



ENGINEERING, REIMAGINED



PU-16-140 AS-BUILT INSPECTION

Plains Terminal 16-Inch Crude Oil Pipeline – McKenzie Co.
Johnson's Corner to Dakota Access Pipeline

November 28, 2017

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Executive Summary

The North Dakota Public Service Commission retained KLJ to complete a As-Built Inspection report for Case Number PU-16-140, also known as the Johnsons Corner to Dakota Access Pipeline. The Plains Terminals Project consisted of a 16-Inch crude oil pipeline, of approximately 3.5 miles in length in McKenzie County, North Dakota. The purpose of the inspection was to ensure the project was constructed in compliance with the siting laws and rules and the applicable PSC Orders for the Project, and to identify aspects that required compliance.

Two as-built inspections were performed in November 2017. At this time, grading was mostly completed throughout the project. Before topsoil was spread, subgrade was replaced and graded to match the existing slopes as close as possible in order to restore the ground back to the original conditions. A blade was utilized for fine grading both before, and during topsoil spreading. The contractor was also observed cleaning up debris and construction materials from the ROW.

On November 21, 2017, Paul Lee visited the site from 11:00 to 13:00. At this time, all the pipe had been lowered into the trench, with approximately 75% of the backfill and tie-ins completed. Work is focused around completing hydrotesting of the pipe and remaining tie-ins. Much of the pipeline trench has been completely backfilled with work ongoing to restore the grade to original conditions, begging the reclamation process.

A final inspection was performed on November 28, 2017. At this time all the grading and backfill has been completed. Topsoil spreading was ongoing near the Johnsons Corner terminal with much of the work already completed around station 75 to 120. Remaining work is focused on cleanup or finish grading of the subgrade as topsoil berms are continuing to be spread throughout the project.

Over the inspections, it was evident that care had been taken to reduce impacts to the surrounding areas. Subgrade had been bladed in a manner to match the existing contours before the spreading of topsoil began, producing reclamation results that well-matched the surrounding and pre-existing conditions.

Signatures

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

Lead Project Manager, Paul Lee

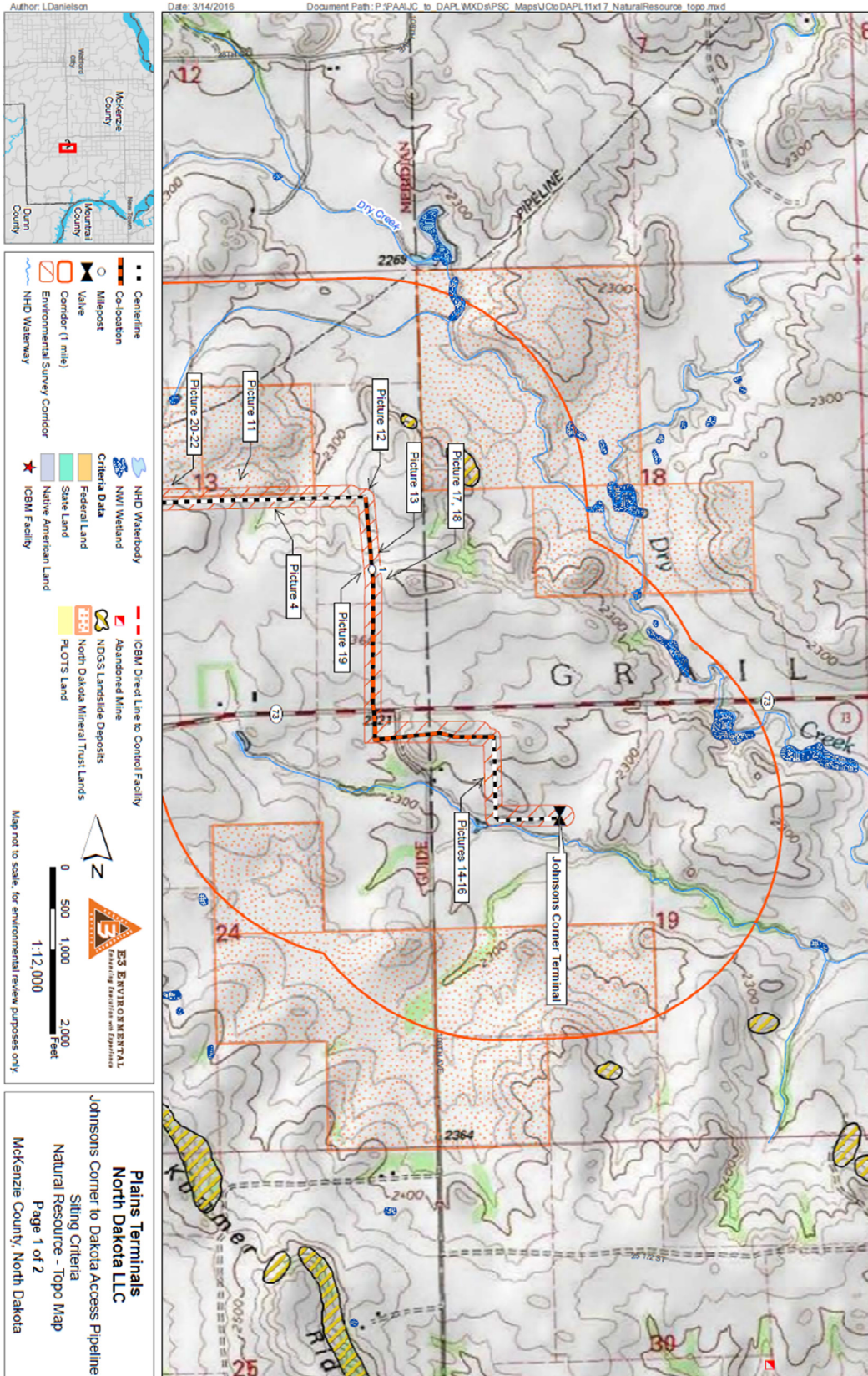


Paul Lee, PLS, Project Manager

3/20/2019

Date

Maps





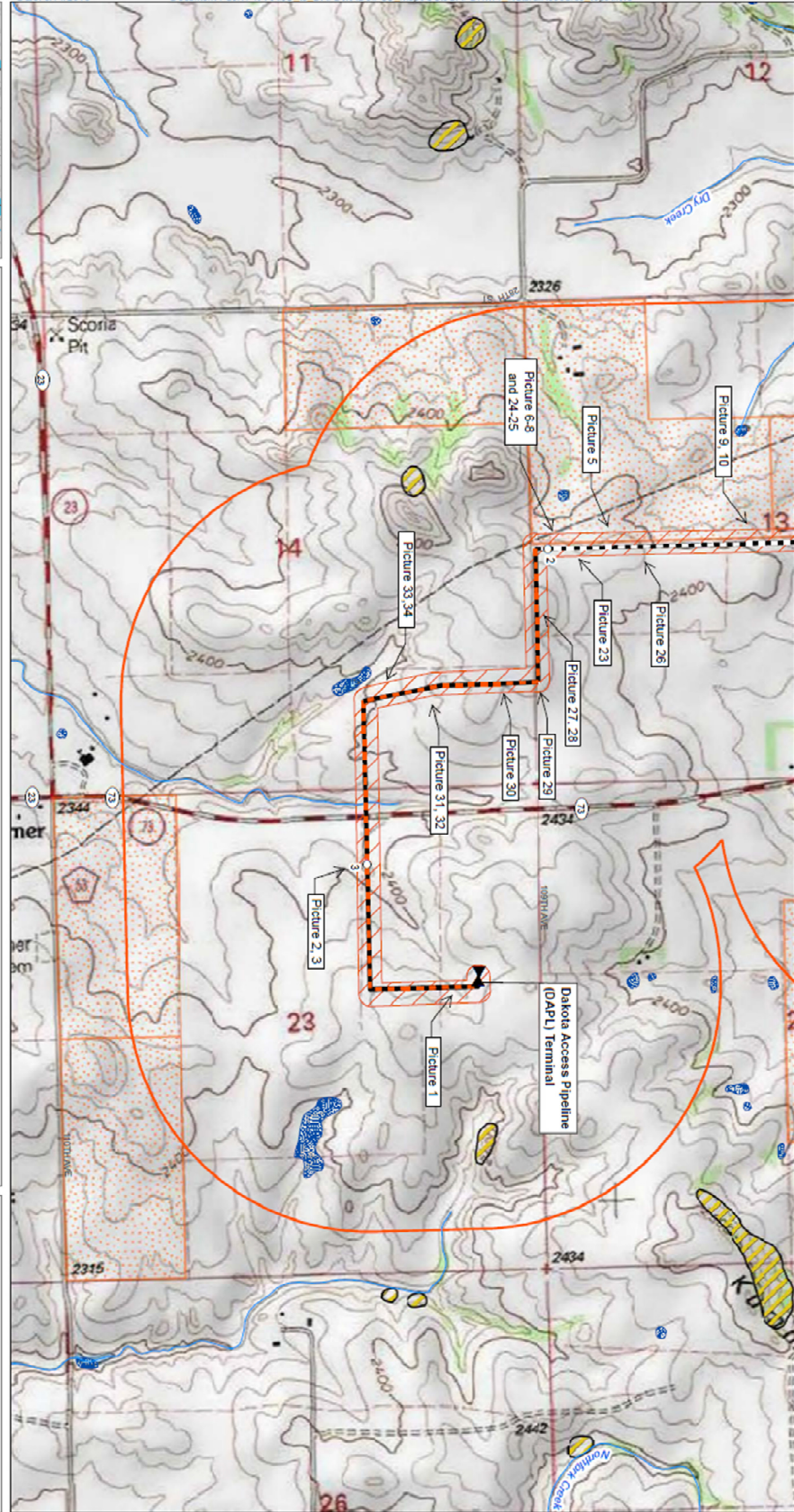
Legend

- Centerline
- Co-location
- Milepost
- Valve
- Corridor (1 mile)
- Environmental Survey Corridor
- NHD Waterway
- NHD Waterbody
- NWI Wetland
- Criteria Data
- Federal Land
- State Land
- Native American Land
- ICBM Facility
- ICBM Direct Line to Control Facility
- Abandoned Mine
- NDGS Landslide Deposits
- North Dakota Mineral Trust Lands
- PLOTS Land

Map not to scale, for environmental review purposes only.

E3 ENVIRONMENTAL
Creating Transition and Opportunity

Scale: 0, 500, 1,000, 2,000 Feet
1:12,000



Plains Terminus
North Dakota LLC
Johnson Corner to Dakota Access Pipeline
Siting Criteria
Natural Resource - Topo Map
Page 2 of 2
McKenzie County, North Dakota

Photographs - November 21, 2017



Picture 1: Finish grading, some topsoil remaining to be spread



Picture 2: Finish grading subgrade, looking north



Picture 3: Grading completed prior to topsoil spreading



Picture 4: Grade returned to previous contours



Picture 5: Low area to be graded before topsoil is spread, looking east



Picture 6: Silt fence at drainage area, finish grading completed



Picture 7: Reference photo



Picture 8: Grade restored to original contours prior to placing topsoil



Picture 9: Reference photo



Picture 10: Reference photo



Picture 11: Ready for topsoil to be spread, showing grade returned to existing contours




Picture 12: PI, reference photo



Picture 13: Station 56+00

Daily Construction Progress Report November 21, 2017

Daily Construction Progress Report				
	Client:	N. Dak. Public Service Commission	Report Number:	7
	Project:	PU-16-140 Plains JC-DAPL Pipeline	Date:	11/21/2018
	KLJ Project Number:	1216124	Pages:	1
Project Contact Information				
Title	Name	Company	Office Phone	Cell Phone
Client Contact	Patric Fahn	ND Public Service Commission	701-328-4077	
KLJ Project Manager	Paul Lee	KLJ	701-250-3501	701-351-5551
Field Inspector	Paul Lee	KLJ	701-250-3501	701-351-5551
Contractor Field Foreman	Joe Pease	On & Offshore		580-677-1277
Contractor Field Foreman	Ann Thessen	B.J. Kadrmias	701-225-0361	402-984-0712
Daily Construction Conditions				
Weather Conditions:	Calm, cloudy			
Temp (High/Low):	15/3			
Tailgate Meeting (Yes/No):	no			
Daily Construction Activity				
Construction Activity	Estimated % Complete		Comments/Description	
ROW Clearing	100			
Topsoil Removal	100			
Level/Grade ROW	100			
Staking	100			
Stringing	100			
Bending	100			
Welding	100			
Coating	100			
Trench	100			
Lowering-in	100			
Backfill	75		In progress	
Tie-ins	75		In progress	
Hydro Test	50			
Restoration	10		In progress	
Photos				
Picture 1: Finish grading, some topsoil remaining to be spread				
Picture 2: Finish grading subgrade				
Picture 3: Grading completed prior to topsoil spreading				
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Picture 5: Low area to be graded before topsoil is spread				
Picture 6: Silt fence at drainage area, finish grading completed				
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Picture 11: Ready for topsoil to be spread, showing grade returned to existing contours				
Picture 12: PI, reference photo				
Picture 13: Station 56+00				
Disposition/Comments:				
Paul Lee visited the workstie from 11:00 to 13:00 At the time of inspection, work activities mostly focused on finish grading pipe trench.				
Contours are being restored to original conditions, matching existing slopes. Area is being fine graded with a blade before topsoil spreading begins.				
Inspectors Name:	Paul Lee		Date:	11/21/2018
Inspectors Time (hrs.):	2			

Photographs – November 28, 2017



Picture 14: Equipment working on restoring grade



Picture 15: Topsoil spreading beginning near Johnsons Corner Terminal



Picture 16: Reference photo



Picture 17: Station 50+00



Picture 18: Grading in progress, looking north. Beginning to spread topsoil from berm



Picture 19: Grading in progress, looking north



Picture 20: Topsoil completed, looking west



Picture 21: Topsoil spreading completed, looking west



Picture 22: Topsoil spreading completed, looking east



Picture 23: Topsoil spreading recently completed in background, looking west



Picture 24: Station 105+50



Picture 25: Topsoil spreading completed



Picture 26: Topsoil spreading completed, looking east



Picture 27: Topsoil spreading completed



Picture 28: Reference photo



Picture 29: Grading and cleanup in progress



Picture 30: Topsoil spreading in progress, looking west



Picture 31: Reference photo



Picture 32: Begin spreading topsoil berm, looking east




Picture 33: Topsoil spreading completed, looking west



Picture 34: Finish grading of topsoil in progress, looking west

Daily Construction Progress Report November 28, 2017

Daily Construction Progress Report				
	Client:	N. Dak. Public Service Commission	Report Number:	8
	Project:	PU-16-140 Plains JC-DAPL Pipeline	Date:	11/28/2018
	KLJ Project Number:	1216124	Pages:	1
Project Contact Information				
Title	Name	Company	Office Phone	Cell Phone
Client Contact	Patric Fahn	ND Public Service Commission	701-328-4077	
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Contractor Field Foreman	Ann Thessen	B.J. Kadrmaz	701-225-0361	402-984-0712
Daily Construction Conditions				
Weather Conditions:	Partly cloudy, windy, 10-15 mph W			
Temp (High/Low):	44/24			
Tailgate Meeting (Yes/No):	no			
Daily Construction Activity				
Construction Activity	Estimated % Complete			Comments/Description
ROW Clearing	100			
Topsoil Removal	100			
Level/Grade ROW	100			
Staking	100			
Stringing	100			
Bending	100			
Welding	100			
Coating	100			
Trench	100			
Lowering-in	100			
Backfill	100			
Tie-ins	100			
Hydro Test	100			
Restoration	20			
Photos				
Picture 14: Equipment, working on restoring grade				
Picture 15: Topsoil spreading beginning near Johnsons Corner Terminal				
Picture 16: Reference photo				
Picture 17: Station 50+00				
Picture 18: Grading in progress, beginning to spread topsoil from berm				
Picture 19: Grading in progress				
Picture 20: Topsoil completed				
Picture 21: Topsoil spreading completed				
Picture 22: Topsoil spreading completed				
Picture 23: Topsoil spreading recently completed in background				
Picture 24: Station 105+50				
Picture 25: Topsoil spreading completed				
Picture 26: Topsoil spreading completed				
Picture 27: Topsoil spreading completed				
Picture 28: Reference photo				
Picture 29: Grading and cleanup in progress				
Picture 30: Topsoil spreading in progress				
Picture 31: Reference photo				
Picture 32: Begin spreading topsoil berm				
Picture 33: Topsoil spreading completed				
Picture 34: Finish grading of topsoil in progress				
Disposition/Comments:				
Paul Lee is on worksite from 11:30 to 13:00. At this time, all pipe is in place and backfilled. Much of the site has been graded, with topsoil spreading beginning. A dozer is used to spread topsoil from berms, which were placed at the edge of the ROW. Ground was restored to original contours prior to topsoil spreading.				
Inspectors Name:	Paul Lee	Date: 11/28/2018		
Inspectors Time (hrs.):	1.5			