



Addendum to Class I and Class III Cultural Resource Inventory of the Wild Basin to Johnsons Corner Crude Oil Pipeline Project, McKenzie County, North Dakota.

Prepared for:

Oasis Midstream Services, L.L.C.

Prepared by:

E3 Environmental, L.L.C.



June 2016



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- 8. Acres – 496
- 9. Legal Location(s) (no quarter sections) with Historic Context Study Unit(s):
Consult township tables in The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component, (SHSND 1990) for Study Unit assignments.
Study Units: LM, CB, KN, HE, SM, GA, JA, GR, NR, SR, SO, SH, YE

<u>COUNTY</u>	<u>TWP</u>	<u>RNG</u>	<u>SEC</u>	<u>SU</u>
McKenzie	151N	98W	35, 36	LM
	150N	98W	1	LM
	150N	97W	3, 6-12	LM
	150N	96W	7-11, 13, 14, 18, 23	LM
	150N	95W	17, 18	GA

**Addendum to Oasis Midstream Services LLC. Wild Basin to
Johnsons Corner Crude Oil Pipeline Project
Class I and Class III Cultural Resource Inventory**

Submitted to:

State Historical Society of North Dakota

Prepared for:

Oasis Midstream Services L.L.C.

Prepared By:

Garrett L. Knudsen

Principal Investigators:

Garrett L. Knudsen

June, 2016

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SUMMARY

E3 Environmental, LLC (E3) conducted a Class I and a Class III cultural resources inventory for the Oasis Midstream Services, L.L.C Wild Basin to Johnsons Corner Crude Oil Pipeline Project (Project). The Project falls entirely on private land in McKenzie County, North Dakota. The regulatory agencies involved are the North Dakota State Historic Preservation Office (ND SHPO) and the North Dakota Public Service Commission (NDPSC); ND SHPO guidelines are implemented in this cultural resources study. After the original Survey Corridor of 493 acres was originally surveyed (September 2015) and reported (January 2016), an additional area of 3 acres of 250-foot wide Survey Corridor was added and surveyed in June 2016.

The original Class I inventory conducted November 2015 identified 18 completed cultural resources surveys (MS#5749, MS#6051, MS#7144, MS#11710, MS#11739, MS#12014, MS#12150, MS#12312, MS#13002, MS#13063, MS#13099, MS#13515, MS#13847, MS#14083, MS#14122, MS#14475, MS#14548, and MS#14839) within one-half mile of the proposed pipeline (Project Corridor). Fourteen previously-recorded cultural resources are located within the Project Corridor, including five *sites* (32MZ772, 32MZ782, 32MZ793, 32MZ2672, and 32MZ2697) and nine *isolates* (32MZX184, 32MZX187, 32MZX415, 32MZX1119, 32MZX1173, 32MZX1190, 32MZX1214, 32MZX1228, and 32MZX1229). Of these, one (32MZ793) is recorded within a 250-foot width, centered on the Project centerline and surrounding ancillary areas (Survey Corridor). The additional Survey Corridor area detailed in this report falls within the areas addressed in the original Project report (Woodward, Pnewski, & Knudsen 2016).

The original Class III inventory, conducted in September, 2015, included pedestrian survey of the Survey Corridor and a re-investigation of previously recorded archaeological sites there. Although this area overlapped, for the majority of its length, a 75-foot wide corridor surveyed for cultural resources Summer, 2015, the entire Survey Corridor was re-surveyed in 15-meter (maximum) transects as part of this study. These survey efforts identified 15 newly-recorded cultural resources: three archaeological sites (32MZ2953, 32MZ2954, and 32MZ2955) and 12 isolates (32MZX1533, 32MZX1534, 32MZX1535, 32MZX1536, 32MZX1537, 32MZX1538, 32MZX1539, 32MZX1540, 32MZX1541, 32MZX1542, 32MZX1543, and 32MZX1544). E3 also re-located and investigated previously-recorded prehistoric site (32MZ793) within the Survey Corridor. Details of these results are included in the original report (Woodward, Pnewski, & Knudsen 2016). The additional Survey Corridor area, surveyed in June, 2016, is negative for additional cultural resources.

Construction activity within the additional Survey Corridor area addressed in this report **WILL NOT** affect any known cultural resources. Conclusions and recommendations for the entire original Survey Corridor are detailed in the original report (Woodward, Pnewski, & Knudsen 2016).



PROJECT OVERVIEW

Oasis Midstream Services, L.L.C. (Oasis), owns and operates petroleum assets in North Dakota. Oasis is proposing the Wild Basin to Johnsons Corner Crude Oil Pipeline Project (Project). The Project is a new, approximately 14-mile, steel, 10-inch diameter petroleum pipeline that will originate one-half mile north of the 30th St. NW and 121 Ave NW junction and ends at Highway 23 in McKenzie County, North Dakota (see Figure 1).

Oasis has retained E3 to fulfill cultural resource obligations regarding the Project and assess the potential effects of activities associated with constructing the Project to cultural resources, and is prepared to supplement Oasis's submittal to the NDPSO for an amended Certificate of Corridor Compatibility and Route Permit Application for the Project which includes the cultural resources survey results for the additional Survey Corridor area.

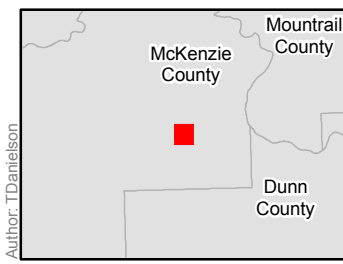
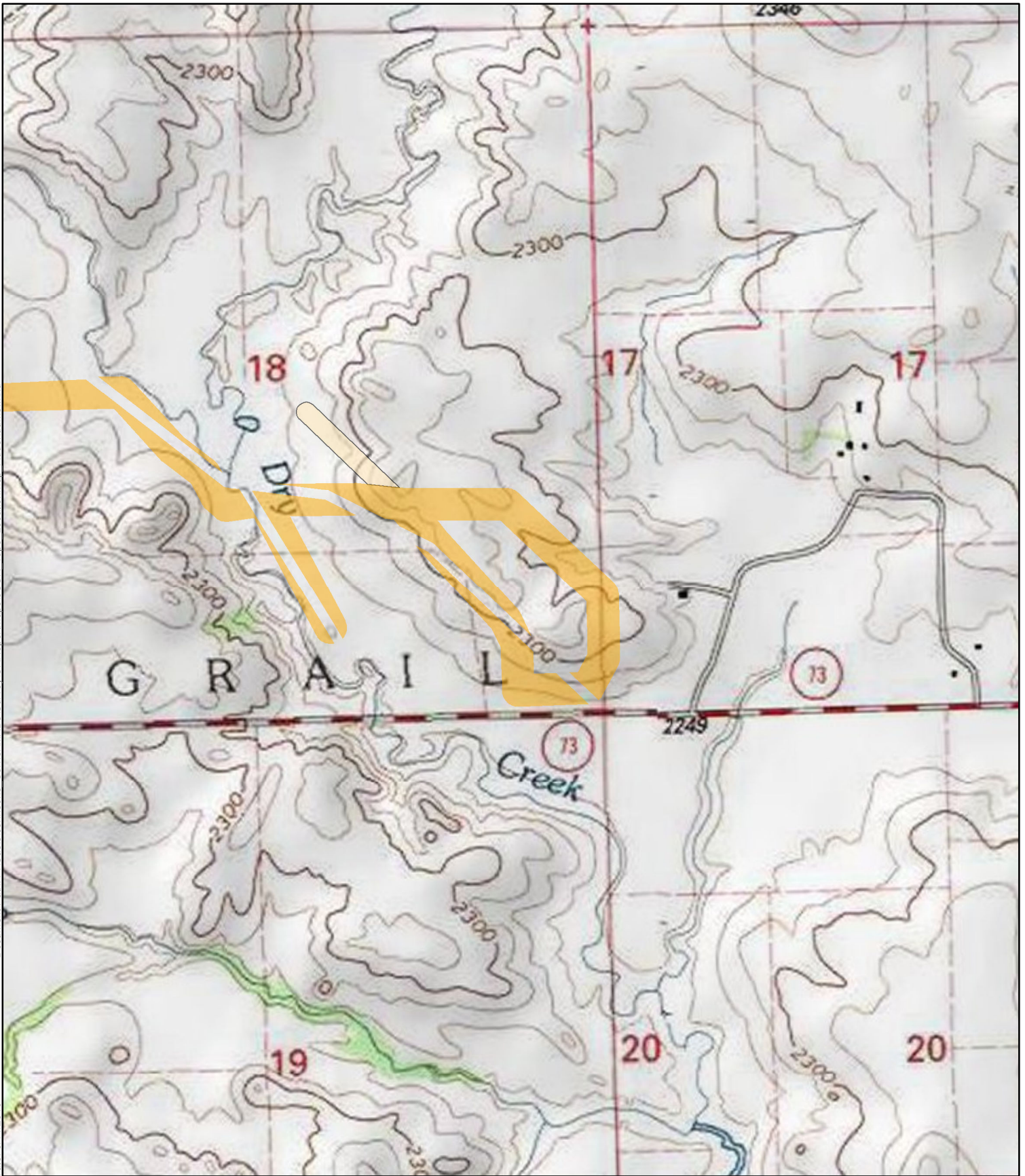
Class I and Class III cultural resource inventories conducted by E3 Environmental, LLC (E3) in September 2015 for Oasis can be found in the original report (Woodward, Pnewski, & Knudsen 2016). The Project is being constructed on 496 acres of private land within North Dakota. The southern terminus of the project is located approximately 19 miles west of Watford City, North Dakota along Highway 22. The northern terminus of the Project is located approximately six miles northwest of Watford City, North Dakota in McKenzie County. The project is situated on Schafer, Schafer SE, and Johnsons Corner North Dakota, U.S. Geological Survey (USGS) topographic quadrangles. Refer to Figure 1 for added Project location.

Garrett L. Knudsen was Principal Investigator. Table 1 details the Project location.

Table 1. Legal Location of Project

Township	Range	Section(s)
151N	98W	35, 36
150N	98W	1
150N	97W	3, 6-12
150N	96W	7-11, 13, 14, 18, 23
150N	95W	17, 18

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Date: 6/14/2016



Previous Survey Corridor
Additional Survey Area

0 255 510 1,020 Feet
1:12,000

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E3 Environmental
Cultural Resource Survey

Site Location Map
Additional Survey Area
McKenzie County, ND

Author: TDanielson

For environmental review purposes only.



REGULATORY FRAMEWORK

The principal law relevant to the protection of cultural resources for the Project is the National Historic Preservation Act (NHPA), which established a State Historic Preservation Office (SHPO) in each state.

FEDERAL

Zero acres of the Survey Corridor for the Project fall within federally-managed land.

STATE

Zero acres of the Survey Corridor for the Project fall within state-managed land.

SURVEY CORRIDOR

For purposes of this project, and to meet pertinent state regulatory requirements, the Survey Corridor (see Figure 2) consists of:

- The Original 250 foot-wide ROW centered on the centerline and surrounding ancillary areas, encompassing 493 acres.
- The additional pull back area increases the total ROW by 3 acres to 496 acres.

INVENTORY METHODS

Standard Class I Cultural Resource Inventory methodologies were utilized: research was conducted on files maintained at the State Historical Society in Bismarck, North Dakota. These files consist of a searchable digital database, Geographic Information System (GIS) based mapping, and traditional paper files for site forms and manuscripts. In addition, General Land Office (GLO) maps were consulted to help identify potential locations of previously unrecorded cultural resources.

Archaeologists conducted the survey by walking parallel transects at 15 meter intervals across the Survey Corridor. When possible, E3's archaeologists examined subsurface exposures in erosional cut banks, road cuts, rodent burrow entrances, and ant hills for artifacts or evidence of buried cultural deposits. In areas where the surface visibility was less than 30 percent, tighter spaced transects were utilized, with spacing not exceeding 10 meters. None of the additional survey area addressed in this site had less than 10 percent.

None of the additional survey area addressed in this site had less than 5 percent surface visibility; no shovel tests were completed.



Only resources that appeared to be more than 50 years old were recorded. Site locations and boundaries were mapped using a Trimble Geo XT 6000 Global Positioning System (GPS) unit and are provided in North American Datum (NAD) 83, and Universal Transverse Mercator (UTM) projection. Archaeologists conducting the inventory utilized the appropriate North Dakota Site Form(s) when recording cultural resources.

INVENTORY RESULTS

CLASS I RESULTS

The additional Survey Corridor discussed in this report falls within the area described in the Project Class I inventory detailed in the original report (Woodward, Pnewski, & Knudsen 2016), conducted October, 2015

CLASS III RESULTS

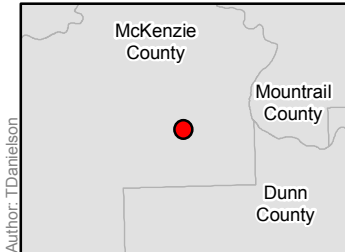
The additional Survey Corridor area discussed in this report was negative for cultural resources. The Project Class III inventory is detailed in the original report (Woodward, Pnewski, & Knudsen 2016).

Table 4. Approximation of Surface Visibility within the Survey Corridor

<10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	>90%
0	0	5	10	10	20	20	20	10	5

Document Path: P:\Oasis\Johnsons Corner\MXDs\Survey\CRReport\Maps\JCCR Aerial SketchMap Addendum3.mxd

Date: 6/14/2016



Author: TDanielson

- Milepost
- Proposed Centerline
- Additional Survey Area
- Previous Survey Corridor

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0 30 60 120 Feet

1:1,500

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E3 Environmental
Cultural Resource Survey

Site Sketch Map

Additional Survey Area
McKenzie County, ND



CONCLUSION

Construction activity within the additional Survey Corridor area addressed in this report **WILL NOT** affect any known cultural resources. Conclusions are recommendations for the entire original Survey Corridor are detailed in the original report (Woodward, Pnewski, & Knudsen 2016).



REFERENCES

Woodward, D., J. Pnewski, & G. Knudsen. (2016). Oasis Midstream Services LLC., Wild Basin to Johnsons Corner Crude Oil Pipeline Project, McKenzie County. Submitted to North Dakota SHPO.