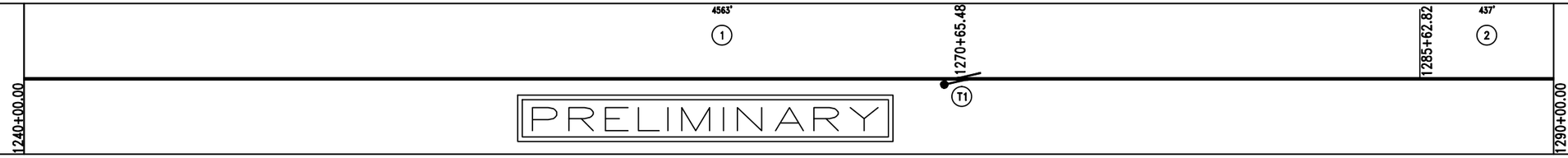
PLAN



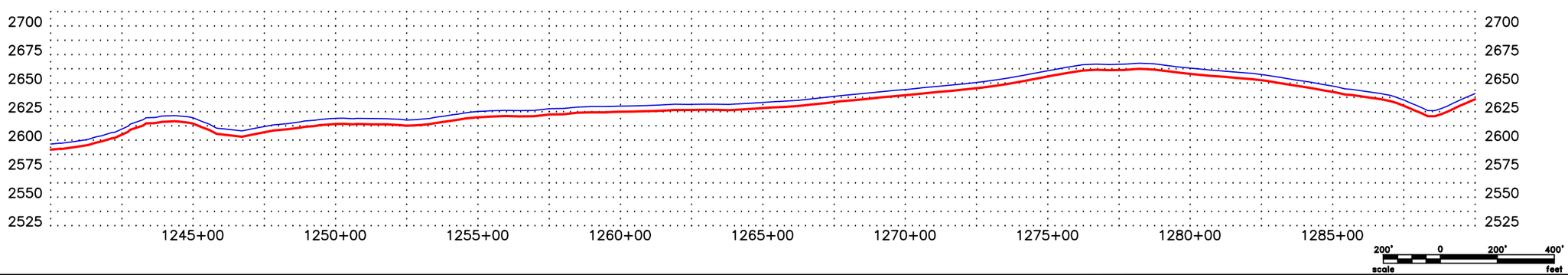
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4563 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	437 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: S. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 31

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 16 & 20, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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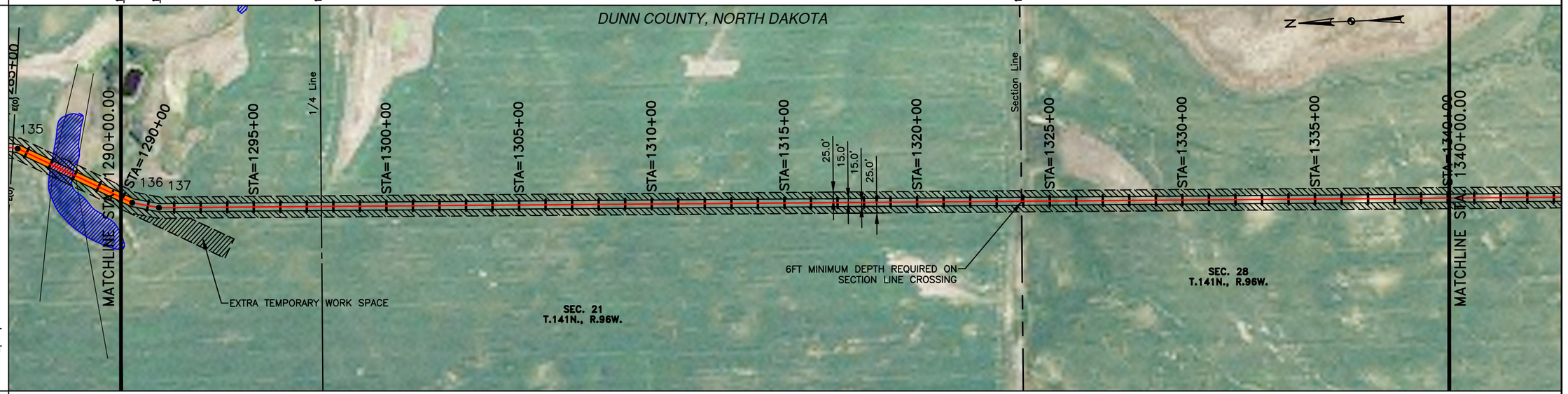
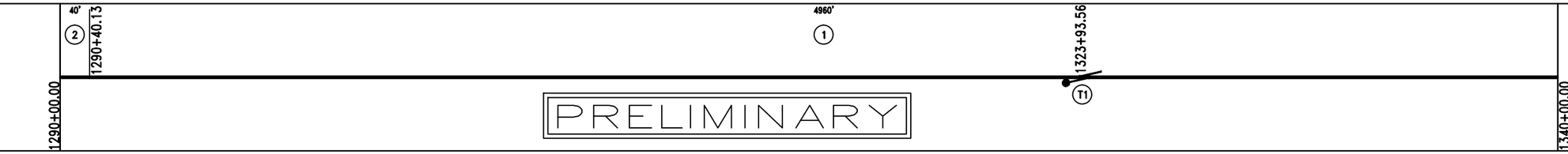
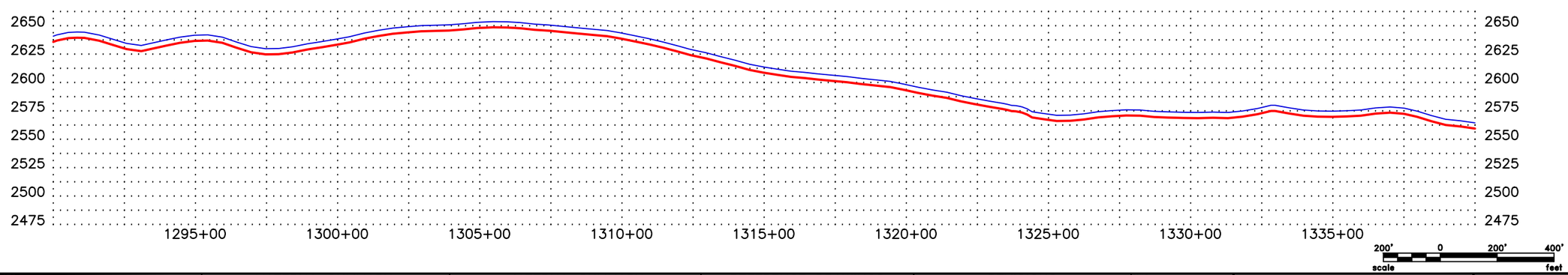
OWNERSHIP	1290+00.00 — KENNETH & RENA KADRMAS — NE1/4 & SE1/4 — 205.67 RODS — 1323+93.56 — DELMAR FICEK — NE1/4, E1/2SW1/4 LESS .21 & 1.06 ACRES — 97.36 RODS — 1340+00.00
STATIONING	1290+40.13 P.I. 14°35'25" LT. — 1291+92.46 P.I. 11°03'48" LT. — 1297+54.75 1/4 LINE — 1323+93.56 SECTION LINE
PLAN	
CLASS	
PIPE BAND	
PROFILE	



EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE





CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4960 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	40 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: 32

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 21 & 28, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

128 Soo Line Drive
Bismarck, ND 58502

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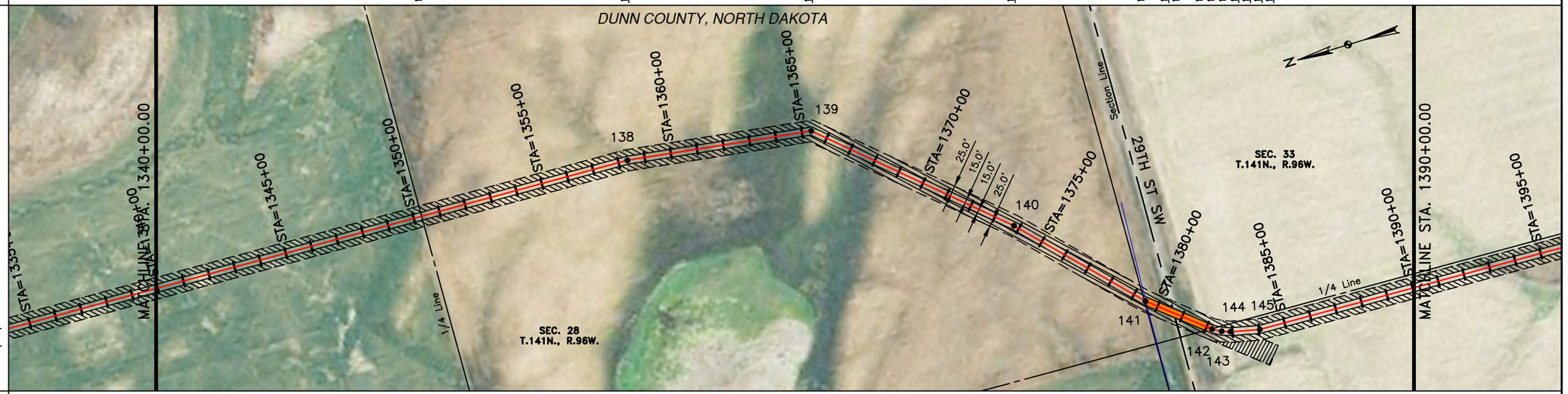
OWNERSHIP	1340+00.00	DELMAR FICEK NE1/4, E1/2SW1/4 LESS .21 & 1.06 ACRES 62.47 RODS	1350+30.70	NORBERT & GLADYS ZASTOUPIL SE1/4 LESS .42 & 2.09 ACRES 183.91 RODS	1380+65.21	EUGENE & KATHLEEN KINZEL W1/2E1/2 LESS 1.06 ACRES, SW1/4, NW1/4 LESS 2.12 ACRES & LESS 5 ACRES TRACT (440X495) 56.65 RODS	1390+00.00

STATIONING

1350+30.70 1/4 LINE
1358+34.34 P.I. 6°09'27" RT.
1362+35.88 P.I. 34°03'24" RT.
1373+78.81 P.I. 4°44'57" RT.
1379+44.10 CONSOLIDATED ENTERPRISES FIBEROPTICS
1379+49.97 P.I. 6°57'53" LT.
1379+52.07 EXISTING UNDERGROUND CENTURY LINK TELEPHONE
1380+65.21 SECTION LINE
1380+68.93 CL OF ROAD
1382+19.20 1/4 LINE
1382+22.11 P.I. 10°07'46" LT.
1382+58.55 P.I. 9°38'46" LT.
1382+97.90 P.I. 7°31'38" LT.
1384+03.69 P.I. 10°38'30" LT.

PLAN



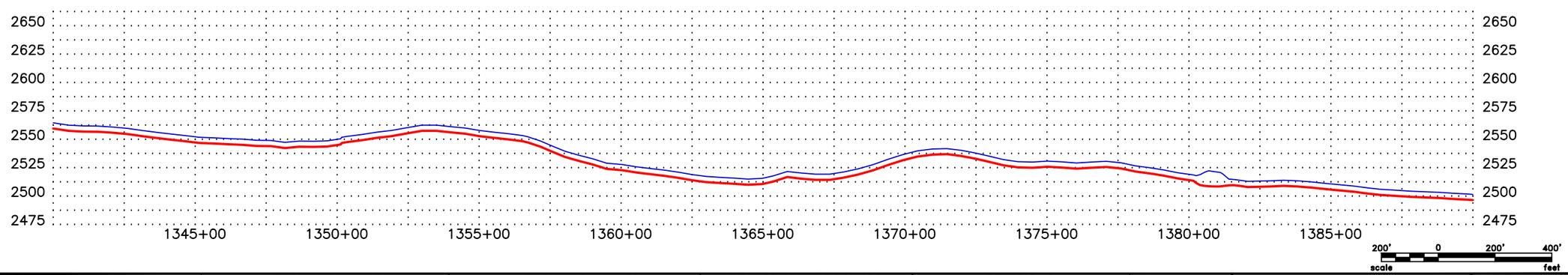
EASEMENT WORKSPACE

- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4728 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	272 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: 33

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 28 & 33, T141N, R96W
DUNN COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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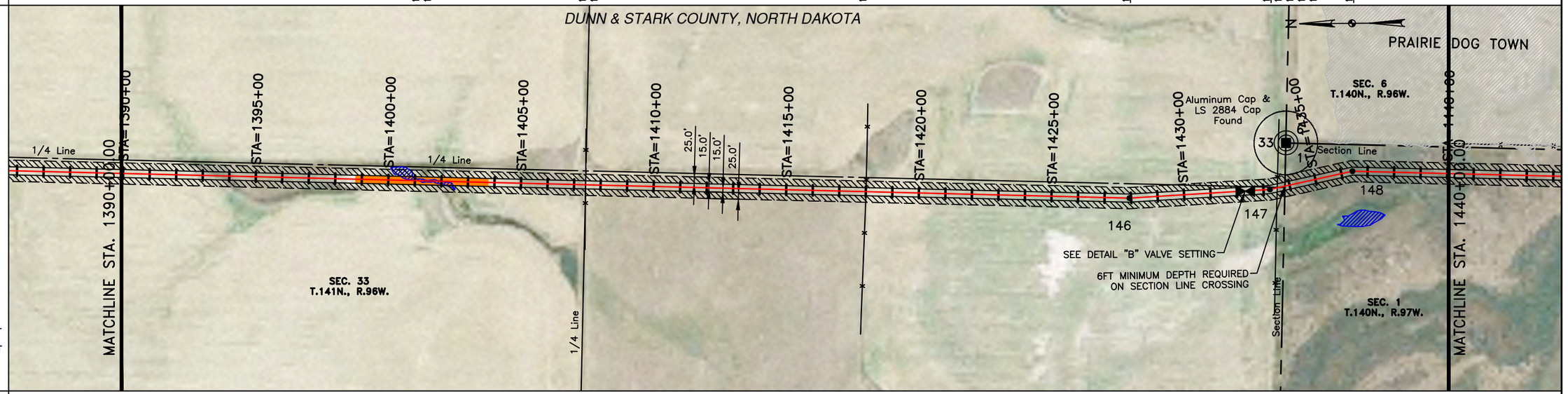
OWNERSHIP	1390+00.00	EUGENE & KATHLEEN KINZEL W1/2E1/2 LESS 1.06 ACRES, SW1/4, NW1/4 LESS 2.12 ACRES & LESS 5 ACRES TRACT (440X495) 265.59 RODS	1433+82.18 DELMAR FICEK LOTS 1, 2, 7, 8, 9, & 10 37.44 RODS 1440+00.00
STATIONING		1401+15.67 EXISTING WETLAND; 1401+99.95 EXISTING WETLAND; 1407+43.48 1/4 LINE; 1407+43.60 EXISTING FENCE; 1418+00.90 EXISTING FENCE; 1427+93.57 P.I. 4°54'01" LT.; 1433+24.09 P.I. 8°59'38" LT.; 1433+52.38 EXISTING FENCE; 1433+62.48 1/4 LINE; 1433+82.18 COUNTY LINE; 1433+82.18 SECTION LINE; 1436+42.92 P.I. 13°52'55" RT.	

PLAN

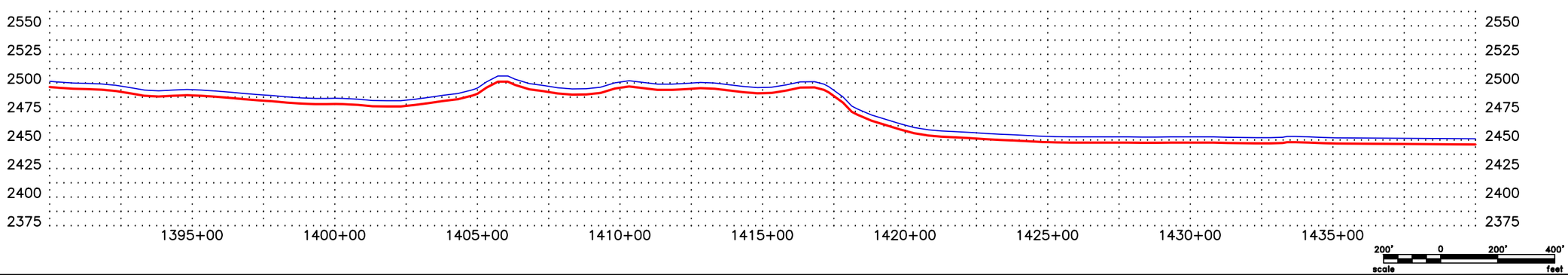


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4500 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	500 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
3	1 LF	16" 150 ANSI CHECK VALVE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 34

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 33, T141N, R96W & SECTION 1, T140N, R97W
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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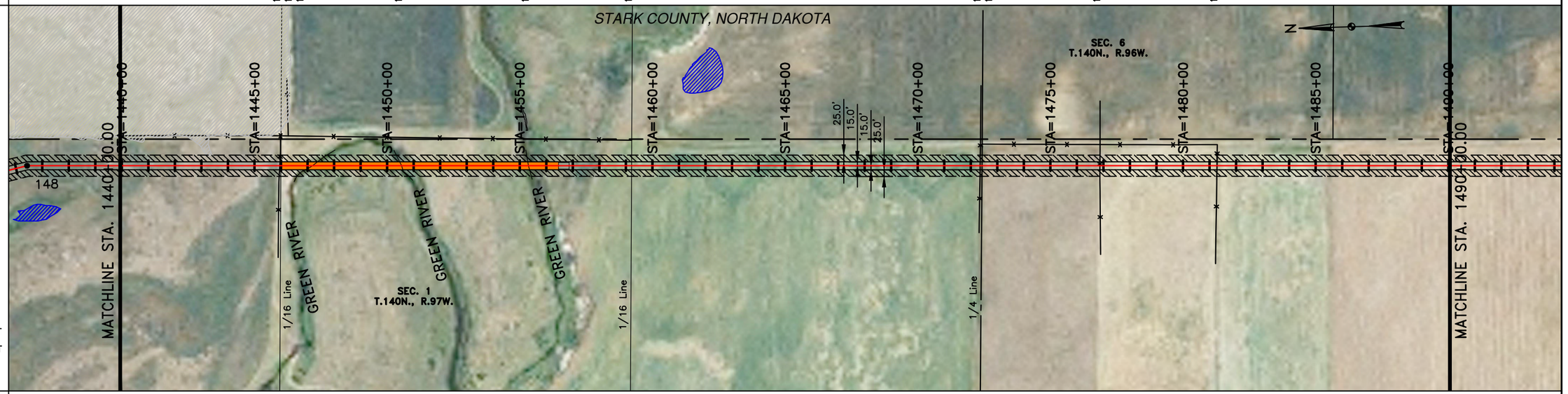
OWNERSHIP	1440+00.00	DELMAR FICEK LOTS 1, 2, 7, 8, 9, & 10 196.53 RODS	1472+42.74	GEORGE R KUCHYNSKI FAMILY TRUST E1/2SE1/4 & SW1/4 106.50 RODS	1490+00.00

STATIONING

1445+95.05 EXISTING FENCE
1446+99.56 1/16 LINE
1447+18.99 GREEN RIVER
1450+54.68 GREEN RIVER
1455+32.51 GREEN RIVER
1459+21.33 1/16 LINE
1472+35.60 EXISTING FENCE
1472+42.74 1/4 LINE
1476+86.58 EXISTING FENCE
1481+28.16 EXISTING FENCE

PLAN



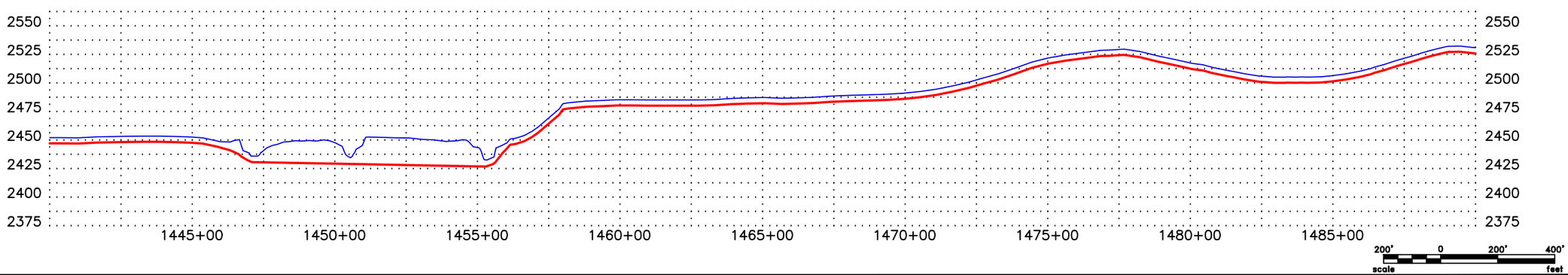
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	3950 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	1050 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 35

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 1, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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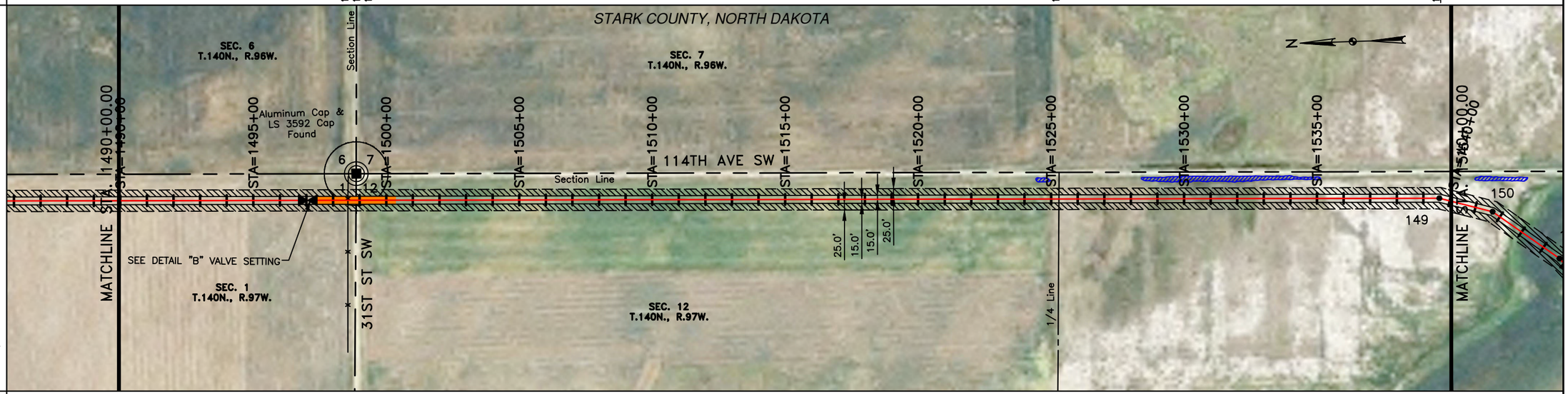
OWNERSHIP	1490+00.00 GEORGE R KUCHYNSKI FAMILY TRUST E1/2SE1/4 & SW1/4 53.71 RODS	1498+86.22 HILDEGARD KUCHYNSKI FAMILY TRUST NE1/4 160.22 RODS	1525+29.78 MJK FAMILY LIMITED PARTNERSHIP SE1/4 89.10 RODS 1540+00.00
STATIONING	1498+55.90 EXISTING FENCE 1498+86.22 SECTION LINE 1498+87.84 CL OF ROAD	1525+29.78 1/4 LINE	1539+60.01 P.I. 14°21'38" RT

PLAN



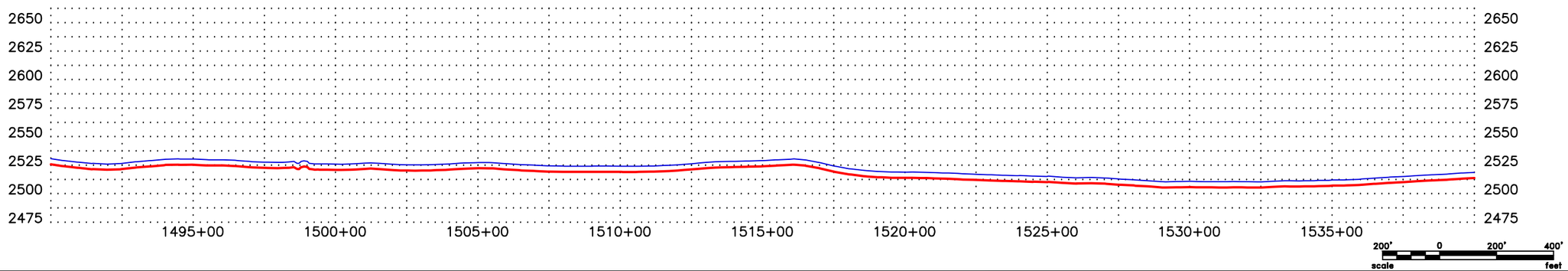
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 36

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 1 & 12, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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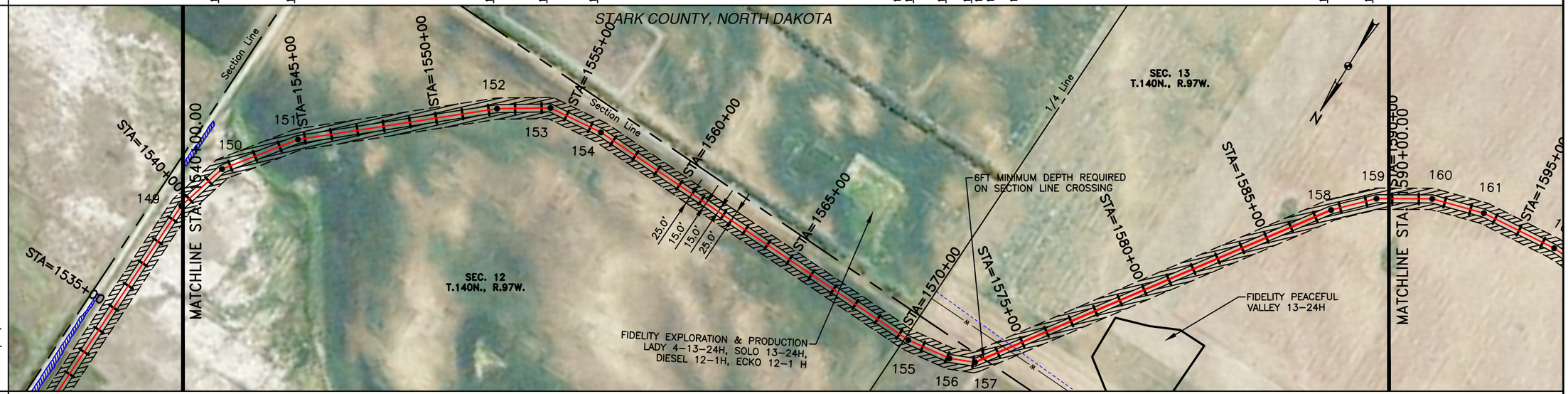
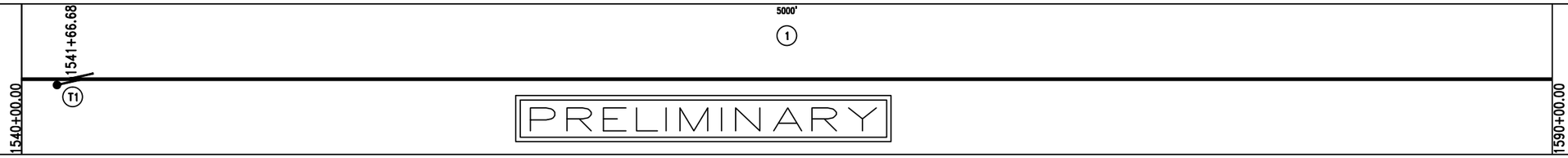
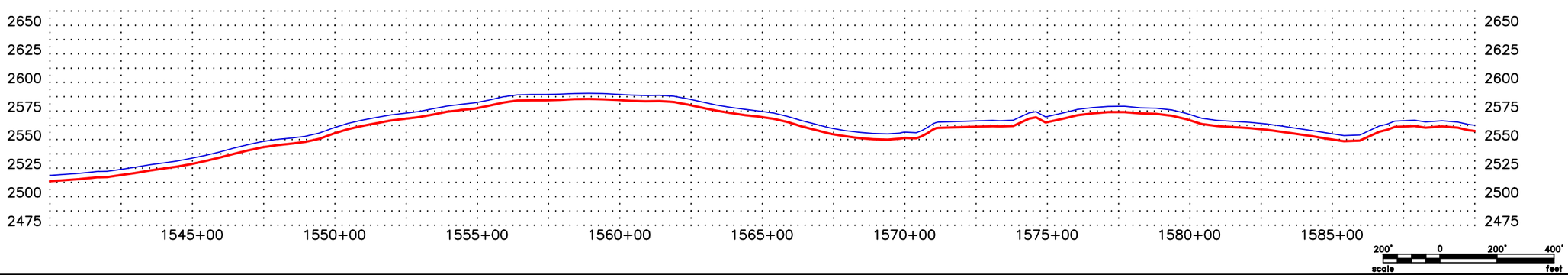
OWNERSHIP	1540+00.00 — MJK FAMILY LIMITED PARTNERSHIP, SE1/4, 183.41 RODS — HILDEGARD KUCHYNSKI FAMILY TRUST, SW1/4, 19.10 RODS (1570+26.24) — (1573+41.31) DOUGLAS & KATHLEEN SCHMIDT, NW1/4, 100.53 RODS — 1590+00.00
STATIONING	1541+66.68 P.I. 20°44'46" RT. · 1544+73.73 P.I. 12°39'19" RT. · 1552+31.97 P.I. 8°04'11" RT. · 1554+37.99 P.I. 26°32'36" RT. · 1556+44.34 P.I. 8°12'34" RT. · 1570+26.24 1/4 LINE · 1570+40.02 P.I. 10°04'11" LT. · 1572+09.83 P.I. 15°19'55" LT. · 1573+07.40 P.I. 31°46'16" LT. · 1573+41.31 SECTION LINE · 1574+35.61 EXISTING SOUTHWEST WATER AUTHORITY WATERLINE · 1574+60.38 EXISTING UNDERGROUND CENTURY LINK TELEPHONE · 1587+64.93 P.I. 9°10'40" RT. · 1588+40.78 P.I. 14°10'21" RT.
PLAN	
EASEMENT WORKSPACE	PERMANENT EASEMENT · TEMPORARY EASEMENT · EXTRA TEMPORARY WORK SPACE
CLASS	
PIPE BAND	
PROFILE	

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	5000 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: 37

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 12 & 13, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP

DOUGLAS & KATHLEEN SCHMIDT
NW1/4
86.75 RODS

DOUGLAS & KATHLEEN SCHMIDT
NW1/4 & NE1/4
216.28 RODS

STATIONING

1590+00.00
1591+50.55 P.I. 15°15'03" RT.
1593+92.39 P.I. 10°59'38" RT.
1596+47.95 P.I. 7°29'55" RT.
1603+41.14 EXISTING UNDERGROUND CENTURY LINK TELEPHONE
1604+30.07 CL OF ROAD
1604+31.39 SECTION LINE
1605+21.40 CONSOLIDATED ENTERPRISES FIBEROPTICS
1630+64.35 1/4 LINE
1633+08.69 P.I. 3°13'18" LT.
1640+00.00

PLAN

STARK COUNTY, NORTH DAKOTA

STA=1590+00.00
STA=1595+00
STA=1600+00
STA=1605+00
STA=1610+00
STA=1615+00
STA=1620+00
STA=1625+00
STA=1630+00
STA=1635+00
STA=1640+00.00
25.0'
15.0'
15.0'
25.0'
158
159
160
161
162
163
164
MATCHLINE
MATCHLINE
115TH AVE SW
Section Line
1/4 Line
SEC. 13
T.140N., R.97W.
SEC. 14
T.140N., R.97W.
N

EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

1269' (1)
300' (2)
3431' (1)
1590+00.00
1602+68.75
1604+60.00
1605+68.75
1640+00.00
T1

PRELIMINARY

PROFILE

2650
2625
2600
2575
2550
2525
2500
2475
1595+00
1600+00
1605+00
1610+00
1615+00
1620+00
1625+00
1630+00
1635+00
200' 0 200' 400'
scale feet

811
CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
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APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: —
SHEET: 38

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 13 & 14, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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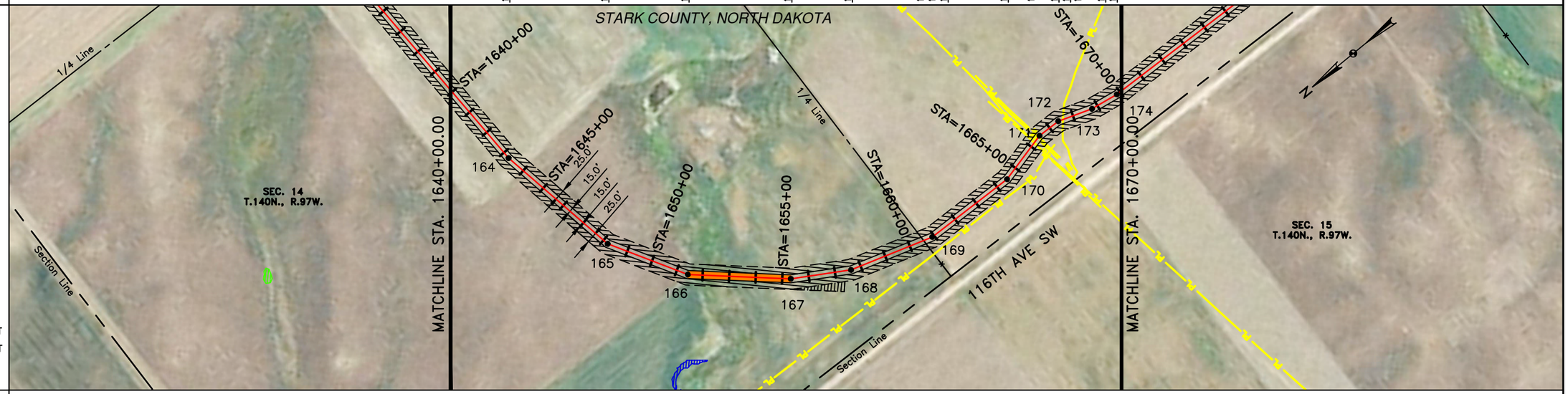
OWNERSHIP

1640+00.00 — DOUGLAS & KATHLEEN SCHMIDT — NW1/4 & NE1/4 — 124.63 RODS — 1660+56.35 — CLARENCE TUHY — SW1/4 — 57.19 RODS — 1670+00.00

STATIONING

1643+27.24 P.I. 8°40'23" LT.
1648+20.69 P.I. 19°54'01" LT.
1651+43.94 P.I. 18°35'01" LT.
1655+31.80 P.I. 10°46'57" LT.
1657+61.63 P.I. 13°40'17" LT.
1660+56.16 EXISTING FENCE
1660+56.35 1/4 LINE
1660+91.57 P.I. 15°38'37" LT.
1664+47.37 P.I. 15°36'21" LT.
1666+19.41 EXISTING BRIDGER PIPELINE
1666+51.91 P.I. 15°35'44" RT.
1667+41.30 P.I. 17°31'53" RT.
1667+60.12 EXISTING BRIDGER 4" OIL PIPELINE
1668+26.74 P.I. 9°54'26" LT.
1669+04.96 P.I. 7°22'42" LT.

PLAN

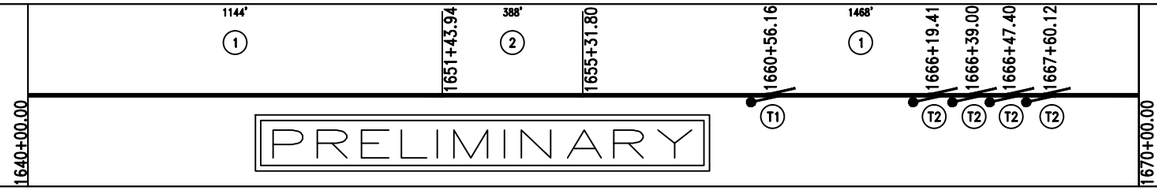


EASEMENT WORKSPACE

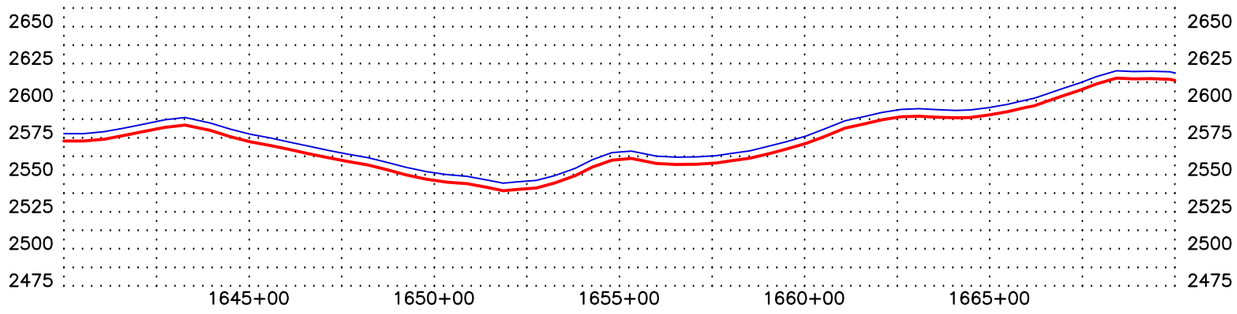
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

200' 0 200' 400'
scale feet

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	2612 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	388 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1
T2	4 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 39

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 14, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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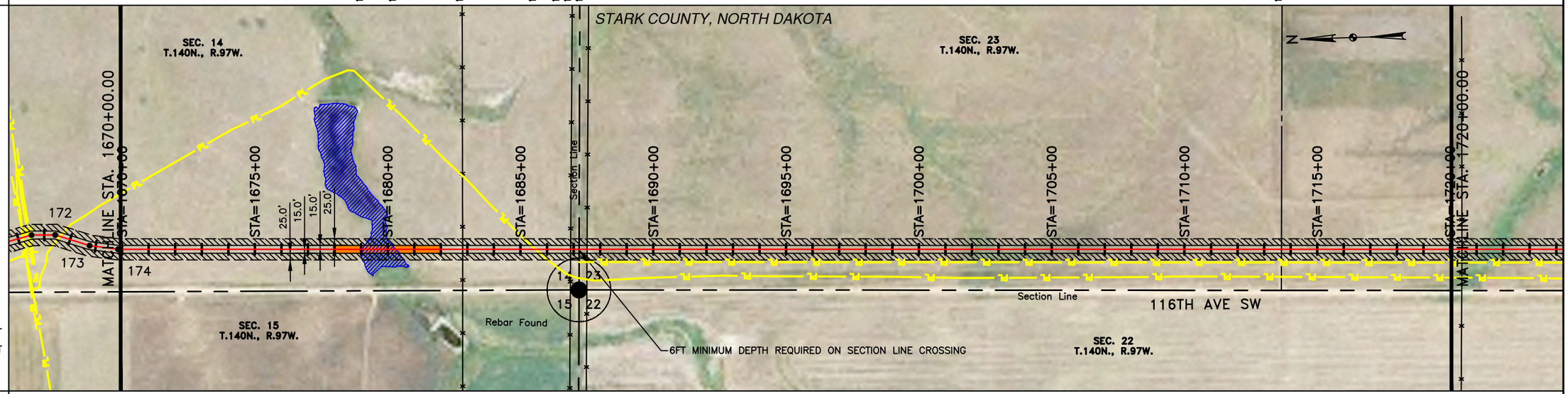
OWNERSHIP	1670+00.00	CLARENCE TUHY SW1/4 104.28 RODS	1687+20.68
		STATE OF NORTH DAKOTA NW1/4, SW1/4 & SE1/4 198.75 RODS	1720+00.00
STATIONING		1679+05.72 EXISTING WETLAND 1680+29.49 EXISTING WETLAND 1682+82.27 EXISTING FENCE 1685+56.72 EXISTING BRIDGER 4" OIL PIPELINE 1686+88.57 EXISTING FENCE 1687+20.68 SECTION LINE 1687+50.62 EXISTING FENCE 1713+65.39 1/4 LINE	



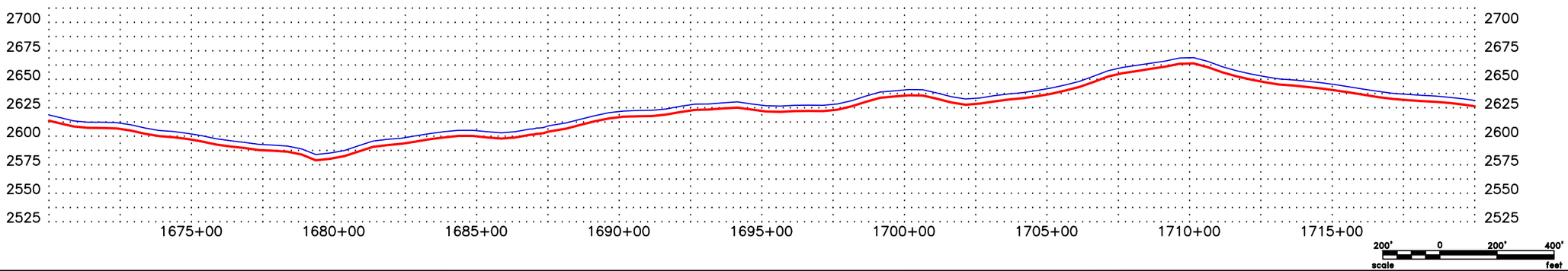
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PRELIMINARY

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4800 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	400 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	1 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: _ SHEET: 40

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTONS 14 & 23, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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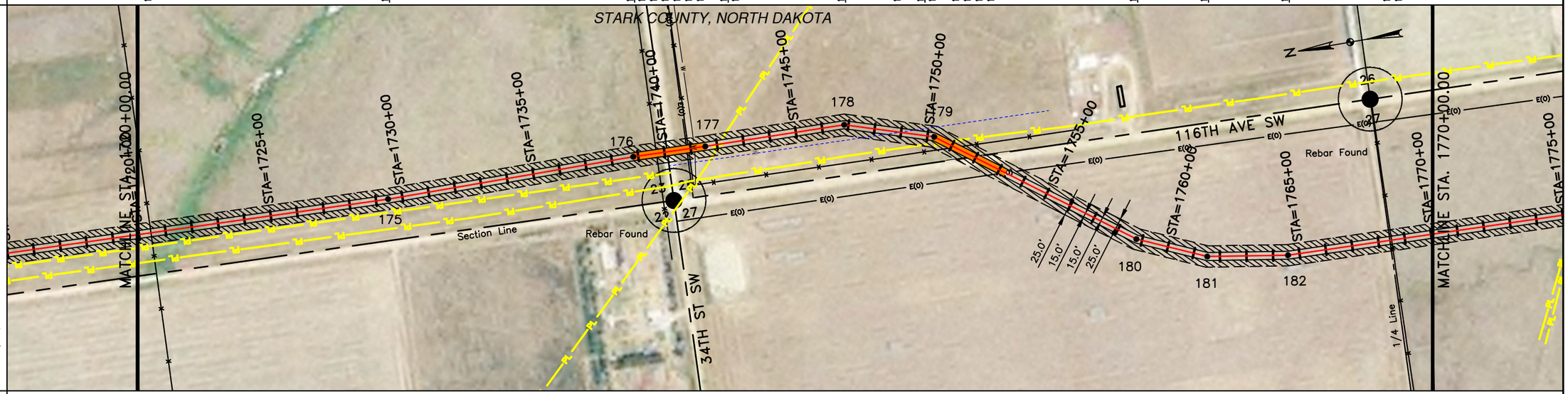
OWNERSHIP	1720+00.00	STATE OF NORTH DAKOTA NW1/4, SW1/4 & SE1/4 121.85 RODS	1740+10.56	ARTHUR S RIDL, ETAL NW1/4 71.66 RODS	1751+92.89
				ARTHUR S RIDL, ETAL NE1/4 100.05 RODS	FALLER FAMILY REVOKABLE TRUST SE1/4 9.47 RODS

1768+43.77 1770+00.00

STATIONING

1720+44.78 EXISTING FENCE
1720+45.91 P.I. 1°43'52" LT.
1738+81.51 P.I. 1°38'38" RT.
1739+69.56 EXISTING FENCE
1740+10.56 SECTION LINE
1740+10.66 CL OF ROAD
1740+84.90 OVERHEAD POWER LINES
1740+91.58 EXISTING FENCE
1741+14.23 EXISTING UNDERGROUND WATER MAINLINE
1741+55.52 P.I. 0°40'46" LT.
1742+07.02 EXISTING PIPELINE
1746+83.94 P.I. 16°25'54" RT.
1748+96.94 EXISTING NORTHWESTERN BELL TELEPHONE
1750+25.48 P.I. 19°15'20" RT.
1750+69.94 EXISTING BROOKER 4" OIL PIPELINE
1751+14.36 EXISTING FENCE
1751+69.13 CL OF ROAD
1751+92.90 SECTION LINE
1753+25.26 OVERHEAD POWER LINES
1758+77.93 P.I. 13°02'19" LT.
1761+52.52 P.I. 14°45'38" LT.
1764+56.46 P.I. 7°21'09" LT.
1768+43.77 1/4 LINE
1768+49.80 EXISTING FENCE

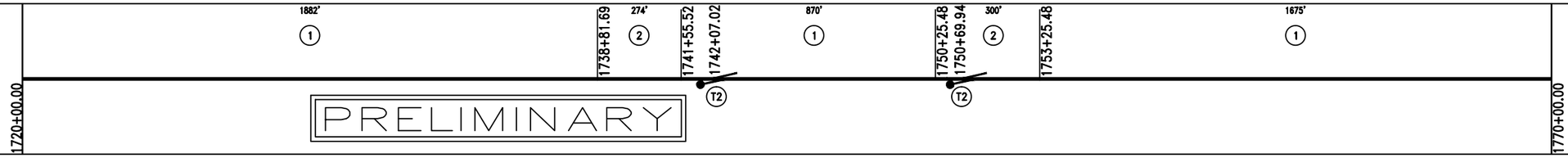
PLAN



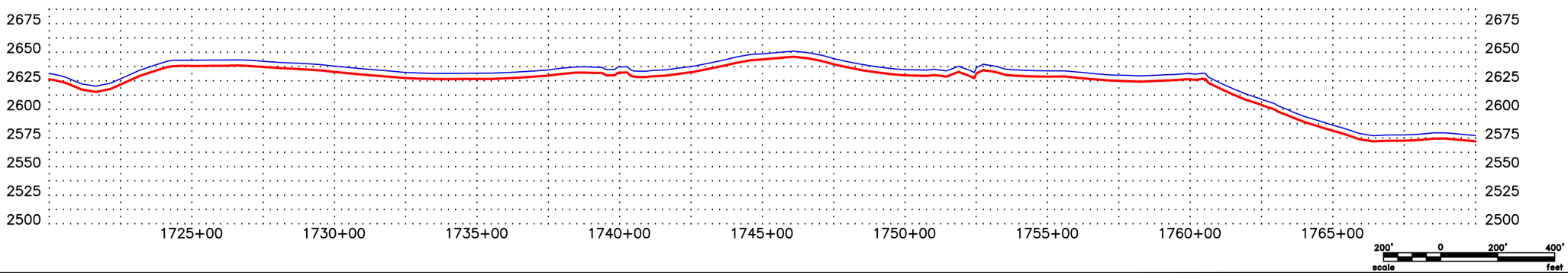
EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND



PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4426 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	574 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	2 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: _ SHEET: 41

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 23 & 26, T140, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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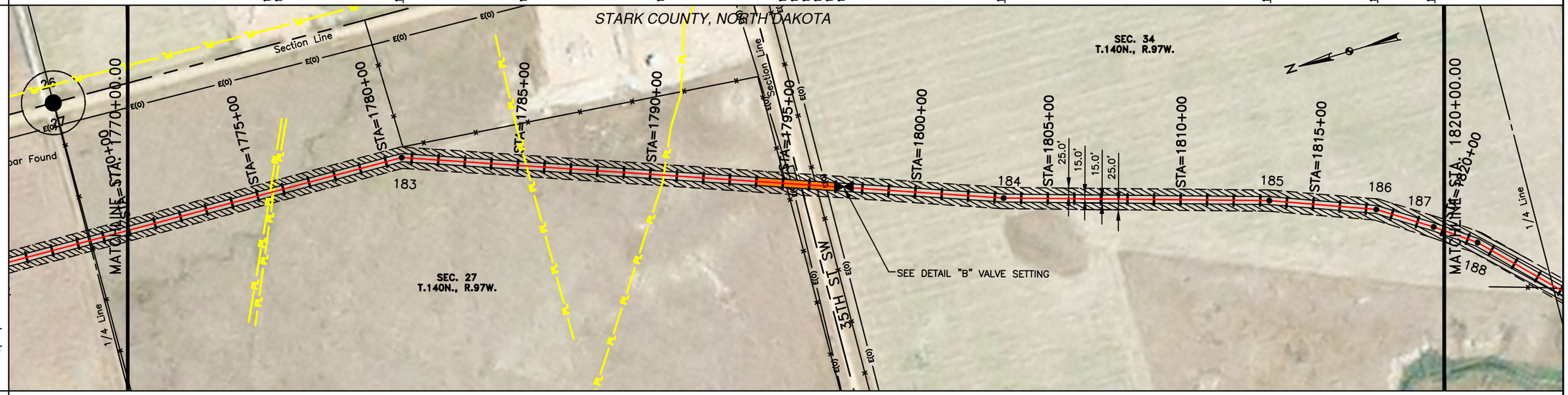
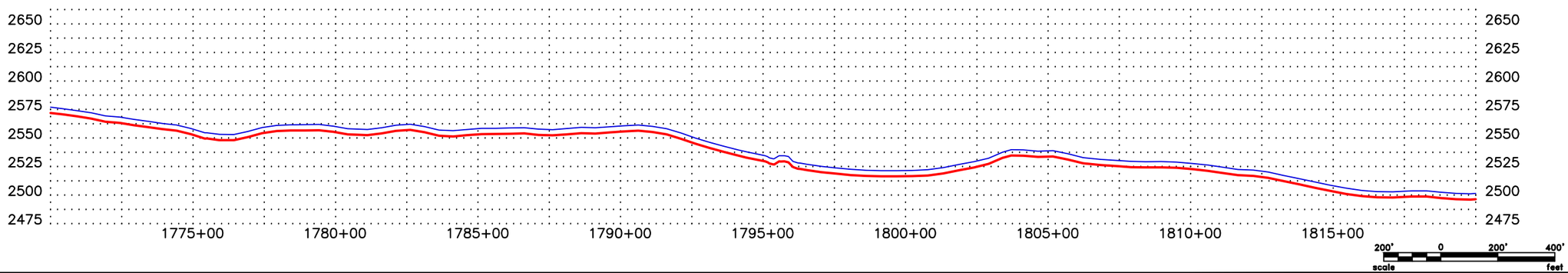
OWNERSHIP	1770+00.00 — FALLER FAMILY REVOKABLE TRUST — SE1/4 — 155.56 RODS — 1795+66.81 — ROGETTE SHANNON — NE1/4 & SE1/4 — 147.47 RODS — 1820+00.00
STATIONING	1775+48.78 EXISTING ONEOK PIPELINE; 1775+63.97 EXISTING ONEOK PIPELINE; 1780+62.11 P.I. 18°43'41" RT.; 1785+32.62 EXISTING CLINE PIPELINE; 1790+50.81 EXISTING BELLE FOURCHE 6" OIL PIPELINE; 1795+11.48 EXISTING FENCE; 1795+33.80 OVERHEAD POWER LINES; 1795+66.81 SECTION LINE; 1795+70.22 CL OF ROAD; 1796+26.22 EXISTING FENCE; 1796+62.27 EXISTING CONSOLIDATED ENTERPRISES ELECTRICAL LINES; 1803+33.40 P.I. 3°17'15" LT.; 1813+34.15 P.I. 4°11'14" RT.; 1817+38.59 P.I. 12°10'37" RT.; 1819+64.18 P.I. 2°36'29" RT.
PLAN	
EASEMENT WORKSPACE	PERMANENT EASEMENT; TEMPORARY EASEMENT; EXTRA TEMPORARY WORK SPACE
CLASS	
PIPE BAND	1770+00.00 — 1775+48.78 (T2) — 1775+63.97 (T2) — 2395' (1) — 1785+32.62 (T2) — 1790+50.81 (T2) — 1793+94.79 — 300' (2) — 1796+94.79 — 1797+39.25 — 2305' (1) — 1820+00.00
PROFILE	

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

PROPERTY LINE; SECTION LINE; EASEMENT LINE; PIPELINE CENTERLINE; WATER LINE (W); FOREIGN PIPELINE; EXISTING ROAD; UNDERGROUND COM. LINE (UC); BARBED WIRE FENCE; FIBER OPTIC COM. LINE (FO); RAILROAD; OVERHEAD ELECTRIC (E(O)); UTILITY POLE; PROPOSED BORE; EROSION/SEDIMENT CONTROL BMP; MARKER POST; AVOIDANCE AREA; WETLAND EASEMENT; TEST LEAD VALVE SETTING

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	4 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 42

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 27 & 34, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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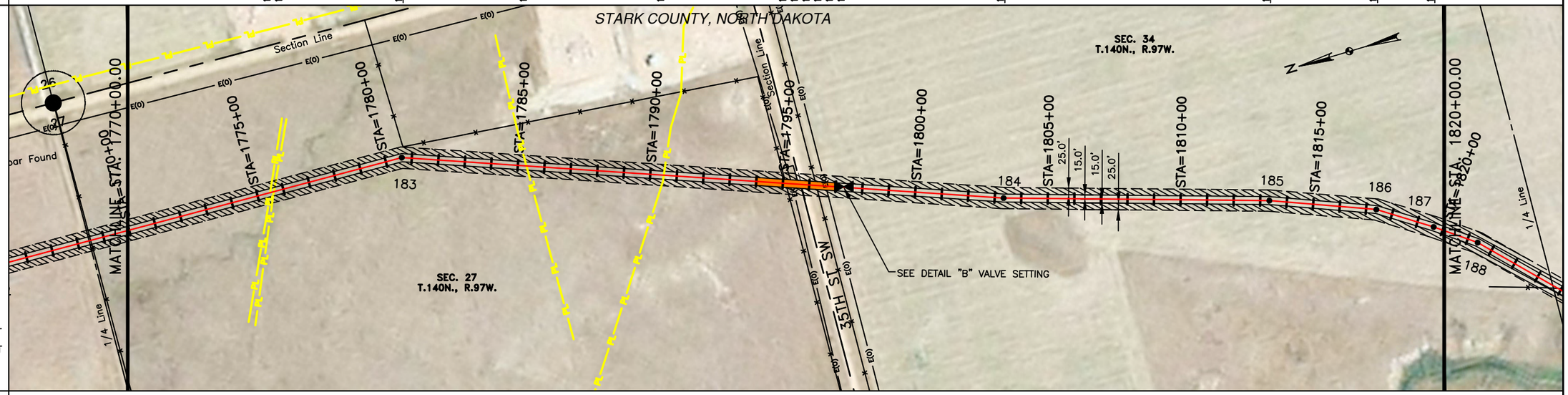
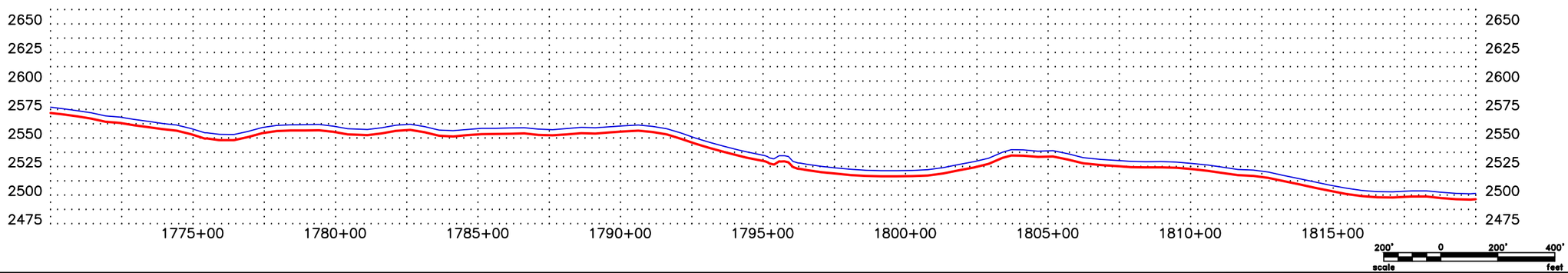
OWNERSHIP	1770+00.00 — FALLER FAMILY REVOKABLE TRUST — SE1/4 — 155.56 RODS — 1795+66.81 — ROGETTE SHANNON — NE1/4 & SE1/4 — 147.47 RODS — 1820+00.00
STATIONING	1775+48.78 EXISTING ONEOK PIPELINE; 1775+63.97 EXISTING ONEOK PIPELINE; 1780+62.11 P.I. 18°43'41" RT.; 1785+32.62 EXISTING CLINE PIPELINE; 1790+50.81 EXISTING BELLE FOURCHE 6" OIL PIPELINE; 1795+11.48 EXISTING FENCE; 1795+33.80 OVERHEAD POWER LINES; 1795+66.81 SECTION LINE; 1795+70.22 CL OF ROAD; 1796+26.22 EXISTING FENCE; 1796+62.27 EXISTING CONSOLIDATED ENTERPRISES ELECTRICAL LINES; 1803+33.40 P.I. 3°17'15" LT.; 1813+34.15 P.I. 4°11'14" RT.; 1817+38.59 P.I. 12°10'37" RT.; 1819+64.18 P.I. 2°36'29" RT.
PLAN	
EASEMENT WORKSPACE	PERMANENT EASEMENT; TEMPORARY EASEMENT; EXTRA TEMPORARY WORK SPACE
CLASS	
PIPE BAND	1770+00.00 — 1775+48.78 (T2) — 1775+63.97 (T2) — 2395' (1) — 1785+32.62 (T2) — 1790+50.81 (T2) — 1793+94.79 — 300' (2) — 1796+94.79 — 1797+39.25 — 2305' (1) — 1820+00.00
PROFILE	

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

PROPERTY LINE; SECTION LINE; EASEMENT LINE; PIPELINE CENTERLINE; WATER LINE (W); FOREIGN PIPELINE; EXISTING ROAD; UNDERGROUND COM. LINE (UC); BARBED WIRE FENCE; FIBER OPTIC COM. LINE (FO); RAILROAD; OVERHEAD ELECTRIC (E(O)); UTILITY POLE; PROPOSED BORE; EROSION/SEDIMENT CONTROL BMP; MARKER POST; AVOIDANCE AREA; WETLAND EASEMENT; TEST LEAD VALVE SETTING

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	4 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 42

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 27 & 34, T140N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP

1820+00.00 — ROGETTE SHANNON — NE1/4 & SE1/4 — 28.20 RODS — 1824+65.31

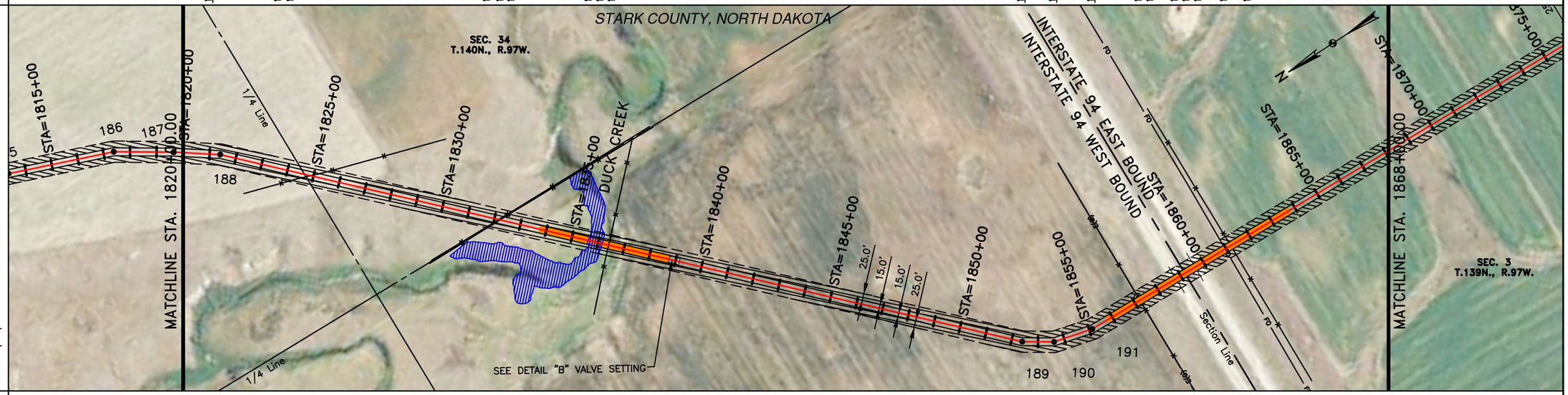
GORDON & RODNEY KOSTELECKY — SW1/4 — 209.31 RODS

1859+18.90 — RUDOLOPH PAZOUREK — NW1/4, S1/2NE1/4 & LOTS 1 & 2 — 53.40 RODS — 1868+00.00

STATIONING

1821+39.94 P.I. 10°06'19" RT.
1824+65.31 1/4 LINE
1824+89.53 EXISTING FENCE
1832+16.32 EXISTING FENCE
1832+19.35 1/4 LINE
1832+22.29 EXISTING FENCE
1835+62.13 EXISTING WETLAND
1832+19.35 EXISTING WETLAND
1832+22.29 EXISTING FENCE
1852+40.44 P.I. 12°39'10" LT.
1853+59.99 P.I. 19°01'42" LT.
1855+11.43 P.I. 12°26'33" LT.
1857+20.75 OVERHEAD POWER LINES
1857+21.73 EXISTING FENCE
1858+79.34 CL OF ROAD
1859+18.90 SECTION LINE
1859+63.16 CL OF ROAD
1860+96.02 CONSOLIDATED ENTERPRISES FIBEROPTICS
1861+20.16 EXISTING FENCE

PLAN

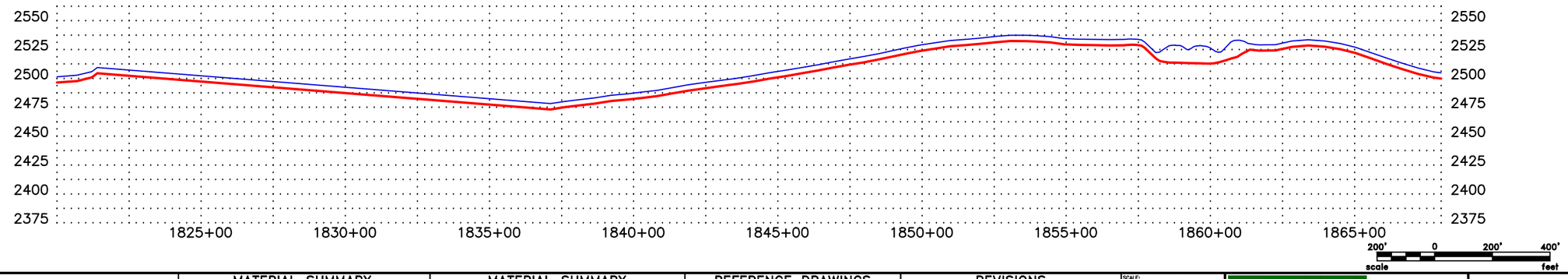


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	3500 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	1300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 171340
REVISION: –
SHEET: 43

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 34, T140N, R97W & SECTION 3, T139N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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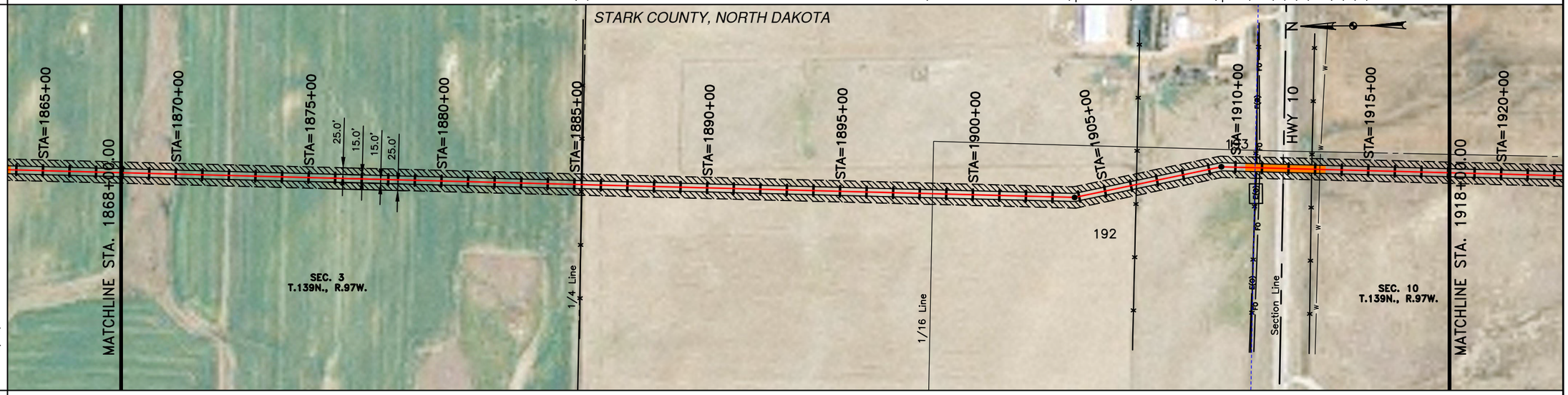
OWNERSHIP	1868+00.00	RUDOLOPH PAZOUREK NW1/4, S1/2NE1/4 & LOTS 1 & 2 104.79 RODS	1885+28.99	MELISSA CHRUSZCH SW1/4 LESS SW1/4SW1/4 & 1 TRACT 79.97 RODS	1898+48.46	DARRELL A CHRUSZCH SW1/4SW1/4 80.74 RODS	1911+80.62	KEN & LEONA BARNHART W1/2NW1/4 37.54 RODS	1918+00.00

STATIONING

1885+26.46 EXISTING FENCE
1885+28.99 1/4 LINE
1898+48.46 1/16 LINE
1903+83.30 P.I. 13°19'19" LT.
1906+20.54 EXISTING FENCE
1909+46.99 P.I. 13°19'27" RT.
1910+74.21 EXISTING NORTHWESTERN BELL TELEPHONE
1910+75.83 EXISTING FENCE
1910+79.10 OVERHEAD POWER LINES
1910+80.51 OVERHEAD POWER LINES
1910+91.87 CONSOLIDATED EXTERPRISES FIBEROPTICS
1911+79.50 CL OF ROAD
1911+80.62 SECTION LINE
1912+87.18 EXISTING FENCE
1913+17.56 EXISTING SOUTHWEST WATER AUTHORITY WATERLINE

PLAN



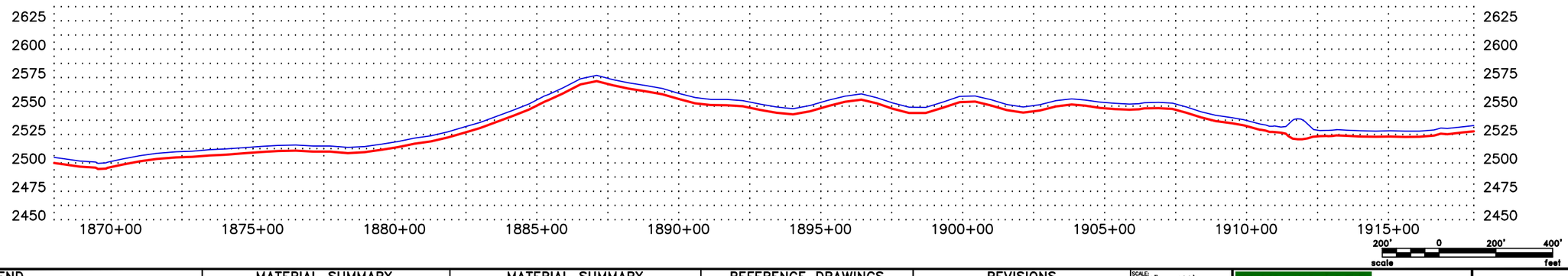
EASEMENT WORKSPACE

- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	300 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T1	1 EA.	TYPE-1

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 44

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 3 & 10, T139N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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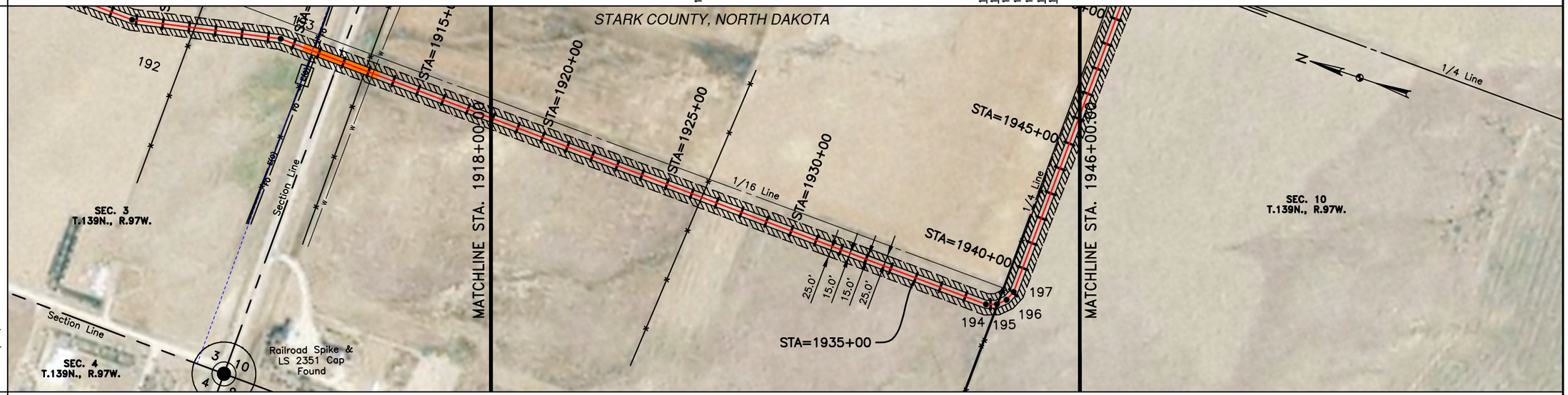
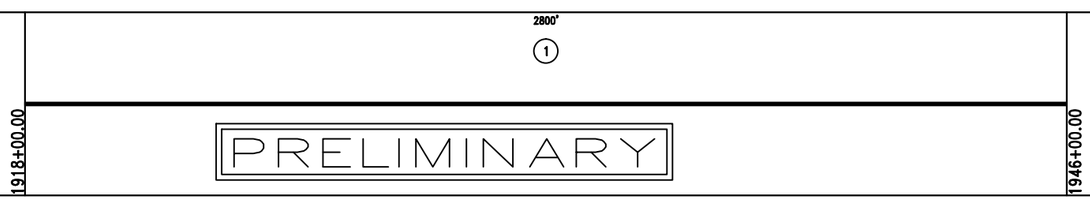
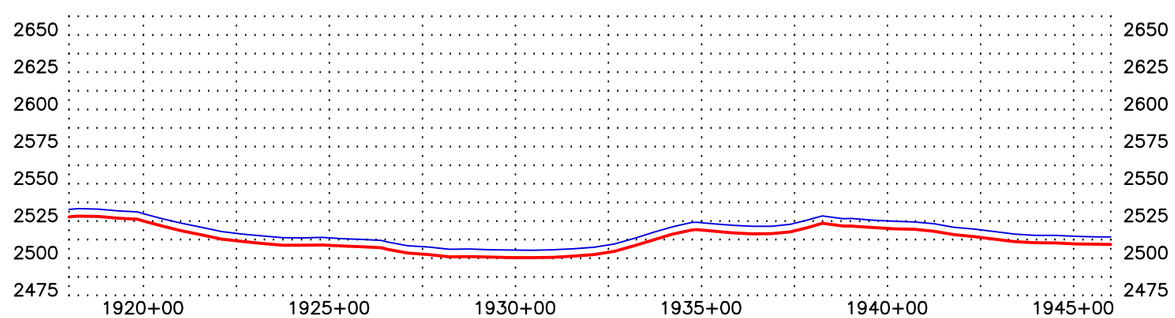
OWNERSHIP	1918+00.00 — KEN & LEONA BARNHART — W1/2NW1/4 — 122.75 RODS — 1938+25.34 — EDOG MANIFEST, LLC — SW1/4 & SE1/4 — 46.95 RODS — 1946+00.00
STATIONING	1926+39.65 EXISTING FENCE; 1937+82.70 P.I. 20°30'59" LT; 1938+24.01 P.I. 24°37'35" LT; 1938+25.19 EXISTING FENCE; 1938+25.34 1/4 LINE; 1938+30.33 EXISTING FENCE; 1938+63.96 P.I. 27°27'52" LT; 1939+10.96 P.I. 27°13'56" LT
PLAN	
CLASS	
PIPE BAND	
PROFILE	

EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

811 CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	2800 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: D. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: 45

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 10, T139N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP

1946+00.00

EDOG MANIFEST, LLC
SW1/4 & SE1/4
204.75 RODS

1979+78.35

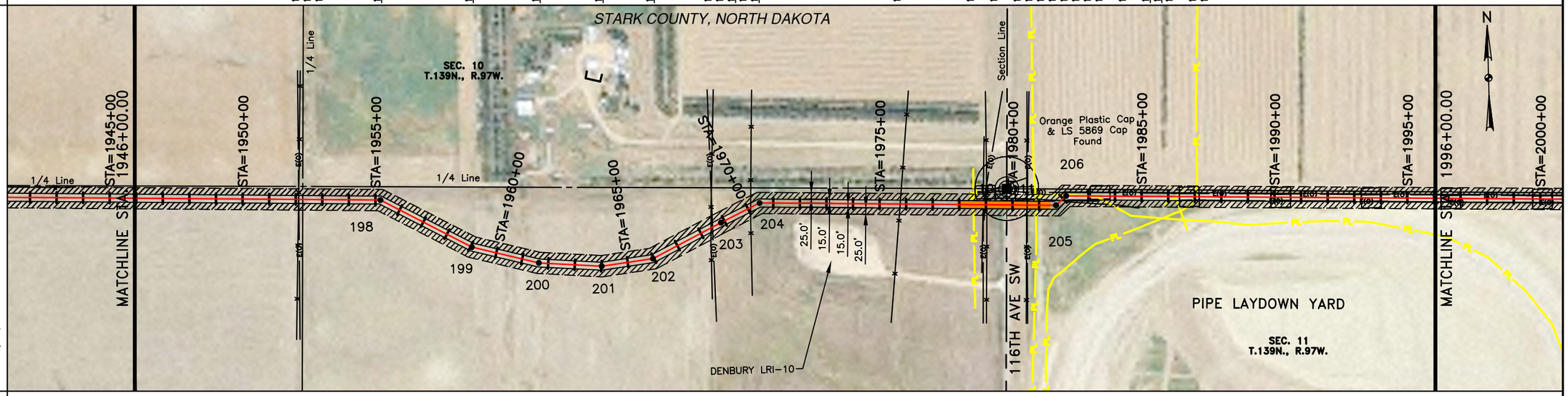
BOE MATERIALS LLC
SW1/4 LESS 16.287
98.28 RODS

1996+00.00

STATIONING

1952+10.96 EXISTING FENCE
1952+11.33 OVERHEAD POWER LINES
1952+26.47 1/4 LINE
1955+18.45 P.I. 26°41'46" RT.
1959+05.57 P.I. 13°48'58" LT.
1961+64.34 P.I. 10°19'49" LT.
1964+01.34 P.I. 11°27'23" LT.
1965+96.12 P.I. 19°22'09" LT.
1968+43.34 EXISTING FENCE
1968+49.90 OVERHEAD POWER LINES
1968+85.72 P.I. 0°56'18" RT.
1970+10.87 EXISTING FENCE
1970+48.61 P.I. 27°20'14" RT.
1975+77.57 EXISTING FENCE
1978+53.66 EXISTING MDU COOPERATIVE PIPELINE
1978+89.54 CONSOLIDATED ENTERPRISES FIBEROPTICS
1978+90.10 OVERHEAD POWER LINES
1978+97.54 OVERHEAD POWER LINES
1979+03.95 EXISTING FENCE
1979+78.34 CL OF ROAD
1979+78.35 SECTION LINE
1980+53.68 EXISTING FENCE
1980+55.33 OVERHEAD POWER LINES
1980+85.91 EXISTING BELLE FOURCHE 6" OIL PIPELINE
1980+98.92 EXISTING MDU COOPERATIVE PIPELINE
1981+64.02 P.I. 43°36'31" LT.
1982+15.75 P.I. 43°37'10" RT.
1982+76.80 EXISTING BELLE FOURCHE 6" OIL PIPELINE
1986+30.55 EXISTING ONEOK PIPELINE
1987+02.09 EXISTING BRIDGER 4" OIL PIPELINE

PLAN

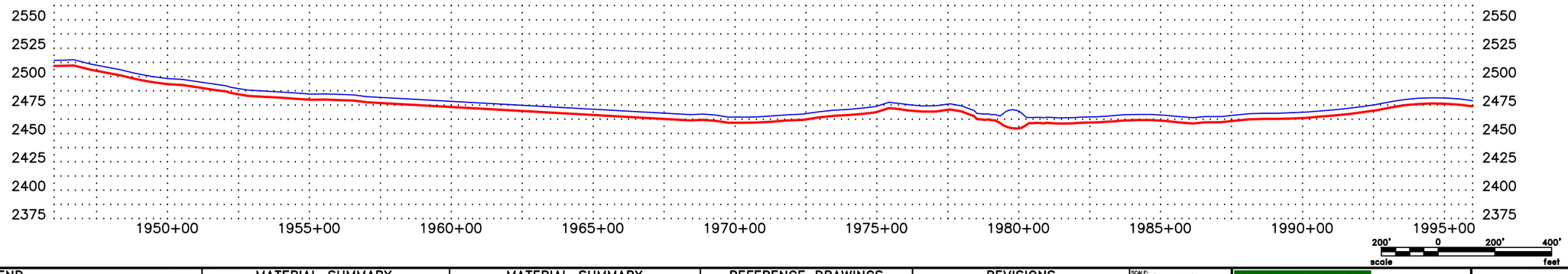


EASEMENT WORKSPACE
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

PIPE BAND

PROFILE



CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	4650 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE
2	350 LF	16" OD, 0.344" W.T. API 5L X70, 14-16 MIL FBE
T2	5 EA	TYPE-2A

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: –
SHEET: 46

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTIONS 10 & 11, T139N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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OWNERSHIP

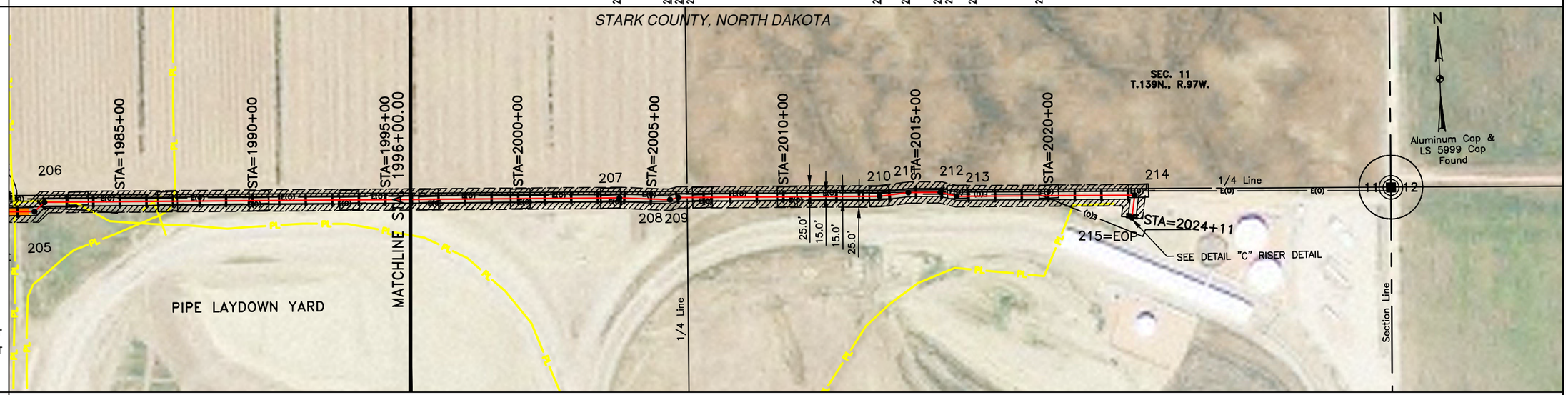
1996+00.00 — BOE MATERIALS LLC — SW1/4 LESS 16.287 — 62.89 RODS — 2006+37.73

2006+37.73 — BAKKEN OIL EXPRESS LLC — SE1/4 — 107.46 — 2024+10.90

STATIONING

2003+81.70 P.I. 279.52° RT.
2005+72.11 P.I. 171.53° LT.
2006+04.88 P.I. 141.33° RT.
2006+37.73 1/4 LINE
2013+61.83 P.I. 6.98°01" LT.
2014+71.27 P.I. 6.98°07" RT.
2015+91.79 P.I. 13.40°05" RT.
2016+21.13 EXISTING ROUGHRIDER ELECTRIC COOPERATIVE POWER LINES
2016+54.97 P.I. 13.40°22" LT.
2019+77.28 EXISTING ROUGHRIDER ELECTRIC COOPERATIVE POWER LINES

PLAN



EASEMENT WORKSPACE

- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA TEMPORARY WORK SPACE

CLASS

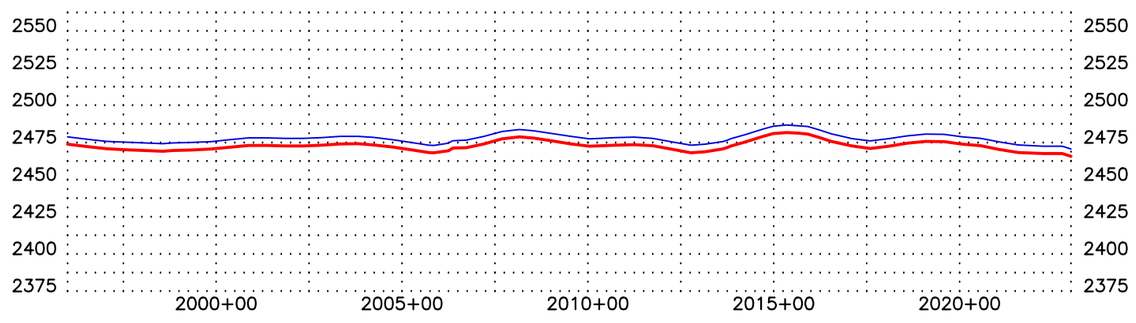
PIPE BAND

2700'

1

1996+00.00 — PRELIMINARY — 2023+00.00

PROFILE



200' 0 200' 400'
scale feet

CALL BEFORE YOU DIG

LEGEND

- PROPERTY LINE
- SECTION LINE
- EASEMENT LINE
- PIPELINE CENTERLINE
- WATER LINE
- FOREIGN PIPELINE
- EXISTING ROAD
- UNDERGROUND COM. LINE
- BARBED WIRE FENCE
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- EROSION/SEDIMENT CONTROL BMP
- MARKER POST
- AVOIDANCE AREA
- WETLAND EASEMENT
- TEST LEAD
- VALVE SETTING

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
1	2700 LF	16" OD, 0.281" W.T. API 5L X70, 13-15 MIL FBE

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 400'
DRAWN BY: S. IRWIN
DATE: 9/3/2013
CHECKED BY: C. FOSTER
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: 47

BOE BAKKEN OIL EXPRESS

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
SECTION 11, T139N, R97W
STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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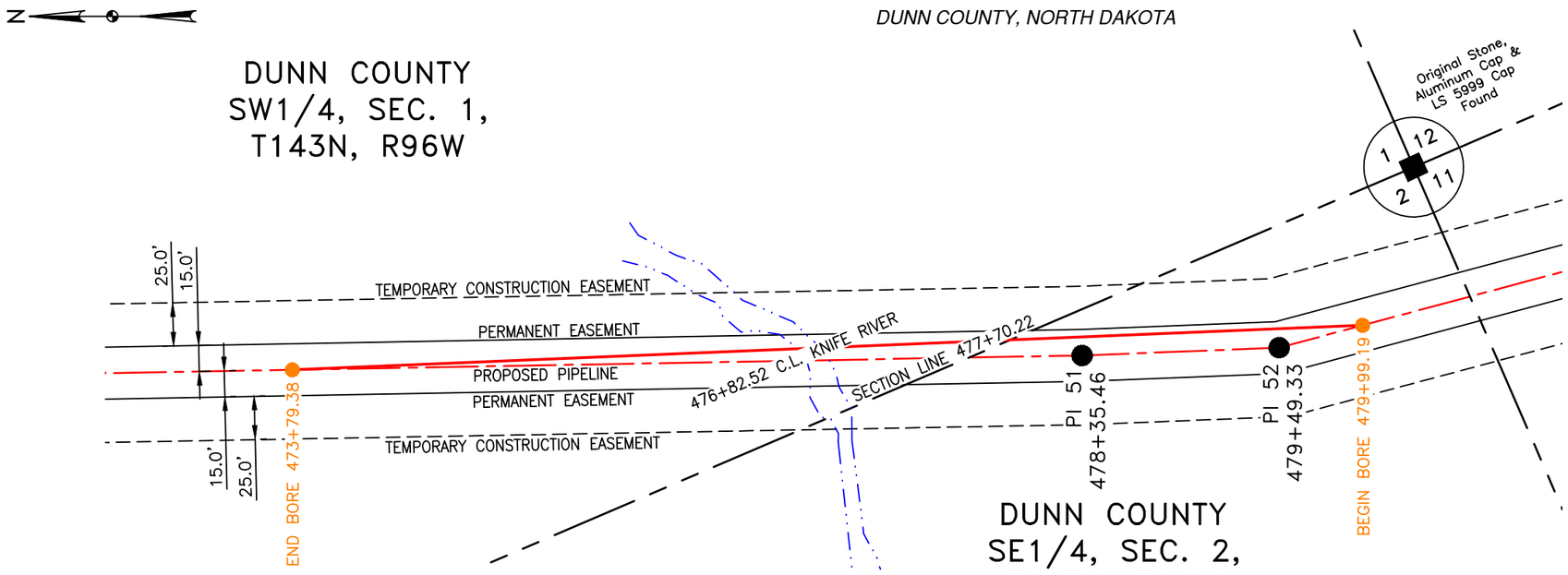
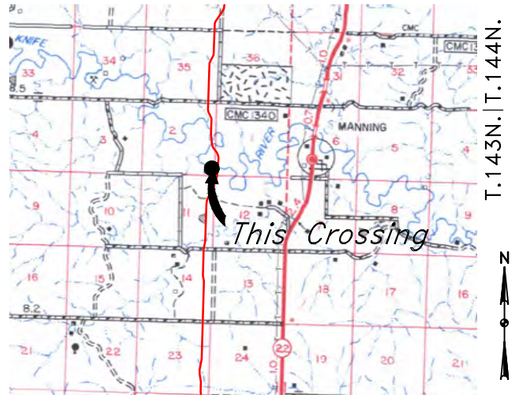
BAKKEN OIL EXPRESS PIPELINE
KNIFE RIVER CROSSING BORE
DUNN COUNTY, NORTH DAKOTA

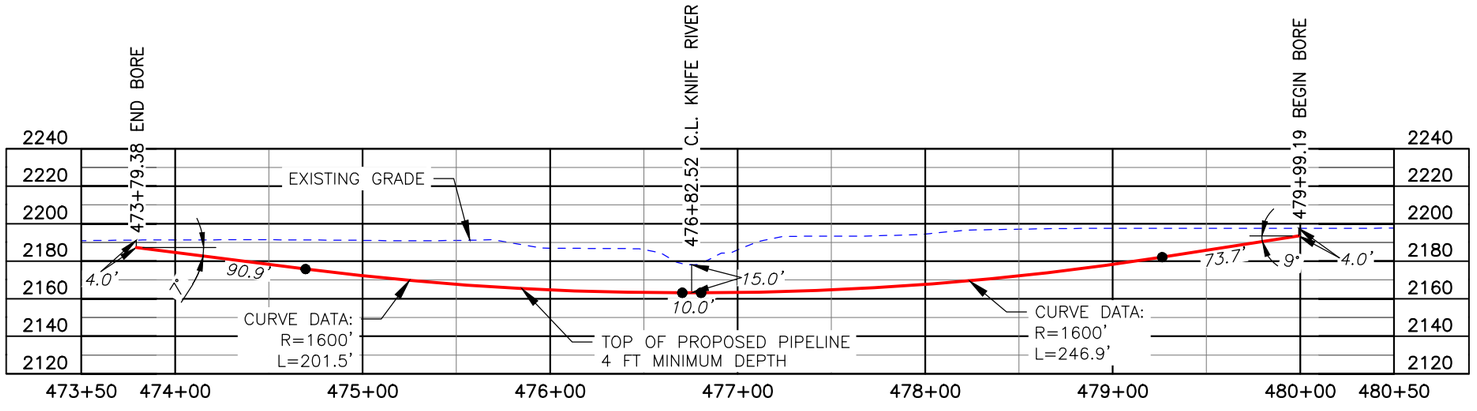




Location Map

PIPE SPECIFICATION
Crossing designed using: PRCI Report PR-227-9424
Contents: Oil
Carrier Pipe: 16.0" OD x 0.344" W.T., 5L X70
Coating: 14-16 Mils Fusion Bonded Epoxy
30-35 Mils ARO

PRELIMINARY



BORE	STATIONING	LATITUDE	LONGITUDE
BEGIN BORE	479+99.19	47°13'37.45" N	102°47'59.66" W
END BORE	473+79.38	47°13'43.15" N	102°47'56.46" W

TOTAL HORIZONTAL DISTANCE = 619.81 FT.

TOTAL BORE LENGTH = 623.0 FT.

LEGEND
PROPOSED PIPE

40 0 40 80
scale 1"=80' feet

LEGEND

PROPERTY LINE
SECTION LINE
EASEMENT LINE
PIPELINE CENTERLINE
WATER LINE
FOREIGN PIPELINE
EXISTING ROAD
UNDERGROUND COM. LINE
BARBED WIRE FENCE
FIBER OPTIC COM. LINE
RAILROAD
OVERHEAD ELECTRIC
UTILITY POLE
PROPOSED BORE
EROSION-SEDIMENT CONTROL BMP
MARKER POST
GRASSLAND EASEMENT
WETLAND EASEMENT
TEST LEAD
VALVE SETTING
FEDERAL HIGHWAY
STATE HIGHWAY
U.S. HIGHWAY
COUNTY ROAD

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
2	623'	16" OD, 0.344" W.T. API 5L X70, 14–16 MIL FBE

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 80'
DRAWN BY: E. STUCKI
DATE: 8/18/2013
CHECKED BY: C. FOSTER
APPROVED BY: C. WIEDENMEYER
KLJ JOB NUMBER: 1713140
REVISION: SHEET: 48

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
KNIFE RIVER CROSSING BORE
BORE #13
SE1/4 SECTION 2, T.143N., R.96W., DUNN COUNTY, ND

KLJ
128 Soo Line Drive
Bismarck, ND 58502

J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS02-BORES.dwg

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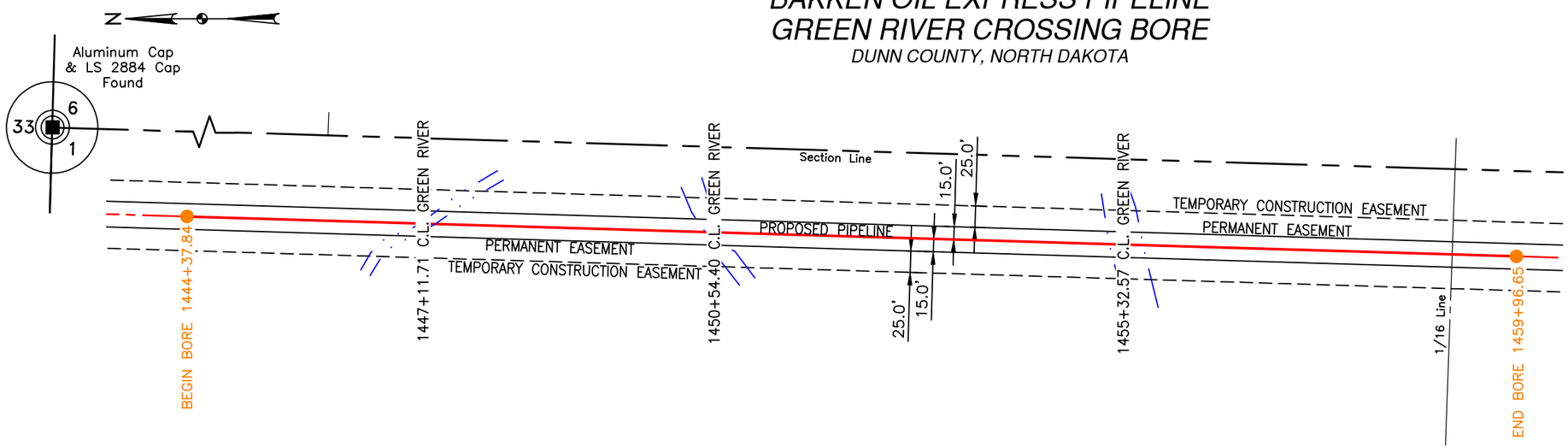
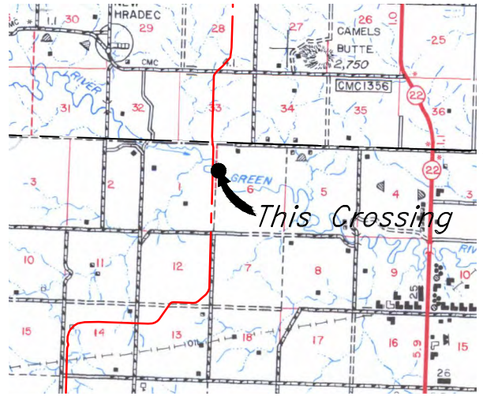
BAKKEN OIL EXPRESS PIPELINE
GREEN RIVER CROSSING BORE
DUNN COUNTY, NORTH DAKOTA

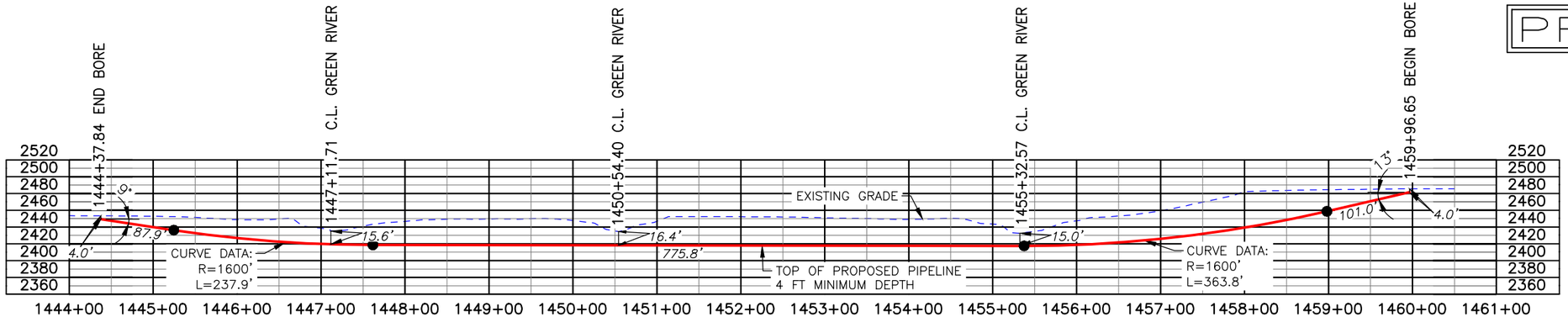




Location Map

DUNN COUNTY
NE1/4, SEC. 1,
T140N, R97W

PIPE SPECIFICATION
Crossing designed using: PRCI Report PR-227-9424
Contents: Oil
Carrier Pipe: 16.0" OD x 0.344" W.T., 5L X70
Coating: 14-16 Mils Fusion Bonded Epoxy 30-35 Mils ARO



PRELIMINARY

BORE	STATIONING	LATITUDE	LONGITUDE
BEGIN BORE	1459+96.65	46°58'25.17" N	102°51'08.87" W
END BORE	1444+37.84	46°58'40.56" N	102°51'08.87" W

TOTAL HORIZONTAL DISTANCE = 1558.81 FT.

TOTAL BORE LENGTH = 1566.4 FT.

LEGEND
PROPOSED PIPE

75 0 75 150
scale 1"=150' feet

LEGEND
PROPERTY LINE
SECTION LINE
EASEMENT LINE
PIPELINE CENTERLINE
WATER LINE
FOREIGN PIPELINE
EXISTING ROAD
UNDERGROUND COM. LINE
BARBED WIRE FENCE
FIBER OPTIC COM. LINE
RAILROAD
OVERHEAD ELECTRIC
UTILITY POLE
PROPOSED BORE
EROSION/SEDIMENT CONTROL BMP
MARKER POST
GRASSLAND EASEMENT
WETLAND EASEMENT
TEST LEAD
VALVE SETTING
FEDERAL HIGHWAY
STATE HIGHWAY
U.S. HIGHWAY
COUNTY ROAD

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
2	1566'	16.0" O.D. X 0.344" W.T., 5L X70, 14–16 MILS FBE

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 80'
DRAWN BY: E. STUCKI
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: C. WIEDENMEYER
KLJ JOB NUMBER: 17131140
REVISION:
SHEET: 49

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
GREEN RIVER CROSSING BORE
BORE #32
NW1/4 SECTION 6, T.140N., R.96W., DUNN COUNTY, ND

128 Soo Line Drive
Bismarck, ND 58502

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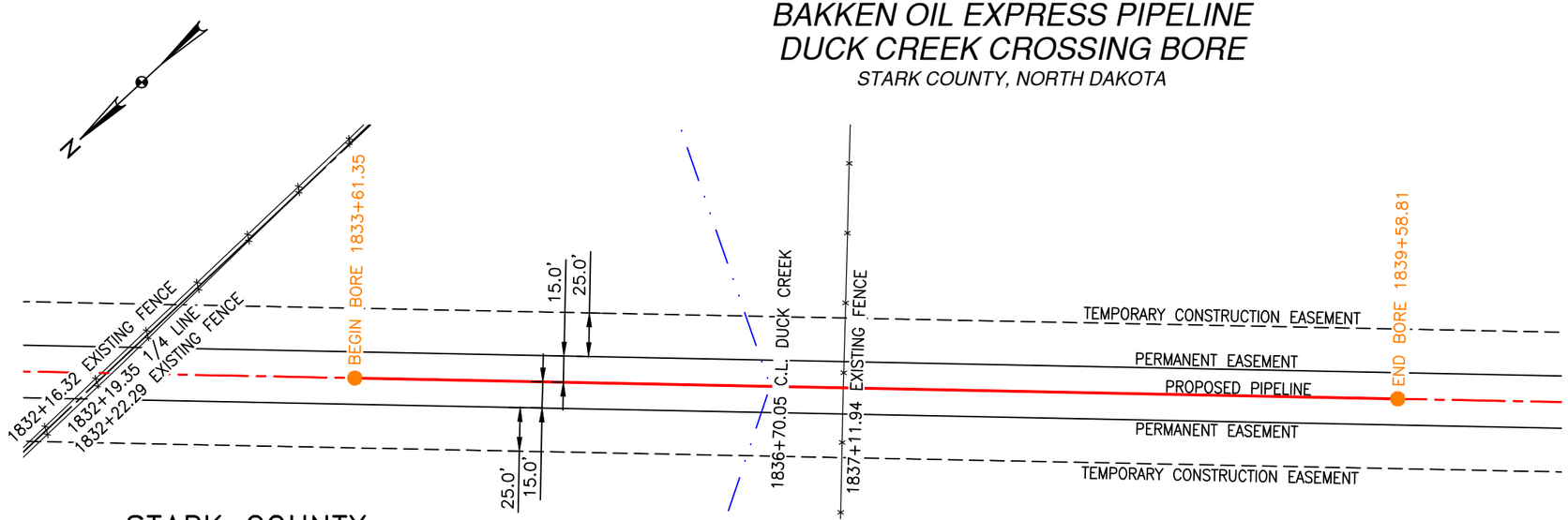
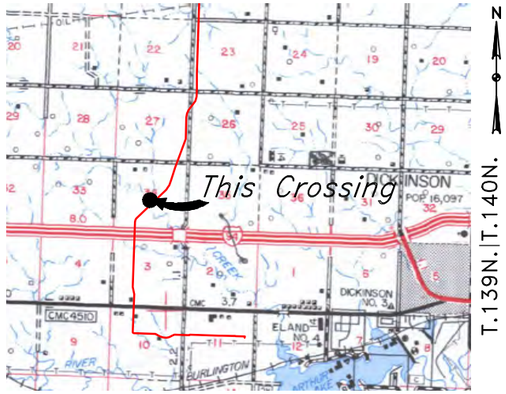
BAKKEN OIL EXPRESS PIPELINE
DUCK CREEK CROSSING BORE
STARK COUNTY, NORTH DAKOTA



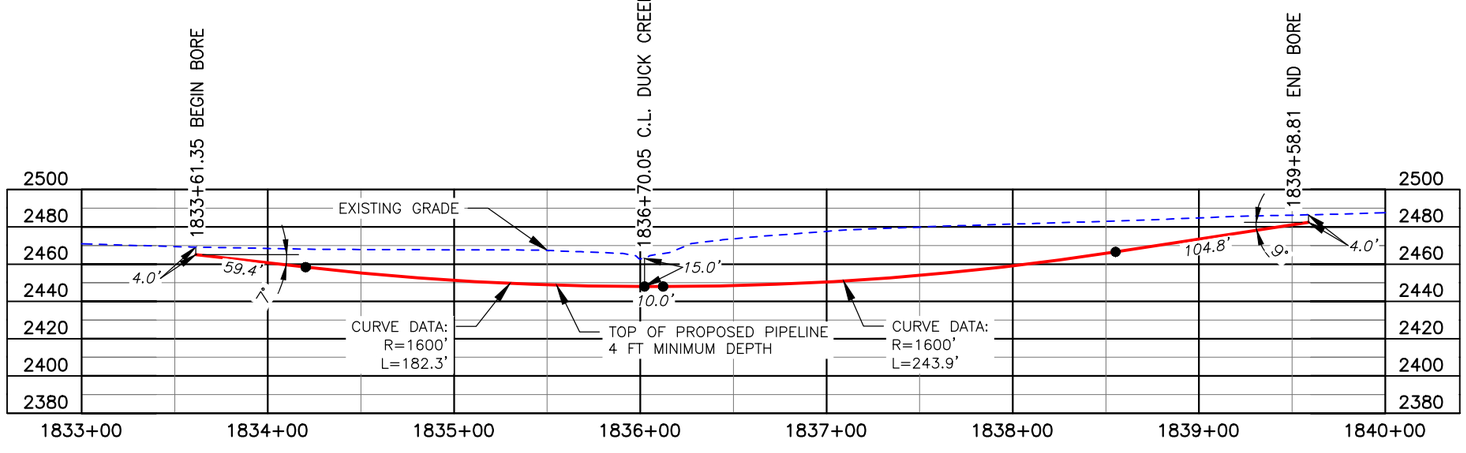
STARK COUNTY
SW1/4, SEC. 34,
T140N, R97W



Location Map

PIPE SPECIFICATION
Crossing designed using: PRCI Report PR-227-9424
Contents: Oil
Carrier Pipe: 16.0" OD x 0.344" W.T., 5L X70
Coating: 14-16 Mils Fusion Bonded Epoxy
30-35 Mils ARO

PRELIMINARY



BORE	STATIONING	LATITUDE	LONGITUDE
BEGIN BORE	1833+61.35	46°53'46.00" N	102°54'18.59" W
END BORE	1839+58.81	46°53'41.79" N	102°54'24.61" W

LEGEND
PROPOSED PIPE

TOTAL HORIZONTAL DISTANCE = 597.46 FT.

TOTAL BORE LENGTH = 600.4 FT.

40 0 40 80
scale 1"=80' feet

LEGEND
PROPERTY LINE
SECTION LINE
EASEMENT LINE
PIPELINE CENTERLINE
WATER LINE
FOREIGN PIPELINE
EXISTING ROAD
UNDERGROUND COM. LINE
BARBED WIRE FENCE
FIBER OPTIC COM. LINE
RAILROAD
OVERHEAD ELECTRIC
UTILITY POLE
PROPOSED BORE
EROSION/SEDIMENT CONTROL BMP
MARKER POST
GRASSLAND EASEMENT
WETLAND EASEMENT
TEST LEAD
VALVE SETTING
FEDERAL HIGHWAY
STATE HIGHWAY
U.S. HIGHWAY
COUNTY ROAD

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
2	600'	16.0" O.D. X 0.344" W.T., 5L X70, 14-16 MIL FBE

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 80'
DRAWN BY: E. STUCKI
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: C. WIEDENMEYER
KLJ JOB NUMBER: 1713140
REVISION:
SHEET: 50

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
DUCK CREEK CROSSING BORE
BORE #40
SW1/4 SECTION 34, T.140N., R.97W., STARK COUNTY, ND

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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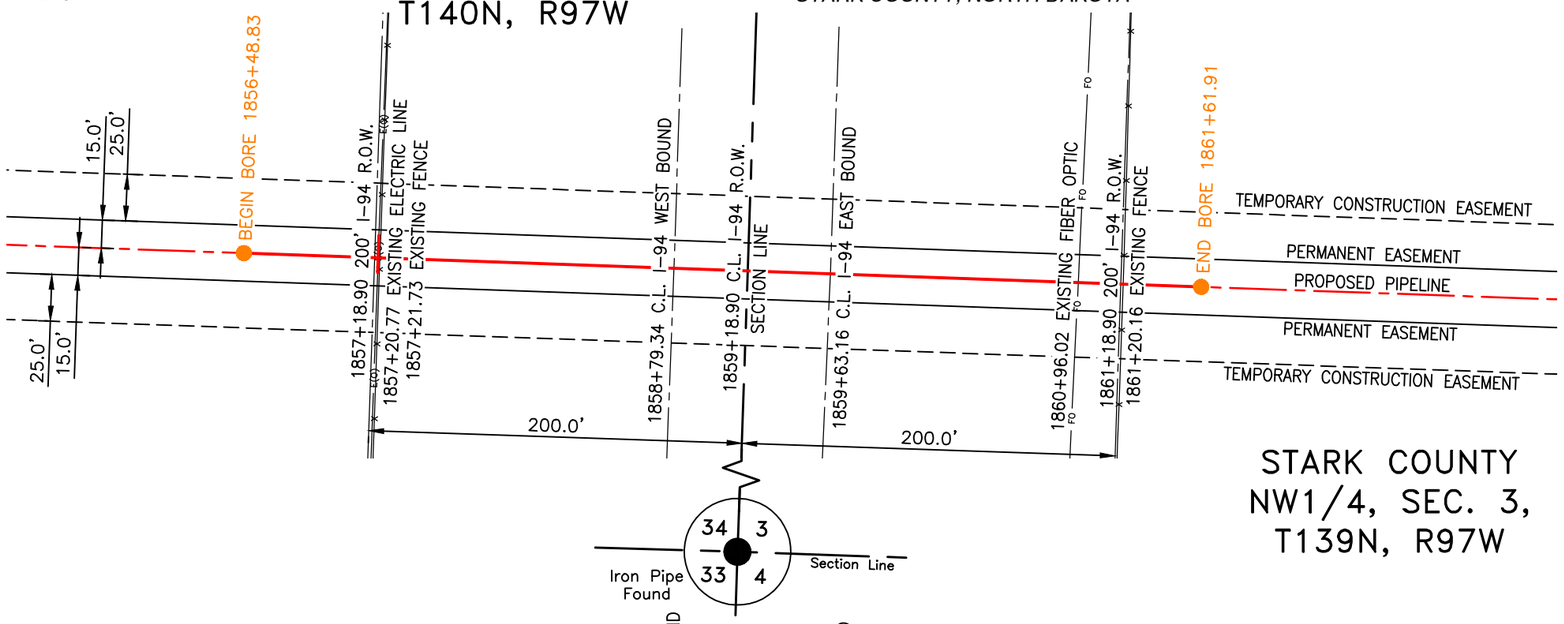
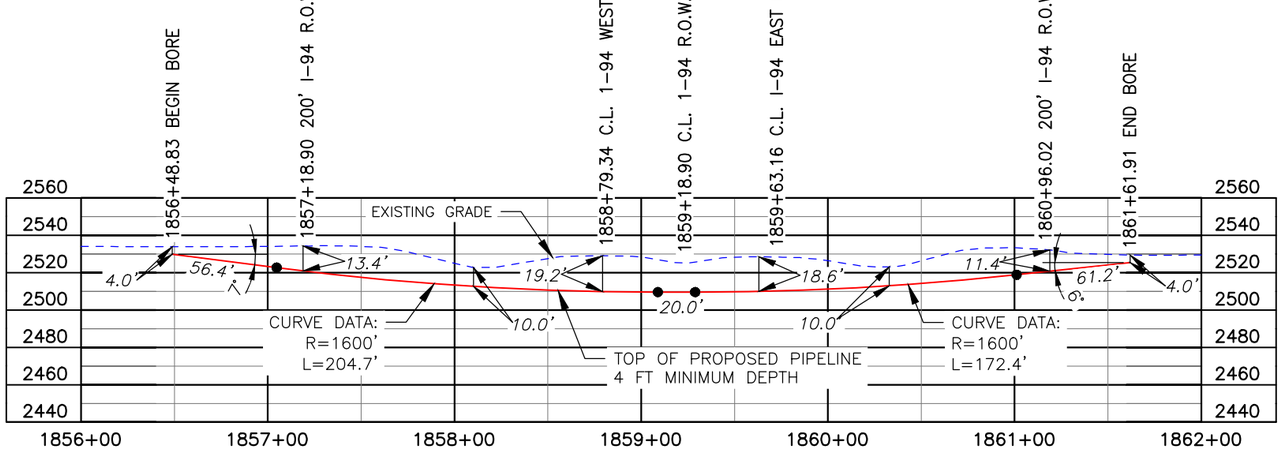
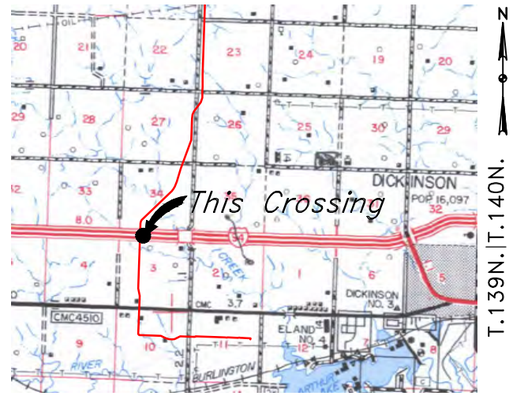
BAKKEN OIL EXPRESS PIPELINE
INTERSTATE 94 CROSSING BORE
STARK COUNTY, NORTH DAKOTA

STARK COUNTY
SW1/4, SEC. 34,
T140N, R97W



STARK COUNTY
NW1/4, SEC. 3,
T139N, R97W





Location Map

PIPE SPECIFICATION
Crossing designed using: PRCI Report PR-227-9424
Contents: Oil
Carrier Pipe: 16.0" OD x 0.344" W.T., 5L X70
Coating: 14-16 Mils Fusion Bonded Epoxy
30-35 Mils ARO

PRELIMINARY

BORE	STATIONING	LATITUDE	LONGITUDE
BEGIN BORE	1856+48.83	46°53'28.93" N	102°54'38.91" W
END BORE	1861+61.91	46°53'23.87" N	102°54'38.94" W

NOTE:
INSTALL MARKER POSTS ON BOTH SIDES OF RIGHT OF WAY FOR ALL LINE CROSSINGS

LEGEND
PROPOSED PIPE

TOTAL HORIZONTAL DISTANCE = 513.08 FT.

TOTAL BORE LENGTH = 514.7 FT.

40 0 40 80
scale 1"=80' feet

LEGEND
PROPERTY LINE
SECTION LINE
EASEMENT LINE
PIPELINE CENTERLINE
WATER LINE
FOREIGN PIPELINE
EXISTING ROAD
UNDERGROUND COM. LINE
BARBED WIRE FENCE
FIBER OPTIC COM. LINE
RAILROAD
OVERHEAD ELECTRIC
UTILITY POLE
PROPOSED BORE
EROSION/SEDIMENT CONTROL BMP
MARKER POST
GRASSLAND EASEMENT
WETLAND EASEMENT
TEST LEAD
VALVE SETTING
FEDERAL HIGHWAY
STATE HIGHWAY
U.S. HIGHWAY
COUNTY ROAD

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION
2	515'	16.0" O.D. X 0.344" W.T., 5L X70, 14-16 MIL FBE

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 1" = 80'
DRAWN BY: E. STUCKI
DATE: 8/20/2013
CHECKED BY: C. FOSTER
APPROVED BY: C. WIEDENMEYER
KLJ JOB NUMBER: 1713140
REVISION: SHEET: 51

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
I-94 CROSSING BORE
BORE #41
SW1/4 SEC. 34, T.140N., R.97W. & NW1/4 SEC. 3, T.139N., R.97W., STARK COUNTY, ND

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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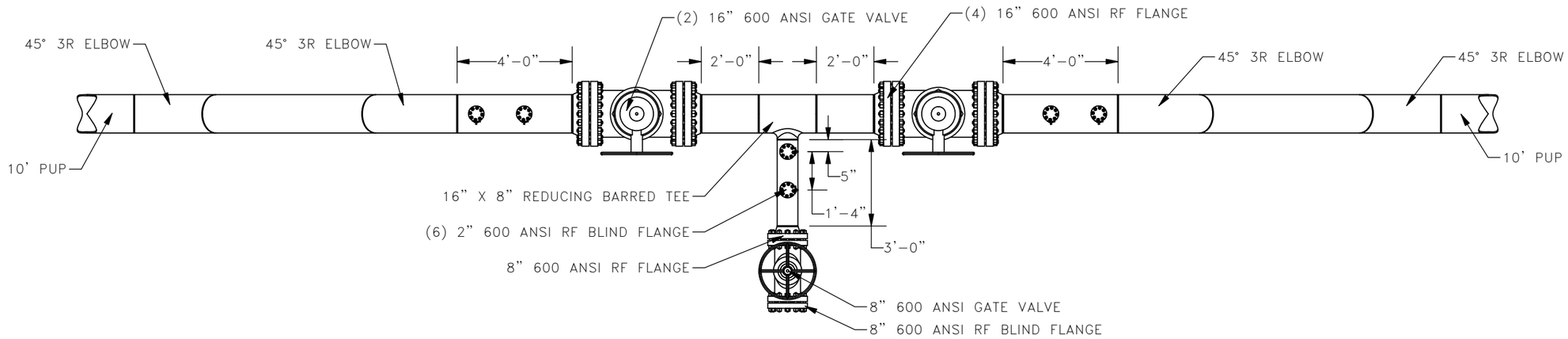
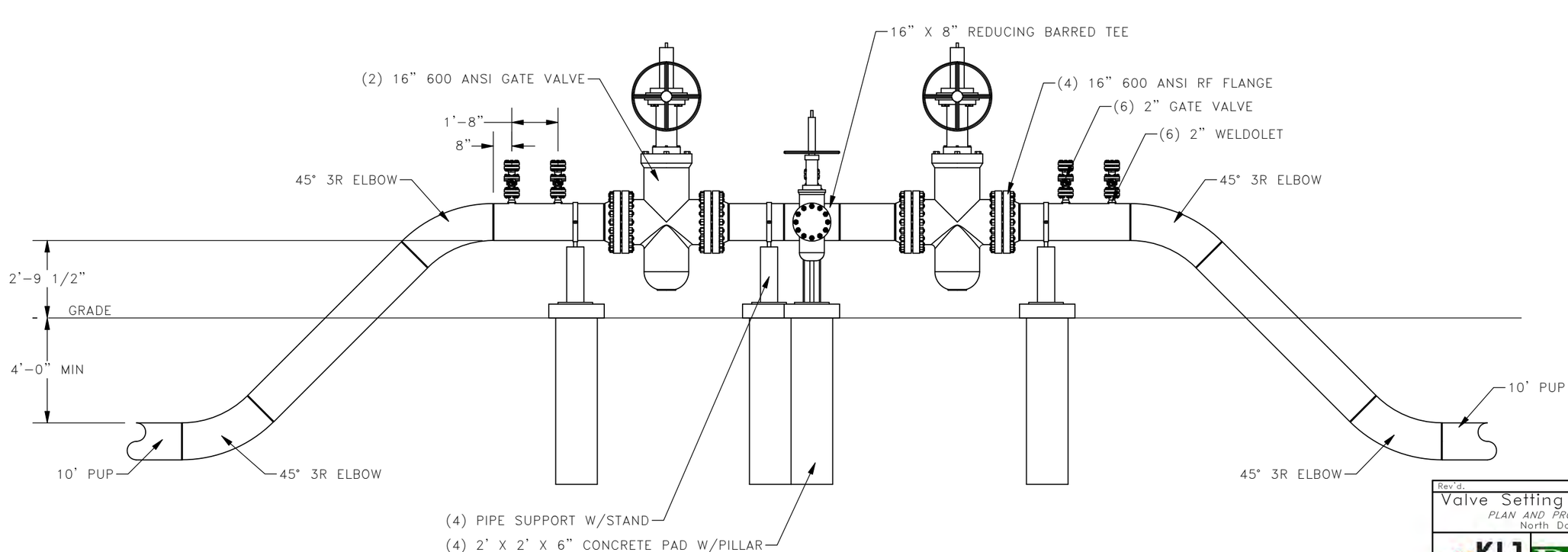
VALVE SETTING W/ FUTURE
PLAN AND PROFILE VIEW
DETAIL "A"





NOTE:
SUB-ASSEMBLY PRE-FABRICATION BY THIRD PARTY. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF SUB-ASSEMBLIES.

Rev'd.

Valve Setting W/ Future
PLAN AND PROFILE VIEW
North Dakota

SHEET NO. 52

KLJ

BOE BAKKEN OIL EXPRESS

8301 East 21st N, Suite 420
Wichita, KS 67206

DRWN. BY	CHK'D BY	PROJECT NO.	DATE
J. BOSCH	T. HOWARD	1713140	8/19/13

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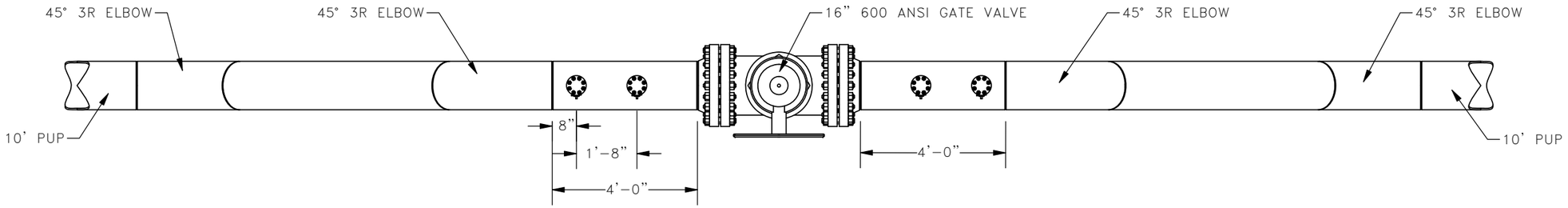
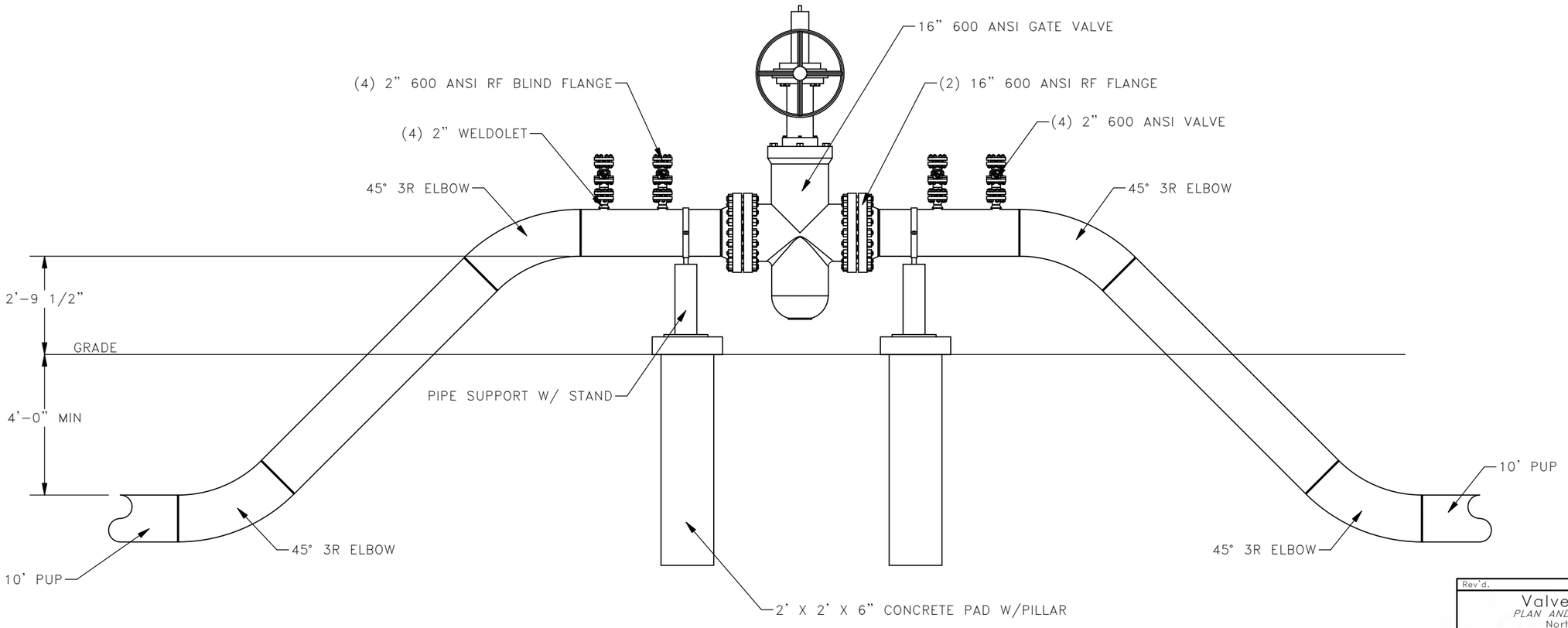
VALVE SETTING
PLAN AND PROFILE VIEW
DETAIL "B"





NOTE:
SUB-ASSEMBLY PRE-FABRICATION BY THIRD PARTY. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF SUB-ASSEMBLIES.

Rev'd.

Valve Setting
PLAN AND PROFILE VIEW
North Dakota

SHEET NO. 53

KLJ

BOE JACKET OIL & GAS

8301 East 21st N, Suite 420
Wichita, KS 67206

DRWN. BY	CHK'D BY	PROJECT NO.	DATE
J. BOSCH	T. HOWARD	1713140	8/19/13

( )

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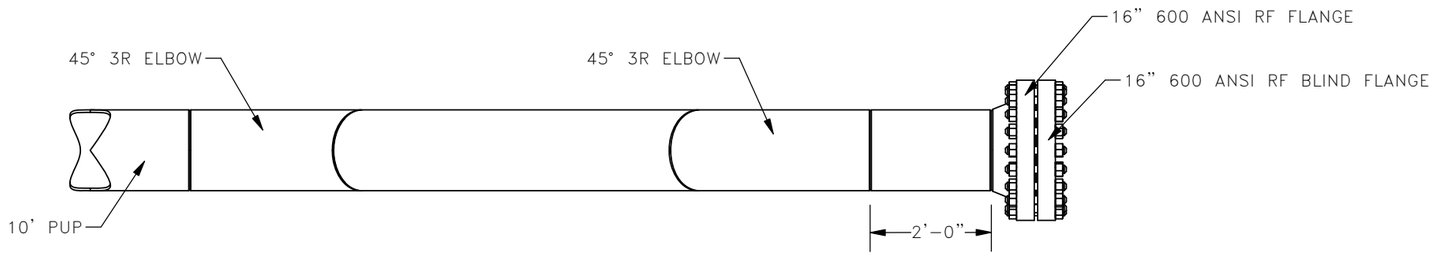
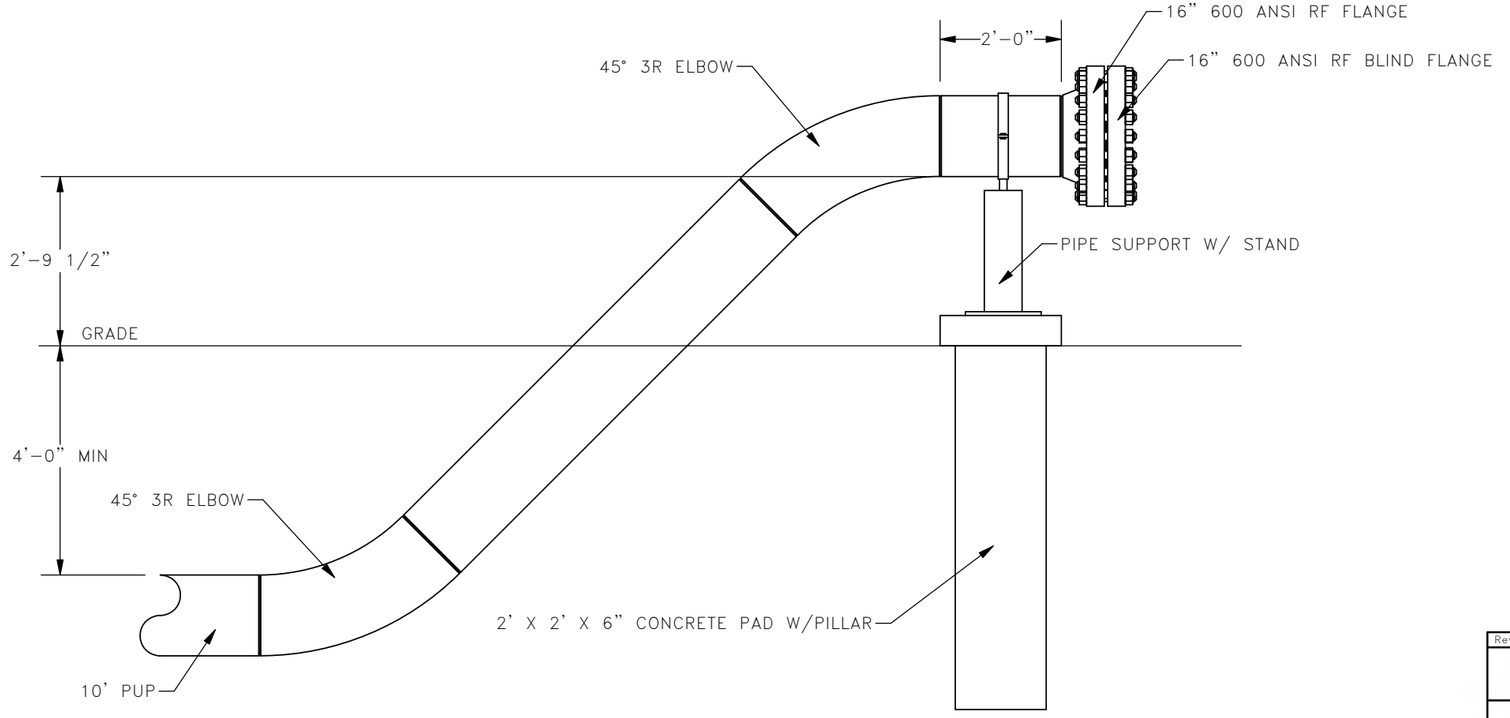
RISER DETAIL
PLAN AND PROFILE VIEW
DETAIL "C"





NOTE:
SUB-ASSEMBLY PRE-FABRICATION BY THIRD PARTY. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF SUB-ASSEMBLIES.

Rev'd.

Riser Detail
PLAN AND PROFILE VIEW
North Dakota

SHEET NO. 54

KLJ

BOD

8301 East 21st N, Suite 420
Wichita, KS 67206

DRWN. BY	CHK'D BY	PROJECT NO.	DATE
J. BOSCH	T. HOWARD	1713140	8/19/13

( )

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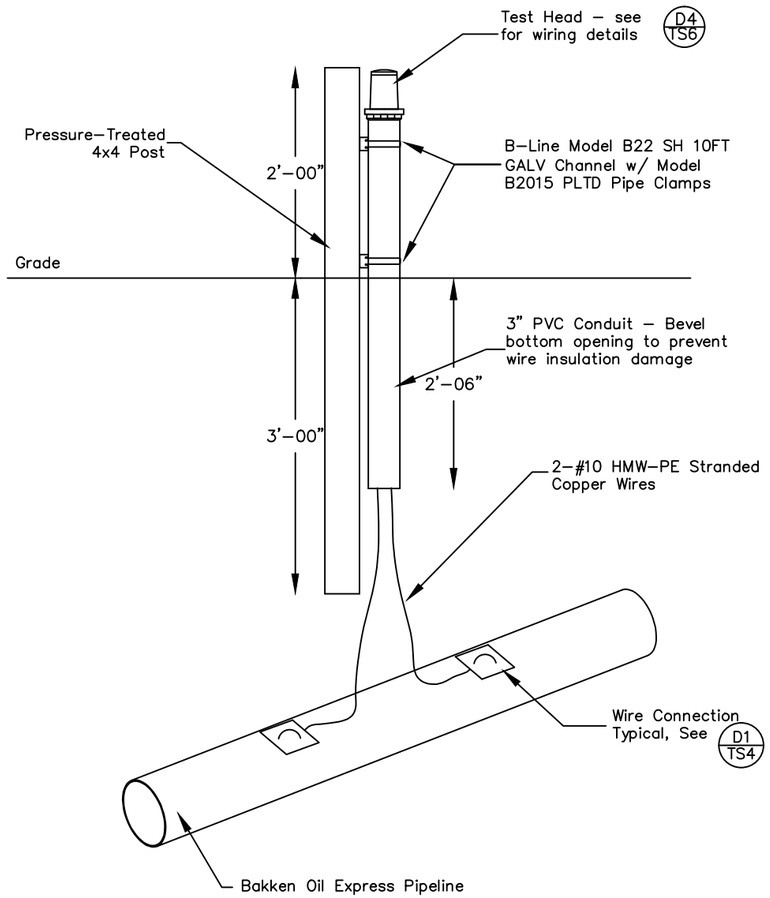
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA



Construction Notes:

1. Pipeline Contractor shall be responsible for the installation of Type 1 test stations at all locations listed in the Test Station Schedule.

2. Cathodic Protection Contractor (CPC) shall supply all materials required for the installation of the Type 1 Test Stations to the Project Staging area in quantities per the Test Station Bill–of–Material. Pipeline Contractor shall be responsible for purchasing additional materials required to complete project due to Contractor wastage, damage or loss of supplied materials. Pipeline contractor shall return any unused materials to Project Staging Area.

3. CPC will have Test Station and mounting post pre–assembled to facilitate ease of installation by pipeline Contractor.

Notes:

Allow sufficient slack in test station wires for backfilling and settling

TYPE 1 TEST STATION (T1)

NTS Standard

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NTS
DRAWN BY: B.C.
DATE: 8/20/13
CHECKED BY:
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: –

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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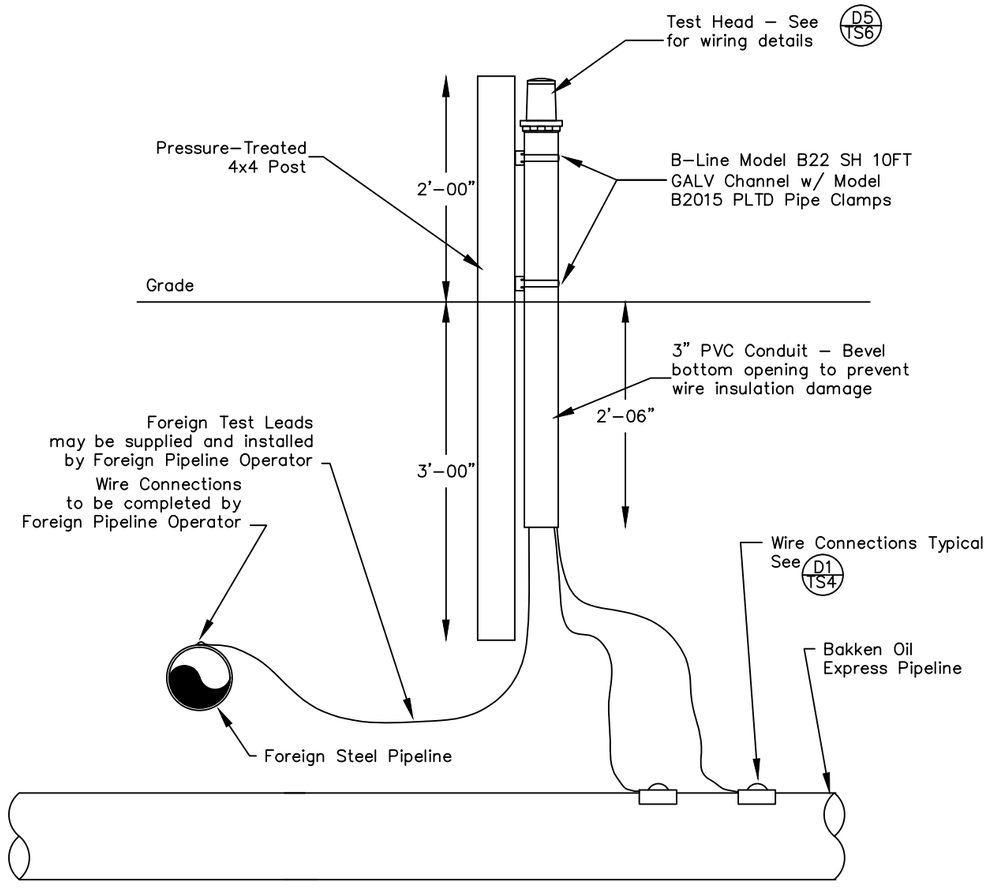
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA



Notes:

Allow sufficient slack in test station wires for backfilling and settling

TYPE 2–A TEST STATION

NTS Foreign PL Crossing

T2–A

Construction Notes:

1. Pipeline Contractor shall be responsible for the installation of Type 2 test stations at all locations listed in the Test Station Schedule.

2. Cathodic Protection Contractor (CPC) shall supply all materials required for the installation of the Type 2 Test Stations to the Project Staging area in quantities per the Test Station Bill–of–Material. Pipeline Contractor shall be responsible for purchasing additional materials required to complete project due to Contractor wastage, damage or loss of supplied materials. Pipeline Contractor shall return all unused materials and equipment to Project Staging Area.

3. Cathodic Protection Contractor will have Test Station and mounting post pre–assembled to facilitate ease of installation by pipeline Contractor.

4. Pipeline Contractor will not be responsible for installing test leads on Foreign Pipeline due to safety and Operator Qualification Issues, however pipeline contractor shall closely coordinate with the Foreign Pipeline Representatives so that the the Foreign Pipeline representative can install test leads on their pipeline. Pipeline contractor may be responsible for properly excavating Foreign pipeline so that test leads can be installed. Foreign pipeline representative may allow (and this is preferred) foreign test leads to be terminated in the Bakken Oil Express test station. It shall be the pipeline contractors responsibility to perform these terminations in this instance. Foreign pipeline representative may prefer to have their test leads in a separate test station, supplied by them, in this instance it shall be the Pipeline Contractors responsibility to insure this test station is properly protected and set during pipeline backfill process.

5. Test Stations cannot be installed in cultivated fields where they would interfere with farming operations. When a pipeline crossing will exist in a cultivated field at Type 2–B will be required, the wires will need to be extended so the test station can be moved to the nearest fence line or road, A permanent reference cell will also need to be added at the crossing.

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NTS
DRAWN BY: B.C.
DATE: 8/20/13
CHECKED BY:
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: –

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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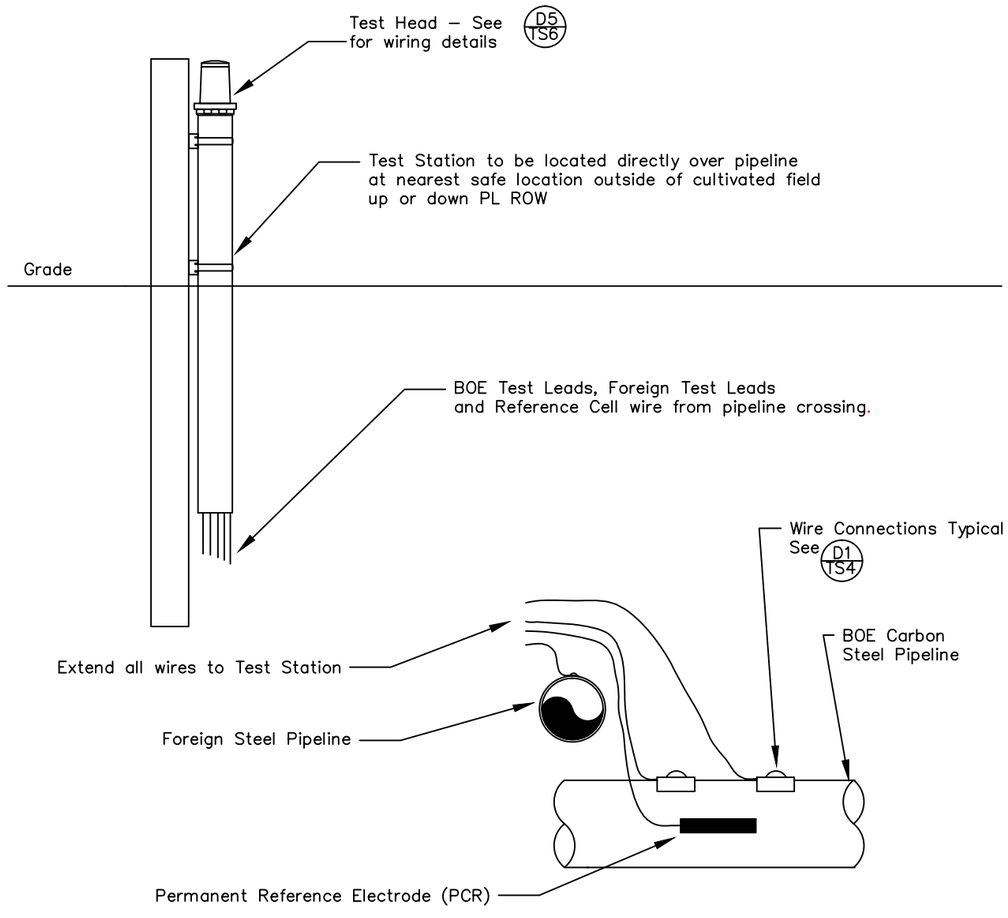
BAKKEN OIL EXPRESS PIPELINE
ALIGNMENT SHEETS
DUNN & STARK COUNTY, NORTH DAKOTA



TYPE 2–B TEST STATION
NTS Foreign PL Crossing in cultivated field

T2–B

Construction Notes:

1. Pipeline Contractor shall be responsible for the installation of Type 2 test stations at all locations listed in the Test Station Schedule.

2. Cathodic Protection Contractor (CPC) shall supply all materials required for the installation of the Type 2 Test Stations to the Project Staging area in quantities per the Test Station Bill–of–Material. Pipeline Contractor shall be responsible for purchasing additional materials required to complete project due to Contractor wastage, damage or loss of supplied materials. Pipeline Contractor shall return all unused materials and equipment to Project Staging Area.

3. Cathodic Protection Contractor will have Test Station and mounting post pre–assembled to facilitate ease of installation by pipeline Contractor.

4. Pipeline Contractor will not be responsible for installing test leads on Foreign Pipeline due to safety and Operator Qualification Issues, however pipeline contractor shall closely coordinate with the Foreign Pipeline Representatives so that the the Foreign Pipeline representative can install test leads on their pipeline. Pipeline contractor may be responsible for properly excavating Foreign pipeline so that test leads can be installed. Foreign pipeline representative may allow (and this is preferred) foreign test leads to be terminated in the BOE test station. It shall be the pipeline contractors responsibility to perform these terminations in this instance. Foreign pipeline representative may prefer to have their test leads in a separate test station, supplied by them, in this instance it shall be the Pipeline Contractors responsibility to insure this test station is properly protected and set during pipeline backfill process.

PRELIMINARY

Notes:

1. Allow sufficient slack in test station wires for backfilling and settling

2. PRC shall be installed at pipeline depth within 1–ft. of BOE Pipeline. PRC shall be carefully but firmly backfilled with fine native backfill, no rocks or clods should be in vicinity of PCR.
3. PCR comes with 100–ft wire, if test station must be moved more than 100–ft from crossing, #10 HMW–PE cable can be spliced to factory wire using a compression connector and a 3M 82A–1 Splice kit.

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NTS
DRAWN BY: B.C.
DATE: 8/20/13
CHECKED BY: –
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: _ SHEET: _

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01–Landowners–Bores–Cathodic Testing.dwg

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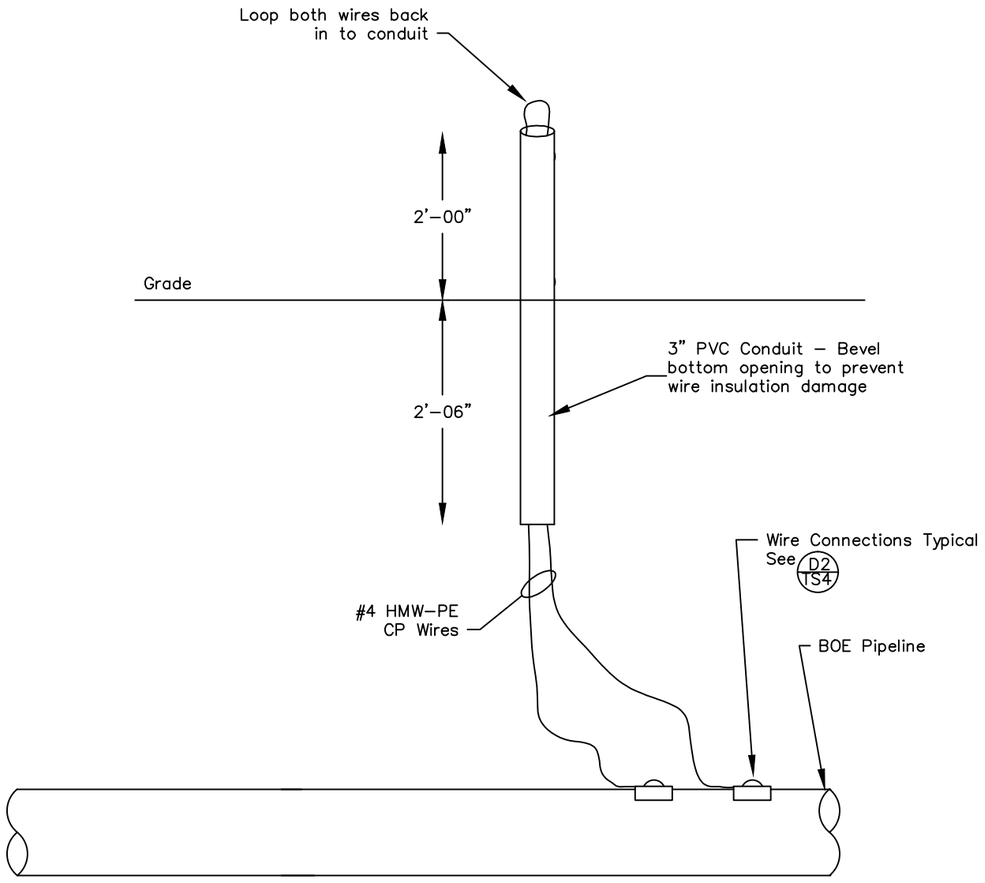
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA



Construction Notes:

1. Pipeline Contractor shall be responsible for the installation of Type 3 test stations at all locations listed in the Test Station Schedule.
2. Cathodic Protection Contractor (CPC) shall supply all materials required for the installation of the Type 3 Test Stations to the Project Staging area in quantities per the Test Station Bill–of–Material. Pipeline Contractor shall be responsible for purchasing additional materials required to complete project due to Contractor wastage, damage or loss of supplied materials.
3. Type 3 Test Stations are for the future installation of AC Voltage Mitigation Systems by the Cathodic Protection Contractor.
4. SAFETY BULLETIN: a Carbon Steel Pipeline along with any metallic appurtenances (such as test leads) contacting the pipeline in in the vicinity of a Type 3 test station may have induced AC voltage. Pipeline contractor should monitor pipeline voltages closely in these areas and ground pipeline sufficiently to reduce pipeline voltage to a safe level as well as insure pipeline workers have proper PPE. See project specifications for Induced AC Safety Requirments.

Notes:

Allow sufficient slack in test station wires for backfilling and settling

TYPE 3 TEST STATION

NTS AC Mitigation POC

T3

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: NTS
DRAWN BY: B.C.
DATE: 8/20/13
CHECKED BY: –
APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: –

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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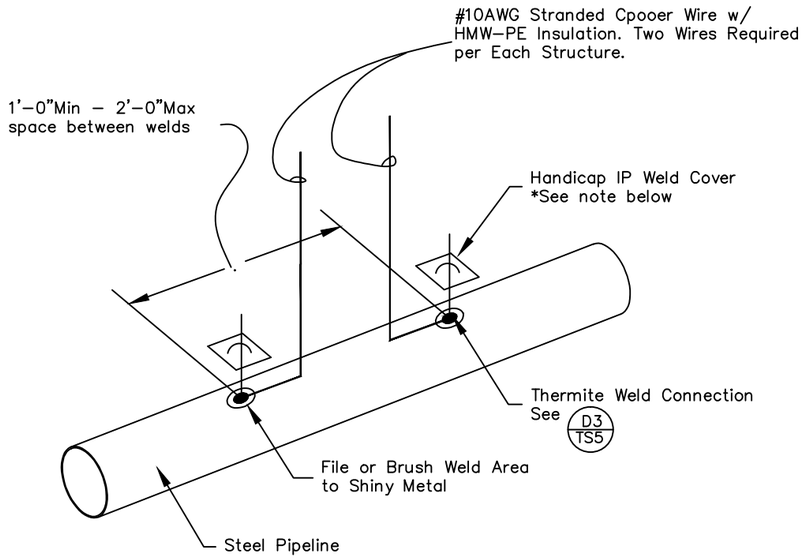
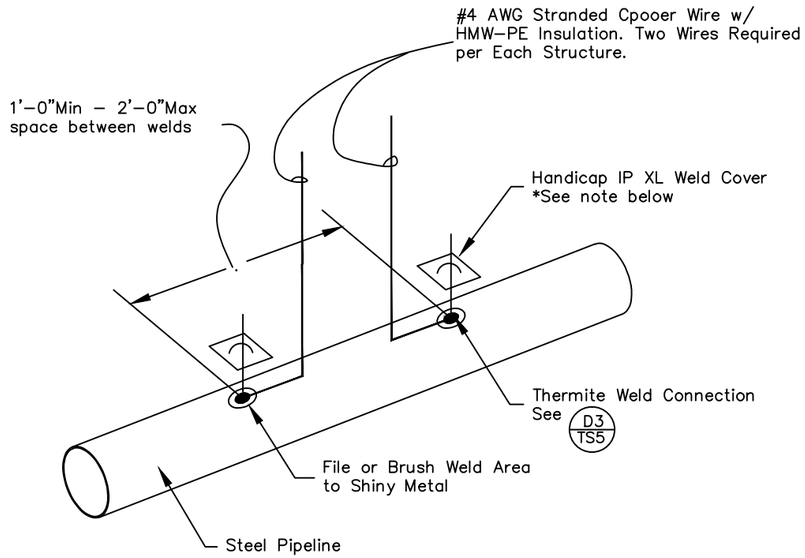
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA





Notes:

Copper sleeve required for thermite welding of #10 and smaller wire.

T1 & T2 WIRE CONNECTION — D1

NTS

T3 WIRE CONNECTION — D2

NTS

Handy Cap IP & IP XL Application Directions:

1. Clean all mud, dirt, grease, oil and other contaminates from the metal surface and mill coating which is going to be covered. The Hady Cap incorporates an integrated primer in its adhesive and does not reuire the use of a liquid primer.
2. Remove the release paper from the bottim of the Handy Cap. Position and place the Handy Cap on the welded area with the tunnel over the leadwire.
3. Push the dome of the cap firmly into the weld area. lift the lead wire away from the pipe and squeeze the adhesive compound completely around and underneath the wire. Push the lead wire back down on the pipe and press the elastomeric compound into firm contact with the pipe over the entire area.
4. If the mill coating is inadvertantly excessively removed where the Handy Cap will not cover all exposed pipeline steel, the area shall be recoated following the pipeline coating repair specifications.

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

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APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: – SHEET: –

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
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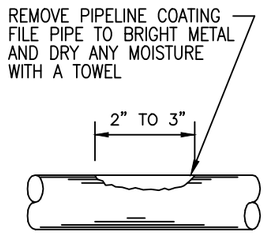
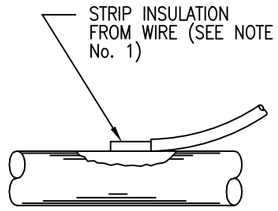
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA



STEP 1



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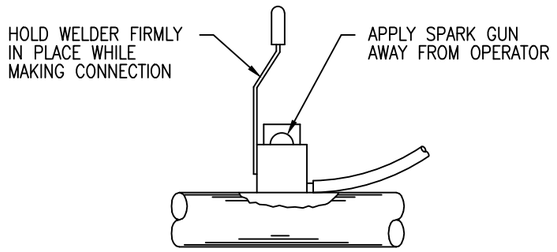

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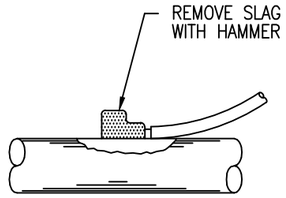

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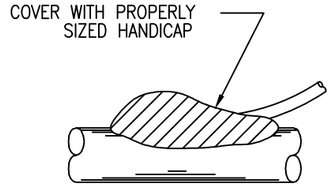

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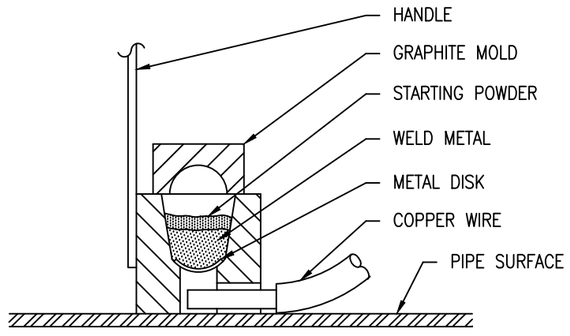

THERMITE WELD DETAIL

NTS

D3

EXOTHERMIC WELDING NOTES

1. WHEN USING No. 10 TO No. 14 AWG SOLID WIRE, IT WILL BE NECESSARY TO INSTALL A COPPER SLEEVE OF ADEQUATE SIZE OVER THE BARE END OF THE WIRE AND CRIMP IN PLACE BEFORE ATTEMPTING TO MAKE THE CONNECTION. THE WIRE SHOULD PROTRUDE AT LEAST 1/16" FROM THE END OF THE SLEEVE.
2. INSERT THE CONDUCTOR INTO MOLD INFORMATION UNDER "POSITIONING" FOR APPLICATION TYPE IN THE MANUFACTURERS INSTRUCTIONS PACKAGED WITH THE WELDER.
3. INSERT STEEL DISK IN BOTTOM OF CAVITY INSIDE MOLD. DUMP THE WELD METAL INTO MOLD BEING CAREFUL NOT TO UPSET THE STEEL DISK. TAP THE BOTTOM OF THE TUBE TO LOOSEN ALL THE STARTING POWDER AND SPREAD IT EVENLY OVER THE WELD METAL. PLACE A SMALL AMOUNT OF STARTING POWDER ON THE TOP EDGE OF MOLD UNDER COVER OPENING FOR EASY IGNITION.
4. CLOSE COVER AND IGNITE WITH THE FLINT GUN. MOVE FLINT GUN AWAY QUICKLY TO PREVENT FOULING. IF FLINT GUN SHOULD BECOME FOULED, SOAK IT IN HOUSEHOLD AMMONIA.
5. AFTER IGNITION, HOLD THE WELDER IN PLACE FOR A MOMENT TO ALLOW THE WELD TO SOLIDIFY. AFTER THE WELD HAS COOLED, REMOVE THE SLAG WITH A CHIPPING HAMMER OR WIRE BRUSH.
6. COAT THE CONNECTION AND THE ENTIRE PREPARED SURFACE WITH THE SPECIFIED WELD COATING.
7. REMOVE ALL SLAG FROM THE WELDER BEFORE MAKING WELD. CLEAN THE COVER EVERY 6 TO 10 WELDS.
8. WET OR DAMP MOLDS WILL PRODUCE POROUS WELDS. MOLDS MUST BE DRIED OUT BEFORE ATTEMPTING TO WELD.
9. CONNECTIONS ARE TO BE PLACED A MINIMUM OF 1–FT APART. UNSUCCESSFUL WELDS ARE TO BE ABANDONED AND MOVED TO ANOTHER PREPARED SURFACE NOT LESS THAN 1–FT AWAY.

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

MATERIAL SUMMARY

MK.NO.	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

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DATE: 8/14/13
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APPROVED BY: T. HOWARD
KLJ JOB NUMBER: 1713140
REVISION: — SHEET: —

BAKKEN OIL EXPRESS PIPELINE

BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

KLJ
128 Soo Line Drive
Bismarck, ND 58502

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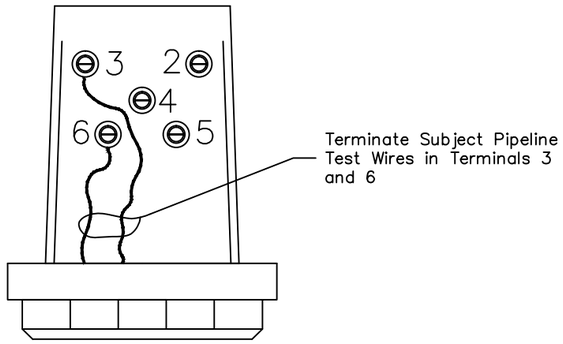
BAKKEN OIL EXPRESS PIPELINE

DUNN & STARK COUNTY, NORTH DAKOTA



Notes:

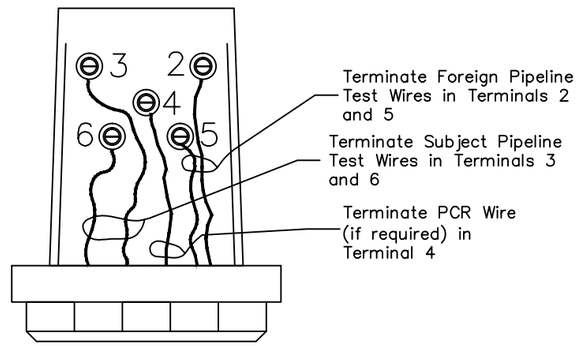
See test lead color code chart for proper test lead color coding.

Fill out TS connection chart and install in terminal cover. RECORD ENGINEERING STATION ON LABEL.

TYPE 1 TS TERMINATIONS

NTS

D4



Notes:

See test lead color code chart for proper test lead color coding.

Follow Manufacturers Instructions for Test Head Installation. Fill out TS connection chart and install in terminal cover. RECORD BOE ENGINEERING STATION ON LABEL, INCLUDE FOREIGN PIPELINE NAME AND DESCRIPTION ON LABEL.

TYPE 2 TS TERMINATIONS

NTS

D5

Test Lead Color Codes		
Structure	Wire/Cable	Tape Color
BAkken Oil Express PL	#10 HMW–PE	No Tape
Steel Foreign PL	#10 HMW–PE of Foreign preference	White Tape
Permanent Reference Electrode	factory yellow or #10 HMW–PE if spliced	Yellow Tape if Spliced

PRELIMINARY

CALL BEFORE YOU DIG

LEGEND

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

MATERIAL SUMMARY

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DATE: 8/20/13
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KLJ JOB NUMBER: 1713140
REVISION: – SHEET: –

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BAKKEN OIL EXPRESS PIPELINE
CATHODIC PROTECTION TEST STATION TYPICAL DRAWING
DUNN & STARK COUNTY, NORTH DAKOTA

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ROW Access

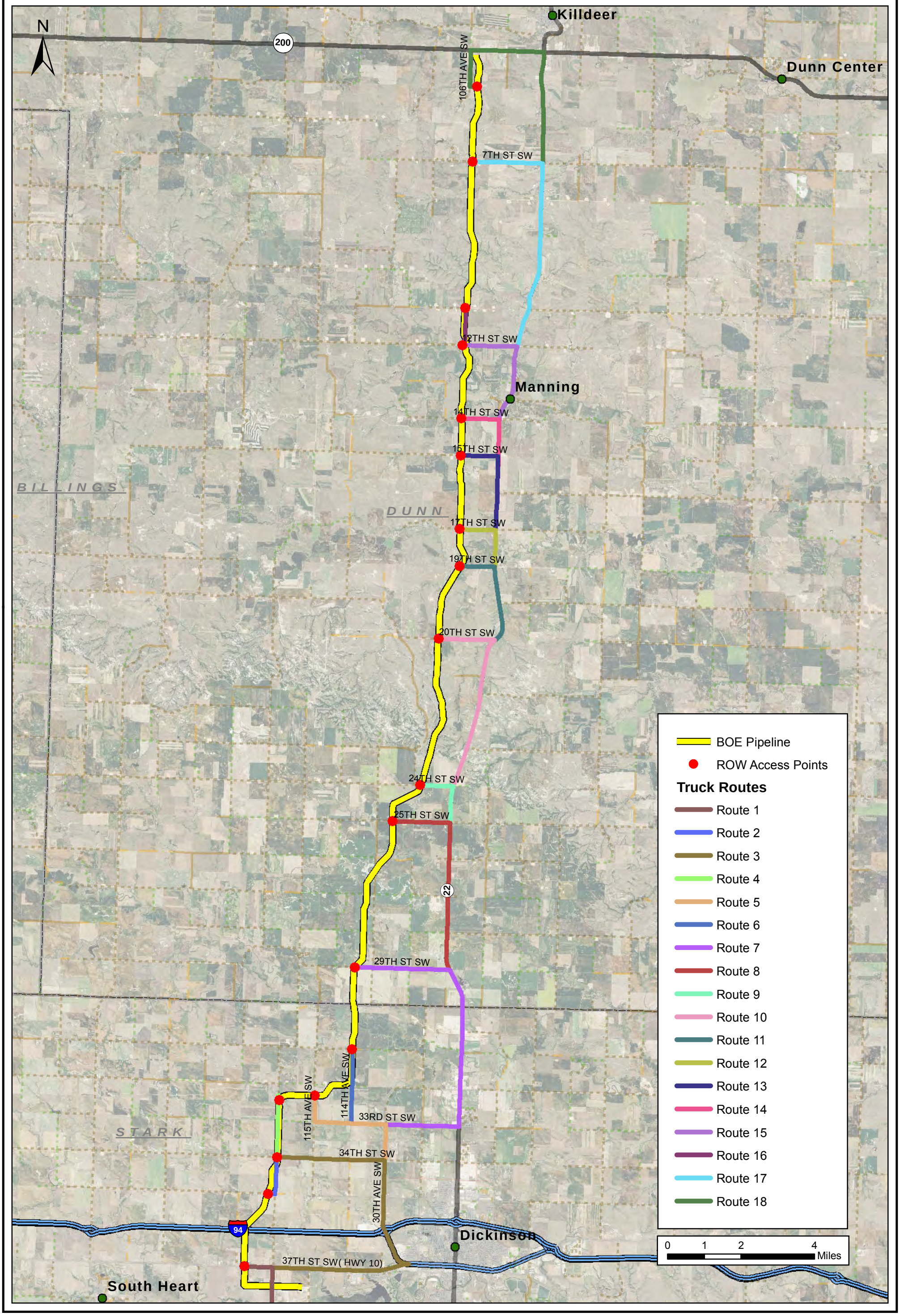
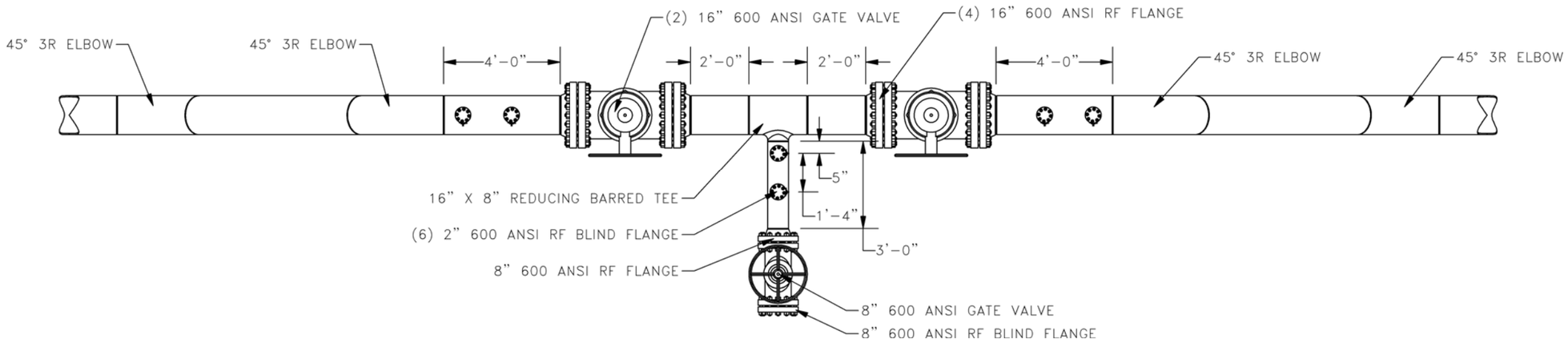
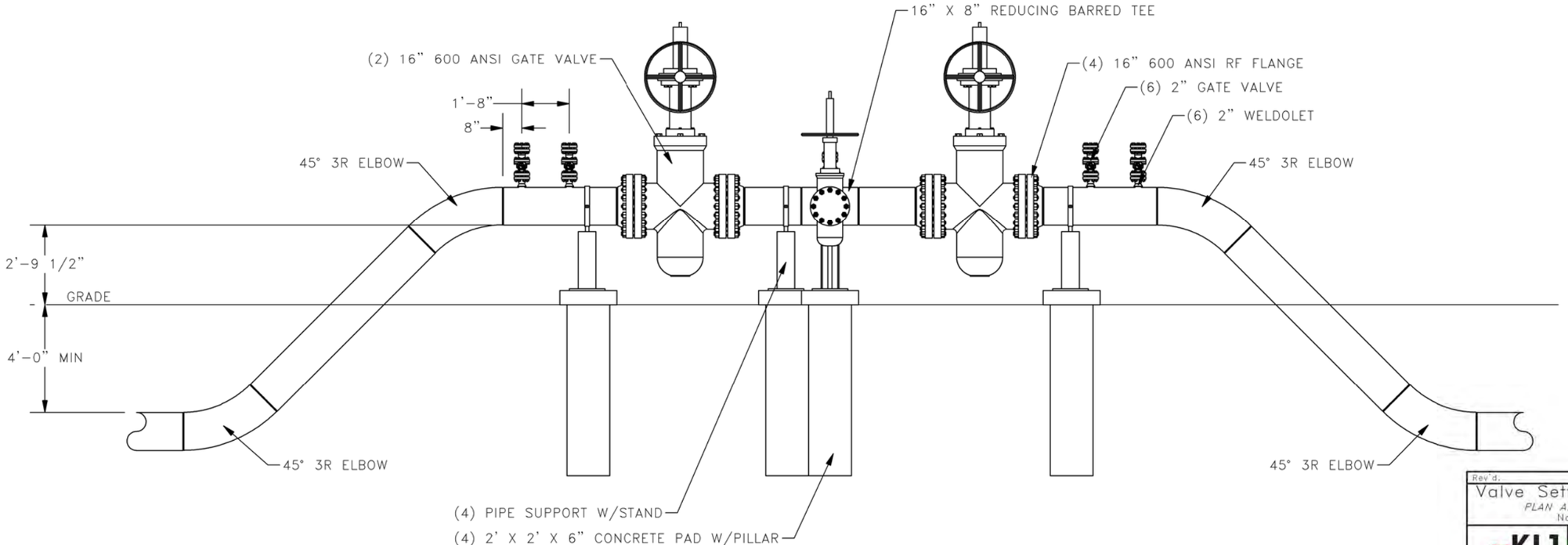

N
200
Killdeer
Dunn Center
106TH AVE SW
7TH ST SW
12TH ST SW
Manning
14TH ST SW
15TH ST SW
BILLINGS
DUNN
17TH ST SW
19TH ST SW
20TH ST SW
24TH ST SW
25TH ST SW
22
29TH ST SW
115TH AVE SW
114TH AVE SW
33RD ST SW
STARK
34TH ST SW
30TH AVE SW
94
Dickinson
37TH ST SW(HWY 10)
South Heart
BOE Pipeline
ROW Access Points
Truck Routes
Route 1
Route 2
Route 3
Route 4
Route 5
Route 6
Route 7
Route 8
Route 9
Route 10
Route 11
Route 12
Route 13
Route 14
Route 15
Route 16
Route 17
Route 18
0 1 2 4
Miles

Figure C-2. Valve Settings and Riser Details

VALVE SETTING W/ FUTURE
PLAN AND PROFILE VIEW
DETAIL "A"





Rev'd.

Valve Setting W/ Future
PLAN AND PROFILE VIEW
North Dakota

52

KLJ

BOE
BAKKEN OIL EXPRESS
8301 East 21st N, Suite 402
Wichita, KS 67206

Drawn By:	Check By:	Project No.	Date
J. BOSCH	T. HOWARD	1713140	8/19/13

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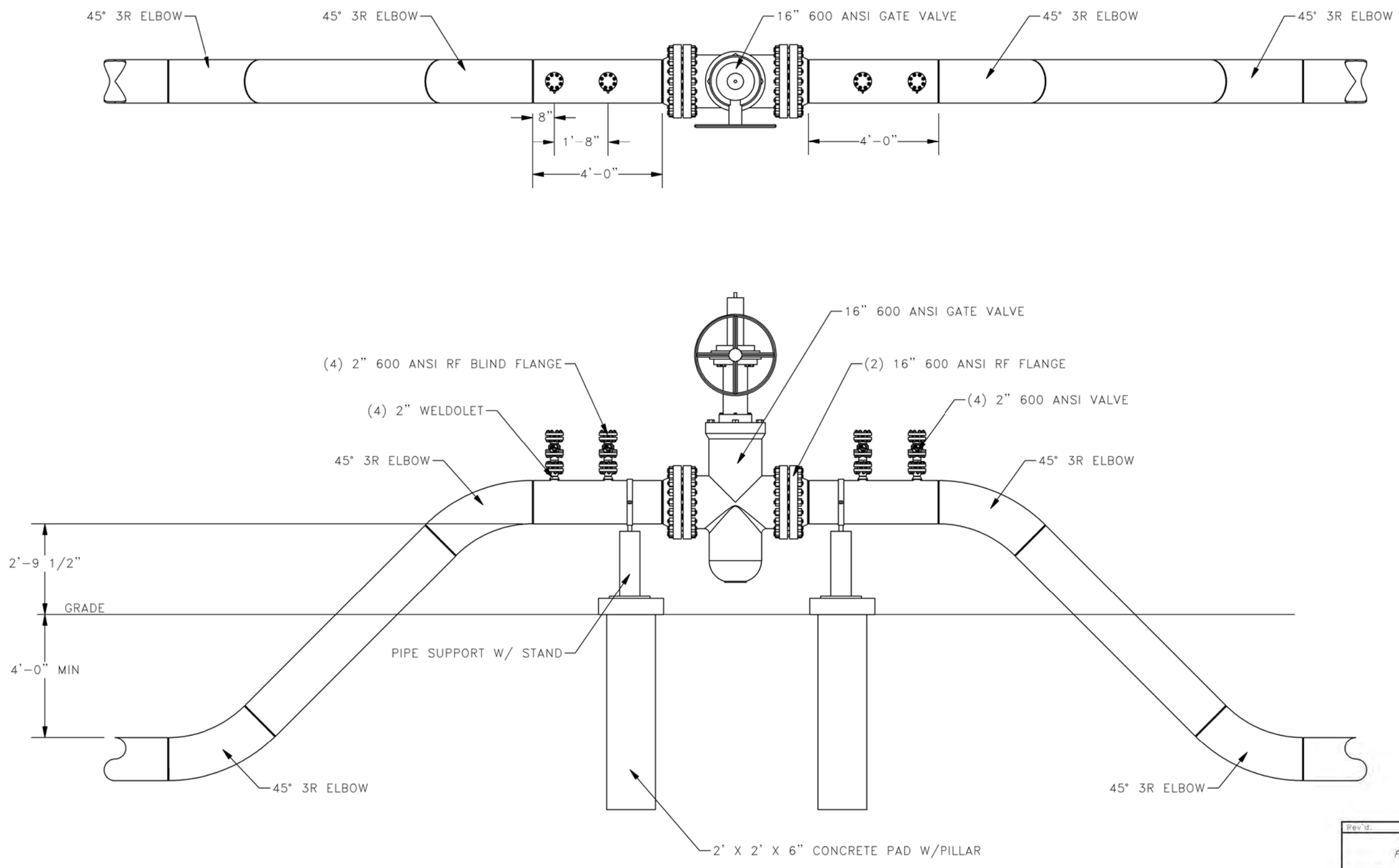
VALVE SETTING
PLAN AND PROFILE VIEW
DETAIL "B"



Rev'd.

Valve Setting
PLAN AND PROFILE VIEW
North Dakota

53

KLJ

BOD BAKER OIL SERVICES
8301 East 21st N, Suite 420
Wichita, KS 67206

DRWN. BY	CHK'D BY	PROJECT NO.	DATE
J. BOSCH	T. HOWARD	1713140	8/19/13

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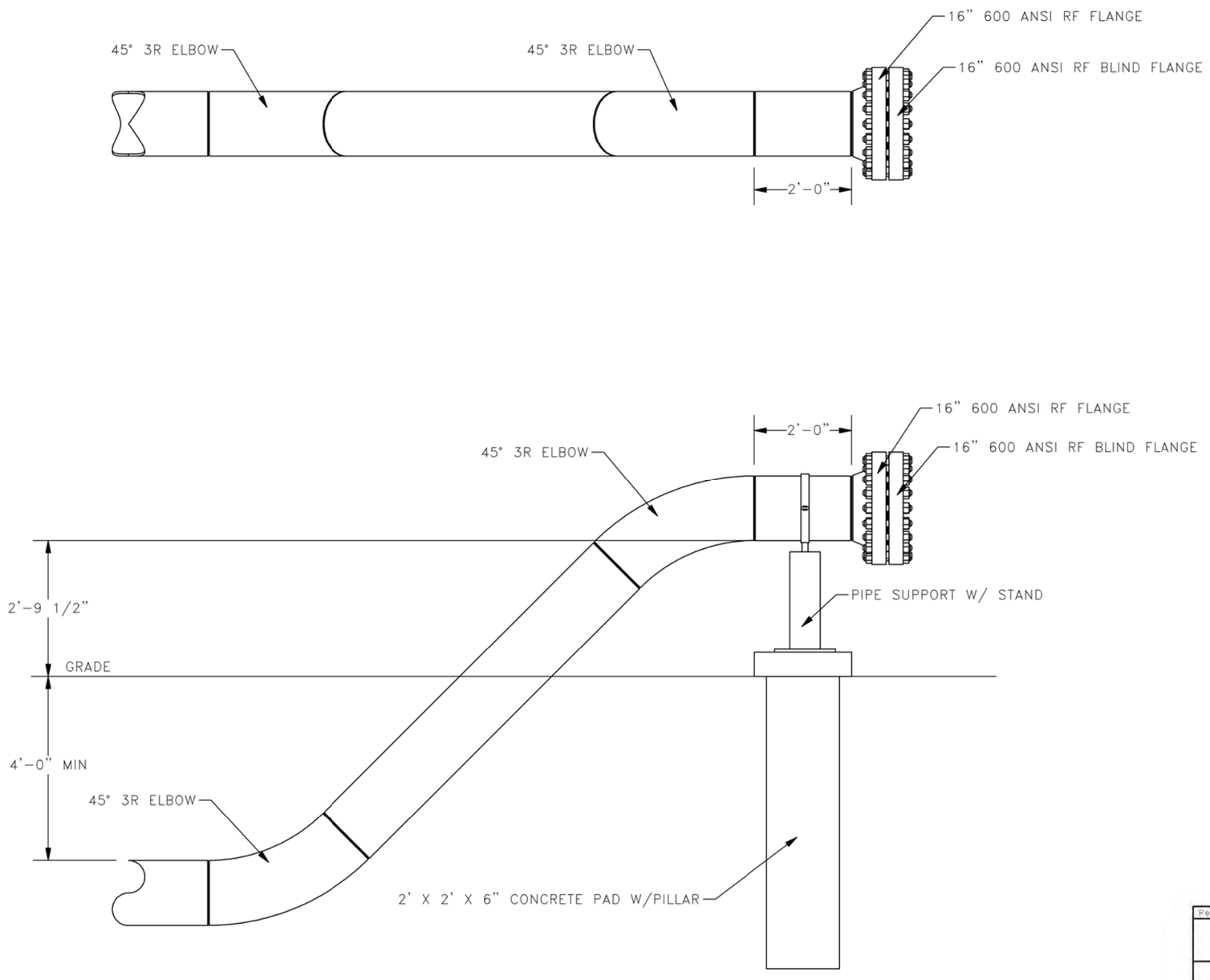
RISER DETAIL
PLAN AND PROFILE VIEW
DETAIL "C"



Rev'd.

Riser Detail
PLAN AND PROFILE VIEW
North Dakota

54

KLJ

BOD
BARREN OIL SERVICES
8301 East 21st N, Suite 420
Wichita, KS 67206

DRWN. BY	CHK'D BY	PROJECT NO.	DATE
J. BOSCH	T. HOWARD	1713140	8/19/13

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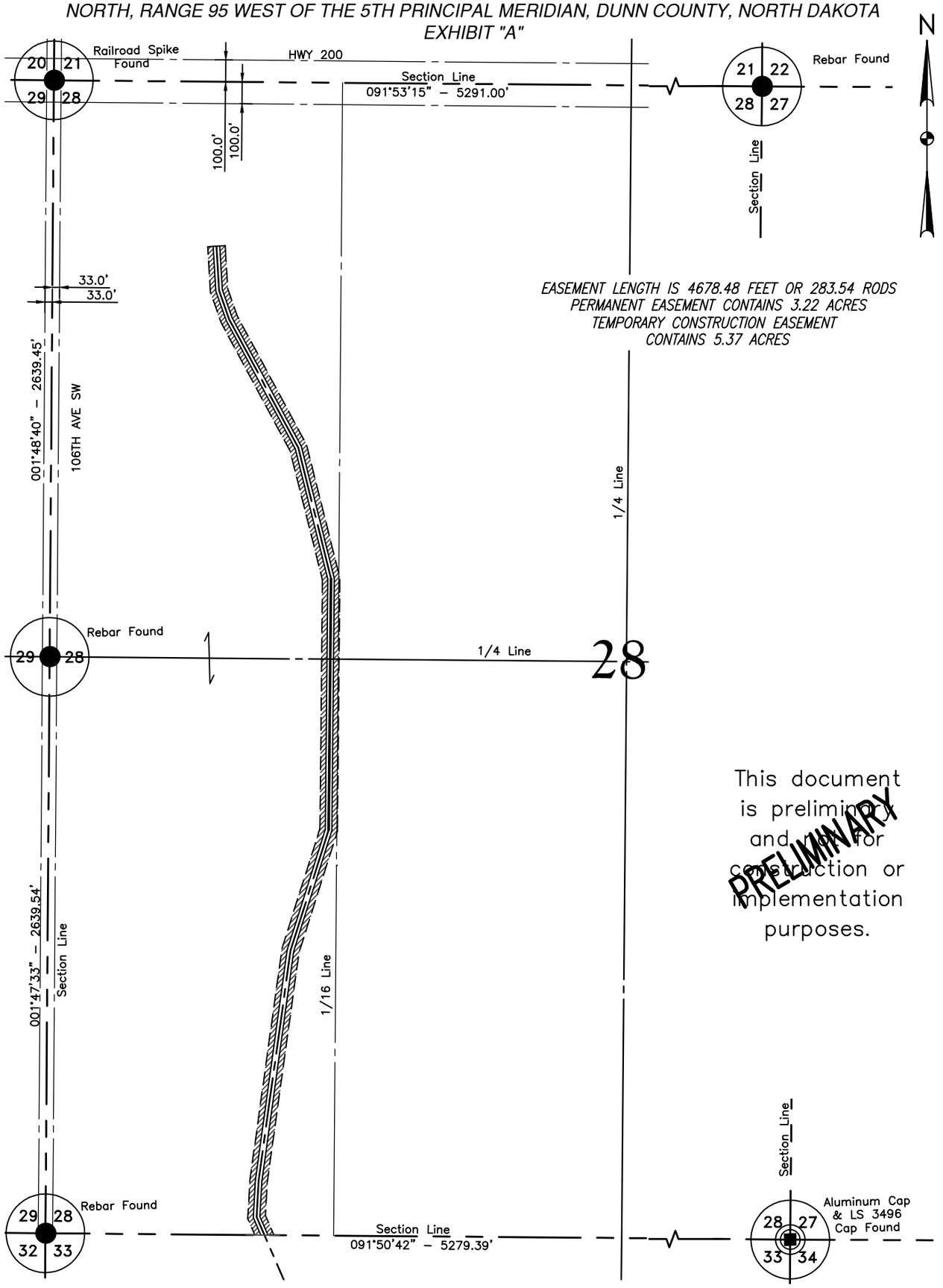
Figure C-3. Plats

DUNN COUNTY, NORTH DAKOTA

E1/2W1/2 & W1/2W1/2 LESS 4.02 ACRE & LESS 18.77 ACRE TRACT OF SECTION 33, TOWNSHIP 145 NORTH, RANGE 95 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE	SCALE: 1"=600'
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013 REV. DATE:	E1/2W1/2 & W1/2W1/2 LESS 4.02 ACRE & LESS 18.77 ACRE TRACT OF SEC. 28, T.145N., R.95W.	TRACT NUMBER ND–28–145–95–E2W2&W2W2

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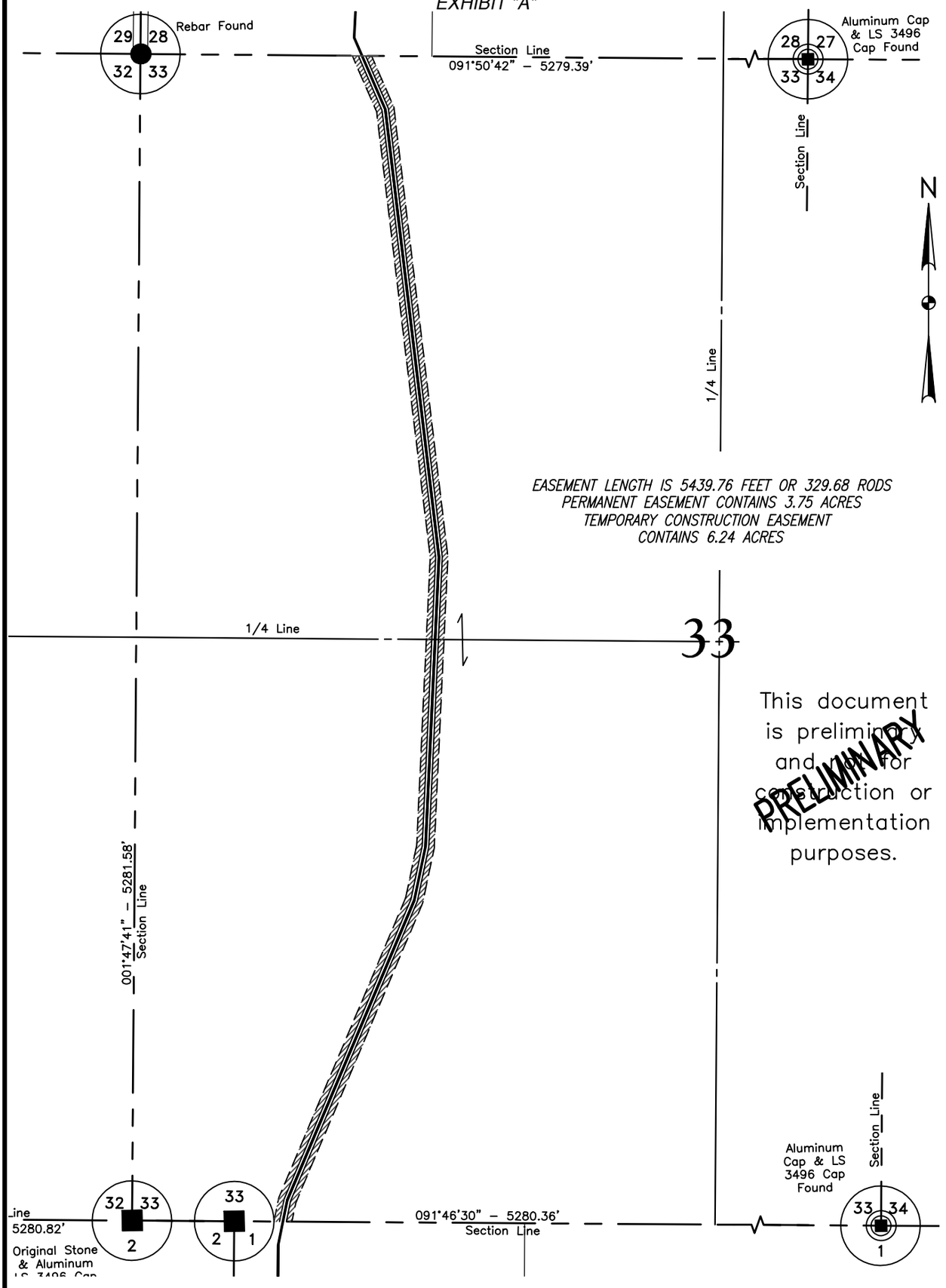
DUNN COUNTY, NORTH DAKOTA

NW1/4 & SW1/4 OF SECTION 33, TOWNSHIP 145 NORTH, RANGE 95 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



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scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NW1/4 & SW1/4 OF SEC. 33, T.145N., R.95W.	SCALE: 1"=600' TRACT NUMBER ND–28–145–95–NW4&SW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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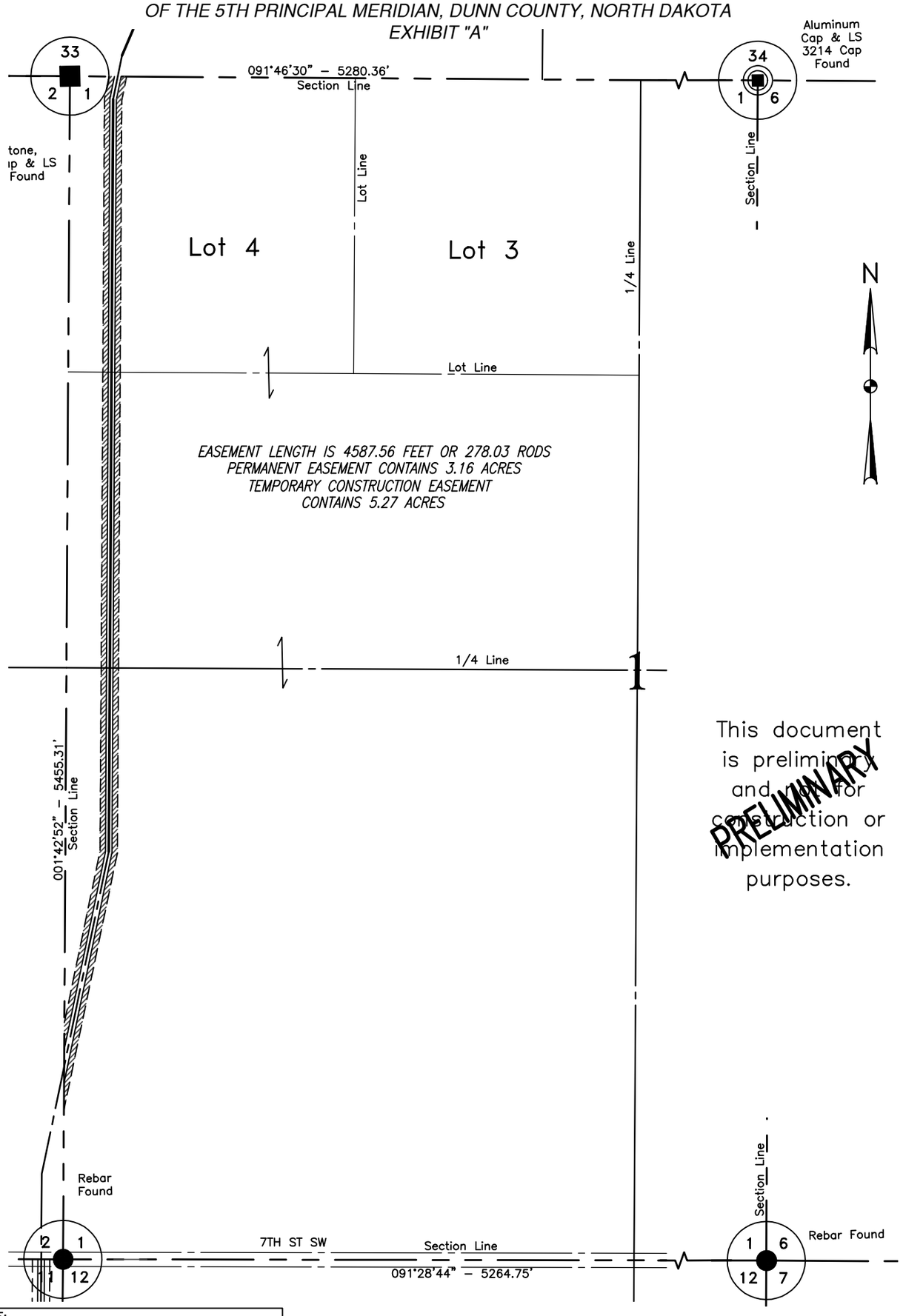
DUNN COUNTY, NORTH DAKOTA

GOV'T LOT 4, S1/2NW1/4 & SW1/4 OF SECTION 1, TOWNSHIP 144 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE	SCALE: 1"=600'
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013 REV. DATE:	GOV'T LOT 4, S1/2NW1/4 & SW1/4 OF SEC. 1, T.144N., R.96W.	TRACT NUMBER ND–1–144–96 GOV'T LOT 4, S2NW4, SW4

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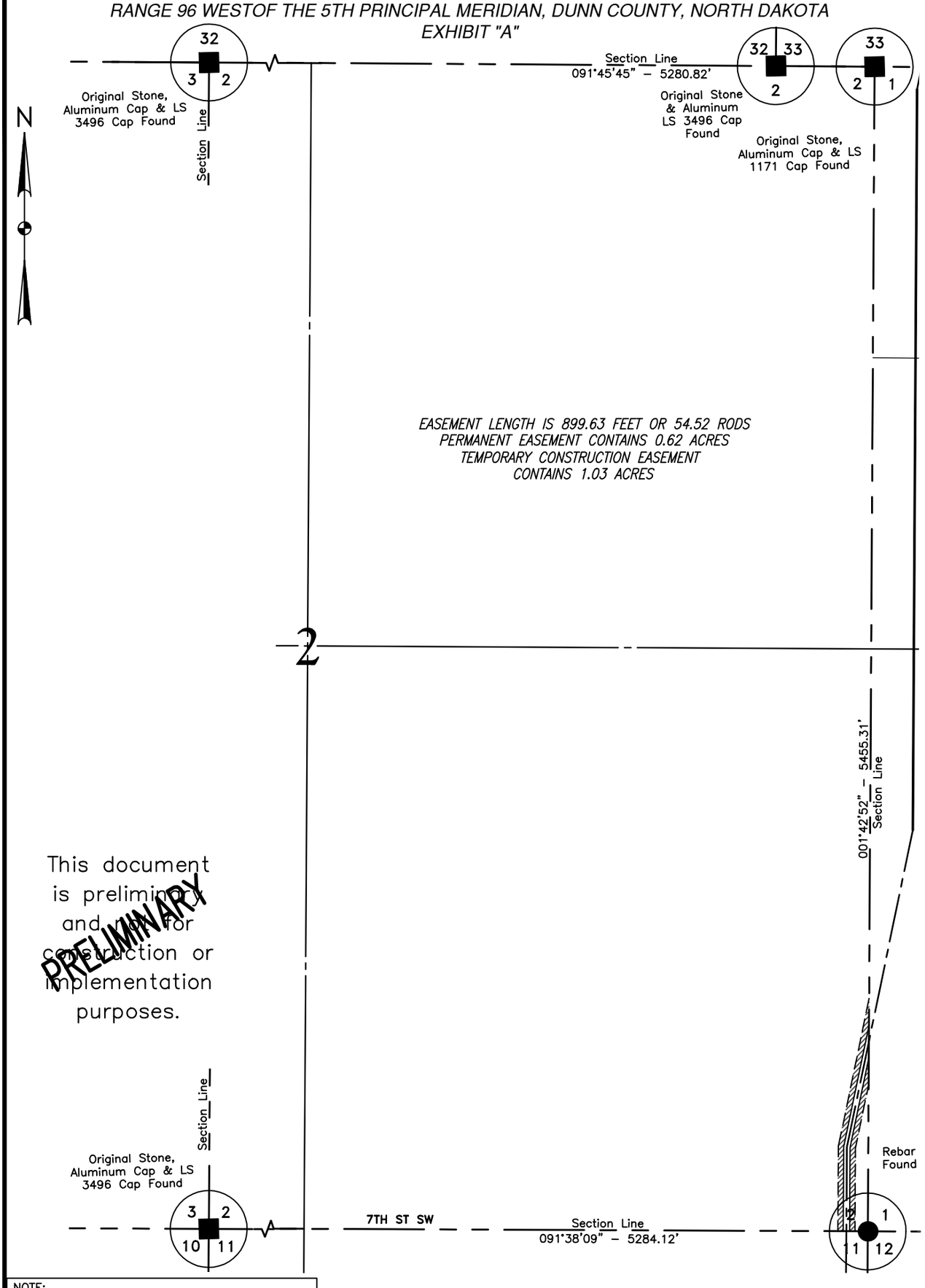
DUNN COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 2, TOWNSHIP 144 NORTH,
RANGE 96 WESTOF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



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300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 12, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–12–144–96–SE4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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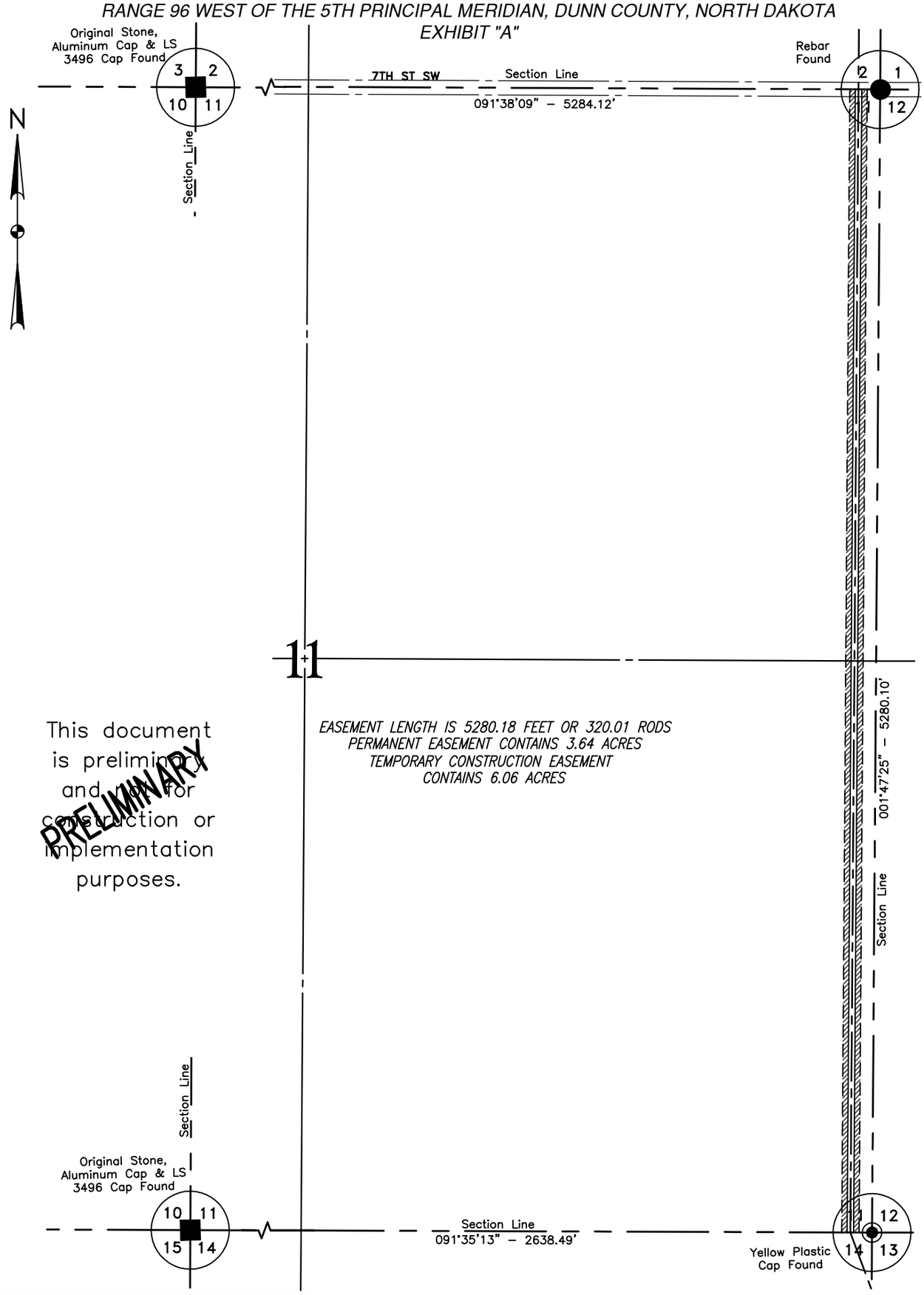
DUNN COUNTY, NORTH DAKOTA

ALL OF SECTION 11, TOWNSHIP 144 NORTH,
RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE ALL OF SEC. 11, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–11–144–96–ALL
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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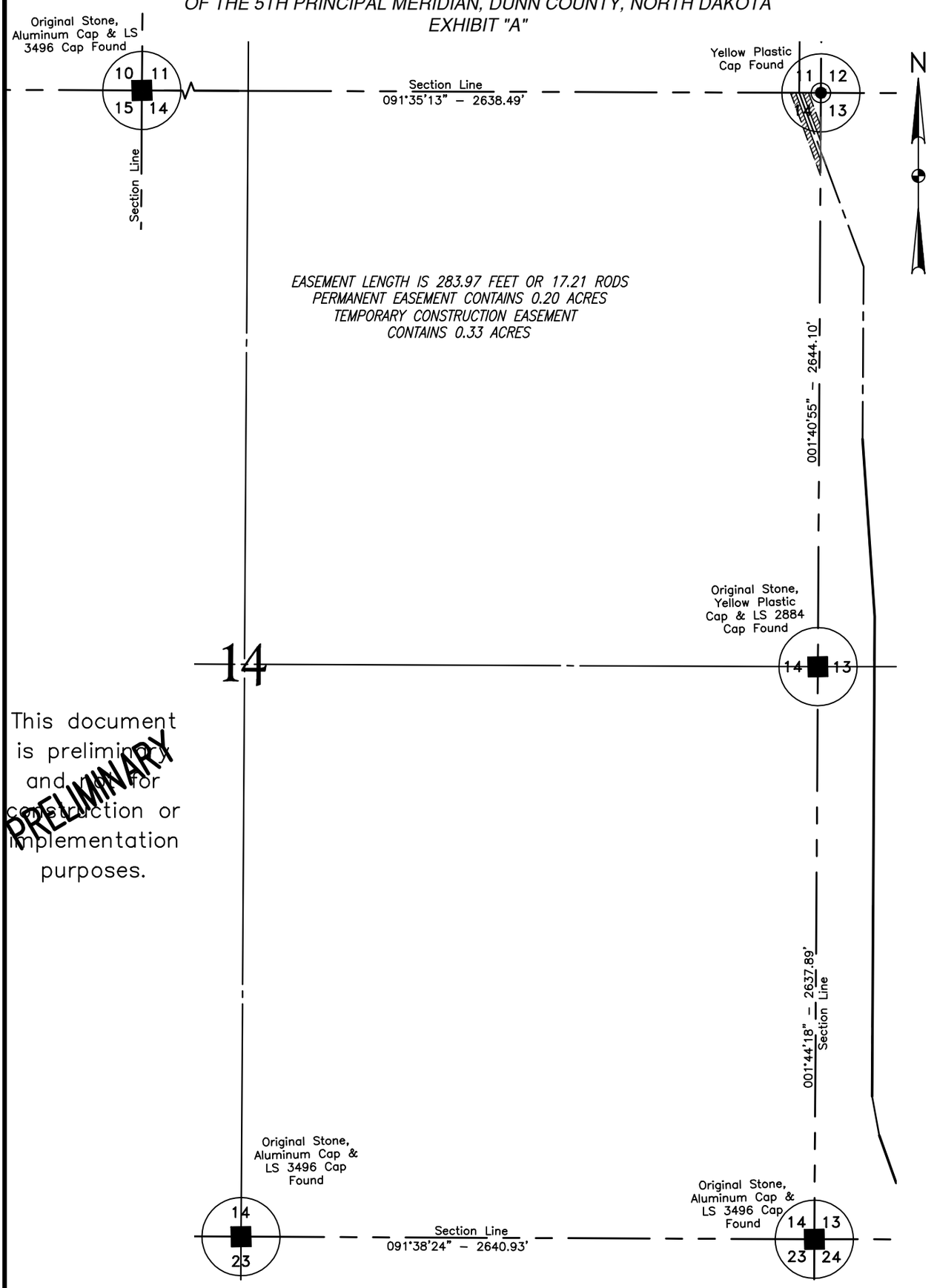
DUNN COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 14, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 14, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–14–144–96–NE4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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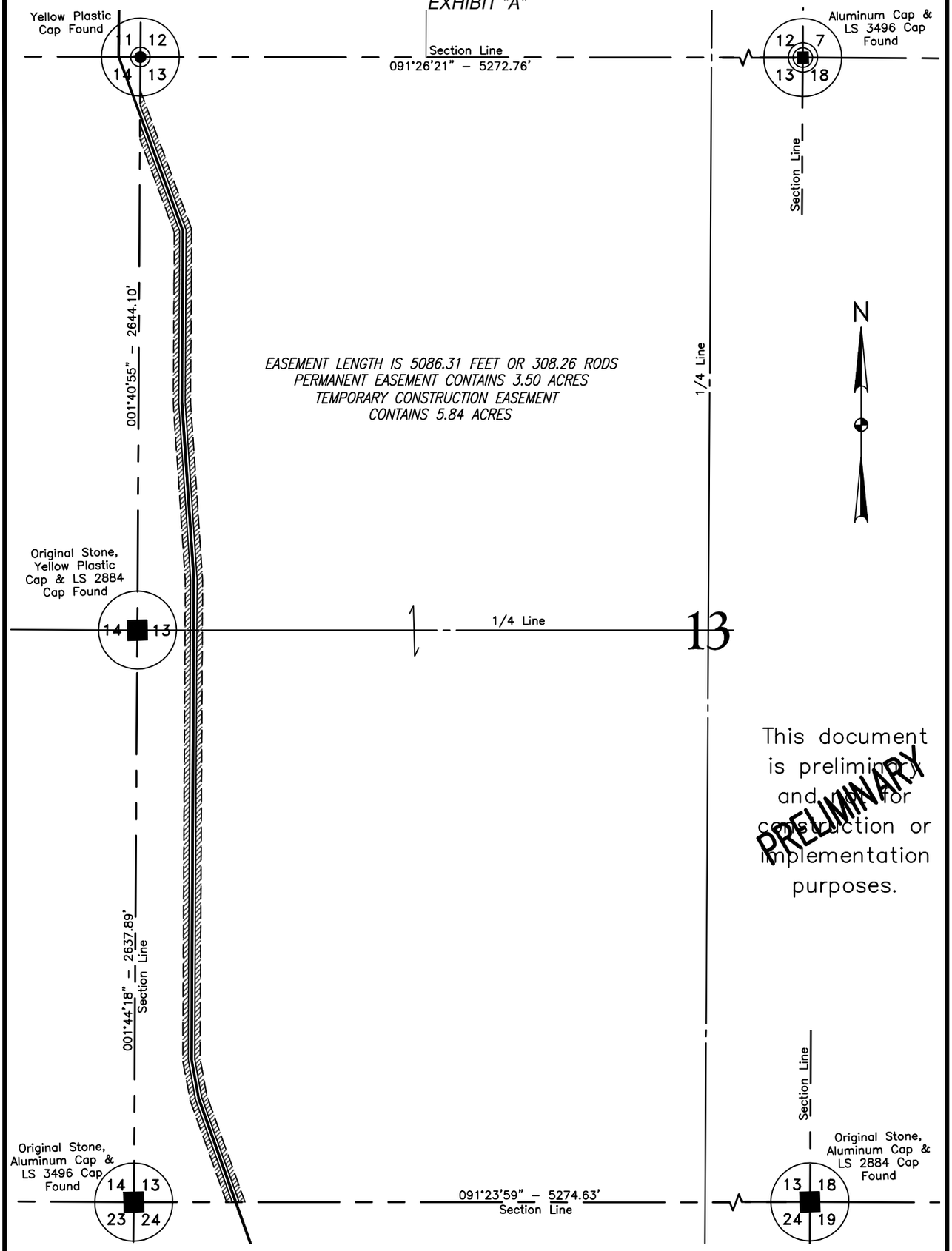
DUNN COUNTY, NORTH DAKOTA

NW1/4 & SW1/4 OF SECTION 13, TOWNSHIP 144 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. .WALTERS
		EASEMENTS ON AND ACROSS THE NW1/4 & SW1/4 OF SEC. 13, T.144N., R.96W.	SCALE: 1"=600'
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013 REV. DATE:		TRACT NUMBER ND–13–144–96–NW4&SW4

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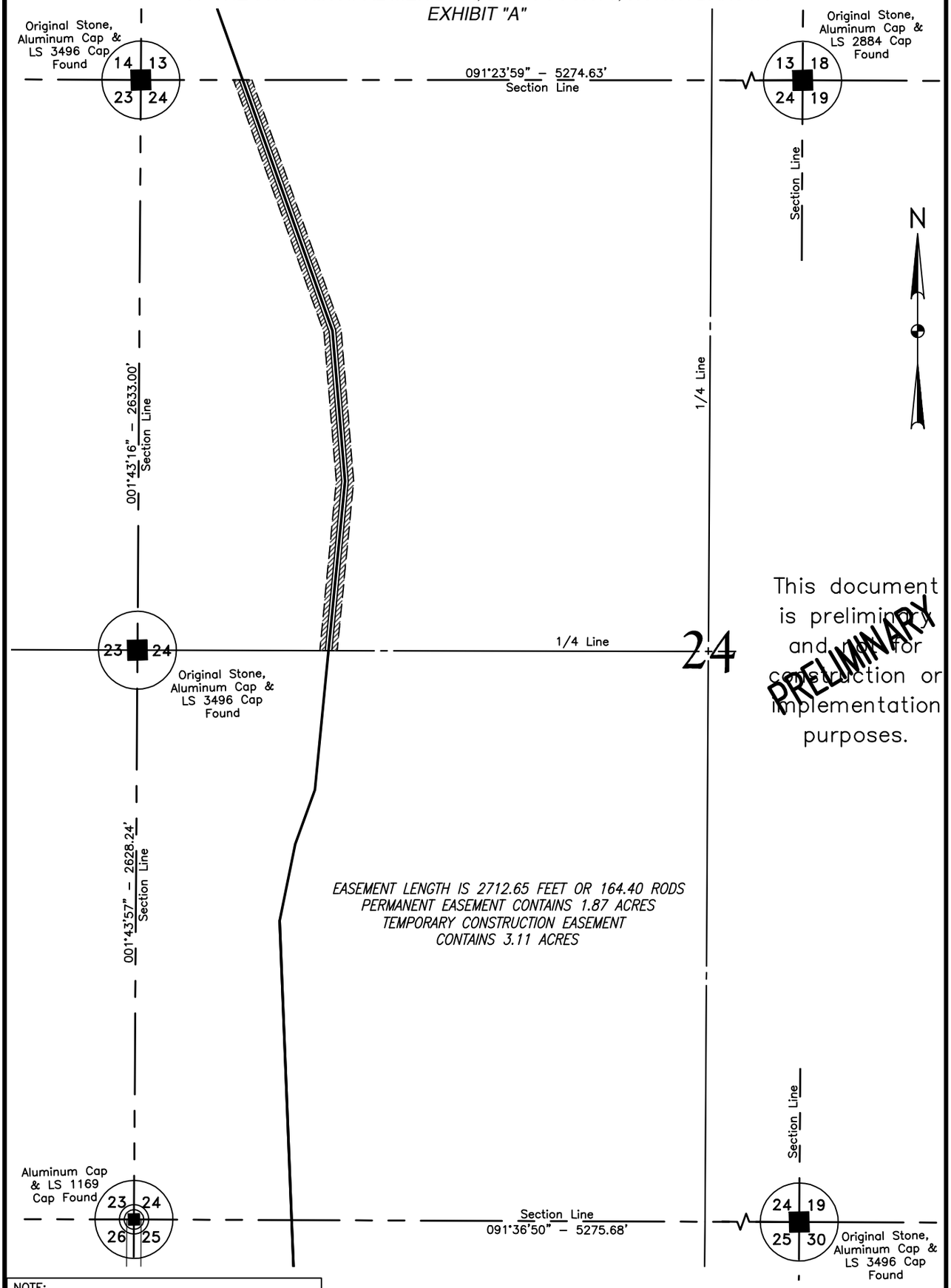
DUNN COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 24, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 24, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND-24-144-96-NW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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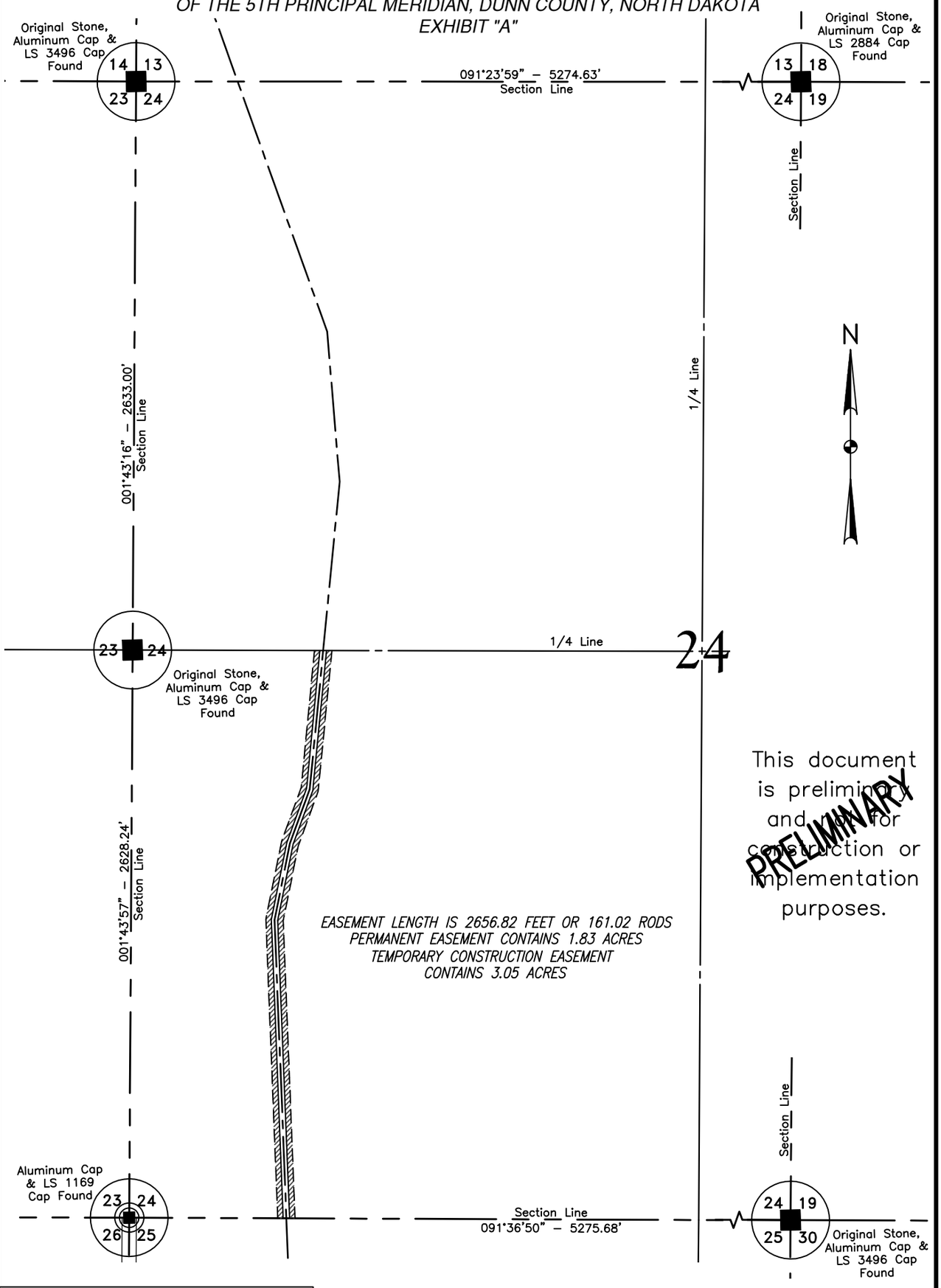
DUNN COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 24, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 24, T.144N., R.96W.	SCALE: 1"=600'
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND-24-144-96-SW4

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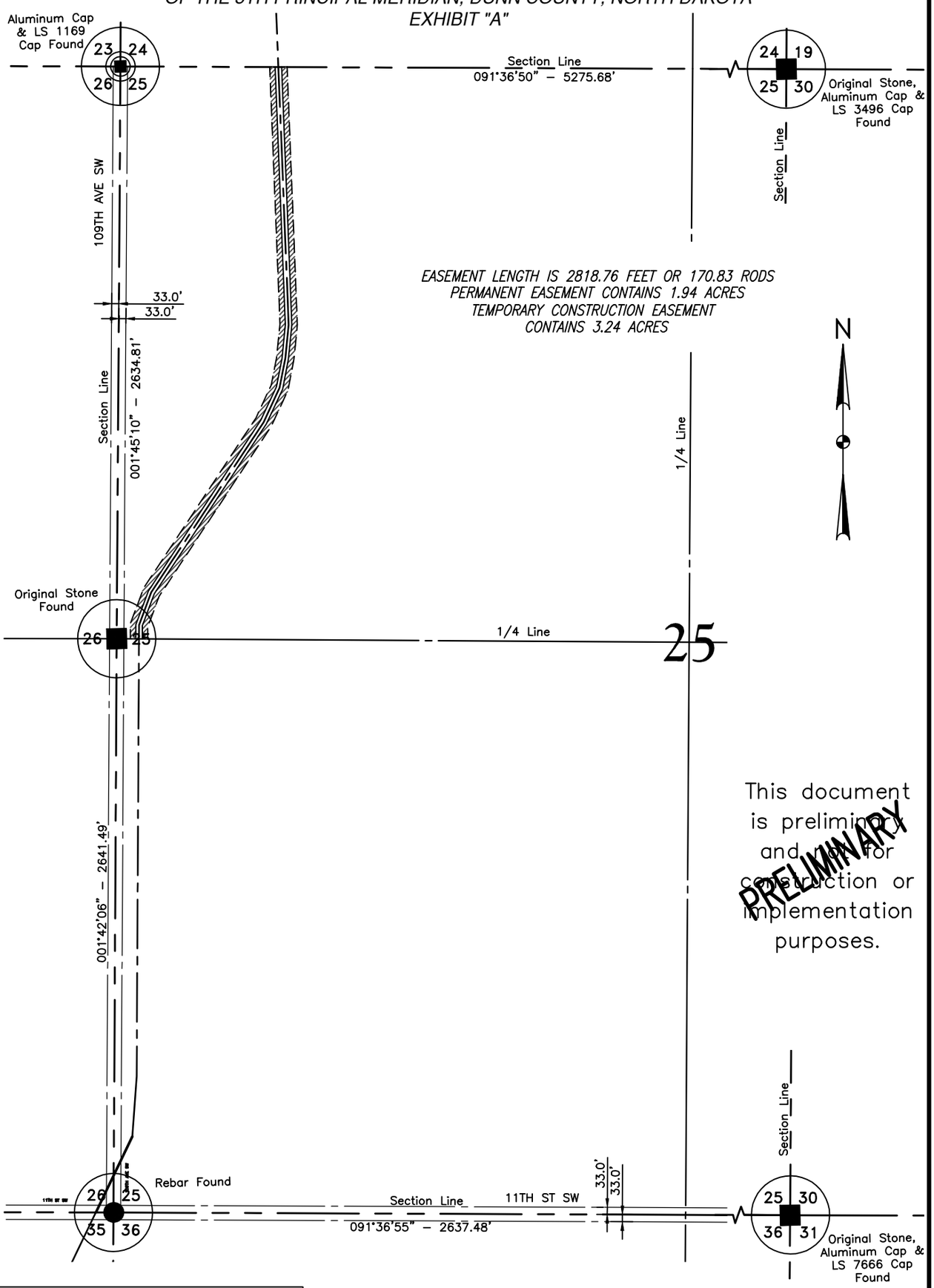
DUNN COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 25, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 25, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–25–144–96–NW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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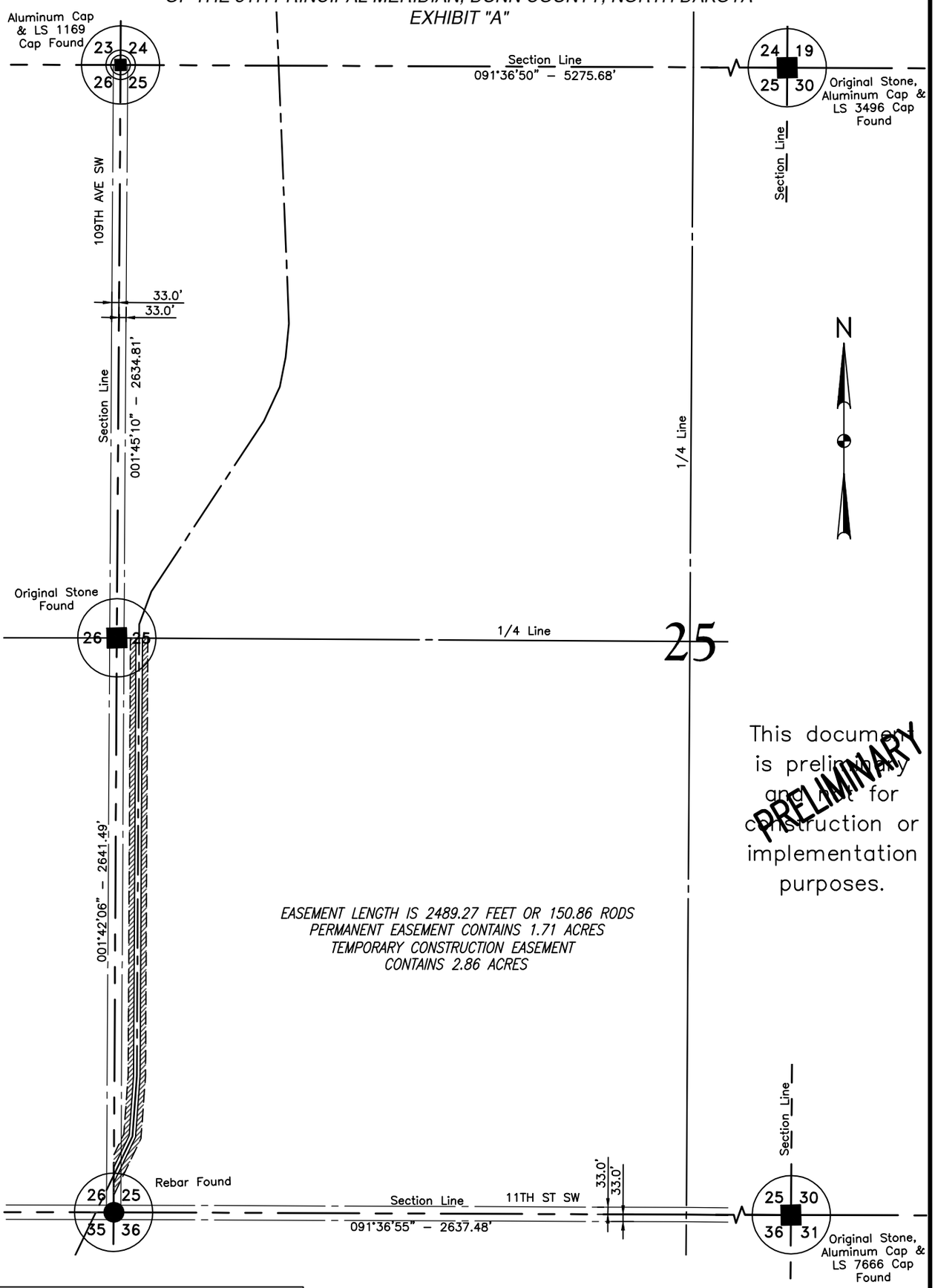
DUNN COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 25, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 25, T.144N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–25–144–96–SW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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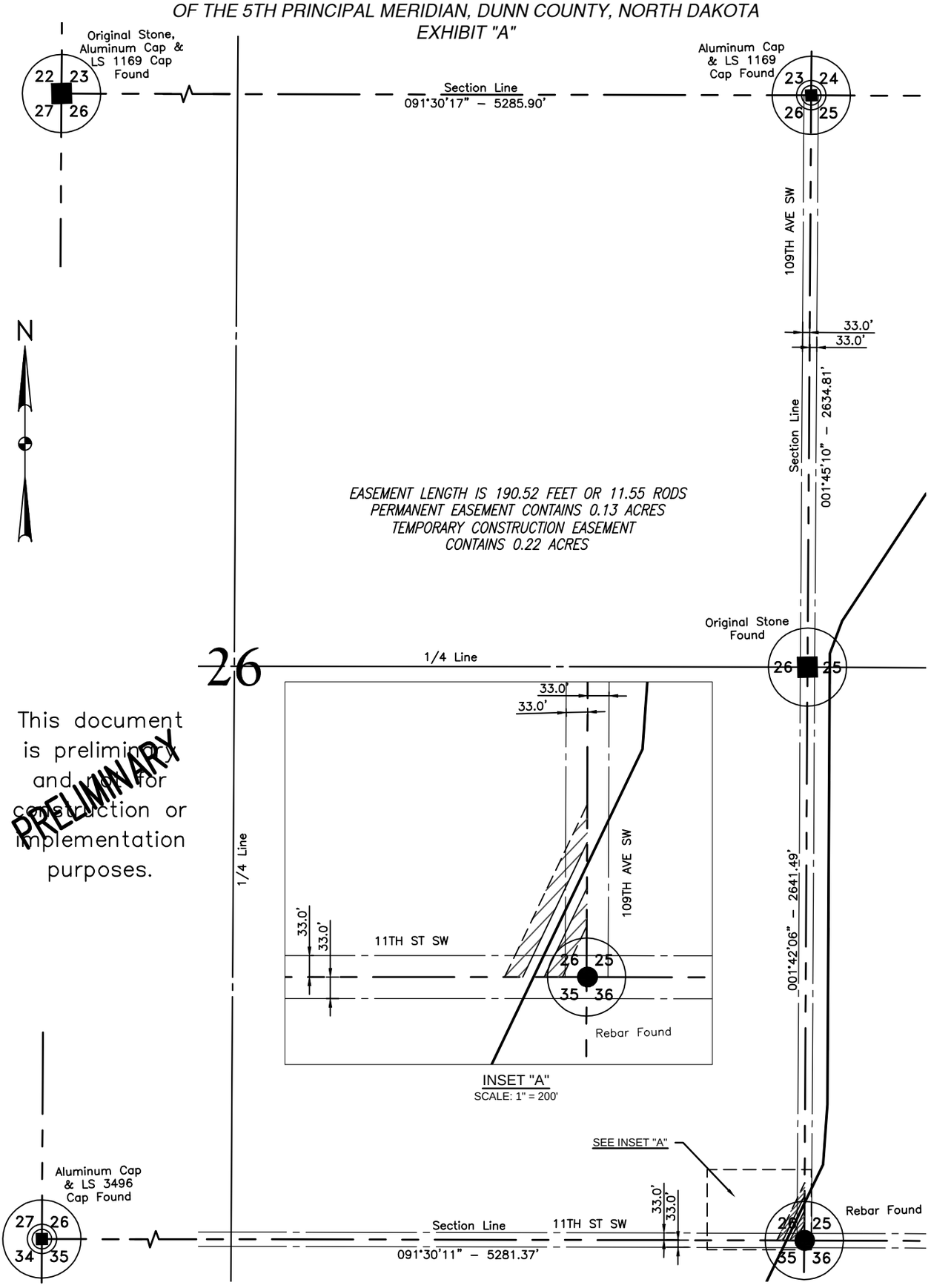
DUNN COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 26, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 26, T.144N., R.96W.	SCALE: 1"=600'
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND–26–144–96–SE4

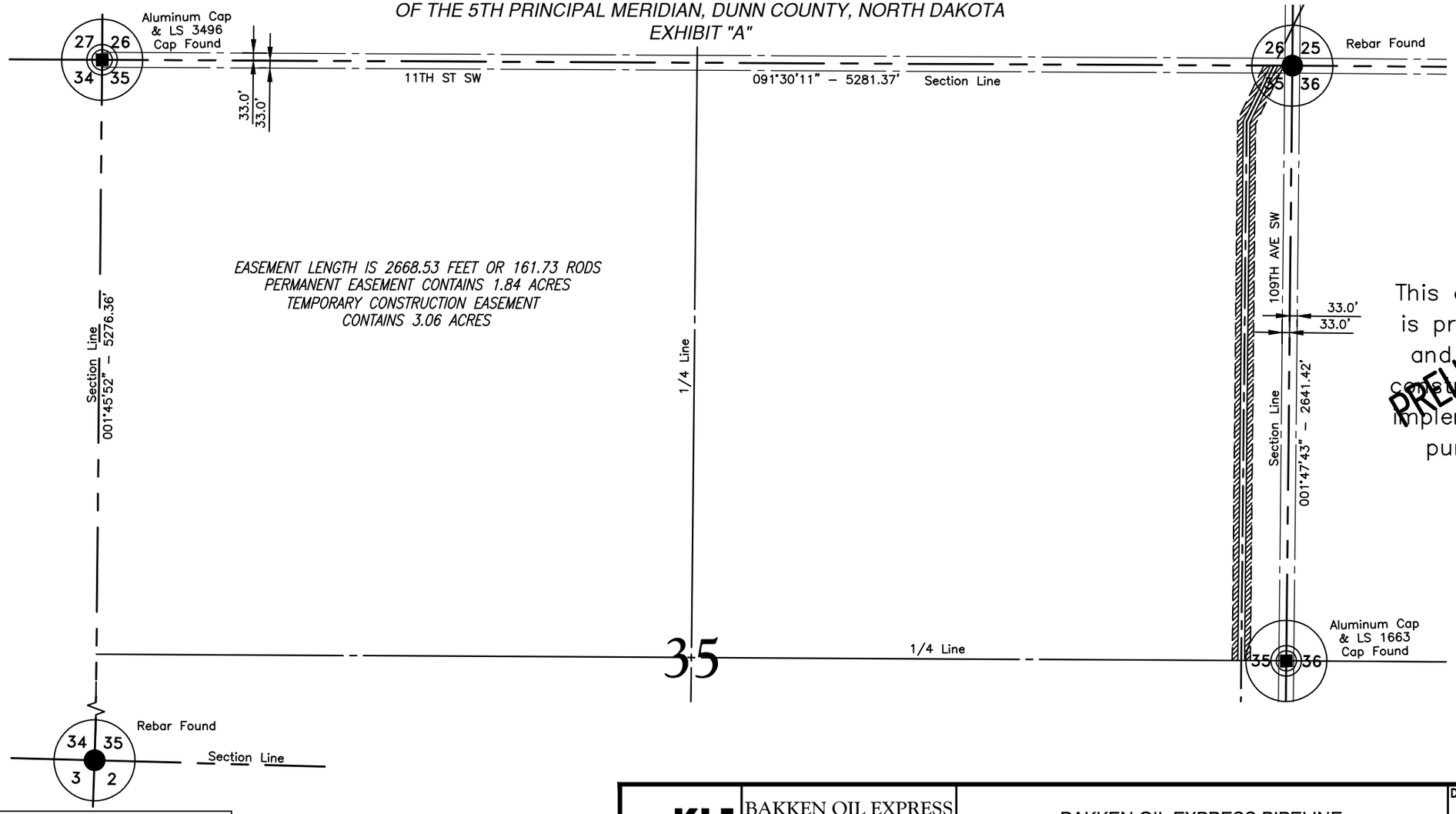
Aug 29, 2013 - 1:30pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement1.dwg

© KLJ 2013

LAYOUT: SE4_26–144–96 (1)

DUNN COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 35, TOWNSHIP 144 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



EASEMENT LENGTH IS 2668.53 FEET OR 161.73 RODS
PERMANENT EASEMENT CONTAINS 1.84 ACRES
TEMPORARY CONSTRUCTION EASEMENT
CONTAINS 3.06 ACRES

This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 35, T.144N., R.96W.	SCALE: 1"=600'
DRAWN BY: T. TRAUTMAN	ORIGIN DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND-35-144-96-NE4

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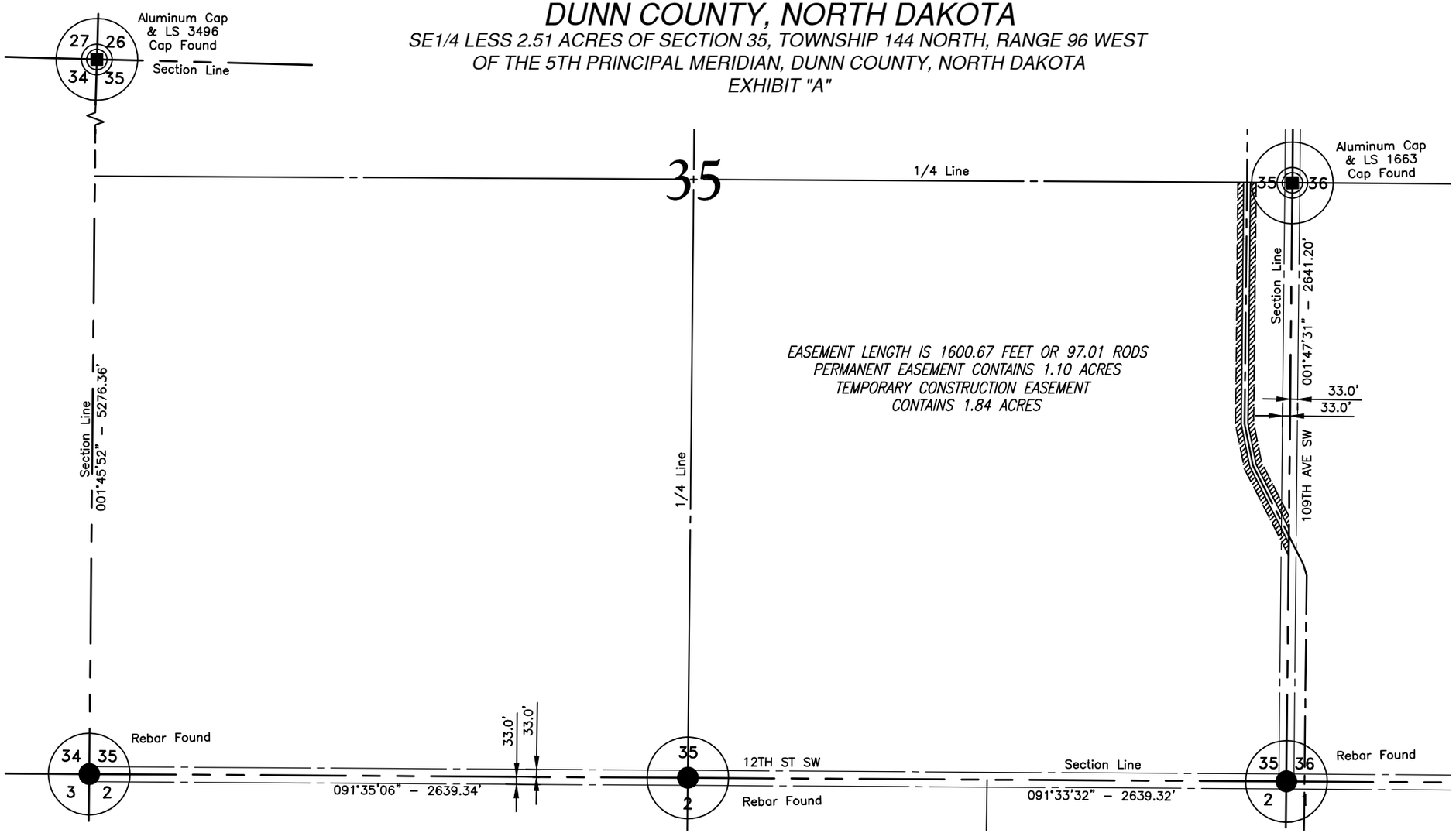
DUNN COUNTY, NORTH DAKOTA

SE1/4 LESS 2.51 ACRES OF SECTION 35, TOWNSHIP 144 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: T. TRAUTMAN | ORIGIN. DATE: 8/16/2013 | REV. DATE:

BAKKEN OIL EXPRESS PIPELINE

EASEMENTS ON AND ACROSS THE
SE1/4 LESS 2.5 ACRES OF SEC. 35, T.144N., R.96W.

DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND-35-144-96-SE4

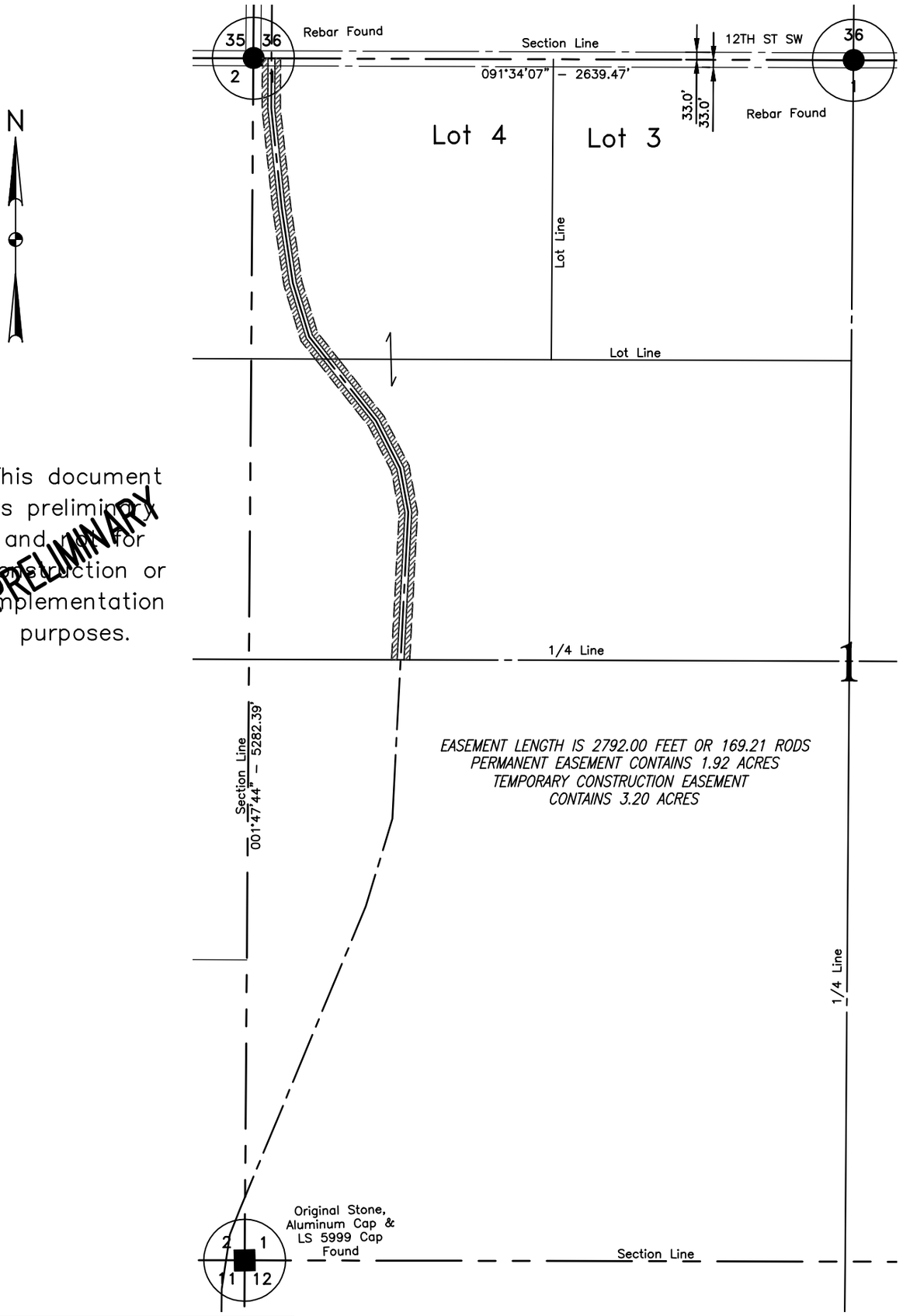
Aug 30, 2013 – 3:32pm – J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 – Easement2.dwg

© KLJ 2013

LAYOUT: SE4_35-144-96 (1)

DUNN COUNTY, NORTH DAKOTA

GOV'T LOT 4 & S1/2NW1/4 OF SECTION 1, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE	SCALE: 1"=600'
DRAWN BY: T.TRAUTMAN	ORIGIN. DATE: 8/16/2013	GOV'T LOT 4 & S1/2NW1/4 OF SEC. 1, T.143N., R.96W.	TRACT NUMBER ND-1-143-96-LOT4S2NW4
	REV. DATE:		

Aug 30, 2013 - 3:32pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement2.dwg

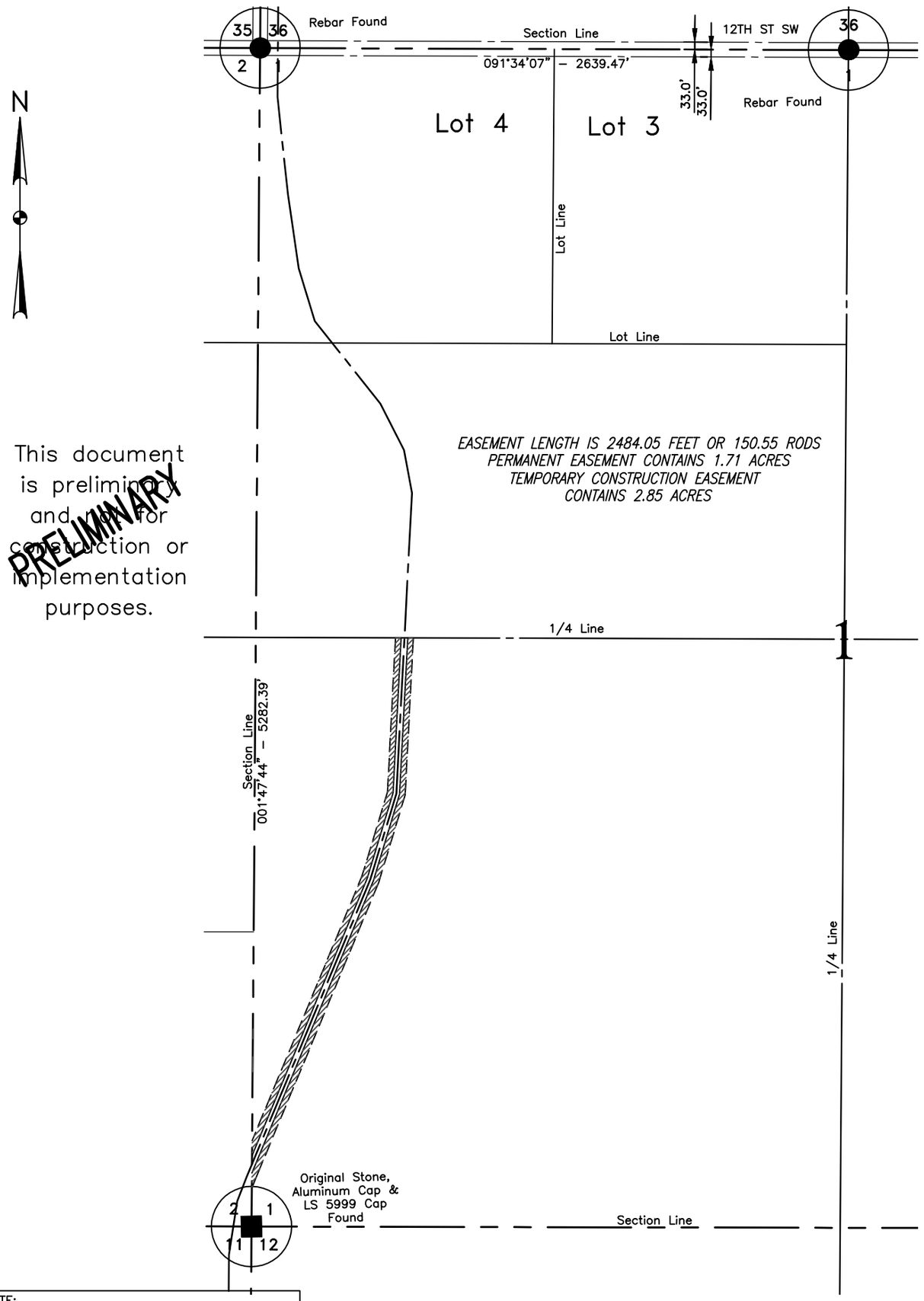
© KLJ 2013

LAYOUT: LOT4-S2NW4_1-143-96 (1)

DUNN COUNTY, NORTH DAKOTA

SW1/4 LESS 13 ACRES IN SE1/4SW1/4 OF SECTION 1, TOWNSHIP 143 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–355, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE	SCALE: 1"=600'
DRAWN BY: T.TRAUTMAN	ORIGIN. DATE: 8/16/2013 REV. DATE:	SW1/4 LESS 13 ACRES IN SE1/4SW1/4 OF SEC. 1, T.143N., R.96W.	TRACT NUMBER ND–1–143–96–SW4

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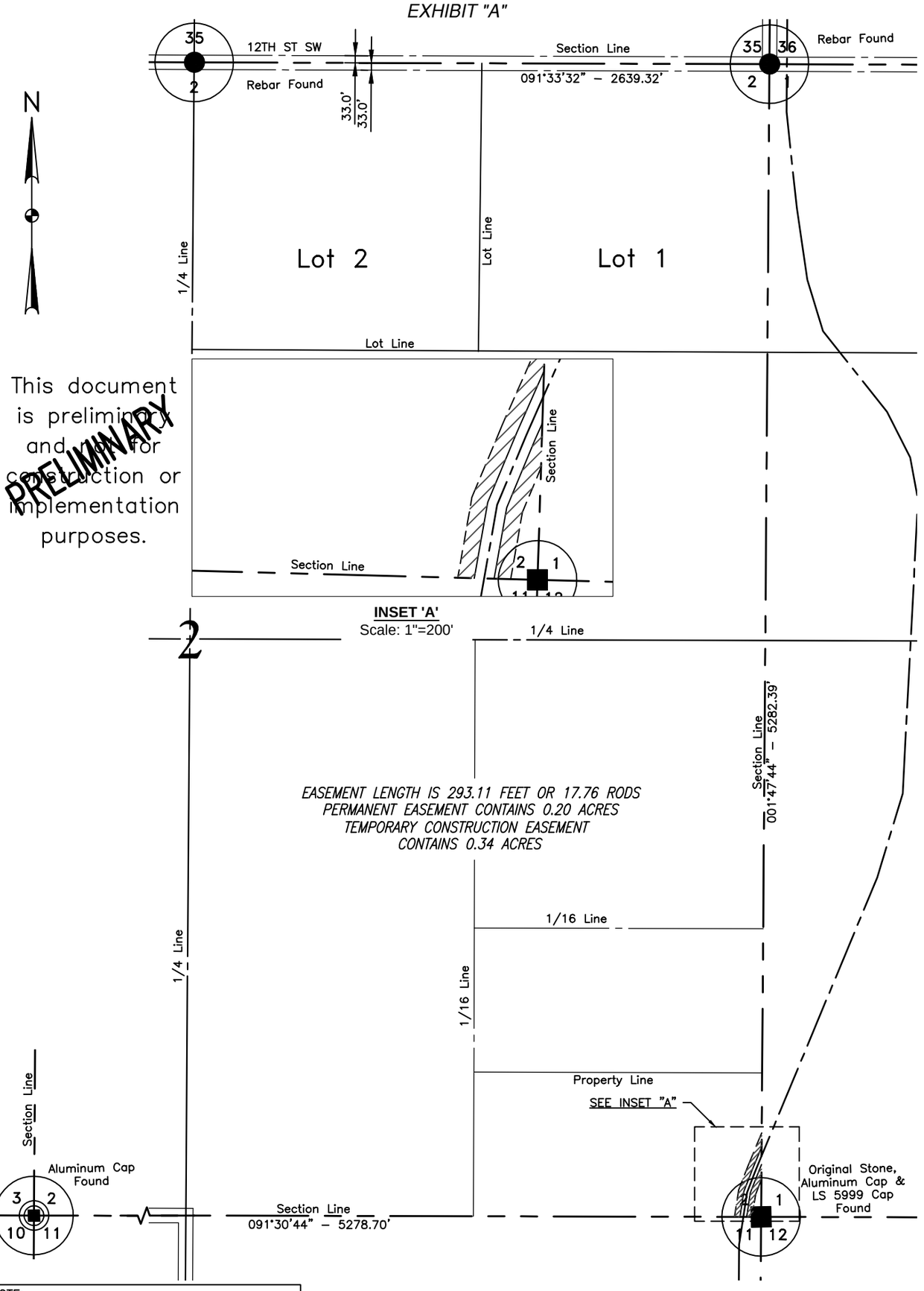
DUNN COUNTY, NORTH DAKOTA

N1/2SE1/4SE1/4 OF SECTION 2, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–355, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE N1/2SE1/4SE1/4 OF SEC. 2, T.143N., R.96W.	SCALE: 1"=600'
DRAWN BY: T.TRAUTMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND–2–143–96–N2SE4SE4

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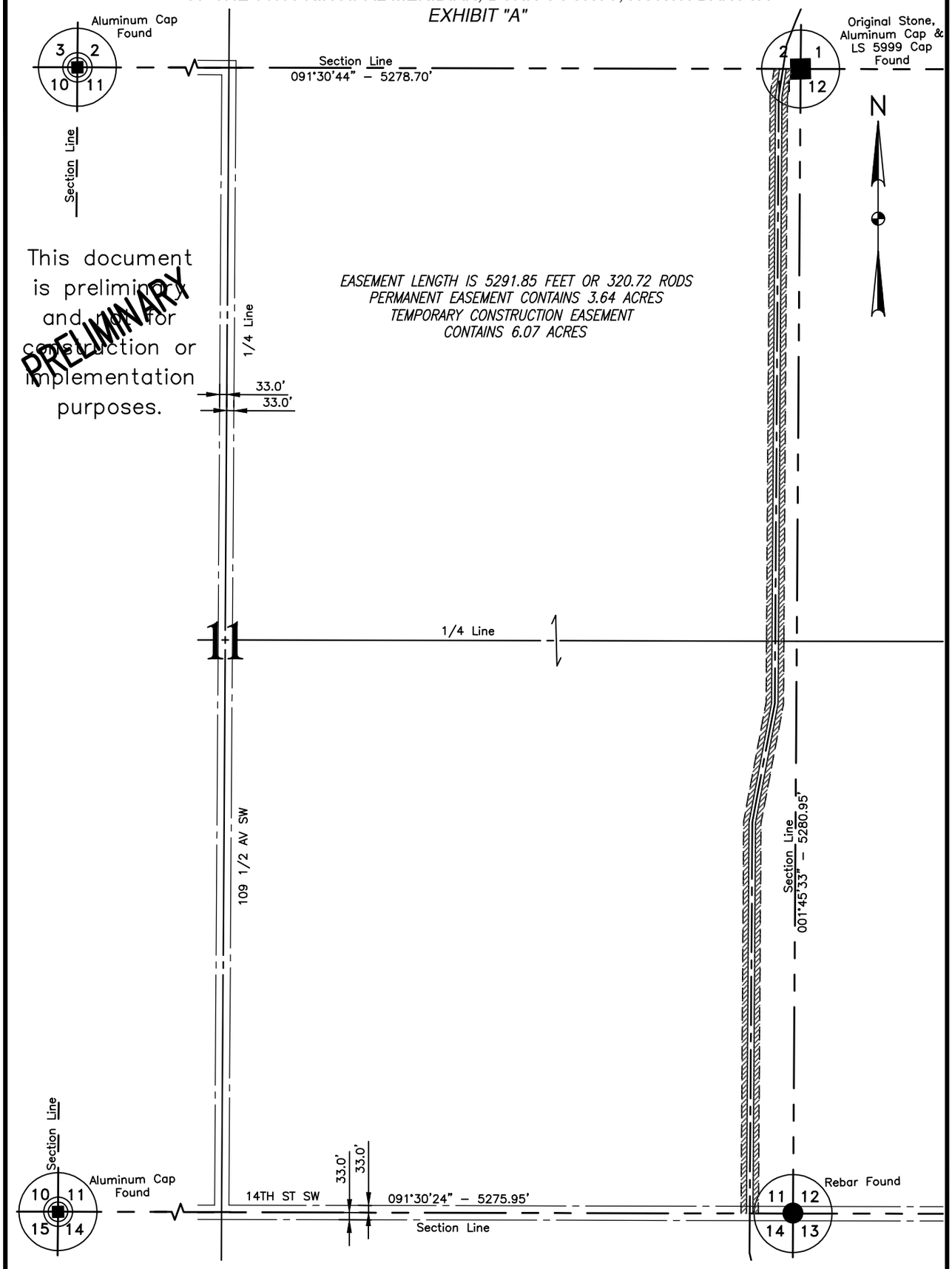
DUNN COUNTY, NORTH DAKOTA

NE1/4 & SE1/4 OF SECTION 11, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–355, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NE1/4 & SE1/4 OF SEC. 11, T.143N., R.96W.	SCALE: 1"=600'
DRAWN BY: T.TRAUTMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND–11–143–96_NE4–SE4

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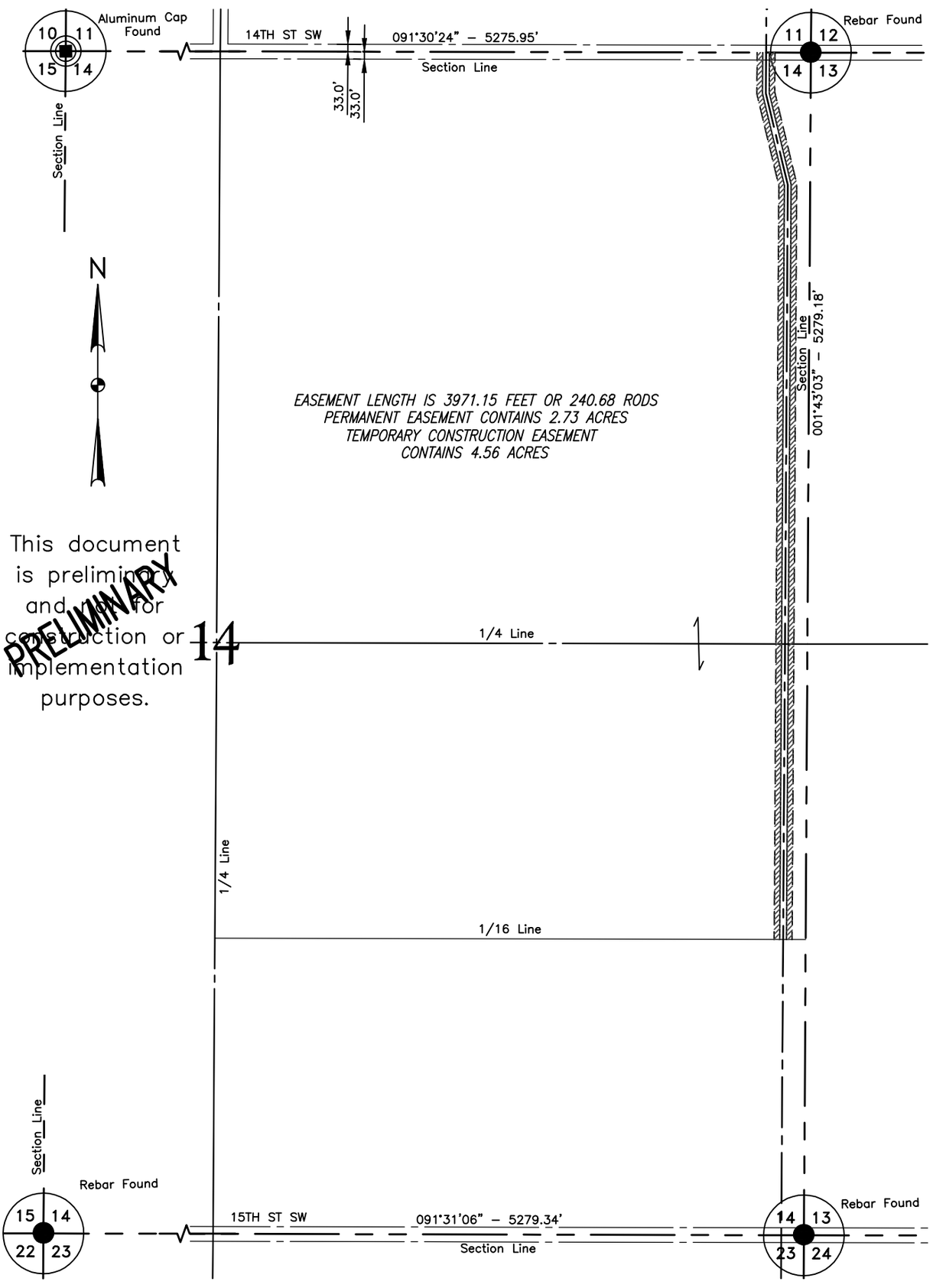
DUNN COUNTY, NORTH DAKOTA

NE1/4 LESS 1.50 ACRES & N1/2SE1/4 OF SECTION 14, TOWNSHIP 143 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE	SCALE: 1"=600'
DRAWN BY: T.TRAUTMAN	ORIGIN. DATE: 8/16/2013	NE1/4 LESS 1.50 ACRES & N1/2SE1/4 OF SECTION 14, T.143N., R.96W.	TRACT NUMBER ND-14-143-96-NE4&N2SE4
	REV. DATE:		

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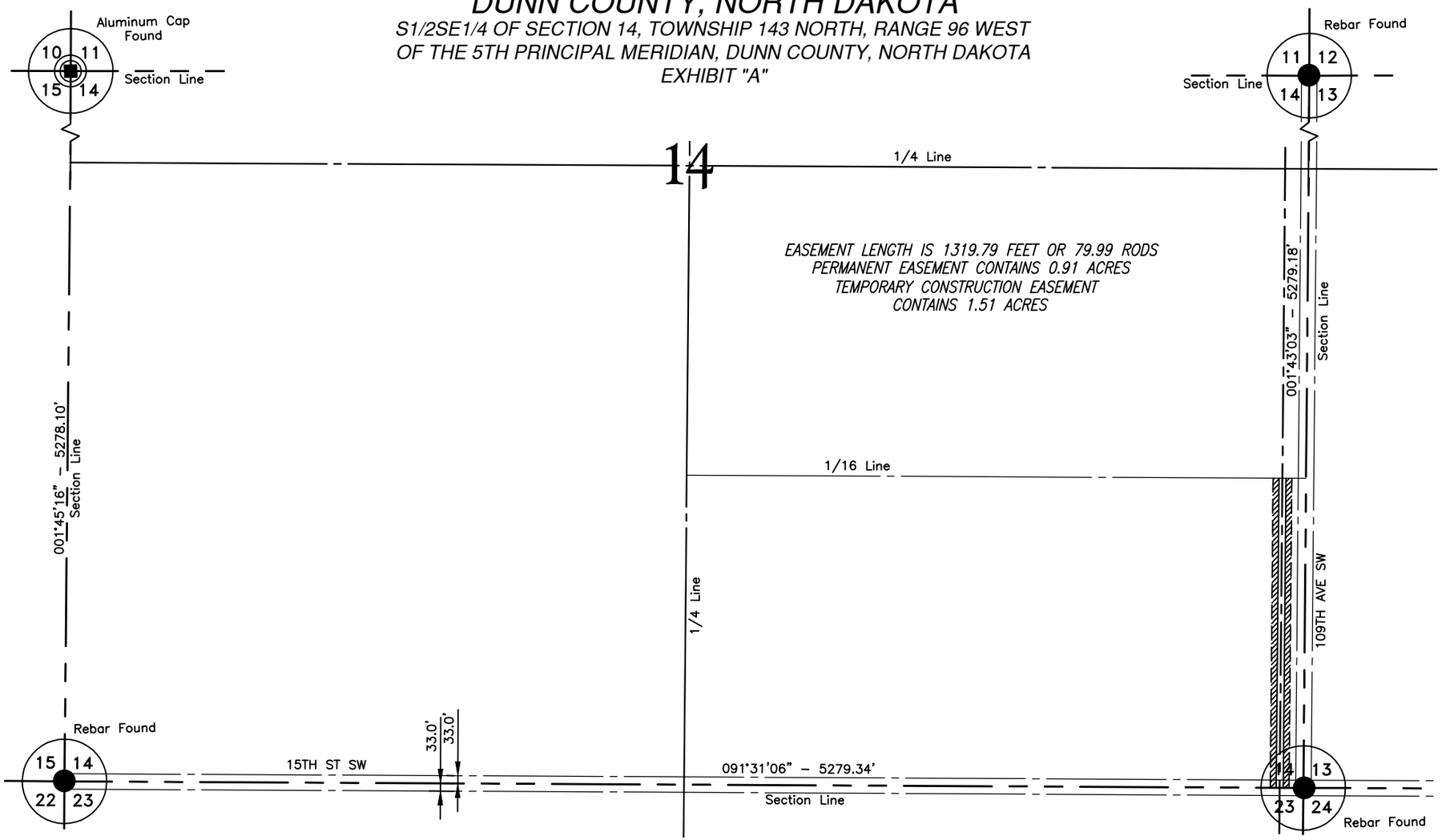
DUNN COUNTY, NORTH DAKOTA

S1/2SE1/4 OF SECTION 14, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: J.WALTERS | ORIGIN DATE: 8/16/2013 | REV. DATE:

BAKKEN OIL EXPRESS PIPELINE

EASEMENTS ON AND ACROSS THE
S1/2SE1/4 OF SEC. 14, T.143N., R.96W.

DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND-14-143-96-S2SE4

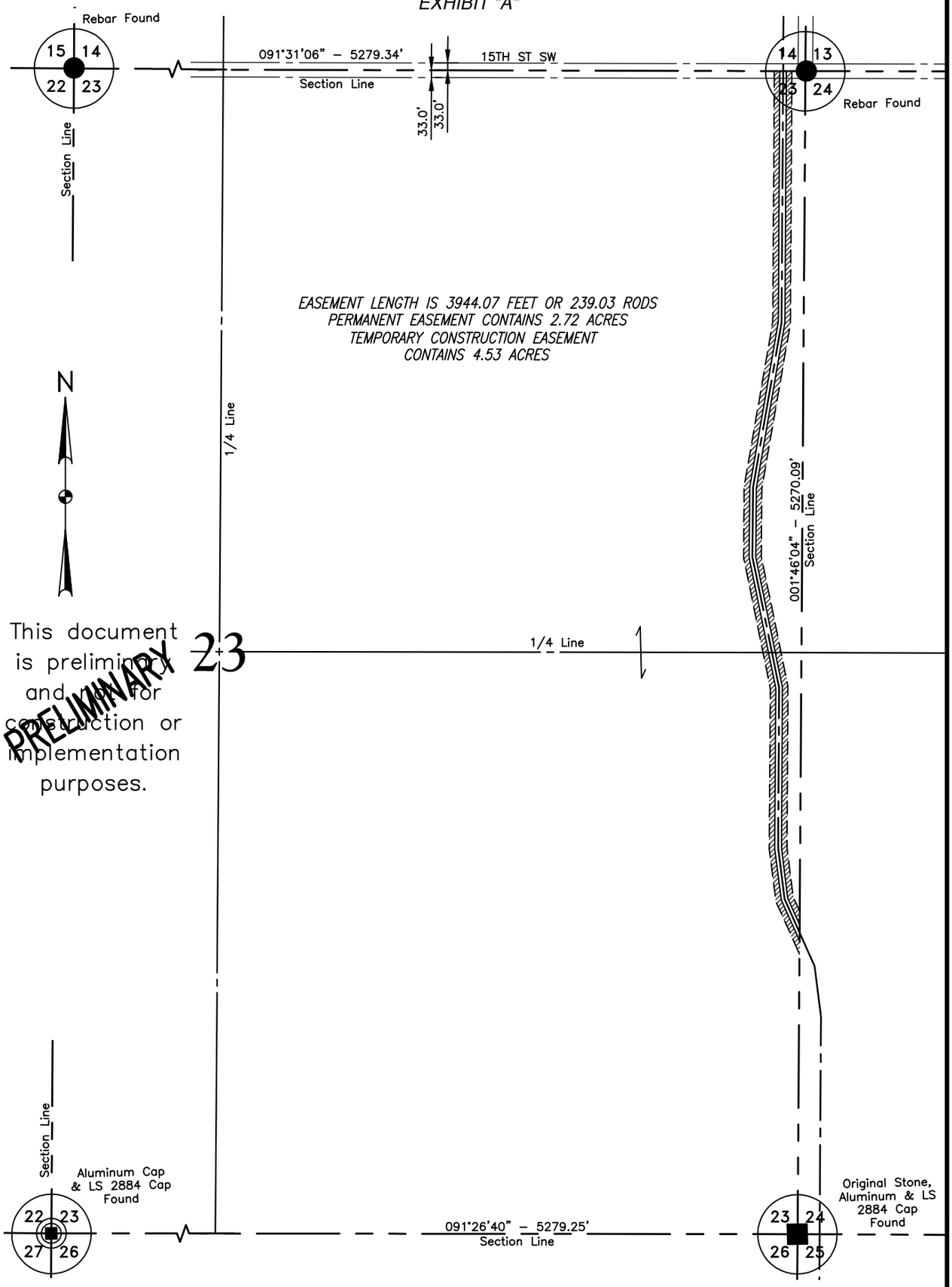
Aug 30, 2013 – 4:46pm – J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 – Easement3.dwg

© KLJ 2013

LAYOUT: S2SE4_14-143-96 (1)

DUNN COUNTY, NORTH DAKOTA

NE1/4 LESS 2.51 A & SE1/4 OF SECTION 23, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NE1/4 LESS 2.51 A & SE1/4 OF SEC. 23, T.143N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–23–143–96–NE4&SE4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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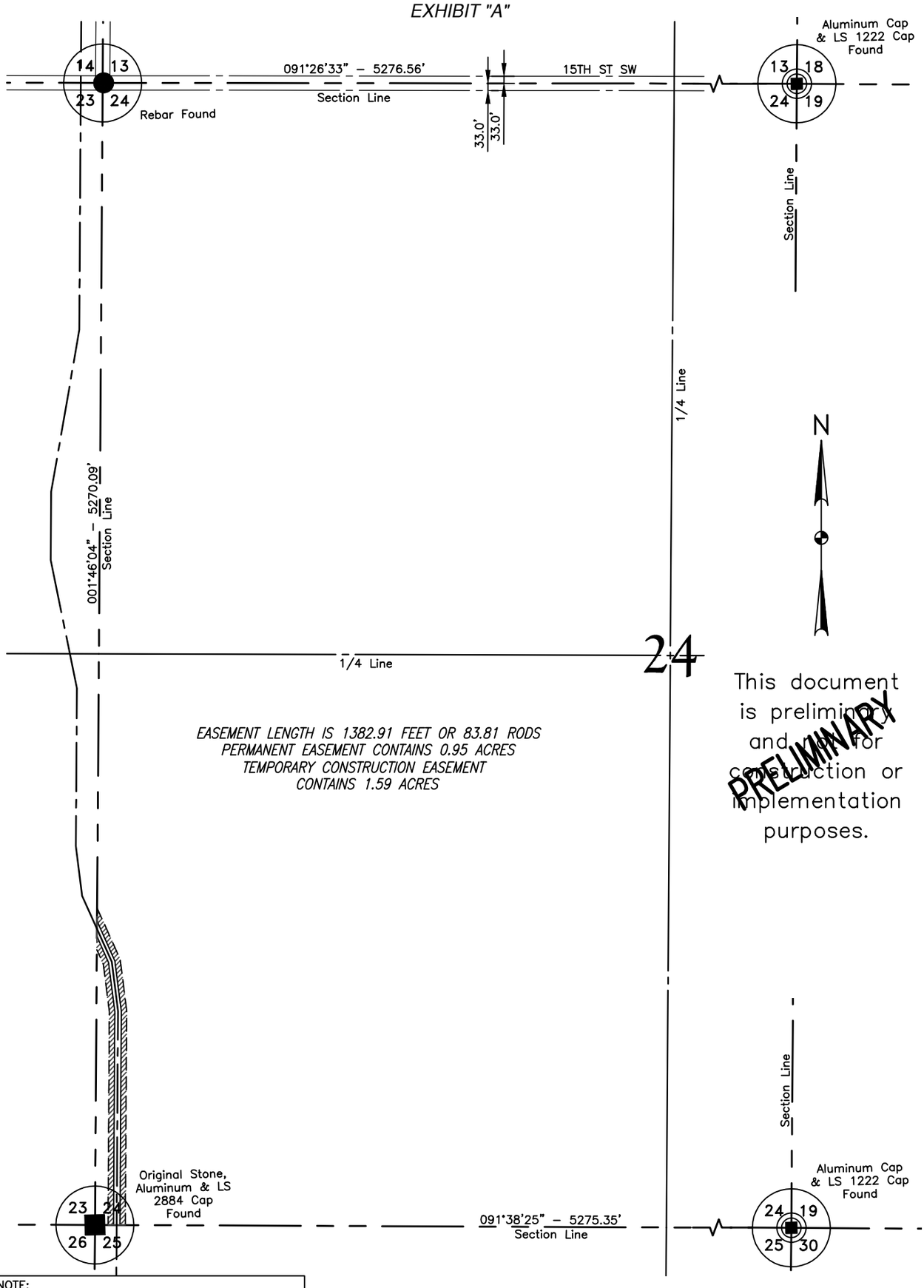
DUNN COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 24, TOWNSHIP 143 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 24, T.143N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–24–143–96–SW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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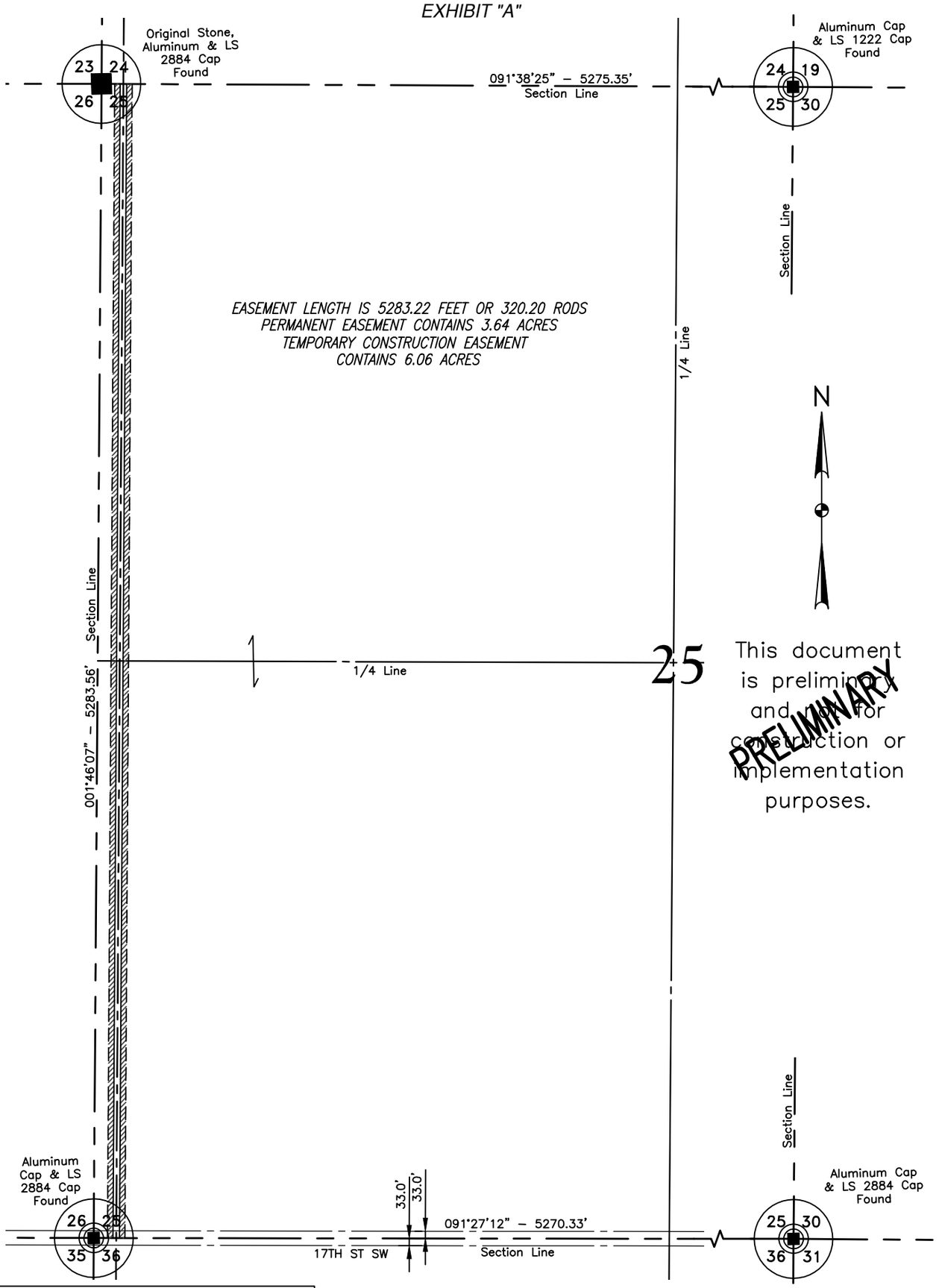
DUNN COUNTY, NORTH DAKOTA

NW1/4 & SW1/4 OF SECTION 25, TOWNSHIP 143 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NW1/4 & SW1/4 OF SEC. 25, T.143N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–25–143–96–NW4&SW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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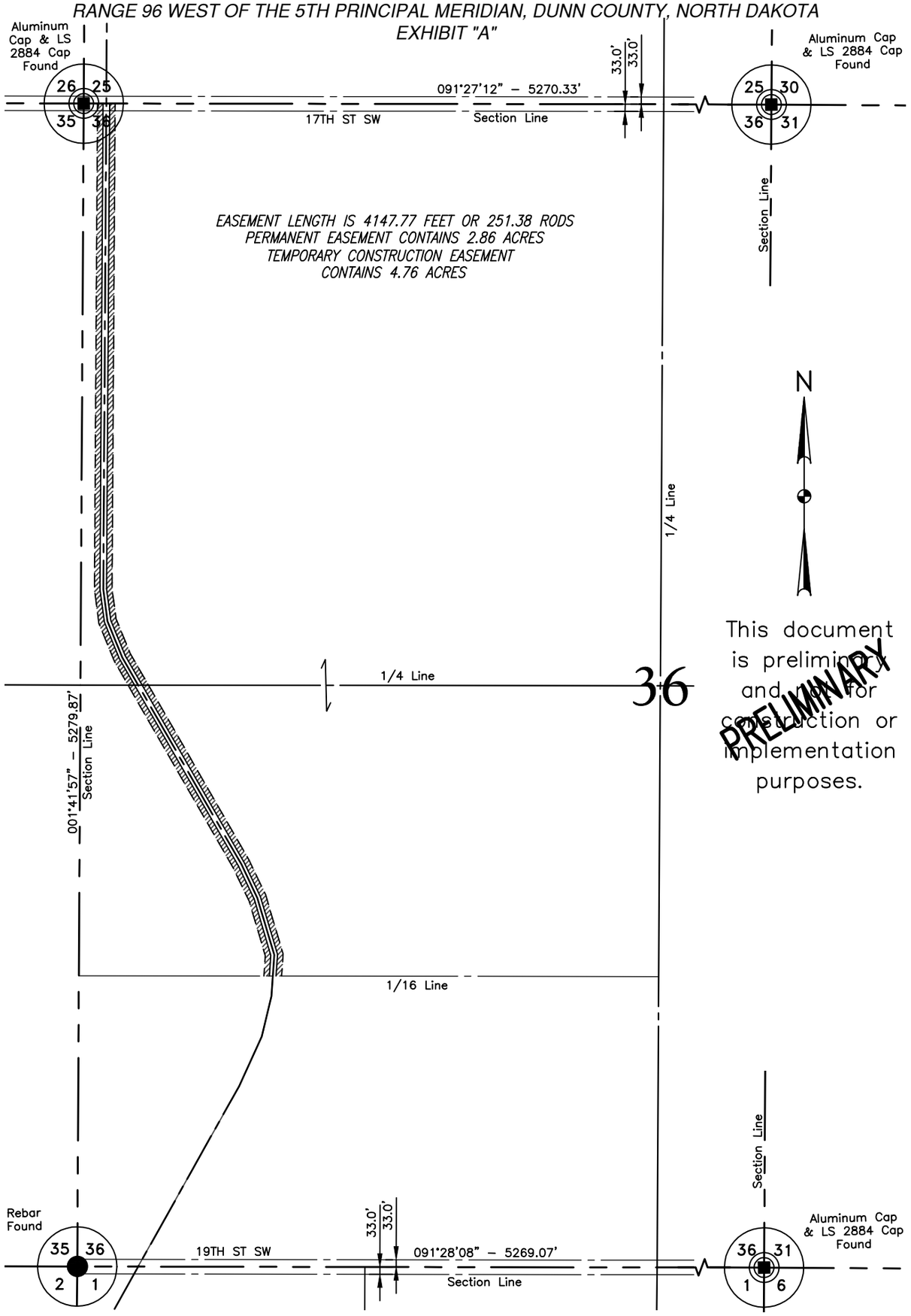
DUNN COUNTY, NORTH DAKOTA

N1/2NW1/4, S1/2NW1/4 & N1/2SW1/4 LESS 2.11 A OF SECTION 36, TOWNSHIP 143 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE N1/2NW1/4, S1/2NW1/4 & N1/2SW1/4 LESS 2.11 A OF SEC. 36, T.143N, R.96W.	SCALE: 1"=600' TRACT NUMBER ND-36-143-96-N2NW4&S2NW4&N2SW4
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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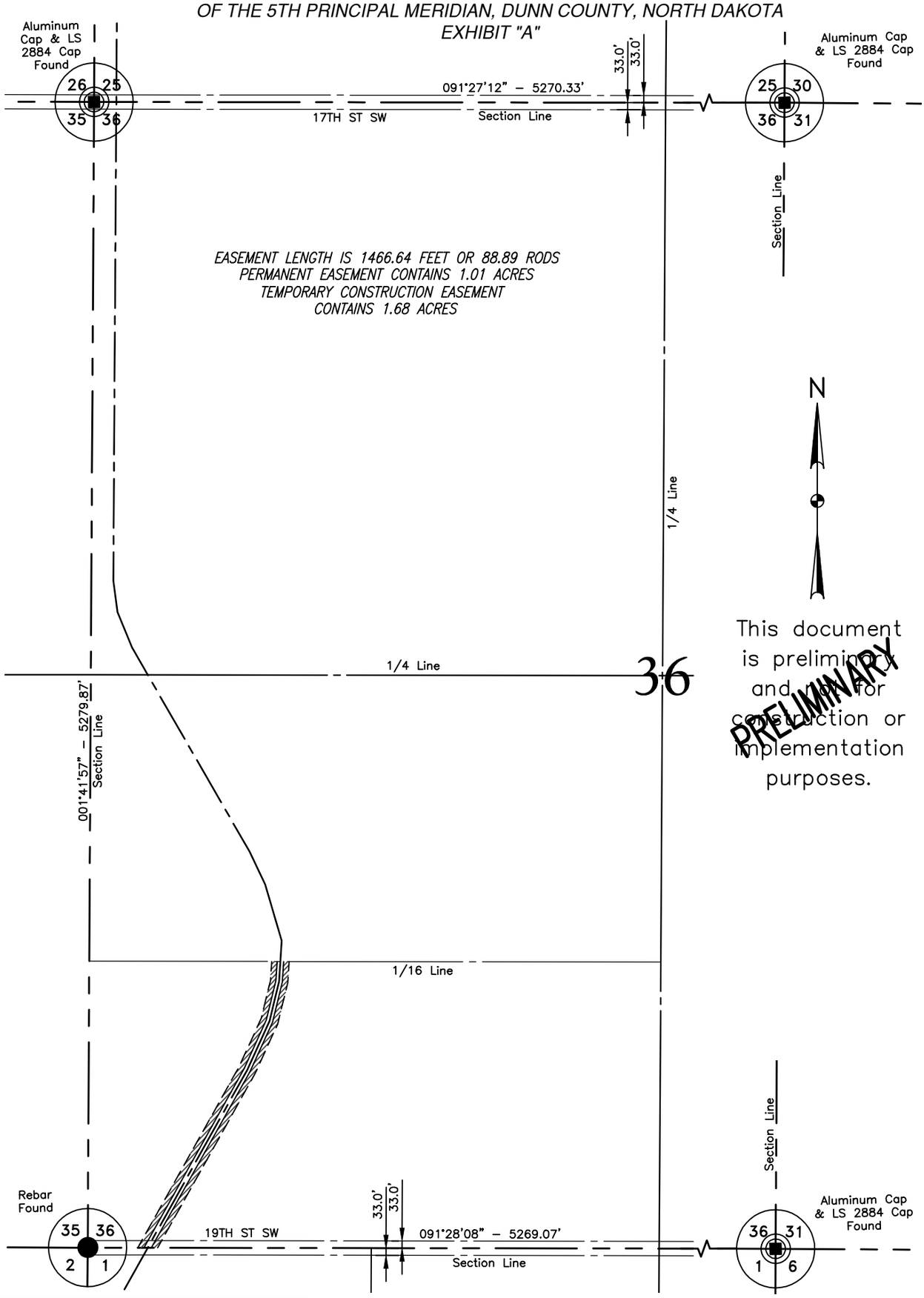
DUNN COUNTY, NORTH DAKOTA

S1/2S1/2 LESS HWY ROW OF SECTION 36, TOWNSHIP 143 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE S1/2S1/2 LESS HWY ROW OF SEC. 36, T.143N R.96W.	SCALE: 1"=600' TRACT NUMBER ND–36–143–96–S2S2
DRAWN BY: J.WALTERS	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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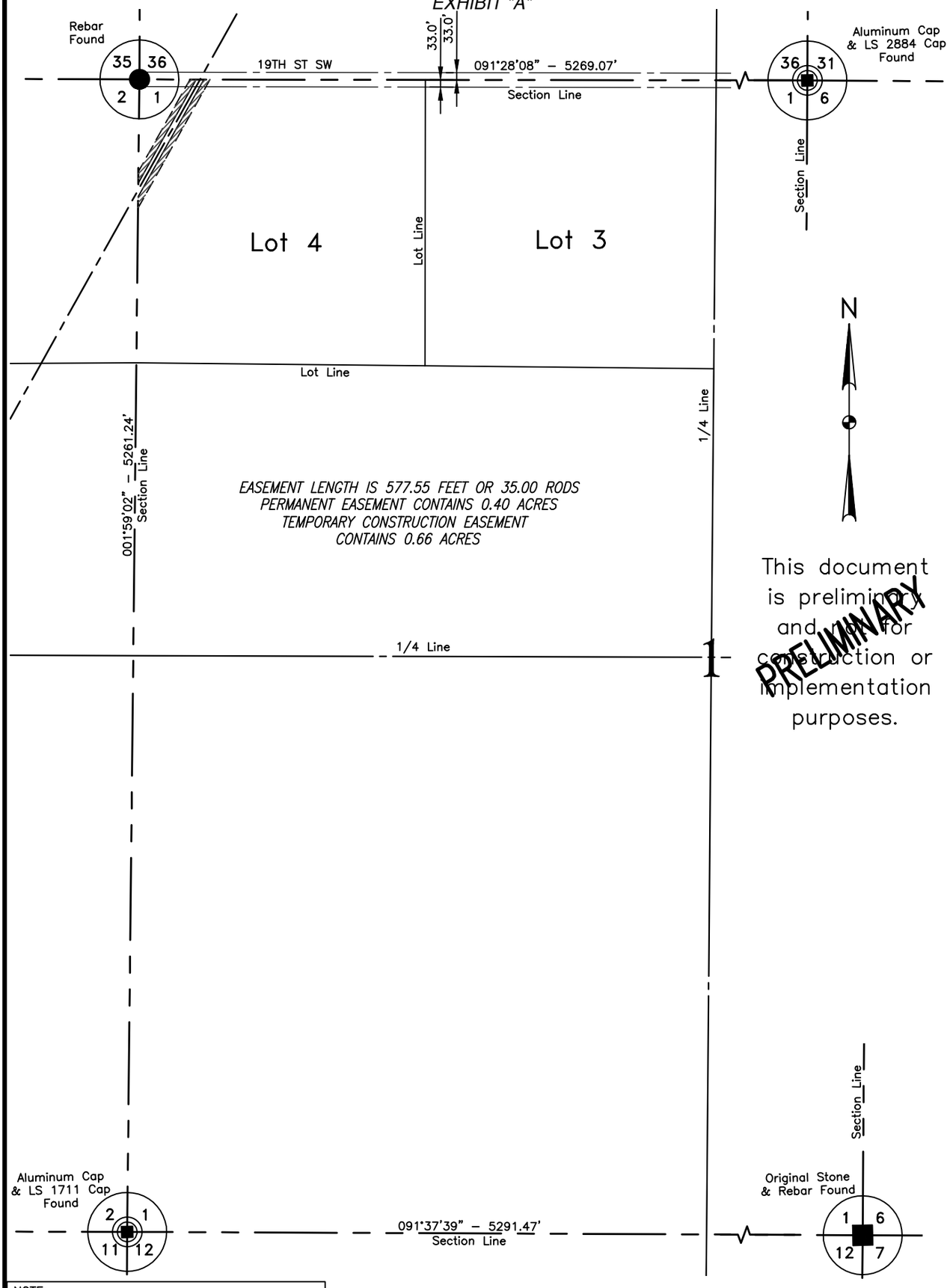
DUNN COUNTY, NORTH DAKOTA

GOV'T LOT 4 OF SECTION 1, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE GOV'T LOT 4 OF SEC. 1, T.142N R.96W.	SCALE: 1"=600' TRACT NUMBER ND–1–142–96–LOT4
DRAWN BY: C. HUFFMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	

Aug 30, 2013 - 4:47pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement3.dwg

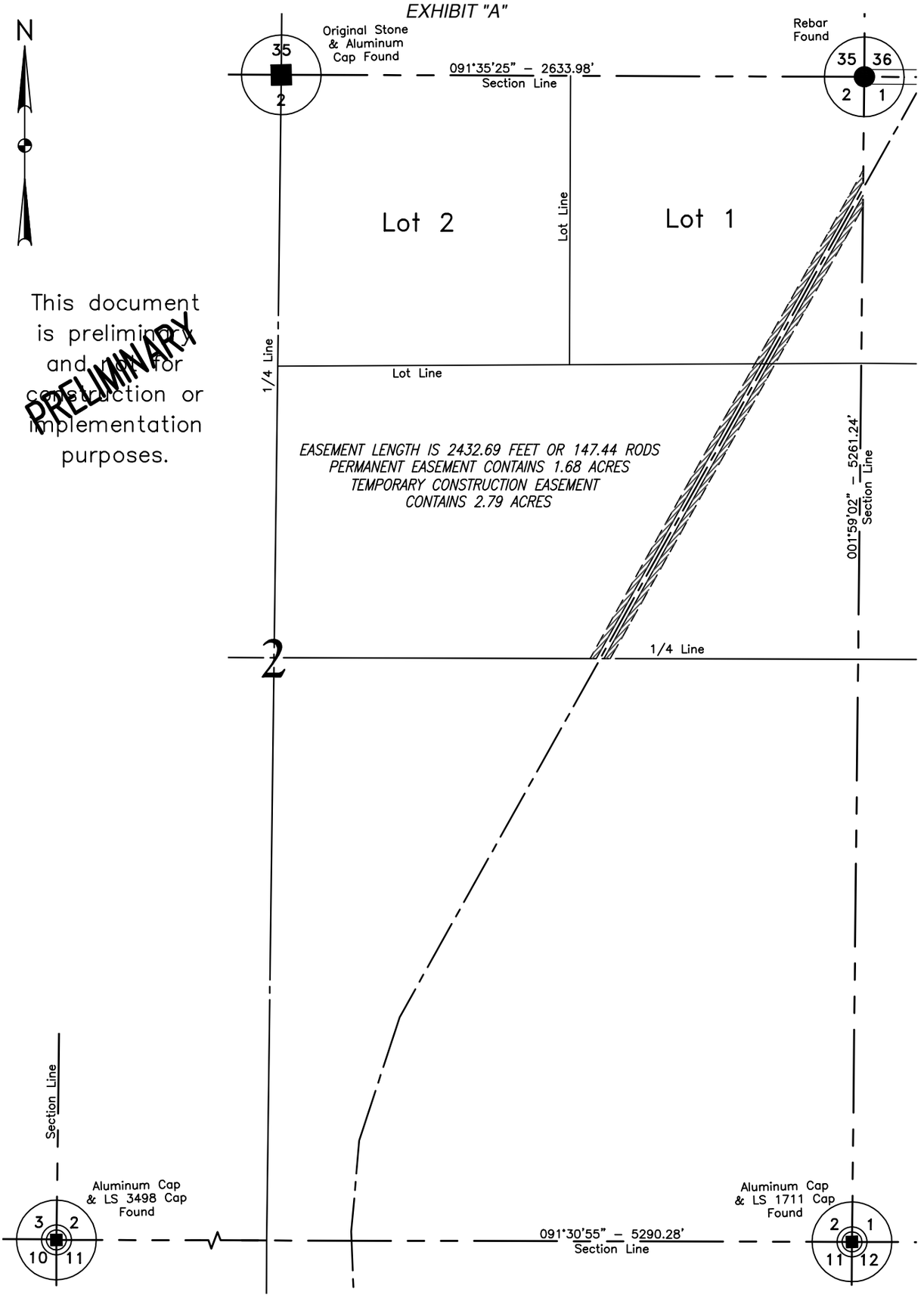
© KLJ 2013

LAYOUT: LOT4_1–142–96 (1)

DUNN COUNTY, NORTH DAKOTA

GOV'T LOTS 1 & 2, S1/2NE1/4 OF SECTION 2, TOWNSHIP 142 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE GOV'T LOTS 1 & 2, S1/2NE1/4 OF SEC. 2, T.142N R.96W.	SCALE: 1"=600' TRACT NUMBER ND–2–142–96–LOTS1&2&S2NE4
DRAWN BY: C. HUFFMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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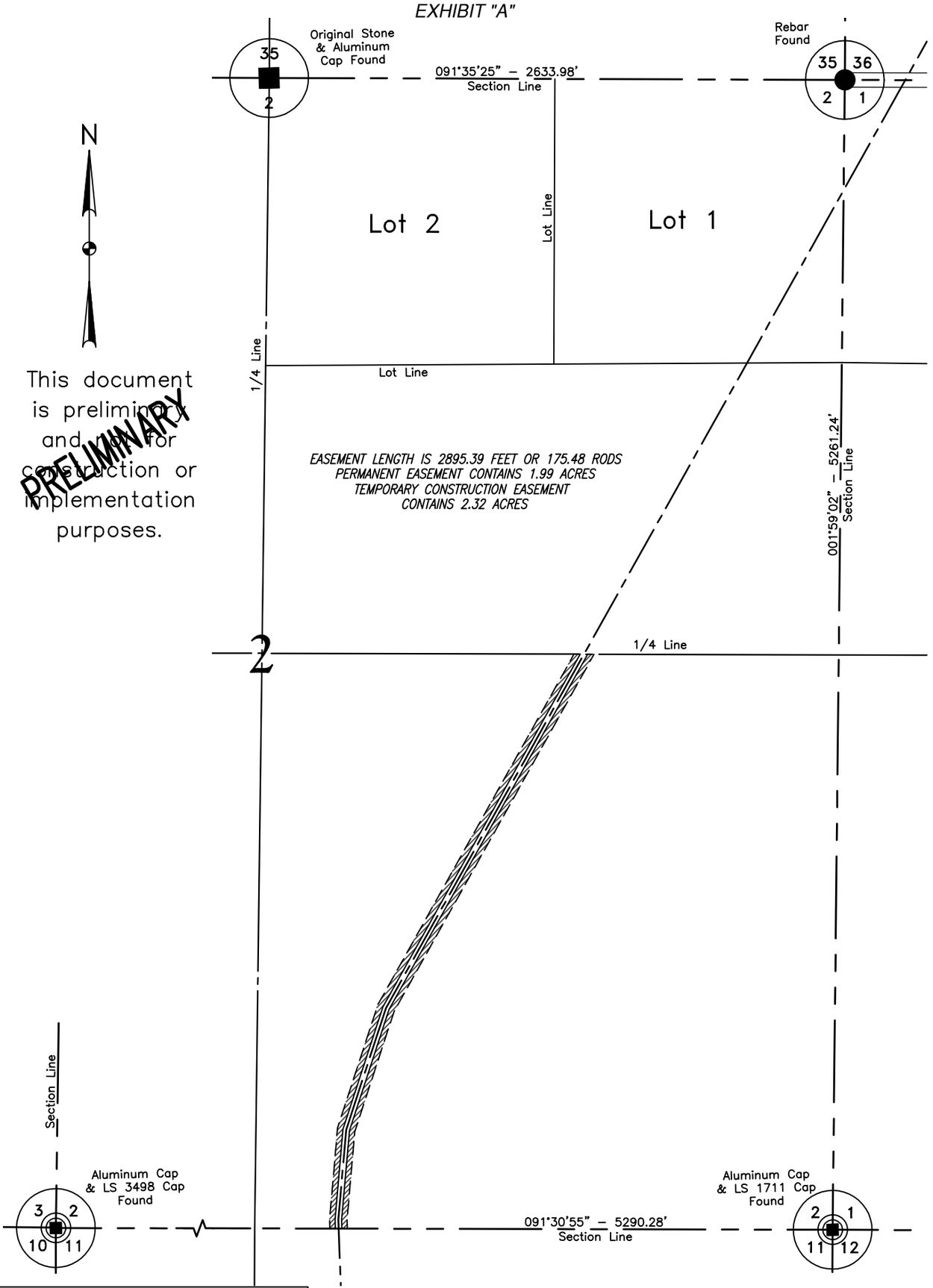
DUNN COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 2, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 2, T.142N R.96W.	SCALE: 1"=600' TRACT NUMBER ND–2–142–96–SE4
DRAWN BY: C. HUFFMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	

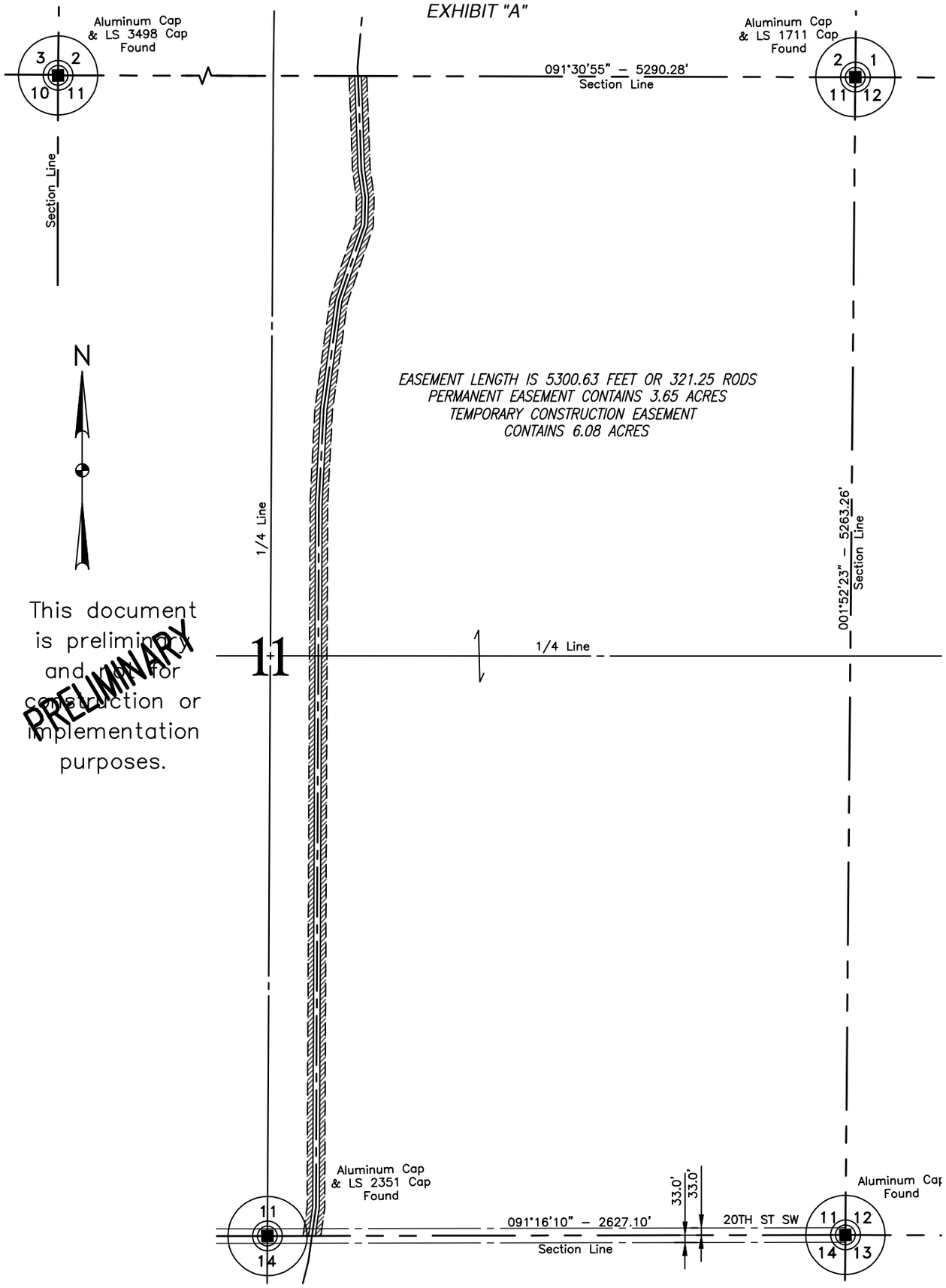
Aug 30, 2013 - 4:47pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement3.dwg

© KLJ 2013

LAYOUT: SE4_2–142–96 (1)

DUNN COUNTY, NORTH DAKOTA

NE1/4 & SE1/4 OF SECTION 11, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		EASEMENTS ON AND ACROSS THE NE1/4 & SE1/4 OF SEC. 11, T.142N., R.96W.	SCALE: 1"=600' TRACT NUMBER ND–11–142–96–NE4&SE4
DRAWN BY: C. HUFFMAN	ORIGIN. DATE: 8/16/2013	REV. DATE:	

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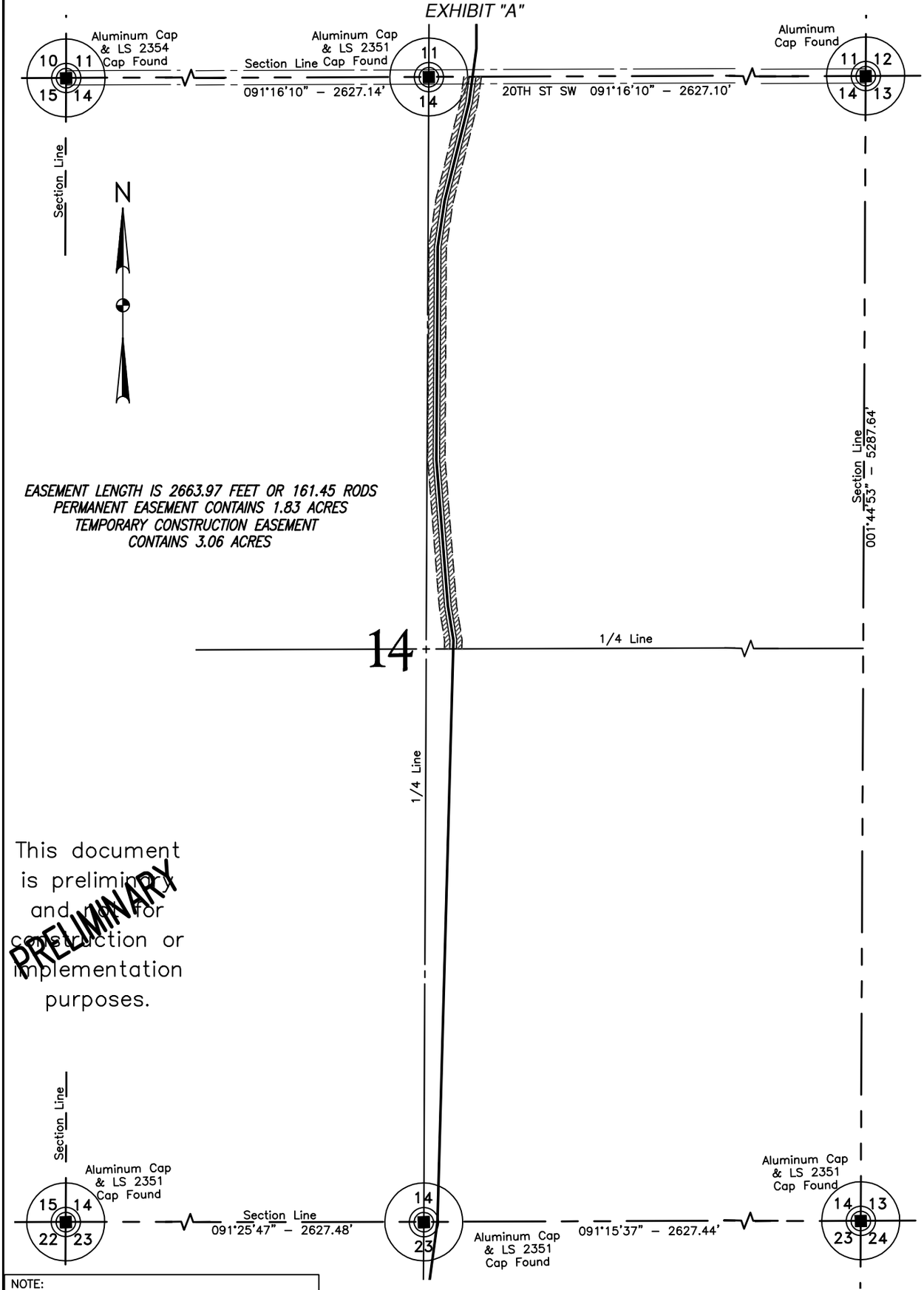
DUNN COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 14, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

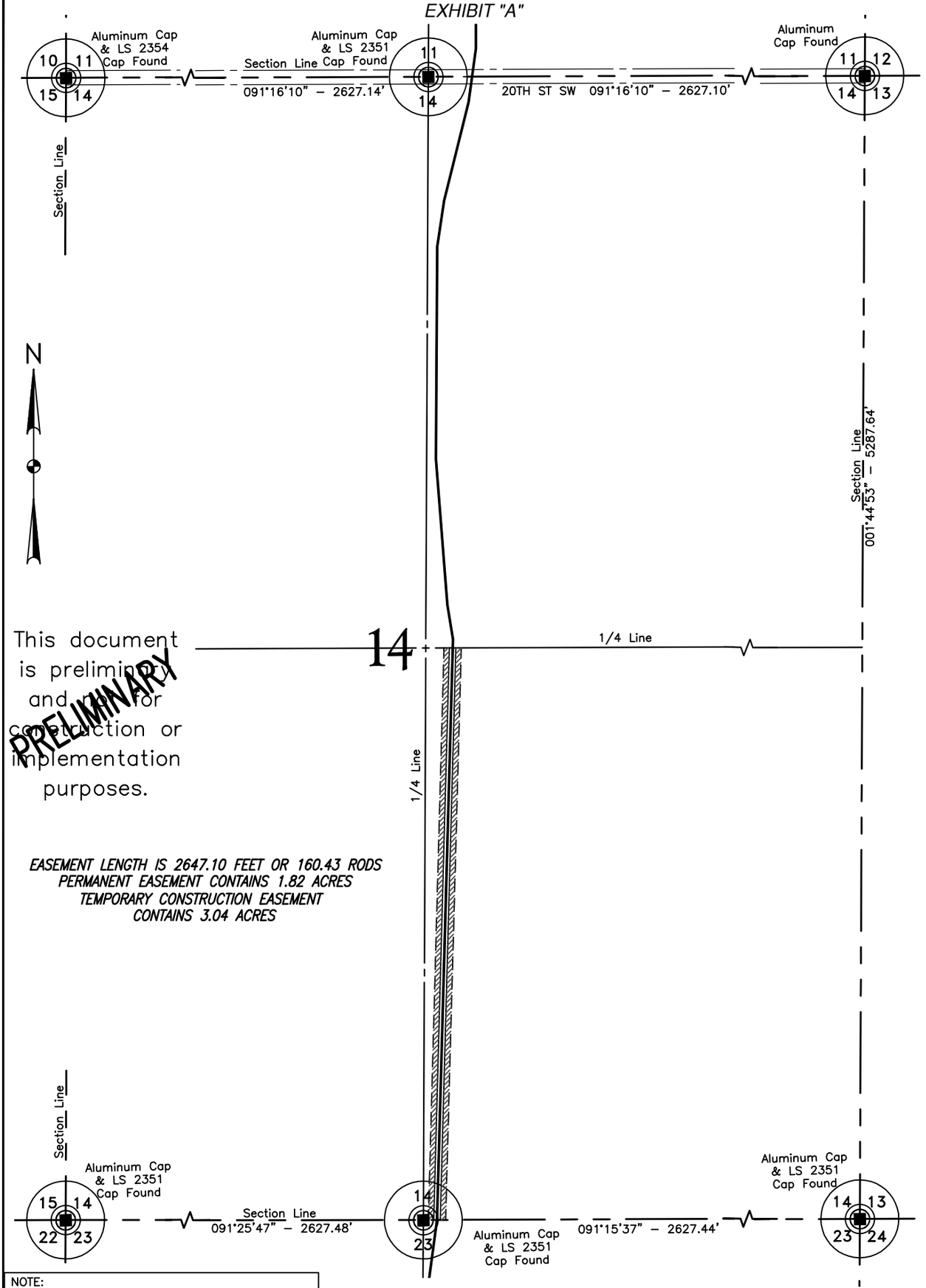
FIELD BOOK: OP-335 PGS; 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 14, T.142N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013 REV. DATE:		TRACT NUMBER ND-14-142-96-NE4

DUNN COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 14, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

EASEMENT LENGTH IS 2647.10 FEET OR 160.43 RODS
PERMANENT EASEMENT CONTAINS 1.82 ACRES
TEMPORARY CONSTRUCTION EASEMENT
CONTAINS 3.04 ACRES

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

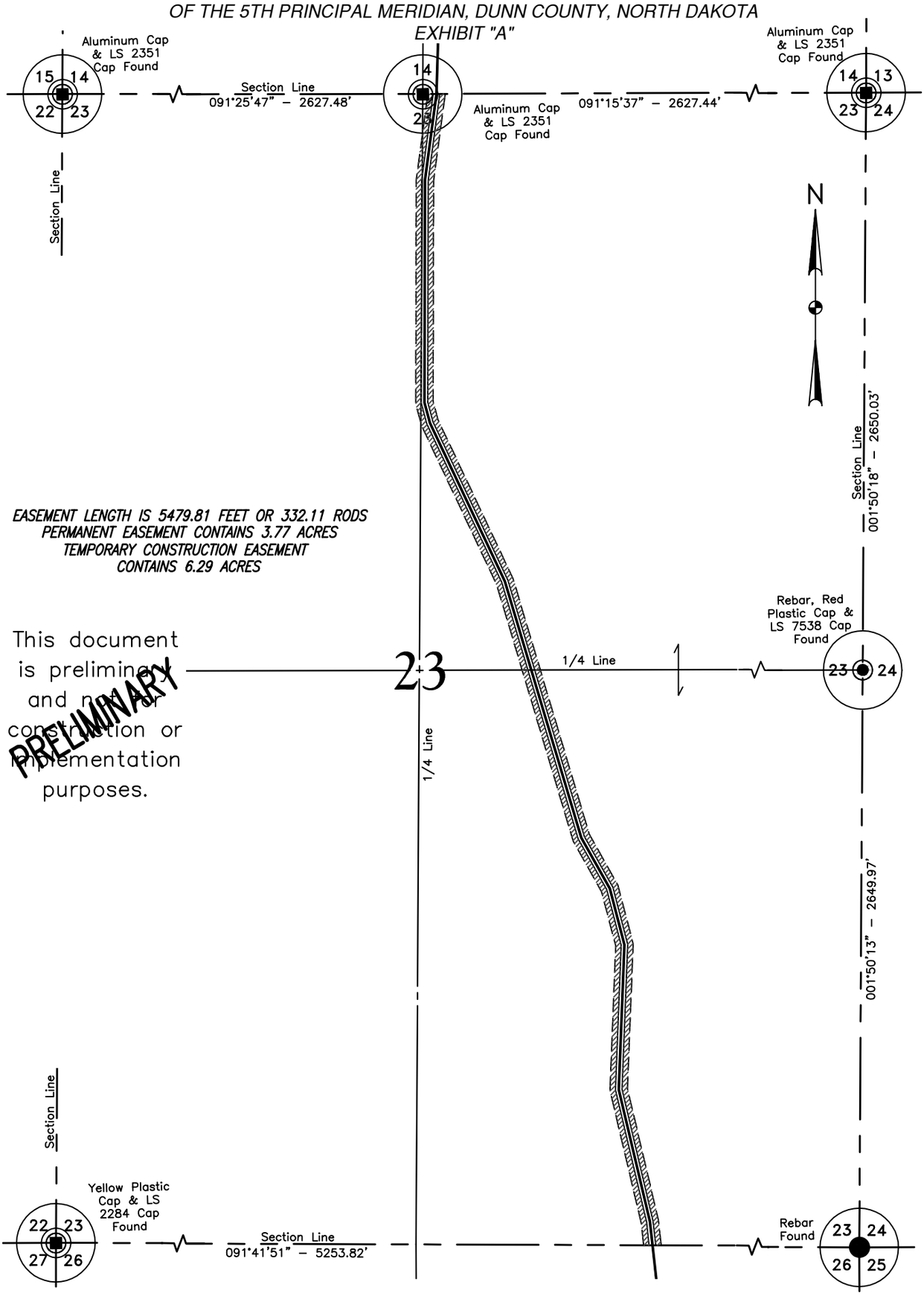
FIELD BOOK: OP-335 PGS; 1-51

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 14, T.142N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND-14-142-96-SE4
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

NE1/4, NW1/4 & SE1/4 OF SECTION 23, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335 PGS; 1-51

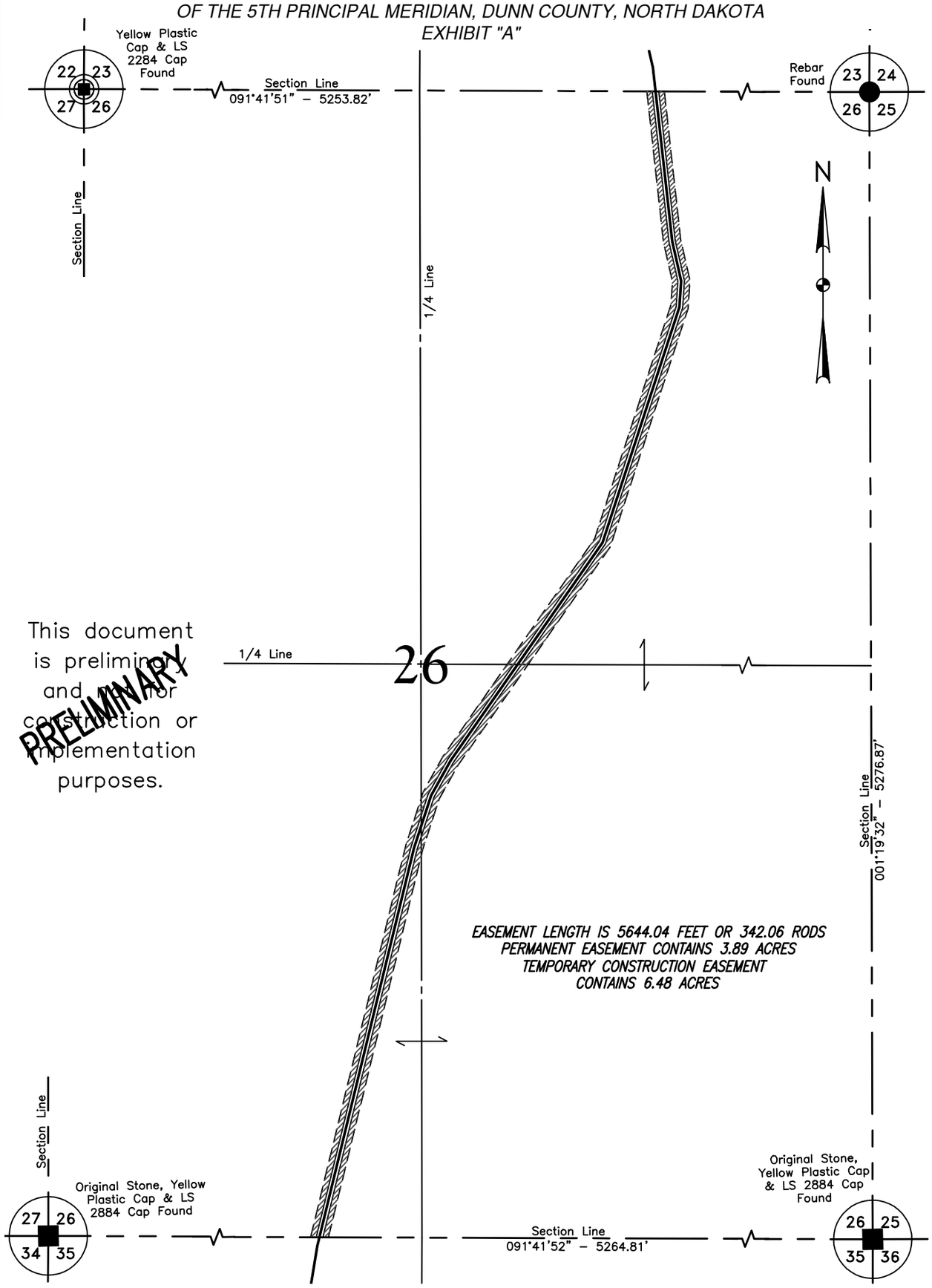
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4, NW1/4 & SE1/4 OF SEC. 23, T.142N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND-23-142-96-NE-NW&SE
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

NE1/4, SE1/4 & W1/2 LESS 19.96, 76.76, 94.28, 20.70 ACRES OF SECTION 26, TOWNSHIP 142 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

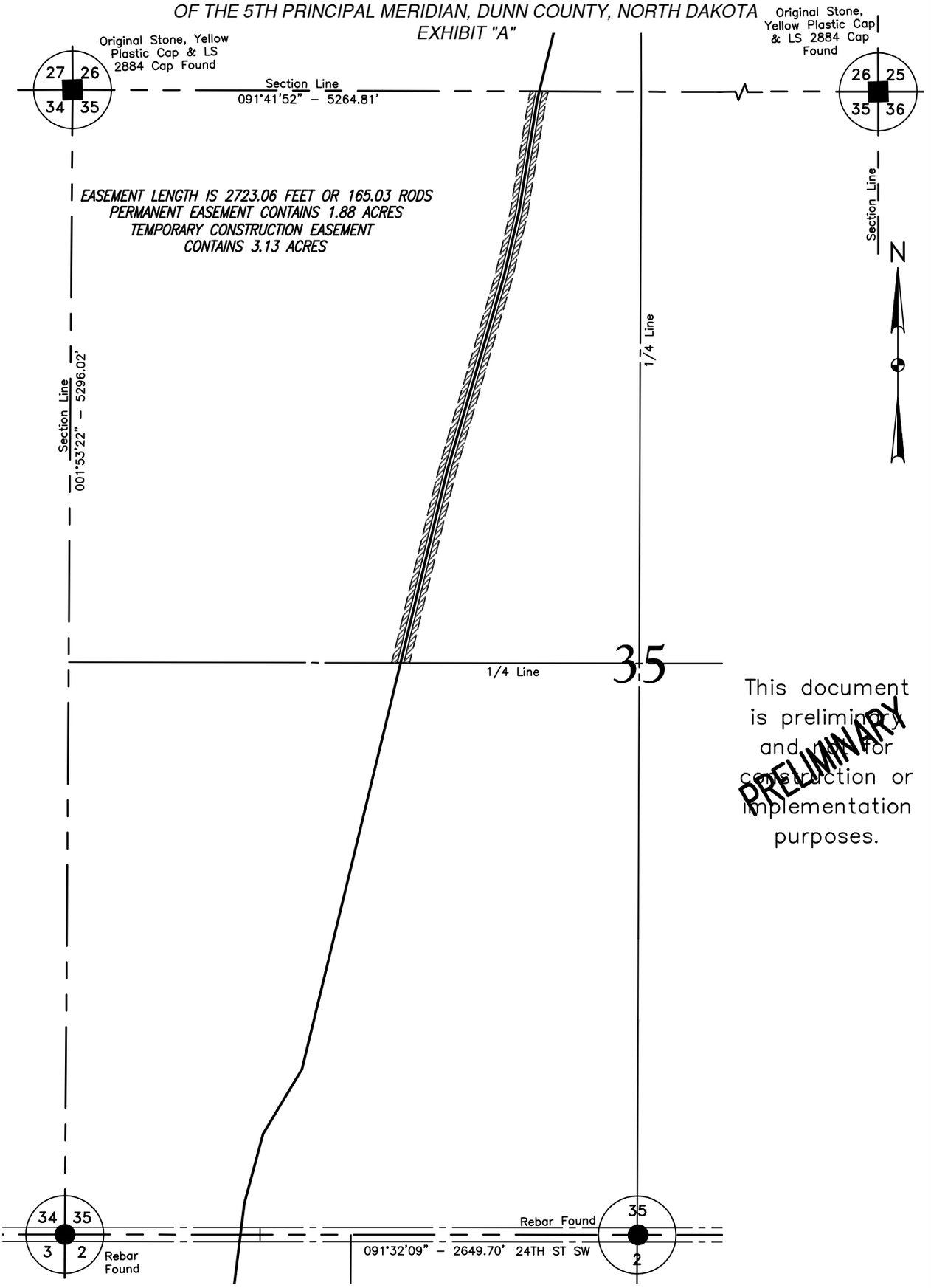
FIELD BOOK: OP-335 PGS; 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013 REV. DATE:	NE1/4, SE1/4 & W1/2 LESS 19.96, 76.76, 94.28, 20.70 ACRES OF SEC. 26, T.142N., R.96W.	TRACT NUMBER ND-14-142-96-NE,SE&W

DUNN COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 35, TOWNSHIP 142 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335 PGS; 1-51

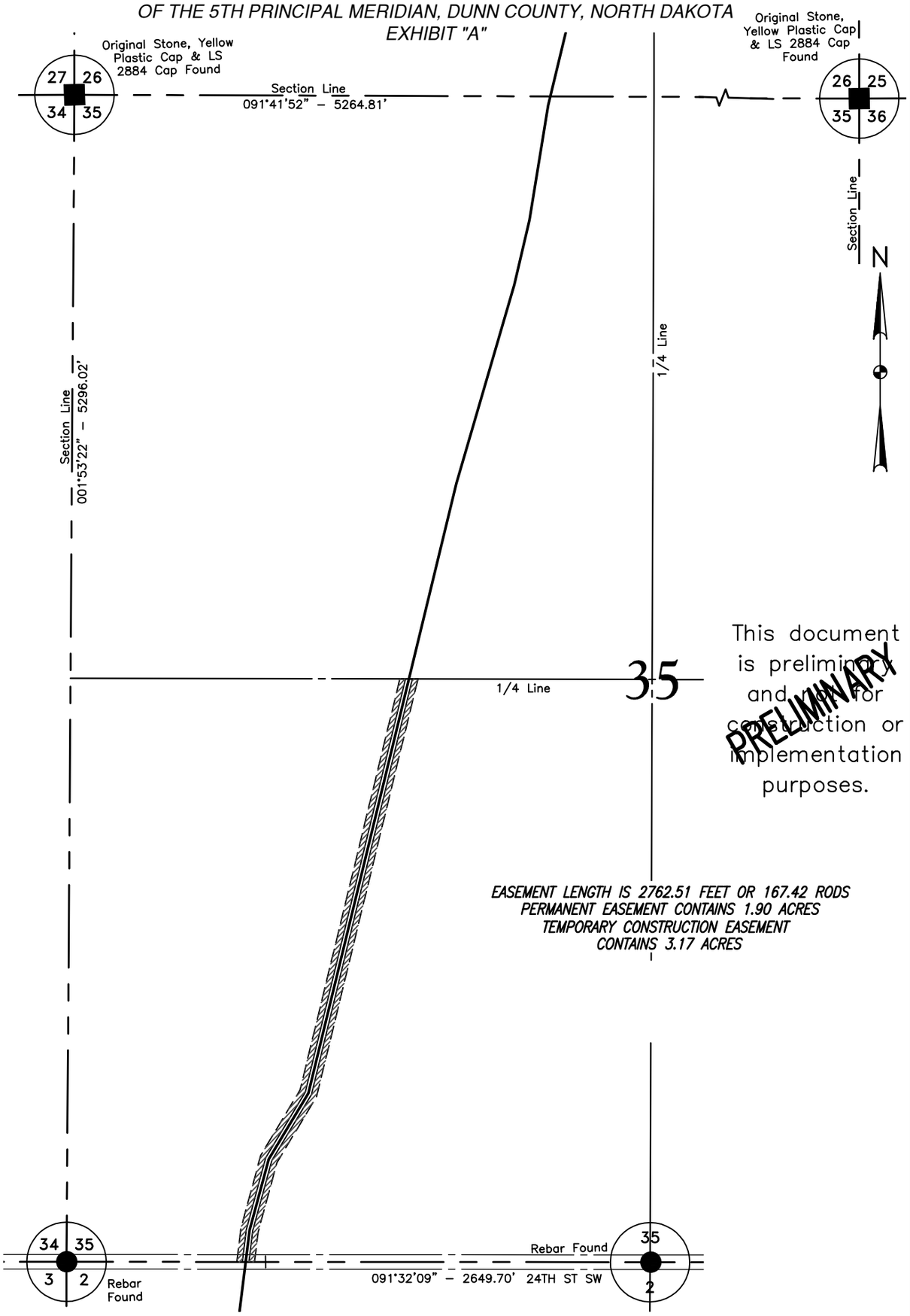
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 35, T.142N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND-35-142-96-NW4
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

SW1/4 LESS 2.52 A & 1.98 A OF SECTION 35, TOWNSHIP 142 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

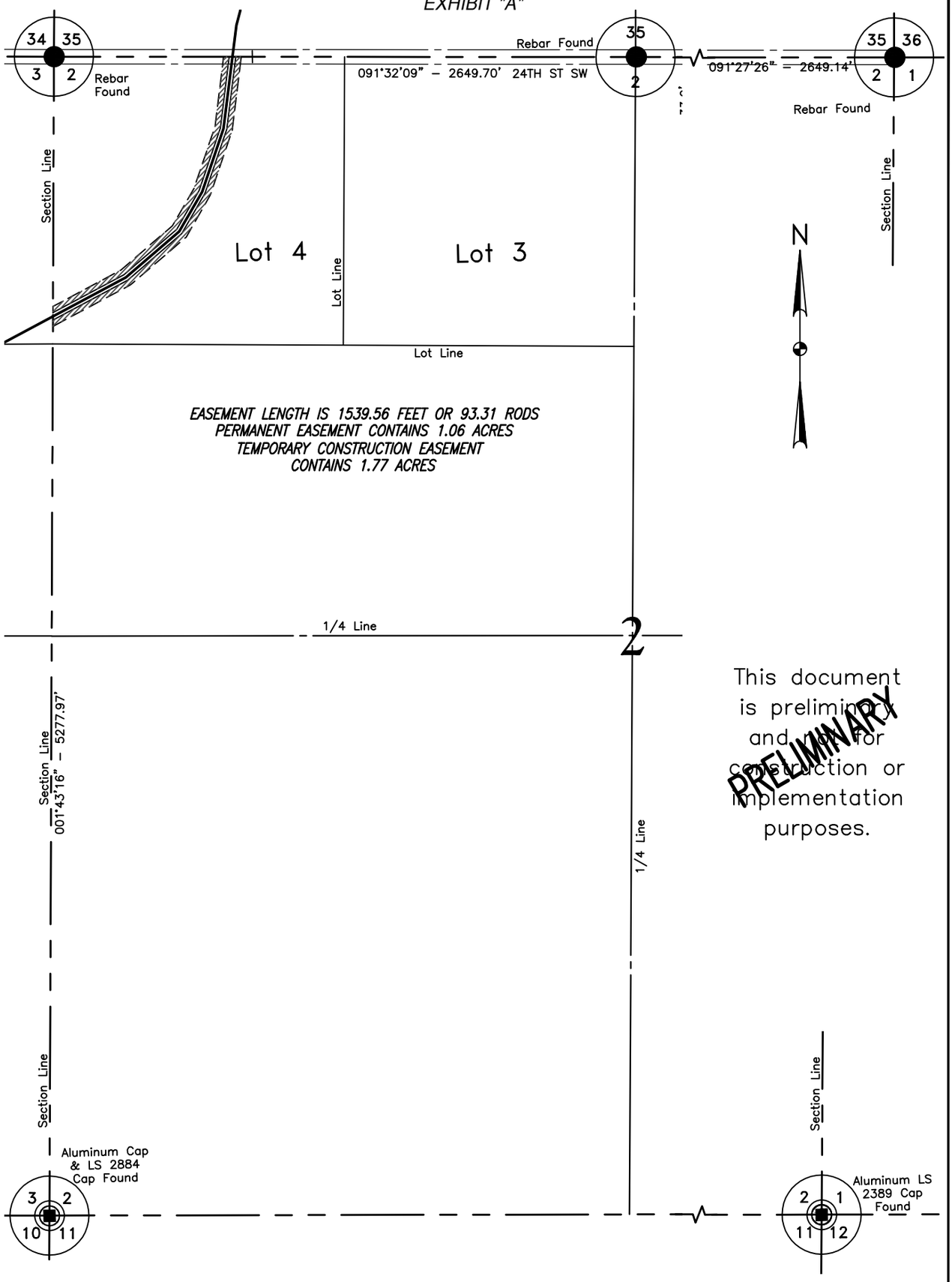
FIELD BOOK: OP-335 PGS; 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 35, T.142N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	TRACT NUMBER ND-35-142-96-SW4

DUNN COUNTY, NORTH DAKOTA

GOV'T LOT 4 LESS 2.52 A OF SECTION 2, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335 PGS; 1–51

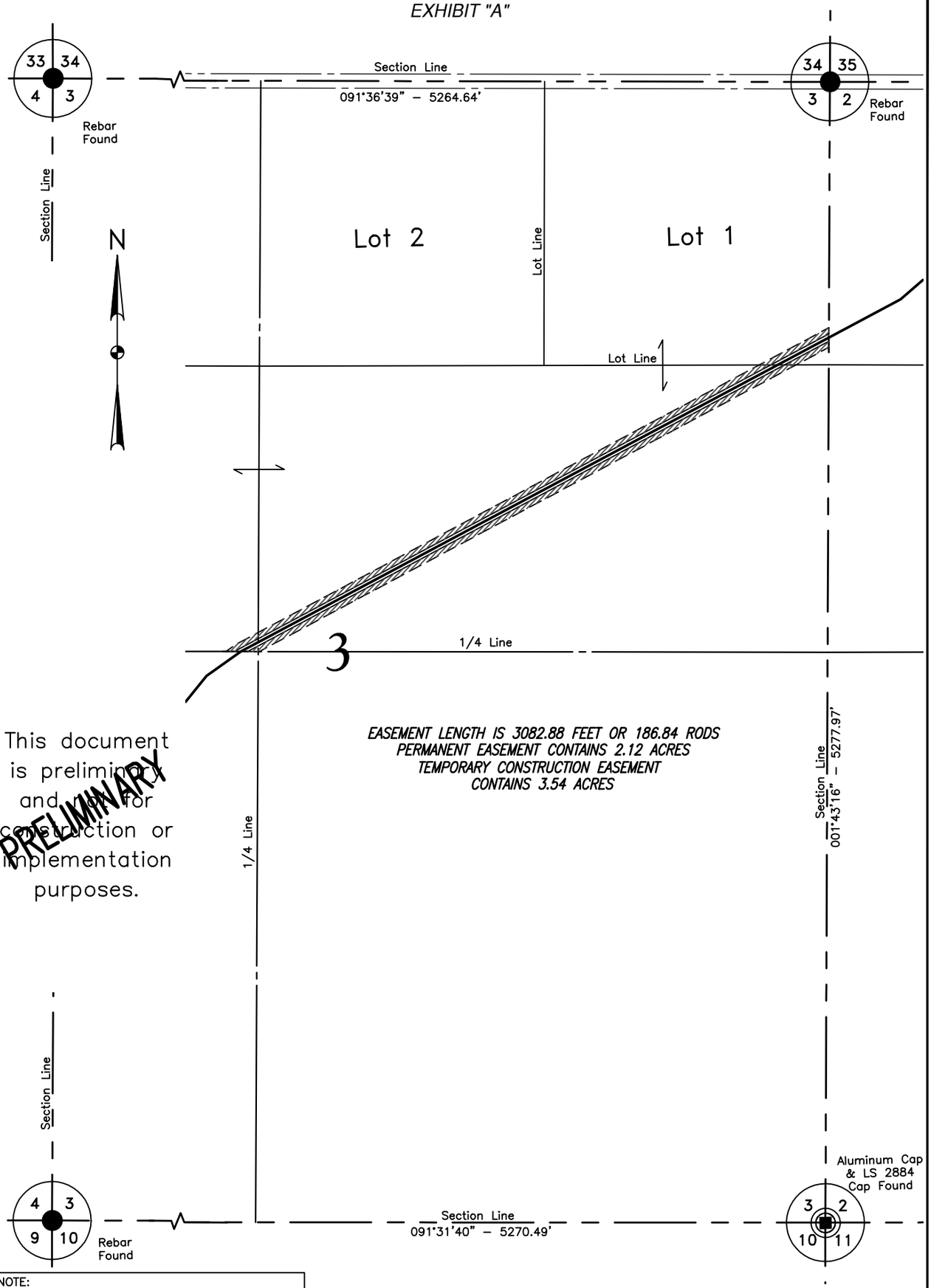
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE GOV'T LOT 4 LESS 2.52 OF SEC. 2, T.141N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND–2–141–96–LOT4
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

GOV'T LOT 1 LESS 2.52 A, S1/2NE1/4 & S1/2NW1/4 OF SECTION 3, TOWNSHIP 141 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

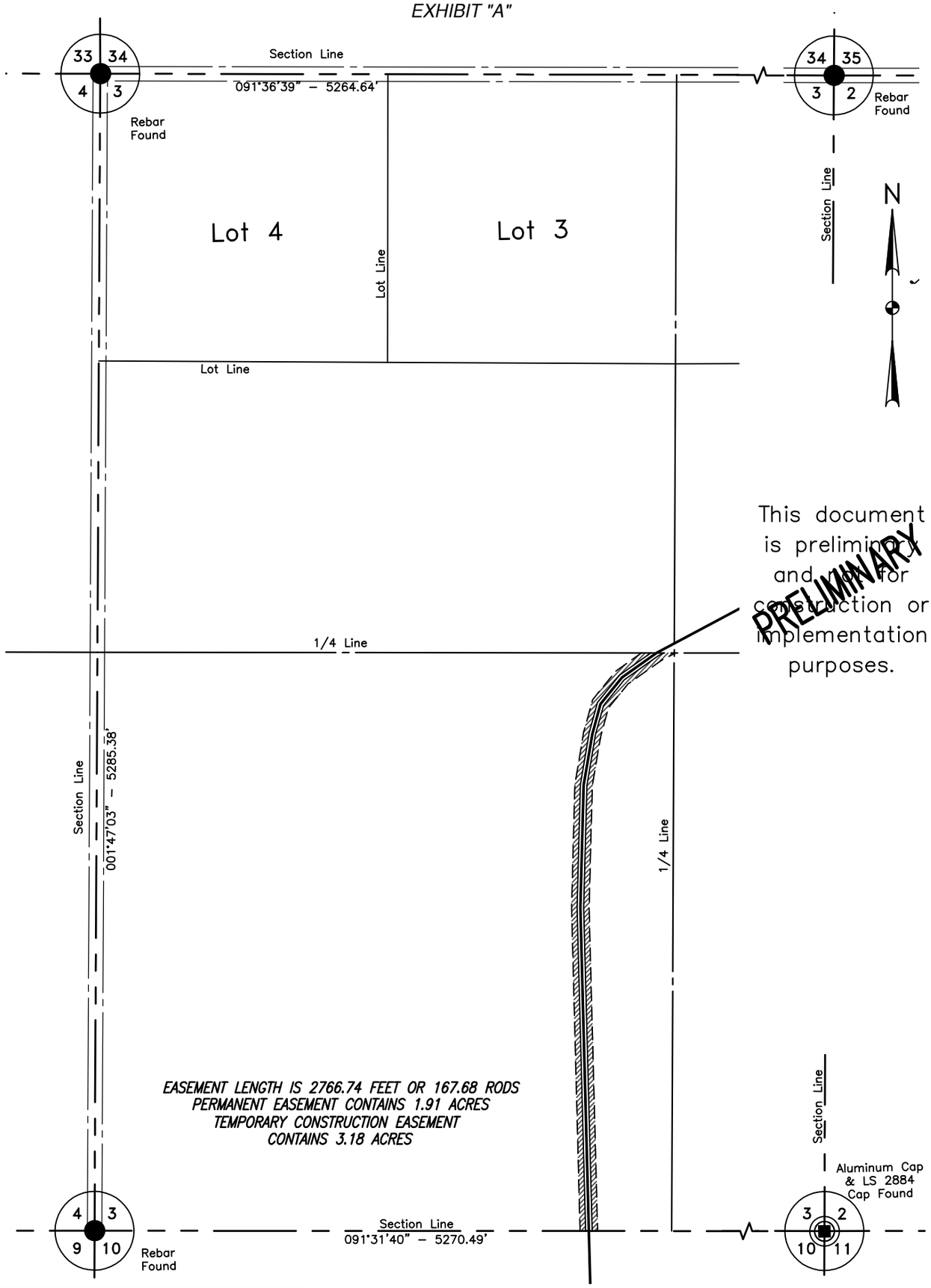
FIELD BOOK: OP-335 PGS; 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE GOV'T LOT 1, S1/2NE1/4 & S1/2NW1/4 OF SEC. 3, T.141N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND-3-141-96-NE4&NW4
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013 REV. DATE:		

DUNN COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 3, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
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300 0 300 600
scale feet

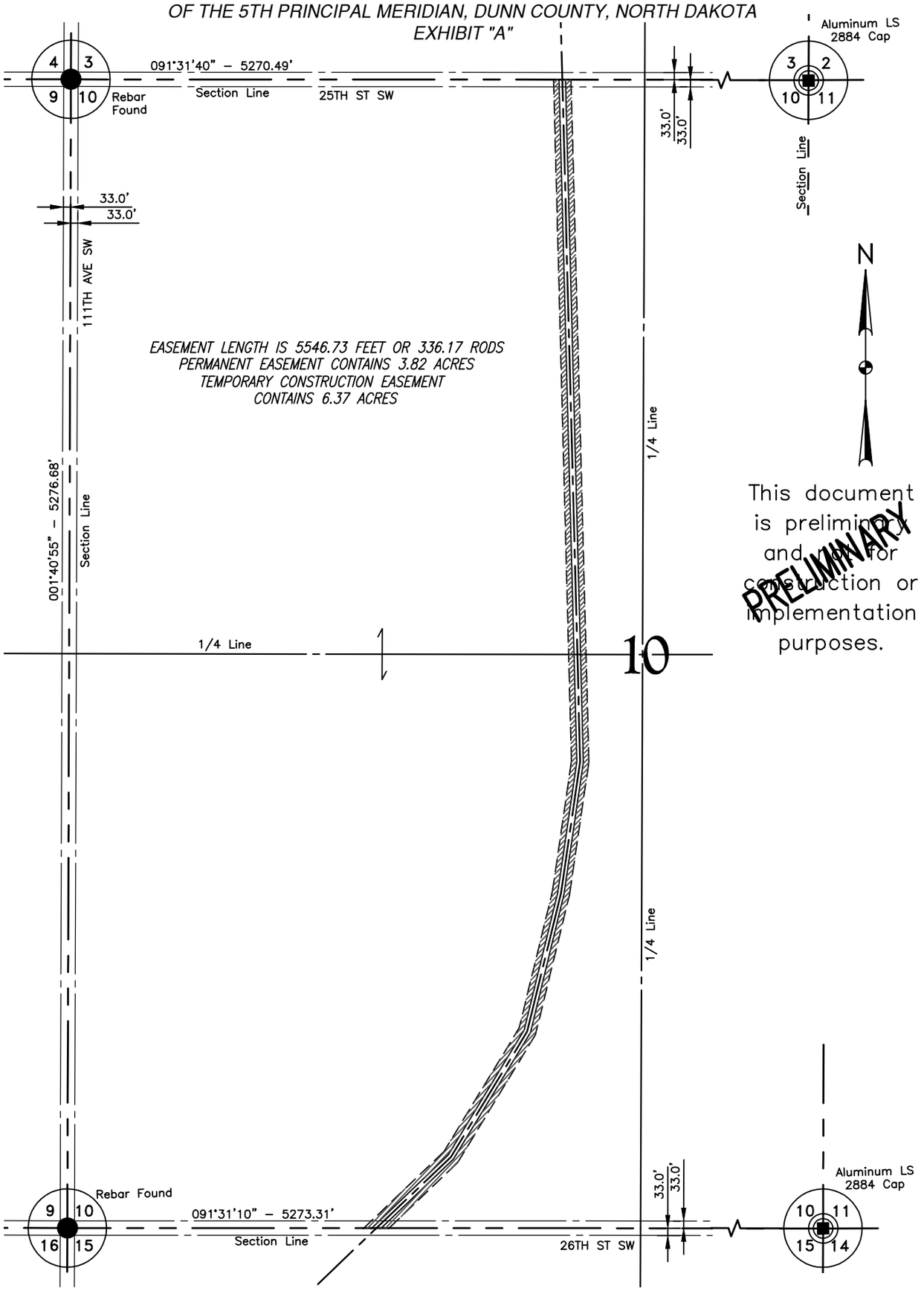
FIELD BOOK: OP-335 PGS; 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEM JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 3, T.141N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND-3-141-96-SW4
DRAWN BY: SLI	ORIGIN. DATE: 8/16/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

NW1/4 LESS 1 ACRE & SW1/4 OF SECTION 10, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

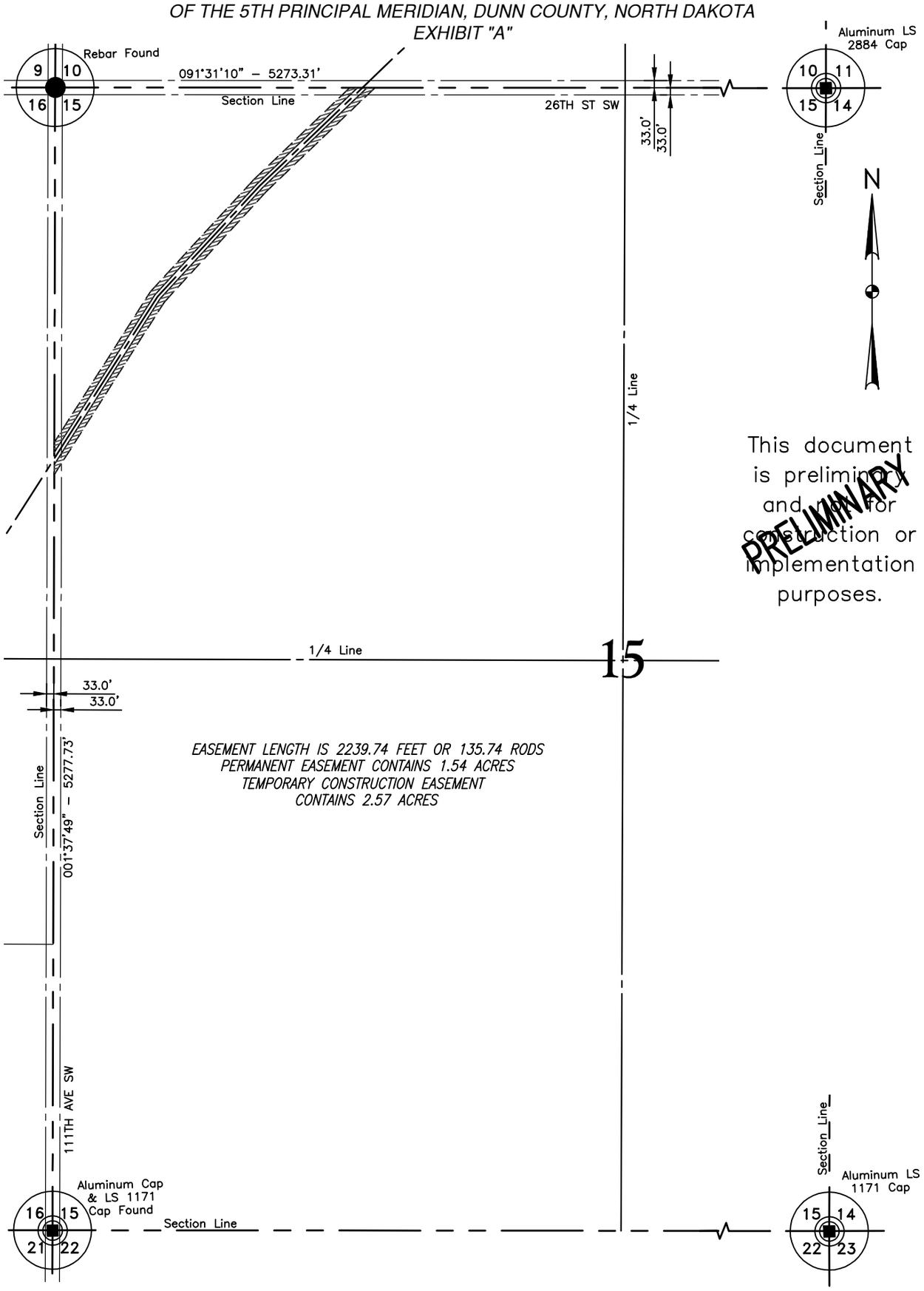
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 & SW1/4 OF SEC. 10, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND–10–141–96–NW4–SW4

DUNN COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 15, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

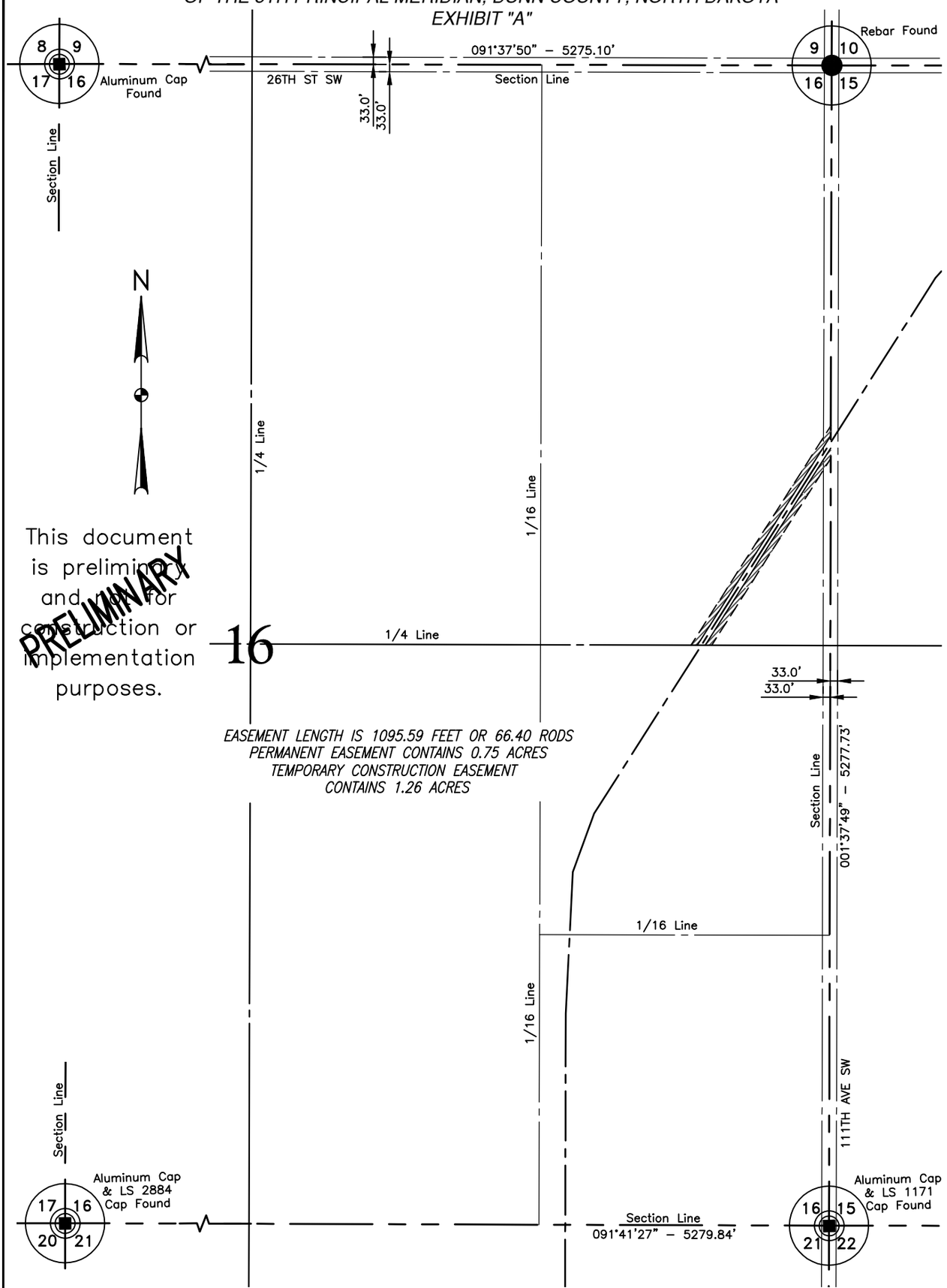
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 15, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND–15–141–96–NW4

DUNN COUNTY, NORTH DAKOTA

SE1/4SE1/4 OF SECTION 16, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

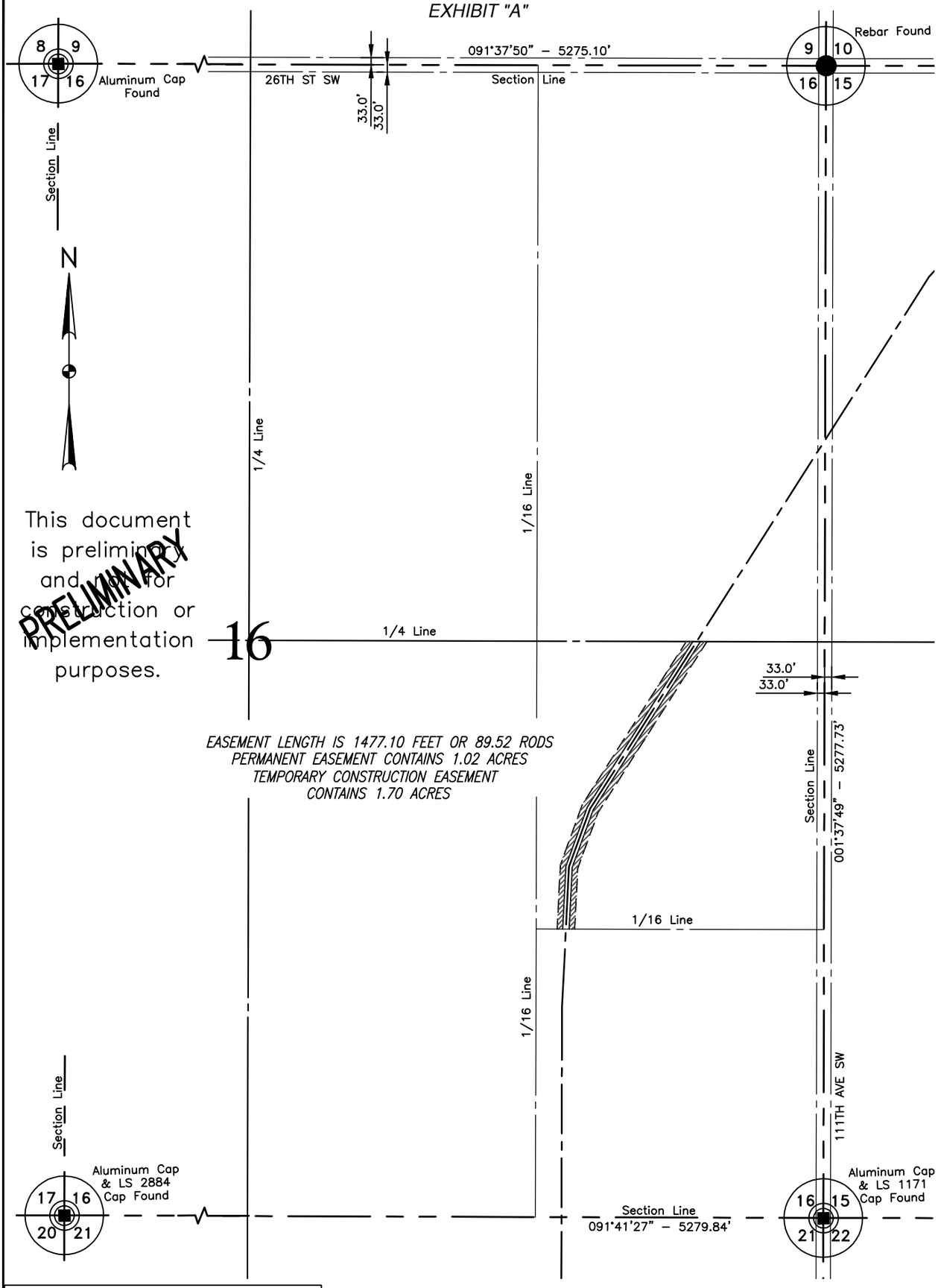
FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SE1/4SE1/4 OF SEC. 16, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND-16-141-96-SE4SE4

DUNN COUNTY, NORTH DAKOTA

E1/2NE1/4 OF SECTION 16, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
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300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

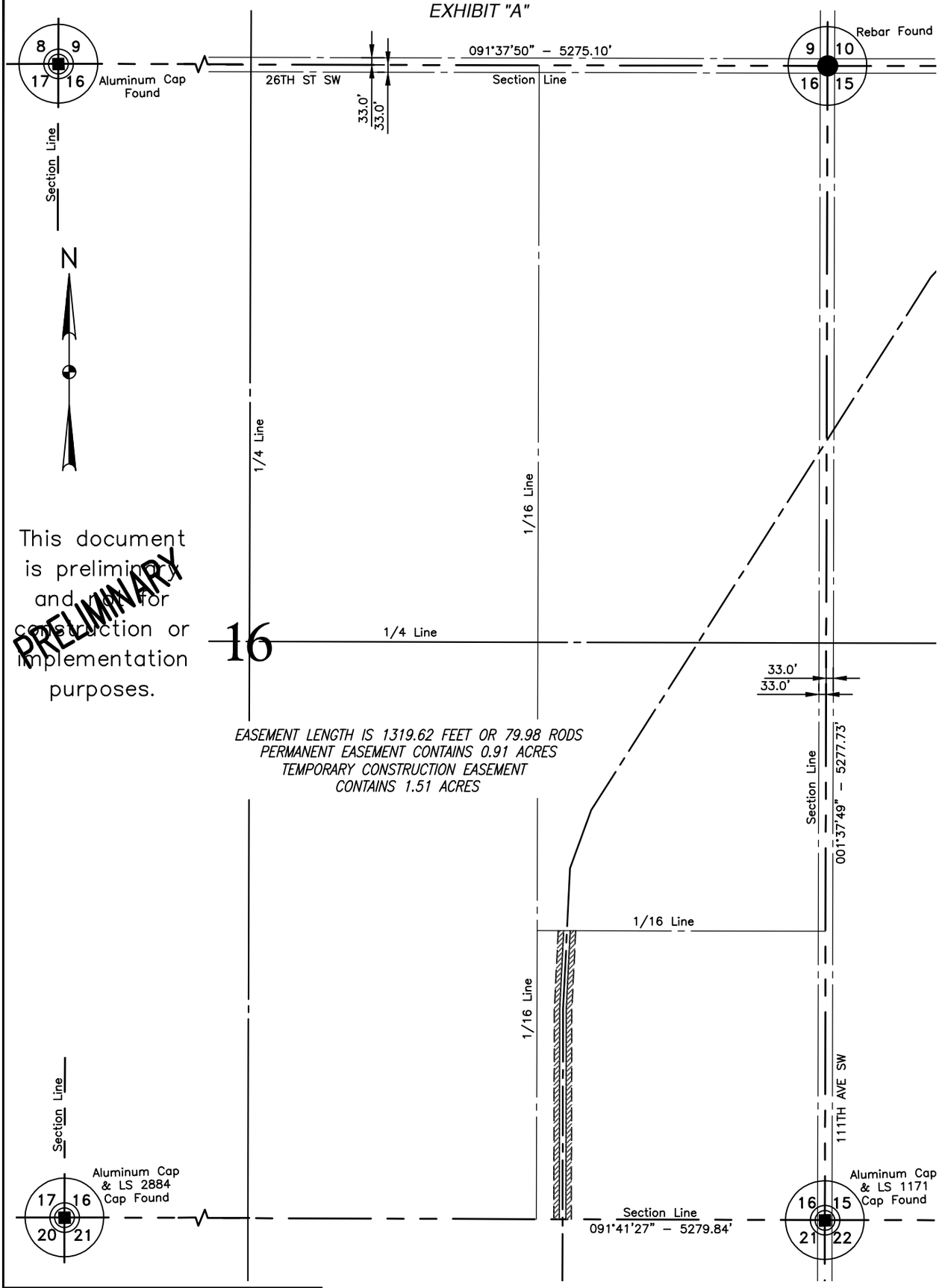
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE E1/2NE1/4 OF SEC. 16, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND-16-141-96-E2NE4

DUNN COUNTY, NORTH DAKOTA

NE1/4SE1/4 OF SECTION 16, TOWNSHIP 141 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
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300 0 300 600
scale feet

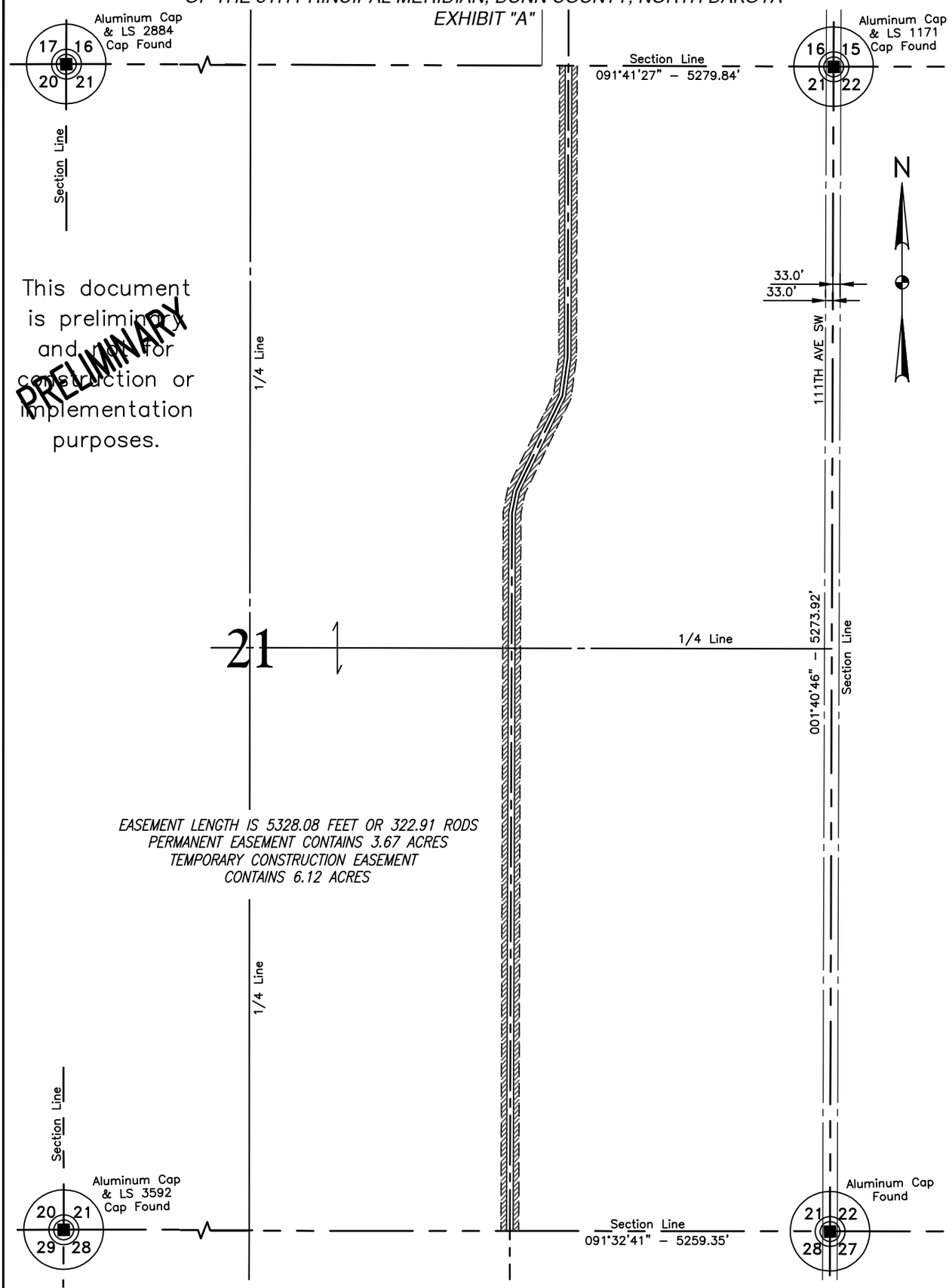
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4SE1/4 OF SEC. 16, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND-16-141-96-NE4SE4

DUNN COUNTY, NORTH DAKOTA

ALL OF SECTION 21, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



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PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

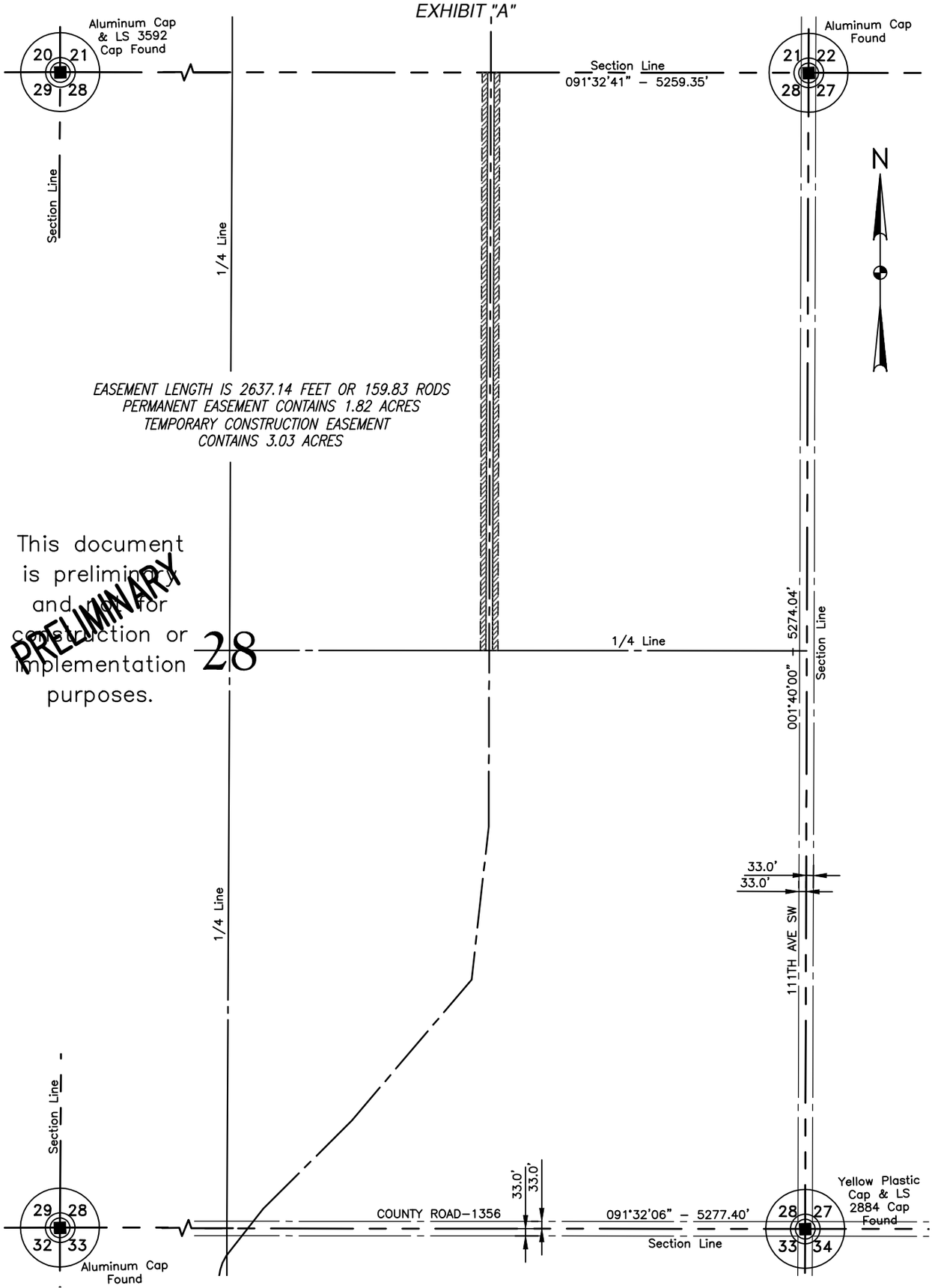
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE ALL OF SEC. 21, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND–21–141–96–ALL

DUNN COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 28, TOWNSHIP 141 NORTH, RANGE 96 WEST
OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

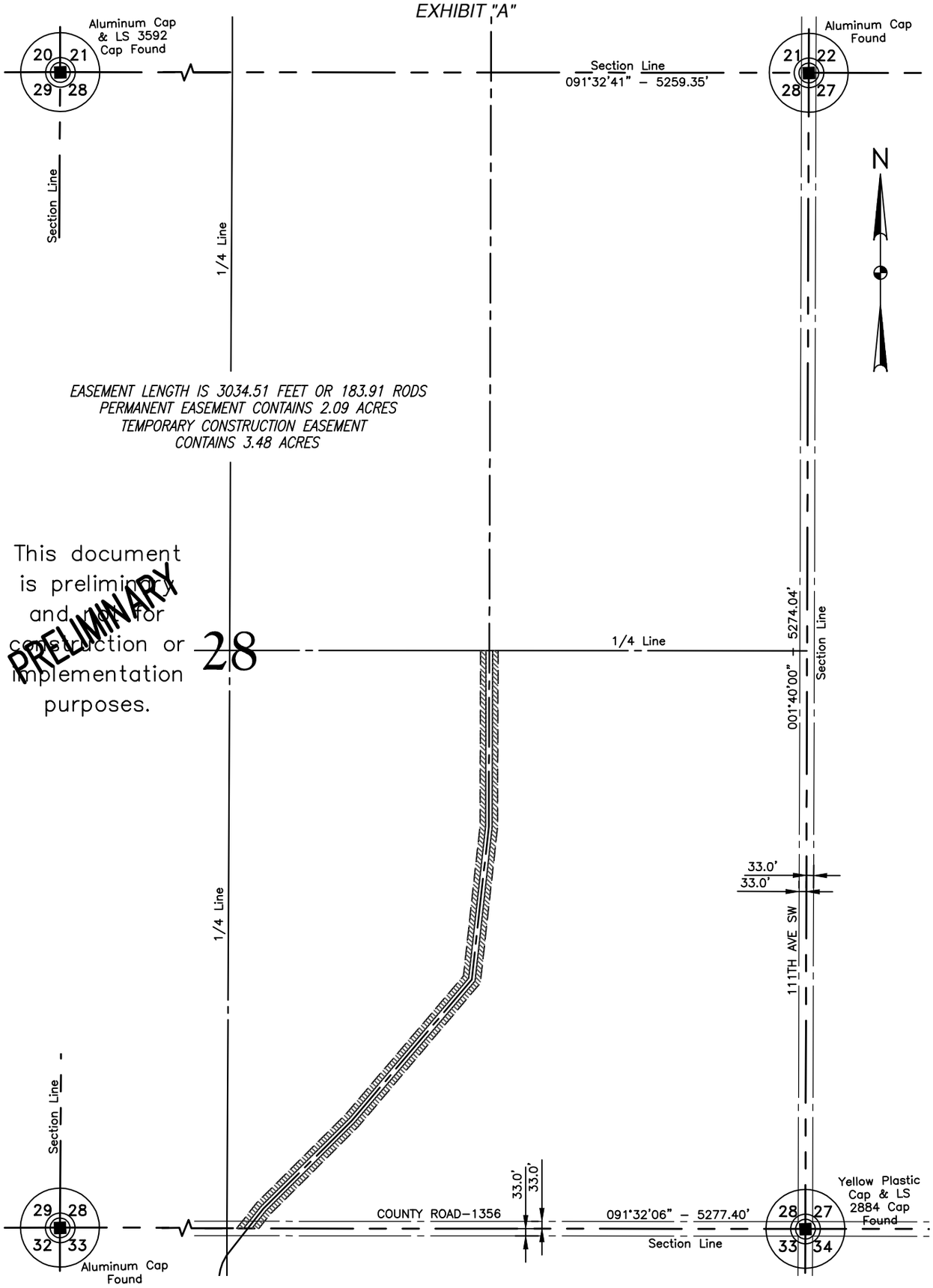
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 28, T.141N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND–28–141–96–NE&ESW
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	

DUNN COUNTY, NORTH DAKOTA

SE1/4 LESS .42 & 2.09 ACRES OF SECTION 28, TOWNSHIP 141 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
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300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

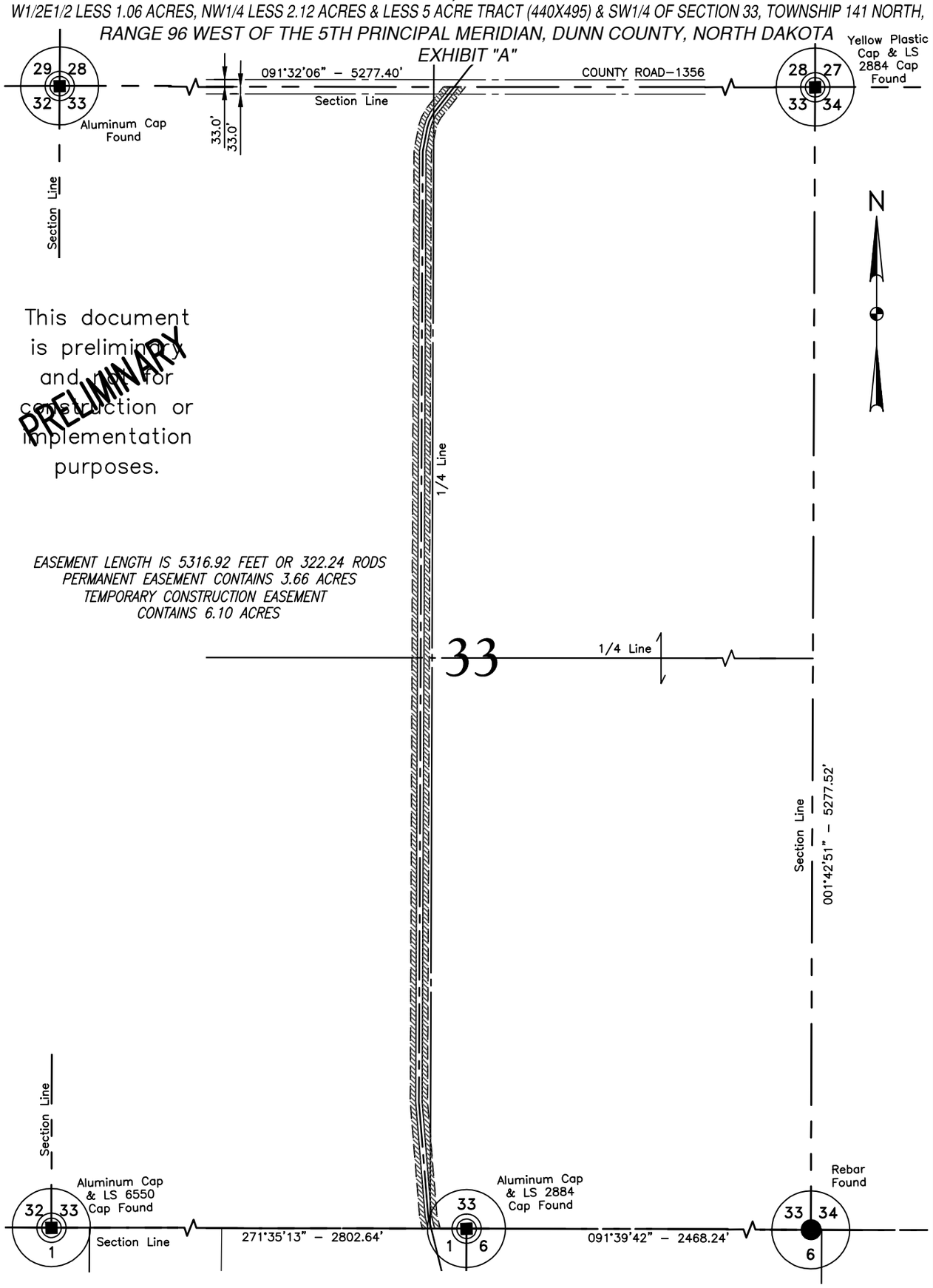
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 28, T.141N., R.96W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND–28–141–96–SE4

DUNN COUNTY, NORTH DAKOTA

W1/2E1/2 LESS 1.06 ACRES, NW1/4 LESS 2.12 ACRES & LESS 5 ACRE TRACT (440X495) & SW1/4 OF SECTION 33, TOWNSHIP 141 NORTH, RANGE 96 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
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300 0 300 600
scale feet

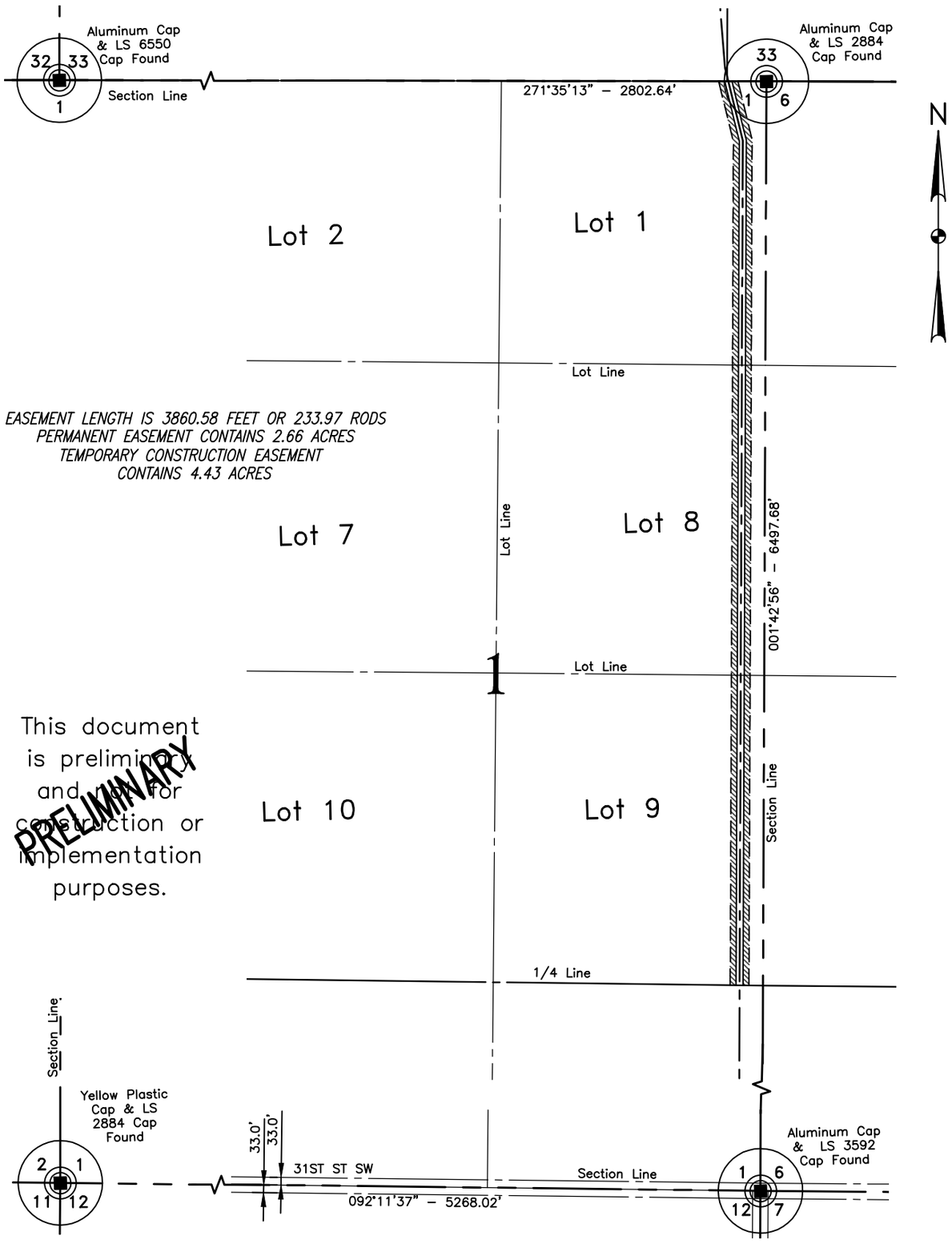
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE W1/2E1/2, NW1/4 & SW1/4 OF SEC. 33, T.141N., R.96W.	SCALE: 1" = 600' TRACT NUMBER ND–33–141–96–W2E2,NW,SW
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		

STARK COUNTY, NORTH DAKOTA

GOV'T LOTS 1, 8 & 9 OF SECTION 1, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



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PRELIMINARY

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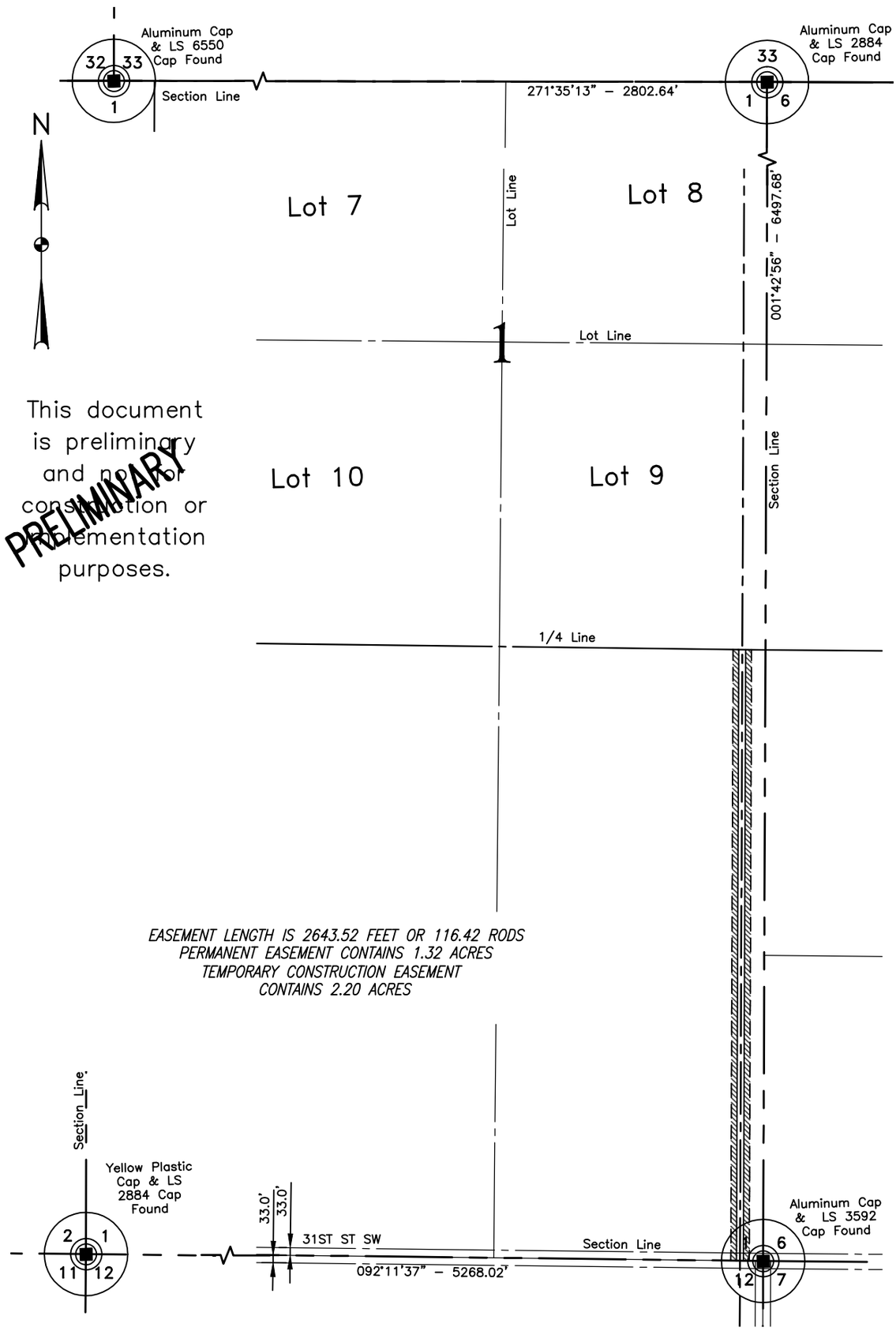
300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE GOV'T LOTS 1, 8 & 9 OF SEC. 1, T.140N., R.97W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND-1-140-97-LOT1,8,9

STARK COUNTY, NORTH DAKOTA

E1/2SE1/4 OF SECTION 1, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



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PRELIMINARY

EASEMENT LENGTH IS 2643.52 FEET OR 116.42 RODS
PERMANENT EASEMENT CONTAINS 1.32 ACRES
TEMPORARY CONSTRUCTION EASEMENT
CONTAINS 2.20 ACRES

NOTE:
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300 0 300 600
scale feet

SURVEY BASELINE "A"

PI #	STATIONING	LATITUDE	LONGITUDE
S. Line	1480+78.40	46°58'05.60" N	102°51'07.42" W
147	1484+48.33	46°58'02.09" N	102°51'08.87" W
S. Line	1499+99.28	46°57'46.78" N	102°51'08.87" W

DIRECTION	DISTANCE
197°23'30"	369.93'
181°42'56"	1550.95'

FIELD BOOK: OP-335, PGS. 1-51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

BAKKEN OIL EXPRESS PIPELINE

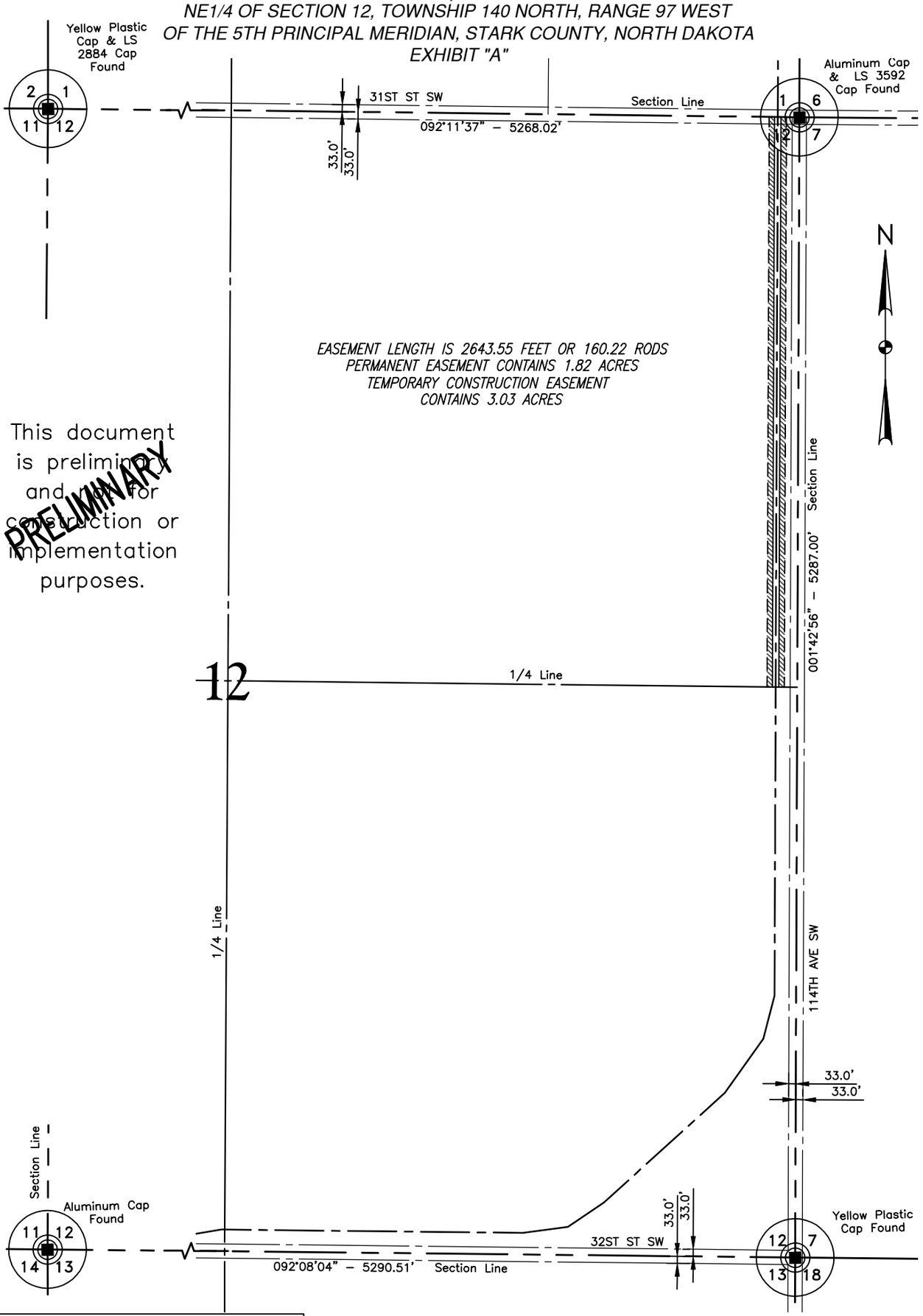
PROPOSED EASEMENTS ON AND ACROSS THE
E1/2SE1/4 OF SEC. 1, T.140N., R.97W.

DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1" = 600'
TRACT NUMBER ND-1-140-97-E2SE4

DRAWN BY: SLI
ORIGIN. DATE: 7/30/2013
REV. DATE:

STARK COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 12, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

SURVEY BASELINE "A"

PI #	STATIONING	LATITUDE	LONGITUDE
S. Line	1499+99.28	46°57'46.78" N	102°51'08.87" W
1/4 Line	1526+42.84	46°57'20.69" N	102°51'08.87" W

DIRECTION	DISTANCE
181°42'56"	2643.56'

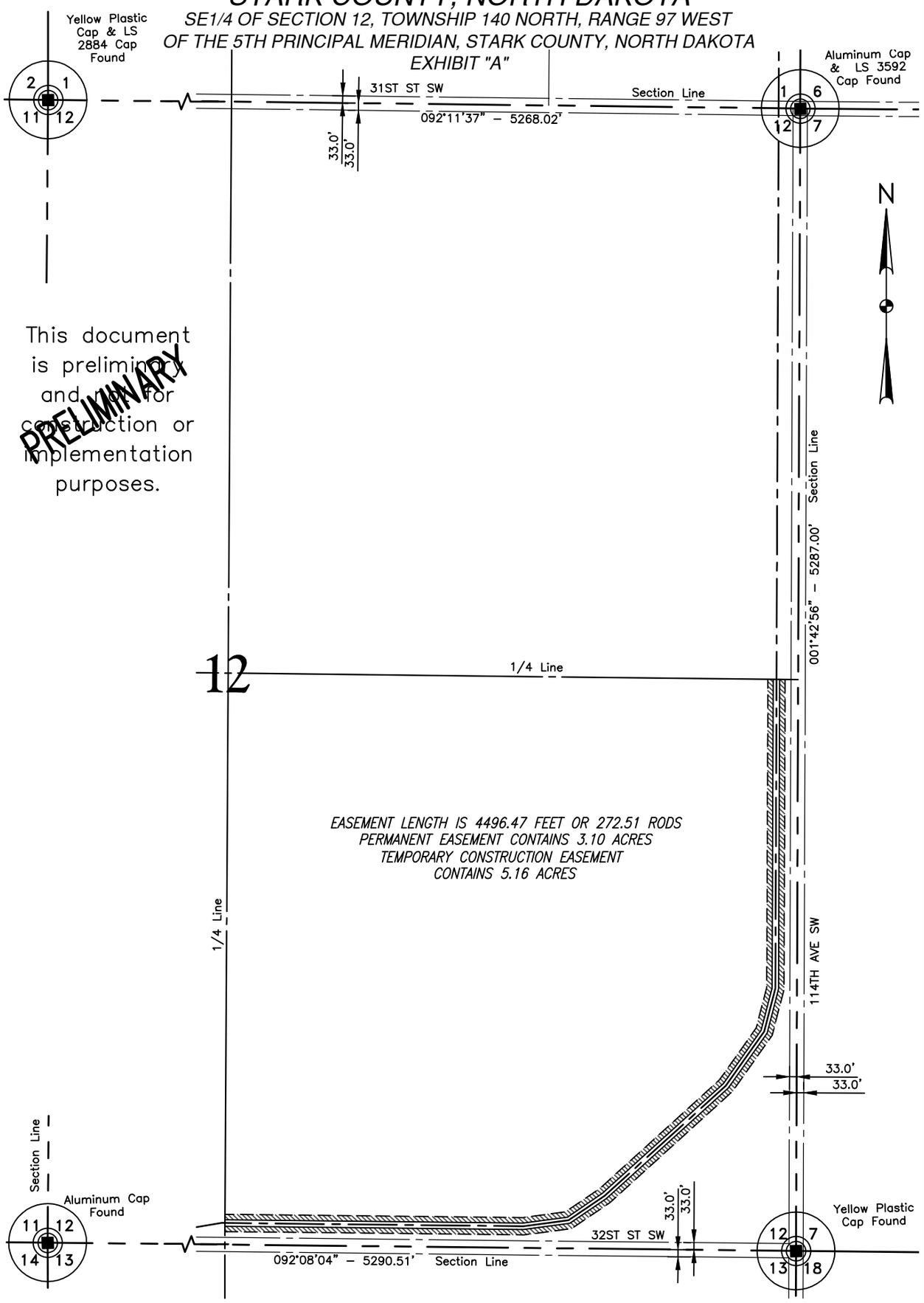
FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 12, T.140N., R.97W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND-12-140-97-NE4

STARK COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 12, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

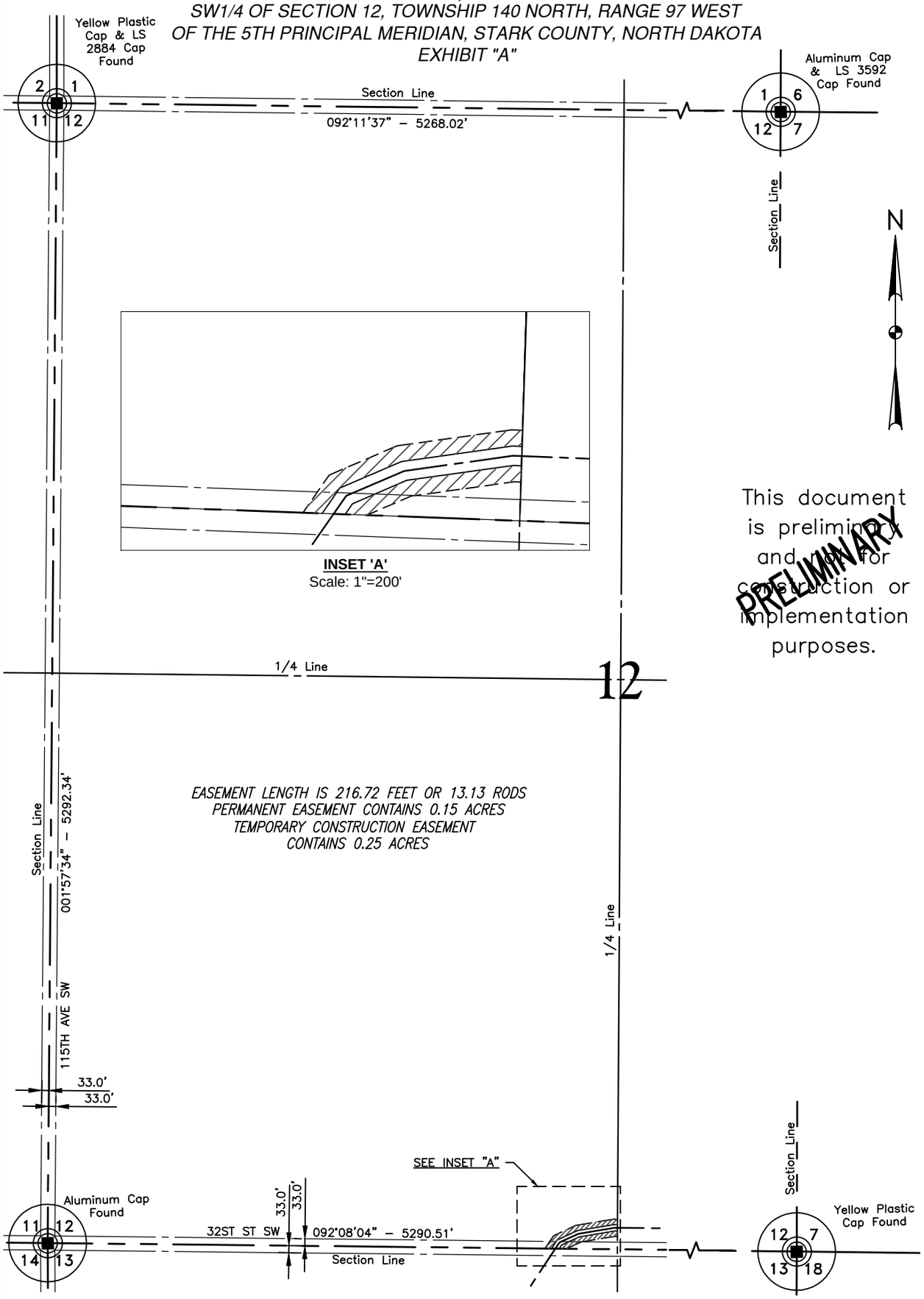
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT
			JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 12, T.140N., R.97W.	SCALE: 1" = 600'
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND-12-140-97-SE4

STARK COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 12, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



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PRELIMINARY

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300 0 300 600
scale feet

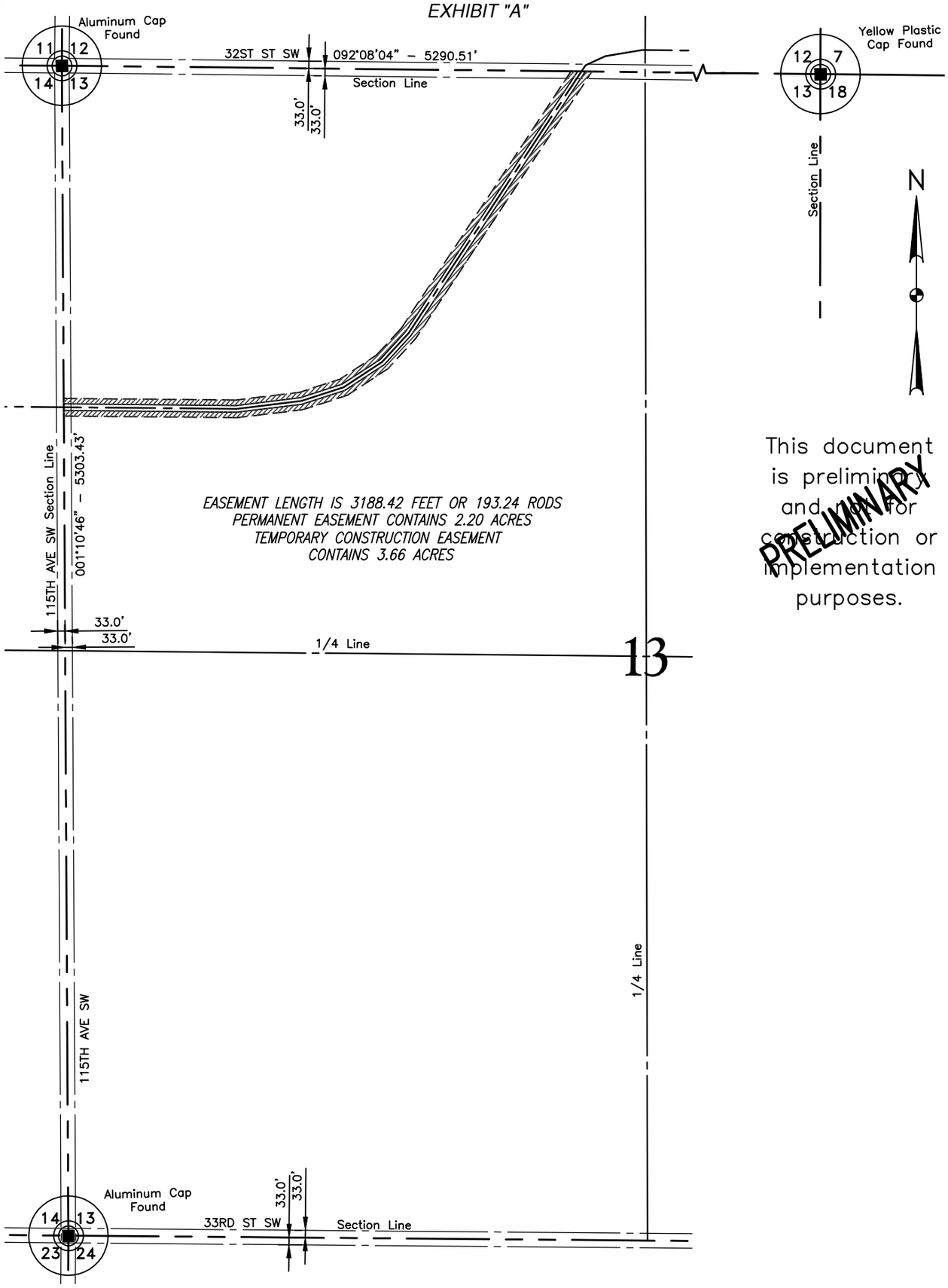
FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 12, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND-12-140-97-SW4
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 13, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



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PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

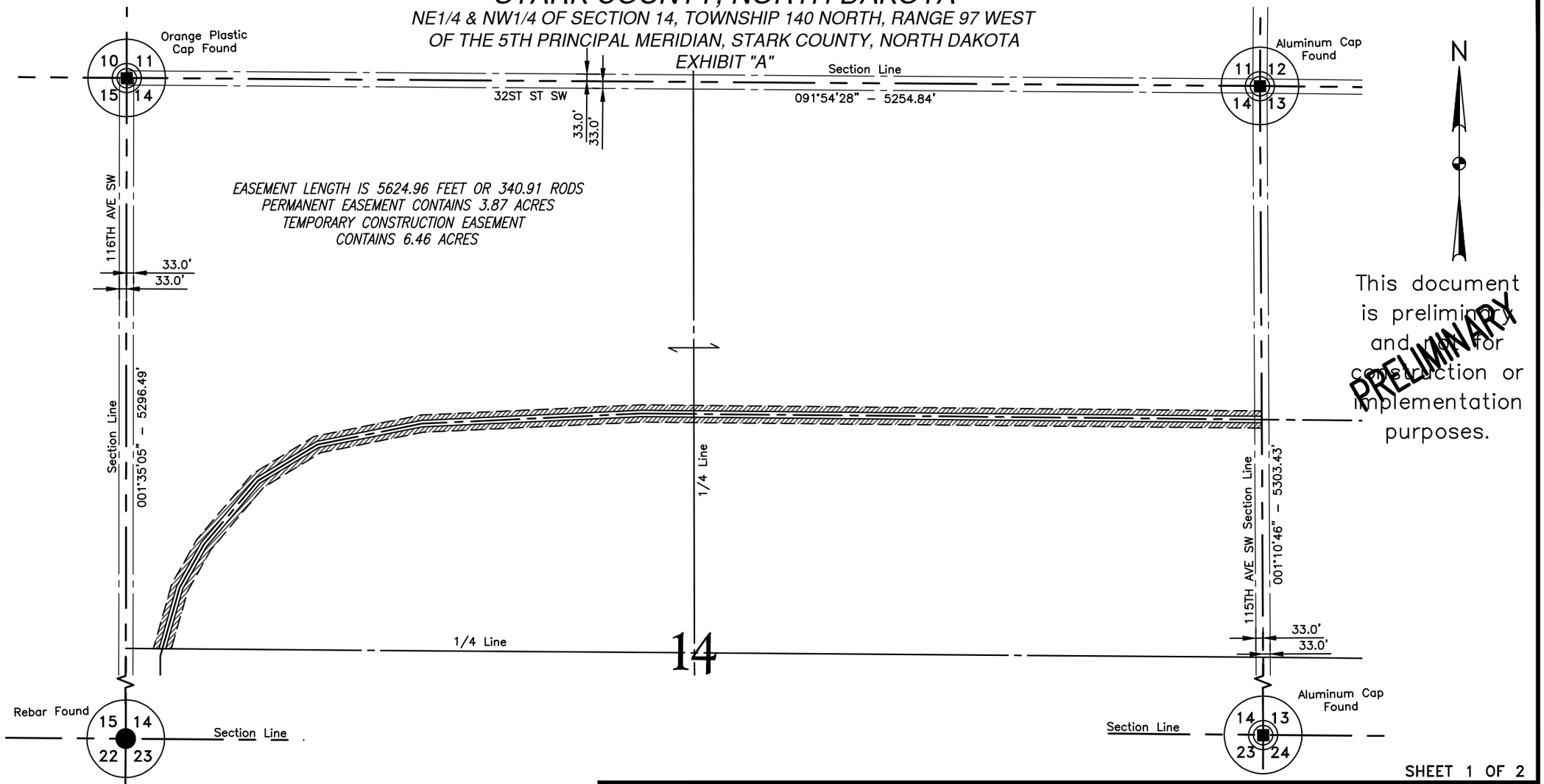
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 13, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND–13–140–97–NW4
DRAWN BY: SLI	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

NE1/4 & NW1/4 OF SECTION 14, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

KLJ
BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: SLJ | ORIGIN. DATE: 7/30/2013 | REV. DATE:

© KLJ 2013

BAKKEN OIL EXPRESS PIPELINE

PROPOSED EASEMENTS ON AND ACROSS THE
NE1/4 & NW1/4 OF SEC. 14, T.140N., R.97W.

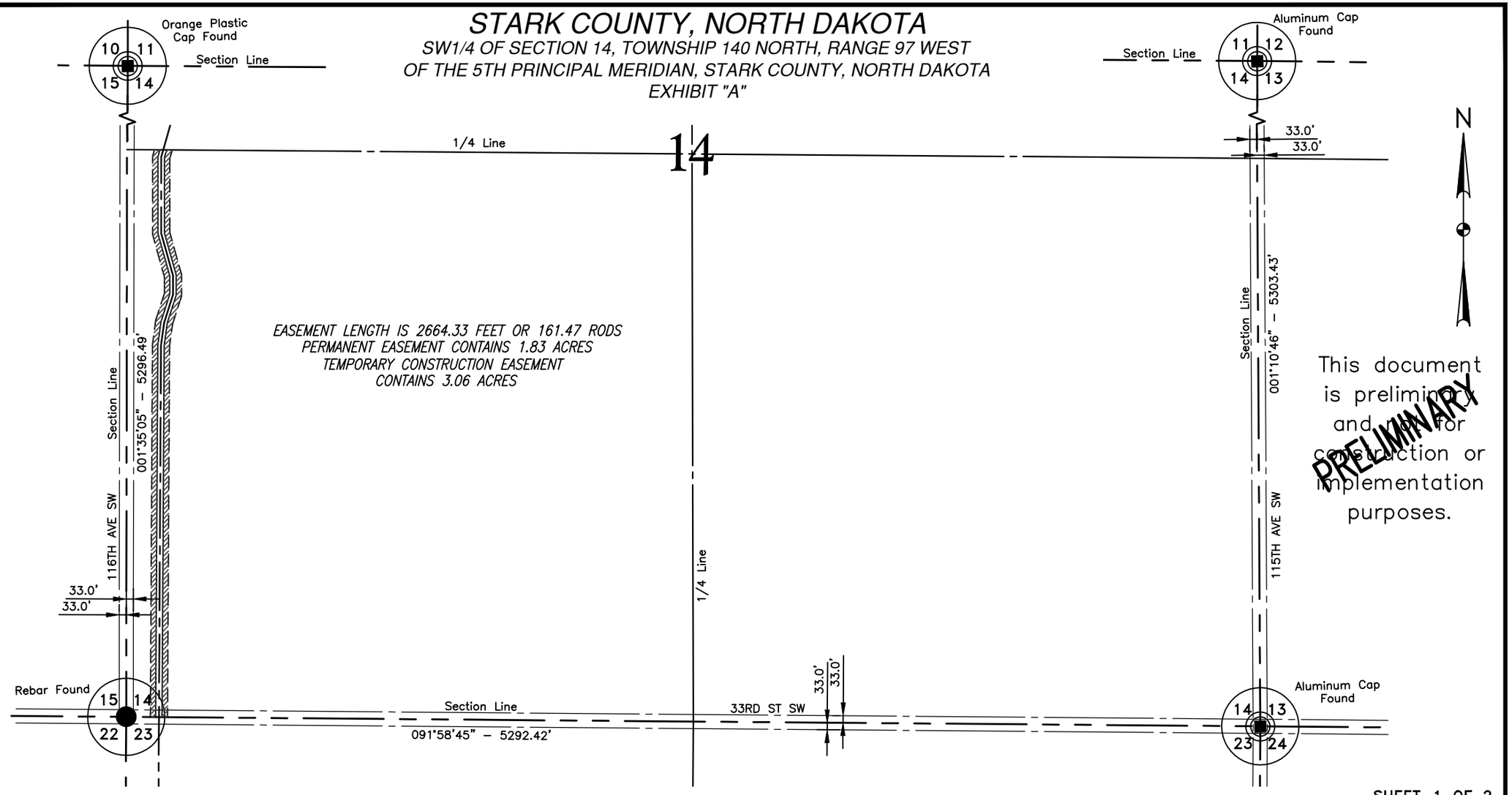
DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND-14-140-97-NE4&NW4

Sep 03, 2013 - 1:52pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement5.dwg

LAYOUT: NE4&NW4_14-140-97 (1)

STARK COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 14, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-355, PGS. 1-51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: SLJ | ORIGIN. DATE: 7/30/2013 | REV. DATE:

© KLJ 2013

BAKKEN OIL EXPRESS PIPELINE

PROPOSED EASEMENTS ON AND ACROSS THE
SW1/4 OF SEC. 14, T.140N., R.97W.

DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND-14-140-97-SW4

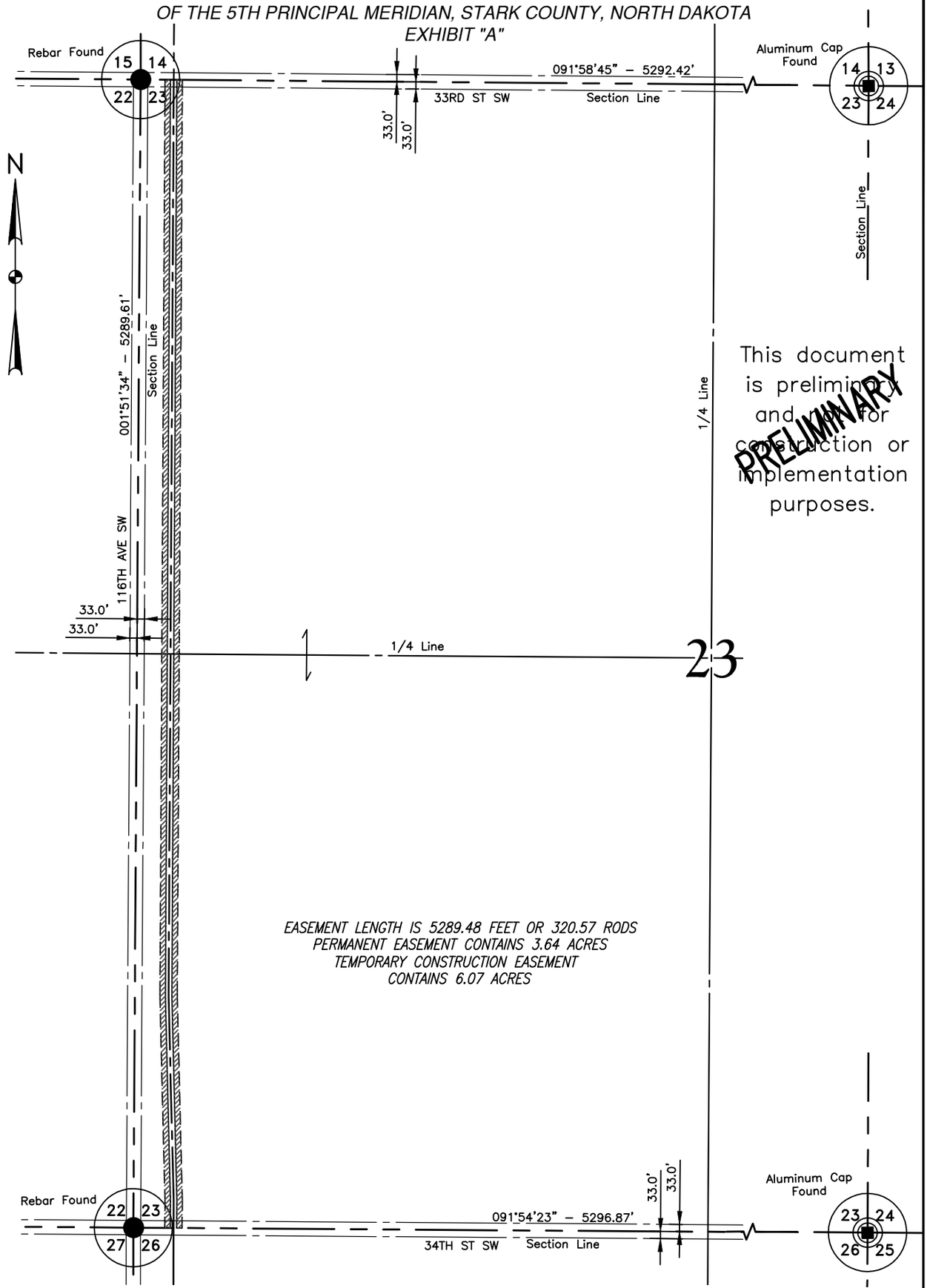
Sep 03, 2013 - 1:52pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement5.dwg

LAYOUT: SW4_14-140-97 (1)

STARK COUNTY, NORTH DAKOTA

NW1/4 & SW1/4 OF SECTION 23, TOWNSHIP 140 NORTH, RANGE 97 WEST OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA

EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

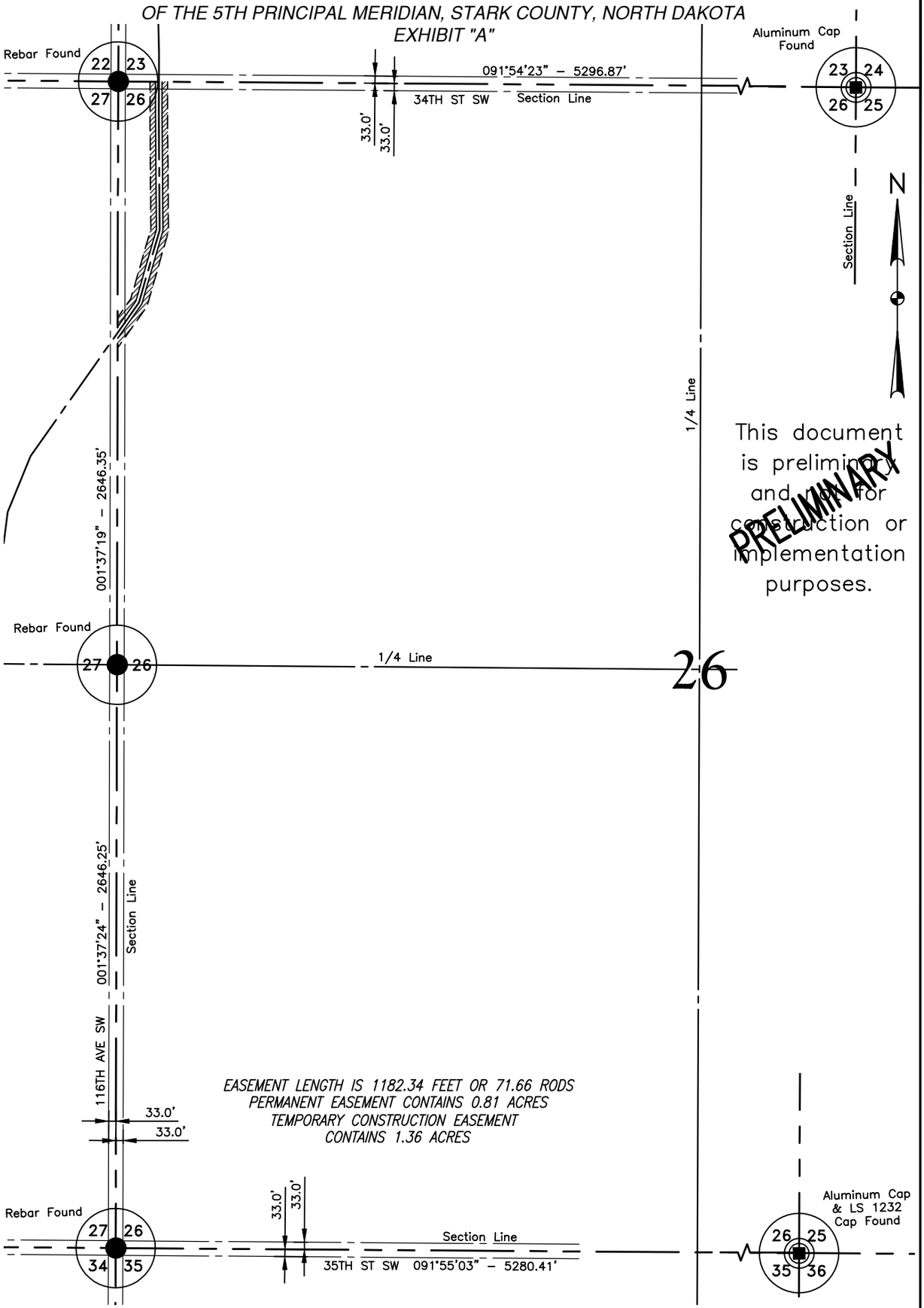
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 & SW1/4 OF SEC. 23, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND–23–140–97–NW4&SW4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 26, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

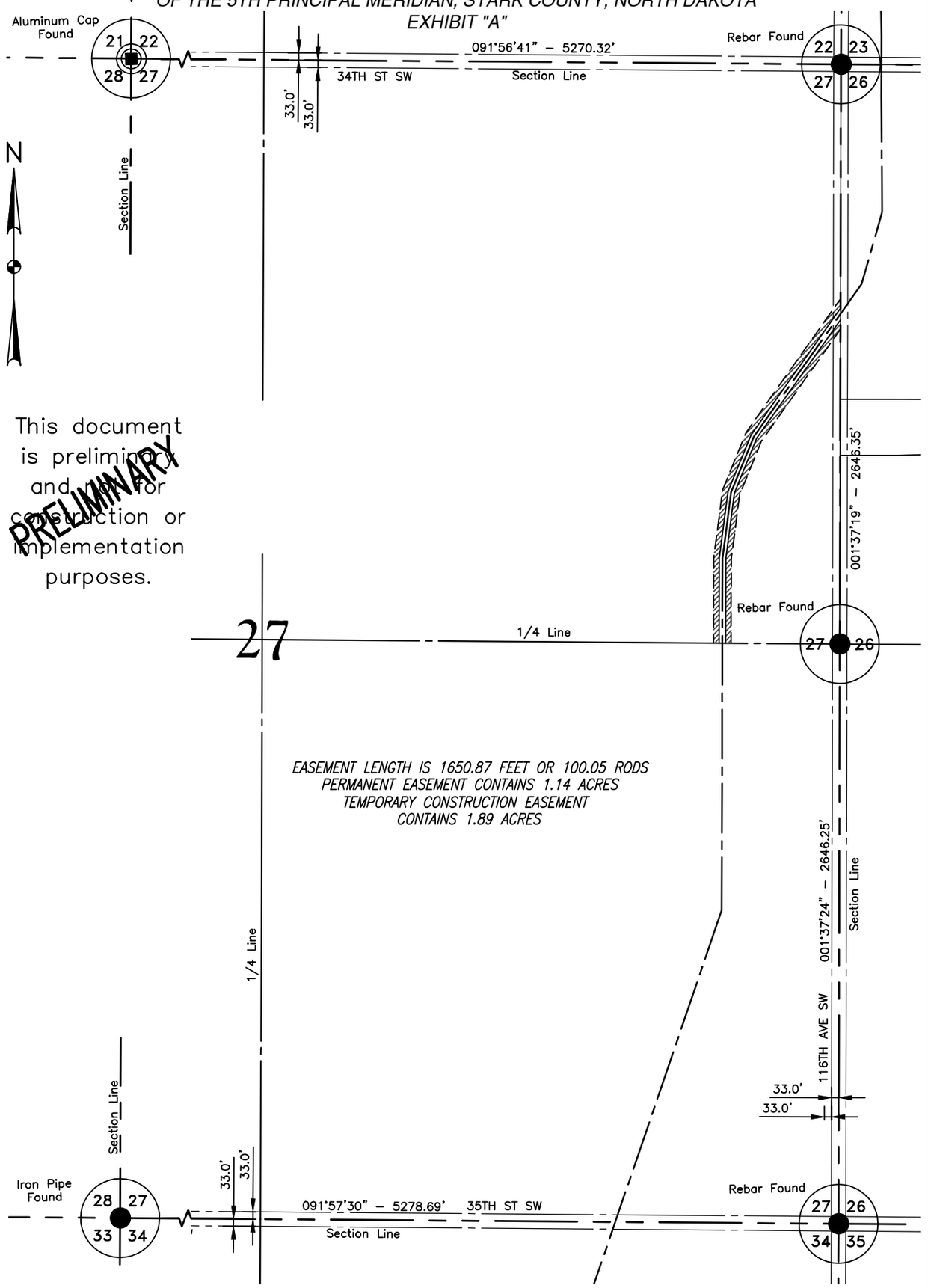
FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 26, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND-26-140-97-NW4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

NE1/4 OF SECTION 27, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

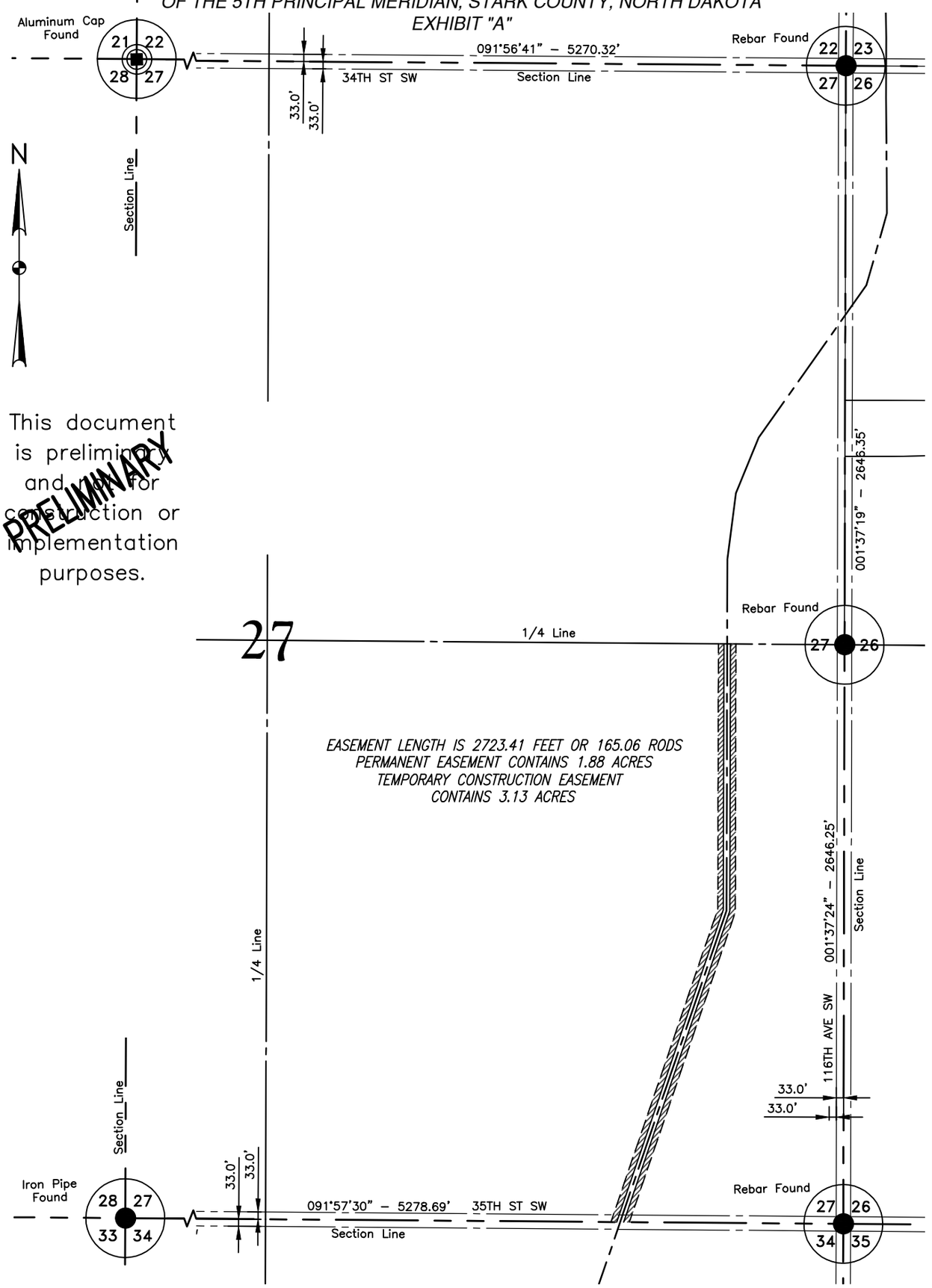
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4 OF SEC. 27, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND–27–140–97–NE4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 27, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

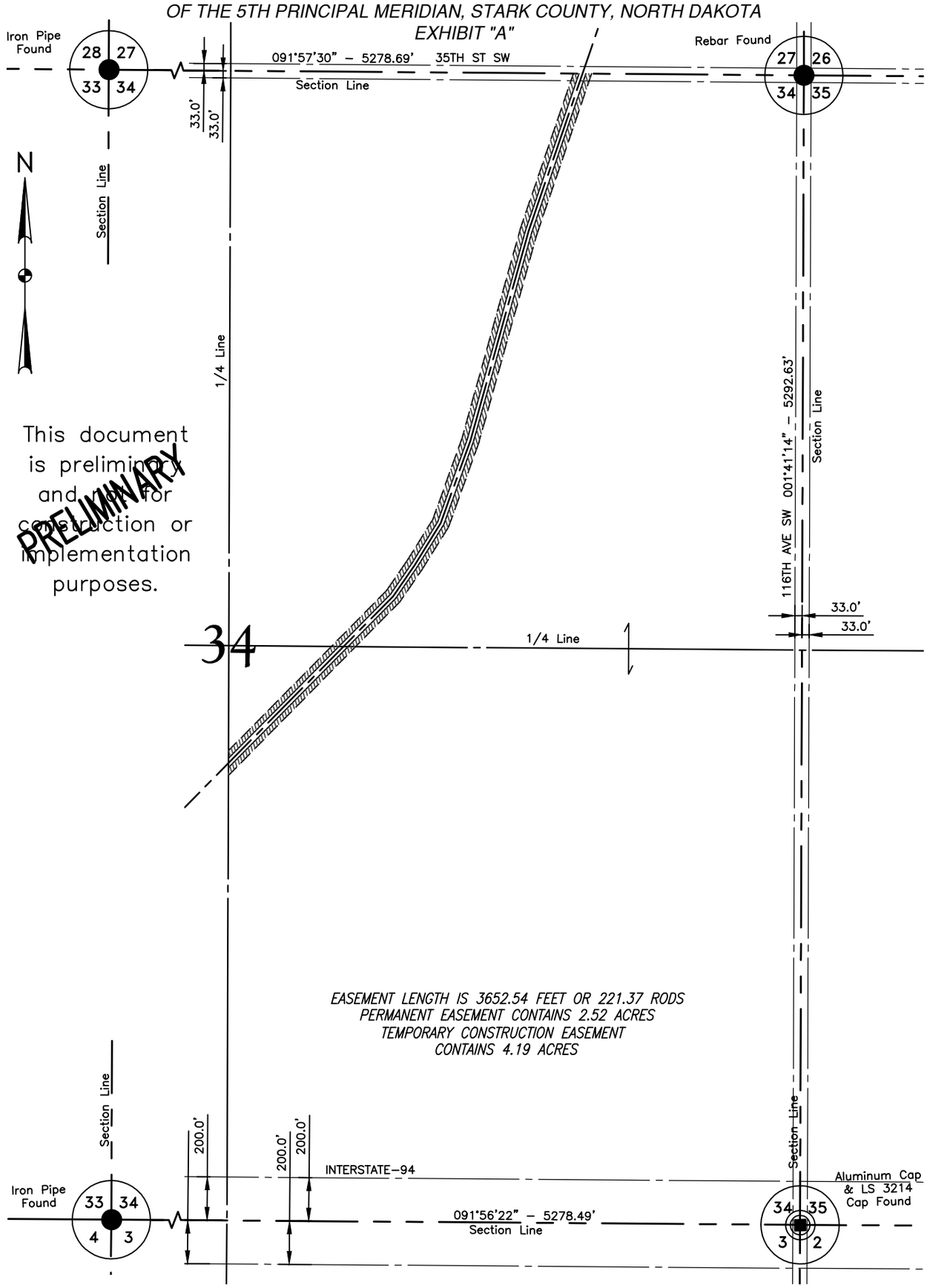
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SE1/4 OF SEC. 27, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND–27–140–97–SE4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

NE1/4 & SE1/4 OF SECTION 34, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

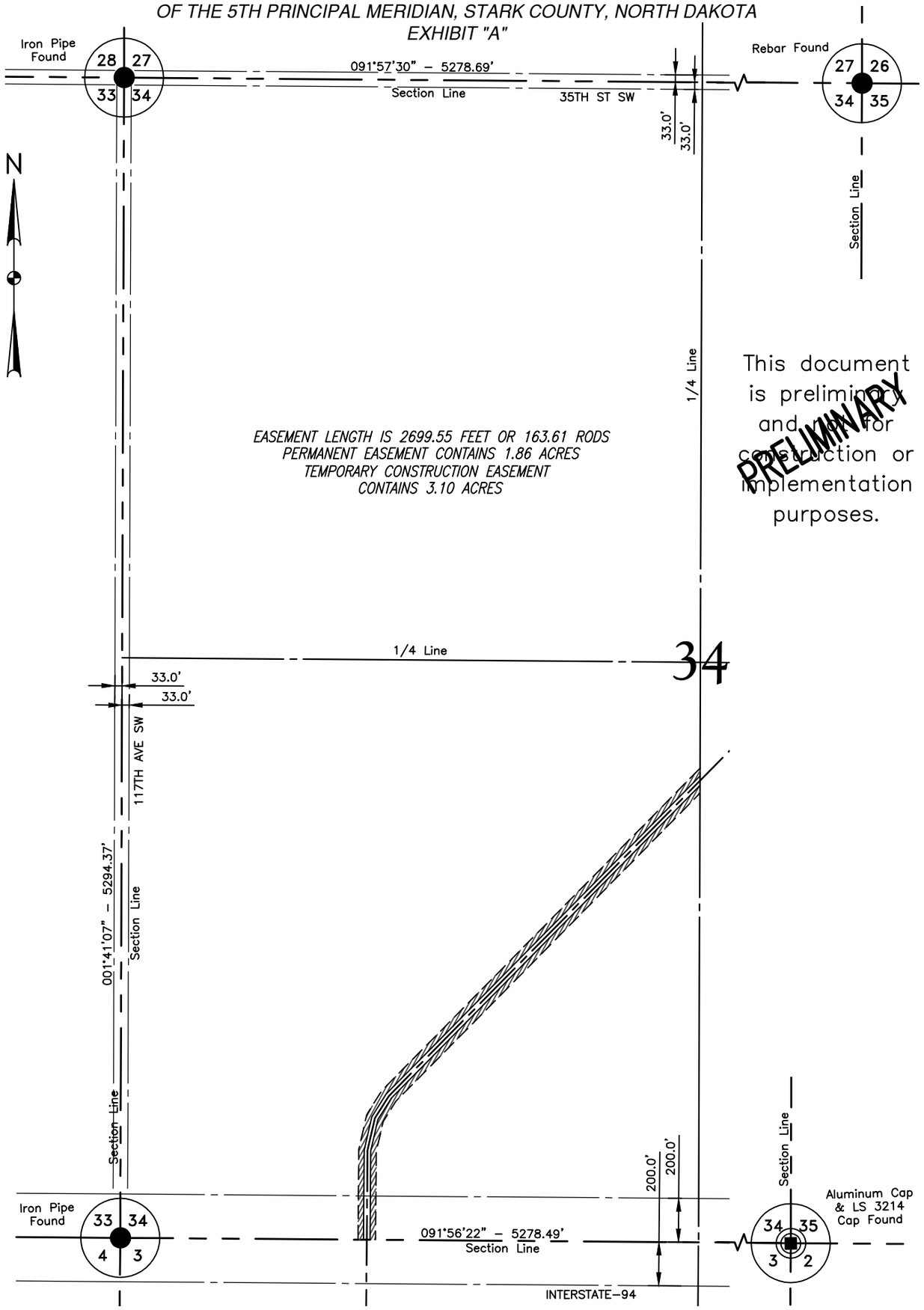
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NE1/4 & SE1/4 OF SEC. 34, T.140N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND–34–140–97–NE4&SE4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

SW1/4 OF SECTION 34, TOWNSHIP 140 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

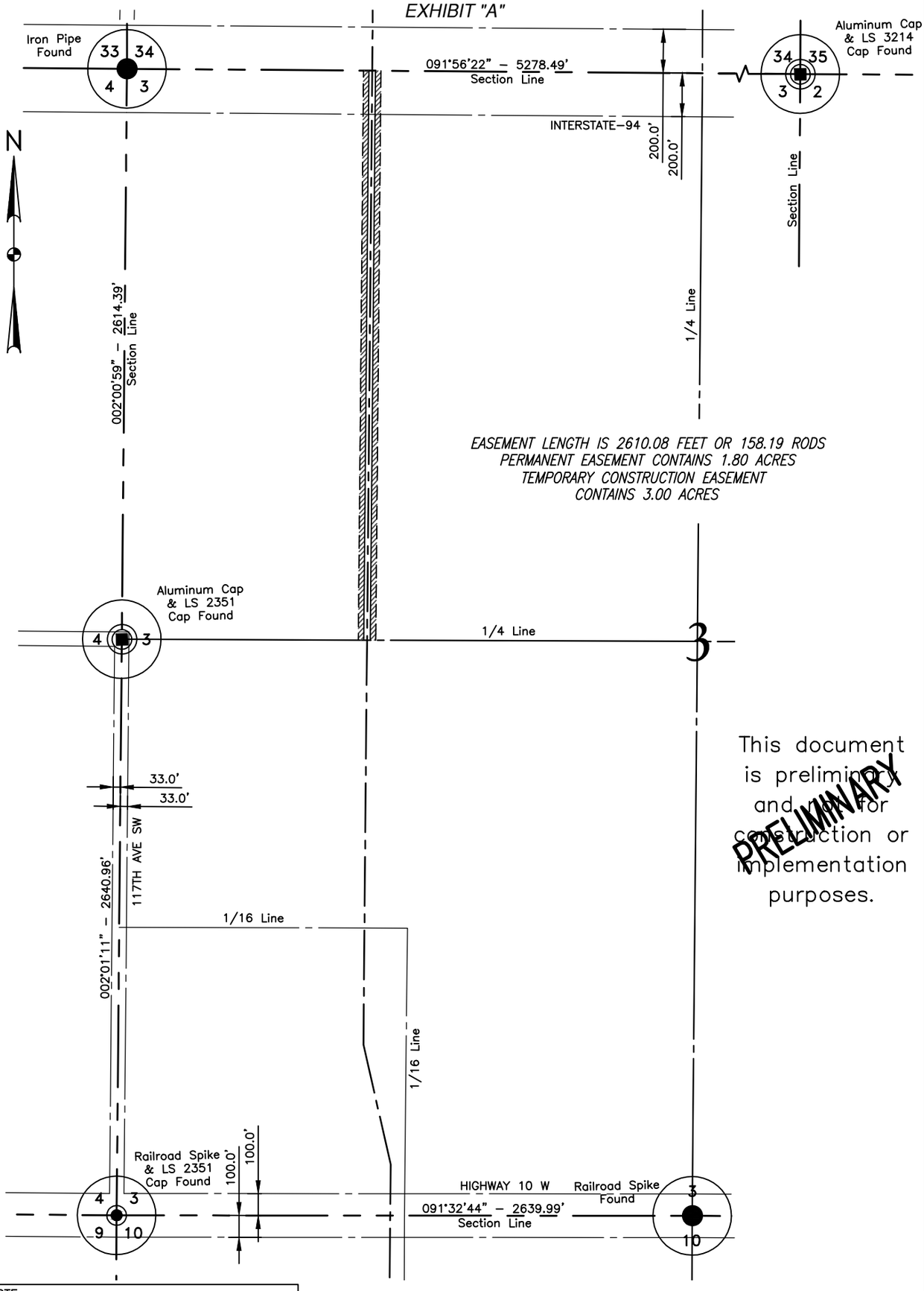
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4 OF SEC. 34, T.140N., R.97W.	SCALE: 1" = 600'
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND–34–140–97–SW4

STARK COUNTY, NORTH DAKOTA

NW1/4 OF SECTION 3, TOWNSHIP 139 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

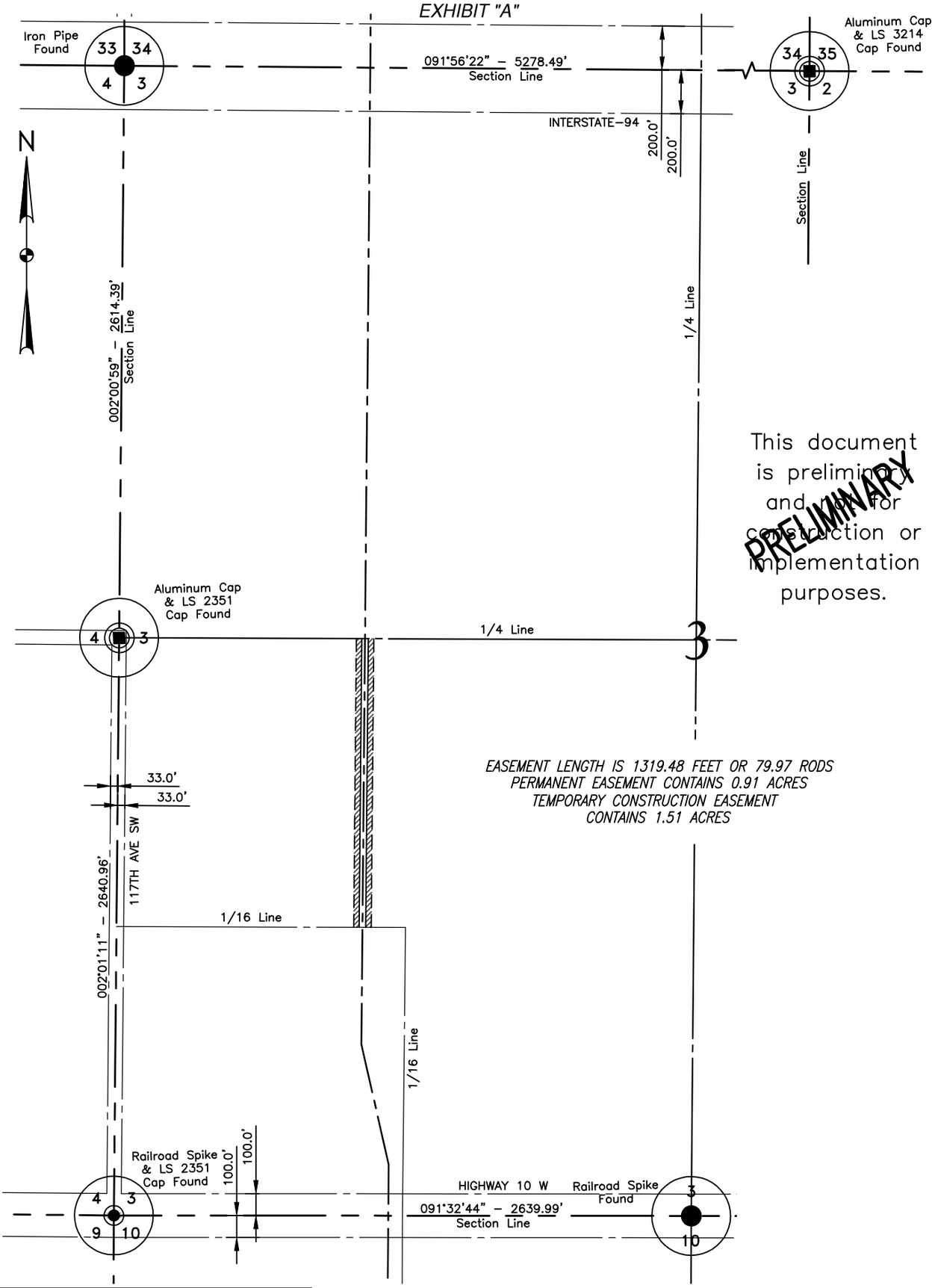
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE NW1/4 OF SEC. 3, T.139N., R.97W.	SCALE: 1" = 600'
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND–3–139–97– NW4

STARK COUNTY, NORTH DAKOTA

SW1/4 LESS SW1/4SW1/4 & 1 TRACT OF SECTION 3, TOWNSHIP 139 NORTH, RANGE 97 WEST OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

EASEMENT LENGTH IS 1319.48 FEET OR 79.97 RODS
PERMANENT EASEMENT CONTAINS 0.91 ACRES
TEMPORARY CONSTRUCTION EASEMENT CONTAINS 1.51 ACRES

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

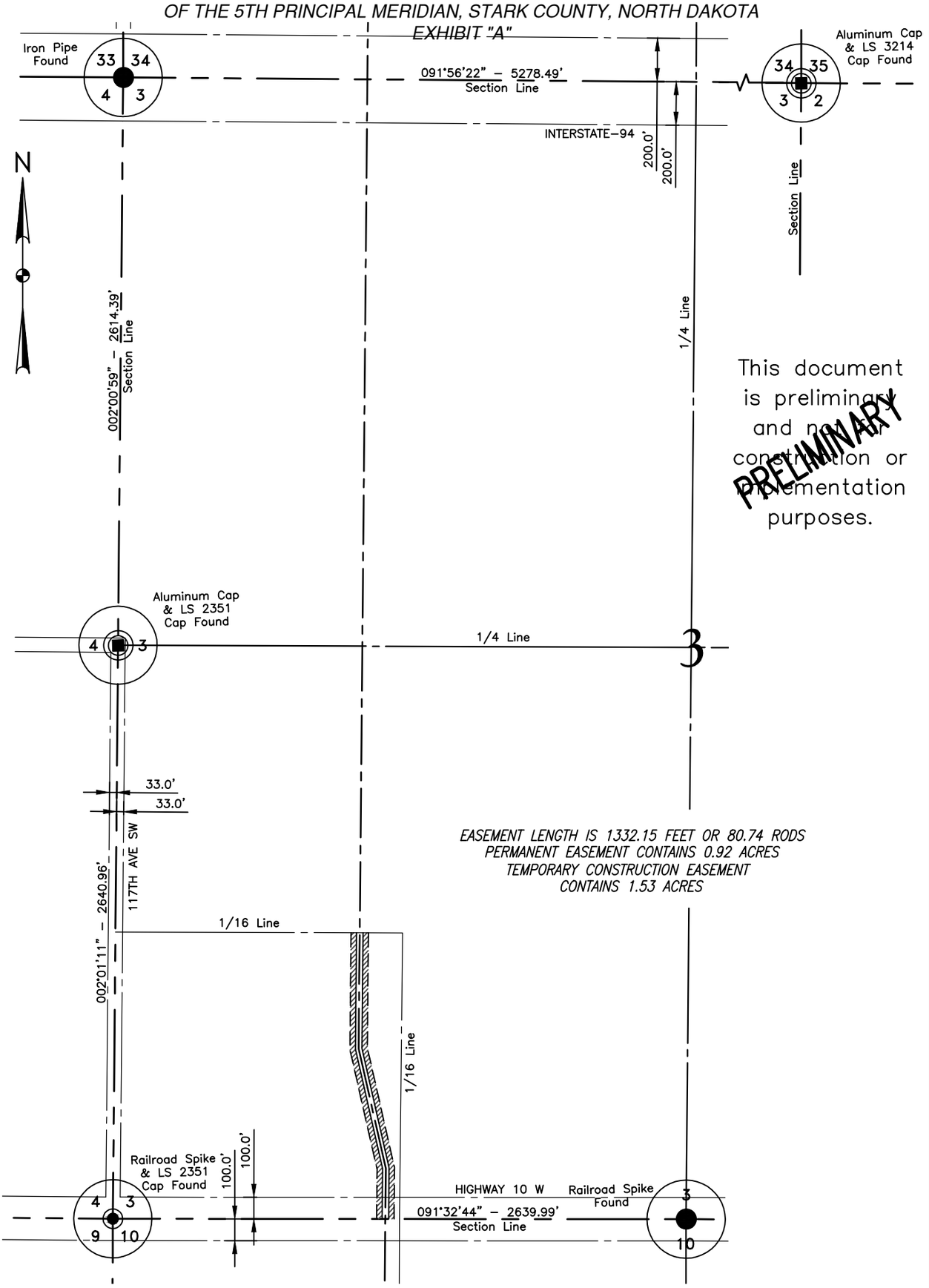
FIELD BOOK: OP–335, PGS. 1–51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4 LESS SW1/4SW1/4 OF SEC. 3, T.139N., R.97W.	SCALE: 1" = 600'
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013 REV. DATE:		TRACT NUMBER ND–3–139–97–SW4–LESS SW4SW4

STARK COUNTY, NORTH DAKOTA

SW1/4SW1/4 OF SECTION 3, TOWNSHIP 139 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

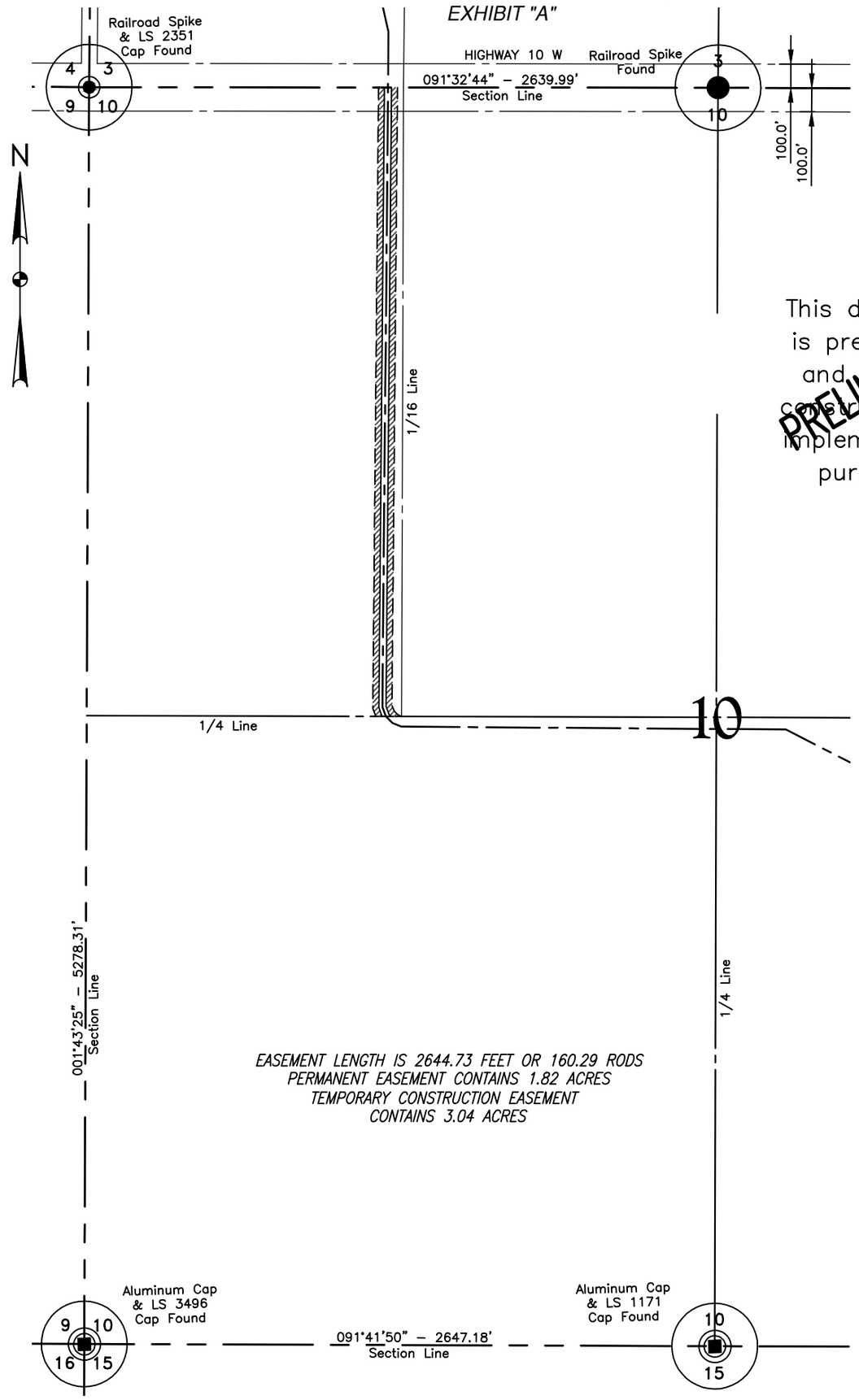
SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01–EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE SW1/4SW1/4 OF SEC. 3, T.139N., R.97W.	SCALE: 1" = 600'
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	TRACT NUMBER ND–3–139–97–SW4SW4

STARK COUNTY, NORTH DAKOTA

W1/2NW1/4 OF SECTION 10, TOWNSHIP 139 NORTH, RANGE 97 WEST OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA

EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

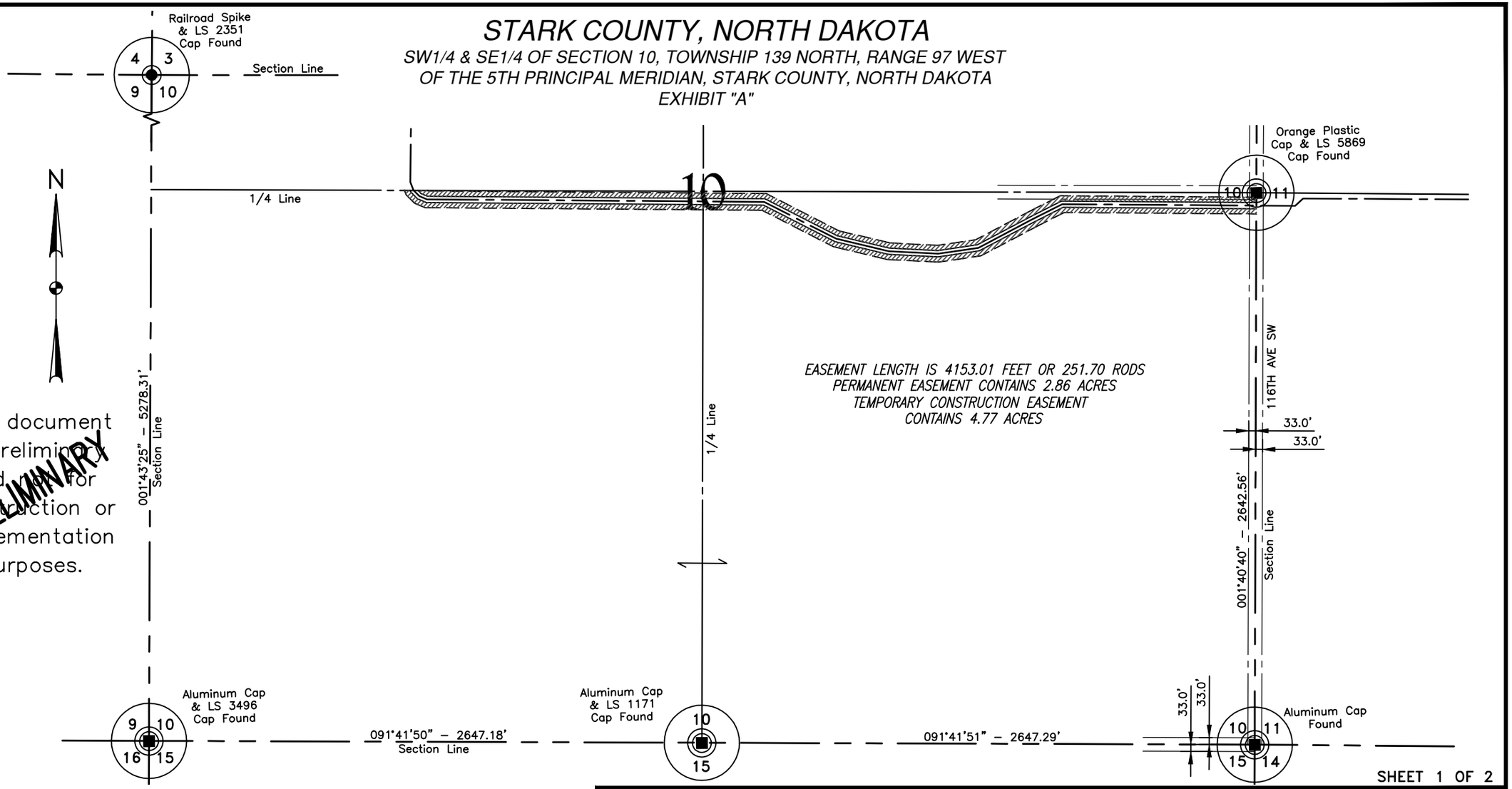
FIELD BOOK: OP-335, PGS. 1-51

SHEET 1 OF 2

KLJ	BAKKEN OIL EXPRESS 8301 East 21st N., Suite 420 Wichita, KS 67206	BAKKEN OIL EXPRESS PIPELINE	DWG NO. 1713140BAS01-EASEMENT JOB NO. 1713140
		PROPOSED EASEMENTS ON AND ACROSS THE W1/2NW1/4 OF SEC. 10, T.139N., R.97W.	SCALE: 1" = 600' TRACT NUMBER ND-10-139-97-W2NW4
DRAWN BY: K. FROST	ORIGIN. DATE: 7/30/2013	REV. DATE:	

STARK COUNTY, NORTH DAKOTA

SW1/4 & SE1/4 OF SECTION 10, TOWNSHIP 139 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: K. FROST | ORIGIN. DATE: 7/31/13 | REV. DATE:

BAKKEN OIL EXPRESS PIPELINE

EASEMENTS ON AND ACROSS THE
SW1/4 & SE1/4 OF SEC. 10, T.139N., R.97W.

DWG NO. 1713140BAS01–EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND–10–139–97–SW4&SE4

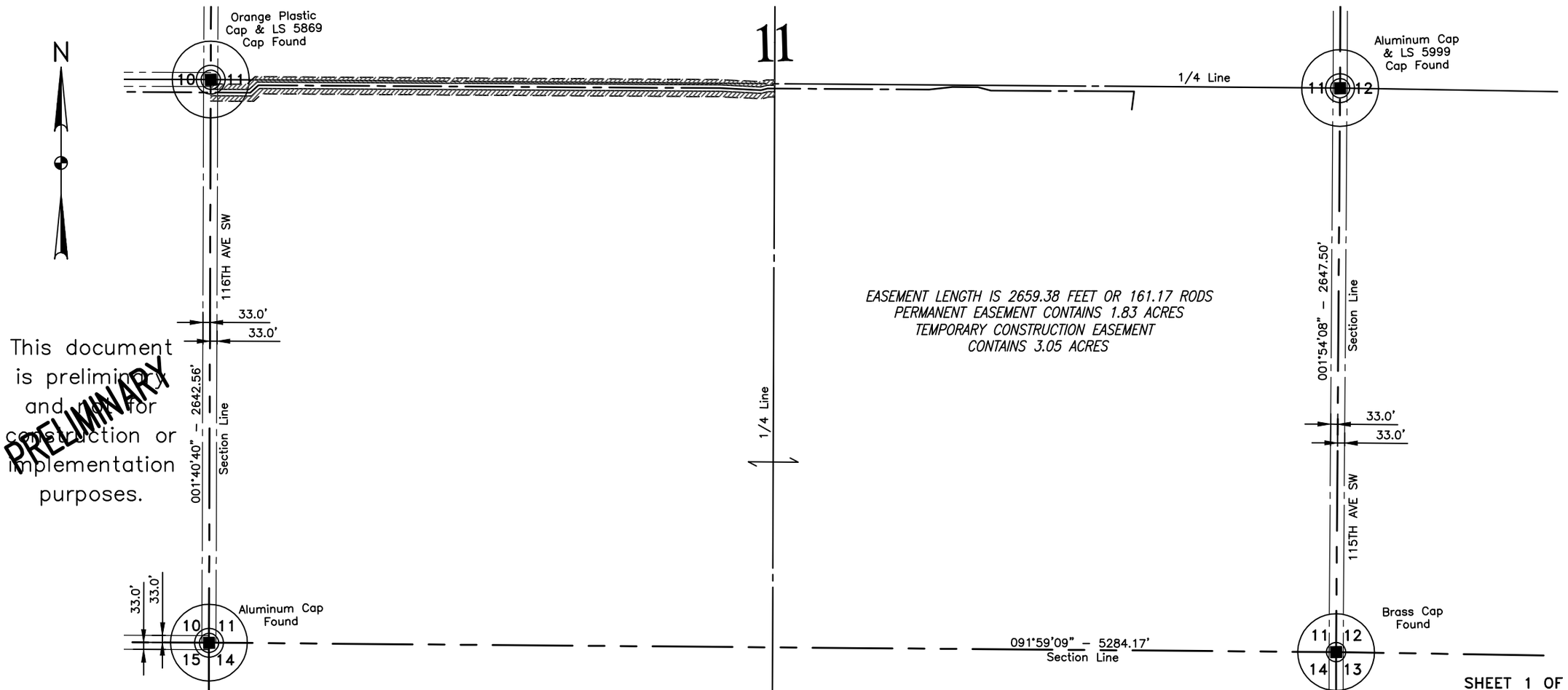
Sep 03, 2013 – 4:53pm – J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 – Easement6.dwg

© KLJ 2013

LAYOUT: SW4&SE4_10–139–97 (1)

STARK COUNTY, NORTH DAKOTA

SW1/4 LESS 16.287 ACRES OF SECTION 11, TOWNSHIP 139 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP-335, PGS. 1-51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: K. FROST | ORIGIN. DATE: 7/31/13 | REV. DATE:

BAKKEN OIL EXPRESS PIPELINE

EASEMENTS ON AND ACROSS THE
SW1/4 OF SEC. 11, T.139N., R.97W.

DWG NO. 1713140BAS01-EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND-11-139-97-SW4

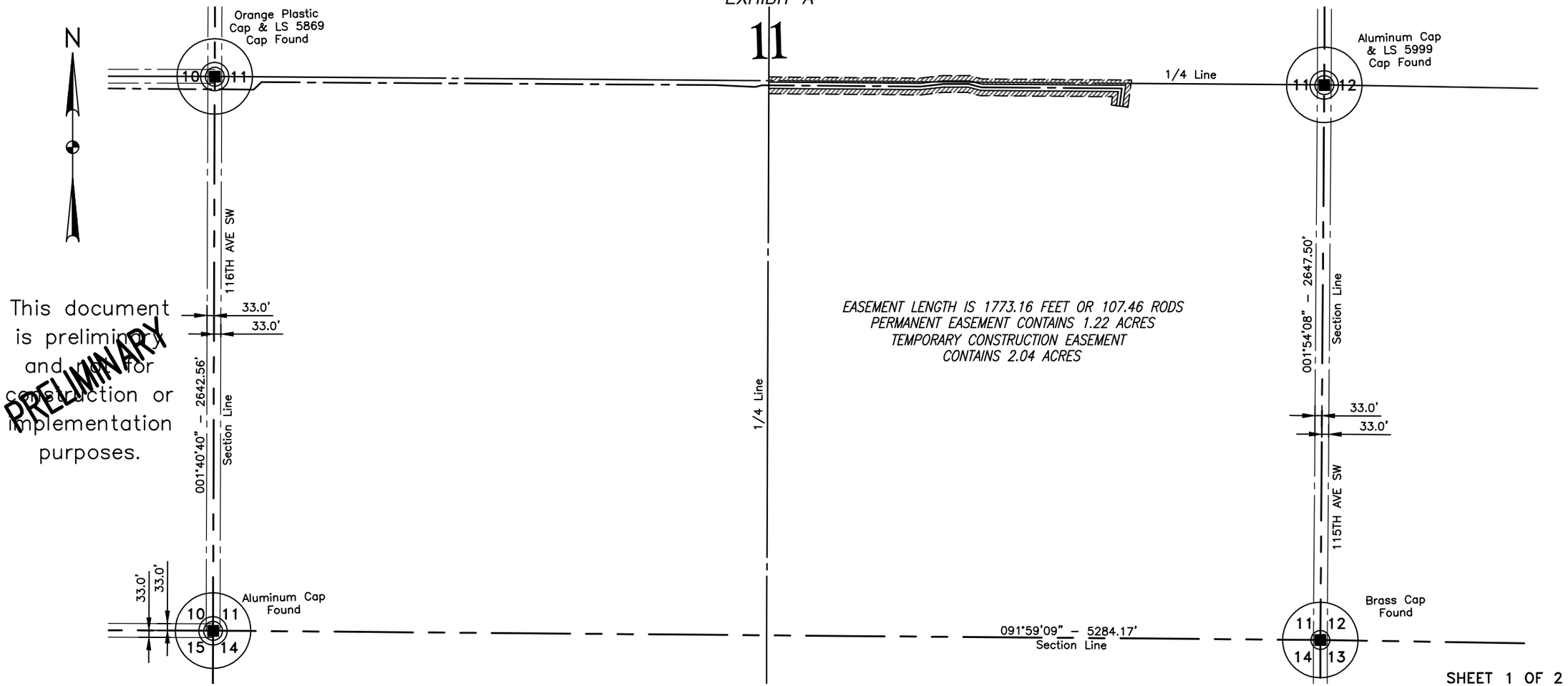
Sep 03, 2013 - 4:53pm - J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 - Easement6.dwg

© KLJ 2013

LAYOUT: SW4_11-139-97 (1)

STARK COUNTY, NORTH DAKOTA

SE1/4 OF SECTION 11, TOWNSHIP 139 NORTH, RANGE 97 WEST
OF THE 5TH PRINCIPAL MERIDIAN, STARK COUNTY, NORTH DAKOTA
EXHIBIT "A"



This document is preliminary and not for construction or implementation purposes.

PRELIMINARY

SHEET 1 OF 2

NOTE:
Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, U.S. Foot. Azimuths shown are grid azimuths, distances shown are grid distances. Combined scale factor = 1.0001478 to go from grid distance to ground distance.

300 0 300 600
scale feet

FIELD BOOK: OP–335, PGS. 1–51

KLJ

BAKKEN OIL EXPRESS
8301 East 21st N., Suite 420
Wichita, KS 67206

DRAWN BY: K. FROST | ORIGIN. DATE: 7/31/13 | REV. DATE:

BAKKEN OIL EXPRESS PIPELINE

EASEMENTS ON AND ACROSS THE
SE1/4 OF SEC. 11, T.139N., R.97W.

DWG NO. 1713140BAS01–EASEMENT
JOB NO. 1713140
SCALE: 1"=600'
TRACT NUMBER ND–11–139–97–SE4

Sep 03, 2013 – 4:53pm – J:\oilfield\Bakken Oil Express Pipeline\Cad\1713140BAS01 – Easement6.dwg

© KLJ 2013

LAYOUT: SE4_11–139–97 (1)

Appendix D. SHPO Correspondence

Appendix E. Scoping Package and Responses

128 Soo Line Drive
PO Box 1157
Bismarck, ND 58502-1157
701 355 8400
kljeng.com

June 24, 2013

«CTitle» «First» «Last»
«Title»
«Department»
«Agency»
«Address»
«City», «State» «Zip»

Re: Bakken Oil Express Pipeline Project
BOE Pipeline, LLC
Dunn and Stark County, North Dakota

«GreetingLine»

On behalf of BOE Pipeline, LLC, KLJ is preparing an application in response to requirements of the North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission. The application is for the development of a crude oil transmission line to be located in Dunn and Stark County. *Please refer to the enclosed project location map.*

The proposed project consists of burying approximately 40 miles of 16-inch steel crude oil pipeline along a corridor beginning near Killdeer, ND and culminating at a Bakken Oil Express rail hub facility near Dickinson, ND. The pipeline project also includes installation of all associated pipeline appurtenances and construction of a pump and truck off-loading facility near Killdeer.

Construction and commercial operation is anticipated to commence in the fourth quarter of 2013 or first quarter of 2014. The pipeline would not be a common carrier and no federal funding is anticipated for the project.

To ensure social, economic and environmental effects are considered in the development of the project, we are soliciting your views and comments on the proposed development. We are particularly interested in any property your department may own, or have an interest in within the project area. We would also appreciate being made aware of any proposed development your department may be contemplating in the proposed project area. Any information that might help us in our study would be welcome.

If you have questions or need further information related to the project, please contact:

General/Technical Inquiries
Chad Wiedenmeyer
128 Soo Line Drive
Bismarck, ND 58501
701 250 5957
chad.wiedenmeyer@kljeng.com

Environmental/Cultural Inquiries
Glenn Carpenter
128 Soo Line Drive
Bismarck, ND 58501
701 250 5960
glenn.carpenter@kljeng.com

Thank you for your time and cooperation.

Sincerely,

KLJ

Chad Wiedenmeyer
KLJ Project Manager

Enclosure(s): Project Location Map

[Project Name] SOV LIST

Save as new file for each project and edit accordingly with project specific contacts

	Type	FED FUNDS	NO FED FUNDS	SPECIAL LTR	CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip	Phone	Fax	Response Rec'd	Date Edited
1	STATE	X			Mr.	Kyle	Wanner	Aviation Planner		ND Aeronautics Commission	PO Box 5020	Bismarck	ND	58502-5020				01/31/12
	STATE				Mr.	Wayne	Stenehjem	Attorney General		Office of Attorney General	600 E. Blvd Ave. Dept 125.	Bismarck	ND	58505	701 328-2210			
										ND Department of Agriculture	600 E Boulevard Ave Dept 602	Bismarck	ND	58505-0020				
4	STATE			X	Mr.	L. David	Glatt	Chief	Environmental Health Section Gold Seal Center	ND Department of Health	918 E. Divide Ave., 4th floor	Bismarck	ND	58501-1947				
	STATE							Director		Department of Human Services	600 E. Blve Ave. Dept 325.	Bismarck	ND	58505-0250	(701) 328-2310	(701) 328-2359		
	STATE									Department of Labor	600 E. Blvd Ave. Dept 406.	Bismarck	ND	58505-0340				
	STATE								Department of Vocational Education	Career and Technical Education	600 E. Boulevard Ave Dept 270.	Bismarck	ND	58505-0610				
									Economic Development and Finance Commission	North Dakota Dept of Commerce	PO Box 2057	Bismarck	ND	58502-2057				
	STATE								Energy Development Impact Office	ND State Land Dept	P.O.Box 5523	Bismarck	ND	58506-5523				
6	STATE	X	X		Mr.	Steve	Dyke	Supervisor	Conservation Section	ND Game & Fish Department	100 Bismarck Expressway	Bismarck	ND	58501-5095	701-328-6347	701-328-6352		09/27/11
#REF!	FEDERAL	X			Mr.	Greg	Wiche	Director	Water Resources Division	US Geological Survey	821 E. Interstate Ave.	Bismarck	ND	58501				
	STATE				Governor	Jack	Dalrymple	Governor		Office of the Governor	600 E. Blvd Ave.	Bismarck	ND	58505-0100	701.328.2200	701.328.2205		
										ND State Highway Dept.	PO Box 3077	Grand Forks	ND	58508-3077				
1	STATE			X		Grant	Levi	Director		ND Department of Transportation	608 E. Boulevard Ave.	Bismarck	ND	58505-0700	701-328-4539			12/05/06
	STATE									ND State Historical Society	612 E Blvd Ave.	Bismarck	ND	58505	(701) 328-2666	(701) 328-3710		
#REF!	STATE	X			Mr.	Scott	Davis	Executive Director		Indian Affairs Commission	600 E. Blvd. Ave. 1st Floor, Judicial Wing, Rm 117	Bismarck	ND	58505-0300				01/12/11
										Job Service ND	PO Box 5507	Bismarck	ND	58506-5507				
	STATE									ND Department of Trust Lands	1707 North 9th Street	Bismarck	ND	58506-5523				
8	STATE	X			Mr.	Mark	Zimmerman	Director		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0649	701-328-5357	701-328-5363		05/06/10
									Division of Community Services	Department of Commerce	1600 E. Century Ave., Suite 2	Bismarck	ND	58503-2057				
#REF!	STATE	X			Mr.	Scott	Hochhalter	State Soil Specialist	NDSU Extension Service	Soil Conservation Committee	2718 Gateway Ave., #104	Bismarck	ND	58503	701-328-9715	701-328-9721		01/20/11
9	STATE	X			Mr.	Todd	Sando	State Engineer		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58505-0850				08/06/10
#REF!	FEDERAL	X			Mr.	Eric	Schmit, P.E.		Chief Missile Engineering	Minot Air Force Base	320 Peacekeeper Place	Minot AFB	ND	58705				02/15/13
#REF!	FEDERAL				Mr.	James	Larsen		Cable Affairs Office	Minot Air Force Base	330 Bomber Blvd	Minot AFB	ND	58705				02/15/13
	FEDERAL				Mr.	Jasper	Schneider	Director	Rural Development	US Department of Agriculture	Post Office Box 1737	Bismarck	ND	58502-1737	701-530-2037	701-530-2111		
#REF!	FEDERAL	X	X		*Mr.*	*Jeffrey*	*Towner*	Field Supervisor	North Dakota Field Office	US Fish & Wildlife Service	3425 Miriam Ave	Bismarck	ND	58501				11/07/12
#REF!	FEDERAL	X	X					Manager	Lake Illo National Wildlife Refuge	US Fish & Wildlife Service	489 102 Avenue S.W	Dunn Center	ND	58626	701-548-8110			11/07/12
#REF!	FEDERAL	X	X		Mr.	Dan	Cimarosti	Manager	ND Regulatory Office	US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504				
#REF!	FEDERAL	X			Mr.	Brad	Thompson	Chief, Planning Branch	Omaha District Attn: CENWO-PM-A	US Army Corps of Engineers	1616 Capital Avenue	Omaha	NE	68102-4901	402-995-2645			05/06/10
#REF!	FEDERAL	X			Ms.	Laurie	Suttmeier	Manager	Bismarck Airports District Office	Federal Aviation Administration	2301 University Drive, Bldg 23B	Bismarck	ND	58504				11/07/12
	STATE								ND Transmission Authority	ND Industrial Commission	600 E. Blvd. Ave.	Bismarck	ND	58505-0840				
	STATE								ND Pipeline Authority	ND Industrial Commission	600 E. Blvd. Ave. Dept 405	Bismarck	ND	58505-0840	701-220-6227	701-328-2820		
#REF!	TRIBAL	X	X		Mr.	Tex	Hall	Tribal Chairman		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763				01/20/11
#REF!	TRIBAL				Mr.	Barry	Benson	Environmental Division Director	Natural Resources Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763				01/20/11
#REF!	FEDERAL	X			Mr.	Weldon	Loudermilk	Regional Director		Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen	SD	57401				01/20/11
#REF!	FEDERAL	X			Mr.	Joe	Hall	Chief, Environmental and Resource Management	Dakotas Area Office	Bureau of Reclamation	PO Box 1017	Bismarck	ND	58502-1017				01/31/12
#REF!	FEDERAL	X							Office of Economic Analysis	Federal Railroad Administration	1200 New Jersey Avenue SE	Washington	DC	20590				07/11/11
#REF!	FEDERAL	X			Ms.	Mary	Giltner	Deputy Base Civil Engineer	319 CES/CEVA	Grand Forks Air Force Base	525 Tuskagee Airmen Rd.	Grand Forks AFB	ND	58205-6434				
#REF!	FEDERAL			X	Ms.	Mary	Podoll	State Conservationist		US Department of Agriculture - NRCS	PO Box 1458	Bismarck	ND	58502-1458				11/07/12
#REF!	FEDERAL	X			Mr.	John	Rogers		Economic Development Administration	US Department of Commerce	PO Box 578	Helena	MT	59624				09/23/09
#REF!	FEDERAL	X			Mr.	Gerald	Paulson	Director, Transmission Lines and Substations	Western Area Power Admin.	US Department of Energy	PO Box 1173	Bismarck	ND	58502-1173	701-221-4531			04/11/07
#REF!	FEDERAL	X			Senator	Heidi	Heitkamp	Senator	U.S. Senate	US Federal Building, Room 228	220 E. Rosser Ave. 228	Bismarck	ND	58501	701-258-4648	701-258-1254		03/21/13
#REF!	FEDERAL	X			Senator	John	Hoeven	Senator	U.S. Senate	US Federal Building, Room 312	220 E. Rosser Ave. 312	Bismarck	ND	58501	701-250-4618	701-250-4484		03/21/13
#REF!	FEDERAL	X			Congressman	Kevin	Cramer	Congressman	U.S. House of Representatives	US Federal Building, Room 328	220 E. Rosser Ave. 328	Bismarck	ND	58501	701-224-0355	701-224-0431		03/21/13
2	STATE	X			Mr.	Mark	Johnson	Executive Director		ND Association of Counties	1661 Capitol Way, PO Box 877	Bismarck	ND	58502-0877				
3	STATE				Mr.	Lonnie	Hoffer	Disaster Recovery Chief	Department of Homeland Security	ND Department of Emergency Services	PO Box 5511	Bismarck	ND	58506	701-328-8100			10/04/10
5	STATE	X			Mr.	Larry	Kotchman	State Forester		ND Forest Service	307 1st St. E.	Bottineau	ND	58318-1100				01/20/11
	STATE									ND Industrial Commission	600 E. Blvd Ave. Dept. 405	Bismarck	ND	58505-0840	701-328-3722	701-328-2820		
7	STATE	X			Mr.	Edward	Murphy	State Geologist		ND Geological Survey	600 E. Blvd. Ave.	Bismarck	ND	58505-0840	701-328-8000	701-328-8010		01/20/11
#REF!	STATE	X			Mr.	Scott	Hochhalter	State Soil Specialist	NDSU Extension Service	Soil Conservation Committee	2718 Gateway Ave., #104	Bismarck	ND	58503	701-328-9715	701-328-9721		01/20/11
	CITY				Mr.	Dan	Dolecheck	Commissioner/mayor	Office of the Mayor	City of Killdeer	PO Box 270	Killdeer	ND	58640-0270	701-764-5295	701-764-5411		
	CITY				Mr.	Greg	Andersen	President	Zoning Board	City of Killdeer	PO Box 270	Killdeer	ND	58640-0270				
#REF!	CITY	X	X		Mr.	Dennis	Johnson	Commissioner/mayor	Office of the Mayor	City of Dickinson	99 2nd Street East	Dickinson	ND	58601	701-456-7744			
	CITY				Mr.	Earl	Abrahamson	Chairman	Planning/Zoning Commission	City of Dickinson	99 2nd Street East	Dickinson	ND	58601				
	COUNTY					Sandy	Rohde	County Planner	Planning/Zoning Board	Dunn County	205 Owens Street	Manning	ND	58642-9513	701-573-4609			
	COUNTY					Ingvald	Paulson	Chairman	Water Resource Board	Dunn County	851 97th Avenue SW	Dunn Center	ND	58626				
	COUNTY					Tracey	Dolezal	Auditor	Auditors Office	Dunn County	205 Owens Street	Manning	ND	58642	701-573-4448			
	COUNTY				Mr.	Glenn	Eckelberg	Commissioner	County Commission	Dunn County	366 2nd Avenue NW	Killdeer	ND	58640	701-764-5550			
	COUNTY				Ms.	Donna	Scott	Commissioner	County Commission	Dunn County	99 Wilcox Street	Manning	ND	58642-9516	701-573-4343			
	COUNTY				Mr.	Daryl	Dukart	Commissioner	County Commission	Dunn County	470 96th Avenue SW	Dunn Center	ND	58626	701-548-8256			
	COUNTY				Mr.	Reinhard	Hauk	Commissioner	County Commission	Dunn County	851 97th Avenue SW	Dunn Center	ND	58626-9612	701-548-8287			
	COUNTY				Mr.	Robert	Kleemann	Commissioner	County Commission	Dunn County	10680 Highway 22 N	Killdeer	ND	58640-9158	701-764-5545			
	COUNTY				Ms.	Denise	Brew	Manager	Emergency Management	Dunn County	205 Owens Street	Manning	ND	58642-9513	701-573-4612			
	COUNTY				Mr.	Mike	Zimmerman	Highway Engineer/Supervisor	Highway Department	Dunn County	205 Owens Street	Manning	ND	58642-9513	701-573-4603			
	COUNTY				Mr.	Don	Rockvoy	Sheriff	Sheriff's Department	Dunn County	205 Owens Street	Manning	ND	58642-9513	701-573-4449			

[Project Name] SOV LIST

Save as new file for each project and edit accordingly with project specific contacts*

	Type	FED FUNDS	NO FED FUNDS	SPECIAL LTR	CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip	Phone	Fax	Response Rec'd	Date Edited
#REF!	COUNTY	X	X		Mr.	Steve	Josephson	County Planner	Planning/Zoning Board	Stark County	99 2nd Street East	Dickinson	ND	58601	701-456-7026			
#REF!	COUNTY	X	X		Mr.	Jack	Olin	Chairman	Water Resource Board	Stark County	798 5th Avenue SE	Dickinson	ND	58601				
#REF!	COUNTY	X	X			Kay	Haag	Auditor	Auditors Office	Stark County	PO Box 130	Dickinson	ND	58602-0130	701-456-7630 Ext 7631			
#REF!	COUNTY	X	X			Jay	Elkin	Commissioner	County Commision	Stark County	3489 94th Avenue SW	Taylor	ND	58656-9645	701-974-3583			
	COUNTY				Mr.	Duane	Wolf	Commissioner	County Commision	Stark County	558 4th Avenue SW	Dickinson	ND	58601-5926	701-483-5884			
	COUNTY				Mr.	Ken	Zander	Commissioner	County Commision	Stark County	966 5th Avenue W	Dickinson	ND	58601-3833	701-483-9294			
	COUNTY				Mr.	Russ	Hoffer	Commissioner	County Commision	Stark County	10591 43rd Street SW	Dickinson	ND	58601-9544	701-225-9420			
	COUNTY				Mr.	Pete	Kuntz	Commissioner	County Commision	Stark County	105 4th Street E Apt 3	Dickinson	ND	58601-3857	701-225-4474			
#REF!	COUNTY	X	X		Mr.	Bill	Fahlsing	Manager	Emergency management	Stark County	66 W Museum Dr.	Dickinson	ND	58601-3864	701-456-7605			
#REF!	COUNTY	X	X		Mr.	Allen	Heiser	Highway Engineer/Supervisor	Higway Department	Stark County	PO Box 130	Dickinson	ND	58602-0130	701-456-7662			
#REF!	COUNTY	X	X		Mr.	Clarence	Tuhy	Sheriff	Sheriff's Department	Stark County	PO Box 130	Dickinson	ND	58602-0130	701-456-7610			
	REGIONAL				Mr.	Jason	Bentz	Manager		Rough Rider Electric Cooperative	2156 4th Ave E	Dickinson	ND	58602-1038				

Chad Wiedenmeyer

From: Scott Harmstead <SHarmstead@srfconsulting.com>
Sent: Thursday, July 11, 2013 8:05 AM
To: Chad Wiedenmeyer
Cc: Dawn Marquardt; Cindy Gray
Subject: Bakken Oil Express Pipeline Project, City of Killdeer
Attachments: June 2013 Land Use Map.pdf; KLJ 06242013 Letter.pdf

Chad,

Your letter sent to the City of Killdeer dated June 24, 2013 was brought to the attention of the City of Killdeer Planning and Zoning Commission at last night's meeting as an off-agenda item. As consultants assisting the city with planning and zoning issues, the Commission asked that I follow up on this letter with you.

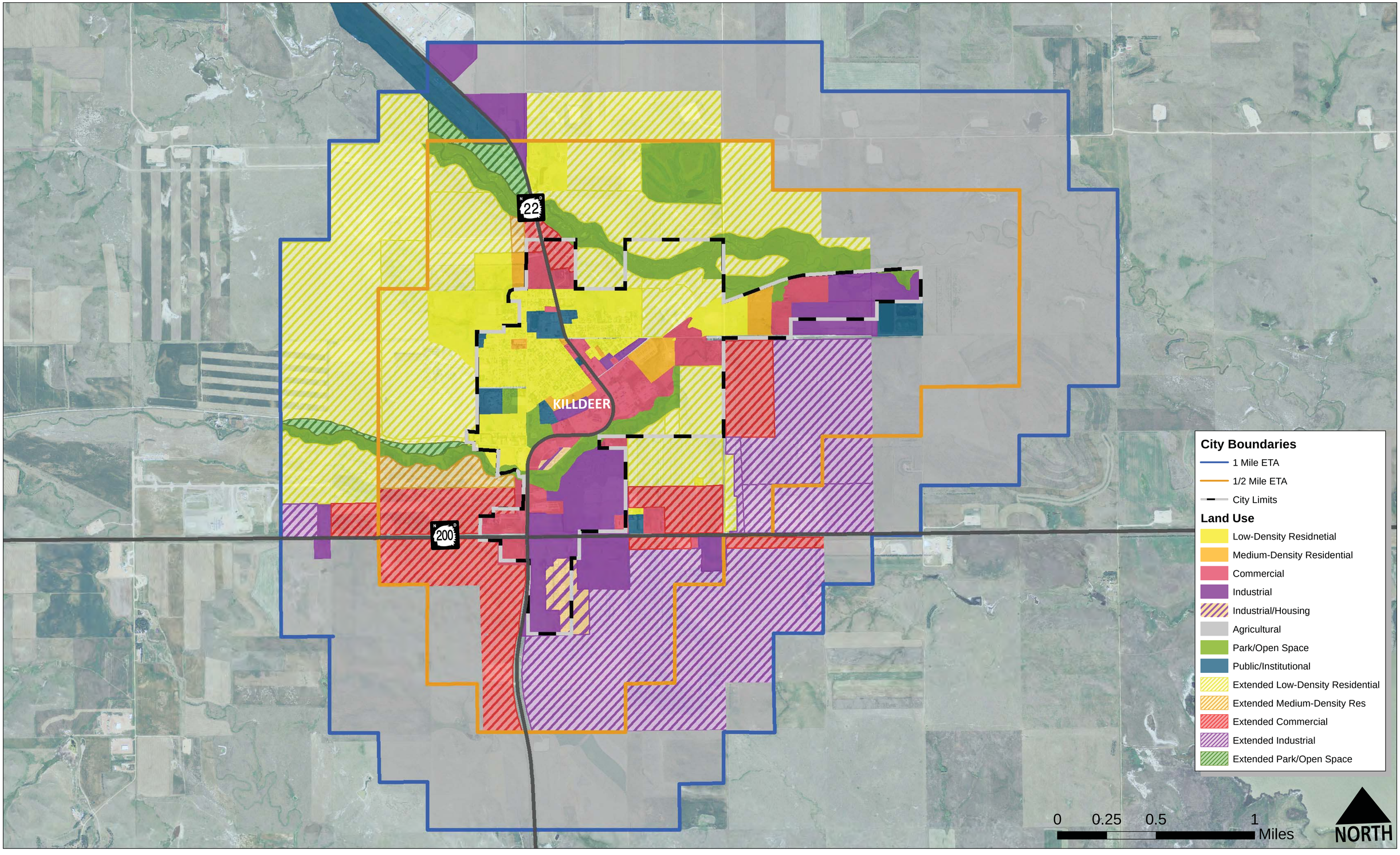
We are curious if you have a more detailed map of the proposed pipeline location then what has been attached to the letter? In particular, the City would be interested about where this pipeline would be located in reference to the City extraterritorial area and city limits. I have attached the City's most recent land use map that also shows the city's corporate boundary, ½ mile ETA, and full mile ETA. Any more detailed maps or information that you can send me regarding the location of the proposed pipeline within this area would allow us to give you a detailed response as asked for in your letter.

Thank you,

Attached: City Land Use Map & KLJ Letter

Scott Harmstead, AICP
Senior Planner
sharmstead@srfconsulting.com
office: 701.751.5070 x7475
fax: 701.751.5072
925 Basin Avenue, Bismarck, ND 58504-6634
www.srfconsulting.com

SRF Consulting Group, Inc. | Engineers Planners Designers



Future Land Use Plan

City of Killdeer

SRF Consulting Group, Inc.

June 1, 2013

Chad Wiedenmeyer

From: Chad Wiedenmeyer
Sent: Tuesday, July 16, 2013 3:17 PM
To: 'Scott Harmstead'
Subject: RE: Bakken Oil Express Pipeline Project, City of Killdeer
Attachments: BOE_ProposedRoute_KilldeerLandUse.pdf

Scott,

Attached is a more detailed map of the proposed BOE pipeline route and pump station location near Killdeer. I overlaid the Killdeer land use boundaries you sent me for your convenience. It appears as if the entire pipeline and tank station project will be outside of the existing Killdeer land use boundaries.

Should you have any questions or if I can provide any more information please just let me know.

Thank You,

Chad Wiedenmeyer, PE
KLJ
701-250-5957 Direct
701-425-3206 Cell
701-355-8781 Fax
128 Soo Line Drive
Bismarck, ND 58501-3310
kljeng.com

From: Scott Harmstead [mailto:SHarmstead@srfconsulting.com]
Sent: Thursday, July 11, 2013 8:05 AM
To: Chad Wiedenmeyer
Cc: Dawn Marquardt; Cindy Gray
Subject: Bakken Oil Express Pipeline Project, City of Killdeer

Chad,

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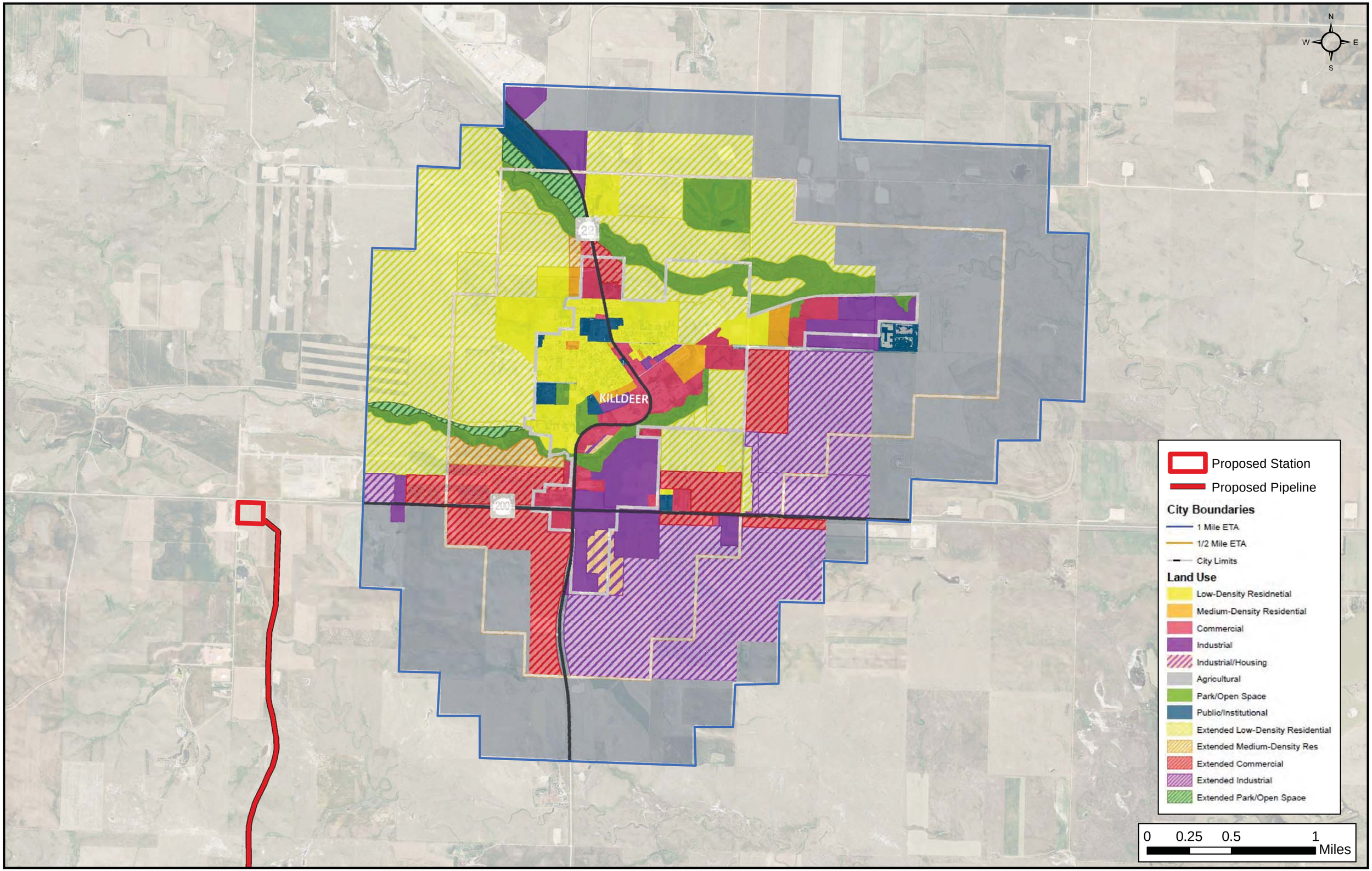
Thank you,

Attached: City Land Use Map & KLJ Letter

Scott Harmstead, AICP

Senior Planner
sharmstead@srfconsulting.com
office: 701.751.5070 x7475
fax: 701.751.5072
925 Basin Avenue, Bismarck, ND 58504-6634
www.srfconsulting.com


N
W
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22
200
KILLDEER
Proposed Station
Proposed Pipeline
City Boundaries
1 Mile ETA
1/2 Mile ETA
City Limits
Land Use
Low-Density Residnetial
Medium-Density Residential
Commercial
Industrial
Industrial/Housing
Agricultural
Park/Open Space
Public/Institutional
Extended Low-Density Residential
Extended Medium-Density Res
Extended Commercial
Extended Industrial
Extended Park/Open Space
0
0.25
0.5
1
Miles

Department of Energy
Western Area Power Administration
North Dakota Maintenance Office
P.O. Box 1173
Bismarck, ND 58502-1173

RECEIVED
JUL 03 2013

June 28, 2013

Mr. Chad Wiedenmeyer
KLJ
P.O. Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wiedenmeyer:

This letter is in reply to your letter dated June 24, 2013, regarding the proposed Bakken Oil Express Pipeline Project (BOE Pipeline LLC) located in Dunn and Stark County, North Dakota.

Western Area Power Administration owns and operates two separate transmission lines that are located within the proposed Bakken Oil Express Pipeline study area in the area as shown on the enclosed drawing. Our Watford City-Beulah 115-kV transmission line is located near the north end and our Bismarck-Medora 230-kV transmission line is near the south end of the study area. Although our transmission lines lie within the study area they do not appear to fall within the proposed BOE Pipeline corridor. Therefore, if the pipeline is built within the pipeline corridor shown on your drawing our transmission lines should not be impacted.

If the scope of this project changes or if any work is planned in the vicinity of our transmission lines please provide us with additional information when it becomes available so we can determine any impact(s) that it may have on our facilities.

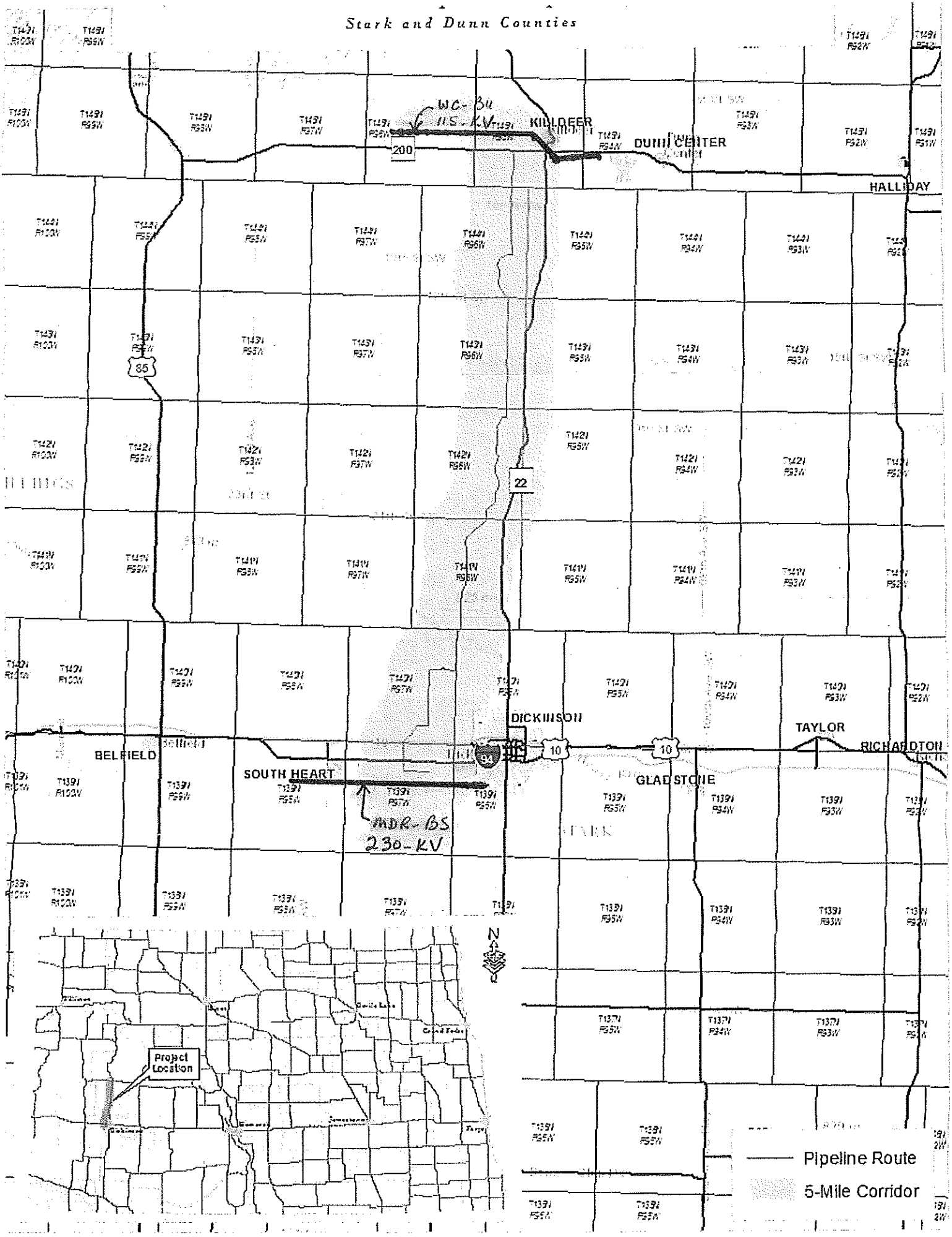
Thank you for allowing us to comment on this project. Please call me at with any questions at (701) 221-4500.

Sincerely,

L. Alan Wood

Enclosure

L. Alan Wood
Realty Specialist


Stark and Dunn Counties
WC-Bu
115-kV
KILLDEER
DUNN CENTER
HALLIDAY
200
85
22
DICKINSON
TAYLOR
RICHARDTON
BELFIELD
SOUTH HEART
GLADSTONE
10
94
MDR-BS
230-kV
Project Location
N
Pipeline Route
5-Mile Corridor

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

REPLY TO
ATTENTION OF

June 25, 2013

North Dakota Regulatory Office

Mr. Chad Wiedenmeyer
Kadrmas Lee and Jackson
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-11571

Dear Mr. Wiedenmeyer:

This is in response to your letter dated June 24, 2013, on behalf of BOE Pipeline, requesting Department of the Army (DA), US Army Corps of Engineers (Corps) comments regarding a proposed project for the development of a crude oil transmission line located in Dunn and Stark County, North Dakota.

Corps regulatory offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 regulates work in or affecting navigable waters. Section 404 regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in the waters of the United States.

Nationwide Permit 12 authorizes activities for the construction of utility lines. A copy of this nationwide permit and conditions is enclosed. **The nationwide permit and conditions are submitted only for informational purposes and in no way is it, or this letter, to confirm that your activity complies with the nationwide permit and conditions.** As explained within Nationwide Permit 12, the permittee is required to submit a pre-construction notification to the Corps of Engineers prior to construction if any of seven criteria are met.

If your proposal would require a Section 10 and/or Section 404 permit, please complete and submit the enclosed Corps of Engineers permit application to the US Army Corps of Engineers, North Dakota Regulatory Office, 1513 South 12th Street, Bismarck, North Dakota 58504. If you are unsure if a permit is required, you may submit an application, or, a letter requesting a jurisdictional determination. Include a project location map, description of work, and construction methodology when submitting either.

Printed on Recycled Paper

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter or phone at (701) 255-0015.

Sincerely,

Daniel E. Cimarosti
State Program Manager
North Dakota Regulatory Office

Enclosures

U.S. ARMY CORPS OF ENGINEERS

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003
EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
E-mail Address -	E-mail Address -
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. w/AREA CODE	10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

_____ _____
SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
	Address
15. LOCATION OF PROJECT	City - State- Zip-
Latitude: °N Longitude: °W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? ☐ Yes ☐ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a
Department of the Army Permit Application

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant, if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality that the site is located in.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Description of Avoidance, Minimization, and Compensation. Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Also provide a brief description of how impacts to waters of the United States will be compensated for, or a brief statement explaining why compensatory mitigation should not be required for those impacts.

Block 24. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identity the authorization, if possible.

Block 25. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 26. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 27. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.**

Vicinity Map

The vicinity map you provide will be printed in any public notice that is issued and used by the Corps of Engineers and other reviewing agencies to locate the site of the proposed activity. You may use an existing road map or US Geological Survey topographic (scale 1:24,000) as the vicinity map. Please include sufficient details to simplify locating the site from both the waterbody and from land. Identify the source of the map or chart from which the vicinity map was taken and, if not already shown, add the following:

- location of activity site (draw an arrow showing the exact location of the site on the map).
- latitude, longitude, river mile, if known, and/or other information that coincides with Block 6 on the application form.
- name of waterbody and the name of the larger creek, river, by, etc., that the waterbody is immediately tributary to.
- names, descriptions and location of landmarks.
- name of all applicable political (county, parish, borough, town, city, etc.) jurisdictions
- name of and distance to nearest town, community, or other identifying locations
- names or numbers of all roads in the vicinity of the site.
- north arrow.
- scale.

Plan View

The plan view shows the proposed activity as if you were looking straight down on it from above. your plan view should clearly show the following:

- Name of waterbody (river, creek, lake, wetland, etc.) and river mile (if known) at location of activity.
- Existing shorelines.
- Mean high and mean low water lines and maximum (spring) high tide line in tidal areas.
- Ordinary high water line and ordinary low water line if the proposed activity is located on a non-tidal waterbody.
- Average water depths around the activity.
- Dimensions of the activity and distance it extends from the high water line into the water.
- Distances to nearby Federal projects, if applicable.
- Distance between proposed activity and navigation channel, where applicable.
- Location of structures, if any, in navigable waters immediately adjacent to the proposed activity.
- Location of any wetlands (marshes, swamps, tidal flats, etc.)
- North arrow.
- Scale.
- If dredged material is involved, you must describe the type of material, number of cubic yards, method of handling, and the location of fill and spoil disposal area. The drawing should show proposed retention levees, weirs, and/or other means for retaining hydraulically placed materials.
- Mark the drawing to indicate previously completed portions of the activity.

Cross Section View and/or Elevation

The elevation and/or cross section view is a scale drawing that shows the side, front, or rear of the proposed activity. If a section view is shown, it represents the proposed structure as it would appear if cut internally for display. Your elevation should clearly show the following:

- Water elevations as shown in the plan view.

- Water depth at water-ward face of proposed activity or, if dredging is proposed, dredging and estimated disposal grades.
- Dimensions from mean high water line (in tidal waters) of proposed fill or float, or high tide line for pile supported platform. Describe any structures to be built on the platform.
- Cross section of excavation or fill, including approximate side slopes.
- Graphic or numerical scale.
- Principal dimensions of the activity

Notes on Drawings*

- Names of adjacent property owners who may be affected. Complete names and addresses should be shown in Block 5 on ENG Form 4345.
- Legal property description: Number, name of subdivision, block, and lot number. Section, Township, and Range (if applicable) from plot, deed, or tax assessment.
- Photographs of the site of the proposed activity are not required; however, pictures are helpful and may be submitted as part of any application.
- **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.**

* Drawings should be as clear and simple as possible (ie, not too "busy").

FACT SHEET
NATIONWIDE PERMIT 12
(2012)

UTILITY LINE ACTIVITIES.

Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as

near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate. (Sections 10 and 404)

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e. water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 31.)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 4: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical

habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those

tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or

parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically for North Dakota, the North Dakota Department of Health has denied water quality certification for all projects proposed to affect Class 1 and 1a rivers or classified lakes, individual certification must be obtained. For project proposed to affect any other waters, the North Dakota Department of Health has issued water quality certification provided the attached Construction and Environmental Disturbance Requirements are followed.*

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification—(a) *Timing.* Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either: (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition
20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any

consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information: (1) Name, address and telephone numbers of the prospective permittee; (2) Location of the proposed project; (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans); (4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate; (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act. (c) *Form of Pre-Construction Notification:* The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also

be used. (d) *Agency Coordination:* (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level. (2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5. (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act. (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of preconstruction notifications to expedite agency coordination.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

2012 Nationwide Permits
Regional Conditions
Omaha District
State of North Dakota

The following Nationwide Permit regional conditions will be used in the State of North Dakota. Regional conditions are placed on Nationwide Permits to ensure projects result in less than minimal adverse impacts to the aquatic environment and to address local resources concerns.

Wetlands Classified as Peatlands – Revoked for Use

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38 and 45, are revoked for use in peatlands in North Dakota.

Peatlands are saturated and inundated wetlands where conditions inhibit organic matter decomposition and allow for the accumulation of peat. Under cool, anaerobic, and acidic conditions, the rate of organic matter accumulation exceeds organic decay. Peatlands can be primarily classified into ombrotrophic bogs and minerotrophic fens; the latter subdivided into poor, moderate-rich, and extreme-rich fens, each with distinctive indicator species, community physiognomy, acidity, alkalinity, and base cation content.

Wetlands Classified as Peatlands – Pre-construction Notification Requirement

For Nationwide Permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 31 (Notification) prior to initiating any regulated activity impacting peatlands in North Dakota.

Waters Adjacent to Natural Springs – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

Borrow Site Identification – All Nationwide Permits

The permittee is responsible for ensuring that the Corps is notified of the location of any borrow site that will be used in conjunction with the construction of the authorized activity so that the Corps may evaluate the site for potential impacts to aquatic resources, historic properties, and endangered species. For projects where there is another lead Federal agency, the permittee shall provide the Corps documentation indicating that the lead Federal agency has complied with the National Historic Preservation Act and Endangered Species Act for the borrow site. The permittee shall not initiate work at the borrow site in conjunction with the authorized activity until approval is received from the Corps.

Counter-sinking Culverts and Associated Riprap – All Nationwide Permits

That culverts and riprap proposed to be installed within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota shall be installed one foot below the natural streambed. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

REGIONAL CONDITIONS APPLICABLE TO SPECIFIC NATIONWIDE PERMITS

Nationwide Permit 7 – Outfall Structures and Associated Intake Structures and Nationwide Permit 12 – Utility Line Activities

Intake Structures - Intake screens with a maximum mesh opening of 1/4-inch must be provided, inspected annually, and maintained. Wire, Johnson-like, screens must have a maximum distance between wires of 1/8-inch. Water velocity at the intake screen shall not exceed ½-foot per second.

Pumping plant sound levels will not exceed 75 dB at 50 feet.

Intakes located in Lake Sakakawea, above river mile 1519, are subject to the following conditions:

- The intakes shall be floating.
- At the beginning of the pumping season, the intake shall be placed over water with a minimum depth of 20 feet.
- If the 20-foot depth is not attainable, then the intake shall be located over the deepest water available.
- If the water depth falls below six feet, the intake shall be moved to deeper water or the maximum intake velocity shall be limited to ¼ foot per second.

Intakes located in Lake Sakakawea, below river mile 1519, and in the Missouri River below Garrison Dam are subject to the following conditions:

- The intakes shall be submerged.
- At the beginning of the pumping season, the intake will be placed at least 20 vertical feet below the existing water level.
- The intake shall be elevated 2 to 4 feet off the bottom of the river or reservoir bed.
- If the 20-foot depth is not attainable, then the intake velocity shall be limited to ¼-foot per second with the intake placed at the maximum practicable attainable depth.

Nationwide Permit 11 – Temporary Recreational Structures - Boat Docks

a. If future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

b. No boat dock shall be located on a sandbar or barren sand feature located in or along the banks of the Missouri River.

c. The farthest point riverward on the dock located on the Missouri River proper shall not exceed a total length of 30 feet from the ordinary high water line found along the high bank out into the River. Information Note: Issuance of this permit does not supersede authorization required by the North Dakota State Engineer's Office.

d. Any boat dock located on the Missouri River shall be anchored to the top of the high bank.

e. Any boat dock located within an excavated bay or marina off the main river channel may be anchored to the bay or marina bottom with spuds.

Nationwide Permit 13 - Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

Nationwide Permit 23 - Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota. In addition to information required by General Condition 31, permittees must identify the approved categorical exclusion that applies and provide documentation that the project fits the categorical exclusion.

Nationwide Permit 27 - Aquatic Habitat Restoration, Establishment and Enhancement Activities

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

GENERAL CONDITIONS (REGIONAL ADDITIONS)

General Condition 3- Spawning Areas

No regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July. North Dakota Public Fishing Waters can be accessed at: http://gf.nd.gov/fishing/nd-fish-wat.html. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

General Condition 6 – Suitable Material

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material. Specific verbiage on prohibited materials can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

General Condition 9 - Management of Water Flows

Permittees are reminded that water flow management addressed in General Condition 9 is applicable to all aspects of a permitted project, including temporary features.

General Condition 31 – Pre-construction Notification

Prospective permittees should be aware that a **field delineation** may be required for applications where notification is required in accordance with General Condition 31 and/or mitigation may be required. The Corps 1987 Wetland Delineation Manual and applicable Regional Supplements to the Manual can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
1616 CAPITOL AVENUE
OMAHA NE 68102-4901

REPLY TO
ATTENTION OF

July 11, 2013

Planning, Programs, and Project Management Division

Mr. Chad Wiedenmeyer
Kadrmas, Lee, & Jackson, Inc.
128 Soo Line Drive
Bismarck, North Dakota 58501

Dear Mr. Wiedenmeyer:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated June 24, 2013 regarding the environmental report for BOE Pipeline, LCC's proposed construction of a 40 mile long, 16 inch steel crude oil transmission line and other associated pipeline appurtenances including the construction of pump and truck off loading facility. It is understood that construction of this pipeline would start in Killdeer, North Dakota in Dunn County and run through Dickinson, North Dakota in Stark County. The Corps offers the following comments:

Your plans should be coordinated with the state water quality office in which the project is located to ensure compliance with federal and state water quality standards and regulations mandated by the Clean Water Act and administered by the U.S. Environmental Protection Agency (USEPA). Please coordinate with the North Dakota Department of Health concerning state water quality programs.

If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the North Dakota Game and Fish Department regarding fish and wildlife resources. In addition, the North Dakota State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area.

Since the proposed project does not appear to be located within Corps owned or operated lands, we are providing no floodplain or flood risk information. To determine if the proposed project may impact areas designated as a Federal Emergency Management Agency special flood hazard area, please consult the following floodplain management office:

North Dakota State Water Commission
Attention: Jeff Klein
900 East Boulevard Avenue
Bismarck, North Dakota 58505-0850
jjklein@nd.gov
T-701-328-4898
F-701-328-3747

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided website (http://www.nwo.usace.army.mil/Missions/RegulatoryProgram.aspx) to determine if this project requires a 404 permit. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

U.S. Army Corps of Engineers
Bismarck Regulatory Office
Attention: CENWO-OD-R-ND/Cimarosti
1513 South 12th Street
Bismarck, North Dakota 58504

If you have any questions, please contact Ms. Amanda Ciurej of my staff at (402) 995-2897.

Sincerely,

for Eric Laux
Acting Chief, Environmental Resources and Missouri River Recovery Program Plan Formulation Section

Jack Dalrymple, Governor
Mark A. Zimmerman, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

April 30, 2013

Nate Frickel
Kadrmas, Lee and Jackson
128 Soo Line Drive
Bismarck, ND 58501

Re: Pipeline Project

Dear Mr. Frickel:

Thank you for your interest in the Department's Natural Heritage Inventory biological conservation database. The Department did not conduct an environmental review for this particular project site but only conducted a search in our database which includes data only for species of concern and significant ecological communities. Other lands and projects that are owned or managed by the ND Parks & Recreation Department were not included in this search such as: state parks, state nature preserves, Land and Water Conservation Fund projects, Recreational Trails Program projects, and Scenic Byways and Backways.

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, several occurrences have been identified within or adjacent to the project area. Please see the attached map and documents for more information. We defer further comments regarding animal species to the North Dakota Game and Fish Department and the United States Fish and Wildlife Service.

Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

The ND Parks & Recreation Department would appreciate being consulted during the public scoping and/or environmental assessment of the project.

Thank you for the opportunity to provide preliminary data for the project site. Please contact me if additional information is needed.

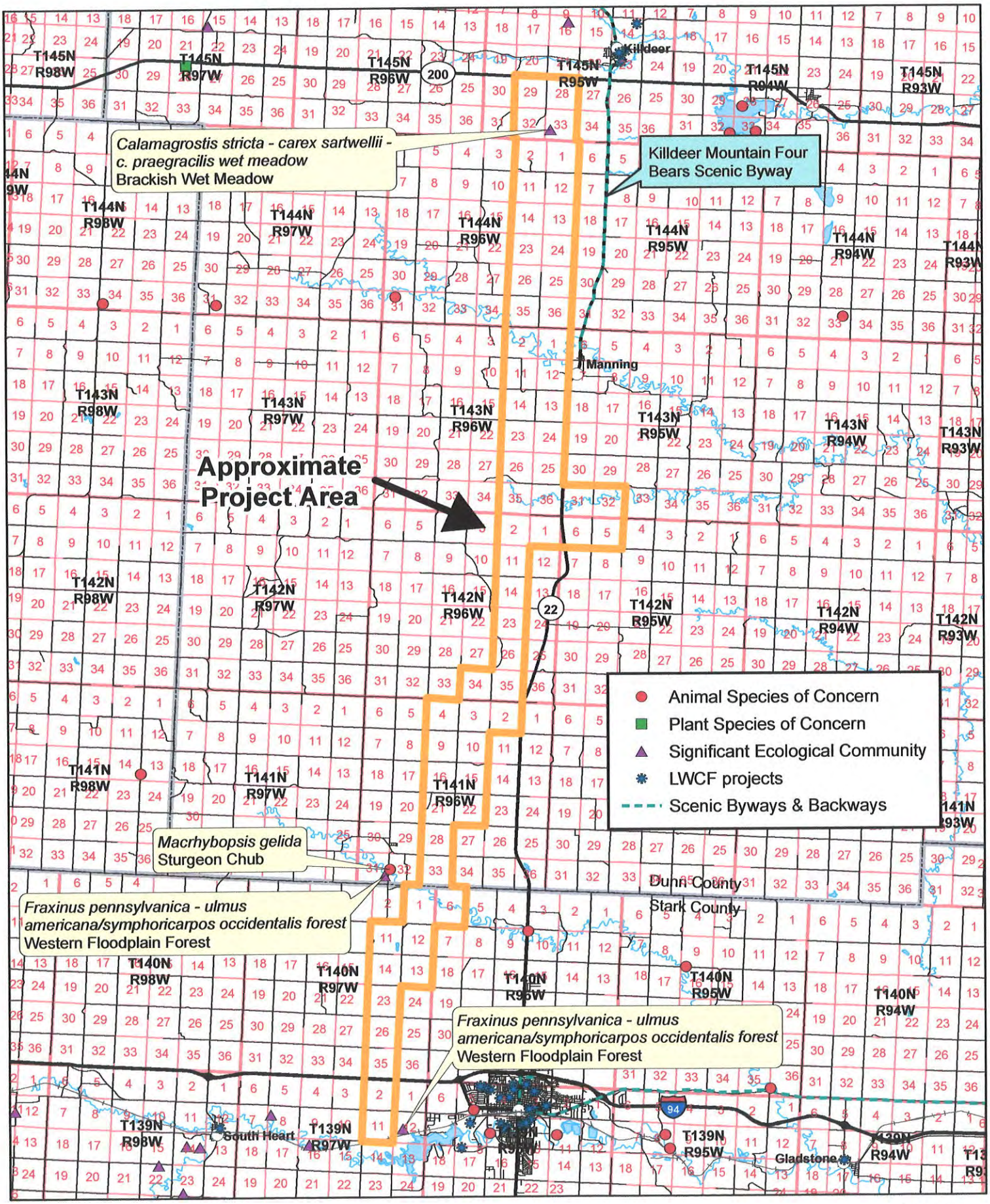
Sincerely,

Kathy Duttenhefner
Coordinator/Biologist
Natural Resource Program
Natural Areas Registry/Natural Heritage Inventory
701-328-5370 (office)
701-220-3377 (cell)
kgduttenhefner@nd.gov

R.USNDNHI*R13-24

Play in our backyard!

North Dakota Parks and Recreation Department
North Dakota Natural Heritage Inventory



April 2013

North Dakota Natural Heritage Inventory
Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
Calamagrostis stricta - carex sartwellii - c. praegracilis wet meadow	Brackish Wet Meadow	S253	GNR		145N095W - 33; 145N095W - 31; 145N095W - 27; 145N095W - 29; 145N095W - 28; 144N096W - 01; 145N095W - 34; 144N096W - 02; 144N095W - 06; 145N095W - 32; 144N096W - 03	Dunn	1976		M
Fraxinus pennsylvanica - ulmus americana/ symphoricarpos occidentalis forest	Western Floodplain Forest	S3	GNR		139N096W - 06; 139N097W - 11; 139N097W - 02; 139N096W - 18; 139N097W - 13; 139N097W - 14; 139N097W - 01; 139N096W - 07; 139N097W - 12	Stark	1976-09-12		M
Fraxinus pennsylvanica - ulmus americana/ symphoricarpos occidentalis forest	Western Floodplain Forest	S3	GNR		141N096W - 31; 141N096W - 29; 140N097W - 03; 140N097W - 01; 141N096W - 33; 141N097W - 36; 141N096W - 32; 141N096W - 30; 140N097W - 02; 141N097W - 25	Dunn, Stark	1976-09-13		M
Macrhybopsis gelida	Sturgeon Chub	S2	G3		141N096W - 31; 141N096W - 32	Dunn	1973-07-17		S

North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

The quantity and quality of data collected by the North Dakota Natural Heritage Inventory are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in North Dakota have never been thoroughly surveyed, and new species are still being discovered. For these reasons, the Natural Heritage Inventory cannot provide a definite statement on the presence, absence, or condition of biological elements in any part of North Dakota. Natural Heritage data summarize the existing information known at the time of the request. Our data are continually upgraded and information is continually being added to the database. This data should never be regarded as final statements on the elements or areas that are being considered, nor should they be substituted for on-site surveys.

Estimated Representation Accuracy

Value that indicates the approximate percentage of the Element Occurrence Representation (EO Rep) that was observed to be occupied by the species or community (versus buffer area added for locational uncertainty). Use of estimated representation accuracy provides a common index for the consistent comparison of EO reps, thus helping to ensure that aggregated data are correctly analyzed and interpreted.

Very high (>95%)
High (>80%, <= 9S%)
Medium (>20%, <= 80%)
Low (>0%, <= 20%)
Unknown
(null) - Not assessed

Precision

A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using dots.

S - Seconds: accuracy of locality mappable within a three-second radius; 100 meters from the centerpoint
M - Minute: accuracy of locality mappable within a one-minute radius; 2 km from the centerpoint
G - General: accuracy of locality mappalbe to map or place name precision only; 8 km from centerpoint
U - Unmappable

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
PO Box 1458
Bismarck, ND 58502-1458

June 27, 2013

Chad Wiedenmeyer
KLJ Project Manager
128 Soo Line Drive
Bismarck, North Dakota 58501

RE: Bakken Oil Express Pipeline Project
BOE Pipeline, LLC
Dunn and Stark County, North Dakota

Dear Mr. Wiedenmeyer:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated June 24, 2013, concerning the development of a crude oil transmission line to be located in Dunn and Stark Counties.

Farmland Protection Policy Act

NRCS has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide importance and local importance) to non-agriculture use. It appears your proposed project is not supported by federal funding, therefore, FPPA does not apply and no further action is needed.

Wetlands

The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetlands for the purpose or to have the effect of making agricultural production possible, loss of USDA benefits could occur. The NRCS has developed the following guidelines for the installation of permanent structures where wetlands occur. If these guidelines are followed the impacts to the wetlands will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements:

- Disturbance to the wetland must be temporary.
- No drainage of wetland is allowed (temporary or permanent).
- Mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained.

- Temporary side cast material must be placed in such a manner not to be dispersed in the wetland.
- All trenches must be backfilled to the original wetland bottom elevation.

NRCS would recommend that impacts to wetlands be avoided.

If you have additional questions pertaining to FPPA, please contact Steve Sieler, Liaison Soil Scientist, NRCS, Bismarck, ND at 701-530-2019.

Sincerely,

WADE D. BOTT
State Soil Scientist

June 27, 2013

RECEIVED
JUL 01 2013

Chad Wiedenmeyer
Kadrmas, Lee and Jackson
128 Soo Line Drive
Bismarck, ND 58502

"Letter of Clearance" In Conformance with the North Dakota Federal Program Review System - State Application Identifier No.: ND130627-0262

Dear Mr. Wiedenmeyer:

SUBJECT: Bakken Oil Express Pipeline Project

The above referenced notice has been reviewed through the North Dakota Federal Program Review Process. As a result of the review, clearance is given to the project only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or area of impact, from the project description submitted for review, then it is necessary to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office. Your continued cooperation in the review process is much appreciated.

Sincerely,

Jeff Rotenberger
Energy Program Manager
Division of Community Services

jml

NORTH DAKOTA
DEPARTMENT *of* HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

July 1, 2013

Mr. Chad Wiedenmeyer
Project Manager
KLJ
P.O. Box 1157
Bismarck, ND 58502-1157

Re: Bakken Oil Express Pipeline Project, Dunn and Stark Counties

Dear Mr. Wiedenmeyer:

This department has reviewed the information concerning the above-referenced project submitted under date of June 24, 2013, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

3. Oil and gas related construction activities disturbing five or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a

recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

5. The proposed project appears to have the potential to be a source of emissions to the air capable of causing or contributing to air pollution and may be required to have an Air Pollution Control Permit to Construct/Operate as required by Chapter 33-15-14 of the North Dakota Air Pollution Control Rules. The applicant should contact the Department's Air Pollution Control Program at 701-328-5188 prior to commencing construction.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

July 2, 2013

Chad Wiedenmeyer
Project Manager
Kadrmas Lee & Jackson
P.O. Box 1157
Bismarck, ND 58502-1157

DEVELOP A CRUDE OIL TRANSMISSION LINE FOR BAKKEN OIL EXPRESS PIPELINE, DUNN & STARK COUNTIES, NORTH DAKOTA

We have reviewed your June 24, 2013, letter.

This project should have no adverse effect on the North Dakota Department of Transportation highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer Larry Gangl at 701-227-6510.

Robert Fode

ROBERT A. FODE, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/raf/js
c: Larry Gangl, Dickinson District Engineer

NORTH DAKOTA FOREST SERVICE

"Enhancing the Quality of Life Through Forestry"

August 5, 2013

Chad Wiedenmeyer, Project Manager
KLJ
128 Soo Line Drive- PO Box 1157
Bismarck, ND 58502-1157

Re: Bakken Oil Express Pipeline Project

Dear Mr. Wiedenmeyer,

The North Dakota Forest Service has reviewed the information concerning the above-referenced project with regard to possible impacts on North Dakota's forest resources. We own no land in or adjacent to the proposed project and we believe that impacts to North Dakota's forest resources from the project will be minor.

We ask the project proponents to avoid disturbing forested areas where practical, and encourage the replacement of any trees or shrubs destroyed during the construction process.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

Liz Smith, ND Forest Service

Cc: Larry Kotchman, State Forester

Liz Smith, Stewardship Specialist, NDSU-ND Forest Service
Jamestown Field Office 300 2nd Ave NE, Suite 208A Jamestown, North Dakota 58401
701-400-8330 liz.smith@ndsu.edu www.ndsu.edu/ndfs

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

RECEIVED
JUL 24 2013

July 19, 2013

Chad Wiedenmeyer
Project Manager
KLJ
PO Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wiedenmeyer:

RE: Bakken Oil Express Pipeline Project

BOE Pipeline, LLC is proposing to construct approximately 40 miles of 16-inch steel crude oil pipeline from near Killdeer to a Bakken Oil Express rail hub facility near Dickinson in Dunn and Stark Counties, North Dakota. The project will include installation of all associated pipeline appurtenances and construction of a pump and truck off-loading facility near Killdeer. The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

The pipeline corridor crosses the Green, Heart and Knife Rivers, as well as Spring Creek, all Classified fisheries. We recommend these streams be crossed by directional boring if possible to protect the resource. If this method is not feasible, construction should not take place within the waterways between April 15 and June 1, and controls should be implemented to minimize erosion and sedimentation.

The National Wetland Inventory indicates various wetlands within the proposed project corridor. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas.

We do not believe this project will have a significant adverse effect on wildlife or wildlife habitat, including species of concern, provided these recommendations are implemented where appropriate and disturbed areas are reclaimed to pre-project conditions.

Sincerely,

Greg Link
Chief
Conservation & Communication Division

js

Chad Wiedenmeyer

From: Murphy, Ed C. <emurphy@nd.gov>
Sent: Friday, June 28, 2013 9:30 AM
To: Chad Wiedenmeyer
Subject: Bakken Oil Express Pipeline Project

Hi Chad,

The North Dakota Geological Survey has mapped a few isolated landslides in T.141N, R97W to the north and along the escarpment I n the general vicinity of the proposed pipeline. The landslides are mapped separately on the 100K Killdeer sheet https://www.dmr.nd.gov/ndgs/landslides/ND100klandslide.asp and https://www.dmr.nd.gov/ndgs/landslides/Killdeer/100k/kldr_100k_l.pdf and are included on the surface geology 24K quadrangles maps (such as the Manning SE quad) https://www.dmr.nd.gov/ndgs/surfacegeo/KILLDEER_100K/WebSurfaceGeology/24k/mnng_se_sg.pdf that can be accessed from our homepage. These slides were mapped from aerial photographs that were typically flown in the summer or early fall (with the leaves on) between 1957-1962. For that reason, the maps should be viewed as a general indicator as to the slope stability in a given area and not as an exact landslide inventory.

Please contact me if you have any questions.

Ed

Edward C. Murphy
State Geologist
North Dakota Geological Survey
North Dakota Department of Mineral Resources
North Dakota Industrial Commission
600 East Boulevard
Bismarck, North Dakota 58505
ph 701-328-8000
fax 701-328-8010
emurphy@nd.gov

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: http://swc.nd.gov

July 16, 2013

Chad Wiedenmeyer
KLJ
PO Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wiedenmeyer:

This is in response to your request for review of environmental impacts associated with the Bakken Oil Express Pipeline Project, BOE Pipeline, LLC, located in Dunn and Stark County, ND.

The proposed project has been reviewed by State Water Commission staff and the following comments are provided:

- There are floodplains identified and/or mapped where the proposed project is to take place. The areas are designated as Zone AE. North Dakota has not formal "permitting" authority as a state entity in the National Flood Insurance Program (NFIP) identified floodplain areas. The permitting is always done by the local entity, which has jurisdiction in the area in question. Please work closely with the County Floodplain Administrator. The Stark County Floodplain Administrator is: Dianne Brines; PO Box 130; Dickinson, ND 58601; dbrines@nd.gov; 701-456-7672. The Dunn County Floodplain Administrator is: Sandy Rohde; 205 Owens Street; Manning, ND 58642; sandy.rohde@dunncountynd.org; 701-573-4323.

- A attached is a map showing the existing infrastructure of the Southwest Pipeline Project (SWPP). Please contact Southwest Water Authority before crossing any SWPP. Also a rural distribution pipeline north of the Green River in Dunn County will be designed and bid in early 2014.

- It is the responsibility of the project sponsor to ensure that local, state and federal agencies are contacted for any required approvals, permits, and easements.

- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.

- The ND State Water Commission (Commission) maintains a network of observation/monitor water wells throughout the state, and many are located in public right-of-ways. The well location information can be obtained from the Commission's website at: http://swc.nd.gov; then click on "Map and Data Resources"; and then click on "Map Services". If water wells may be affected by your project or accidently damaged, please contact the Water Appropriations Division of the Commission at 701-328-2754.

- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4967.

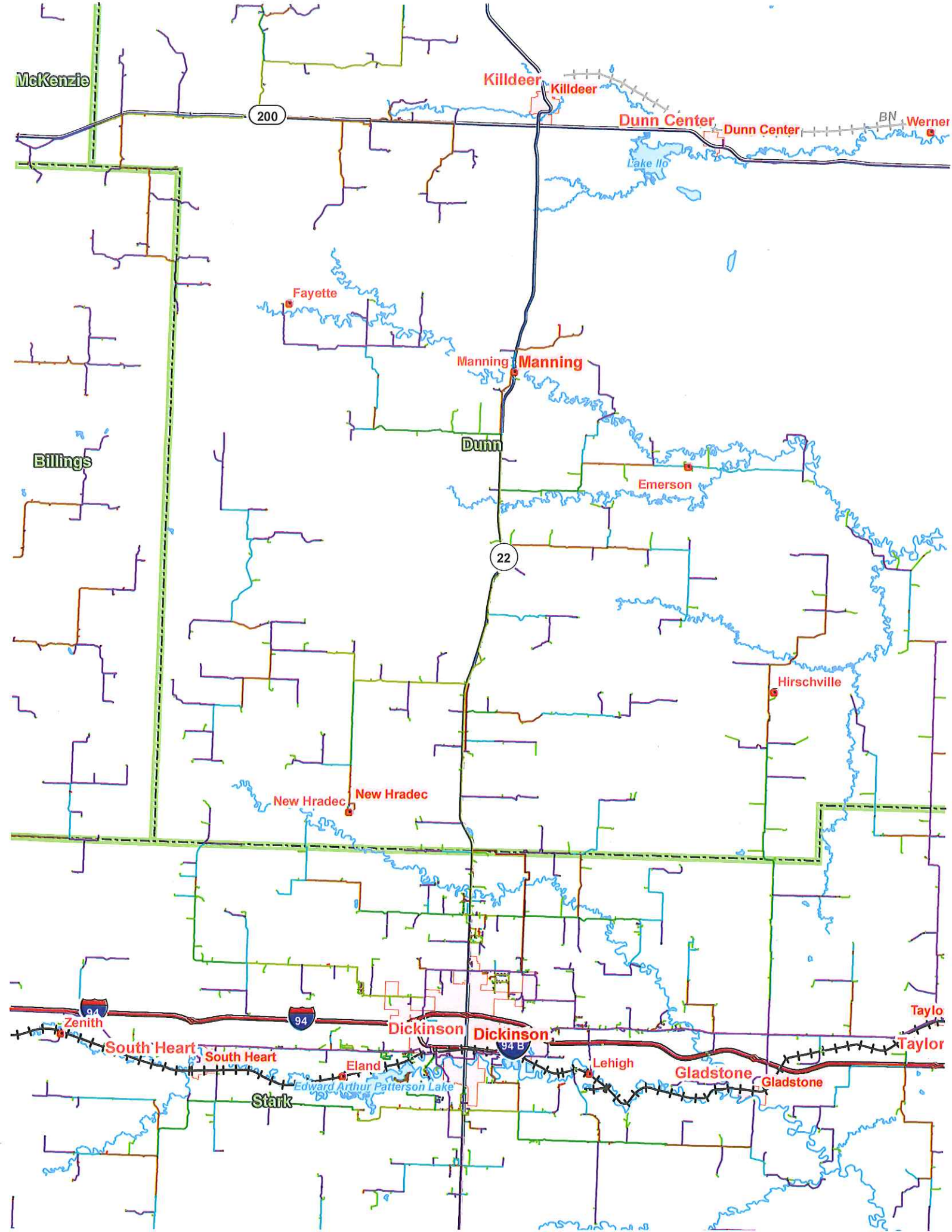
Sincerely,

Linda Weispfenning
Water Resource Planner

LW:dp/1570
Encl.

JACK DALRYMPLE, GOVERNOR
CHAIRMAN

TODD SANDO, P.E.
SECRETARY AND STATE ENGINEER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Werner
Lake Ilo
Fayette
Manning
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Dunn
Billings
Emerson
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Hirschville
New Hradec
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Zenith
South Heart
South Heart
Dickinson
Dickinson
Eland
Edward Arthur Patterson Lake
Stark
Lehigh
Gladstone
Gladstone
Taylo
Taylor

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

Jack Dalrymple
Governor of North Dakota

North Dakota State Historical Board

Gereld Gerntholz
Valley City - President

Calvin Grinnell
New Town - Vice President

A. Ruric Todd III
Jamestown - Secretary

Albert I. Berger
Grand Forks

Diane K. Larson
Bismarck

Chester E Nelson, Jr.
Bismarck

Margaret Puetz
Bismarck

Sara Otte Coleman
Director
Tourism Division

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Mark Zimmerman
Director
Parks and Recreation Department

Grant Levi
Director
Department of Transportation

Merlan E. Paaverud, Jr.
Director

Accredited by the American Alliance of Museums since 1986

June 27, 2013

Mr. Chad Wiedenmeyer
KLJ Project Manager
KLJ
128 Soo Line Drive
PO Box 1157
Bismarck, ND 58502-1157

NDSHPO REF.: 13-1035 PSC BOE Pipeline, LLC's Bakken Oil Express Pipeline Project in Dunn and Stark Counties, North Dakota

Dear Mr. Wiedenmeyer:

We received your preliminary information regarding NDSHPO REF.: 13-1035 PSC BOE Pipeline, LLC's Bakken Oil Express Pipeline Project in Dunn and Stark Counties, North Dakota, and recommend a Class I (file search) Class II (reconnaissance) and Class III (pedestrian) cultural resource inventory of the project area.

Thank you for the opportunity to review this project to date, and we look forward to review of the Cultural Resources Inventory. If you have questions please contact Susan Quinnell at squinnell@nd.gov or (701) 328-3576.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota

C: Mr. Patrick Fahn, PSC

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E., Suite 400
Aberdeen, South Dakota 57401

RECEIVED
JUL 30 2013

IN REPLY REFER TO:
DESCRM
MC-208

JUL 26 2013

Chad Wiedenmeyer
KLJ Project Manager
Post Office Box 1157
Bismarck, North Dakota 58502-1157

Dear Mr. Wiedenmeyer:

We received your letter regarding the proposed Bakken Oil Express Pipeline project in Dunn and Stark County, North Dakota. We have considered the potential for both environmental damage and impacts to archaeological and Native American religious sites on lands held in trust by the Bureau of Indian Affairs, Great Plains Region. You should be aware, however, that Tribes or Tribal members may have lands in fee status near the site of interest. These lands would not necessarily be in our databases, and the Tribes should be contacted directly to ensure all concerns are recognized. The action considered has the following notification date and project location:

- July 24, 2013 Re: Bakken Oil Express Pipeline Project
  BOE Pipeline, LLC
  Dunn and Stark County, North Dakota

We have no environmental objections to this action as long as the project complies with all pertinent laws and regulations. Questions regarding environmental opinions and conditions can be addressed to Jeffrey Davis, Environmental Protection Specialist, at (605) 226-7656.

We also find that the listed action will not affect cultural resources on Tribal or individual landholdings for which we are responsible. Methodologies for the treatment of cultural resources now known or yet to be discovered – particularly human remains – must nevertheless utilize the best available science in accordance with provisions of the Native American Graves Protection and Repatriation Act, the Archaeological Resources Protection Act of 1979 (as amended), and all other pertinent legislation and implementing regulations. Archaeological concerns can be addressed to Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Deputy Regional Director – Indian Services

United States Department of the Interior
BUREAU OF RECLAMATION
Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502

IN REPLY REFER TO:

JUL 17 2013

DK-5000
ENV-6.00

Mr. Chad Wiedenmeyer
Project Manager
Kadrmas, Lee, & Jackson, Inc.
128 Soo Line Drive
Bismarck, ND 58501

Subject: Solicitation of Comments Regarding Proposed Construction of Crude Oil Transmission Line in Compliance With North Dakota Energy Conversion and Transmission Facility Siting Act, Stark County County, North Dakota

Dear Mr. Wiedenmeyer:

This letter is written to inform you that we received your letter of June 24, 2013, and the information and map you provided have been reviewed by Bureau of Reclamation staff. Your pipeline route generally overlaps an existing Reclamation facility in T139N R97/96W at: Edward Arthur Patterson Lake, a.k.a. Dickinson Reservoir.

It is difficult to adequately evaluate the precise location of your proposed project but Federal, Reclamation facilities are located in Sections 12, 13, 14 T139N, R97W Dickinson South and Sections 7, 8, and 18 of T139N, R96W Dickinson South, ND (refer to map). Originally an important source of municipal raw water for the community of Dickinson prior to the advent of the Southwest Pipeline Project, it now serves as an important recreation area and source of irrigation water.

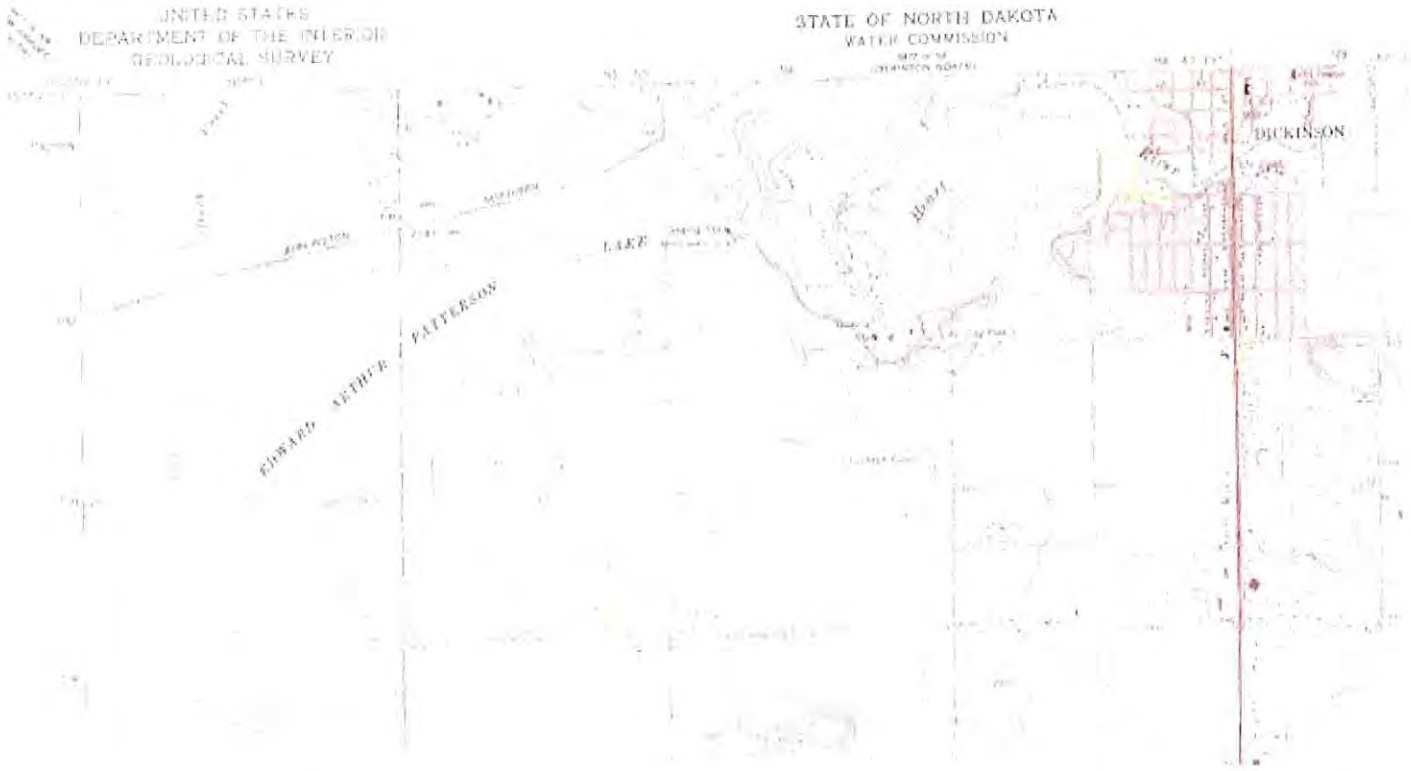
Should your project need to cross federal, Reclamation project lands, please contact Reclamation's engineer (shown below), as Reclamation requests that you provide us an opportunity to review the designs, would provide you with crossing requirements, and a Special Use Permit would be required prior to construction. Please be sure to allow adequate time for review and permit processing.

Subject: Solicitation of Comments Regarding Proposed Construction of Crude Oil Transmission Line in Compliance With North Dakota Energy Conversion and Transmission Facility Siting Act, Stark County County, North Dakota

For engineering questions regarding Reclamation facilities please contact Duane Krogstad, Civil Engineer, at 701-221-1255 or should you have any further environmental questions regarding Reclamation facilities, please contact me at 701-221-1287. Thank you for providing the information and opportunity to comment.

Sincerely,

Kelly B. McPhillips
Environmental Specialist



Reclamation Reservoir Associated Project Lands in Sections 12, 13, 14 T. 139 N, R. 97 W, Dickinson South and Sections 7, 8, and 18 of T. 139 N, R. 96 W, Dickinson South, North Dakota

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

AUG 0 9 2013

Chad Wiedenmeyer
KLJ Project Manager
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-1157

Re: Bakken Oil Express Pipeline Project, BOE Pipeline
In reply, please reference TAILS #2013-CPA-0384

Dear Mr. Wiedenmeyer:

This is in response to your letter dated June 24, 2013, regarding a proposed 16-inch steel crude oil pipeline. BOE Pipeline, LLC, (BOE Pipeline) has proposed to construct a pipeline extending approximately 40 miles from Killdeer, Dunn County, to a Bakken Oil Express rail hub facility near Dickinson, Stark County, North Dakota.

The U.S. Fish and Wildlife Service (Service) offers the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", E.O 13186 MOU with the Department of Defense, the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), Executive Order 11990 "Protection of Wetlands", the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), and the National Environmental Policy Act (NEPA) (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended).

Threatened, Endangered and Candidate Species

If a federal agency authorizes, funds, or carries out a proposed action, the responsible federal agency, or its designated agent, is required to evaluate whether the action "may affect" listed species. If the federal agency determines the action "may affect, is likely to adversely affect" listed species, then the federal agency shall request formal section 7 consultation with this office, or work with this office to remove the likely adverse effects before proceeding. If the evaluation shows a "no effect" determination on listed species, further consultation is not necessary.

If a non-federal entity receives federal funding for an activity, or if any federal permit or license is required, the federal agency may designate, in writing, the fund recipient or permit applicant as its agent for purposes of informal section 7 consultation. The funding, permitting, or licensing

federal agency is responsible to ensure that its actions comply with the ESA, including obtaining concurrence from the Service for any action that may affect a threatened or endangered species, or result in the destruction or adverse modification of designated critical habitat.

The responsibility for compliance with the ESA remains with the federal action agency. Therefore, section 7 consultation cannot be completed until the U.S. Army Corps of Engineers (Corps) has provided the Service with written designation of BOE Pipeline or KLJ as its non-federal agent. Until such time as the Corps designates a non-federal agent for informal consultation, the following comments should be considered as preliminary, and are to be used to assist with project planning.

To obtain information on Service trust resources including federally threatened, endangered and candidate species and designated critical habitat that may occur in the identified areas, or may be affected by the proposed activities, we recommend you access the North Dakota Ecological Services Field Office website at http://www.fws.gov/northdakotafieldoffice/. You may also access the Service's Information, Planning, and Conservation System (IPaC) website at http://ecos.fws.gov/ipac/.

The Dakota skipper and Sprague's pipit are species that are candidates for listing under the ESA. No legal requirement exists to protect candidate species; however, it is within the spirit of the ESA to consider these species as having significant value and worth protecting. The Service's Candidate Conservation Program provides a means for conserving these species. Early conservation preserves management options, minimizes the cost of recovery, and reduces the potential for restrictive land use policies in the future. Through Candidate Conservation Agreements and Candidate Conservation Agreements with Assurances the Service can work with interested public and private parties to identify threats to candidate species or species at risk. If there is a federal nexus, a federal agency may also request a conference on any proposed action that may affect a proposed or candidate species.

Migratory Birds

The MBTA prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the MBTA has no provision for allowing incidental take, the Service realizes that some birds may be killed during project construction and operation even if all known reasonable and effective measures to protect birds are used. The Service Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and agencies that have taken effective steps to avoid take of migratory birds, and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals, companies, and agencies that take migratory birds without identifying and implementing all reasonable, prudent, and effective measures to avoid that take. Individuals, companies, or agencies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and

to implement those measures prior to/during construction or similar activities.

To the extent practicable, schedule construction for late summer or fall/early winter so as not to disrupt migratory birds during the breeding season, February 1 to July 15. If work is proposed to take place during the breeding season, there may be take of migratory birds, their eggs, or active nests. Alternatively, a qualified biologist could be hired to conduct bird/nest surveys within five days prior to the initiation of construction. If active nests are identified, the project proponent should cease construction, maintain a sufficient buffer around active nests to avoid disturbing breeding activities and contact the Service immediately. The Service recommends that BOE Pipeline implement all practicable measures to avoid all take, such as suspending construction where necessary, and/or maintaining adequate buffers to protect the birds until the young have fledged. The Service further recommends that if you choose to conduct field surveys for nesting birds with the intent of avoiding take, that you maintain any documentation of the presence of migratory birds, eggs, and active nests, along with information regarding the qualifications of the biologist(s) performing the survey(s), and any avoidance measures implemented at the project site. Should surveys or other available information indicate a potential for take of migratory birds, their eggs, or active nests, the Service requests that you contact this office for further coordination on the extent of the impact and the long-term implications of the intended use of the project on migratory bird populations.

Our GIS analysis of the proposed project shows that it crosses a number of wetlands and native prairie. These habitat types provide important ecological services, including nesting and foraging habitat for migratory birds. Wetlands take at least two to three years for the vegetation to return, and at least this long for full functionality to be recovered. Native prairie can take a decade or more to recover, and even then, the replanted area is not as diverse as the original habitat. Additionally, non-natives which become established when the project area is disturbed may spread into the adjacent prairie.

To help ameliorate these impacts, the Service suggests that BOE Pipeline develop a conservation plan for migratory birds to compensate for the impacts associated with the construction, operation, and maintenance of the proposed project. We recommend that the conservation plan include the following: an analysis of the type and acreage of each habitat impacted; a discussion of how impacts on native habitat (wetlands, native prairie, woody draws) will be avoided or minimized to the extent practicable; a plan to reclaim the native habitat that cannot be avoided; a monitoring plan to ensure that reclamation is successful and that non-natives do not take over; and a compensation plan for the impacts on native habitat that cannot be avoided. As part of the conservation plan, we recommend that BOE Pipeline may consider purchasing perpetual grassland easements or perform additional habitat mitigation to ensure that the overall amount and quality of native habitat does not decline as a result of this project. In addition to benefitting migratory birds, the actions in the conservation plan may also benefit any candidate species that may be affected. Prairie conversion was a major factor in the decision to add the Sprague's pipit and Dakota skipper to the list of candidate species, so efforts to compensate for native prairie habitat loss could also be included as part of the conference on candidate species, if applicable.

Bald and Golden Eagles

Bald and Golden Eagles are federally-protected under both the BGEPA and the MBTA. The BGEPA prohibits anyone without a permit issued by the Secretary of the Interior from taking bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*), including their parts, nests, or eggs. The BGEPA provides criminal and civil penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. The BGEPA defines take as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

The Service's overall management objective for golden eagle and bald eagle populations is to ensure no declines in breeding populations of either species. Numerous relatively minor disruptions to eagle behaviors from multiple activities, even if spatially or temporally distributed, may lead to disturbance that would not have resulted from fewer or more carefully sited activities. The accumulation of multiple land development projects or siting of multiple infrastructures that may be hazardous to eagles can cumulatively reduce the availability of alternative sites suitable for breeding, feeding, or sheltering, resulting in a greater than additive risk of take to eagles.

If your proposed activity is anticipated to result in take of bald or golden eagles, you must first apply for, and receive a permit to take prior to the taking. The determination of the likelihood of take will entail identifying the impacts of your proposed activity. According to the Service's data, there are several documented golden eagle nest in proximity to your proposed activity. There may be additional eagle nests that we are not aware of.

<u>Recommendations Specific to Golden Eagles</u>
Information available to the Service regarding all existing and recent breeding territory data indicates that golden eagles may be present in your proposed activity area. Therefore, we recommend that you make every effort to avoid impacts to golden eagles. If activities are planned within a golden eagle territory, an assessment of the potential for take of a golden eagle will need to be made in conjunction with this office. This entails identifying your proposed activities that may occur in a golden eagle breeding territory, and sharing that information with this office.

The Service recommends that surveys be conducted prior to any on-the-ground activities to determine the extent of any golden eagle breeding territories in the area that may be affected by

the proposed activity. The Service recommends that aerial nest surveys (preferably by helicopter) be conducted within a one-mile wide evaluation corridor or buffer to identify any occupied and unoccupied eagle nest sites in proximity to the proposed project area, including any proposed new access roads. Aerial surveys should be conducted between March 1 and May 15, before leaf-out, so that nests are visible, and so their status (active or inactive) can be determined. A nesting territory or inventoried habitat should be designated as unoccupied by golden eagles ONLY after at least two complete aerial surveys in a single breeding season. Aerial surveys should include the following:

1. Due to the ability to hover and facilitate observations of the ground, helicopters are preferred over fixed wing aircraft, although small aircraft may also be used. The Service requests that BOE Pipeline report any eagle nests found, as well as nests of any other raptors found during the survey. Whenever possible, two observers should be used to conduct the surveys.
2. Observations of any eagle nest sites should be recorded using GPS. The date, location, nest condition, activity status, and habitat should be recorded for each sighting.
3. We request that you share the qualifications of the biologist(s) conducting the survey, method of survey, and results of the survey with the Service.

Alternatively, BOE Pipeline could conduct ground surveys to identify golden eagle nests within a one-mile wide evaluation corridor or buffer between March 1 and May 15. However, be aware that ground surveys are much less reliable than aerial surveys, even during leaf-off conditions, and typically may miss ¾ of eagle nests present. At least two ground observation periods lasting at least four hours or more are necessary to designate an inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. If a golden eagle nest is observed, the project proponent should contact the Service for further consultation.

Please note that maintenance of a minimum ½-mile buffer around active nests may not be adequate to ensure avoidance of take of golden eagles. If the project proponent or federal action agency, if applicable, in conjunction with the Service, determines that any level of take is anticipated, including take due to disturbance, you should work with this office to modify your activity to avoid the take, or apply for a take permit and include the following information:

1. Collect and synthesize relevant project and biological data.
2. Document project avoidance and minimization measures.
3. Quantify the anticipated take.
4. Submit an application and furnish all required information.

Terrestrial Habitat Avoidance and Restoration

Construction activities should be conducted in a manner that will avoid/minimize impacts to the existing habitat in the project area. The following recommendations are intended to reduce construction related impacts.

- Make no stream channel alterations or changes in drainage patterns.
- Avoid placement of fill in wetlands.

- Replace unavoidable loss of wetland habitat with functionally equivalent wetlands
- Install and maintain appropriate erosion control measures to reduce sediment transport to adjacent wetlands and stream channels.
- In replanting native prairie or other grassland habitat, the Service recommends planting a diverse mixture of native cool and warm season grasses and forbs. Recent research has suggested that a more diverse mix, including numerous forb species, is not only ecologically beneficial but is also more weed resistant, allowing for less intensive management and chemical use. In essence, the more species included in a mixture, the higher the probability of providing competition to resist invasion by non-native plants. The seed source should be as local as possible, preferably collected from the nearby native prairie. If seeds and/or plants are obtained commercially, we recommend obtaining seed stock from nurseries within 250 miles of the project area to ensure the particular cultivars are well adapted to the local climate. The Natural Resources Conservation Service (NRCS) compiles a list of vendors in North Dakota that supply conservation seed and plants at http://plant-materials.nrcs.usda.gov/pubs/ndpmcmt8152.pdf. Additional information on native grasses and forbs may be found at the NRCS Bismarck Plant Materials Center website at http://www.plant-materials.nrcs.usda.gov/ndpmc/.

Thank you for the opportunity to comment on this project proposal. If you require further information, please contact Carol Aron of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,

for Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

cc: U.S. Army Corps of Engineers, Bismarck, ND
Attn: D. Cimarosti

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Bismarck, ND 58502-1157
701 355 8400
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KLJ

June 24, 2013

Ms. Laurie Suttmeier
Manager
Bismarck Airports District Office
Federal Aviation Administration
2301 University Drive, Bldg 23B
Bismarck, ND 58504

Re: Bakken Oil Express Pipeline Project
BOE Pipeline, LLC
Dunn and Stark County, North Dakota

Dear Ms. Suttmeier,

On behalf of BOE Pipeline, LLC, KLJ is preparing an application in response to requirements of the North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission. The application is for the development of a crude oil transmission line to be located in Dunn and Stark County. *Please refer to the enclosed project location map.*

The proposed project consists of burying approximately 40 miles of 16-inch steel crude oil pipeline along a corridor beginning near Killdeer, ND and culminating at a Bakken Oil Express rail hub facility near Dickinson, ND. The pipeline project also includes installation of all associated pipeline appurtenances and construction of a pump and truck off-loading facility near Killdeer.

Construction and commercial operation is anticipated to commence in the fourth quarter of 2013 or first quarter of 2014. The pipeline would not be a common carrier and no federal funding is anticipated for the project.

To ensure social, economic and environmental effects are considered in the development of the project, we are soliciting your views and comments on the proposed development. We are particularly interested in any property your department may own, or have an interest in within the project area. We would also appreciate being made aware of any proposed development your department may be contemplating in the proposed project area. Any information that might help us in our study would be welcome.

Date: Aug 29, 2013

US Department of Transportation
Federal Aviation Administration

No objection provided the Federal Aviation is notified of construction or alterations as required by Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, Paragraph 77.9. Notice may be filed on-line at https://oeaaa.faa.gov.

Patricia L. Dressler, Environmental Protection Specialist
FAA/Bismarck Airports District Office
2301 University Drive, Building 23B
Bismarck, ND 58504

NATIONAL PERSPECTIVE
REGIONAL EXPERTISE
TRUSTED ADVISOR

If you have questions or need further information related to the project, please contact:

General/Technical Inquiries
Chad Wiedenmeyer
128 Soo Line Drive
Bismarck, ND 58501
701 250 5957
chad.wiedenmeyer@kljeng.com

Environmental/Cultural Inquiries
Glenn Carpenter
128 Soo Line Drive
Bismarck, ND 58501
701 250 5960
glenn.carpenter@kljeng.com

Thank you for your time and cooperation.

Sincerely,

KLJ

Chad Wiedenmeyer
KLJ Project Manager

Enclosure(s): Project Location Map

Appendix F. Ten Year Plan

TEN YEAR PLAN: 2013 – 2023
BOE PIPELINE, LLC

September 2013

In accordance with Section 49-22-04 of the North Dakota Century Code and Chapter 69-06-02 of the North Dakota Administrative Code, BOE Pipeline, LLC submits the following Ten Year Plan for years 2013 through 2023.

(1) A description of the general location, size, and type of all facilities to be owned or operated by the utility during the ensuing ten years, as well as those facilities to be removed from service during the ten-year period.

The current Project consists of approximately 38 miles of 16-inch steel crude oil pipeline extending from Killdeer, North Dakota to a crude oil rail loading facility located near Dickinson, North Dakota. The Project will be located in the following North Dakota counties: Stark and Dunn. The proposed project is depicted on **Exhibit A** (attached).

Two receipt points will be constructed for input of crude oil. Receipt points will consist of a tee installed in the pipeline to allow connection to a truck terminal or other producer related facilities that are not a part of this Project and will be constructed by others.

In September 2013, the Commission received an application from BOE Pipeline for a Certificate of Corridor Compatibility. The in-service date for this project is as follows:

- Killdeer Station to BOE Rail Terminal: February 2014

(2) An identification of the location of the tentative preferred site for all energy conversion facilities and the tentative location of all transmission facilities on which construction is intended to be commenced within the ensuing five years and such other information as may be required by the commission. The site and corridor identification shall be made in compliance with the criteria published by the commission pursuant to section 49-22-05.1.

There are no energy conversion facilities associated with the BOE Pipeline project. The proposed pipeline route is depicted in **Exhibit A**.

BOE Pipeline evaluated a study area to determine the best location for the placement of the corridor and route in order to minimize any potential land use and environmental impacts, maximize public benefits, and take into consideration design and construction limitations and economics. The selected location of the route within the corridor was made in compliance with Chapter 49-22-05.1, as discussed in the Application for a Certificate of Corridor Compatibility and Route Permit.

(3) A description of the efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for meeting the utility needs of the region.

BOE Pipeline plans to work with the owners of other crude oil pipelines to develop interconnects to maximize the efficient use of collective pipeline capacity within the Williston Basin. In some cases pipelines do compete for some of the same business which may restrict the ability to coordinate. In the future, additional receipt points may be developed, as well as outlet connections with third party pipelines, including potentially the Tesoro High Plains Pipeline system, and the Bridger Pipeline system. Additionally, the strategic position of the Project will encourage the development of pipeline gathering laterals and receipt points and outlet connections with third party pipelines along the pipeline route.

(4) A description of the efforts to involve environmental protection and land-use planning agencies in the planning process, as well as other efforts to identify and minimize environmental problems at the earliest possible stage in the planning process.

BOE Pipeline has consulted with various federal, state, and local governments, as well as local businesses and residents. Scoping letters presenting BOE Pipeline's proposed pipeline project were mailed to the various agencies and governing units in May and June 2013. The recipients of these letters include but are not limited to the following:

- U.S. Fish and Wildlife Service (USFWS)
- Natural Resource Conservation Service
- U.S. Army Corps of Engineers (USACE)
- Bureau of Reclamation
- U.S. Forest Service (USFS)
- National Park Service
- N.D. Game and Fish Department (NDGF)
- N.D. Parks and Recreation Department (NDPRD)
- N.D. Department of Health (NDDH)
- N.D. Water Commission
- N.D. State Land Department
- N.D. State Historical Preservation Office

The United States Fish & Wildlife Service (USFWS) personnel were contacted during the Project scoping to identify wetland easement areas. The USFWS, NDGF, and NDPRD were asked to review the corridor for threatened and endangered species and unique habitats.

Class I and Class III Cultural Resources Inventories were completed to ensure that no historic properties and no significant sites would be affected.

(5) A statement of the projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumptions for the projection, with that information being as geographically specific as possible, and a description of the manner and extent to which the utility will meet the projected demands.

Drilling activity in the catchment area of the pipeline continues to increase. Based on current drilling activity, BOE Pipeline estimates that crude oil production from the Bakken and Three Forks formations will increase significantly beyond the capacity of the BOE Pipeline

pipeline. Further, according to North Dakota Industrial Commission records, North Dakota pumped a record 242 million barrels of oil in 2012; shattering the high set a year earlier by 90 million barrels.[1] Additional crude oil pipelines will be necessary if the drilling activity in the catchment area continues at current levels.

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[1] NDIC, "North Dakota Annual Oil Production." Available at: https://www.dmr.nd.gov/oilgas/stats/2012formation.pdf (accessed August 19, 2013).

Appendix G. Waiver of Procedures and Time Schedules

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

IN THE MATTER OF THE APPLICATION OF BAKKEN OIL EXPRESS PIPELINE, FOR A CERTIFICATE OF CORRIDOR COMPATIBILITY AND ROUTE PERMIT FOR THE CONSTRUCTION OF AN APPROXIMATELY 38-MILE-LONG 16-INCH CRUDE OIL PIPELINE AND ASSOCIATED FACILITIES IN DUNN AND STARK COUNTIES, NORTH DAKOTA	CASE NO. PU-_____

Application of Bakken Oil Express Pipeline,
for Waiver or Reduction of Procedures and Time Schedules

In connection with its submission of a consolidated application for a Certificate of Corridor Compatibility and Route Permit ("Consolidated Application") for a 16-inch crude oil pipeline project, approximately 4 miles in length, all of which will be located in Dunn and Stark Counties, North Dakota (the "Project"), Bakken Oil Express Pipeline ("BOE Pipeline"), submits to the North Dakota Public Service Commission ("Commission") this application for a waiver or reduction of procedures and time schedules set forth in Chapter 49-22 of the North Dakota Century Code ("Siting Act") and Article 69-06 of the North Dakota Administrative Code ("Siting Rules"). In accordance with Section 49-22-07.2 of the North Dakota Century Code and Chapter 69-06-06 of the North Dakota Administrative Code, BOE Pipeline requests that the Commission waive the following requirements:

1. That the Commission hold a separate hearing on a waiver request, a Certificate of Corridor Compatibility (Corridor Certificate) application, and a Route Permit application, as may be required by Sections 49-22-07.2, 49-22-08, 49-22-08.1, and 49-22-13 of the North Dakota Century Code and Chapter 69-06-01-02 of the North Dakota Administrative Code. BOE Pipeline requests that the Commission

hold a single consolidated hearing on this waiver request and its Consolidated Application. BOE Pipeline also requests that the Commission shorten the three-month period specified in Section 49-22-08(5) of the North Dakota Century Code, and the six-month period specified in Section 49-22-08.1(5) of the North Dakota Century Code.

2. That the Commission waive the requirements of Sections 49-22-08 and 49-22-08.1 of the North Dakota Century Code insofar as these sections may require the separate filing of applications for a Corridor Certificate and a Route Permit, and insofar as they require separate publication of notices and filing separate applications.

Consistent with the Commission's Energy and Transmission Facility Siting Guidelines ("Commission's Guidelines"), BOE Pipeline provides the following information in support of its waiver requests:

A. Description of Proposed Project.

1. **Type:** The Project will require installation of an underground steel pipeline that will transport crude oil. Surface structures will include seven automated mainline valve sets, pig launchers and receivers, and cathodic protection equipment.

2. **Product:** The Project will transport crude oil.

3. **Size and Design:** The proposed Project will have a maximum temperature rating of 120 degrees Fahrenheit and a maximum allowable operating pressure (MAOP) of 1,480 psig. The pipeline will have a yield strength of 70,000 pound-force per square inch gauge (psig). The Project will typically operate at 60 degrees Fahrenheit and between 200 to 1,440 psig. The proposed Project will have a maximum daily output of 165,000 bpd. The steel pipeline used for the Project will meet United States Department of Transportation regulations, specifically the

designed criteria outlined in 49 CFR Part 195, Subpart C. The Project will be constructed, operated, and maintained in accordance with 49 CFR Part 195.

4. **Location:** The total length of the Project is approximately 38 miles, all of which is located in Dunn and Stark Counties, North Dakota. The pipeline will transport crude oil from the pumping/offloading station southwest of Killdeer, North Dakota to the BOE Rail Hub station just southwest of Dickinson, North Dakota. The crude oil will then be transported to BOE Rail Hub clients for refinement. Maps of the proposed project are provided in the Consolidated Application, submitted herewith.

5. **Geographic Service Area:** As noted above, the Project will take crude oil from the pumping/offloading station southwest of Killdeer to BOE Pipeline's Rail Hub facility. The immediate area served by the Project will be western North Dakota; however, the crude oil will ultimately be distributed throughout the United States.

6. **Time Schedule:** BOE Pipeline has a target in-service date for the Project of June 2013. BOE Pipeline proposes to develop the Project on the following schedule:

- September 2013 — BOE Pipeline files with the Commission a consolidated application for a Corridor Certificate and Route Permit.
- December 2013 — The Commission issues a Corridor Certificate and Route Permit for the Project.
- December 2013 — BOE Pipeline will begin construction of the Project.
- February 2014 — BOE Pipeline will complete construction of the Project.

7. **Future Plans:** At this time, BOE Pipeline has no specific plans for additions to or modifications of the Project.

B. Need for the Project.

The development of hydrocarbon production in the Williston Basin has increased significantly in recent years due to advancements in deep horizontal directional drilling

techniques and subsequent oil extraction in the Bakken and Three Forks shale formations. The total recoverable amount of Bakken and Three Forks oil reserves is subject to interpretation and speculation. Studies conducted by the North Dakota Department of Mineral Resources (NDDMR)[1] and the U.S. Geological Survey[2] in 2008 and 2010 indicate that 4.0 to 6.3 billion barrels of recoverable reserves are available in North Dakota's Bakken and Three Forks formations. Information from the NDDMR indicates that oil production has increased dramatically over the past five years from approximately 130,000 bpd in November 2007 to nearly 740,000 bpd in November 2012,[3] and production is expected to continue to increase dramatically.[4]

The major constraint in transporting oil from North Dakota to refining centers is the lack of pipeline capacity. Several major projects have been planned to address the growing volumes of crude oil, but pipeline capacity is not expected to keep pace with production until early 2014 at the earliest, leaving incremental volumes to find alternative transportation methods, primarily rail.[5]

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[1] Bohrer, M., Fried, S., Helms, L., Hicks, B., Juenker, B., McCusker, D., Anderson, F., LeFever, J., Murphy, E., and Nordeng, S. North Dakota Department of Mineral Resources. State of North Dakota Bakken Resources Study Project 23 (2008).

[2] United State Geological Survey. Assessment of Undiscovered Oil Resources in the Devonian-Mississippian Bakken Shale Formation, Williston Basin Province, Montana and North Dakota (2008). Web access in March, 2011 at: http://geology.com/usgs/bakken-formation-oil.shtml.

[3] North Dakota Department of Mineral Resources. North Dakota Monthly Oil Production Statistics. Web access in January 2013 at: https://www.dmr.nd.gov/oilgas/stats/historicaloilprodstats.pdf.

[4] North Dakota Department of Mineral Resources. 2012 Williston Basin Petroleum Convention, Williston Basin Outlook, ND. Web access in Sept. 2013 at: http://www.ndoil.org/?id=279&page=2012+WBPC+Presentations.

[5] North Dakota Pipeline Authority. 2012 Williston Basin Petroleum Convention, Williston Basin Export Capacity. Web access in Sept. 2013 at: http://www.ndoil.org/?id=279&page=2012+WBPC+Presentations.

With the constraints to the existing transportation infrastructure in the Project area, construction of the Project will provide BOE Pipeline with a safe and efficient mechanism to transfer crude oil. Additionally, transporting crude oil in western North Dakota currently involves significant movement of crude oil by tanker truck over public roadways, a public safety issue that the Project will prevent. The Project will provide the needed capacity to transport crude oil production safely and economically from the Bakken and Three Forks formations to facilities with access to major markets.

For additional analysis of the need for the Project, including a discussion of alternatives evaluated, please see Section 2.1 of BOE Pipeline's Consolidated Application, which accompanies this waiver application.

C. Cost.

BOE Pipeline estimates that it will cost approximately $14 million to develop the Project.

D. Waiver Request.

BOE Pipeline requests that the Commission grant the waivers requested herein because said waivers are needed to prevent potentially significant delays to the Project. As noted above, the Project is needed to provide a safe and economical means of transporting crude oil from the pumping/offloading station southwest of Killdeer to BOE Pipeline's Rail Hub facility, from which crude oil may be distributed through the United States. Utilizing the Project will eliminate the need to transport the crude oil to rail facilities or other pipeline facilities via truck, which, in turn, will reduce truck traffic on North Dakota roads and highways. Without the waivers of time schedules and procedures requested, completion of the Project will be delayed and the Project will not be able to satisfy the immediate need for a safer, more efficient means of transporting crude oil to facilities that have access to major markets.

Section 49.22-07.2 of the North Dakota Century Code provides that the Commission may waive procedures and time schedules upon a finding that "the proposed facility is of such length, design, location, or purpose that it will produce minimal adverse effects." Based upon the investigation and analysis set forth in BOE Pipeline's Consolidated Application, granting the waivers requested is appropriate because the proposed facility will produce minimal adverse effects due to its length (only approximately 38 miles), its design (an underground, small-diameter pipeline with few above-ground appurtenances), its location (crossing pasture and farmland in rural Dunn and Stark Counties and avoiding Exclusion and Avoidance Areas), and its purpose (underground transportation of crude oil).

In determining whether the proposed facility will result in adverse impacts on the environment, BOE Pipeline evaluated the Project using the criteria set forth in the Siting Act, the Siting Rules, and the Commission's Guidelines. More specifically, BOE Pipeline evaluated the impacts of the Project considering the siting criteria set forth in Section 69-06-08-02 of the North Dakota Administrative Code and the factors set forth in Section 49-22-09 of the North Dakota Century Code. Impacts associated with the Project, and mitigation measures that will be taken with respect to said impacts, are summarized in Sections 3.1 to 3.18 of the Consolidated Application. Based upon BOE Pipeline's siting criteria evaluation, and the factors set forth in the Guidelines, the Project will have minimal adverse effects.

Accordingly, BOE Pipeline respectfully requests that the Commission grant the requested waivers and render an expeditious decision.

Dated this 26th day of September, 2013.

FREDRIKSON & BYRON, P.A.

By _____

LAWRENCE BENDER, ND Bar #03908
JILLIAN RUPNOW, ND Bar #06937
Attorneys for BOE Pipeline, LLC
200 North 3rd Street, Suite 150
P. O. Box 1855
Bismarck, ND 58501-1855
(701) 221-4020

STATE OF NORTH DAKOTA)
) ss.
COUNTY OF BURLEIGH)

JILLIAN RUPNOW, of lawful age, being first duly sworn, on oath deposes and says:

That he is one of the attorneys for Applicant in the foregoing application; that he executed the foregoing application for and on behalf of said Applicant and as its said attorney that she has read said application and knows the contents thereof, and that the statements made and contained therein are, to the best of his knowledge and belief, true and correct.

JILLIAN RUPNOW

Subscribed and sworn to before me this 26th day of September, 2013.

Notary Public
My Commission Expires:

SHEILA A LARSON
Notary Public
State of North Dakota
My Commission Expires April 3, 2018

7372136_1.docx

Appendix H. Waiver of Avoidance Area

Waiver of Avoidance Area

Under North Dakota Century Code 49-22-05.1 and North Dakota Administrative Code 69-06-08-02, a five hundred (500) foot setback is required as an avoidance area for inhabited rural residences.

For and in consideration of a payment of five hundred dollars ($500), and for other good and valuable consideration the undersigned Landowner(s) waive the 500 foot setback requirement as defined in NDCC 49-22-05.1 and NDAC 69-06-08-02 upon the land described below:

Township: 140 North

Range: 97 West

Section: 22

A Tract of Land in the SE1/4 SE1/4

in the County of Stark, State of North Dakota.

The payment required under this Agreement will be mailed to the undersigned Landowner(s) to the address as directed below not later than 60 days after the final line route location is determined.

Should the line location chance so that is ultimately located outside the 500 foot setback area, no payment would be due hereunder and no waiver would be obtained.

The Landowner(s), undersigned, hereby acknowledges receipt of a copy of the Payment Agreement and of the Waiver herein referred to.

Dated: 8-29, 2013

BOE Pipeline, LLC Representative

By: John C Wadsworth

Landowner(s)

By: [signature] 8-28-13

Rick Learn

By: [signature] 8-28-13

Gloria Learn

Make check payable to: Gloria Learn SSN: 501-28-2238

Mailing Address: ~~11611 34th St. SW, Dickinson, ND 58601~~

3391 116th Ave. SW Dickinson, ND 58601

Appendix I. Wetland Report

Appendix J. Cultural Report

Cultural Report Memorandum

Bakken Oil Express (BOE) contracted KLJ to conduct a Class I and Class III Cultural Resource Inventory of their proposed BOE Pipeline Project in Dunn and Stark Counties, North Dakota. The proposed Project was inventoried to Class III standards for the construction of approximately 38 miles of underground pipeline with a 200' wide survey for the Route (930 Acres). Sites identified within the survey corridor were mapped to the extent that permission for survey existed. No survey occurred on lands where permission to survey had not been granted.

The objective of the archaeological investigation was to identify cultural resources within the proposed Project area and provide mapped locations of previously and newly recorded cultural resources in order to avoid the potential impacts to cultural resources. The cultural report describes the results of that investigation for the proposed Project.

A Class I Literature Review of the proposed Project Corridor identified a total of 260 previously recorded sites, site leads, and previously recorded isolated finds within a 2.5 mile radius surrounding the project corridor. The Class III survey was conducted from May 16, 2013 to October 3, 2013. During the course of investigation, no previously recorded sites or isolated finds were encountered as the proposed project avoided all previously recorded sites and isolated finds. One previously recorded site lead was identified within the proposed project area and updated. Fifteen new isolated finds and 12 new sites were recorded during the course of this inventory. If a site was found within the proposed pipeline Route, the Route was altered for the purpose of avoiding the main cultural component. In attempting to prevent undocumented cultural discoveries a 100 foot buffer for prehistoric sites and a 50 foot buffer around historic sites was established.

Provided the *Eligible* and *unevaluated* sites are avoided, KLJ recommends a finding of *No Historic Properties Affected* for the proposed undertaking. In areas in which this buffer is abutting the area of potential effect, KLJ recommends that a cultural monitor be present to insure the historic properties are avoided.

_____

Principal Investigator

Appendix K. BOE Environmental and Stewardship Statement

BAKKEN OIL EXPRESS

PIPELINE, LLC

Environmental Policy

The Bakken Oil Express Pipeline, LLC environmental goal and commitment is to employ industry standards, practices, and quality equipment to have the best assets to operate in an environmentally responsible manner. Bakken Oil Express Pipeline, LLC embraces our responsibility to our communities, the public, and our employees to operate our assets in a safe and environmentally sound manner and will strive to be best in class

Gerald E. O'Shaughnessy

BAKKEN OIL EXPRESS

BOE

PIPELINE, LLC

Statement of Stewardship

Bakken Oil Express Pipeline, LLC is strongly committed to environmental stewardship.

Our philosophy is to not only leave the land in "as-good" or better condition that when we started this pipeline project, but to make sure that landowners are satisfied with ROW reclamation and maintenance after the pipeline is installed.

Bakken Oil Express Pipeline, LLC uses the best available industry standards, practices, and equipment to safely install, operate and maintain our assets in a responsible and economically sound manner. As your neighbor, we firmly believe that our company and employees have a responsibility to local communities, the public, and landowners to minimize the long-term environmental impact to your property.

For a period one year after the pipeline is installed, you will be contacted on a quarterly basis by a Bakken Oil Express Pipeline, LLC representative to hear from you personally how reclamation progress is going as it relates to your property. If you aren't satisfied, let us know and we pledge to work with you to mitigate your concerns to the mutual satisfaction of you and BOE.

After the one year expiration, you are always welcome to call us and let us know how we're doing.

By: _____

John C. Wadsworth

Director of Engineering and Construction, BOE Pipeline, LLC

August 28, 2013

Appendix L. Black and White Project Route

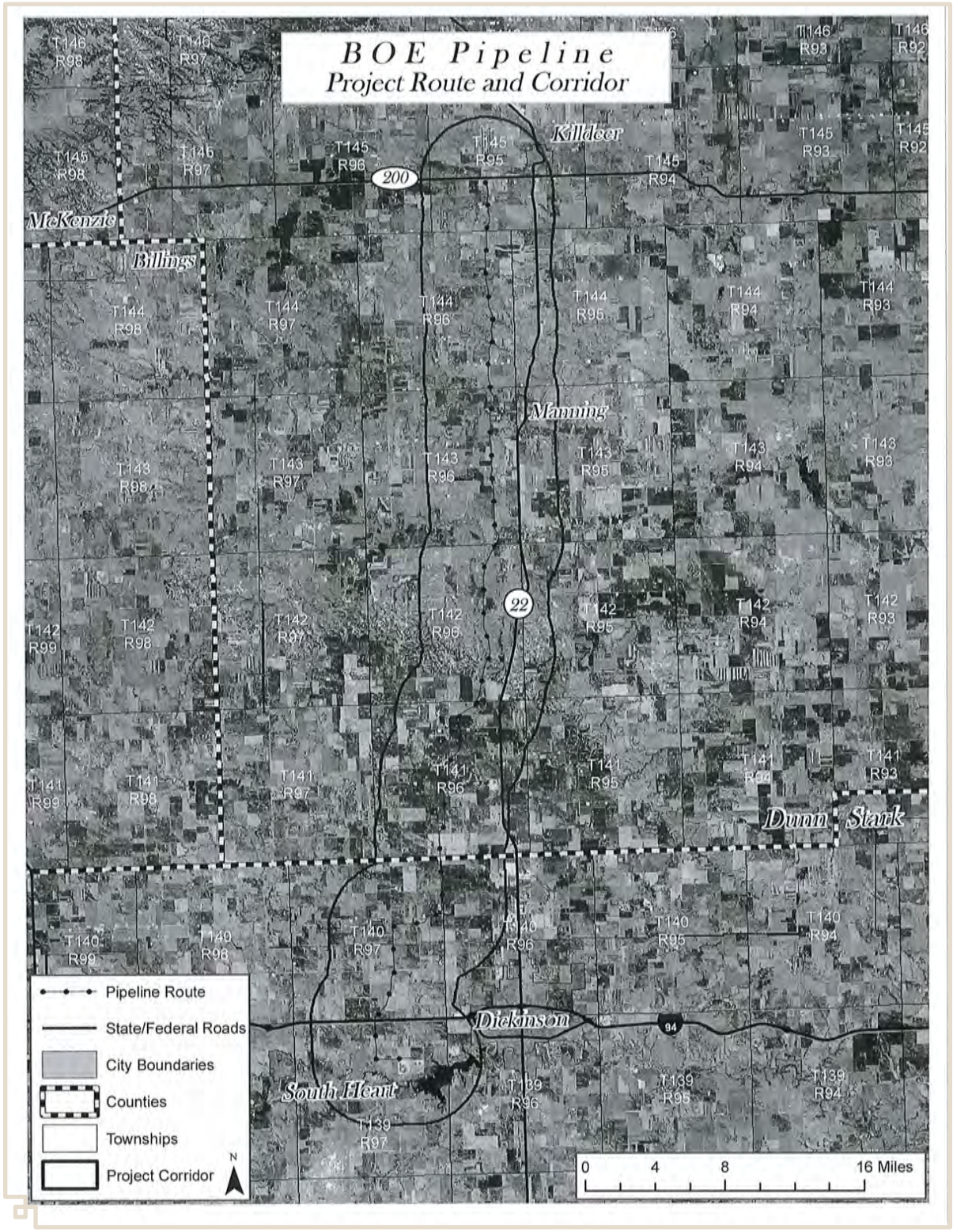

Figure L-1. 8 ½ X 11 Black and White Project Route