PHASE I AND II ARCHAEOLOGICAL INVESTIGATIONS FOR THE TRUNK HIGHWAY 53 RELOCATION PROJECT (ALTERNATIVES E-1, E-1A AND E-2A), VIRGINIA TO EVELETH, ST. LOUIS COUNTY, MINNESOTA

MnDOT Contract No. 04098
S.P. 6918-80
Two Pines Resource Group No. 13-05
OSA License No. 13-33, 13-75

Prepared for:
Minnesota Department of Transportation
Office of Environmental Services
Cultural Resources Unit
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FINAL
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December 6, 2013

Sarah Beimers
State Historic Preservation Office
Minnesota Historical Society
345 Kellogg Blvd. W.
St. Paul, MN 55101-1906

Regarding: S.P. 6918-80 (TH 53, Koochiching County)
Relocation in the Virginia area
T. 58 N., R. 17 W., S. 16 – 18, 20 & 21, City of Virginia
SHPO: 2011-3404

Dear Ms. Beimers:

We have reviewed the above-referenced undertaking pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), and as per the terms of the Programmatic Agreement (PA) between the FHWA and the Minnesota State Historic Preservation Office (SHPO) (June 2005).

Earlier this year, MnDOT decided to examine several additional alternative alignments for this project besides the earlier Alternatives M-1 and E-2 alignments your office has already reviewed. These new alignments, designated E-1, E-1A and E-2A, are the subject of an archaeological identification and evaluation study conducted by Two Pines Resource Group in 2013 entitled *Phase I and II Archaeological Investigations for the Truck Highway 53 Relocation Project (Alternatives E-1, E-1A and E-2A), Virginia to Eveleth, St. Louis County, Minnesota.* The survey identified one property, the Minnewas Homestead (21SL1208) which was also evaluated and recommended as not eligible for listing in the National Register of Historic Places. MnDOT agrees with this recommendation.

If you have additional questions regarding this project, please contact me at (651) 366-3614.

Sincerely,

Craig Johnson
Archaeologist
Cultural Resources Unit (CRU)

cc: Roberta Dwyer, MnDOT D. 1
Cindy Lillegaard, MnDOT D. 1
Debra Moynihan, MnDOT C.O.
Bill Latady, Bois Forte THPO

MANAGEMENT SUMMARY

In August and September of 2013, Two Pines Resource Group, LLC (Two Pines) completed a Phase I archaeological survey and Phase II archaeological evaluation for the Trunk Highway (TH) 53 Relocation Project between Virginia and Eveleth in St. Louis County, Minnesota. This work was performed under contract with the Minnesota Department of Transportation (MnDOT) for the Cultural Resource Unit of the department. Because this project will receive funding from the Federal Highway Administration, it must comply with Section 106 of the National Historic Preservation Act, as amended. A separate architectural history study for this project was prepared by Landscape Research.

For the TH 53 Relocation Project, several Build Alternatives are being studied. In July of 2012, Two Pines reported the results of Phase I and II archaeological investigations carried out for project Alternatives M-1 and E-2 (Vermeer 2012). The purpose of the current archaeological investigations was to determine if the area of potential effects (APE) of project Alternatives E-1, E-1A and E-2A contains any intact archaeological resources that may be eligible for listing in the National Register of Historic Places (National Register). The APE of Alternatives E-1, E-1A and E-2A include portions of Sections 8, 9, 16, 17, 18, 20, and 21 of Township 58N, Range 17W. The project area is located within the Central Lakes Coniferous East archaeological sub-region. Dr. Michelle Terrell served as Principal Investigator for the investigations.

During the Phase I archaeological investigations for the TH 53 Relocation Project, one new archaeological site, 21SL1208 (Minnewas Homestead) was identified. Site 21SL1208 consists of the remains of a 1925-1941 squatter's homestead located within the E ½ of the SW ¼ of the SW ¼ of Section 16 of Township 58N, Range 17W. This location is within the archaeological APE of Alternatives E-1A (realignment of the landfill road) and E-2A. Site 21SL1208 was recommended as potentially eligible for listing in the National Register and subsequently underwent a Phase II evaluation.

The Phase II evaluation of 21SL1208 (Minnewas Homestead) consisted of documentary research together with fieldwork consisting of close-interval pedestrian survey, shovel testing on a 10-m survey grid, and the documentation of structural features and surface finds. These investigations revealed soil disturbance from grading activities presumably related to the removal of the property's buildings in 1941. The construction of a rail yard into the site area during the 1940s also resulted in extensive disturbance. Furthermore, subsurface archaeological deposits were sparse and no stratified features were encountered. The primary source of artifactual evidence for the site's occupants are surface dumps. Evaluated as a Northern Cutover homestead within the *Historic Context Study of Minnesota Farmsteads, 1820-1960*, site 21SL1208 does not retain sufficient integrity to either illustrate historical trends or events (Criteria A) or answer important research questions (Criteria D). The site is also unlikely to yield any significant information beyond that obtained during the Phase II investigation. Based on these findings, 21SL1208 is recommended as not eligible for listing in the National Register and no additional archaeological fieldwork is recommend.

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INTRODUCTION

In August and September of 2013, Two Pines Resource Group, LLC (Two Pines) completed a Phase I archaeological survey and Phase II archaeological evaluation for the Trunk Highway (TH) 53 Relocation Project between Virginia and Eveleth in St. Louis County, Minnesota. This work was performed under contract with the Minnesota Department of Transportation (MnDOT) for the Cultural Resource Unit of the department. Because this project will receive funding from the Federal Highway Administration, it must comply with Section 106 of the National Historic Preservation Act, as amended. The purpose of the Phase I and II archaeological investigations was to determine if the area of potential effects (APE) of project Alternatives E-1, E-1A and E-2A contains any intact archaeological resources that may be eligible for listing in the National Register of Historic Places (National Register).

PROJECT DESCRIPTION

The Minnesota Department of Transportation (MnDOT) is proposing to relocate Trunk Highway (TH) 53 between Virginia and Eveleth due to a termination of their easement rights by Cliffs Natural Resources Inc. (United Taconite LLC) and RGGS Land & Minerals (S.P. 6918-80). The TH 53 Relocation Project will include the construction of a new TH 53 roadway and associated interchanges to accommodate the removal of approximately one mile of existing TH 53 from 2nd Avenue West to Vermillion Drive in Virginia. In the fall of 2011, Two Pines conducted archaeological investigations of the APE of two alignment alternatives for the project, known as Alternative M-1 (Mine Corridor) and Alternative E-2 (East Corridor) (Vermeer 2012). Since the completion of that study, further data collection and analysis has led to the addition and/or modification of project alignments resulting in the consideration of Alternatives E-1, E-1A and E-2A.

AREA OF POTENTIAL EFFECTS (APE)

The current APE for archaeology includes three variations on the east alignment referred to as Alternatives E-1, E-1A and E-2A (Figure 1). The study area for each of these alignments is a 400-ft. wide corridor (200 ft. on either side of the proposed centerline).

Alternative E-1 diverges east-northeast from the existing TH 53 at its approximate intersection with 2nd Avenue West, then makes a southeasterly arc over an open mine pit before coming back to the southwest to cross State Highway 135 before rejoining the existing TH 53 alignment.

Alternative E-1A follows a similar route although it crosses the mine pit further to the north and is aligned slightly further to the east than Alternative E-1.

Alternative E-2A closely parallels the previously surveyed E-2 Alignment in the NW ¼ of Section 16 before departing that alignment and arcing to the east/southeast of the landfill access road. The E-2 and E-2A Alignments rejoin in the SW ¼ of the SW ¼ of Section 16.

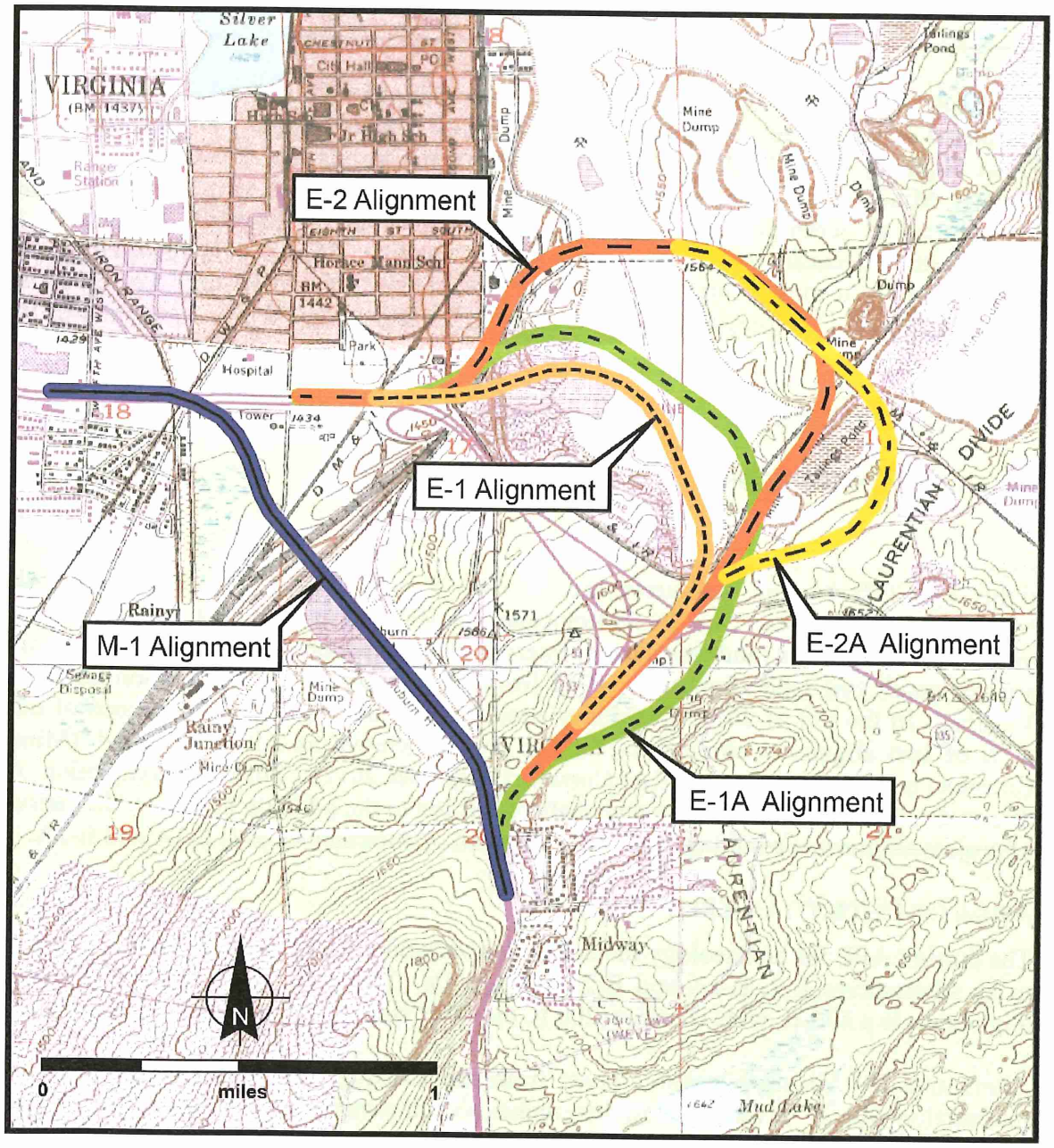

FIGURE 1. PROJECT LOCATION

(M-1 AND E-2 ALIGNMENTS WERE PREVIOUSLY SURVEYED)

The UTM coordinates (Zone 15, NAD 83) for Alternative E-1 are north/west end: 534864E 5261920N, south end 535729E 5260588N; for Alternative E-1A are north/west end 534128E 5261925N, south end 535412E 5260013N; and for Alternative E-2A are north/west end 536140E 5262598N, south end 536320E 5261175N. These coordinates were determined electronically using Acme Mapper. Legal locations for the APE are provided in Table 1.

REPORT STRUCTURE

The following report describes the objectives and methods of the investigations, as well as the cultural and environmental background of the project area. It provides relevant historic contexts, the results of the fieldwork, and cultural resource management recommendations for the TH 53 Relocation project.

TABLE 1. LEGAL LOCATIONS FOR THE TH 53 RELOCATION PROJECT APE

Alternative	T	R	S	Quarter-Sections
E-1 Alignment	58	17	16	W-SW
			17	S-NW, S-NE, NE-SE
			20	N-NE
E-1A Alignment	58	17	16	SW-NW, W-SW
			17	S-NW, N-NE, SE-NE
			18	SE-NE
			20	NE-NE, SE-NE, SW-NE, NW-SE
			21	NW-NW
E-2A Alignment	58	17	8	SE-SE
			9	SW-SW
			16	N-NW, SE-NW, SW-NE, NW-SE, NE-SW, S-SW

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RESEARCH DESIGN

All work was conducted in accordance with the *MnDOT's Cultural Resources Unit Project and Report Requirements* (MnDOT 2011), *SHPO Manual for Archaeological Projects in Minnesota* (Anfinson 2005), the *State Archaeologist's Manual for Archaeological Projects in Minnesota* (Anfinson 2011), and the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (National Park Service 2002).

OBJECTIVES

The purpose of the Phase I and II archaeological investigations was to determine whether the project area contains any intact archaeological resources that may be potentially eligible for listing on the National Register. The NRHP criteria, summarized below, were used to assess the significance of documented archaeological sites. While all four criteria are considered, archaeological sites are typically eligible for listing in the National Register under Criterion A or D.

- Criterion A – association with events that have made a significant contribution in our past;
- Criterion B – association with the lives of persons significant in our past;
- Criterion C – embodiment of the distinctive characteristics of a type, period, or artistic values; or representation of the work of a master; possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D – potential to yield information important to prehistory or history (National Park Service 2002).

LITERATURE SEARCH

On June 21, 2013, staff from Two Pines obtained the results of a SHPO database query for previously identified archaeological sites within one mile of the APE. Staff subsequently conducted research at the SHPO to obtain information on identified archaeological sites and cultural resource surveys previously conducted within the project area. In addition, historical maps, historical aerial photographs, and current topographic maps were reviewed. This research was conducted to gain an understanding of the environmental and cultural history of the APE in order to assess which portions had greater potential for containing intact archaeological sites.

In order to assist in the evaluation of the historical significance of 21SL1208 (Minnewas Homestead), which was identified during the Phase I survey, additional research was conducted on the Alexander family and the activities of squatters on mineral lands. Sources consulted included, but were not limited to, tax assessment records, population and non-population census records, historical maps, aerial photographs, county and local histories, photographs and images, and other primary documents including the records of

the Oliver Iron Mining Company and information on squatters leases contained in the files of the Minnesota Division of Land and Minerals and the Land Department of the Minnesota State Auditor (both on file at the Minnesota Historical Society).

PHASE I ARCHAEOLOGICAL SURVEY

The Phase I archaeological survey consisted of a thorough visual inspection of the APE of each of the project alignments. The purpose of the inspection was to identify any surface features, such as extant foundations, to refine the assessment of archaeological potentials as determined by the literature review, and to identify existing levels of disturbance within the APE. Areas demonstrably disturbed through mining activities, road or other construction activities, and other modern land uses were excluded from systematic survey unless the potential existed for intact cultural deposits to be present beneath the disturbance. Likewise, portions of the APE meeting the conditions for low archaeological potential were not subject to systematic survey. Areas found within the APE to contain historical-period structural features were subject to a more intense walkover survey aided by historical maps and aerial photographs in order to assure that potential archaeological features in the area were identified.

PHASE II ARCHAEOLOGICAL INVESTIGATIONS

Pedestrian Survey

The Phase II evaluation included a close-interval (1-to-3-m) pedestrian, or walkover, survey, which was conducted along parallel transects across the entirety of the greater homestead area. The purpose of this survey was to identify the locations of structural remains and potential subsurface features, as well as to document the locations of surface finds. All surface finds were described in field notes and their location documented with a sub-meter accurate GPS unit. Surface finds were not collected.

Shovel Testing

In keeping with the fieldwork methods outlined in the *Historic Context Study of Minnesota Farmsteads, 1820-1960,* the Phase II evaluation of 21SL1208 included systematic shovel testing across the homestead at a 10-m interval (Terrell 2006:B.27). Shovel tests are hand-excavated test holes that are 30 to 40 centimeters (cm) (12 to 15 inches) in diameter excavated at regular intervals along evenly spaced transects in order to identify any subsurface archaeological resources. All soils removed from excavated shovel tests were screened through a ¼-inch mesh. Shovel tests were excavated through all post-glacial soils and sediments to culturally sterile subsoil or to a maximum depth of one meter (three feet) below the surface, depending on which condition was first encountered. Twenty-one shovel tests were excavated along six transects at a 10-m (33-ft.) interval thereby establishing a testing grid over the homestead, though exceptions were made as needed to avoid extant foundations and inundated areas. Five additional shovel tests were excavated within depressions indicative of potential features. All artifacts recovered from shovel tests were collected.

Structural Features

As no superstructures were present, the evaluation focused on documenting foundations and other structural remnants visible on the surface. These features were documented through the creation of scale maps as well as digital photographs. Other surface features such as roads and depressions were also recorded.

Surface Dumps

Two distinct surface dumps were identified within the boundaries of 21SL1208. Field methods consisted of mapping the extent of the debris field(s), generally characterizing the types of materials present, and field-cataloging objects visible on the surface. In order to document the vertical density of the main household dump, a 1-x-1-m grid was placed at the densest portion of the artifact scatter and the material within it removed and documented to the depth at which subsoil was encountered and no additional artifacts were present. Diagnostic attributes (e.g. height, width, labels, etc.) of artifacts that retained sufficient integrity to allow for identification were recorded in the field. Representative or unique objects were digitally photographed. Only some representative samples or diagnostic materials warranting further research were collected. The remaining artifacts were left on site.

LABORATORY ANALYSIS

All artifacts collected during the Phase I and II investigations were returned to the Two Pines laboratory for cleaning, processing, and cataloging. Artifacts were processed in accordance with the standards and guidelines of the MHS Collections Department.

All artifacts were cleaned and then sorted into categories used in standard professional practice, first by general material type, then by function and other attributes. Materials were cataloged using Microsoft Excel®. Each artifact from a particular provenience received a distinctive artifact number, beginning with the number "1."

EVALUATION

Following the completion of the Phase II fieldwork and laboratory analyses, 21SL1208 was evaluated with reference to the four National Register criteria for significance as established in the National Register Bulletin titled *How to Apply the National Register Criteria for Evaluation* (National Park Service 2002) (see above), as well as the guidelines for evaluating the National Register eligibility of farmstead archaeology sites as presented in *Historic Context Study of Minnesota Farmsteads, 1820-1960* (Terrell 2006). Though all four criteria were considered, historical-archaeological sites are typically eligible for listing in the National Register under Criterion A, B, or D (Anfinson 2005:18).

The site was also evaluated with reference to the National Register aspects of integrity. While the National Park Service identifies seven such aspects, location, design, setting, materials, workmanship, feeling, and association (National Park Service 2002), the SHPO guidelines for evaluating archaeological sites state, "With regard to archaeological sites

significant under Criterion D, the most critical aspects are location, materials, and association. For Criterion A, setting and feeling are also important" (Anfinson 2005:40). Anfinson (2005:40) notes, "In general, eligible archaeological sites need diagnostic artifacts, features, and intact cultural horizons where artifacts and features retain some vertical and horizontal integrity."

GEOGRAPHIC INFORMATION SYSTEM DATA

A geographic information system (GIS) data layer was created during the course of the archaeological investigations. The locations of all individual shovel tests, archaeological features, and surface finds were recorded using a sub-meter accurate Trimble GeoXT® GPS Unit. The data were differentially corrected using a National Geodetic Survey (NGS) continuously operating reference station (CORS).

LITERATURE SEARCH

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Background research conducted at the SHPO revealed that with the exception of the archaeological investigations previously conducted by Two Pines for the TH 53 Relocation Project in 2011 (Vermeer 2012), no archaeological surveys have previously occurred within or adjacent to the TH 53 Relocation project APE.

RECORDED ARCHAEOLOGICAL SITES

Although the APE consists of three separate alignments, a cumulative one-mile radius around these corridors was used to characterize the archaeological resources in the project's vicinity. No archaeological sites have been previously identified within the APE of Alternatives E-1, E-1A or E-2A. Two archaeological sites have been previously recorded within a one-mile (1.6 km) radius of the project area (Table 2).

TABLE 2. ARCHAEOLOGICAL SITES WITHIN ONE MILE OF THE PROJECT AREA

Site No.	T	R	S	¼ Section	Description
21SL0457	58N	17W	20	S-SE-SW	Precontact lithic scatter
21SL1135	58N	17W	8	S-SW-SE	Railroad and truck shops
			17	N-NW-NE	

Site 21SL457 (Jackson) is a precontact lithic scatter located on top of a ridge and approximately ½-mile to the south/southwest of the most proximate portion of Alternative E-1A.

Site 21SL1135 (Rouchleau Shops), which was recorded during the previous survey of Alternative E-2, consists of the remains of mid twentieth-century railroad (and subsequently truck) shops associated with the operations of the Rouchleau Mine. This site has been determined not eligible for listing in the National Register (Vermeer 2012).

ARCHAEOLOGICAL SITE POTENTIAL

The assessment of an area's potential to contain archaeological resources consists of an analysis of terrain, water sources, and other environmental and landscape conditions in and adjacent to that area as they were historically. Areas that were occupied by water, permanently or frequently inundated (e.g., wetlands, floodplains), poorly drained, or exhibited slopes of greater than 20 percent would have been inhospitable to human occupation and are therefore considered to have low potential for containing archaeological resources.

Precontact Archaeological Site Potential

Generally, areas in Minnesota with greater potential for containing precontact archaeological resources are in proximity, typically less than 500 ft., to a water source or wetland, though the applicability of this condition varies depending on the nature of the water source (perennial versus intermittent), the size of the body of water, the extent of the floodplain, and the availability of other water sources in the vicinity, i.e., proximity to a small pond may be less indicative of archaeological potential if a large lake is nearby. Topographic prominence is also frequently indicative of high precontact archaeological potential, though relative topographic prominence as a gauge of archaeological potential often is tied to other conditions, such as proximity to water. Proximity to previously recorded precontact archaeological sites often suggests high potential for precontact resources, insomuch as previously recorded sites may not have been fully defined or as the areas around previously recorded sites are typically subject to similar environmental/landscape conditions. The absence, however, of precontact archaeological sites in an area does not necessarily point to low archaeological potential, given that the area may not have been subject to previous survey.

Only one precontact archaeological site has been previously identified within a one-mile (1.6 km) radius of the TH 53 Relocation project area. This site is located atop a high ridge, which is a landform setting not present within the APE. There is also a lack of permanent and substantial natural water sources within the project area. However, the original General Land Office (GLO) survey map of the project area, which dates to 1879, depicts a stream running proximate to portions of the project area in Sections 16, 17, and 20 (GLO 1879). Locations proximate to this stream would be considered to have high potential for containing precontact archaeological resources, but the majority of these locations was subsequently disturbed by mining operations and the development of the city of Virginia and for the most part, no vestiges of the stream remain. An exception occurred in the southern portion of the East Corridor APE in Section 20, near a wetland that roughly corresponds to the location of the former stream, and where no apparent disturbance was evident in historical documentation, but this location was shovel tested during the 2011 survey for the TH 53 Relocation Project and was found negative for cultural materials. The remainder of the APE, whether or not it once held high potential for precontact archaeological resources, has been so severely disturbed that no potential resources would remain intact.

HISTORIC SITES ARCHAEOLOGICAL POTENTIAL

While the project area was intensively utilized during the historical period, the primary cultural resources present within the APE (mine pits, dumps, roads and rail grades), are unlikely to have archaeological information potential although they may be considered contributing elements to a mining archaeological district should mining related archaeological features be documented. During the literature search, four potential historical-period resources were identified within the APE, all of which were located within the SW ¼ of the SW ¼ of Section 16 of T 58N, R 17W. The earliest of these resources is a dwelling and associated outbuildings that appear on a 1928 map (Figure 2)

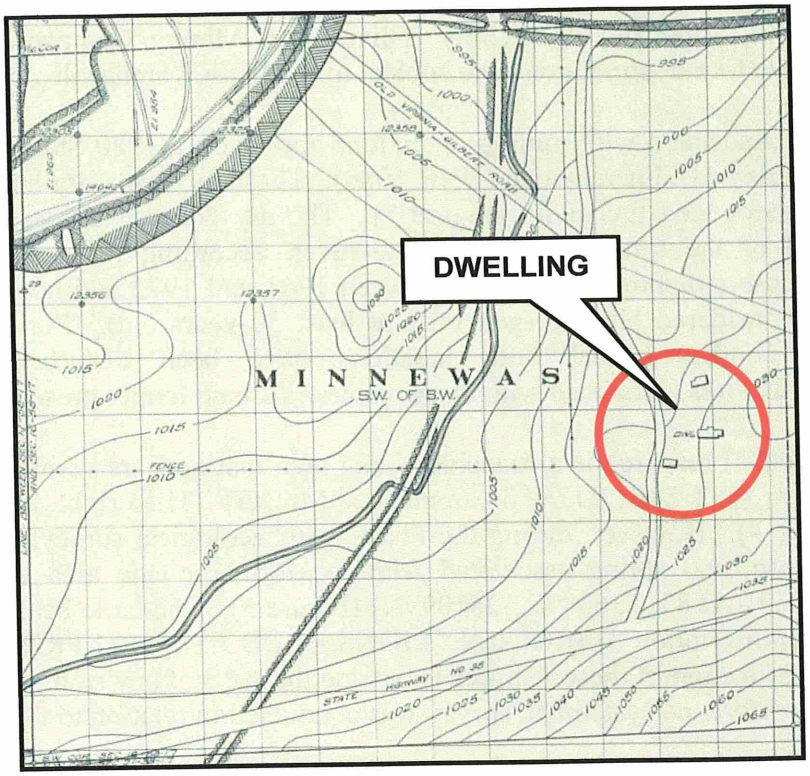

FIGURE 2. DWELLING AND OUTBUILDINGS ON A 1928 MAP

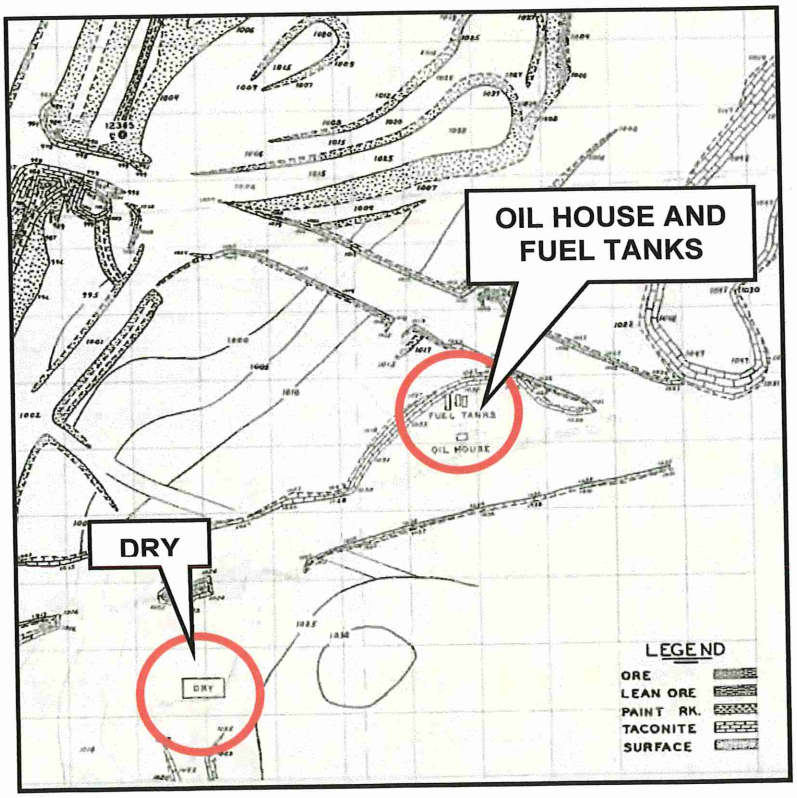

FIGURE 3. DRY HOUSE AND OIL HOUSE WITH FUEL TANKS ON A 1980 MAP

of the Minnewas Mine and its vicinity (Oliver Iron Mining Company 1928). The locations of these former structures were subject to the Phase I archaeological survey.

Two resources associated with mining operations appear on a 1980 State of Minnesota, Division of Lands and Minerals map (DNR 1980). These include a dry house and an oil house and its associated fuel tanks (Figure 3). The dry house was located just to the west-northwest of the former dwelling. However, according to a review of aerial photographs, these structures were built between 1961 and 1972 and hence are not old enough to be considered historic (generally at least 50 years old). Furthermore, field investigations confirmed that both locations have been disturbed and hence archaeological features associated with these resources are no longer present.

The fourth potential resource is a roadside picnic area that appears within SW ¼ of the SW ¼ of Section 16, T 58N, R17W on an undated MnDOT TH 53 right of way map (11-83_002) (Figure 4). However, during the Phase I archaeological survey, a picnic table, concrete staircase, and spring associated with the former picnic area were relocated (UTM Zone 15, NAD 83, 536389E 5261099N) (Figure 5). The table bears a dedication plaque with the inscription "VIRGINIA / LIONS CLUB / SPRING PROJECT / 1943" (Figure 6). The location of these features is outside the APE of any of the current TH 53 alternatives; therefore, no systematic survey was conducted in relation to the park.

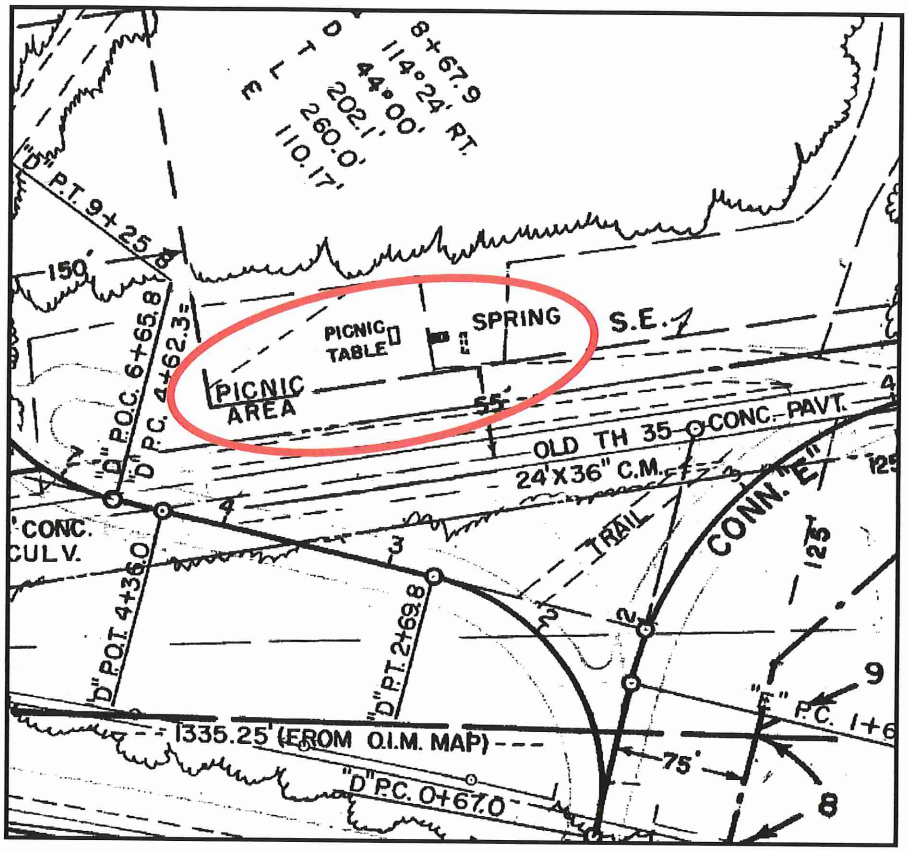

FIGURE 4. PICNIC AREA LOCATED TO THE NORTH OF OLD TH 35

FIGURE 5. PICNIC TABLE

FIGURE 6. DEDICATION PLAQUE ON PICNIC TABLE

ENVIRONMENTAL HISTORY

The TH 53 Relocation project is located within the Central Lakes Coniferous East archaeological sub-region. The following environmental history of this sub-region is based largely on information contained in Borchert and Gustafson's *Atlas of Minnesota Resources and Settlement* (1980) and an overview entitled "Minnesota's Environment and Native American Culture History" by Gibbon et al. (2002).

The Central Lakes Coniferous East archaeological sub-region includes parts of central and northeast Minnesota. Portions of St. Louis, Carlton, Itasca, Aitkin, and Lake counties make up this region. The western portion of the Great Lakes Basin is encompassed by this sub-region.

The climate within this sub-region has an average annual precipitation of 25 inches. January highs average 16 degrees Fahrenheit (F), while July highs average 77 degrees F. The frost-free season lasts between 100-120 days, from around late May to early to mid-October. In this region soil types are generally medium to coarse-textured forest soils. Exposures of bedrock are rare, but Precambrian outcrops can be found to the northeast within this region, along with fine-textured soils and peat deposits. Additional high-quality flaking material for the manufacture of lithic tools can also be found in the region, including chert, jasper, and taconite.

During the Late Holocene period, conifers such as white, jack, and red pine dominated the region, though deciduous trees such as elm, maple, basswood, ash, oak, aspen, and birch were interspersed in areas. Subsistence resources in this sub-region would have consisted of deer, beaver, moose and black bear. Fish and waterfowl would also have been plentiful due to the many lakes and rivers in the area. Wild rice was extensive in the area, and was an important part of regional lifeways during the Terminal Woodland period.

HISTORIC CONTEXTS

The Minnesota SHPO has developed a series of broad Statewide historic contexts and themes for the interpretation and evaluation of cultural properties (Dobbs 1990a; Dobbs 1990b; MnSHPO 1993). These contexts cover three broad periods of Minnesota's history: precontact (before ca. 1650); contact (A.D. 1630-1837); and historical-period (1830s to the present). Only those synopses relevant to the identified homestead site (21SL1208) and the development of the area surrounding it are included here and augmented with information from the *Historic Context Study of Minnesota Farmsteads, 1820-1960* (Granger and Kelly 2005), and research on school trust lands and the development of the Minnewas Mine.

NORTHERN MINNESOTA LUMBERING, 1870-1930S

At the dawn of the nineteenth century, dramatic changes took place in Native American and EuroAmerican ways of life in the region that would become Minnesota. The year 1837 marked the beginning of a series of land cessions by the Dakota and Ojibwe. Territory east of the Mississippi River below the mouth of the Crow Wing River became available for white settlement, "opening the floodgates of EuroAmerican intrusion into Minnesota" (MnSHPO 1993). Additional treaties with the Ojibwe followed, including the 1854 Treaty with the Chippewa (Treaty of La Pointe) of the Lake Superior bands that ceded the lands of the Arrowhead Region to the United States. However, the Ojibwe retained the rights to hunt, fish, and gather within the treaty boundaries. Furthermore, this treaty included a provision for the selection of a reservation by the Bois Forte Band. The following year, the 1855 Treaty with the Chippewa (Ceded Territory Treaty) of the Mississippi, Pillager, and Lake Winnibigoshish bands resulted in the cessation of much of the remaining lands of northern Minnesota to the United States and the creation of nine reservations.

EuroAmerican encroachment into the lands ceded by the Ojibwe initially progressed slowly in comparison to southern Minnesota where navigable waterways and expansive agricultural lands spurred settlement. However, after 1870, the lumber industry began to spread north and west from the St. Croix River into the forests of northern Minnesota. Advances in logging and lumbering equipment, together with market growth and increased capital facilitated this expansion. Logging efforts were initially concentrated along the riverways, including those of the Mississippi, St. Louis, Big Fork, and Rainy, which facilitated the transportation of logs to mills located downstream. With the development in the 1880s of a network of logging railroads, the lumber industry was able to reach previously inaccessible inland stands of timber. By 1910, railroads had become the primary means of transporting logs to mills and milled lumber to markets (MnSHPO 1993).

DEVELOPING THE CUTOVER, 1900-1940

As the lumber companies moved through the region clear-cutting pines and hardwoods, thousands of acres of deforested land were uninhabited. Logging and railroad companies (and later mining companies), encouraged farmers to settle the region and to begin cultivating the cutover. These efforts were met with some success before and during World War I as settlers, enticed by cheap land, traveled northward while at the same time employees of lumber and mining companies supplemented their income by operating subsistence farms. The number of farms in the cutover reached its peak in 1925. However, the rocky, thin and often wet soils of the cutover were not well-suited to the cultivation of crops and as a result most farms of the region engaged in dairying. However, by the 1930s many farms of the cutover region had been abandoned.

Because most of the farms established in the cutover were subsistence farms of modest acreage, structures were typically small and simple. Farmhouses were generally log cabins with root cellars, although frame construction was also used. Small numbers of livestock were kept in either a small barn, or in a shed open to the south. Cutover farmsteads also exhibited numerous sheds and outbuildings that were widely spaced over the landscape. Despite poor soil and a short growing season, dairy and truck farm products, such as potatoes, found a good local market.

SCHOOL TRUST LANDS

The granting of school trust lands to individual states by the federal government had its foundations in the Land Ordinance of 1785, which reserved Section 16 in each township to be used for the funding of public schools. It was followed, in 1848, by the Oregon Territory Act, which was the first law to designate both Sections 16 and 36 of each township for the same purpose, in the Territory of Oregon and all subsequent states and territories surveyed by the United States. In 1857, therefore, when Minnesota was authorized to become a state, nearly three million acres became school trust lands, consisting of these Sections or, in cases which these were already claimed; within an American Indian reservation; or under water, designated alternative Sections (Kinney and Lucas 1985:1; Minnesota Department of Natural Resources 2013a).

The funding component of these lands often occurred through their sale to the public. Notices of available lands were published prior to sales that were held yearly, sometimes more often, within each county (Kinney and Lucas 1985:2). Alternately, however, funding was garnered through leasing trust lands for various "surface" purposes, including but not limited to residential occupation, garden plots, sand and gravel removal, hay, pasture, muskrat farms, and billboards. Surface leases were issued for trust lands deemed in the state's best interest to keep for the profits that could eventually be made leasing the rights to and collecting royalties on the underground mineral deposits (Minnesota Department of Natural Resources 2010:2).

School trust lands were initially and for several decades administered by the State Auditor, through a department known as the State Land Office, established in 1862, which was later to become simply the Land Department. In 1931, the administration of

these lands was slated to be transferred to the Lands and Minerals Division and the Forestry Division of the Minnesota Department of Conservation, which was formed that year, although it would be another two years before the transfer took effect. The two divisions were combined into the Lands and Forestry Division in 1967. In 1971, the Department of Conservation was changed to the Department of Natural Resources, and two years later, the Land Bureau was created to take over the functions associated with state lands (Kinney and Lucas 1985:5-6). Today it is known as the Division of Lands and Minerals (Minnesota Department of Natural Resources 2013b).

THE DEVELOPMENT AND OPERATIONS OF THE MINNEWAS MINE

The Minnewas Mine is located in the west half of Section 16 of Township 58N, R17W. Operations at the mine began in 1893, having been developed by Captains John G. Cohoe and Phil Scadden under the Biwabik Mountain Iron Company, an interest of the Merritt family (Van Brunt 1921:584; Walker 1979:90; Mineral Resources Research Center [MRRC] 1986:114). The mine was an underground operation in its first year, when it generated 13,858 tons of ore. It would be substantially less prolific in its second year, when it yielded only 2,140 tons (Winchell 1895:21). The next shipment of ore from the Minnewas, a relatively meager 525 tons, would not occur until 1898, and then work ceased at the Minnewas for the next approximately 10 years, at which point the Oliver Iron Mining Company took over the lease (MRRC 1986:114). Although a 1965 article indicates that the mine began to ship under Oliver in 1908 (*Skillings Mining Review* 1965:9), a 1913 article suggests otherwise, stating:

> The Oliver Iron Mining Co. is preparing to open the Minnewas Mine, between Eveleth and Virginia. The Duluth, Missabe & Northern Railroad Co. has a steam-shovel at work grading for tracks, and foundations have been built for an engine and boiler house. This is a large property and will probably be operated as an underground operation. The mine was worked a number of years ago but only in a small way (*Mining and Scientific Press* 1913:1025).

Open pit mining was added to the operation circa 1923, with stripping of the overburden beginning in the early part of that year (*Skillings Mining Review* 1923:4). According to the *Skillings Mining Review* (1965:9), the Minnewas was worked with "a combination of open pit mining with the underground method." The Oliver Iron Mining Company worked the Minnewas Mine through 1941, after which it was operated by the Evergreen Mines Company in 1943, the Taylor Mining Company in 1944, the Inter-Range Mining Company from 1945 through 1948, E. A. Young, Inc. from 1949-1964, and the Pittsburgh Pacific Company from 1965-1966 (MRRC 1986:114). As of 1952, E. A. Young was running the Minnewas only as an underground mine, but they apparently abandoned the underground aspect and converted it back to an open pit operation in 1956. Open pit mining continued to be carried out under Pittsburgh Pacific (*Skillings Mining Review* 1952, 1965:9). In total, the Minnewas shipped 13,364,440 gross tons of ore over the span of its existence (MRRC 1986:114).

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PHASE I SURVEY RESULTS

The Phase I archaeological fieldwork for the TH 53 Relocation project was conducted on August 12-15 and 19-20, 2013. Dr. Michelle Terrell served as Principal Investigator and conducted the fieldwork with Andrea Pizza, Joseph Pnewski, and Lexie Thorpe. The results for each of the project segments are provided below.

ALTERNATIVE E-1

Alternative E-1 diverges east-northeast from the existing TH 53 at its approximate intersection with 2nd Avenue West, then makes a southeasterly arc over an open mine pit before coming back to the southwest to cross State Highway 135 before rejoining the existing TH 53 alignment (Figure 7). Only one approximately 250-ft. long segment of the Alternative E-1 APE is presently wooded and not evidently disturbed by highway construction, railroad operations, or mining activities. Designated Area A, this segment, which is bounded on the north by the former Duluth, Missabe and Iron Range (DMIR) Railway grade (Mesabi Trail) and on the south by the existing TH 53 embankment, was subjected to a walkover survey (see Figure 7). This walkover indicated that Area A had

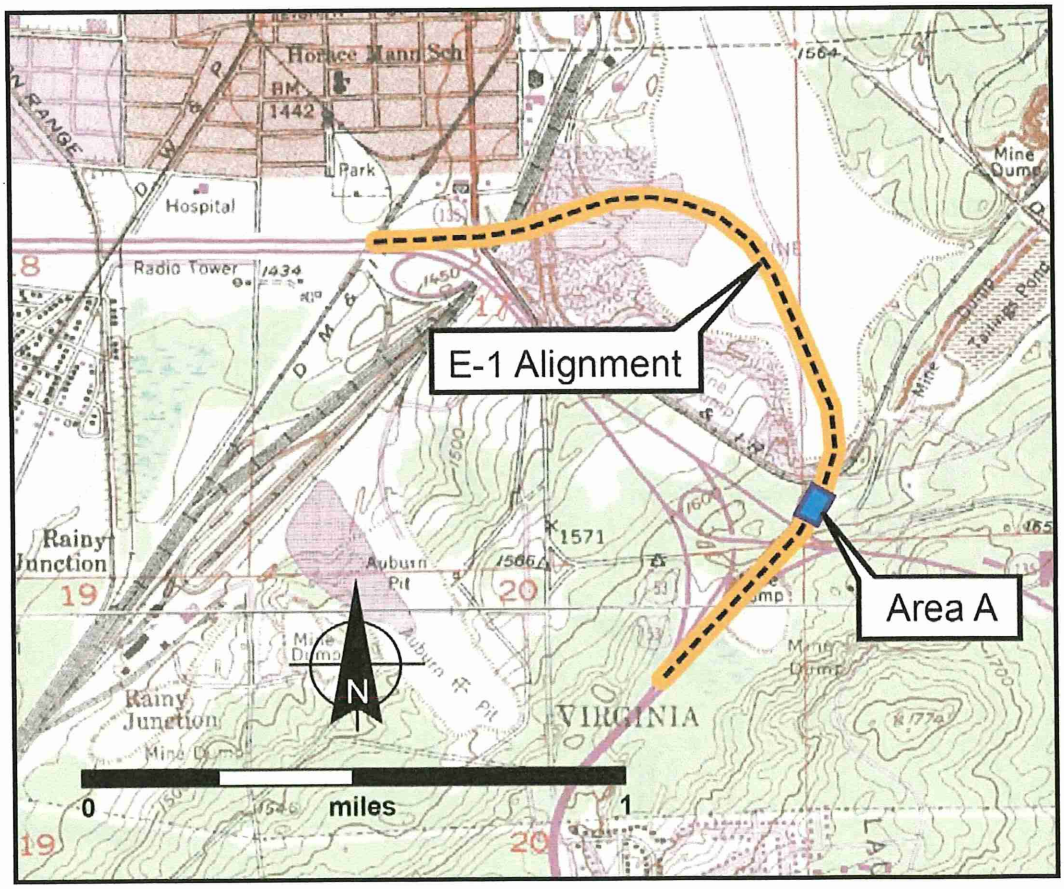

FIGURE 7. ALTERNATIVE E-1

likewise been disturbed by the creation of a transmission corridor and earth-moving activities related to the construction of the neighboring railroad grades and roadways, as well as the channeling of a creek.

Recommendations

Due to the low potential for intact archaeological resources to be present, no further archaeological work is recommended within the APE of Alternative E-1.

ALTERNATIVE E-1A

Alternative E-1A follows a similar route to that of Alternative E-1 although it crosses the open mine pit further to the north and is aligned slightly further to the east before rejoining TH 53 (Figure 8). The majority of the north half of this alignment has been disturbed by highway construction, railroad operations, or mining activities. To the north of MN 135, there is an approximately 600-ft. long segment of Alternative E-1A that is presently wooded and not evidently disturbed. Designated Area B, this segment, which is bounded on the north by the former DMIR Railway grade (Mesabi Trail) and on the south by the existing TH 53 embankment, was subjected to a walkover survey (see Figure

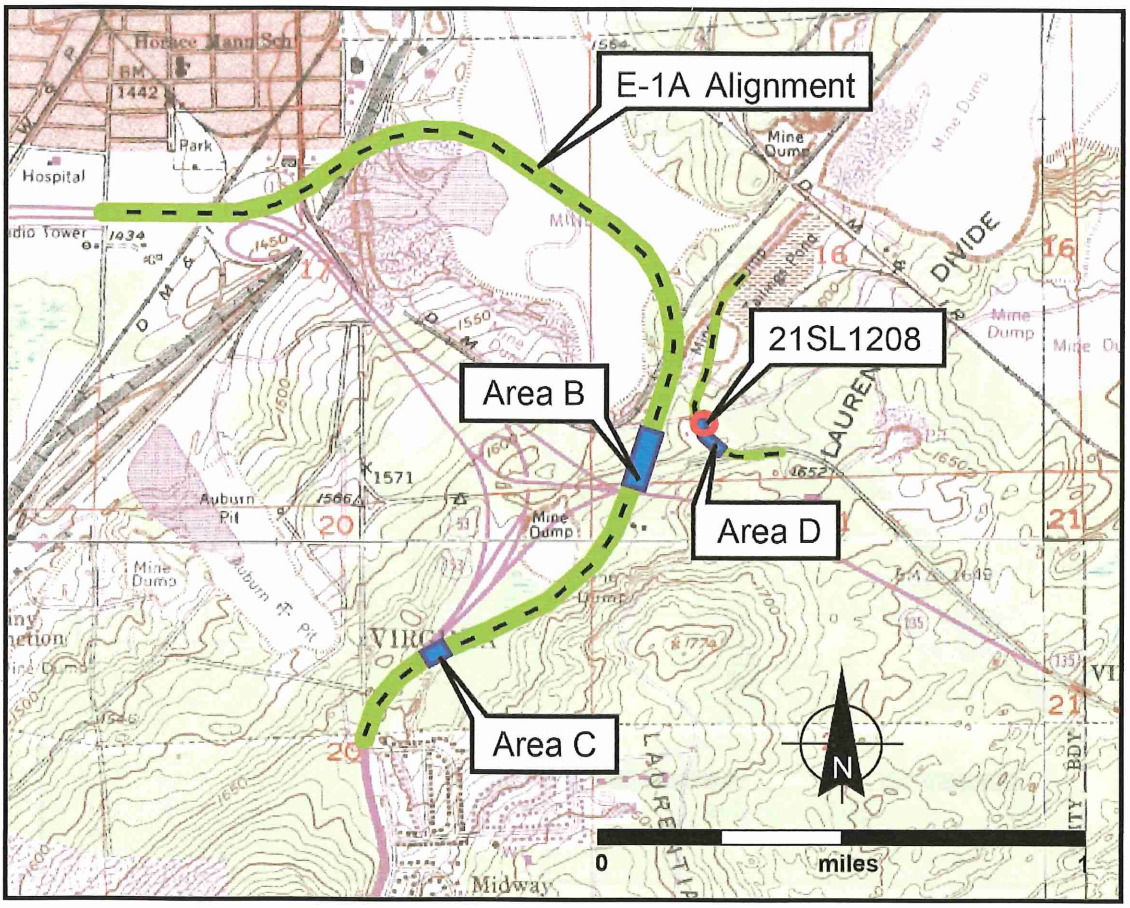

FIGURE 8. ALTERNATIVE E-1A

8). Upon inspection this segment, like Area A to its immediate west, was disturbed by the creation of a transmission corridor and earth-moving activities related to the construction of the neighboring railroad grades and roadways, as well as the channeling of a creek. Due to the low potential for intact archaeological resources to be present, no further archaeological work is recommended within the Area B.

In the course of the walkover survey of Area B, a segment of old State Highway 35 was identified within the APE of Alternative E-1A (UTM Zone 15, NAD 83, 536274E 5261045N). This roadway segment is an approximately 80-ft. long truncated section of concrete roadbed (Figure 9). Because this segment lacks any sense of destination and was only identifiable as part of the former highway through a comparison with historical maps, it does not retain sufficient integrity to warrant further evaluation as an historic property.

To the south of MN 135, the alignment of Alternative E-1A from north to south encompasses a former gravel pit, a mine dump, and a wetland crossed by rail grades. Just before rejoining TH 53, the proposed corridor ascends a wooded rise (Area C) (see Figure 8). Due to its location along the edge of a wetland, this rise has a moderate potential to contain precontact archaeological resources. However, this area underwent a systematic shovel testing survey in 2011 and was negative for cultural materials (Vermeer 2012:11).

FIGURE 9. SEGMENT OF OLD STATE HIGHWAY 35, VIEW TO SOUTHWEST

As part of the implementation of Alternative E-1A, the access road to the landfill will be realigned (see Figure 8). Much of the APE of the realignment has been previously disturbed by road construction, rail lines, and mining activities, however, one approximately 500-ft. long, wooded segment to the south of the former DMIR Railway grade (Mesabi Trail), and in the vicinity of the location of a dwelling and two other buildings documented in the historical record, appeared undisturbed. Designated Area D, this segment was subjected to a walkover survey (see Figure 8). During the archaeological survey of Area D the foundations of a structure, a former well, and a surface scatter of historical-period artifacts were documented. For detailed information on these features, see the chapter concerning site 21SL1208.

Recommendations

Based on these findings, the majority of the APE of Alternative E-1A was severely disturbed by highway construction, railroad operations, and mining activities, or consisted of wetlands, which are considered to have low archaeological potential. However, one portion of Alternative E-1A contained archaeological resources, which underwent Phase I and II investigations. For the results of those investigations, see the chapter concerning site 21SL1208.

ALTERNATIVE E-2A

Alternative E-2A closely parallels the previously surveyed E-2 Alignment in the NW ¼ of Section 16 before departing that alignment and arcing to the east/southeast of the landfill access road (Figure 10). The E-2 and E-2A Alignments rejoin in the SW ¼ of the SW ¼ of Section 16. While the majority of the alignment of Alternative E-2A parallels former rail lines ore has been otherwise disturbed by mining activities, however, a portion of the same wooded area to the south of the former DMIR Railway grade (Mesabi Trail) that was designated Area D along Alternative E-1A is also present within the APE of Alternative E-2A. As previously noted, a walkover survey of this area revealed the foundations of a structure, a former well, and a surface scatter of historical-period artifacts was documented. For detailed information on these features, see the chapter concerning site 21SL1208.

During the walkover survey of Alternative E-2A, a segment of an abandoned bituminous roadbed was also identified within the APE (UTM Zone 15, NAD 83, 536130E 5262646N). Maps and aerial photographs indicate that this roadway once connected the city of Virginia with a mining location in the S ½ of the NW ¼ of Section 9. According to aerial photographs, the segment of the roadway within the APE was abandoned between 1940 and 1948. This roadway could only be identified by the presence of occasional patches of asphalt within an otherwise wooded environment. Due to the lack of a discernible roadbed together with presence of small trees within the road's trajectory, the road lacks any sense of destination and, therefore, does not retain sufficient integrity to warrant further evaluation as an historic property.

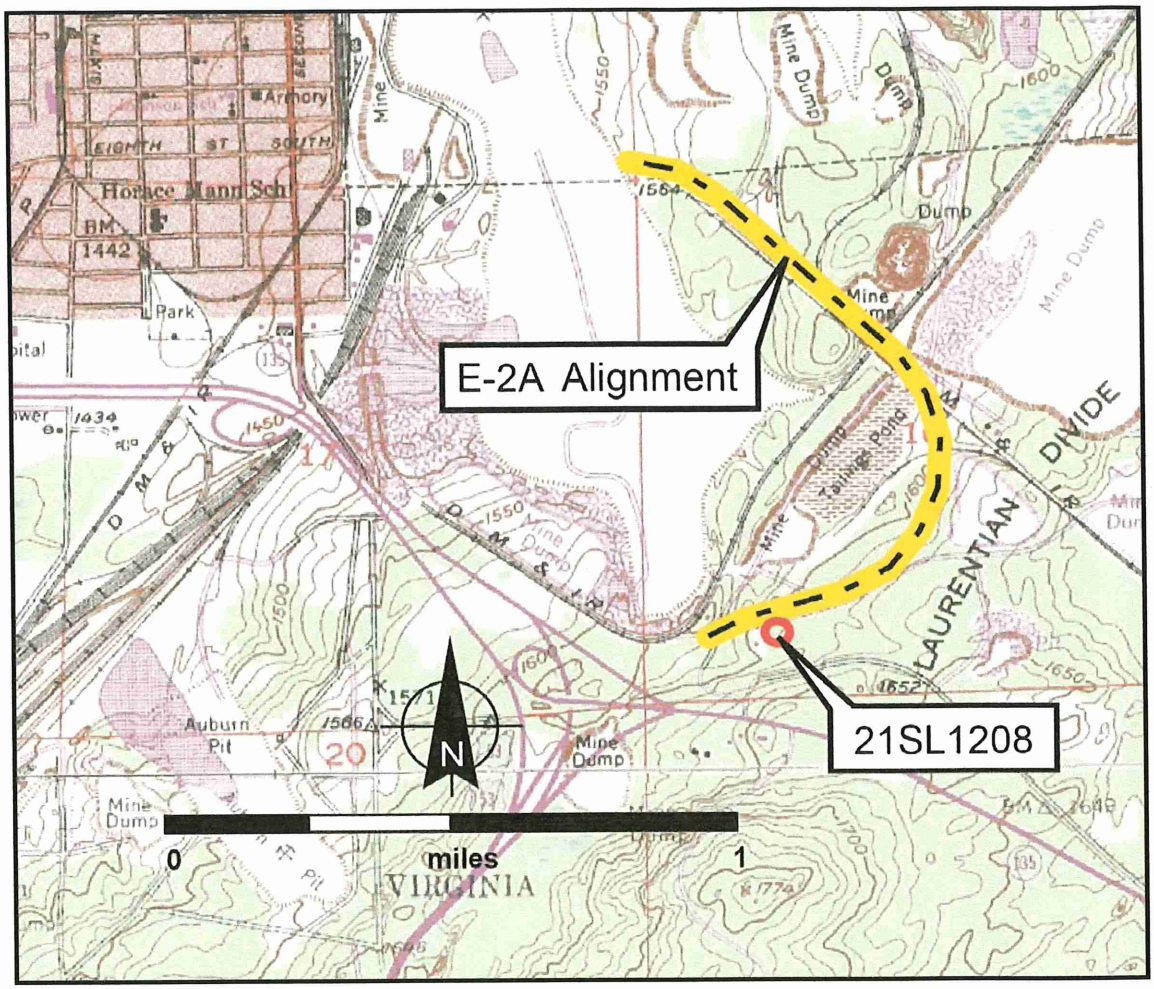

FIGURE 10. ALTERNATIVE E-2A

Recommendations

Based on these findings, the majority of the APE of Alternative E-2A was severely disturbed by railroad operations and mining activities. However, one portion of the APE of Alternative E2 contained archaeological resources, which underwent Phase I and II investigations. For the results of those investigations, see the chapter concerning site 21SL1208.

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21SL1208 (MINNEWAS HOMESTEAD)

During the Phase I archaeological survey for the TH 53 Relocation Project, the site of a former homestead was documented within the archaeological APE of Alternatives E-1A Alternative (realignment of the landfill road) and E-2A. This site, 21SL1208, includes the foundations of a building, surface dumps, and a surface artifact scatter (Figure 11). Due to the limited number of farmstead archaeological resources investigated in the Cutover Region, per the *Historic Context Study of Minnesota Farmsteads, 1820-1960,* sites with intact archaeological deposits from this era are potentially significant and "should undergo a Phase II evaluation as their research potential is sufficient to warrant further investigation" (Terrell 2006:B.16). Phase II archaeological fieldwork was conducted on September 23-25, 2013. Dr. Michelle Terrell served as Principal Investigator and conducted the fieldwork with Joe Pnewski and Lexie Thorpe.

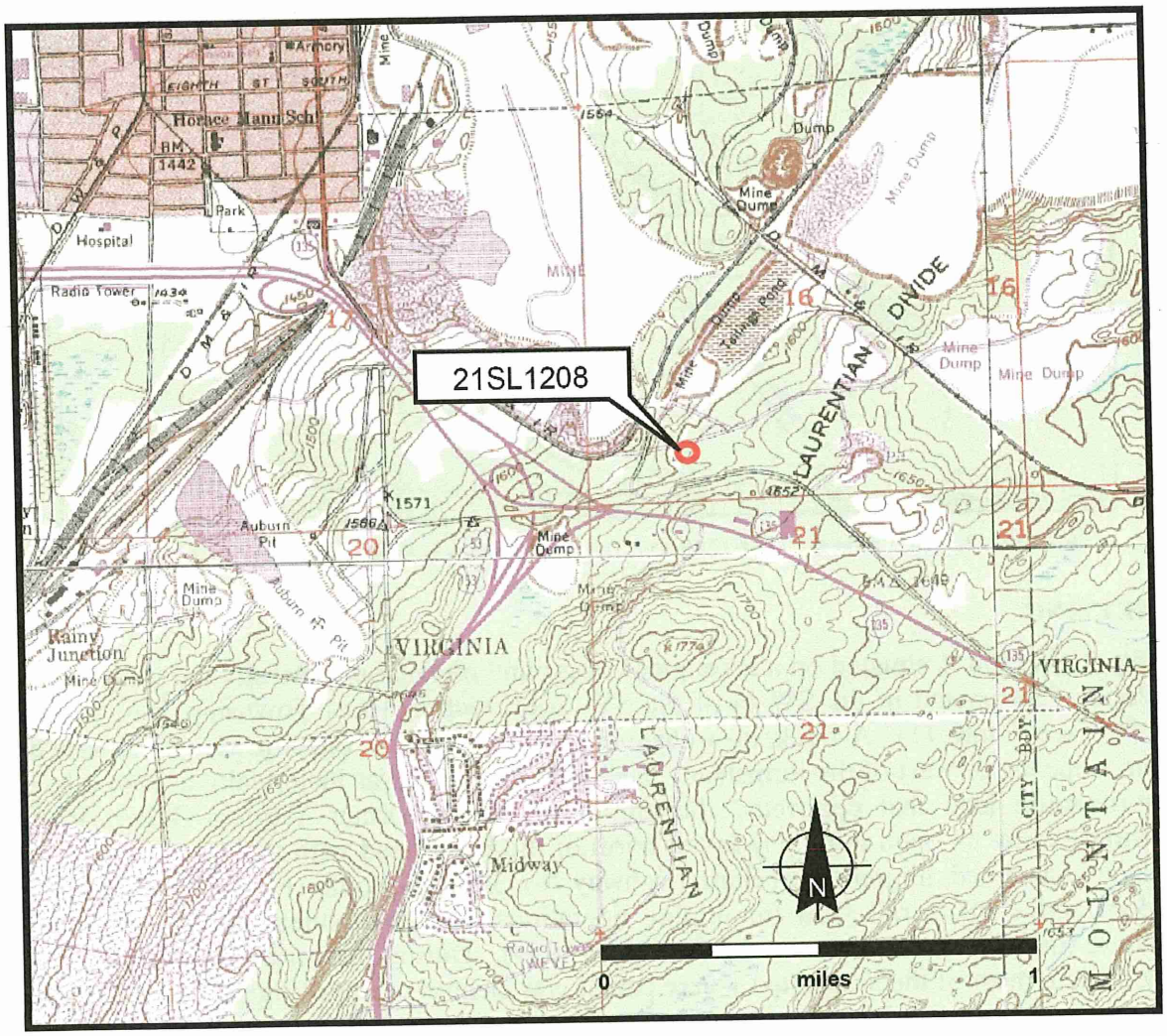

FIGURE 11. LOCATION OF SITE 21SL1208

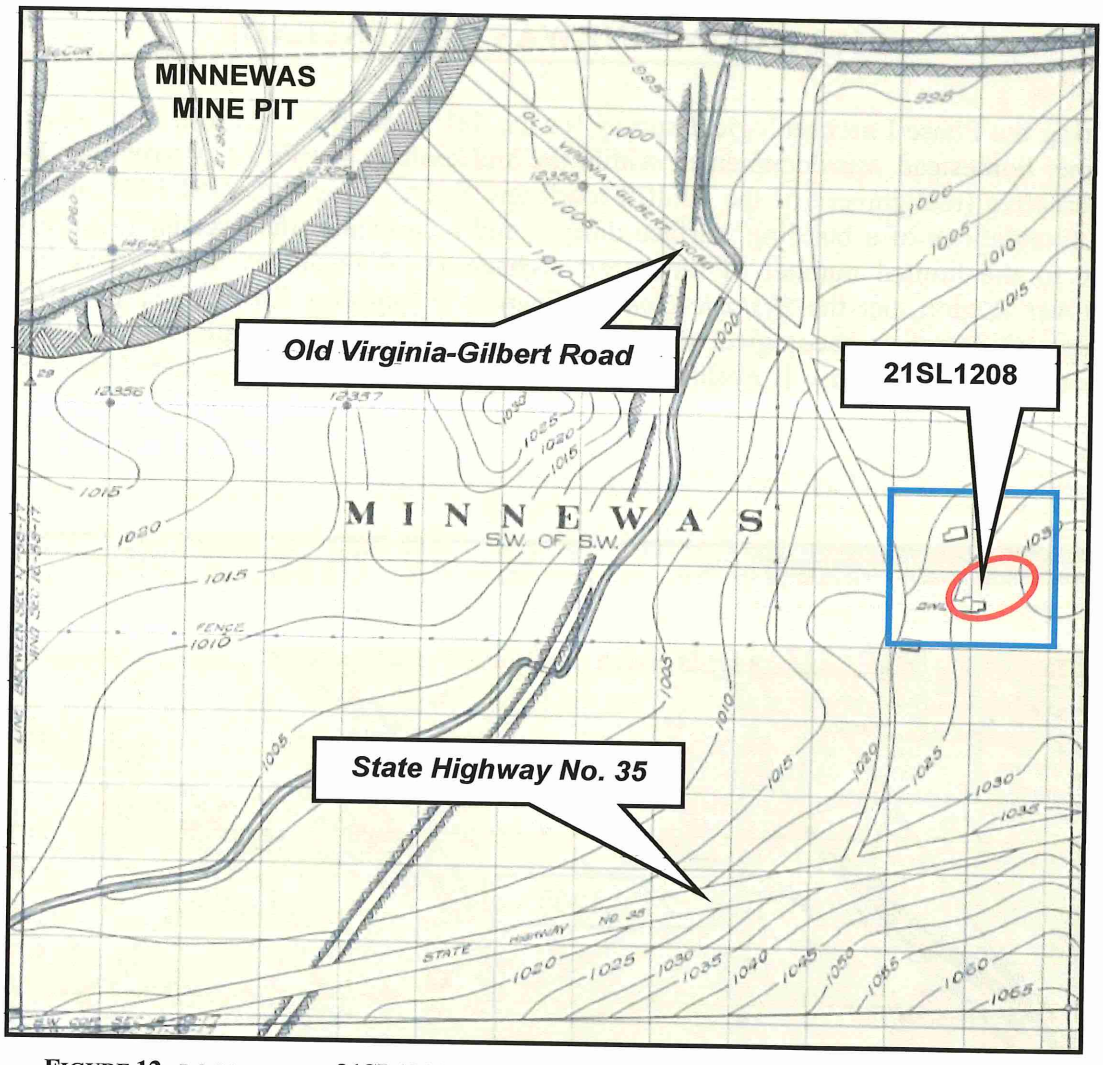

FIGURE 12. LOCATION OF 21SL1208 AND ITS ASSOCIATED 1-ACRE PARCEL ON A 1928 MAP

SETTING

Site 21SL1208 is situated on a level piece of ground on what is generally the west facing slope of an upland in the SW ¼ of the SW ¼ of Section 16 of Township 58N, Range 17W (see Figure 11). A creek, now channeled through a ditch, once flowed at the base of the slope to the west of the farmstead. The homestead site was historically accessed by a north-south lane that connected the alignment of the former Virginia-Gilbert Road (truncated by an open mine pit) to the north of the homestead with the then current, but since abandoned, alignment of State Highway No. 35 to the south (Figure 12). Between 1940 and 1948, a rail yard for mining operations was constructed into the site area. These tracks were removed by 1959 (GNOP 1959). During the period that the site was occupied, most of the associated 1-acre parcel was cleared of trees (Figure 13). Since the homestead was abandoned secondary tree growth has encroached on the clearing (Figure 14).

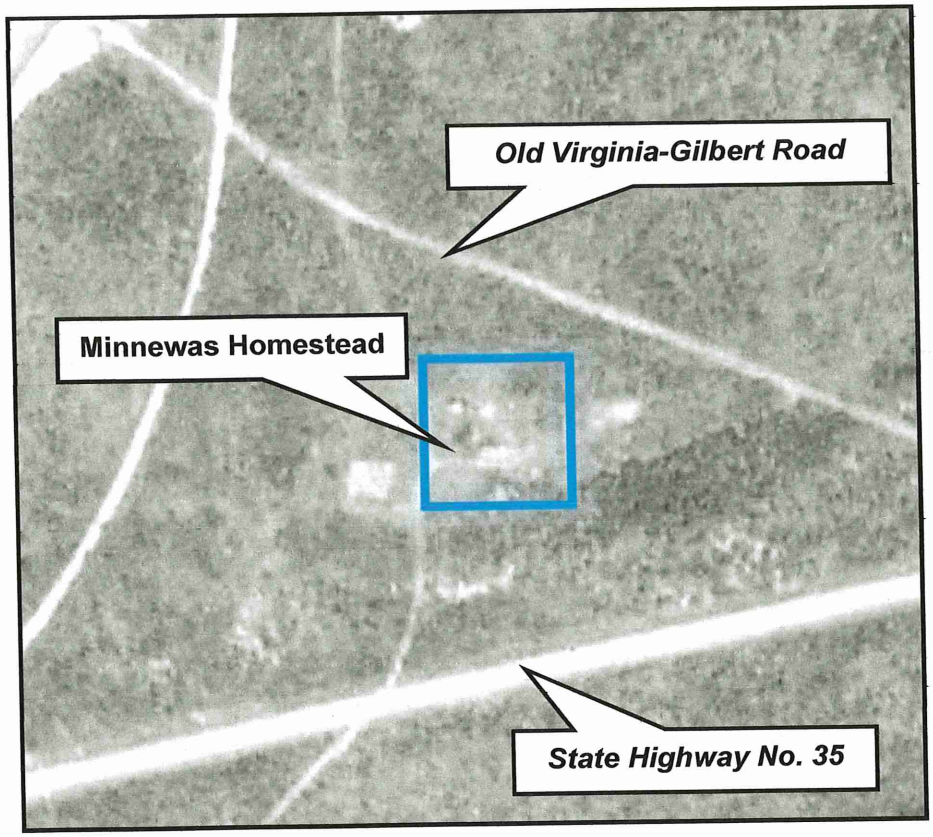

FIGURE 13. 1940 AERIAL PHOTOGRAPH OF THE VICINITY OF THE MINNEWAS HOMESTEAD

FIGURE 14. OVERVIEW OF MINNEWAS HOMESTEAD, VIEW TO EAST

THE ALEXANDER FAMILY

According to undated maps titled "Lessees at Minnewas" and "Squatters at Minnewas," the approximately one-acre lot and associated structure in the SW ¼ of the SW ¼ of Section 16 was leased by Steve Alexander (Minnesota Division of Lands and Minerals ca. 1935; Anonymous, undated). Records of surface leases of state trust lands show that Mr. Alexander was the lessee of this lot from 1925 until 1941, when any buildings present were removed (Minnesota State Auditor, Land Department 1925-1941; Minnesota Division of Lands and Minerals 1935-1941). Maps produced by the Oliver Iron Mining Company (1924, 1928) indicate the dwelling was constructed between 1924 and 1928, making Steve Alexander the only lessee to own the lot associated with 21SL1208.

Stephen Alexander (1865-1944) was born in Tyrol, a region in the Alps with a complex history of political control often involving Austria and Italy. For this reason, Steve's country of birth has alternately been listed in census schedules as Austria and Tyrol, Austria (United States Census Bureau [Census] 1900-1940). Stephen Alexander came to the United States about 1890 and by 1893, he had met and married his wife Mary (Census 1900, 1910). According to the 1900 federal census, Mary was born in Germany in 1878 and immigrated to the United States in 1882 (Table 3). The couple lived for a period of time in Michigan, where their children Josephine (1896) and Emma (1899) were born. Daughter Josephine's birth record indicates that in 1896 they were living in the iron mining town of Norway in Michigan's Upper Peninsula (Ancestry 2011). Within a year of Emma's birth, however, the Alexander family had moved to Minnesota's Iron Range (Census 1900). The census of 1900 places them in Missabe Mountain Township (58N-17W) with three Austrian boarders and states that Steve was working in that year as a blacksmith in the iron mining industry, an occupation he practiced for at least the next 20 years (Census 1910, 1920).

In October of 1902, tragedy struck the Alexander family when Mary died of typhoid at age 24 (*The Virginia Enterprise*, Oct 3, 1902). According to the notice in the local paper, the family was residing at the time at the Franklin mine's location, which is located within Missabe Mountain Township. It is possible that Steve Alexander also lost a child around the same time as the newspaper account states that Mary was survived by three young children, but three years later only two children born before her death appear on the 1905 state census. According to that census record, the Alexander family not only continued to reside at the Franklin location, but Steve Alexander had remarried by that year. His second wife, Mary Altobelli (1882-1953), like Steve, was born in Tyrol. She immigrated to the United States in 1902 at the age of twenty (Census 1920). Steve and Mary's first child, Nick, was born in 1904 (Minnesota State Census 1905).

The 1910 census found the Alexanders living in the City of Virginia's sixth ward with four Austrian miners as boarders. Because portions of the Missabe Mountain Township were annexed by the City of Virginia, it is possible that the Alexanders were still residing in 1910 at one of the township's mine locations and most likely at that of the Lily Mine (also known as Alberta), which was in the NE ¼ of Section 16, T58N, R17W. This

TABLE 3. THE FAMILY OF STEVE AND MARY ALEXANDER, 1900-1940 (U.S. FEDERAL CENSUS RECORDS)

SOURCE/ RESIDENCE	NAME	RELATION	AGE	PLACE OF BIRTH	OCCUPATION
1900 U.S. Census Missabe Mountain Twp., MN	Steve Alexander	Head (rents)	33	Austria	Blacksmith
	Mary	Wife	21	Germany	
	Josephine	Daughter	4	Michigan	
	Emma	Daughter	10/12	Michigan	
1905 MN Census Missabe Mountain Twp., MN *Franklin Mine Location*	Stephen Alexander		39	Austria	Blacksmith
	Mary		23	Austria	Housewife
	Josephine		10	Michigan	Student
	Emma		7	Michigan	Student
	Nick		2	Minnesota	
1910 U.S. Census Virginia, MN *6th Ward*	Steve Alexander	Head (owns)	47	Austria	Blacksmith – iron mine
	Mary	Wife	27	Austria	
	Josephine	Daughter	14	Michigan	
	Emma	Daughter	12	Michigan	
	Nick	Son	7	Minnesota	
	Adolph	Son	4	Minnesota	
	Albert	Son	2	Minnesota	
1920 U.S. Census Virginia, MN *Lily Mine Location*	Steve Alexander	Head (owns)	56	Tyrol, Austria	Blacksmith – iron mine
	Mary	Wife	37	Tyrol, Austria	
	Nick	Son	16	Minnesota	Laborer – school building
	Albert	Son	13	Minnesota	
	Rose	Daughter	9	Minnesota	
	Steve	Son	6	Minnesota	
	Jack	Son	4 8/12	Minnesota	
	Laura	Daughter	2 6/12	Minnesota	
1930 U.S. Census Virginia, MN *728 12th St N*	Mary Alexander	Head (rents)	47 [51]	Italy	
	Steve	Son	17	Minnesota	
	Jack	Son	14	Minnesota	
	Laura	Daughter	12	Minnesota	
	George	Son	9	Minnesota	
	Louis	Son	9	Minnesota	
	Julius	Son	6	Minnesota	
	Josephine	Daughter	6	Minnesota	
	Nick Alexander	Head (owns)	26	Minnesota	Upholsterer – furniture store
	Rose	Wife	18	Minnesota	
	Richard	Son	1 10/12	Minnesota	
1940 U.S. Census Virginia, MN *728 12th St N and 728 ½ 12th St* N	Steve Alexander	Head (owns)	75	Austria	
	Mary	Wife	57	Austria	
	Rose	Daughter	29	Minnesota	
	George	Son	19	Minnesota	
	Louis	Son	19	Minnesota	
	Josephine	Daughter	16	Minnesota	
	Julius	Son	16	Minnesota	
	Albert Alexander	Head (rents)	31	Minnesota	Laborer for WPA, heat construction
	Antoinette	Wife	27	Wisconsin	
	Patricia	Daughter	8	Michigan	

conclusion is supported by the fact that both a 1913 newspaper article and the 1920 census place the Alexander's at the Lily Mine's location. Also, presumably the home that the family owned mortgage-free in 1910 is the same one that they held in the same fashion at the Lily Mine location in 1920 (*The Virginia Enterprise* 1913; Census 1910, 1920). According to the 1913 article, Steve Alexander and two other men, who were operating boarding houses at the Lily Mine, were accused of squatting on property recently leased to the Minnesota Mining and Development Company. However, the court supported their claim that they had permission to occupy the land where their boarding houses stood (*The Virginia Enterprise* 1913). The Alexander household included boarders in the 1900, 1910 and 1920 censuses.

Steve and Mary Alexander continued to reside in the greater Virginia area with various groupings of their children for the remainder of their lives. By 1910, two more sons, Adolph (1906) and Albert (1907), had been born into the family, after which came another four children within next 10 years: Rose (1911), Steve Jr. (ca. 1914), Jack (1915), and Laura (1918). By 1920, Josephine and Emma were no longer residing with their parents. Josephine either did not survive into 1920 or left the household and died sometime before 1924, as another daughter born in that year was given the same name. Emma had left the house and then married Steve Dudra in 1922 (Census 1930). Nick was therefore the eldest child in the house at 16 years old, and he contributed to the family income as a laborer in a school building (Census 1920). It appears that Adolph also did not survive into 1920, as he is not listed in the census of that year. Neither he nor the first Josephine is listed as a surviving member of the family in either of their parent's obituaries (*Virginia Daily Enterprise* 1944; *Range Facts* 1953:2).

Surface lease records indicate that the lot leased by Steve Alexander from 1925 to 1941 was a lease to occupy with a house (Lease No. 849). In 1925 and from 1927 through 1929, he leased the property for twelve dollars per year. In 1926 and from 1930-1941, he was leasing it on "charity," thus he was not required to pay any rental fees to the state (Minnesota State Auditor, Land Department 1925-1941; Minnesota Division of Lands and Minerals 1935-1941). That Steve Alexander was living at the house at least part of the time is suggested by the 1930 census in which he is absent from the enumeration of Mary and the rest of his family at 728 12th Street North in Virginia. At that time, Mary was living in the house with Steve Jr., Jack, and Laura, as well as two sets of twins born to her and Steve after the 1920 census was taken: George and Louis (1920) and Julius and Josephine (1924). Nick, who was the owner of the house, was also living there with his wife, Rose, and their son, Richard. At the time, Nick working as an upholsterer in a furniture store.

In 1940, although the lot in the SW ¼ of the SW ¼ of Section 16 of T 58N, R17W was still being leased to Steve Alexander on charity, the census taker recorded him owning and living in the house on 12th Street North with Mary, their daughter Rose, who was not recorded with the family in the 1930 census, George, Louis, Josephine, and Julius, all of whom had been living there in 1935 (Census 1940). Albert, who had been in Ironwood, Michigan in 1930 and 1935, was listed at 728 ½ 12th Street North in the 1940 census with his wife, Antoinette, and daughter, Patricia; the address may have represented an

apartment in his parents' house or another building on their lot. Of these members of the Alexander family, only Albert had associated employment information in the census, indicating that he worked as a laborer for the WPA but had been unemployed for 24 weeks prior to the census. Steve and Mary remained in the house until their deaths, Steve in 1944 and Mary in 1953 (*Virginia Daily Enterprise* 1944; *Range Facts* 1953:2).

PEDESTRIAN SURVEY

A close-interval pedestrian, or walkover, survey was conducted along parallel transects across the entirety of the greater Minnewas Homestead area. The purpose of this survey was to identify the locations of structural remains and potential subsurface features, as well as to document the locations of surface finds. In addition to the previously identified concrete foundation and well location, the Phase II survey revealed a square depression, which was identified as Feature 3, as well as two clusters of artifacts that were identified as surface dumps (Figure 15).

SHOVEL TESTING

Subsequent to the pedestrian survey, shovel testing took place across the entire homestead area, which was bounded on the west by a large ditch, on the south by a wetland, and to the north and east by the extent of the artifact surface scatter (see Figure 15). The purpose of the shovel testing was to determine the presence or absence of intact subsurface cultural deposits, as well as to define the extent (vertical and horizontal) of any encountered deposits. Shovel tests were excavated at a 10-m (33-ft.) interval along six north-south transects spaced 10 m apart thereby establishing a 10-m testing grid over the homestead, though two of the transects were made up of only one or two shovel tests as allowed by the site limits. Additional shovel tests were also excavated within depressions (n=2), proximate to a possible berm feature (n=1), and within Feature 3 (n=2). In total, 26 shovel tests were excavated during the Phase II, nine of which were positive for artifacts.

The undisturbed average soil profile within the farmstead consisted of 14 cm of a dark grayish brown (10YR 4/2), loam A horizon overlying a light yellowish brown (10YR 6/4) to yellowish brown (10YR 5/4), silty clay subsoil with gravels and cobbles.

A total of 48 artifacts were encountered in the course of the shovel testing. The shovel testing survey demonstrated that the homestead lacks dense sheet refuse or substantial artifact deposits. Rather, positive shovel tests were clustered near structural remnants or surface dumps. Based on the low density of subsurface artifact deposits and their limited information potential, the remainder of the Phase II evaluation focused on the surface dumps which are the primary source of artifacts related to the Minnewas Homestead and its inhabitants.

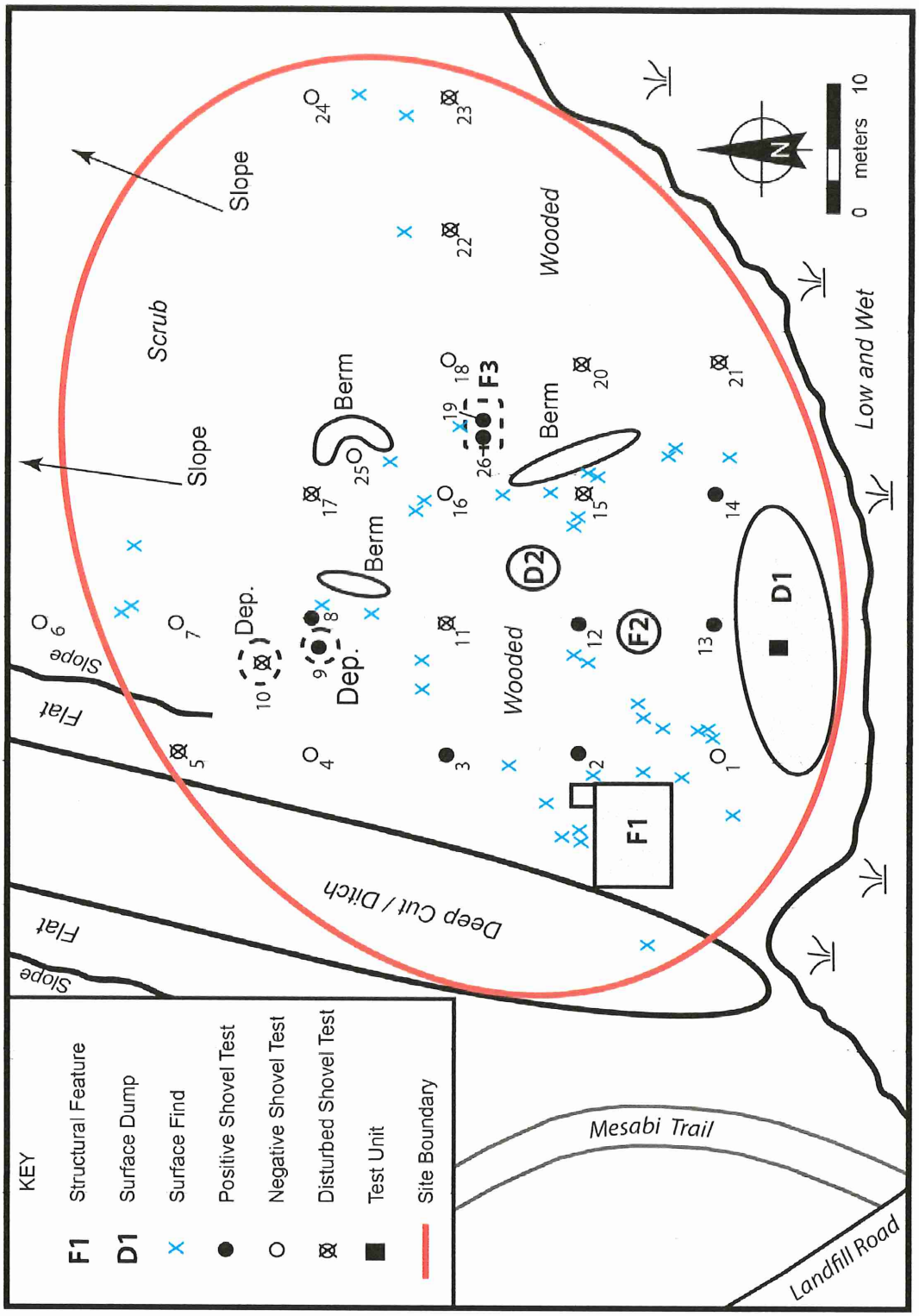

FIGURE 15. MAP OF 21SL1208

STRUCTURAL REMAINS

In the course of the Phase I and II surveys, a building foundation and other structural features related to the occupation of the Minnewas Homestead were recorded (see Figure 15). During the Phase II evaluation of this site, these features were further documented and described. The remains of three structural features are described below.

Feature 1 (House Foundation)

Feature 1 is the poured, 24 ft. (east-west) by 18 ft. (north-south), concrete foundation of a house. The walls of the cellar, which were once 4 ft. high, have largely been pushed in from each side (Figures 16 and 17). The walls of the cellar, which are 10-in. thick, bear evidence of having been poured within a wood form. A 3-ft. wide, by 8-ft. long cellar entrance is present off the northeast corner of the foundation. No evidence of the building's superstructure remains, but pieces of sheet metal roofing or siding and a section of aluminum downspout were present in the vicinity of the foundation.

Feature 2 (Well)

The location of the homestead's former well is represented by a 9 ft. by 9 ft. (2.7-x-2.7 m) wide circular depression of approximately 8 ft. (2.4 m) in depth. The well is located approximately 9 m to the east of the east wall of the house foundation (Feature 1) (see Figure 15).

Shovel Tests 12 and 13, which were excavated proximate to Feature 2, revealed the same average profile as previously described. Both shovel tests were positive and contained a marked bottle base, colorless glass sherds, pale aqua flat glass, and part of a gear assembly.

Feature 3 (Outbuilding)

Located approximately 15 m to the northeast of the well (Feature 2), this indistinct rectangular depression measured approximately 10 ft. by 10 ft. (3-x-3 m) (see Figure 15). Within the depression, there were shards of flat glass on the surface.

Two shovel tests (19 and 26) were excavated within Feature 3. The soil profile of these shovel tests commenced with 21 cm of a dark brown (10YR 3/3), loam A horizon that overlay a 3 to 4 cm of a very pale brown (10YR 7/3-8/3), lens of lime and charcoal. With the removal of the lens, the tests gave way to a light yellowish brown (10YR 6/4) to yellowish brown (10YR 5/4) silt to clay subsoil with gravels present. Both shovel tests were positive and contained architecturally-related artifacts, partial clockworks, a .22 short cartridge casing, glass shards, a partial tin can, sawn animal bone, and a barrel band.

The function of Feature 3 is indeterminate, but based on its size, location, and the material present, it appears to have been the site of a small outbuilding.

FIGURE 16. OVERVIEW OF THE CONCRETE FOUNDATION TO THE SOUTHWEST (FEATURE 1)

FIGURE 17. DETAIL OF PORTION OF NORTH WALL OF FEATURE 1, VIEW TO WEST

SURFACE DUMPS

Within 21SL1208 two concentrations of discarded materials (surface dumps) associated with the Minnewas Homestead were documented. Both dumps appeared to have accumulated during the site's occupation. The larger of the two, Dump 1, contained a wider variety of material types while Dump 2 contained mainly coffee cans.

Dump 1

Dump 1, which measured 51 ft. north-south by 30 ft. east-west, is situated along the north edge of a wetland and approximately 10 m to the southeast of the house foundation (see Figures 15 and 18). A total of 95 artifacts were documented at this dump site during a general surface survey. Materials recorded within this dump consisted of metal objects (60), including cans, enamelware, and furniture springs; glass objects (24), including bottles and jars; ceramic sherds (2), and other miscellaneous artifacts.

A 1-x-1-m unit placed in the densest portion of the dump produced a total of 709 additional artifacts (see Figures 15 and 19-20). Materials recorded in this unit consisted of glass objects (407), such as bottles and jars; metal objects (220), including cans, nails, and machinery parts; and ceramics (10), such as tableware and china doll arms, as well as, other miscellaneous artifacts. Within the 1-x-1-m unit, the dump deposits were 8 to 11 cm in depth.

Dateable material within Dump 1 ranged from a bottle bearing a 1931 Owens-Illinois Glass Company mark to a bottle fragment with a 1935 Owens-Illinois Glass Company mark.

Dump 2

Dump 2, which measured 9 ft. north-south by 8 ft. east-west, was located approximately 9 m to the northeast of the well (see Figures 15 and 21). A total of 32 artifacts were documented within this dump site. Materials recorded included metal objects (31), which included mostly coffee cans and two gutter sections; and one glass soda bottle.

Due to the low density of artifacts within this dump, it was not necessary to place a 1-x-1 m unit within Dump 2. Also, no pertinent temporal information was produced from the recorded artifacts.

FIGURE 18. OVERVIEW OF DUMP 1, VIEW TO THE WEST

FIGURE 19. DUMP 1, 1-X-1 M UNIT PRE-EXCAVATION, VIEW TO THE NORTH

FIGURE 20. DUMP 1, 1-X-1 M UNIT AT APPROXIMATELY 10 CMBS, VIEW TO THE NORTH

FIGURE 21. OVERVIEW OF DUMP 2, VIEW TO THE EAST

ARTIFACT ANALYSIS

As previously noted, the shovel testing survey demonstrated that the homestead lacks dense sheet refuse or substantial subsurface artifact deposits, and positive shovel tests were clustered around structures or features and artifacts recovered had few diagnostic features. Due to the low density of subsurface artifact deposits and their limited information potential, the remainder of the Phase II evaluation focused on the surface dumps which are the primary source of artifacts related to the activities of the inhabitants of the Minnewas Homestead. The materials encountered during the pedestrian survey and in the two identified surface dumps were catalogued in the field. Particularly diagnostic and/or unique artifacts were photographed and in some cases collected. Information gathered on all artifacts included, but was not limited to: measurements such as height (h), width (w), length (l), diameter (d), and aperture (a); general artifact description; manufacturer or distributor information (where available); labels; markings; or other writing or decoration on artifacts; closure style; and color.

The sections below contain descriptions of materials documented during the pedestrian survey and within the two evaluated surface dumps. To facilitate analysis, these materials were grouped by function. A total of 836 artifacts were recorded in the surface dumps, and an additional 51 artifacts were encountered during the pedestrian survey for a total of 887 artifacts at 21SL1208.

Food Containers

Coffee Cans

Based on their dimensions, all but two of the 29 documented cans in Dump 2 (n=27) were coffee cans. However, all of these cans were too degraded to retain information on their contents and manufacturer.

- Iron alloy; 6 7/8" (height) x 6 1/4" (diameter) (n=6)
- Iron alloy; 7" (height) x 6 1/8" (diameter) (n=7)
- Iron alloy; 6 7/8" (height) x indeterminate (diameter) (n=4)
- Iron alloy; indeterminate (height) x 6 1/4" (diameter) (n=2)
- Iron alloy; indeterminate (height) x 6 1/8" (diameter) (n=1)
- Iron alloy fragmentary cans; (n=7)

Cylindrical Cans

In Dump 1 (n=11), Dump 2 (n=2), and during the pedestrian survey (n=5), 18 cylindrical cans of varying sizes were documented (Table 4). These cans had no remnant labels or visible printing. Cans that were opened with a church key or another small implement such as an ice pick most likely contained a liquid, for which a small opening would be needed. In the same way, if the can was cut open around the edges, then it most likely contained fruits or vegetables, which would require a larger opening to remove.

TABLE 4. CYLINDRICAL CANS AT 21SL1208

Description	Opening	Dimensions	Dump	Count
Iron alloy	indeterminate	4 1/2" h x 3 3/8" d	Dump 2	1
Iron alloy	pry out lid	7 1/2" h x 6 1/2" d	Dump 2	1
Iron alloy	indeterminate	3" h x 4 1/2" d	Dump 1	1
Iron alloy	indeterminate	3 5/8" h x 4 1/8" d	Dump 1	1
Iron alloy	indeterminate	3 3/4" h x 2 1/2" d	Dump 1	1
Iron alloy	cut open	4 " h x 2 5/8" d	Dump 1	1
Iron alloy	indeterminate	4" h x 2 7/8" d	Dump 1	1
Iron alloy	indeterminate	4 1/2" h x 4 1/4" d	Dump 1	1
Iron alloy	indeterminate	indeterminate h x 3 " d	Dump 1	1
Iron alloy	indeterminate	indeterminate h x 4 1/4" d	Dump 1	1
Iron alloy	ice pick	4" h x 3" d	Dump 1	1
Iron alloy	indeterminate	3 3/4" h x 4" d	Dump 1	2
Iron alloy	indeterminate	indeterminate	Pedestrian survey	5
			TOTAL	**18**

Crushed and Fragmentary Cans

A total of 23 crushed and fragmentary cans of differing dimensions were documented in Dump 1 (Table 5).

TABLE 5. CRUSHED AND FRAGMENTARY CANS AT 21SL1208

Description	Opening	Dimensions	Dump	Count
Iron alloy, fragmentary	indeterminate	indeterminate	Dump 1	10
Iron alloy, crushed	indeterminate	5" h x indeterminate d	Dump 1	1
Iron alloy, crushed; missing top	indeterminate	4" h x 3" d	Dump 1	1
Iron alloy, crushed	indeterminate	4" h x indeterminate d	Dump 1	1
Iron alloy, crushed	indeterminate	indeterminate h x 4 1/4" d	Dump 1	1
Iron alloy	cut open	4 1/2" h x indeterminate d	Dump 1	1
Iron alloy	indeterminate	indeterminate h x 2 3/4" d	Dump 1	1
Iron alloy	indeterminate	indeterminate	Dump 1	7
			TOTAL	**23**

Can Lids

A total of three pry out can lids were recorded in Dump 1.

Canning Jars

Atlas Strong Shoulder Mason Jars. There were two partial canning jars made by the Hazel-Atlas Glass Company (1902-1964) recorded in Dump 1 (Figure 22).

- Colorless body sherd with embossing, "[ATLAS] STRO[NG SHOULDER] / M[ASON]" (n=1).

FIGURE 22. ATLAS STRONG SHOULDER MASON JAR (DUMP 1)

- Colorless partial body and base sherd with a continuous external thread finish and embossing on the body, "ATLAS / [STRONG SHO]ULDER"; 2 1/2" (interior aperture) and 2 11/16" (exterior aperture) (n=1).

Ball Canning Jar. There were two canning jar sherds, manufactured by the Ball Brothers Company, recorded during the pedestrian survey.

- "Ball blue" body sherd, ca. 1892-1937 (pedestrian survey, n=1).
- Aqua body sherd with embossing, "[BALL PERF]EC[T / MAS[ON]"; ca. 1910-1933 (pedestrian survey, n=1).

Canning Jar Liners. A total of 19 canning jar liner sherds were documented during the pedestrian survey (n=1) and in Dump 1 (n=18).

- Milk glass liner sherd with embossing, "[GENUINE] BOYD'S [CAP FOR MASON JAR]" (pedestrian survey, n=1).
- Milk glass liner sherd with embossing, ". . . [POR]CELAIN . . ." (n=1).
- Milk glass liner sherds (n=17).

Beverage Containers

Soda Pop Bottles

A single soda pop bottle base sherd was recorded in Dump 2; measuring 2 1/2" (diameter).

Milk Bottle

There were four milk bottle body sherds documented in Dump 1 that refit and were embossed, "[BRI]DGEM[AN- / RU]SSELL CO. / DULUTH / MINNESOTA". The Bridgeman-Russell Creamery operated from 1892-1946.

Liquor Bottles

A total of 35 liquor bottles and bottle sherds were recorded during the pedestrian survey (n=6) and in Dump 1 (n=29) (Table 8) (Figure 23).

Most of these artifacts could be identified as flask bottles, or likely body sherds from flasks, and were embossed with the statement, "FEDERAL LAW FORBIDS SALE OR REUSE OF THIS BOTTLE," which was a requirement in the U.S. on all liquor bottles, excluding wine and beer, from 1935 until 1964 (Lindsey 2013). Some of these flasks were bottled by National Distillers (ca. 1924-1988), which mainly produced whiskey.

FIGURE 23. COLORLESS EXTERNAL SCREW THREAD FLASKS (PEDESTRIAN SURVEY)

TABLE 6. LIQUOR BOTTLES AT 21SL1208

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Dump	Count
Bottle, flask	Colorless with metal external thread screw cap	8 1/2" h x 3 1/2" l x 1 1/2" w	ca. 1944-1964	"SCREW RIGHT TO OPEN" (on metal caps); "ONE PINT" // "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" (on body); 2 (Thatcher Glass Mfg Co. mark) 70" / LIQUOR BOTTLE / 10 (this number varies on other bottles-"13" and "17") 4428" (on bottom)	ped. survey	4
Bottle, flask	Colorless with plastic external thread screw cap	8 1/2" h x 3 1/2" l x 1 3/4" w	indeterminate	"ONE PINT" (on side); 18 / 68 D-396 / 69" (on bottom)	ped. survey	1
Bottle, flask	Colorless	indeterminate	indeterminate	"FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" (on shoulder); "HALF PINT" (on body near base); "D-334 / 67 c (within a diamond) 8" (on bottom)	ped. survey	1
Bottle, flask	Colorless	3 1/8" l x 1 1/2" w	ca. 1929+	"ONE PINT // 12 / D1" with leaf embossing in between the lettering (on body); "DES / PA 60-9 (60-9 is centered in between) 9156 / (diamond Owens-Illinois mark)" (on bottom)	Dump 1	1

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Dump	Count
Bottle, flask	Colorless with an enameled external thread screw cap, likely contained whiskey	6 7/8" h x 3" l x 1 3/8" w	ca. 1935-1964	"U.S." on the top and "1, 771, 034 / NATIONAL DISTILLERS / 1, 875, 431 PATS" on the side (on cap); "FEDERAL LAW FORBIDS / SALE OR RE-USE OF THIS BOTTLE // HALF PINT" (on shoulder); "D1 / 64 - 9 (diamond Owens-Illinois mark turned on side)" (on bottom)	Dump 1	1
Bottle, flask	Colorless with enameled external thread screw cap, likely contained whiskey	indeterminate	ca. 1929+	"NATIONAL / DISTILLERS" (on cap); "D1" // HALF PINT (leafy design surrounded blocks of horizontal lines)" (on body near base); "DES / PAT 956 / (diamond Owens-Illinois mark turned on side)" with "60-9" centered between them (on bottom)	Dump 1	1
Bottle, flask	Colorless finish with enameled external thread screw cap, likely contained whiskey	1" a	ca. 1924-1988	"U.S." on the top and "1, 771, 034 / NATIONAL DISTILLERS / 1, 875, 431 / PATS" (on cap)	Dump 1	1
Bottle, flask	Colorless finish with enameled external thread screw cap and partial body sherd, likely contained whiskey	1" a	ca. 1935-1964	". . . NATIONAL DISTILLERS. . ." (on cap); "FEDERAL LAW [FORBIDS / SALE] OR RE-USE [OF THIS BOTTLE]" (on body)	Dump 1	2

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Dump	Count
Bottle, flask	Colorless finish with white external thread screw cap and partial shoulder	1 1/8" a	ca. 1935-1964	"[FED]ERAL LAW FORBI[DS] / [SALE OR R]E-USE OF THIS B[OTTLE]" (on shoulder)	Dump 1	1
Bottle, flask	Colorless neck sherd	indeterminate	ca. 1935-1964	"[FEDERAL] LAW FORBID[S / SALE OR RE-USE OF THIS BOTTLE]"	Dump 1	1
Bottle, flask	Colorless shoulder sherd	indeterminate	ca. 1935-1964	". . . [PI]NT // FED[ERAL LAW FORBIDS SALE] / OR [RE-USE OF THIS BOTTLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL LAW F]ORBID[S] / [SALE OR RE-US]E OF THIS B[OTTLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"FEDERAL LAW FORBIDS / [SALE OR] RE-USE OF THIS BOT[TLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL L]AW FOR[BIDS] / [SALE OR RE-USE] OF THIS [BOTTLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDER]AL LAW [FORBIDS / SALE OR R]E-USE OF THIS BOT[TLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL LAW] FORBI[DS / SALE OR RE-USE] OF THIS B[OTTLE]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL LAW FOR]BIDS / [SALE OR RE-USE] OF THIS BOTTL[E]"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FED]ERAL [LAW FORBIDS SALE / O]R RE-US[E OF THIS BOTTLE]"	Dump 1	1

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Dump	Count
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL LAW FORBI]DS SALE / [OR RE-USE OF THIS B]OTTLE"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	ca. 1935-1964	"[FEDERAL LAW FO]RBIDS SALE / [OR RE-USE OF THIS] BOTTLE"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	indeterminate	"HALF PINT"	Dump 1	1
Bottle	Colorless body sherd	indeterminate	indeterminate	"[H]ALF / [PIN]T"	Dump 1	1
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	". . . 1 (leafy design surrounded blocks of horizontal lines) (on body); ". . . S. PAT. 91661 / . . . (diamond Owens-Illinois mark) 9" (on bottom)	Dump 1	1
Bottle, flask	Colorless base sherd with partial body	1 1/2" w	ca. 1929+	"HALF PINT" (on body near base); ". . . 64-9. . ." (on bottom)	Dump 1	1
Bottle, flask	Colorless base sherd with partial body	3" l x 1 1/2" w	ca. 1929+	"D1" (leafy design surrounded blocks of horizontal lines) // HALF PINT" (on body near base); "DES / PAT 956 / (diamond Owens-Illinois mark turned on side)" with "60-9" centered between them (on bottom)	Dump 1	1
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	"M892 (on its side) D9 / 56 - 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1
Bottle, flask	Colorless base sherd	1 3/8" w	ca. 1929+	". . . D1 /64 - 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	". . . D1 /64 - 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Dump	Count
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	". . . D1 / . . . 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	"DES PAT 9156 / 60 - 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1
Bottle, flask	Colorless base sherd	indeterminate	ca. 1929+	"R 421 / 65 - 9 (diamond Owens-Illinois mark turned on side)"	Dump 1	1
					TOTAL	**35**

Unknown Beverages

Bottle with Oil Finish. There was one one-part oil bottle finish sherd recorded in Dump 1, which was from a bottle that likely would have contained liquid medicine such as bitters or possibly gin or wine (Lindsey 2013), measuring 3/4" (exterior aperture) and 7/8" (interior aperture).

Trade Beverage Bottle. A single colorless body sherd with the embossed message, "TRAD[E] / BEVE[RAGE] . . ." was documented in Dump 1.

Bottle with Crown Cap Finish. Just one green bottle with a crown cap finish was recorded during the pedestrian survey. This type of bottle usually would have contained soda, mineral water, or beer (Lindsey 2013).

Meal Preparation and Cooking

Seasoning Shakers

A single shaker top, measuring 5/8" (height) x 3 1/2" (diameter), was recorded in Dump 1.

Condiment Bottles and Jars

A total of five documented condiment bottles and jars were in Dump 1.

- Colorless ribbed base sherd with embossing on bottom, "H. J. HEINZ Co. / 211 / 3 (square with a circular hole in the center) 9 / PAT (small, underlined "D"); likely a vinegar bottle with cork opening, H. J. Heinz Company (n=1).
- Colorless jar with external continuous thread finish and faceted sides, embossing on base, "7 (diamond Owens-Illinois mark) 1 / 10"; possibly a mustard jar; measuring 4 1/4" (height) x 2 1/8" (base diameter) and 2 3/4" (shoulder diameter) and 1 7/8" (aperture), Owens-Illinois Glass Company, 1931 date code (n=1) (Figure 24).

FIGURE 24. POSSIBLE MUSTARD JAR (DUMP 1)

- Colorless mustard jar with external continuous thread finish and faceted sides, embossing on shoulder, "IT'S FRENCH'S" and on partial base, ". . . 23-15. . .”; French’s Mustard Company, ca. 1915-1950s (n=1).
- Colorless, small, bulbous jar with a two-part finish, which appears to be a type of collared ring finish, embossing on the bottom, "(Hazel-Atlas logo) / 5610 / 4"; measuring 4 1/8” (height) x 1 1/2” (diameter), 1 3/8” (exterior aperture) and 1” (interior aperture), Hazel-Atlas Glass Company, ca. 1923-1964 (n=1).
- Colorless, conical bottle with a ribbed body and an iron alloy screw cap, embossing on bottom, "6 / 7 (diamond Owens-Illinois mark) 5"; viscous liquid within bottle--contents are likely a condiment; measuring 6” (height) x 2 3/4” (diameter), 1” (aperture), Owens-Illinois Glass Company, 1935 date code (n=1) (Figure 25).

Enamelware

There were nine enamelware vessels recorded during the pedestrian survey (n=7) and in Dump 1 (n=2).

- Bowl with a rolled lip; measuring 8 1/2” (opening diameter) (Dump 1, n=1).
- Blue marble bowl; measuring 4” (height) x 7 1/4” (diameter) (pedestrian survey, n=1).
- Gray pot with handles on both sides and a wire handle over the top; measuring 9” (base diameter) and 11” (opening diameter) (Dump 1, n=1).

FIGURE 25. COLORLESS BOTTLE CONTAINING VISCOUS LIQUID (DUMP 1)

- White double boiler upper pot; measuring 4 3/4" (height) x 4 7/8" (base diameter) and 5 1/8" (opening) (pedestrian survey, n=1).
- Pot (pedestrian survey, n=1).
- Percolator coffee maker component, black perforated chamber for grounds attached to tube for water; measuring 10" (height) x 1 1/4" (diameter of chamber) (pedestrian survey, n=1).
- White coffee pot; measuring 7" (height) x 5 1/4" (diameter) (pedestrian survey, n=1) (Figure 26).
- Blue marble tea kettle (hanging in tree); measuring 5 1/4" (height) x 7 1/2" (diameter) (pedestrian survey, n=1) (Figure 27).
- White lid (pedestrian survey, n=1).

Animal and Plant Remains

A total of 11 animal bone fragments and one fruit pit fragment were documented in Dump 1. Some of the bone fragments exhibited saw marks and rodent gnawing.

- Cow, proximal fragment of a right radius and missing unfused epiphysis with rodent gnawing on dorsal side and heavy weathering on surface (n=1).
- Cow, right astragalus that has been sawn through on one end; 3" (length) x 1 1/2" (wide) (n=1).
- Large mammal vertebral fragments (n=2).

FIGURE 26. WHITE ENAMELWARE COFFEE POT (PEDESTRIAN SURVEY)

FIGURE 27. BLUE MARBLE ENAMELWARE TEA KETTLE IN TREE (PEDESTRIAN SURVEY)

Health and Medicine

Medicine Bottles

There were two colorless, rectangular medicine bottles (n=5) recorded during the pedestrian survey and in Dump 1. This type of bottle typically contained liquid medicines, such as cough syrup.

- Colorless body sherd with hash marks with measurements up to 200 cc's (pedestrian survey, n=1).
- Rounded corners and an external continuous thread finish, embossing in center of shoulders, "8 (within a circle)"; embossed with graduated measurements up to 200 cc's on one edge and up to 7 oz. on the other side; embossing on bottom, "ILLINOIS / 11 (diamond Owens-Illinois mark) .2:"; measuring 6 3/4" (height) x 2 1/2" (length) x 1 1/2" (width); 7/8" (external aperture) and 5/8" (internal aperture), Owens-Illinois Glass Company, 1932 date code (Dump 1, n=4) (Figure 30).

Homeopathic Vial

There was one documented homeopathic vial in Dump 1. Colorless with a patent finish, this vial would have contained a dosage of medicine prepared by a pharmacist (Lindsey, 2013); measuring 3 1/2" (height) x 1/2" (diameter) and 3/8" (aperture).

FIGURE 30. COLORLESS MEDICINE BOTTLE (DUMP 1)

Clothing

Shoe and Boot Components

A total of 20 shoe and boot components were documented in Dump 1.

- Tall leather boot fragment with iron alloy shoelace eyelets (n=1).
- Leather shoe or boot insole fragment (n=1).
- Leather strap likely for a boot with a hole in the wider end with stitching along exterior edges (n=1).
- Boot lacing leather strip with three eyelets and stitching along exterior edges (n=1).
- Leather shoe or boot fragments (n=13).
- Eyelet for a shoe or boot lace, 3/4" (diameter) (n=1).
- Rubber boot tread with "W . . ." on the bottom and "Bu 205" on top (n=1).
- Rubber boot fragment with raised lines on one side (n=1).

Tack Button

The front and rear pieces of a single plain brass tack button (n=2) were recorded in Dump 1. It was likely a fly button for jeans based on its size, measuring 5/8" (diameter).

Personal Items

Majolica Vessel

There was one molded brown majolica shoulder sherd documented in Dump 1. This ware type is typical of decorative vessels, such as vases and jardinières.

Bisque Kewpie-like Doll

A total of two jointed bisque Kewpie or Kewpie-like doll arms with eyelets at the joints were recorded in Dump 1, ca. 1912-1940, measuring 1 1/2" (length) (Figure 31).

Tobacco Tin

A single iron alloy smoking tobacco tin fragment was recorded in Dump 1, measuring 3" (length) x 7/8" (width).

Household and Architectural Items

Furniture

In total, there were 23 furniture springs and frames recorded in Dump 1.

- Chair seat cushion, iron alloy frame with springs remaining, rounded edge on one side connected by iron alloy wire clips, measuring 20" (length) x 18" (width); 3 1/2" (spring diameter) (n=1).

FIGURE 31. KEWPIE-LIKE DOLL ARMS (DUMP 1)

- Furniture seat cushion, iron alloy springs and frame remaining, measuring 40" (length) x 18" (width); 3 3/4" (spring diameter) (n=1).
- Cushion/bed spring, iron alloy springs and frame remain, 5" (spring diameter) (n=3).
- Cushion/bed spring, iron alloy springs and frame remain, 4" (spring diameter) (n=1).
- Cushion/bed spring, iron alloy springs and frame remain, 3 1/2" (spring diameter) (n=1).
- Furniture frame, iron alloy wire frame fragment (n=1).
- Grouping of multiple furniture springs (n=3).
- Individual iron alloy furniture spring, 7" (height) x 4 1/4" (diameter) (n=1).
- Individual iron alloy furniture springs, 5" (diameter) (n=8).
- Furniture spring fragments (n=3).

Porcelain Knob

A single porcelain molded knob was documented in Dump 1; measuring 5/8" (height) x 1 1/4" (diameter) (Figure 32).

FIGURE 32. PORCELAIN KNOB (DUMP 1)

Shelf Bracket

There was one cast iron shelf bracket with holes for fasteners recorded in Dump 1; measuring 8 1/4" (height) x 6 1/2" (length).

Decorative Metal Work

There were three decorative, brass-plated, leafy patterned metal work fragments documented in Dump 1. They were made from a soft metal such as lead and possibly were decoration for furniture or a mirror. One piece has a tab fastener on the back; fragments do not refit but appear to be from the same object (Figure 33).

Window Related Items

Window Frame. Metal frame with four small angle iron shaped 1/2" (width) rods with sealant material on the interior and nails coming out through the exterior, galvanized metal band (20 3/16" (length) x 2 1/2 (width)) lined the top and was backed with wood fastened by nails; a large piece of wood (2 1/2" width) was associated with it which had 4 wire nails attached, window frame measured 15 1/4" (height) x 13 1/2" (width) (Dump 1, n=6) (Figure 34).

FIGURE 33. DECORATIVE METAL WORK (DUMP 1)

FIGURE 34. WINDOW FRAME *IN SITU* WITHIN THE DUMP 1, 1-X-1 M UNIT

Window screen. Zinc alloy frame portion that attaches to screen (Dump 1, n=1).

Flat Glass. A total of 46 flat glass sherds were documented in Dump 1 with 28 colorless and 18 pale green sherds.

Exterior Siding

There were 15 galvanized and iron alloy straps or sheets recorded in Dump 1 (n=14) and during the pedestrian survey (n=1) that appeared to have been used to side the exterior of a structure.

- Galvanized straps with nails through them and one with wood still attached; measuring 16 3/8" (length) x 1 3/8" (width) (Dump 1, n=2).
- Galvanized strap with wood still attached; measuring 16" (length) x 1 3/8" (width) (Dump, n=1).
- Galvanized strap; measuring 20" (length) x 2 1/2" (width) (Dump 1, n=1).
- Galvanized sheet with wood still attached; measuring 16 1/2" (length) x 4 1/16" (width) (Dump 1, n=1).
- Iron alloy strap; measuring 17" (length) x 1 3/8" (width) (Dump 1, n=1).
- Iron alloy strap; measuring 16 1/2" (length) x 1 3/8" (width) (Dump 1, n=2).
- Iron alloy strap with 2 1/8" (length) iron alloy screw and 1/2" (diameter) brass washer with some window screen attached; measuring 6 1/2" (length) x 1 3/8" (width) (Dump 1, n=1).
- Iron alloy strap fragments; measuring 1 3/8" (width) (Dump 1, n=5).
- Iron alloy sheet metal that has nails through it (pedestrian survey, n=1).

Architectural Fasteners

There were 31 architectural fasteners documented in Dump 1 (Table 9).

TABLE 7. ARCHITECTURAL FASTENERS AT 21SL1208

Object	Length	Count
Machine cut nail	60d	1
Machine cut nail	indeterminate	2
Wire nail	6d	2
Wire nail	7d	9
Wire nail	8d	8
Wire nail	9d	1
Wire nail	10d	1
Wire nail	60d	2
Wire nail	indeterminate	4
Staple	3" l	1
	TOTAL	**31**

Reinforcement Plating

- Galvanized metal plate with two screw holes and nails with wood through other side, 2" (width) instep on same side as screw holes; measuring 8 5/8" (height) x 4" (width) (Dump 1, n=1).
- Galvanized metal plate with two screw holes and nails with wood through other side; measuring 8" (length) x 4" (width) (Dump 1, n=1).

Pipes

- Cast iron pipe fragment; measuring 8" (length) x 4 1/2" (external diameter) and 4" (internal diameter) (pedestrian survey, n=1).
- Lead pipe, cut in half lengthwise with finished raised edges and a 3/16" (diameter) hole in top; measuring 1 7/8"(length) x 1 3/4" (width) (Dump 1, n=1).

Gutter Sections

- Bottom section of a metal rain gutter (Dump 2, n=1).
- Mid-section of a metal rain gutter; measuring 8" (length) (Dump 2, n=1).

Shingles

There were 11 asphalt shingle fragments recorded in Dump 1.

Cable

There was one thick, braided cable fragment documented in Dump 1.

Electrical Wire

A total of two blue and red electrical wires were documented during the pedestrian survey.

Mesh

A single iron alloy 1/4" (gauge) mesh screen fragment was documented in Dump 1.

Fencing

A large iron alloy wire fence fragment was recorded in Dump 1.

Shaped Metal

There was a large piece of metal with a raised and rounded top edge documented during the pedestrian survey. It had a bent back edge and base and a nail hole on the top corner—possibly a fireplace shield; measuring 22" (height).

Molded Concrete Block

There was one molded concrete block recorded during the pedestrian survey.

Work and Maintenance Activities

Light Bulbs

There were two zinc alloy light bulb bases recorded in Dump 1 and one whole light bulb was recorded during the pedestrian survey.

- Zinc alloy base, no threading with some glass and filament remaining; measuring 1/2" (diameter) (n=1).
- Zinc alloy base with filament tube; measuring 1" (diameter) (n=1).
- Light bulb (pedestrian survey, n=1) (Figure 35).

Lens

A circular frame with colorless glass lens, possibly from a flashlight, measuring 2" (diameter) was documented in Dump 1.

Cell Battery

One cylindrical cell battery, measuring 2 1/4" (length) x 1" (diameter) was recorded in Dump 1.

Box with Handle

A single iron alloy partial box with a handle was documented in Dump 1. The handle was on the narrow edge and there were also side flanges fastened by rivets.

FIGURE 35. FROSTED LIGHT BULB (PEDESTRIAN SURVEY)

Paint Cans

There were three paint cans recorded during the pedestrian survey (n=2) and in Dump 1 (n=1).

- Iron alloy with bail handle and pry out lid with white drips on exterior—likely contained white paint; measuring 7" (height) x 6 1/4" (diameter) and 3 1/4" (diameter) lid (pedestrian survey, n=1).
- Iron alloy with pry out lid; measuring 7" (height) x 6 5/8" (diameter) (pedestrian survey, n=1).
- Iron alloy with bail handle; measuring 5" (height) x 4 1/4" (diameter) (Dump 1, n=1).

Rectangular Cans

A total of three rectangular cans were recorded in Dump 1.

- Iron alloy rectangular can with spout having two holes, likely an oil can; measuring 5 1/2" (height) x 4" (length) x 3" (width) (n=1).
- Iron alloy large rectangular can fragment; measuring 6 1/8" (length) x 4 1/4" (width) (n=1).
- Iron alloy rectangular can with a handle (n=1).

Can with Spout

There was one iron alloy can with a flat circular spout recorded during the pedestrian survey.

Drum and Drum Lid

- Iron alloy drum with a pry out cap and a handle on top; measuring 11" (diameter) and 1 3/4" (aperture) (pedestrian survey, n=1).
- Drum lid, iron alloy with two 1" (diameter) holes spaced 5" apart on top of lid; measuring 10 1/4" (diameter) (Dump 1, n=1).

Wash Basin

A single partial wash basin was documented in Dump 1.

Crescent Wrench

There was one adjustable crescent wrench documented in Dump 1. It had molded lettering on the handle, "8 DIAMOND (within elongated diamond) [T]OOL-STEEL / [D]ROP-FORGED . . . // DIAMOND CAL[K HORSESHOE CO . . .]"; Diamond Calk Horseshoe Company, Duluth, MN; logo used from 1919-1958; measuring 8" (length).

Cowbell

There was one cowbell documented in Dump 1, missing its clapper; measuring 5 1/4" (height) x 3 7/8" (base length) x 2 3/4" (base width) (Figure 36).

FIGURE 36. COW BELL (DUMP 1)

Bullet Casings

There were three bullet casings of varying calibers (.22, .38, and .50) recorded in Dump 1.

IDEAL Tool

A single tool marked "IDEAL" was recorded during the pedestrian survey. It had a broken, hollow handle and a 1/4" threaded rod attached to the handle, likely a gun reloading tool made by Ideal Manufacturing Company, New Haven, Connecticut (ca. 1884+).

Miscellaneous Work and Maintenance Items

- Wire handle, iron alloy; measuring 2" (length) (Dump 1, n=1).
- Wire handle, iron alloy, rectangular with fastener and rivets attached to one side; measuring 10" (height) x 7" (length) (Dump 1, n=1).
- Gardening tool, iron alloy 1" (width) band with four thick metal wires bent in half and attached in the center to the band--possibly a tiller or rake head (Dump 1, n=1).
- Spool of copper wire; measuring 2 1/2" (height) x 1 1/2" (diameter) (Dump 1, n=1).

- Hardware, large iron alloy object with rolled edges and two hooks bolted on through holes, 6 holes in object; 45" (length) x 3" (width) (Dump 1, n=1).
- Strainer, iron alloy fragment (Dump 1, n=1).
- Coal fragments (Dump 1, n=23).

Auto and Machinery Components

Tail Light

A single red glass fragment from a tail light was recorded in Dump 1.

Spark Plug

One spark plug fragment was documented in Dump 1, measuring 3" (length).

Gear

There was one zinc alloy gear in Dump 1. It had a raised piece in the center and was likely a clock component, measuring 3/4" (diameter).

Machinery Parts and Fastener

- Iron alloy screw fastener with large head holding another piece on top with rubber in between; measuring 1" (height) x 1 1/2" (width) (Dump 1, n=1).
- Small clamp with iron alloy bolt holding it together; measuring 1 1/4" (height) x 1 5/8" (width) (Dump 1, n=1).
- Iron alloy circular clamp with gasket (pedestrian survey, n=1).
- Iron alloy T-shaped part with screw at base; measuring 2 3/4" (height) x 3 1/4" (top width) and 1 1/8" (bottom width) (Dump 1, n=1).
- Circular lead part with gear inside; measuring 3/4" (diameter) (Dump 1, n=1).
- Machinery plug made of iron and zinc alloys; measuring 3/4" (diameter) (Dump 1, n=1).
- Zinc machinery swivel part (Dump 1, n=1).

Miscellaneous Metal

Barrel Bands/Straps

- Barrel band fragment; measuring 1" (width) (Dump 1, n=1).
- Barrel band fragment with two rivets; measuring 7/8" (width) (Dump 1, n=1).
- Strap fragment with rolled edges; measuring 2 1/4" (width) (Dump 1, n=1).
- Strap fragments with nails through them and cut at a 45 degree angle; measuring 1 3/8" (width) (Dump 1, n=3).
- Strap fragment, twisted; measuring 1/2" (width) (Dump 1, n=1).
- Strap fragment bent at a right angle; measuring 3/4" (width) (Dump 1, n=1).
- Strap fragment with a 2 1/2" (length) screw attached; measuring 1" (width) (Dump 1, n=1).
- Strap fragments with 1" screws attached; measuring 1" (width) (Dump 1, n=2).

Sheet and Flat Metal

- Iron alloy rolled sheet that is sealed with lead along the seam and has two sets of holes punched down the side (Dump 1, n=1).
- Iron alloy sheet metal pieces (Dump 1, n=4).
- Iron alloy flat metal with rivets and one finished folded over edge (Dump 1, n=1).
- Iron alloy sheet metal (pedestrian survey, n=6).
- Flattened metal with flanges edges and nails through it (pedestrian survey, n=1).
- Flattened enamelware sheet with a rolled edge on one end and twisted wire around (pedestrian survey, n=1).

Caps

- Iron alloy with a raised convex circular area in the center and two holes on either side; measuring 2 1/2" (length) x 1 1/4" (width) (Dump 1, n=1).
- Zinc alloy with lettering, "LIFT THIS SIDE" below a hole in the center, prongs on other side of hole (Dump 1, n=1).

Connectors

- Iron alloy square connector with rivets and a hole through the 1 1/2" (diameter) center; measuring 2" (length) x 1 1/2" (width) (Dump 1, n=1).
- Zinc alloy electrical wire connector (Dump 1, n=1).

Extenders

There were two documented metal extenders with tighteners in Dump 1, some screws were still present in one, possibly screen door fasteners; measuring 15 3/4" (length).

Springs

Three springs of indeterminate function were identified in Dump 1.

Reinforcement Plates

- Aluminum small reinforcement plate with a paper coating on one side and two 3/8" (diameter) holes through it; measuring 2" (length) x 5/8" (width) (Dump 1, n=1).
- Zinc alloy reinforcement plate with a 1/4" (diameter) hole in the center with two smaller holes on either side, possible cord cover; measuring 1 1/2" (length) x 1 7/8" (width) (Dump 1, n=1).

Grate

There were two zinc alloy grate fragments recorded in Dump 1.

Lid

A single iron alloy lid was documented during the pedestrian survey.

Metal Objects and Fragments of Indeterminate Use

During the Phase II, 80 metal objects of indeterminate function were recovered in Dump 1. These items included materials of iron alloy (n=68), lead (n=5), zinc alloy (n=2), and galvanized metal (n=1).

Miscellaneous Fasteners

Thirty-one miscellaneous fasteners were documented within Dump 1 (Table 8).

TABLE 8. MISCELLANEOUS FASTENERS AT 21SL1208

Object	Dimensions	Count
Bolt	2" l	2
Bolt	1" l	1
Bolt	indeterminate	1
Bolt cap	1 1/2" d	1
Washer	2 7/8" d x 1/4" thick	1
Washer	1 3/8" d	1
Washer	3/4" d	1
Raised washer	1" d	1
Screw	1" l	1
Nut	3/8" d x 1/4" thick	1
Square nut	1" l x 1" w	1
Square nut	5/8" l x 5/8" w	1
Square nut	indeterminate	1
Wing nut	1/2" d	1
	TOTAL	**31**

Miscellaneous Glass with Maker's Marks

A total of 18 bottles and bottle sherds with maker's marks, but of indeterminate use, were recorded during the pedestrian survey (n=1) and in Dump 1 (n=17) (Table 9).

Miscellaneous Bottle Caps

There were two bottle caps recorded in Dump 1, which were one white enameled external thread screw cap with an impressed Owens-Illinois diamond mark on the top (ca. 1929+) and one crown cap.

Miscellaneous Glass

Jars

There were two jars of indeterminate use within Dump 1.

- Colorless with an external continuous thread finish; measuring 5" (height) x 3" (diameter) and 2 1/2" (aperture) (n=1).
- Colorless with an external continuous thread finish; measuring 6 3/4" (height) x 2 1/4" (base diameter) and 3 1/4" (shoulder diameter); 2 3/8" (aperture) (n=1).

TABLE 9. BOTTLES WITH MAKER'S MARKS AT 21SL1208

Object	Description	Dimensions	Date	Embossing/ Maker's Mark	Location	Count
Jar	Colorless, two-part cap seat or milk bottle finish, likely a condiment jar	6" to shoulder l x 2 1/2" d; 1 7/8 interior a and 2" exterior a	ca. 1923-1964	"(Hazel-Atlas Glass Company logo) / 5730 / 2" (on bottom)	Dump 1	1
Jar	Colorless with a continuous external thread finish	5 3/4" h x 1 5/8" d; 1 5/8" a	indeterminate	"2" (on bottom)	Dump 1	1
Bottle	Colorless with molded grip on sides and a continuous external thread finish	indeterminate	ca. 1937	"7 (diamond Owens-Illinois mark) 7 / 21"	ped. survey	1
Bottle	Aqua base sherd with mold seams on both sides	2 3/8" d	indeterminate	"D & M"	Dump 1	1
Bottle	Green, missing finish	2 1/2" d	indeterminate	"2[8 or R] S" (on bottom)	Dump 1	1
Bottle	Colorless base sherd	3" d	indeterminate	"K - 337 - 20"	Dump 1	1
Bottle	Colorless base sherd	indeterminate	indeterminate	". . . 50 . . ."	Dump 1	1
Bottle	Colorless body sherd	indeterminate	indeterminate	embossed horizontal lines and ". . . HA . . ." in between them	Dump 1	1
Bottle	Colorless body sherd	indeterminate	indeterminate	embossed star and ". . . SBO . . ."	Dump 1	1
Bottle	Colorless body sherd	indeterminate	indeterminate	embossed star and ". . . F PI . . ."	Dump 1	1
Bottle	Colorless with screw-on plastic cap	indeterminate	indeterminate	"PATENT / PENDING" (on cap)	Dump 1	1
Sherd, shoulder	Colorless	indeterminate	indeterminate	". . . [B]OTTLE"	Dump 1	1
Sherd, shoulder	Colorless	indeterminate	indeterminate	". . . S . . ."	Dump 1	1
Sherd, body	Colorless	indeterminate	indeterminate	". . . [W]KS."	Dump 1	1
Sherd, body	Colorless	indeterminate	indeterminate	". . . NT . . ."	Dump 1	1
Sherd, body	Colorless	indeterminate	indeterminate	". . .D . . ."	Dump 1	1
Sherd, base	Colorless	indeterminate	indeterminate	". . . CONTENTS. . . "	Dump 1	1
Sherd, base	Colorless	indeterminate	indeterminate	". . . N "	Dump 1	1
					TOTAL	**18**

Bottle Finishes

A total of four bottle finishes were recorded in Dump 1, two colorless with metal external thread screw caps (1" a) and two amber finishes.

Shoulder and Base Sherds

There were five colorless shoulder sherds and one aqua base sherd (2 3/8" d) documented in Dump 1.

Indeterminate Curved Glass

A total of 286 indeterminate curved glass sherds were recorded during the pedestrian survey (n=2) and in Dump 1 (n=284). In all there were 254 colorless sherds; 26 aqua sherds; 4 milk glass sherds; 1 amber sherd; and 1 pale green sherd.

Miscellaneous Objects and Fragments

- Rubber rectangle with two holes through it; measuring 3/4" (height) x 5/8" (length) x 3/8" (width) (Dump 1, n=1)
- Rubber fragments (Dump 1, n=10)
- Canvas fragment (Dump 1, n=1)
- Wood fragments (Dump 1, n=2)
- Black plastic (Dump 1, n=1)

SYNTHESIS

Site 21SL1208 is a 1-acre parcel leased by Steve Alexander from 1925 to 1941. The story of the Alexander family is illustrative of the Italian immigrant experience on the Iron Range. Upon immigration, they first settled in Michigan's iron mining region where Italians had been employed since the 1860s (Vecoli 1981:456). By 1900 the Alexanders had moved to Minnesota's Iron Range where they were part of a wave of Italians that first came to the Mesabi Range in 1892 and by 1909 constituted 10% of the Oliver Iron Mining Company's work force (Vecoli 1981:456). According to census records, Steve Alexander worked in the iron mining industry as a blacksmith from at least 1900 through 1920 or later. Like many immigrants, they lived at mining "locations" and took in boarders – even being described as running a boarding house at the Lily Mine's location in 1913 (*The Virginia Enterprise* 1913; Vecoli 1981:456-457). By 1930, though, the family had moved into Virginia and bought a home at 728 12th Street North.

From 1925 through 1941, Steve Alexander also leased approximately one acre of state land located to the east of Virginia and to the southeast of the Minnewas mine pit. The only aerial photograph of the site during its occupation dates to 1940. This photograph shows the house and associated outbuildings within a clearing, as well as an apparent garden plot to the west of the lane leading to the house (see Figure 13). The lease specified that the land was being leased to occupy with a house, and on a 1928 map the main structure is labeled as a dwelling (DWG) and is joined by two outbuildings that are not labeled (see Figure 12). Certainly the artifact types and classes recorded at the site

are in keeping with a domestic occupation. However, as previously noted, the Alexander family's primary residence during this period was in Virginia, where they were recorded in 1930 and 1940; although Steve and daughter Rose (then 19) were absent from the 1930 census so it is possible that at the time the census was taken they were both at the Minnewas homestead, which due to its remote location was apparently omitted from the census. It is possible that the Minnewas property was leased in order to still raise a garden or stock, which the family may have previously maintained while living at a mine location and that would have been an important supplement for their large household. The presence of canning jars, a cow bell, and cow bones at the site would be in keeping with this conclusion. Given the amount of domestic material present at the site, it is also possible that the family may have seasonally resided at the homestead. Another possibility, given the location of the property in proximity to the Minnewas Mine, is that the Alexanders continued to operate a boarding house for miners as they had in past years. Unfortunately, due to the fact that the property was not included in the 1930 census or the 1940 and 1941 real estate and personal tax assessment records for the area, no documentary evidence is available on the activity occurring at the site and the material culture alone will not allow for discernment between a large household like the Alexanders and that of a boarding house.

EVALUATION AND RECOMMENDATION

To be eligible for listing in the National Register, archaeological sites must meet one of the four National Register criteria and possess sufficient integrity to convey their significance. Site 21SL1208 is evaluated as a Northern Cutover homestead within the *Historic Context Study of Minnesota Farmsteads, 1820-1960.*

Significance

In order for a farmstead archaeological site to be eligible to the National Register under Criterion A, "it must have intact archaeological deposits or features that are associated with a significant event, pattern, or trend" (Terrell 2006:B.25). While the Alexander family's homestead may illustrate the trend of mining company employees supplementing their income, particularly during the Depression-era, by having a subsistence farm, the site lacks the archaeological and structural integrity necessary to illustrate this movement. Furthermore, due to a lack of structural identifying characteristics and limited archaeological evidence, the homestead does not well-represent the settlement of the cutover. Site 21SL1208 therefore does not meet National Register Criterion A.

To be eligible under Criterion B, a farmstead archaeological site "must be associated with a significant person and must contain intact archaeological deposits that can be directly linked to the significant person's period of occupation" (Terrell 2006:B.25). No evidence could be found to suggest that the Alexanders were historically significant individuals. For this reason, 21SL1208 does not satisfy National Register Criterion B.

Due to a lack of extant buildings, archaeological evidence for distinctive construction methods or the presence of a designed landscape, 21SL1208 is not eligible for listing on the National Register under Criterion C.

To be eligible under Criterion D, a homestead archaeological site must retain its information potential. The excavation of 26 shovel tests within 21SL1208 produced a total of 48 artifacts. The shovel testing survey demonstrated that the homestead not only lacks dense sheet refuse or substantial artifact deposits, but that portions of the farmyard have also been disturbed by past demolition activities. Positive shovel tests were clustered immediately adjacent to structural features and artifacts recovered were primarily architectural-related (e.g., nails, window glass) and possessed limited information potential. The remainder of the Phase II evaluation focused on the surface dumps which are the primary source of artifacts related to the homestead and its occupation. During the Phase II, 836 artifacts from the site's two surface dumps were field-cataloged, and an additional 51 artifacts were documented during the pedestrian survey for a total of 887 surface finds. These materials span the period from 1929 through at least 1935. Due to their tight temporal context and clear association with the Alexander family, these materials have the potential to address important research questions. However, because these materials were exposed to the elements for an extended period of time, the majority of the artifacts no longer retain labels or other features that would allow their contents to be identified. Also, only certain types of artifacts were deposited in the surface trash dump and many represent redundant classes of material. Furthermore, the site does not retain intact, undisturbed strata or features that preserve the contextual, functional, and temporal relationships of artifacts to each other (Terrell 2006:B.26). The site therefore does not satisfy National Register Criterion D.

Integrity

Site 21SL1208 was also evaluated with reference to the National Register aspects of integrity. While the National Park Service identifies seven such aspects, location, design, setting, materials, workmanship, feeling, and association (National Park Service 2002), the SHPO guidelines for evaluating archaeological sites state, "With regard to archaeological sites significant under Criterion D [information potential], the most critical aspects are location, materials, and association. For Criterion A, setting and feeling are also important" (Anfinson 2005:40). Anfinson (2005:40) notes, "In general, eligible archaeological sites need diagnostic artifacts, features, and intact cultural horizons where artifacts and features retain some vertical and horizontal integrity."

Archaeological investigations at 21SL1208 revealed soil disturbance from grading activities presumably related to the removal of the farmstead's buildings in 1941. Between 1940 and 1948, a rail yard for mining operations was also constructed into the site area. These tracks were removed by 1959, but a ditch/cut indicates their former location (GNOP 1959) (see Figure 15). The rail yard, and the later construction of the landfill access road, disturbed the location of two outbuildings that appear on a 1928 map of the homestead (see Figure 12). Furthermore, subsurface archaeological deposits were sparse and largely consisted of architectural debris. These materials (e.g., window glass

and wire nails) have limited information potential. Furthermore, due to the removal of the building's superstructures, the foundation lacks sufficient integrity to convey functional, structural, and design features. Furthermore, the primary source of artifactual evidence at the site is limited to surface dumps. While the site did produce diagnostic artifacts, and it can be assumed that the majority of the materials on the site are associated with the Alexander family, past disturbance has compromised the site's integrity.

Eligibility

Based on its lack of significance, and because much of the homestead has undergone substantial disturbance, the Minnewas Homestead site, 21SL1208, is recommended as not eligible for listing in the National Register.

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SUMMARY AND RECOMMENDATIONS

In August and September of 2013, Two Pines completed a Phase I archaeological survey and Phase II archaeological evaluation for the TH 53 Relocation Project between Virginia and Eveleth in St. Louis County, Minnesota. The purpose of the Phase I and II archaeological investigations was to determine if the APE of project Alternatives E-1, E-1A and E-2A contains any intact archaeological resources that may be eligible for listing in the National Register. During the archaeological investigations for the TH 53 Relocation Project, one new archaeological site, 21SL1208 (Minnewas Homestead) was identified. Beyond this site, the remaining portions of the APE consisted of areas that were previously found negative for cultural materials; severely disturbed by mining-related activities; or are wetlands, which are considered to have low archaeological potential.

Site 21SL1208 (Minnewas Homestead) consists of the remains of a 1925-1941 squatter's homestead located within the E ½ of the SW ¼ of the SW ¼ of Section 16 of Township 58N, Range 17W. This location is within the archaeological APE of Alternatives E-1A (realignment of the landfill road) and E-2A. Site 21SL1208 was recommended as potentially eligible for listing in the National Register and subsequently underwent a Phase II evaluation. Site 21SL1208 was recommended as potentially eligible for listing in the National Register and subsequently underwent a Phase II evaluation, which consisted of documentary research as well as the completion of a close-interval pedestrian survey, shovel testing on a 10-m survey grid, and the documentation of structural features and surface finds. These investigations revealed soil disturbance from grading activities presumably related to the removal of the property's buildings in 1941. The construction of a rail yard into the site area during the 1940s also resulted in extensive disturbance. Furthermore, subsurface archaeological deposits were sparse and no stratified features were encountered. The primary source of artifactual evidence for the site's occupants is surface dumps. Evaluated as a Northern Cutover homestead within the *Historic Context Study of Minnesota Farmsteads, 1820-1960*, site 21SL1208 does not retain sufficient integrity to either illustrate historical trends or events (Criteria A) or answer important research questions (Criteria D). The site is also unlikely to yield any significant information beyond that obtained during the Phase II investigation. Based on these findings, 21SL1208 is recommended as not eligible for listing in the National Register.

Based on the results of the Phase I and II investigations, no additional archaeological fieldwork is recommend within the APE of Alternatives E-1, E-1A and E-2A of the TH 53 Relocation Project.

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APPENDIX A
MINNESOTA ARCHAEOLOGICAL LICENSES

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APPLICATION FOR MINNESOTA
ANNUAL ARCHAEOLOGICAL RECONNAISSANCE SURVEY LICENSE

This license only applies to reconnaissance (Phase I) surveys conducted under Minnesota Statutes 138.31-.42 during calendar year **2013**. Separate licenses must be obtained for site evaluation (Phase II) surveys, for major site investigations (Phase III), for burial site authentications under Minnesota statutes 307.08, and for survey work that will continue into another calendar year. Only the below listed individual is licensed as a Principal Investigator, not the institution/agency/company or others who work for that entity. The licensed individual is required to comply with all the conditions attached to this license form. Permission to enter land for the purposes of archaeological investigation must be obtained from the landowner or land manager.

Name: Michelle M. Terrell, Ph.D.

Institution/Agency/Company Affiliation: Two Pines Resource Group, LLC

Title/Position: Principal Archaeologist and Historian

Address: 17711 260th Street, Shafer, MN 55074

Work Phone: 651-257-4766 E-Mail: mterrell@twopinesresource.com

Name of Advanced Degree Institution: Boston University Year: 2000

Name of Department: Archaeology Department Degree: __MA __MS _X_PhD

Purpose: (check all that may apply)
CRM _X_ Academic Research ___ Institutional Field School ___

Type of Land: (check all that may apply)
State Owned _X_ County Owned _X_ Township/City Owned _X_
Other ___ List: _____

MHS Repository Agreement # 594 Other Approved Curation Facility: _____

Previous License: Year 2012 Type Annual Number 12-020

Signed (applicant): Michelle M. Terrell Date: 2-1-13

Required Attachments: *Curriculum Vita* ___ and Documentation of Appropriate Experience ___ for previously unlicensed individuals.

Submit one copy of this form and attachments to:
Office of the State Archaeologist, Ft. Snelling History Center, St. Paul, MN 55111
612-725-2411 612-725-2729 FAX 612-725-2427 email: mnosa@state.mn.us

Minnesota Historical Society Approval: _____ Date: 2-20-13
State Archaeologist Approval: _____ Date: 2/19/13

License Number: 13-033

Form Date: 2/15/11

APPLICATION FOR MINNESOTA
EVALUATION/PHASE II SURVEY ARCHAEOLOGICAL LICENSE

This license only applies to evaluation investigations/Phase II surveys conducted under the provisions of Minnesota Statutes 138.31 - .42 at the specific site or locality listed on the application during calendar year 2013. Separate licenses must be obtained for reconnaissance (Phase I) surveys, for major investigation (Phase III) work, for burial site work under Minnesota statutes 307.08, for fieldwork that will continue into another calendar year, for fieldwork conducted at locations other than those listed below, and for fieldwork that significantly exceeds the Phase II specifications of the *SHPO Manual for Archaeological Projects in Minnesota*. Only the listed individual is licensed as a Principal Investigator, not the institution/agency/company or others who work for that entity. The licensed individual and the sponsoring entity are required to comply with all the conditions attached to the license.

Name: MICHELLE TERRELL

Institution/Agency/Company Affiliation: TWO PINES RESOURCE GROUP

Title/Position: PRINCIPAL ARCHAEOLOGIST AND HISTORIAN

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Name of Advanced Degree Institution: BOSTON UNIVERSITY Year: 2000

Name of Department: ARCHAEOLOGY Degree: __MA __MS X PhD

Site Number: 21-SL-#### (MINNESOTAS HOMESTEAD) Project: TH53 REALIGNMENT

Type of Land: (check all that may apply)
State Owned X County Owned __ Township/City Owned __ Manager: DNR-FORESTRY
Other non-federal public__ List: _____

Purpose: (check all that may apply)
CRM X Academic Research ___ Institutional Field School ___

Expected Period Components/Contexts: Precontact___ Contact___ Post-Contact X

MHS Repository Agreement # 594 Other Approved Curation Facility:_____

Signed (applicant): Michelle Terrell Date: 9-9-2013

Required Attachments: 1) *Curriculum Vita* X (ON FILE) 2) Documentation of Appropriate Experience X
3) Research Design X
Previous License: Year 2013 Type PHASE I Number 13-033
Submit one copy of this form and attachments to:
Office of the State Archaeologist, Ft. Snelling History Center, St. Paul, MN 55111
612-725-2411 612-725-2729 FAX 612-725-2427 email: mnosa@state.mn.us

Minnesota Historical Society Approval: Patricia Emerson Date: 9-18-13
State Archaeologist Approval: _____ Date: 9/16/13
License Number: 13-075

Form Date: 2/15/11

APPENDIX B
21SL1208 ARTIFACT CATALOG
(SHOVEL TESTS)

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Catalog #	Qty.	Materials 1	Object Name	Descriptor 2	Descriptor 3	Description	Recovery Date	Measurement 1	Measurement Unit 1	Measurement 2	Measurement Unit 2	Dimension 2	Coll. Method	Horizontal/ Unit #	VPU Start Depth	VPU End Depth	Vert. Meas. Unit
1.1-3	3	glass (material)	jar	finish (container component)		Colorless, continuous external thread, bead seal finish; 1910+; sherds refit; likely from same vessel as 1.4	09/24/2013	30.6	grams	2.50	inches	diameter	Shovel Test	ST 2	0	10	centimeters
1.4	1	glass (material)	jar	sherd		Colorless, near rim, continuous external thread, bead seal finish; 1910+; likely from same vessel as 1.1-3	09/24/2013	3.8	grams				Shovel Test	ST 2	0	10	centimeters
1.5	1	glass (material)	body sherd	embossed		Colorless, bottle or jar body sherd with the corner of a raised panel	09/24/2013	4.0	grams				Shovel Test	ST 2	0	10	centimeters
1.6	1	glass (material)	sherd			Amber (ca. 1860-present)	09/24/2013	0.1	grams				Shovel Test	ST 2	0	10	centimeters
1.7	1	iron alloy	nail	wire		Typically post-1890	09/24/2013	2.3	grams	8.00	penny	length	Shovel Test	ST 2	0	10	centimeters
1.8-10	3	iron alloy	nail	wire		Typically post-1890	09/24/2013	2.6	grams	3.00	penny	length	Shovel Test	ST 2	0	10	centimeters
1.11	1	iron alloy	nail	wire		Typically post-1890	09/24/2013	0.5	grams	2.00	penny	length	Shovel Test	ST 2	0	10	centimeters
1.12	1	brass alloy	cartridge	maker's mark		.22 long; indiscernible maker's mark on the flat part of the head	09/24/2013	0.6	grams				Shovel Test	ST 2	0	10	centimeters
1.13	1	iron alloy	hook (fastener)			Small hook with two slots on the opposite end for a strap to be attached	09/24/2013	14.7	grams	2 .37	inches	length	Shovel Test	ST 2	0	10	centimeters
1.14	1	iron alloy	cotter pin	fragment			09/24/2013	1.6	grams				Shovel Test	ST 2	0	10	centimeters
Discarded	1	iron alloy	fragment				09/24/2013	0.5	grams				Shovel Test	ST 2	0	10	centimeters
Discarded	1	water-struck brick	sample	exfoliated		Yellow brick corner	09/24/2013	64.5	grams	2.45	inches	height	Shovel Test	ST 2	0	10	centimeters
Discarded	1	brick (clay product)	fragment			Red brick fragment	09/24/2013	0.7	grams				Shovel Test	ST 2	0	10	centimeters
2.1	1	glass (material)	drinking glass	rimsherd		Colorless	09/24/2013	1.4	grams	2.00	inches	diameter	Shovel Test	ST 3	0	12	centimeters
3.1	1	glass (material)	bottle	shoulder sherd		Green	09/24/2013	30.3	grams				Shovel Test	ST 8	0	15	centimeters
Discarded	1	iron alloy	fragment			Indeterminate	09/24/2013		grams				Shovel Test	ST 9	0	15	centimeters
4.1	1	glass (material)	bottle	base sherd	bottle maker's mark	Colorless; embossing on base, "3 - Y - 255"	09/24/2013	57.5	grams	2.50	inches	diameter	Shovel Test	ST 12	0	13	centimeters
4.2-6	5	glass (material)	sherd			Colorless	09/24/2013	4.2	grams				Shovel Test	ST 12	0	13	centimeters
4.7	1	flat glass	sherd			Pale aqua	09/24/2013	0.2	grams				Shovel Test	ST 12	0	13	centimeters
5.1	1	iron alloy	gear			Appears to be part of a bevel gear assembly	09/24/2013	179.0	grams				Shovel Test	ST 13	0	12	centimeters
Discarded	1	iron alloy	fragment			Indeterminate	09/24/2013		grams				Shovel Test	ST 14	0	15	centimeters
6.1	1	rib	remains	fragment	large	Large mammal-likely cow rib fragment sawn through on one end; some exfoliation and cracking on surface	09/25/2013	8.4	grams				Shovel Test	ST 19	0	23	centimeters
6.2	1	bone	remains	fragment	saw marks	Indeterminate	09/25/2013	0.7	grams				Shovel Test	ST 19	0	23	centimeters
6.3-4	2	bone	remains	fragment		Indeterminate	09/25/2013	0.8	grams				Shovel Test	ST 19	0	23	centimeters
6.5	1	glass (material)	rimsherd	lip (container component)	interior	Colorless; small glass rim sherd with an interior lip	09/25/2013	0.3	grams				Shovel Test	ST 19	0	23	centimeters
6.6	1	iron alloy	nail	wire		Typically post-1890	09/25/2013	17.4	grams	20.00	penny	length	Shovel Test	ST 19	0	23	centimeters
6.7	1	iron alloy	nail	wire		Typically post-1890	09/25/2013	2.7	grams	8.00	penny	length	Shovel Test	ST 19	0	23	centimeters
6.8-10	3	iron alloy	nail	wire	fragment	Typically post-1890	09/25/2013	2.4	grams				Shovel Test	ST 19	0	23	centimeters
6.11	1	iron alloy	machine bolt			Square head	09/25/2013	29.8	grams	5.00	penny	length	Shovel Test	ST 19	0	23	centimeters
Discarded	1	iron alloy	strap (fastener)	barrel (container)	fragment	Barrel band	09/25/2013		grams				Shovel Test	ST 19	0	23	centimeters
7.1	1	iron alloy	nail	wire	fragment	Typically post-1890	09/25/2013	2.5	grams				Shovel Test	ST 26	0	26	centimeters
7.2	1	brass alloy	movement (clockworks)	fragment		One of the gears of a clockworks	09/25/2013	8.5	grams	1.15	inches	diameter	Shovel Test	ST 26	0	26	centimeters
7.3	1	brass alloy	cartridge			.22 short	09/25/2013	0.4	grams				Shovel Test	ST 26	0	26	centimeters
Discarded	4	iron alloy	can (container)	fragment		Can top fragment opened with ice pick--likely contained a liquid	09/25/2013	7.9	grams				Shovel Test	ST 26	0	26	centimeters