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2.1 Cultural and Historic Resources

In accordance with:

- Section 38-14.1-10, North Dakota Century Code (NDCC); and
- Section 38-14.1-14(1)(a)(u), NDCC.

2.1.1 Cultural Resources Narrative

In October of 2006 and May of 2007, Golder Associates Ltd. of Calgary, Alberta, Canada completed a Class III cultural resources inventory for the South Heart Lignite Mine on behalf of South Heart Coal LLC (SHC). The Study Area included 7,150 acres ([Figure 2.1-1](#)). Golder Associates Ltd. (GAL) is a North Dakota permitted cultural resources contractor listed with the State Historical Society of North Dakota (SHSND) per the requirements of NDCC 55-03 and is authorized to conduct cultural resources investigations in the State of North Dakota.

The report containing the results of this inventory is entitled *A Class III Cultural Resource Inventory: South Heart Project Stark County, North Dakota*. The report was filed with the SHSND on July 2, 2008. The SHSND concurs with eligibility determinations as described in this report. Copies of correspondences are provided in [Appendix 2.1-1](#). A copy of this report is provided in [Appendix 2.1-2](#).

During the assessment a total of 13 sites and 12 isolated finds were recorded ([Figure 2.1-2](#)). Seven prehistoric sites and four historic sites were identified during the site investigation. In addition, the locations of two previously known historic sites were re-visited. All of the isolated finds are prehistoric. Cultural site locations, eligibility and mitigation recommendations within the Permit Boundary and Study Area are summarized in Section 2.1.2. A summary of cultural site locations, site types, and eligibility and mitigation recommendations are provided in [Tables 2.1-1 through Tables 2.1-8](#).

Determinations regarding the significance of cultural resources are made on the basis of eligibility for the National Register. The National Register criteria are defined by the United States Department of the Interior National Parks Service (USDI NPS 1991). A cultural resource is determined to be eligible if it meets or contributes to one or more of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of our history; or

2. It is associated with the lives of significant persons in our past; or
3. It embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
4. It has yielded or may be likely to yield, important information in history or prehistory.

Sites that are recommended as being potentially eligible require further investigation if they are subject to impact (i.e., within the Area of Potential Effect (APE)). This allows final determinations of eligibility to be made. If the sites are ineligible, no further investigations are recommended. The potential for adverse effects (direct and indirect) to a site does not affect recommendations of eligibility. However, in the event of no adverse effects, and with SHSND concurrence, no further investigation is required.

If any previously unrecorded archaeological, cultural, or historic materials are discovered within the Permit Boundary, the applicant will inform the Chief Archaeologist of the Historic Preservation Division of the discovery. The applicant will also allow a reasonable time for the Chief Archaeologist to determine the significance of the discovery and, if determined significant, to approve a mitigation plan.

The site identified as 32SK1004 consists of a lithic scatter originally recorded by GAL crew members in October of 2006. It was then revisited by GAL archaeologists in May of 2007. The site is located within the Permit Boundary. It covers a broad area, approximately 20 meters (m) east to west and 131 m north to south. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1005 is a prehistoric cairn situated on a finger ridge below the crest of a hill. Additional unidentified stones may be buried under this deeply sodded cairn. The amount of sodding and lichen combined with its low height and location suggests the cairn may have been constructed prehistorically; however, no artifacts were observed in association with the cairn, and its temporal classification is unknown. The site is located within the Study Area boundary but outside of the Permit Boundary. This feature may be potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1006 consists of historic household debris which is scattered over a 20 m² area. The site is located on a relatively flat, broad, open cultivated field. Artifacts consist of a glass marble, a wooden button, earthenware, shards of manganese, aqua and clear bottle glass, Medalta crockery, bricks, rubber toy tractor tire, window pane glass, unidentified metal scraps and unidentified rubber fragments. The site is located within the Permit Boundary and is recommended as ineligible for nomination to the National Register. Documentation and locational data are sufficient to provide attribute descriptions and information on historic siting preferences.

Site 32SK1007 is a moderately dense lithic scatter. Artifacts were observed within an area 27 m east to west and 25 m north to south. The site is located in a cultivated field on a high level terrace that overlooks the floodplain of the South Branch Heart River to the west and north. The site is located within the Permit Boundary. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1008 is a buried site that was discovered during shovel testing along a low terrace overlooking a remnant meander of the South Branch Heart River. A total of 10 shovel tests were placed within an area 20 m east to west and 10 m north to south. Four of the tests were positive. No artifacts were observed on the surface. The site is located within the Permit Boundary. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1009 is a diffuse lithic scatter situated in a cultivated field. The site is located within the Study Area boundary but is outside of the Permit Boundary. The site measures 48 m east to west and 37 m north to south. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1010 is a small lithic scatter located in a cultivated field. The site is located within the Study Area boundary but is outside of the Permit Boundary. The site measures 16 m east to west and 23 m north to south. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1011 is an historic homestead consisting of 14 features. The site covers an area 80 m east to west and 105 m north to south. The features include a windmill, foundations, concrete pads, gates and barn debris. The Bureau of Land Management (BLM) General Land Office (GLO) patent records for this legal land section shows that an Alexander Morton obtained a Homestead Entry

Survey (HES) Patent on June 25, 1889. The 1884 GLO Survey Plat shows a structure at this location which was labeled "Morton." The site is located within the Permit Boundary. It is recommended as ineligible for inclusion on the National Register. Documentation and locational data are sufficient to provide attribute descriptions and information on historic siting preferences.

Site 32SK1012 is a diffuse lithic scatter spread along the west facing rim of an eroded badland terrace above a tributary to the South Branch Heart River. The site is located within the Study Area boundary but is outside of the Permit Boundary. The site measures 20 m east to west and 25 m north to south. This site is recommended as potentially eligible for inclusion on the National Register under Criteria D.

Site 32SK1002 (Kuylen barns) is located on a flat, grassy floodplain of a tributary to the South Branch Heart River. According to Mr. Robert "Bob" Kuylen, the brother of the owner of the barns, one barn pre-dates the year 1918 and the other was built sometime in the 1930s. A third structure, an open pole barn, is of more recent construction. The Kuylen's barns are located within the the Permit Boundary. In order to determine the National Register eligibility of this site Louis N. Hafermehl, an Architectural Historian, was retained. After his site visitation and subsequent site recordation it was determined that these three features do not meet any of the National Register's eligibility criteria (Hafermehl 2007).

Site 32SK1003 (Perdaems' barn) is a gambrel roofed barn built in 1936 by Louis Splichal, a carpenter. The current owner is James Perdaems. The barn is situated on a slight north/south trending rise. A tributary to the South Branch Heart River is located directly south of the barn and associated farmstead. A lean-to addition was built on to the east wall of the barn shortly after the barn was constructed. A pole barn/shed addition to the west side of the barn was added approximately 15 years ago. The site is located within the Permit Boundary. In order to determine the National Register eligibility of this site Louis N. Hafermehl, an Architectural Historian, was retained. After his site visitation and subsequent site recordation it was determined that the feature does not meet any of the National Register's eligibility criteria (Hafermehl 2007).

Site 32SKX36 was originally recorded by Ted Anderson on January 10, 1980. The site lead consisted of "bone eroding out of the Heart River bank" within Section 14, T. 139 N., R. 98 W. Re-inspection of this area in 2007 failed to reveal any bone locales eroding out of the South Branch Heart River which flows through Section 14. Since the site lies within a non-disturbance area and therefore will

be unaffected it is recommended that the data should remain as a site lead. No further work is recommended.

Site 32SKX37 was originally recorded by Ted Anderson on January 10, 1980. The site lead consisted of “bone eroding out of the Heart River bank” within Section 23, T. 139 N., R. 98 W. Re-inspection of this area in 2007 failed to reveal any bone locales eroding out of the South Branch Heart River which flows through Section 23. Since the site lies within a non-disturbance area and therefore will be unaffected it is recommended that the data should remain as a site lead. No further work is recommended.

Site 32SKX110 Update was originally recorded in 1984 by persons unknown. The site consists of a possible strip mine located in Section 16, T. 139 N., R. 98 W. Inspection of this area revealed heavily disturbed terrain and three distinct excavated areas, one of which has since filled with water. Debris in the immediate area consisted of concrete rubble, wooden pallets and a length of PVC pipe. Based on the available information the site is not recommended as eligible for inclusion on the National Register. The site is located within the Permit Boundary.

Farmstead site 32SKX202 Update was originally recorded by Cynthia Kordecki on January 13, 1995. At the time of her visit, no structures were remaining and no evidence of existence was found at the surface. Two rows of trees ran north to south with an old fence line detected within the western tree row. An old board and pieces of barbed wire were also observed. According to GLO records, Carrie M. Parker obtained the first homestead patent on the property in 1910. Golder Associates Ltd. revisited the area in 2007 and confirmed that no evidence of depressions, foundations or cultural material remained. Other than the two tree rows, the entire area had been cultivated at one time. The site is not recommended as eligible for inclusion on the National Register. The site is located within the Permit Boundary.

Twelve isolated finds were encountered during the course of survey. All of the finds are prehistoric stone tools and/or debitage. None of the isolated finds are recommended as eligible for inclusion on the National Register.

2.1.2 Summary of Cultural Sites

A summary of cultural site locations, site types, and eligibility and mitigation recommendations are provided in [Tables 2.1-1 through Tables 2.1-8](#). A 100 foot buffer is planned around sites recommended as potentially eligible within disturbance areas of the Permit Boundary to avoid direct and indirect effects. If there are changes to the mine plan within the Permit Boundary and these potentially eligible sites cannot be avoided, further evaluation through a formal testing program undertaken with the concurrence of the SHSND and other consulting parties is recommended. No further work is recommended for sites located within the Study Area but outside of the Permit Boundary since these areas will not be disturbed.

2.1.3 Current Status of Cultural Resource Site Inventory

The report containing the results of this inventory is entitled *A Class III Cultural Resource Inventory: South Heart Project Stark County, North Dakota*. The site forms and this report have been submitted to SHSND. The SHSND concurs with eligibility determinations as described in this report. Copies of correspondences are provided in [Appendix 2.1-1](#). A copy of this report is provided in [Appendix 2.1-2](#).

TABLES

FIGURES

APPENDICES

APPENDIX 2.1-1

SHSND CORRESPONDENCES

APPENDIX 2.1-2

A CLASS III CULTURAL RESOURCE INVENTORY