



Northern Natural Gas Company
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September 17, 2025

Via eFiling

Ms. Debbie-Anne Reese, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Northern Natural Gas Company
Northern Lights 2025
Docket No. CP24-60-000
Biweekly Status Report No. 15

Dear Ms. Reese:

Pursuant to Condition 8 of the Order Issuing Certificate and Approving Abandonment issued by the Federal Energy Regulatory Commission February 19, 2025, Northern Natural Gas hereby submits for filing in the above-referenced docket its biweekly environmental inspector report for the period ending September 14, 2025.

Any questions regarding the filing should be directed at the undersigned at (402) 398-7138.

Respectfully submitted,

/s/ Donna Martens

Donna Martens
Senior Regulatory Analyst

Northern Natural Gas Company
Northern Lights 2025 (CP24-60-000)
Biweekly Status Report No. 15
Period Ending September 14, 2025

PROJECT DESCRIPTION

Northern Natural Gas (Northern) will construct and operate the Project, which will consist of (1) a 3.00-mile extension of its 36-inch-diameter Lake Mills to Albert Lea E-line; (2) a 2.42-mile extension of its 30-inch-diameter Elk River 3rd branch line; (3) a non-contiguous 1.90-mile extension of its 30-inch-diameter Farmington to Hugo C-line¹; (4) a 1.28-mile extension of its 8-inch-diameter Tomah branch line loop; (5) minor modifications to its existing La Crescent compressor station; and (6) aboveground facilities including a launcher, receiver and tie-in valve settings. All Project components are located in various counties in Minnesota and Wisconsin.

FEDERAL AUTHORIZATION STATUS

Northern has received all federal and state permits required under federal law for the Project.

Lake Mills to Albert Lea E-line

Northern will construct and operate an approximately 3.00-mile extension of its 36-inch-diameter MNM80105 Lake Mills to Albert Lea E-line in Freeborn County, Minnesota. Northern will remove the existing aboveground valve setting located in Section 16, Township 101 North, Range 22 West (Section 16, T101N, R22W), Freeborn County, Minnesota. Northern will construct and operate an aboveground valve setting at the terminus of the new extension on the north side of 165th Street in Section 33, T102N, R22W, Freeborn County, Minnesota.

Environmental Training

One contractor will construct the Lake Mills to Albert Lea E-line and associated aboveground facilities. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: K & K, Inc. (K&K)

Overall Construction Start Date: Commenced April 21, 2025

Environmental Training Conducted: This reporting period: 0 Total to date: 40

Construction Status: K&K continued fabrication of 36-inch-diameter tie-in piping north of 165th Street. K&K continued sandblasting and coating mainline pipe north of County Road 9/135th Street². K&K continued bringing subsoil to grade south of 165th Street. K&K continued stockpiling and removal of topsoil from over the D-line south and north of 140th Street. K&K continued 24-hour dewatering of ground water from damaged drain tiles. K&K continued lowering-in 36-inch-diameter mainline pipe south and north of 140th Street. K&K continued welding 36-inch-diameter mainline pipe north of County Road 9/135th Street at milepost (MP) 31.58. K&K continued backfilling the trench south of 140th Street and south of 165th Street. KK continued trenching north and south of 140th Street. K&K removed an 824-foot-long section of the new

¹ The total pipeline length of the Farmington to Hugo C-line extension was reduced from 1.91 miles to 1.90 miles as described in Northern's implementation plan and response to the conditions of the order (condition 5) filed with the Federal Energy Regulatory Commission (FERC) March 6, 2025.

² County Road 9 is also referred to as 135th Street.

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mainline pipe from the trench north of 140th Street from MP 32.67 to MP 32.87 due to insufficient clearance from the existing drain tile. Once the pipe was removed, K&K completed re-excavation of the trench to achieve proper depth below the drain tile. K&K completed mowing the extra temporary workspace west of the right of way (ROW) at MP 32.28. K&K completed installation of the 30-inch-diameter hot tap fitting for the D-line north of 165th Street at MP 34.2. K&K completed an eight-hour hydrostatic pressure test for test headers that will be used during mainline hydrostatic testing.

Construction Modifications:

No construction modifications occurred during this reporting period.

Stream Crossings and Environmentally Sensitive Areas

No stream crossings or other environmentally sensitive areas were impacted during this reporting period.

Rain Events

One rain event of 0.50 inch or greater occurred during this reporting period. One rain event of 1.3 inches occurred September 10, 2025. To date, the project has received 34.29 inches of precipitation.

Lake Mills to Albert Lea E-line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/16/2025	99%	Survey is ongoing
Clearing	N/A	N/A	N/A
Grading	4/21/2025	5/30/2025	Grading is complete
Stringing	5/5/2025	5/19/2025	Stringing is complete
Welding	5/16/2025	98%	Welding is ongoing
Ditching	6/6/2025	88%	Ditching is ongoing
Lower-in	6/6/2025	81%	Lowering-in is ongoing
Backfill	6/6/2025	62%	Backfill is ongoing
Topsoil Restoration			
Removal of existing E-line tie-over valve setting	5/15/2025	15%	K&K completed excavation
New Lake Mills tie-in valve setting	6/15/2025	15%	K&K completed excavation
Clean-up			
Seeding	6/17/2025	20%	Seeding is ongoing
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

Two-Week Projection

1. Continue welding line pipe
2. Continue sandblasting and coating
3. Continue trenching
4. Continue lowering-in
5. Continue backfill
6. Commence restoration

Lake Mills to Albert Lea E-line Related Spill

No spills occurred during this reporting period.

Elk River 3rd Branch Line

Northern will construct and operate an approximately 2.42-mile extension of its 30-inch-diameter MNB87703 Elk River 3rd branch line in Washington County, Minnesota. The new extension will be tied in below ground approximately 260 feet north of the current terminus in Section 36, T32N, R21W, Washington County, Minnesota; the existing aboveground valve setting located on the east side of July Avenue in Section 36, T32N, R21W, Washington County, Minnesota, will be removed. The downstream tie-in to both Northern's 20-inch-diameter MNB87701 Elk River branch line and 20-inch-diameter MNB87702 Elk River loop will be completed with a new valve setting at the west side of Henna Avenue North in Section 3, T31N, R21W, Washington County, Minnesota.

Environmental Training

One contractor will construct the Elk River 3rd branch line extension. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: Otis Minnesota Services, LLC (Otis)

Overall Construction Start Date: Commenced April 24, 2025

Environmental Training Conducted³: This reporting period: 0 Total to date: 90

Construction Status:

Otis continued stringing, bending, welding and coating the line pipe. Mears Group Inc. (Mears), a third-party horizontal directional drill (HDD) sub-contractor for Otis, commenced the pull back on HDD P4-5 and the bore pipe hung up 800 feet into the pull. Mears pulled the pipe back out of the bore hole and commenced additional 42-inch-diameter reaming passes to remediate hole conditions. North Country Drilling, LLC (North Country), a third-party HDD sub-contractor for Otis, completed pulling in the pipe for HDD P4-4 September 12, 2025, and commenced the 30-inch-diameter ream pass on HDD P4-1. Otis completed ditching, lowering-in and backfill from MP 1.69 to MP 1.90. Two inadvertent releases (IR) occurred during this reporting period. Mears had an IR of 100 gallons of drilling fluid surface in wetland ERT-W35 on HDD P4-5 September 4, 2025. Northern made notifications to the Minnesota Duty Officer, U.S. Army Corps of Engineers and Rice Creek Watershed District of the release to the wetland. North Country had an IR of 100 gallons of drilling fluid surface on HDD P4-1 in an upland location September 9, 2025. Both releases were contained and cleaned up per Northern's HDD Plan.

The HDD noise report is attached. All sound levels are recorded as dBA.

Construction Modifications: There were no construction modifications during this reporting period.

Stream Crossings and Environmentally Sensitive Areas

Wetlands ERT-W34 and ERT-W35, and stream ERT-S01 were crossed by HDD P4-5 during this reporting period.

Rain Events

No rain events of 0.50 inch or greater occurred during this reporting period. To date the project has received

³ The same contractor and crews are constructing the Elk River 3rd branch line and Farmington-to-Hugo C-Line extension projects. The numbers reflect the training provided to the one contractor and any subcontractors; however, are double counted between the two projects.

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18.63 inches of precipitation.

Elk River 3rd Branch Line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/10/2025	5/2/2025	Primary survey is complete
Clearing	4/28/2025	5/10/2025	Clearing is complete
Grading	5/6/2025	6/7/2025	Grading is complete
Stringing	5/15/2025	6/21/2025	Stringing is complete
Welding	5/16/2025	75%	Welding is ongoing
Ditching	7/9/2025	40%	Otis continued ditching
HDD ERT P4-1	9/6/2025	54%	North Country completed the first ream pass
HDD ERT P4-2	7/15/2025	8/15/2025	Mears completed the HDD
HDD ERT P4-3	5/22/2025	6/14/2025	Mears completed the HDD
HDD ERT P4-4	9/6/2025	9/12/2025	North Country completed the HDD
HDD ERT P4-5	6/20/2025	65%	Mears continued the 42-inch-diameter swab pass
HDD ERT P4-6	6/20/2025	6/25/2025	Mears completed the HDD
HDD ERT P4-7	7/01/2025	7/3/2025	Mears completed the HDD
Lower-in	7/9/2025	40%	Otis continued lowering-in
Backfill	7/9/2025	35%	Otis continued backfill
Topsoil Restoration	7/28/2025	10%	Otis commenced restoration
Existing Elk River tie-over valve setting to be removed			
New Elk River tie-in valve setting			
Clean-up			
Seeding			
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

Two-Week Projection

1. Continue welding, sandblasting and coating
2. Complete HDD P4-5
3. Complete HDD P4-1
4. Continue stopple bypass at MP 1.0
5. Continue ditching, lowering-in and backfill
6. Continue restoration

Elk River 3rd Branch Line Related Spill

No spills occurred during this reporting period.

Farmington to Hugo C-Line Extension

Northern will construct and operate a non-contiguous 1.90-mile extension of its 30-inch-diameter Farmington to Hugo C-line in Washington County, Minnesota. The new extension will be tied in below ground within Northern's existing Hugo compressor station in Section 6, T31N, R20W, Washington County, Minnesota. The downstream tie-in to Northern's 24-inch-diameter MNM86501 B-line will be completed at a new below-ground⁴ valve setting in Section 7, T31N, R20W, Washington County, Minnesota.

⁴ As described in Northern's implementation plan and response to the conditions of the order (condition 5) filed with FERC March 6, 2025, the new downstream valve setting for the Farmington to Hugo C-line extension will be below ground in accordance with the landowner's request rather than aboveground as originally proposed.

Environmental Training

One contractor will construct the Farmington to Hugo C-line extension and associated aboveground facilities. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: Otis Minnesota Services, LLC (Otis)

Overall Construction Start Date: May 3, 2025

Environmental Training Conducted⁴: This reporting period: 0 Total to date: 90

Construction Status:

Otis continued backfill and hydrostatic pressure testing within the Hugo compressor station. Otis continued stringing and welding line pipe. Otis continued sandblasting line and bore pipe. North Country continued HDD P4-1 and P4-2.

The HDD noise report is attached. All sound levels are recorded as dBA.

Construction Modifications: There were no construction modifications during this reporting period.

Stream Crossings and Environmentally Sensitive Areas

Wetlands FRM-W01, FRM-W21 and FRM-W05 were crossed by HDD P4-1 during this reporting period.

Wetlands FRM-W09 and FRM-W10 were crossed by HDD P4-2 during this reporting period.

Rain Events

No rain events greater than 0.5 inch occurred during this reporting period. To date the project has received 19.42 inches of precipitation.

Farmington to Hugo C-Line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/26/2025	5/5/2025	Survey is complete
Clearing	5/3/2025	5/9/2025	Clearing is complete
Grading	6/9/2025	8/15/2025	Grading is complete
Stringing	6/18/2025	92%	Stringing is ongoing
Welding	6/20/2025	92%	Welding is ongoing
Ditching	7/24/2025	18%	Otis continued ditching
HDD FAR P4-1	8/19/2025	75%	North Country continued drilling
HDD FAR P4-2	8/26/2025	72%	North Country continued drilling
Lower-in	7/24/2025	18%	Otis continued lowering-in
Backfill	7/28/2025	18%	Otis continued backfill
Topsoil Restoration	7/1/2025	10%	Topsoil restoration will resume after HDDs are complete
Hugo compressor station launcher and valves	5/22/2025	78%	Otis continued backfill and testing
Farmington tie-over valve setting	6/17/2025	51%	Otis completed installation of the valve
Clean-up			
Seeding			
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

Two-Week Projection

1. Continue backfill and testing in the Hugo compressor station

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2. Continue stringing
3. Continue welding
4. Continue sandblasting and coating
5. Complete HDD P4-1 and HDD P4-2
6. Continue ditching
7. Continue lowering-in
8. Continue backfill
9. Continue restoration

Farmington to Hugo C-line Related Spill Totals

No spills occurred during this reporting period.

Tomah Branch Line Loop

Northern will construct and operate an approximately 1.28-mile extension of its 8-inch-diameter WIB11902 Tomah branch line loop in Monroe County, Wisconsin. The new extension will be tied in below ground to the current terminus of the Tomah branch line loop in Section 1, T17N, R4W, Monroe County, Wisconsin, and the existing tie-in valve setting and receiver facility at this location will be removed. The down-stream tie-in to Northern's 6-inch-diameter WIB11901 branch line is located in Section 6, T17N, R3W, Monroe County, Wisconsin.

Environmental Training

One contractor will construct the Tomah branch line loop. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: K & K, Inc. (K&K)

Overall Construction Start Date: Commenced May 12, 2025

Environmental Training Conducted: This reporting period: 0 Total to date: 49

Construction Status: K&K continued restoring topsoil. K&K continued harley raking, drill seeding and mulching the ROW. American Hydroseeding, LLC (American Hydro Seed) completed hydro seeding on the east end of the Tomah branch line loop. K&K commenced removal of road approaches. K&K continued cleaning up construction debris from the ROW. K&K continued hauling off mats, skids and equipment from staging area. K&K completed installation of all permanent slope breakers. K&K completed topsoil restoration on west side of Gardner Avenue.

Construction Modifications: There were no construction modifications during this reporting period.

Stream Crossings and Environmentally Sensitive Areas

No stream crossings or other environmentally sensitive areas were impacted during this reporting period.

Rain Events

No rain events of 0.50 inch or greater occurred during this reporting period. To date, the project has received 23.9 inches of precipitation.

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Tomah Branch Line Loop Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/22/2025	98%	Survey is ongoing
Clearing	5/14/2025	5/23/2025	Clearing is complete
Grading	5/16/2025	8/2/2025	Grading is complete
Stringing	6/2/2025	7/9/2025	Stringing is complete
Welding	6/3/2025	8/23/2025	Welding is complete
Ditching	7/9/2025	8/4/2025	Ditching is complete
HDD TBL P4-1	7/15/2025	7/16/2025	P4-1 is complete
HDD TBL P4-2	7/7/2025	7/12/2025	P4-2 is complete
Lower-in	7/10/2025	8/4/2025	Lowering-in is complete
Backfill	7/14/2025	8/30/2025	Backfill is complete
Topsoil Restoration	8/9/2025	95%	Restoration ongoing
Remove Tomah branch line loop receiver facility	6/11/2025	8/23/2025	K&K completed removal at receiver site
Remove Tomah Tie-over valve setting	6/12/2025	8/23/2025	K&K completed removal of valve setting
Clean-up	8/9/2025	85%	Clean-up ongoing
Seeding	8/14/2025	85%	Seeding ongoing
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

Two-Week Projection

1. Complete restoration
2. Complete clean-up
3. Complete seeding
4. Request approval for in-service

La Crescent Compressor Station

Northern completed minor aboveground facility modifications within its existing La Crescent compressor station facility. The facility modifications consisted of the replacement of the current blind flanges with compressor cylinder end caps.

Archrock Services LP (Archrock) made the modifications at the La Crescent compressor station.

Construction Status: Construction was completed August 27, 2025. FERC granted Northern's request to place the facility in service September 15, 2025.

La Crescent Compressor Station Modifications Construction Progress			
Activity	Start Date	Completed	Notes
Compressor modifications	7/22/2025	8/27/2025	Compressor modifications are complete
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

PROJECT-WIDE AGENCY COMMUNICATIONS AND SITE VISITS

As noted above, on September 4, 2025, Northern made notifications of one IR with drilling fluids impacting a wetland on the Elk River 3rd branch line extension to the Minnesota Duty Officer, U.S. Army Corps of Engineers and Rice Creek Watershed District.

On September 15 2025, FERC approved Northern's request to use a temporary evacuation system for a

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continuous 48-hour duration within the Hugo compressor station located in Washington County, Minnesota, to accommodate tie-in activities for the Elk River 3rd branch.

On September 9, 2025, Northern requested approval to place the La Crescent compressor station into service. FERC granted the request September 15, 2025.

PROJECT-WIDE LANDOWNER CONCERNS

No project-wide landowner concerns were raised during this reporting period.

PROJECT-WIDE NON-COMPLIANCE CONCERNS

No project-wide non-compliance concerns were raised during this reporting period.

PHOTOS

Lake Mills to Albert Lea E-line



Facing north at MP 33.7, K&K backfilling trench south of 165th Street



Facing southwest at MP 33.8, K&K bringing subsoil to grade south of 165th Street

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Facing north at MP 32.4, K&K removing topsoil from over D-line north of 140th Street



Facing north at MP 32.42, K&K trenching north of 140th Street

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Facing northwest at MP 31.6, K&K sandblasting and coating north of County Road 9/135th Street



Facing north at MP 32.38, K&K lowering-in mainline pipe north of 140th Street

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Facing north at MP 34.2, K&K fabricating 36-inch-diameter tie-over piping north of 165th Street



Facing north at MP 34.2, hydrostatic test in progress north of 165th Street

Elk River 3rd Branch Line



Facing east near MP 1.87, lowering-in ongoing



Facing east near MP 1.9, backfill ongoing

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Facing south near MP 3.4, welding ongoing



Facing south, near MP 1.8, sandblasting and coating ongoing

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HDD P4-4 completed the pull



HDD P4-1 commenced the ream pass

Farmington-Hugo C-Line Extension



Facing northwest near MP 0.55, North Country continuing HDD P4-1



Facing south near MP 1.15, Otis sandblasting bore pipe for HDD P4-2

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Facing east near MP 0.1, Otis preparing hydrostatic test on fabrication for the Hugo compressor station



Facing west near MP 0.23, previous IR on HDD P4-1

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Facing south near MP 1.83, temporary vegetation growth



Facing northeast near MP 0.65, North Country continued drill activities on HDD P4-2



Facing north near MP 0.45, North Country conducting the bore path inspection on HDD P4-1

Tomah Branch Line Loop



Facing east near MP 3.2, K&K harley raking row

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Facing southeast near MP 2.4, wildlife utilizing restored ROW



Facing west near MP 3.2, hydroseeding completed

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Facing east near MP 2.75, restoration completed in upland area



Facing west near MP 2.5, K&K restoring topsoil

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Facing west near MP 2.5, K&K installing slope breakers



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/2/2025	Footage:	20-feet	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	41.2	N/A	N/A		41.20
NSA-3		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	44.6	N/A	N/A		44.60
NSA-5		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	38.9	N/A	N/A		38.90
NSA-6		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42.0	N/A	N/A		42.00

Notes: Drill P4-1 commenced operations at 1730, the contractors drilled 20-feet today, for a total of 1121.5-feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/3/2025	Footage:	60.5-feet	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	42.3	48.1	42.7	48.5	42.1	49.2	N/A	N/A	N/A	45.48	
NSA-3		N/A	N/A	N/A	39.8	44.3	41.6	48.1	46.9	48.4	N/A	N/A	N/A	44.85	
NSA-5		N/A	N/A	N/A	43.8	45.0	40.2	46.0	43.3	48.3	N/A	N/A	N/A	44.43	
NSA-6		N/A	N/A	N/A	47.3	46.7	38.4	39.4	42.1	43.8	N/A	N/A	N/A	42.95	

Notes: Drill P4-1 commenced operations at 0720, the contractors reamed 60.5-feet today, for a total of 1182-feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/4/2025	Footage:	409-feet	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	38.1	39.2	45.5	N/A	N/A	N/A	N/A	N/A	40.93	
NSA-3		N/A	N/A	N/A	N/A	42.6	45.6	42.8	N/A	N/A	N/A	N/A	N/A	43.67	
NSA-5		N/A	N/A	N/A	N/A	45.0	42.2	42.6	N/A	N/A	N/A	N/A	N/A	43.27	
NSA-6		N/A	N/A	N/A	N/A	41.0	43.4	45.7	N/A	N/A	N/A	N/A	N/A	43.37	

Notes: Drill P4-1 commenced operations at 0824, the contractors reamed 409-feet today, for a total of 1543-feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/5/2025	Footage:	94.5-feet	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	44.6	45.1	40.7	39.6	37.6	N/A	N/A	N/A	41.52	
NSA-3		N/A	N/A	N/A	N/A	39.6	38.8	47.4	38.4	39.9	N/A	N/A	N/A	40.82	
NSA-5		N/A	N/A	N/A	N/A	48.1	43.1	42.6	41.5	42.6	N/A	N/A	N/A	43.58	
NSA-6		N/A	N/A	N/A	N/A	39.9	42.6	44.0	42.7	43.6	N/A	N/A	N/A	42.56	

Notes: Drill P4-1 commenced operations at 0814, the contractors completed 94.5-feet today, for a total of 1638-feet. Second ream completed 79-feet for daily and total.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/6/2025	Footage:	346.5	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	42.1	48.6	39.6	41.2	44.4	N/A	N/A	N/A	43.18	
NSA-3		N/A	N/A	N/A	N/A	37.6	44.4	43.5	45.2	42.6	N/A	N/A	N/A	42.66	
NSA-5		N/A	N/A	N/A	N/A	43.4	42.1	43.7	43.8	48.8	N/A	N/A	N/A	44.36	
NSA-6		N/A	N/A	N/A	N/A	41.6	43.9	43.3	39.6	39.7	N/A	N/A	N/A	41.62	

Notes: Drill P4-1 commenced operations at 0800, the contractors completed 346.5-feet today, for a total of 409.5-feet of second ream phase.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/8/2025	Footage:	315-feet	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	N/A	44.3	42.1	42.7	41.5	N/A	N/A	N/A	42.65	
NSA-3		N/A	N/A	N/A	N/A	N/A	46.2	41.1	43.7	43.5	N/A	N/A	N/A	43.63	
NSA-5		N/A	N/A	N/A	N/A	N/A	45.1	45.6	48.1	45.7	N/A	N/A	N/A	46.13	
NSA-6		N/A	N/A	N/A	N/A	N/A	38.4	40.0	37.8	39.7	N/A	N/A	N/A	38.98	

Notes: Drill P4-1 commenced operations at 0922, the contractors completed 315-feet today, for a total of 724.5-feet of second ream phase.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/10/2025	Footage:	315-feet	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	42.1	43.5	40.6	45.1	47.5	N/A	N/A	N/A	43.76	
NSA-3		N/A	N/A	N/A	N/A	44.6	41.8	41.4	44.2	44.5	N/A	N/A	N/A	43.30	
NSA-5		N/A	N/A	N/A	N/A	47.7	46.4	43.6	46.4	47.6	N/A	N/A	N/A	46.34	
NSA-6		N/A	N/A	N/A	N/A	41.0	39.0	44.5	38.7	42.3	N/A	N/A	N/A	41.10	

Notes: Drill P4-1 commenced operations at 0830, the contractors completed 315-feet today, for a total of 1386-feet of second ream phase.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/11/2025	Footage:	220.5-feet	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	44.6	42.7	38.6	N/A	39.1	N/A	N/A	N/A	41.25	
NSA-3		N/A	N/A	N/A	N/A	43.6	41.1	44.7	N/A	42.7	N/A	N/A	N/A	43.03	
NSA-5		N/A	N/A	N/A	N/A	46.8	45.4	46.1	N/A	47.4	N/A	N/A	N/A	46.43	
NSA-6		N/A	N/A	N/A	N/A	46.2	47.3	39.6	N/A	39.5	N/A	N/A	N/A	43.15	

Notes: Drill P4-1 commenced operations at 0725, the contractors completed 220.5-feet today, for a total of 1606.5-feet of second ream phase.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/12/2025	Footage:	315-feet	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	38.1	40.2	41.4	39.6	N/A	N/A	N/A	N/A	N/A	39.83	
NSA-3		N/A	N/A	N/A	37.6	42.5	38.9	37.1	N/A	N/A	N/A	N/A	N/A	39.03	
NSA-5		N/A	N/A	N/A	42.3	44.6	45.7	45.4	N/A	N/A	N/A	N/A	N/A	44.50	
NSA-6		N/A	N/A	N/A	44.1	43.5	42.8	41.9	N/A	N/A	N/A	N/A	N/A	43.08	

Notes: Drill P4-1 commenced operations at 0720, the contractors completed 315-feet today, for a total of 1921.5-feet. Contractors completed second ream phase and commenced first swab pass.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	9/13/2025	Footage:	756-feet	Depth:	0	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	43.2	39.1	N/A	N/A	N/A	N/A	N/A	N/A	41.15	
NSA-3		N/A	N/A	N/A	N/A	41.6	44.0	N/A	N/A	N/A	N/A	N/A	N/A	42.80	
NSA-5		N/A	N/A	N/A	N/A	42.3	45.5	N/A	N/A	N/A	N/A	N/A	N/A	43.90	
NSA-6		N/A	N/A	N/A	N/A	45.7	43.8	N/A	N/A	N/A	N/A	N/A	N/A	44.75	

Notes: Drill P4-1 commenced operations at 0730, the contractors completed 756-feet today, for a total of 1039.5-feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/2/2025	Footage:	283.5-Feet	Depth:	N/A	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07					N/A	N/A	45.3	46.2	44.3	45.2	N/A	N/A	N/A	45.25	
NSA-08					N/A	N/A	44.8	43.5	45.6	44.6	N/A	N/A	N/A	44.63	
NSA-09					N/A	N/A	44.2	44.6	43.2	44.9	N/A	N/A	N/A	44.23	
NSA-10					N/A	N/A	43.2	42.4	40.9	43.8	N/A	N/A	N/A	42.58	

High traffic on 170th St N during sound monitoring. The daily footage was 283.5 feet, and the total footage reamed is 283.5 feet. First ream commenced at 1003.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/3/2025	Footage:	396.5-Feet	Depth:	N/A	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	45.1	49.4	51.3	49.6	50.3	N/A	N/A	N/A	49.14	
NSA-08		N/A	N/A	N/A	N/A	44.5	47.8	49.6	48.6	49.6	N/A	N/A	N/A	48.02	
NSA-09		N/A	N/A	N/A	N/A	44.9	48.9	50.3	53.7	50.8	N/A	N/A	N/A	49.72	
NSA-10		N/A	N/A	N/A	N/A	43.4	50.1	49.7	52.1	49.1	N/A	N/A	N/A	48.88	

High traffic and windy conditions on 170th St N during sound monitoring. The daily footage was 396.5 feet, and the total footage reamed is 680.0 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/4/2025	Footage:	569.0-Feet	Depth:	N/A	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	47.4	45.3	44.2	45.7	46.2	N/A	N/A	N/A	45.76	
NSA-08		N/A	N/A	N/A	N/A	47.3	49.5	46.5	46.2	45.4	N/A	N/A	N/A	46.98	
NSA-09		N/A	N/A	N/A	N/A	45.8	46.2	46.7	45.9	46.9	N/A	N/A	N/A	46.30	
NSA-10		N/A	N/A	N/A	N/A	47.2	46.5	45.2	44.3	45.2	N/A	N/A	N/A	45.68	

High traffic and windy conditions on 170th St N during sound monitoring. The daily footage was 569.0 feet, and the total footage reamed is 1260.0 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/5/2025	Footage:	409.5-Feet	Depth:	N/A	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	46.8	46.3	45.9	47.4	46.2	N/A	N/A	N/A	46.52	
NSA-08		N/A	N/A	N/A	N/A	49.4	48.2	50.2	49.6	48.4	N/A	N/A	N/A	49.16	
NSA-09		N/A	N/A	N/A	N/A	48.6	49.7	48.5	50.8	49.6	N/A	N/A	N/A	49.44	
NSA-10		N/A	N/A	N/A	N/A	45.7	44.3	46.2	47.8	45.4	N/A	N/A	N/A	45.88	

High traffic and windy conditions on 170th St N during sound monitoring. The daily footage was 409.5 feet, and the total footage reamed is 1669.5 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/6/2025	Footage:	283.5-Feet	Depth:	N/A	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	49.8	48.4	47.8	48.4	47.2	N/A	N/A	N/A	48.32	
NSA-08		N/A	N/A	N/A	N/A	50.3	49.1	48.2	49.6	48.6	N/A	N/A	N/A	49.16	
NSA-09		N/A	N/A	N/A	N/A	47.3	46.8	46.1	48.3	47.2	N/A	N/A	N/A	47.14	
NSA-10		N/A	N/A	N/A	N/A	43.7	44.5	43.2	44.9	43.6	N/A	N/A	N/A	43.98	

High traffic and windy conditions on 170th St N during sound monitoring. The daily footage reamed was 283.5 feet, and the total footage reamed is 1,953 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/8/2025	Footage:	283.5-Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	47.6	49.8	49.3	49.7	48.2	N/A	N/A	N/A	48.92	
NSA-08		N/A	N/A	N/A	N/A	49.8	51.4	48.8	50.3	49.6	N/A	N/A	N/A	49.98	
NSA-09		N/A	N/A	N/A	N/A	48.3	47.3	49.6	45.9	48.2	N/A	N/A	N/A	47.86	
NSA-10		N/A	N/A	N/A	N/A	46.7	45.5	44.2	45.8	44.3	N/A	N/A	N/A	45.30	

High traffic and windy conditions on 170th St N during sound monitoring. The daily footage reamed was 504.0 feet, and the total footage reamed is 504.0 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/9/2025	Footage:	409.5-Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continously		
	Dustin Mull		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	48.3	49.2	47.4	48.5	48.9	N/A	N/A	N/A	48.46	
NSA-08		N/A	N/A	N/A	N/A	47.4	48.6	48.1	49.4	48.7	N/A	N/A	N/A	48.44	
NSA-09		N/A	N/A	N/A	N/A	48.6	49.5	48.3	46.7	47.6	N/A	N/A	N/A	48.14	
NSA-10		N/A	N/A	N/A	N/A	43.4	44.4	45.6	44.9	43.8	N/A	N/A	N/A	44.42	

High traffic on 170th St N during sound monitoring. The daily footage reamed was 409.5 feet, and the total footage reamed is 913.5 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/10/2025	Footage:	0-Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Dustin Mull		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	48.2	N/A	N/A	N/A	48.20	
NSA-08		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	48.9	N/A	N/A	N/A	48.90	
NSA-09		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47.3	N/A	N/A	N/A	47.30	
NSA-10		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	43.2	N/A	N/A	N/A	43.20	

High traffic on 170th St N during sound monitoring. The daily footage reamed was 0 feet, and the total footage reamed is 913.5 feet. Reaming was delayed today due to maintenance and a hydro test on the P4-2 exit.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/11/2025	Footage:	0-Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Dustin Mull		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	47.4	48.6	48.8	47.5	48.3	N/A	N/A	N/A	48.12	
NSA-08		N/A	N/A	N/A	N/A	48.7	49.7	48.2	47.9	48.9	N/A	N/A	N/A	48.68	
NSA-09		N/A	N/A	N/A	N/A	48.2	49.8	47.6	48.2	47.4	N/A	N/A	N/A	48.24	
NSA-10		N/A	N/A	N/A	N/A	44.7	45.8	43.2	44.6	44.2	N/A	N/A	N/A	44.50	

High traffic on 170th St N during sound monitoring. The daily footage reamed was 346.5 feet, and the total footage reamed is 1260 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/12/2025	Footage:	157.5 -Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continously		
	Dustin Mull		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	47.6	47.9	48.6	48.1	47.6	N/A	N/A	N/A	47.96	
NSA-08		N/A	N/A	N/A	N/A	48.4	48.2	47.7	47.9	48.2	N/A	N/A	N/A	48.08	
NSA-09		N/A	N/A	N/A	N/A	47.6	48.7	47.3	48.3	47.6	N/A	N/A	N/A	47.90	
NSA-10		N/A	N/A	N/A	N/A	43.1	44.6	45.2	46.0	45.4	N/A	N/A	N/A	44.86	

High traffic on 170th St N during sound monitoring. The daily footage reamed was 157.5 feet, and the total footage reamed is 1417.5 feet.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-2	Date:	9/13/2025	Footage:	0 -Feet	Depth:	N/A	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Dustin Mull		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07		N/A	N/A	N/A	N/A	48.2	47.6	48.4	N/A	N/A	N/A	N/A	N/A	48.07	
NSA-08		N/A	N/A	N/A	N/A	47.9	48.4	47.9	N/A	N/A	N/A	N/A	N/A	48.07	
NSA-09		N/A	N/A	N/A	N/A	47.4	48.5	47.2	N/A	N/A	N/A	N/A	N/A	47.70	
NSA-10		N/A	N/A	N/A	N/A	43.6	44.3	43.7	N/A	N/A	N/A	N/A	N/A	43.87	

The daily footage reamed was 0 feet, and the total footage reamed is 1417.5 feet. Tripped out of the hole today to change to a rock reamer. Tripped back in 945 feet will continue Monday morning going back in hole.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rdBL Extension

WO: 1146979

Drill:	P4-1	Date:	9/6/2025	Footage:	584	Depth:	79.5	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	El	Frequency	Hourly	IR Detected	No
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01							54.3	53.5	55.0	53.1				53.98	
NSA02							52.9	54.2	53.5	52.9				53.38	
NSA07							36.1	36.8	38.2	37.4				37.13	
NSA08							35.2	35.6	37.7	34.9				35.85	

Notes: P4-1 commenced the pilot at 0916. NSA readings may be higher at times due to traffic, landowner activities, wildlife, wind and ongoing construction activities.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rdBL Extension

WO: 1146979

Drill:	P4-1	Date:	9/8/2025	Footage:	1092	Depth:	60	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	EI	Frequency	Hourly	IR Detected	No
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01							52.8	53.2	55.8	51.1				53.23	
NSA02							55.1	54.0	56.7	52.2				54.50	
NSA07							34.9	35.6	33.2	35.5				34.80	
NSA08							36.7	38.5	37.4	32.7				36.33	

Notes: P4-1 continued the pilot at 1015. The daily footage reamed was 540-feet, and the total footage reamed is 1092-feet. NSA readings may be higher at times due to traffic, landowner activities, wildlife, wind and ongoing construction activities.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rdBL Extension

WO: 1146979

Drill:	P4-1	Date:	9/9/2025	Footage:	1553	Depth:	0	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	El	Frequency	Hourly	IR Detected	Yes
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01							59.3							59.30	
NSA02							52.4							52.40	
NSA07							33.3							33.30	
NSA08							31.7							31.70	

Notes: P4-1 continued the pilot at 0915 and completed the pilot at 1215. The daily footage reamed is 429-feet and the total footage reamed is 1553-ft .NSA readings may be higher at times due to traffic, landowner activities, wildlife, wind and ongoing construction activities.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rdBL Extension

WO: 1146979

Drill:	P4-1	Date:	9/11/2025	Footage:	441	Depth:		Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	EI	Frequency	Hourly	IR Detected	No
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01							52.3	51.8						52.05	
NSA02							51.5	53.2						52.35	
NSA07							48.4	47.5						47.95	
NSA08							46.9	45.2						46.05	

Notes: P4-1 commenced the first ream with a 30-inch reamer. The daily footage reamed is 441-feet and the total footage reamed is 441-feet. NSA readings may be higher at times due to traffic, landowner activities, wildlife, wind and ongoing construction.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension - Prelim

WO: 1146979

Drill:	P4-1	Date:	9/12/2025	Footage:	1,102	Depth:		Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	El	Frequency	Hourly	IR Detected	No
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01						50.3	53.1	53.1	54.5					52.75	
NSA02						51.4	50.8	54.0	51.8					52.00	
NSA07						45.6	46.0	45.7	46.5					45.95	
NSA08						46.4	45.1	47.2	44.4					45.78	

Notes: P4-1 continued the first ream with a 30-inch reamer. The daily footage reamed is 661-feet and The total footage reamed is 1,102-feet. NSA readings may be higher at times due to traffic, landowner activities, wildlife, wind and ongoing construction.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rdBL Extension

WO: 1146979

Drill:	P4-1	Date:	9/13/2025	Footage:	1,418	Depth:		Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
		Approved by DES	Yes

Person Walking Drill Path	April Hansen	Role	El	Frequency	Hourly	IR Detected	No
	Edward Griffin		Contractor		Continuously		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA01						55.0								55.00	
NSA02						56.2								56.20	
NSA07						45.3								45.30	
NSA08						44.2								44.20	

Notes: P4-1 continued the first ream with a 30-inch reamer at 0735 and completed the first ream at 1000. The daily footage reamed is 315-feet and the total footage reamed is 1417.5-ft . NSA readings may be higher at times due to traffic.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-4	Date:	9/6/2025	Footage:	261	Depth:	19	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Jeremy Griffin		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21					N/A	N/A	N/A	N/A	64.1	64.0	N/A	N/A	N/A	64.05	
NSA- 28					N/A	N/A	N/A	N/A	46.1	42.1	N/A	N/A	N/A	44.10	

Notes: Drill P4-5 drill commenced at 1430 stopped at 1715.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension					WO: 1146979										
Drill:	P4-4	Date:	9/8/2025	Footage:	598	Depth:	0	Phase:	Pilot						
Drilling Fluids:	MAXGEL							Approved by DES	Yes						
	Water							Approved by DES	Yes						
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber							Approved by DES	Yes						
Person Walking Drill Path		Nelson Casey			Role	EI		Frequency	Hourly	IR Detected	No				
		Jeremy Griffin				Contractor			Continuously						
						Contractor			Hourly						
NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21				N/A		63.9	64.2	64.1	62.7	N/A	N/A	N/A	N/A	63.73	
NSA- 28				N/A		45.6	48.9	49.1	45.9	N/A	N/A	N/A	N/A	47.38	
Notes: Drill P4-5 drill commenced at 0830 stopped at 1600.															



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension					WO: 1146979										
Drill:	P4-4	Date:	9/9/2025	Footage:	598	Depth:	0	Phase:	Pilot						
Drilling Fluids:	MAXGEL							Approved by DES	Yes						
	Water							Approved by DES	Yes						
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber							Approved by DES	Yes						
Person Walking Drill Path		Nelson Casey			Role	EI		Frequency	Hourly	IR Detected	No				
		Jeremy Griffin				Contractor			Continuously						
						Contractor			Hourly						
NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21				N/A		63.0	64.3	N/A	64.1	63.8	N/A	N/A	N/A	63.80	
NSA- 28				N/A		60.5	61.2	N/A	58.9	62.1	N/A	N/A	N/A	60.68	
Notes: Drill P4-5 drill commenced at 0800 stopped at 1730.															



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-4	Date:	9/10/2025	Footage:	346	Depth:	16	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Jeremy Griffin		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21				N/A	N/A		58.7	64.2	60.1	63.8	N/A	N/A	N/A	61.70	
NSA- 28				N/A	N/A		50.0	50.8	58.1	54.1	N/A	N/A	N/A	53.25	

Notes: Drill P4-5 drill commenced at 1000 stopped at 1800.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-4	Date:	9/11/2025	Footage:		Depth:	16	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Jeremy Griffin		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21				N/A	N/A		64.0	50.9	63.2	64.2	N/A	N/A	N/A	60.58	
NSA- 28				N/A	N/A		47.5	59.6	52.1	51.8	N/A	N/A	N/A	52.75	

Notes: Drill P4-5 drill commenced at 1000 stopped at 1800.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-4	Date:	9/12/2025	Footage:	598	Depth:	16	Phase:	Pullback
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Jeremy Griffin		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA- 21					N/A	N/A	N/A	N/A	64.6	N/A	N/A	N/A	N/A	64.60	
NSA- 28					N/A	N/A	N/A	N/A	53.0	N/A	N/A	N/A	N/A	53.00	

Notes: Drill P4-5 drill commenced at 1400 stopped at 1800. Complete pullback of pipe.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/2/2025	Footage:	2168	Depth:	120	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	61.4	57.8	60.9	47.4	61.1	N/A	N/A	56.88	61.10
NSA-29					N/A	N/A	34.9	37.3	35.1	36.4	35.5	N/A	N/A	35.93	35.50
NSA-32					N/A	N/A	33.6	31.1	30.0	33.7	31.4	N/A	N/A	32.10	31.40
NSA-33					N/A	N/A	34.7	35.2	33.9	34.2	32.7	N/A	N/A	34.50	32.70

Notes: Drill P4-5 drill commenced at 0835 and is down 1 hour due to lightning.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/3/2025	Footage:	1052	Depth:	120	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28				N/A		61.1	N/A	N/A	N/A	55.6	50.8	N/A	N/A	58.35	50.80
NSA-29				N/A		36.8	N/A	N/A	N/A	35.4	37.3	N/A	N/A	36.10	37.30
NSA-32				N/A		32.2	N/A	N/A	N/A	31.1	29.7	N/A	N/A	31.65	29.70
NSA-33				N/A		33.7	N/A	N/A	N/A	35.7	36.1	N/A	N/A	34.70	36.10

Notes: Drill P4-5 drill commenced at 0735 and stopped drill at 1030 to set-up for second ream. Drill commenced at 1520 and drill stopped at 2015.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/4/2025	Footage:	2838	Depth:	0	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	Yes
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	60.7	61.3	58.3	57.5	N/A	N/A	N/A	N/A	59.45	
NSA-29					N/A	37.3	35.9	36.3	38.2	N/A	N/A	N/A	N/A	36.93	
NSA-32					N/A	34.2	33.7	31.2	32.4	N/A	N/A	N/A	N/A	32.88	
NSA-33					N/A	36.5	37.3	36.4	37.5	N/A	N/A	N/A	N/A	36.93	

Notes: Drill P4-5 drill commenced at 0735 and stopped at 1530. Complete second swab with 36-inch.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension										WO: 1146979					
Drill:	P4-5	Date:	9/5/2025	Footage:	820	Depth:	60	Phase:	Pullback						
Drilling Fluids:	MAXGEL								Approved by DES	Yes					
	Water								Approved by DES	Yes					
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber								Approved by DES	Yes					
Person Walking Drill Path		Nelson Casey			Role	EI		Frequency	Hourly		IR Detected	No			
		Zach Miller				Contractor			Continuously						
		John Odom				Contractor			Hourly						
NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					61.4	62.8	N/A	N/A	N/A	57.9	N/A	N/A	N/A	60.70	
NSA-29					42.4	46.7	N/A	N/A	N/A	42.3	N/A	N/A	N/A	43.80	
NSA-32					50.1	49.2	N/A	N/A	N/A	54.7	N/A	N/A	N/A	51.33	
NSA-33					39.8	38.8	N/A	N/A	N/A	41.3	N/A	N/A	N/A	39.97	
Notes: Drill P4-5 drill commenced at 0700 and stopped at 1030. Drill commenced at 1520 and stopped at 1800. Reading higher than normal due to strong wind gusts.															



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/6/2025	Footage:	820	Depth:	60	Phase:	Pullback
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	60.1	57.8	60.7	N/A	N/A	N/A	N/A	59.53	
NSA-29					N/A	N/A	38.6	35.4	37.1	N/A	N/A	N/A	N/A	37.03	
NSA-32					N/A	N/A	31.4	33.6	32.8	N/A	N/A	N/A	N/A	32.60	
NSA-33					N/A	N/A	36.8	38.8	39.1	N/A	N/A	N/A	N/A	38.23	

Notes: Drill P4-5 drill commenced at 1025 stopped at 1545.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/8/2025	Footage:	820	Depth:	60	Phase:	Pullback
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
NSA-29					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
NSA-32					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
NSA-33					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Notes: Drill P4-5 did not operate.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/9/2025	Footage:	1243	Depth:	120	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	60.5	61.2	60.0	58.9	62.1	61.1	N/A	N/A	60.54	61.10
NSA-29					N/A	37.4	36.8	35.9	37.1	42.3	45.3	N/A	N/A	37.90	45.30
NSA-32					N/A	32.1	30.2	34.7	31.3	38.9	40.3	N/A	N/A	33.44	40.30
NSA-33					N/A	39.4	37.7	38.1	40.3	43.6	44.5	N/A	N/A	39.82	44.50

Notes: Drill P4-5 commenced at 0820 to stopped drill at 2030. Due to weather producing higher than average readings.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/10/2025	Footage:	2488	Depth:	80	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	50.7	48.8	59.6	57.7	62.2	N/A	N/A	N/A	55.80	
NSA-29					N/A	35.8	36.1	35.4	38.2	37.5	N/A	N/A	N/A	36.60	
NSA-32					N/A	29.9	33.2	31.2	30.0	35.3	N/A	N/A	N/A	31.92	
NSA-33					N/A	38.6	40.1	39.9	37.3	40.5	N/A	N/A	N/A	39.28	

Notes: Drill P4-5 commenced at 0800 stopped drill at 1840 due to gears on rig overheating



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/11/2025	Footage:	2838	Depth:	0	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	59.6	52.1	N/A	N/A	N/A	N/A	55.85	
NSA-29					N/A	N/A	N/A	37.2	34.9	N/A	N/A	N/A	N/A	36.05	
NSA-32					N/A	N/A	N/A	33.7	32.3	N/A	N/A	N/A	N/A	33.00	
NSA-33					N/A	N/A	N/A	38.5	40.2	N/A	N/A	N/A	N/A	39.35	

Notes: Drill P4-5 commenced at 1130 and stopped at 1630. Remove swab and worm and move equipment to exit.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/12/2025	Footage:	824	Depth:	80	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	N/A	N/A	N/A	63.4	N/A	N/A		63.40
NSA-29					N/A	N/A	N/A	N/A	N/A	N/A	40.6	N/A	N/A		40.60
NSA-32					N/A	N/A	N/A	N/A	N/A	N/A	42.7	N/A	N/A		42.70
NSA-33					N/A	N/A	N/A	N/A	N/A	N/A	40.4	N/A	N/A		40.40

Notes: Drill P4-5 commenced at 1800 stopped at 2045.



Environmental Procedure
Appendix M: Horizontal Directional Drill Daily Report

380.203m
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	9/13/2025	Footage:	1945	Depth:	120	Phase:	Swabbing
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28				N/A		57.8	60.2	59.0	59.8	60.3	N/A	N/A	N/A	59.42	
NSA-29				N/A		36.6	35.8	36.1	37.5	36.9	N/A	N/A	N/A	36.58	
NSA-32				N/A		31.3	30.5	31.8	32.4	33.1	N/A	N/A	N/A	31.82	
NSA-33				N/A		39.2	38.5	42.7	41.9	40.6	N/A	N/A	N/A	40.58	

Notes: Drill P4-5 commenced at 0830 stopped at 1835.