

Introduction

Caliber proposes the 5.3 mile-long Bear Den Interconnect Pipeline to transport crude oil from Enable Midstream's Devore Terminal (SWSW Section 29, T 149N, R 98W) to the Dakota Access Pipeline's (DAPL) Watford City Terminal (NWNE Section 1, T 149N, R 99W). The proposed route follows US Hwy 85 in McKenzie County, beginning approximately 7.6 miles south of Watford City, and terminating approximately 2.9 miles south of Watford City near the junction of US Hwy 85 and the US Hwy 85 bypass. The line will consist of a newly constructed 12.75" OD, API5L, Grade X-42, PSL-2, ERW, PE, BFW, TRL crude oil pipeline with a nominal wall thickness of 0.188" and constructed of FBE coated steel. The line will operate at a maximum pressure of 600 psi, with a maximum capacity of 75,000 barrels/day.



Proposed tie-in point at DAPL Watford City Terminal (under construction at time of photo, July 8th, 2016)

In addition to the proposed transmission line, three surface facilities are also proposed. A truck off-load station is proposed for the northern end of the line, to be located in the NWNWNW of Section 12, T 149N, R 99W. This proposed truck off-load station will tie into the proposed transmission line. This yard will also be used as storage and laydown during line construction. A 5-acre pipe laydown yard is proposed in the NENE of Section 14, T 149N, R 99W. A 7-acre truck off-load station is also proposed for the southern end of the line, to be located in the NWSW of Section 30, T 149N, R 98W.

Caliber has determined a need for safe and reliable transportation of crude oil produced in the Watford City area. In addition, more options are needed to provide producers with stable market access during times of market volatility. Therefore, Caliber proposes the construction of the Bear Den Interconnect in McKenzie County, and respectfully submits this Application for Certificate of Corridor Compatibility for the proposed Bear Den Interconnect, in accordance with the requirements set forth in NDCC 49-22-08.1 and NDAC 69-06-05.

1 Description of Facility

1.1 Type of Facility

The proposed project is to construct a pipeline for liquid hydrocarbons, which has an outside diameter greater than 4.5 inches and is greater than one-mile in length. Therefore, the line as currently proposed meets the definition of a “transmission facility” per North Dakota Century Code (NDCC) 49-02-03. The transmission line was designed in compliance with U.S. Department of Transportation (USDOT) requirements, specifically 49 Code of Federal Regulations (CFR) 195.C. Line construction will be conducted per 49 CFR 195.D, and operation and maintenance will be in accordance with 49 CFR 195.F.

1.2 Purpose of Facility

The purpose of the proposed transmission facility is to transport crude oil from Enable Midstream’s Devore Terminal to the DAPL’s Watford City Terminal. From the Watford City Terminal, crude oil would be transferred to the DAPL terminus near Patoka, Illinois for sale. This would provide wider market access to North Dakota oil and gas operators and reduce the burden on local infrastructure.

1.3 Size and Design

The proposed transmission line is approximately 5.3 miles in length and will consist of the following:

- 12.75” OD steel pipe
- API 5L Grade X-42 PSL-2, ERW, PE, BFW, TRL, FBE-coated pipe
- Nominal Wall Thickness of 0.188 inches
- Maximum Operating Pressure of 600 psi
- Normal Throughput of 50,000 barrels per day (bpd)
- Maximum Throughput of 2,184 gallons per minute (gpm), or 75,000 barrels per day
- Maximum Operating Temperature of 120°F

The proposed transmission line will include one pig launcher and one pig receiver located at each truck offload station. The valves will be installed in accordance with USDOT requirements. No in-line valves are proposed at this time. See Appendix J for more information.

1.4 Time Schedule

1.4.1 Certificate of Corridor Compatibility

Caliber seeks a Certificate of Corridor Compatibility by mid-October 2016.

1.4.2 Route Permit

Caliber seeks a Route Permit by mid-October 2016.

1.4.3 Right-of-Way Acquisition Date

Right-of-Way (ROW) acquisition for 90% of the easements was completed by early June 2016. The remaining ROW easement is expected to be acquired by early July, 2016.

1.4.4 Construction

Construction is anticipated to begin mid-October 2016, contingent upon regulatory approval. Construction is anticipated to last approximately one month, with an anticipated completion date of mid-November 2016.

3.5.9 Impact on Radio and Television Reception, and Other Communication of Electronic Control Facilities

No radio, television, or other communication or electronic control facilities will be impacted by the construction or operation of the proposed transmission line.

3.5.10 Impact on Human Health and Safety

An Emergency Response Plan has been developed in conjunction with the McKenzie County Emergency Manager. Best practices and engineering controls will be implemented to prevent adverse effects to the environment and human health and safety. Caliber will work with local emergency responders to ensure a safe and effective response strategy is implemented should an adverse event occur.

3.5.11 Impact on Animal Health and Safety

Due to the proximity to US Highway 85 and existing industrial development, the survey area is not expected to provide significant habitat to wildlife. Animals within the survey area are limited to livestock and occasional common wildlife species. Best practices will be implemented during construction to allow for the unhindered movement of local livestock and wildlife. No species of concern will be impacted by the construction or operation of the proposed transmission line. See Appendix A for more information.

3.5.12 Impact on Plant Life

A survey of existing vegetation along the proposed route was conducted, and is included in Appendix A. Noxious weeds currently growing along the proposed route will be removed prior to the start of construction activities. A weed control plan has been developed in conjunction with the McKenzie County Weed Control Board. Best practices will be implemented to prevent the spread of noxious weeds. Areas of disturbed soil will be re-vegetated with a native seed mix developed in conjunction with the local landowners. See Section 6 for re-vegetation procedures and a typical native seed mixture.

3.6 Policy Criteria (N.D.A.C. § 69-06-08-02 (4))

Per NDAC 69-06-08-02, the Public Service Commission “may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits.”

3.6.1 Location and Design

The proposed Bear Den Interconnect is located in central McKenzie County, approximately 2.9 miles south of Watford City. The line will originate at a proposed truck offload station (connected to Enable Midstream’s Devore Terminal) to be located approximately 7.2 miles south of Watford, and terminate at DAPL’s Watford City Terminal.

The proposed line will meet or exceed design criteria as specified in 49 CFR 195 (c), will be constructed of 12.75” OD steel pipe, and will have a nominal wall thickness of 0.188 inches. The maximum transportation rate is 75,000 bbls/day, with a maximum operating pressure of 600 psi.

3.6.2 Training and Utilization of Available Labor in this State for the General and Specialized Skills Required

Both local and out-of-state labor will be utilized during the construction and operation of the Bear Den Interconnect. Cardno, Inc. was contracted to provide technical, environmental, and cultural support during the planning and construction of the line. Included within this scope of work was the employment of North Dakota Public Land Surveyors, support staff in Cardno’s Williston, ND office, and two landmen based in western North Dakota. Other non-local technical staff contributed to the local economy during work performed for this project. Local construction crews will be utilized to the maximum extent feasible.

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4.6.2 Training and Utilization of Available Labor in this State for the General and Specialized Skills Required

Both local and out-of-state labor will be utilized during the construction and operation of the Bear Den Interconnect. Cardno, Inc. was contracted to provide technical, environmental, and cultural support during the planning and construction of the line. Included within this scope of work was the employment of North Dakota Public Land Surveyors, support staff in Cardno’s Williston, ND office, and two landmen based in western North Dakota. Other non-local technical staff contributed to the local economy during work performed for this project. Local construction crews will be utilized to the maximum extent feasible. All of Caliber’s assets are located in North Dakota, and operation of the line will be conducted by qualified personnel who will reside in-state.

4.6.3 Economies of Construction and Operation

The development of the Bear Den Interconnect will result in the investment of approximately \$12 million by Caliber, much of which is direct investment in North Dakota. Indirect benefits to the local and state economy will also be realized in the form of tax revenues generated from the labor force. The operation and maintenance costs of the line are expected to be minimal, and local labor will be utilized to the maximum extent feasible. The line will provide a wider market for local oil producers, reduce operating and transportation costs, provide a safer and more efficient means of transportation, and increase revenues to local mineral owners.

4.6.4 Use of Citizen Coordinating Committees

Caliber is committed to continuously improving operations, training personnel and contractors, and ensuring the highest health and safety standards are maintained. To achieve this goal, Caliber believes establishing trust and respect as well as maintaining open communication with the local community is vital. Caliber has collaborated with the local emergency response manager to develop an appropriate Emergency Response Plan, and will continue to encourage a culture of teamwork and collaboration with local communities to address challenges as they arise.

4.6.5 Commitment of a Portion of the Transmitted Product for Use in This State

The proposed transmission line will provide North Dakota producers with wider access to markets for locally produced crude oil. This line will also facilitate the delivery of crude oil to in-state and out-of-state markets by connecting to DAPL.

4.6.6 Labor Relations

Caliber maintains good relations with its labor force, and no adverse labor relations are expected. North Dakota is a “right to work” state, and conflicts between organized labor and employers is not common. In addition,

APPENDIX J

Pipeline Design Specifications



**Caliber Bear Den Interconnect LLC - Bear Den Interconnect Pipeline
Hazardous Liquid Pipeline Pressure Testing Parameters**



Pipeline Name:	Bear Den Interconnect Pipeline
Pipeline Description:	12" Crude Bear Den Interconnect
Pipeline Service:	Crude Oil
Engineer:	Ryan Stone
AFE:	2017-33-1070
Calculation Date:	7/25/2016

Material Specifications

Service Maximum Operating Pressure	600
Pipe Material	Carbon Steel
Pipe Size (Nom)	12
Outer Diameter	12.75
Wall Thickness	0.188
Inner Diameter	12.374
Yield Strength (SMYS)	42000
Joint Factor	1
Temperature Factor	1
MOP of Weakest Component other than Pipe	720
ANSI Class (If Applicable)	300
Pipe Yield Pressure (100% SMYS) = (2 x 100%SMYS x wt) / OD	1239
150% Component MOP	1080
98% of Design Pressure	1214

Regulatory Requirements

Service	Crude Oil
Regulated Line? (Y/N)	Y
Class Location	1
Design Factor	0.72
Design Pressure P = ((2 x 100%SMYS x wt) / OD)*DF*JF*TF	892

Test Information

Test Medium	Water
Pressure Applied Per Foot of Water Column	0.4330
Test Section Length	28153
Volume Fill Gallons	175886
Volume Fill Bbls	4188
Min Test Pressure (1.5 x MOP) (psig)	900
Max Test Pressure (psig)	1080

Notes

Allows up to 600 psig inlet pressure at any point of the line.
Full Elevation is 210 feet or 91 psig.

Regulatory Notes

Test Notes

	Test Station	Elevation	Minimum		Maximum	
			(psig)	Hoop	(psig)	Hoop
Begin	0+00	2247'	940	75.9%	997	80.5%
High	90+40	2300'	917	74.0%	974	78.7%
Low	254+00	2090'	1007	81.3%	1065	86.0%
End	281+53	2160'	977	78.9%	1035	83.6%

Notes:

- Hydrotest equipment location to be at TBD
- Allowable test pressure range min/max at test location to be minimum TBD psig / maximum TBD psig
- Allowable test pressure range at test location is 57 psig

Signatures:

PM/Engineering

Reviewer: