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CULTURAL RESOURCES SURVEY FOR THE LAKE DARLING-SOURIS
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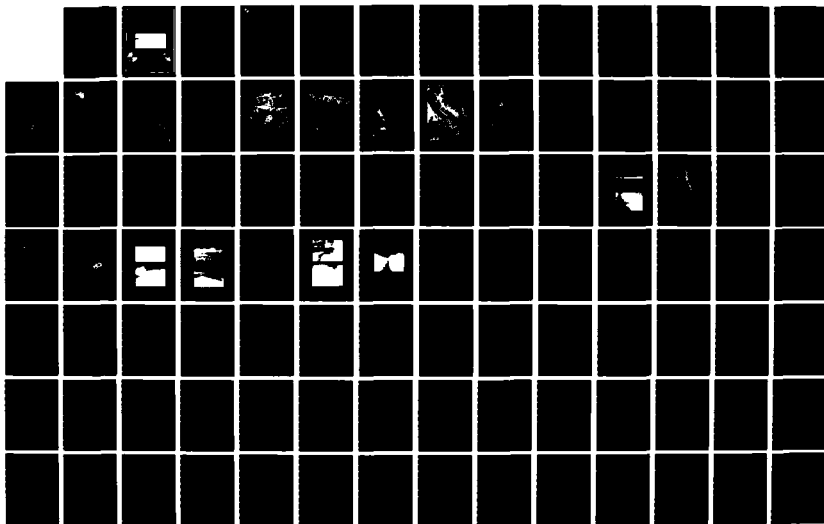
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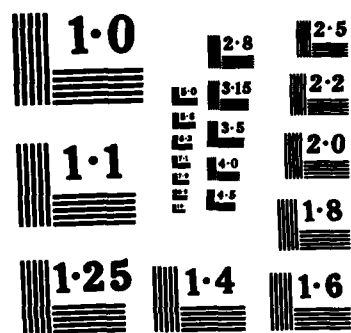
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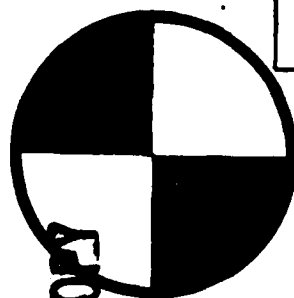
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FINAL REPORT OF THE 1982
CULTURAL RESOURCES SURVEY FOR THE
LAKE DARLING-SOURIS RIVER PROJECT,
NORTH DAKOTA

AD-A157 719



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**FINAL REPORT OF THE 1982
CULTURAL RESOURCES SURVEY FOR
THE LAKE DARLING-SOURIS RIVER PROJECT,
NORTH DAKOTA**

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With Contributions from Ann M. Johnson, Ph.D.

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Bruce E. Rippeteau, Ph.D., Principal Investigator

13 June 1985

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1.0 ABSTRACT

This is a report of the pedestrian cultural resources inventory of the Lake Darling-Souris River Project, in portions of McHenry, Ward, and Renville Counties, North Dakota, performed by Powers Elevation for the St. Paul District, U.S. Army Corps of Engineers, under Contract No. DACW37-82-C-0030. During the period from August to December, 1982 investigations were conducted at three of the Corps of Engineers' flood control project areas: 1) the Velva levee; 2) the Upper Souris River above Lake Darling; and 3) the Burlington to Minot levees and the Sawyer levee. In May and June, 1984 additional work was conducted in the Upper Souris River area, consisting of shovel probes dug at selected locations within the Upper Souris River National Wildlife Refuge.

The archaeological survey and recordation of prehistoric sites was carried out by personnel employed by Powers Elevation. The historic sites inventory and recordation of standing structures was done by Cultural Research and Management, Inc., under a subcontract to Powers Elevation.

A total of 22 prehistoric sites and 66 historic sites were examined during the investigations. Sixteen of the prehistoric archaeological resources were recorded by Powers Elevation during the 1982 field season. One of these was recorded along the Velva levee; 14 along the Upper Souris River above Lake Darling; and one site was found along the Burlington to Minot levees. In addition, Powers Elevation re-examined six prehistoric sites previously recorded along the Upper Souris River by the University of North Dakota in 1977.

Most of the newly recorded prehistoric sites were sparse lithic scatters. One was a stone circle site, and one site contained a ceramic sherd.

Of the historic resources, 61 were recorded during the 1982 survey. Twenty-five historic sites were identified along the Velva levee; 15 on the Upper Souris River; 21 along the Burlington to Minot levees; and 14 along the Sawyer levee. Also, five historic sites previously recorded by the University of North Dakota on the Upper Souris River were re-examined and are discussed in this report.

Above Lake Darling, in the Upper Souris River area, most of the newly recorded historic sites were rural farmsteads. Down river, along the levees in the Velva, Sawyer, Minot, and Burlington areas, most of the historic resources were modern houses associated with residential subdivisions.

2.0 INTRODUCTION

The purpose of this report is to summarize the first three tasks of the cultural resources investigations of the Lake Darling-Souris River Project, in McHenry, Ward, and Renville Counties, North Dakota (Figure 1). This work was performed by Powers Elevation (Powers) under Contract No. DACW37-82-C-0030 for the St. Paul District, U.S. Army Corps of Engineers (COE). The goal of the investigations is to conduct an intensive pedestrian survey of specific areas within the Upper Souris River basin, and to record all cultural resources with those areas. This report will present the results of the inventory, describing all historic and archaeological sites within the project areas, and offer recommendations for their future treatment. Later tasks on this project will include the archaeological testing of recommended sites to determine their eligibility for nomination to the National Register of Historic Places (NRHP).

2.1 PROJECT BACKGROUND

The COE is planning to construct a series of flood control facilities downstream from Lake Darling, North Dakota. The entire project area lies within the Souris River Basin (Figure 2). Formerly, this project was to be a much larger scale, and was known as the Burlington Dam Project. The current scope of the project has been reduced and, as presently planned, includes modifications to Lake Darling and five downstream flood protection measures (Corps of Engineers 1982). These measures are as follows.

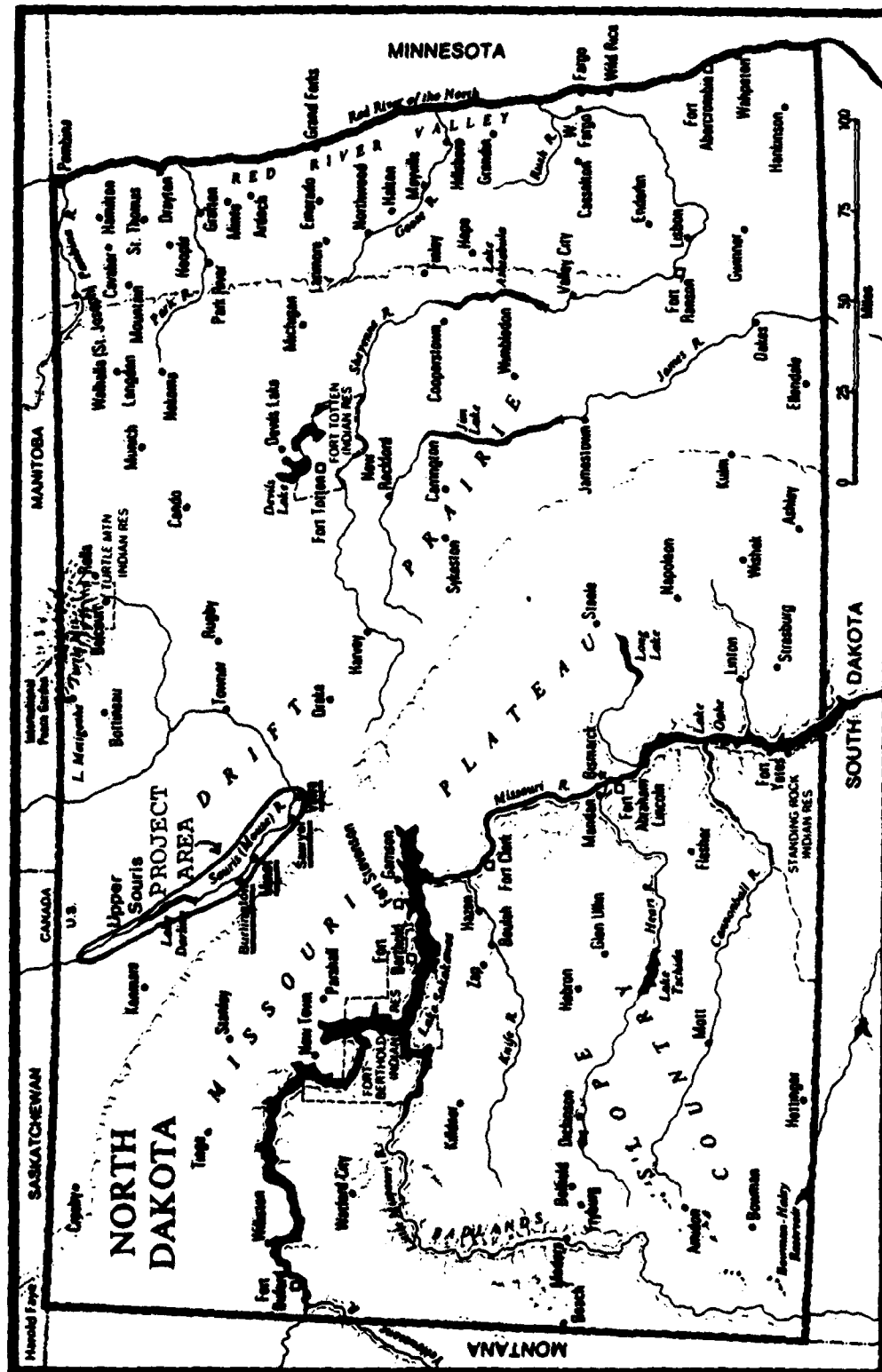
2.1.1 Modifications to Lake Darling

It is planned that the Lake Darling Dam will be raised $\pm$ 4.0 feet. This would raise the design pool elevation to 1605 feet above mean sea level (msl). No change is planned for the conservation pool level which presently is at an elevation of 1596 feet msl. The area to be surveyed extended from Dam 41 to Section 36, T.163N., R.87W. (Figure 3).

SOURIS RIVER PROJECT

3

Figure 1



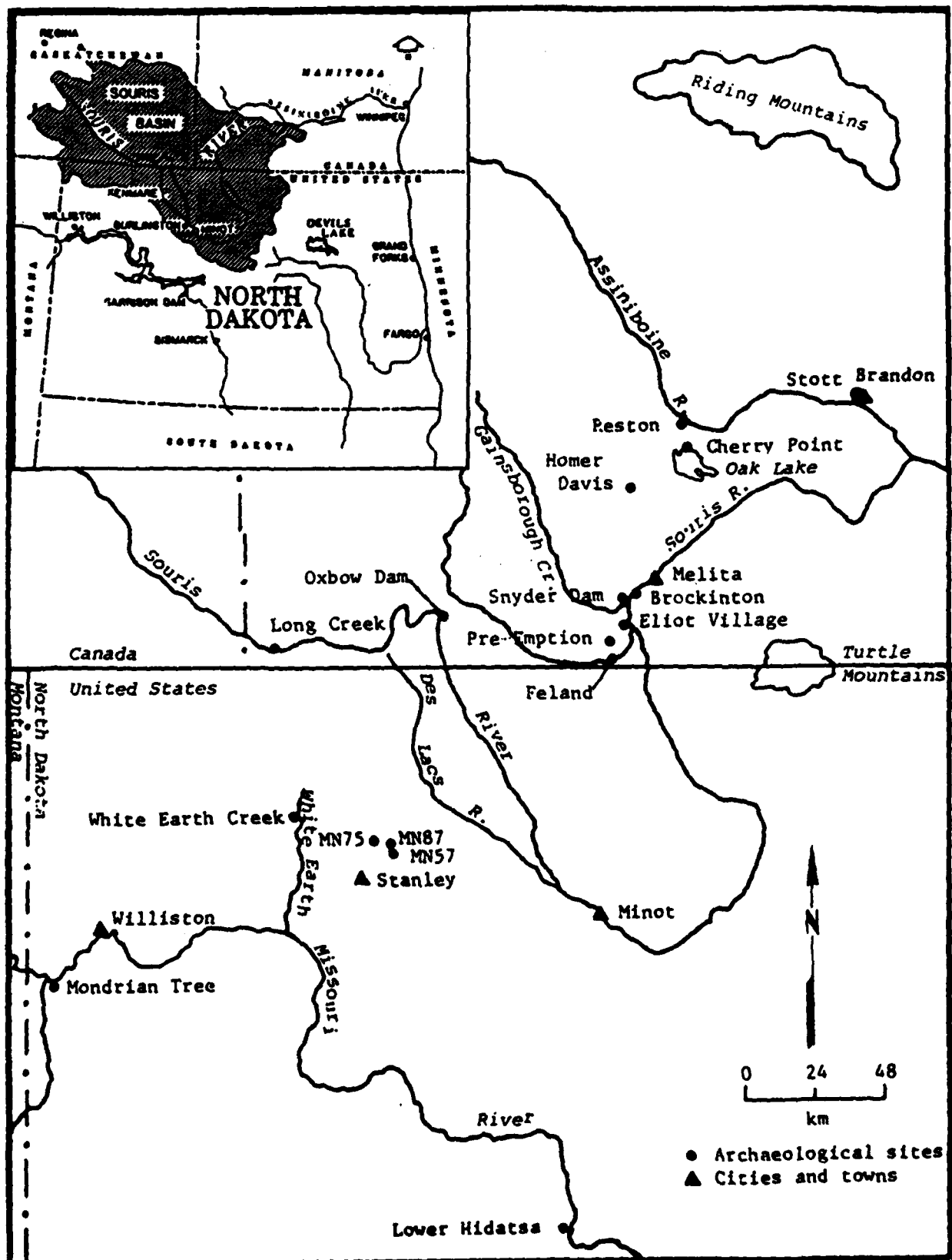
General Vicinity Map

Source: Wilkins and Wilkins (1977)

SOURIS RIVER PROJECT

Figure 2

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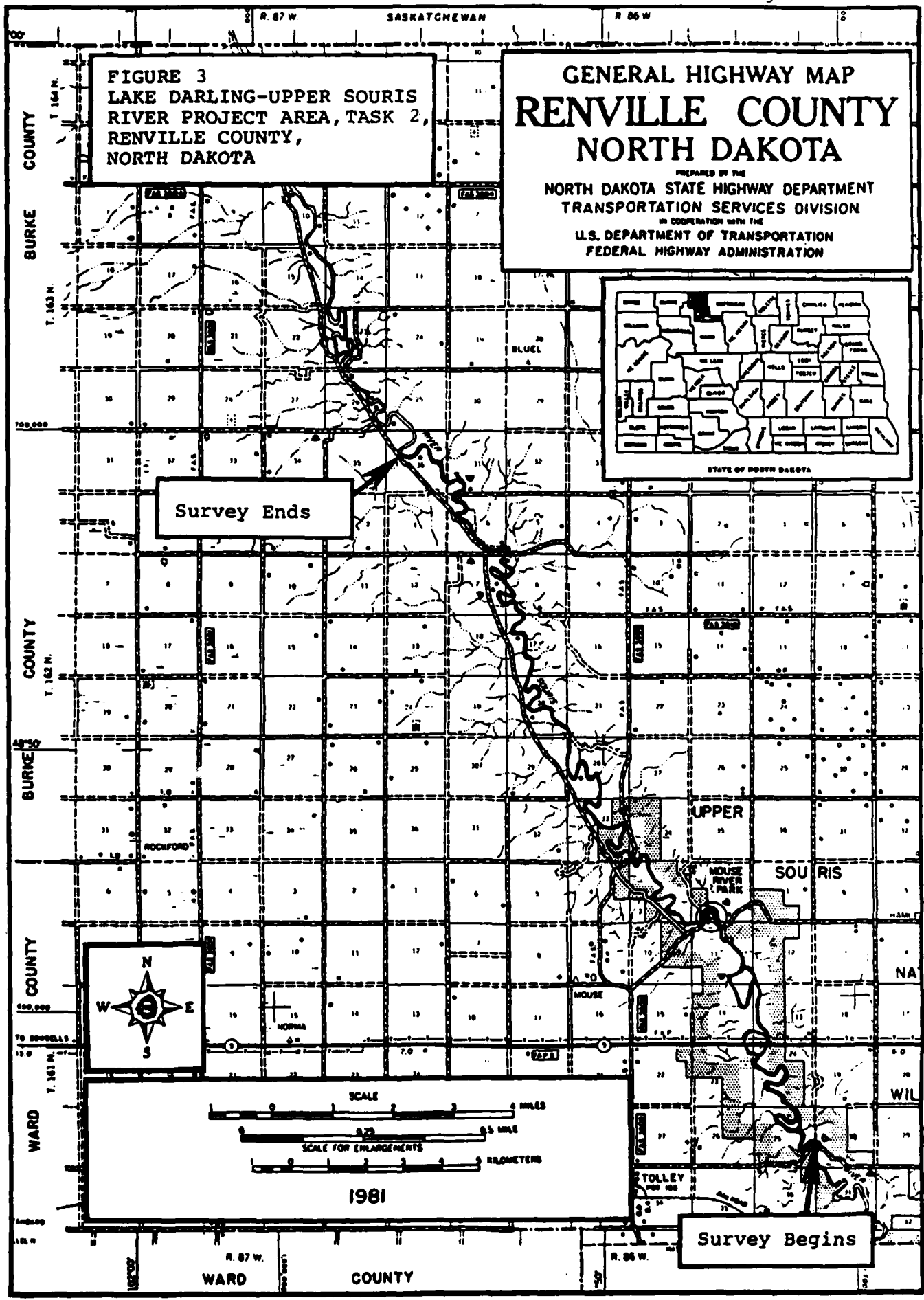
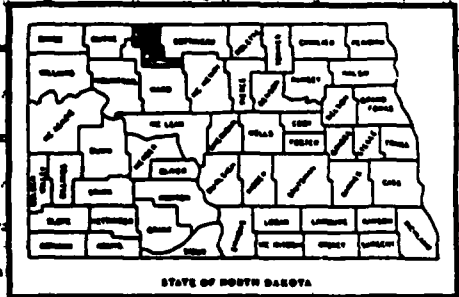
Detail of Souris River Basin

Sources: Fox (1982) and Corps of Engineers (1982)

FIGURE 3
LAKE DARLING-UPPER SOURIS
RIVER PROJECT AREA, TASK 2,
RENNVILLE COUNTY,
NORTH DAKOTA

GENERAL HIGHWAY MAP RENNVILLE COUNTY NORTH DAKOTA

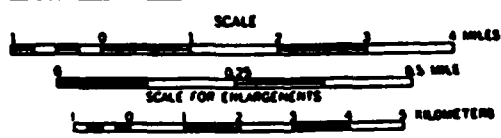
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Survey Ends

Survey Begins

1981



2.1.2 Levees at Velva, North Dakota

A 1.9 mile levee is planned at Velva, North Dakota (Figure 4). This levee will protect 339 acres of land, mostly within the town limits of Velva. A channel cut-off is also being considered, northeast of town, near the water treatment facility. A 700 foot long diversion channel will be constructed south of town to divert water into Banner Coulee.

2.1.3 Levees at Sawyer, North Dakota

A 0.8 mile long levee is planned for Sawyer, North Dakota (Figure 5). Forty-three acres of land within the town of Sawyer would be protected by this levee.

2.1.4 Levees between Burlington and Minot, North Dakota

Six levees are planned around separate subdivisions from Burlington to Minot, North Dakota (Figures 6, 7 and 8). These levees total 5.35 miles and protect about 301 acres of property. The six housing developments to be protected include the Johnson's Addition, Brook's Addition, Talbot's Nursery, Country Club Acres, King's Court, and Tierrecito Vallejo.

2.1.5 Floodproofing of Rural Residences

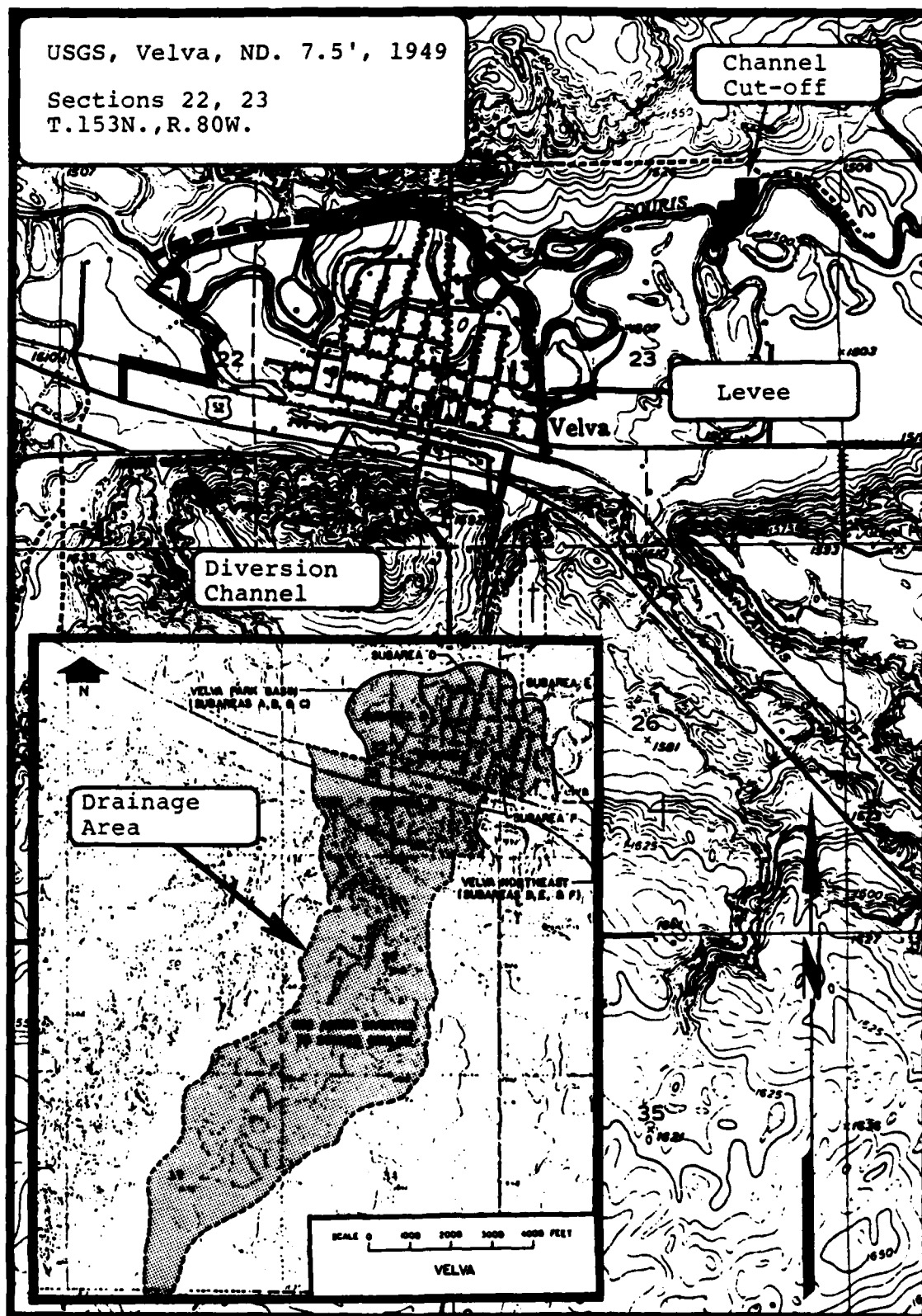
Approximately 117 farm and nonfarm rural residences will be protected from flooding. This protection includes constructing farm levees, raising of roads and structures, and flood proofing of walls and holding tank facilities for sanitary wastes.

2.1.6 Gassman Coulee Flood Warning System

A flood warning system has been planned to protect Minot from flash floods that might result from thunderstorm rainfall within the 61 square mile catchment basin.

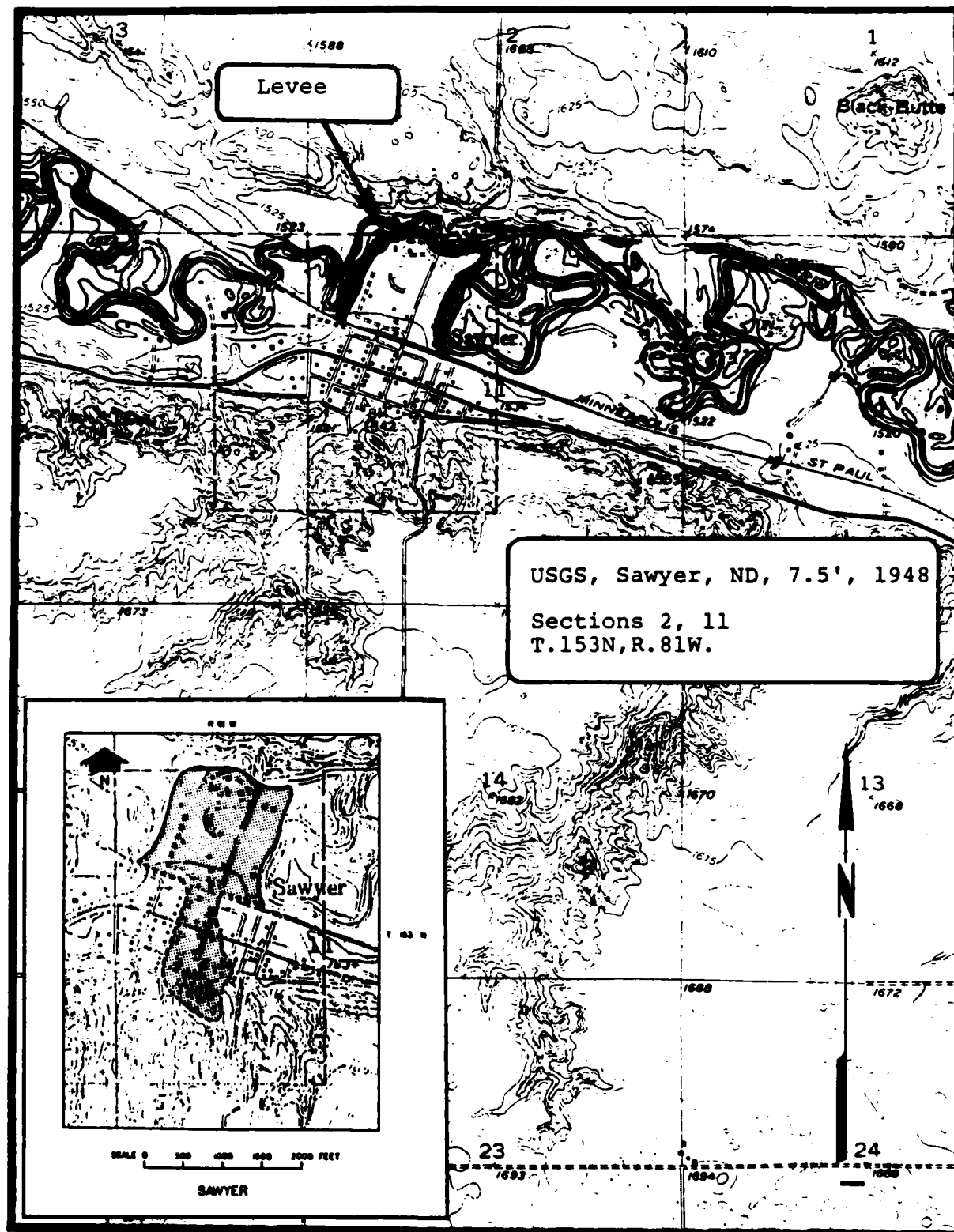
All of the proposed levee locations presently have temporary earthworks in place, which were hastily constructed

Figure 4



Velva Levee Survey Area

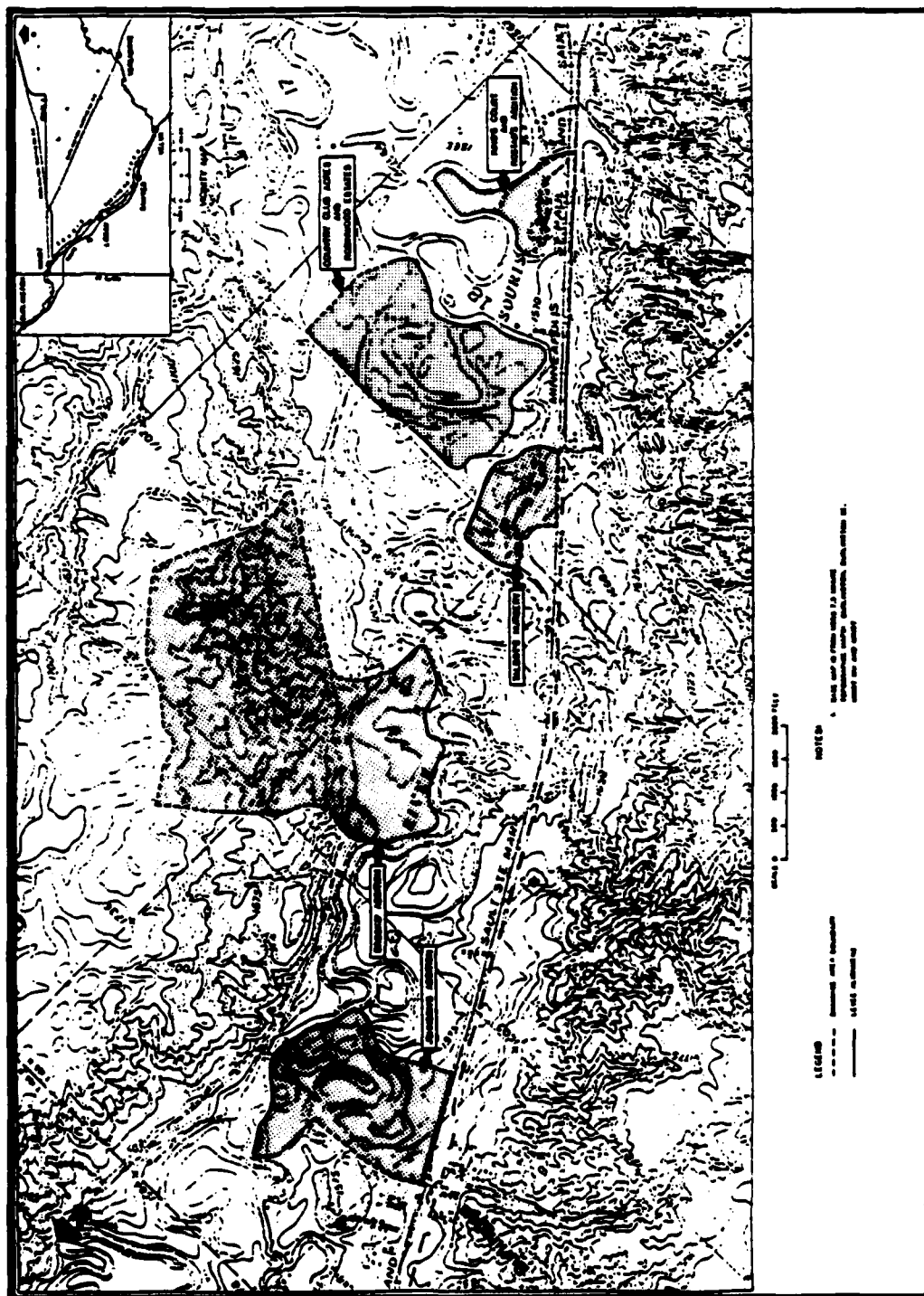
Figure 5



Sawyer Levee Survey Area

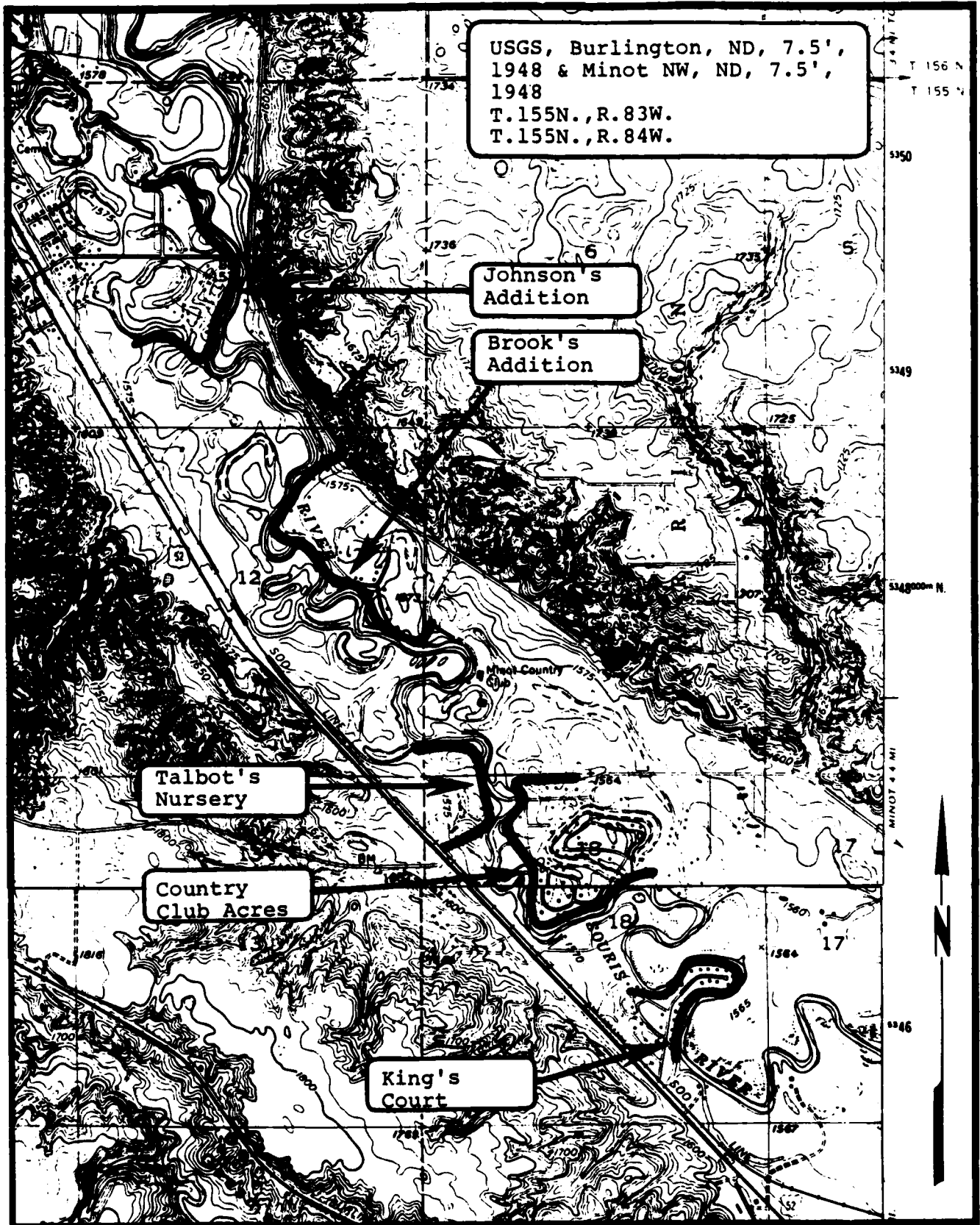
SOURIS RIVER PROJECT

Figure 6



Burlington to Minot Levees, Drainage Areas

Source: Corps of Engineers (1982)



Burlington to Minot Levees Survey Areas

to protect these towns and subdivisions from previous floods of the Souris River. In addition to the levees, interior drainage will consist of gravity outlets, ponding areas, pumping stations, and stormwater drainage. A number of structures, primarily outbuildings and garages, will have to be removed prior to the construction of the new levees.

2.2 INVESTIGATION OBJECTIVES

The present Powers work effort involves the investigation of specific project areas that are related to the specific design features listed above. The needs of the COE, in terms of cultural resources management, include: 1) the location and identification of all historic and pre-historic sites within the specific project area; 2) the evaluation of these sites according to the criteria for nomination to the National Register; 3) the assessment of project impacts or effects to those sites deemed eligible for the National Register; and 4) the development of appropriate measures to mitigate adverse impact to National Register eligible properties.

Because of schedules within the St. Paul District for the preparation of Design Memorandum and programmatic draft Environmental Impact Statements (EIS), the COE has prioritized the cultural resources investigations, by project areas and tasks. The highest priority is the Velva levee survey. Next comes the survey of the Upper Souris River Valley above Lake Darling. The next priority is the survey of the Burlington to Minot levees and the Sawyer levee. The last priority is the testing of sites within the Lake Darling project area. The first three tasks were completed during the 1982 field season by Powers Elevation. A preliminary report of the Velva levee survey was submitted to the COE on 2 September 1983 (Newberry, Friedman, Schweigert, and Tate 1982). The preliminary reports for Task 2, the Lake Darling-Upper Souris River survey, and Task 3, the Burlington to Minot levees and Sawyer levees, were both submitted on 22 December 1983 (Floodman, Friedman, and Schweigert 1982a, 1982b). The testing of sites within the Lake Darling project area was accomplished during the 1983 and 1984 field seasons and will be discussed in a later report.

Along the levees, the areas to be surveyed included a 100 foot wide corridor on either side of the toe of the levee, plus all diversion channels, ponds, or other interior design features. The survey of the Upper

Souris River Valley above Lake Darling included an area within the 1610 foot elevation contour from Dam 41 (SE¼, Section 25, T.161N., R.86W.) north to Section 36, T.163N., R.87W., on both sides of the river.

2.3 ORGANIZATION OF THE SURVEY

Powers Elevation administered the examination of the areas included in Tasks 1, 2, and 3 for both prehistoric (aboriginal) and historic (Euroamerican) cultural resources. The actual on-the-ground survey and location of archaeological sites was conducted by Powers Elevation personnel. Dr. Bruce E. Rippeteau, Ph.D., Vice-President of Powers Elevation and manager of the Archaeology Department, serves as Principal Investigator for this study. Mr. Paul D. Friedman, Project Administrator for the Archaeology Department of Powers Elevation, acts as Project Manager. Mr. Friedman participated in the survey effort and is co-author of this report. Project Archaeologist is Mr. Mervin G. Floodman, Powers Elevation District Archaeologist for Williston, North Dakota. Mr. Floodman directed the field work and co-authored this report. The Powers field crew included Gregory Newberry, Douglas Dykeman, George Ramsay, and Nick Franke.

The recordation of historic sites and inventory of historic structures was performed by Cultural Research and Management, Inc., under a subcontract to Powers Elevation. Mr. Kurt Schweigert, President of Cultural Research and Management, served as Project Historian. He directed the historical research and authored the historical section of this report.

This report was prepared in the Denver Office of Powers Elevation. The manuscript was edited by Marcia J. Tate, Production Manager for the Archaeology Department of Powers Elevation, and typed by Sara L. Roberts and staff.

As is the case with most projects of this size, there are many people who contribute to its successful completion. The entire staff of the Archaeology Department of Powers Elevation deserves commendation for their hard work, and the combination of skills and effort which has gone into this project. Kurt Schweigert of Cultural Research and Management contributed his knowledge of the history of the Upper Souris region. Dr. Ann Johnson of the Interagency Archaeological Services Branch of the National Park Service, Rocky Mountain Regional Office, conducted the ceramic analysis as a private consultant without monetary compensation, graciously loaned books from her library and provided

some insights into northern Plains prehistory. Mr. Maurice Wright, manager of the Upper Souris Wildlife Refuge, gave us access to the refuge and provided us with names of some of the land owners along the Upper Souris River. Mr. Chris Dill, Chief Archaeologist of the State Historical Society of North Dakota, corrected our site forms, provided us with some site leads, and assigned permanent Smithsonian trinomial numbers to our sites. Mr. David Berwick of the St. Paul Corps of Engineers has guided the management of this project, and this report benefits from his suggestions. Lastly, we thank the land owners along the Souris River. They allowed us to trample through their backyards, and over their fields. Mr. Curtis Ones and Mr. Richard Johnson were especially helpful and generous with their time, allowing us to study their extensive collections of Native American artifacts.

3.0 ENVIRONMENTAL SETTING

The project area lies along the Souris River in North-central North Dakota. The entire course of the Souris River in North Dakota is referred to as the Souris Loop, and is approximately 338 kilometers long. The river heads in Canada, near Weyburn, Saskatchewan, and flows southeasterly into North Dakota. This portion of the river is called the Upper Souris Loop. The river then turns back to the north and re-enters Canada above Westhope, North Dakota. This section is referred to as the Lower Souris Loop. The Souris eventually empties into the Assiniboine River near Tressbank, Manitoba (Corps of Engineers 1978)(See Figure 2).

The Souris River Valley varies in width from 600 meters at the International boundary to 1500 meters at Minot, North Dakota. The valley walls are generally steep and often terraced. The lower floodplain supports a dense stand of hardwood forest interspersed with grassy meadows. Many of these meadows are currently under cultivation. The terraces and mudslope areas maintain mixed prairie grasses and shrubs. The side coulees and draws are heavily wooded. Much of the Upper Souris Valley floor is covered by artificial Lake Darling, which was built in the 1930s. A series of smaller dams along the upper portion of the river maintains marshes, ponds, and wetlands and is used as the Upper Souris River Wildlife Refuge, under the administration of the U.S. Fish and Wildlife Service (Lemke 1960; Good and Fox 1978).

The following section will discuss the environmental setting for the project area, including physiography, geology, climate, flora, fauna, eco-zones, and description of the specific project areas.

3.1 PHYSIOGRAPHY

The Souris River Basin is defined to include an area of approximately 24,800 square miles (64,232 square kilometers). Of this, 15,480 square miles (40,093 square kilometers) are located in Canada, and 9,320 square miles (24,139 square kilometers) are in the United States. In North Dakota the Souris River runs through Renville, Ward, McHenry, and Bottineau Counties. It is considered to lie within the Drift Prairie section of the Central Lowland physiographic province (Corps

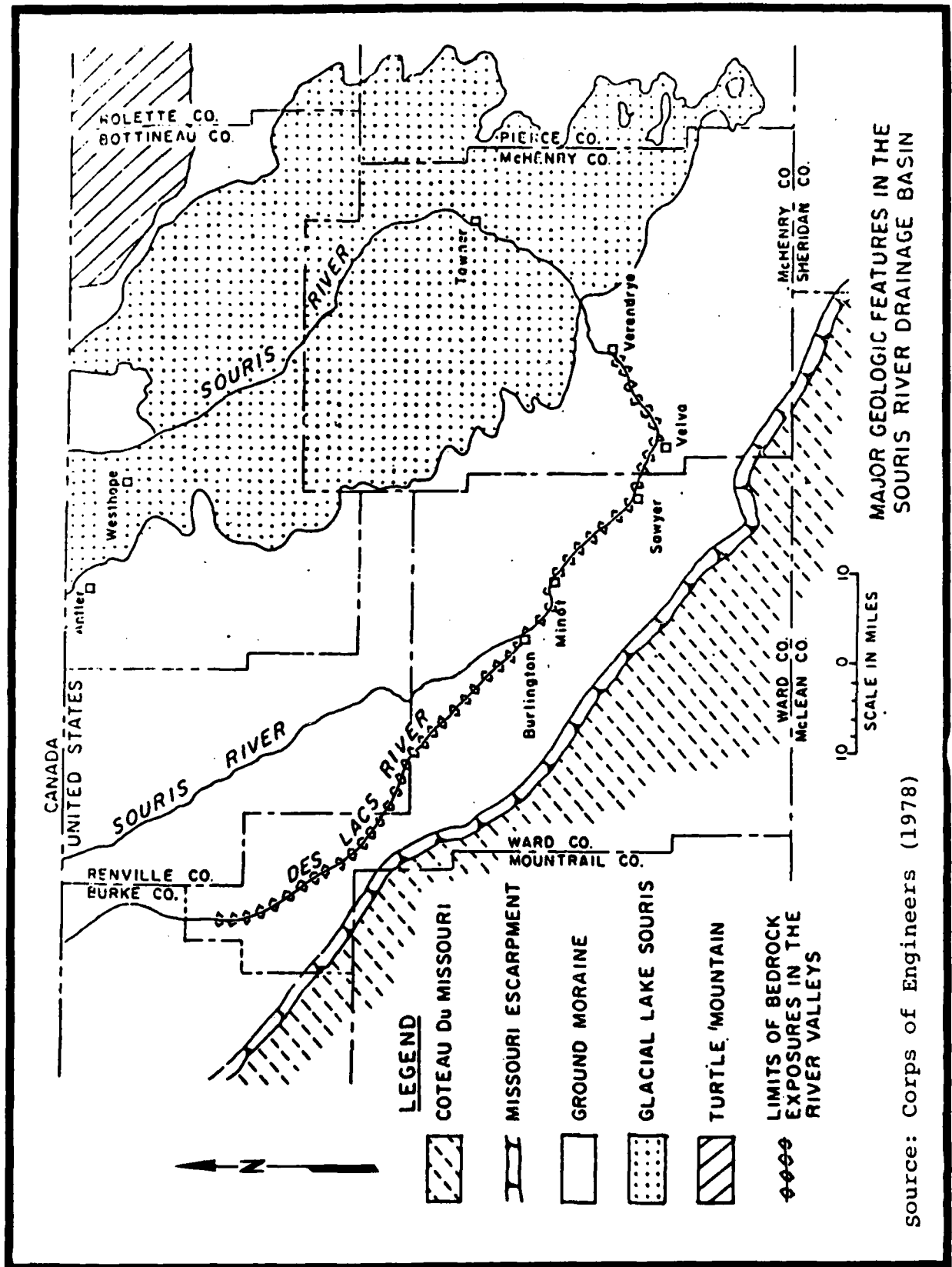
of Engineers 1978). According to Bluemle (1977), the Central Lowlands is a term which refers to vegetation, not geology, and means that the area was once covered by tall grass prairie, prior to settlement. Bluemle places the Souris River Basin within what he calls the Glaciated Plains. This is a rolling region of glacial deposits, extending northward from the Pembina Escarpment to the Missouri Escarpment. Elevations in the Glacial Plains average about 1500 feet (450 meters) above sea level (Bluemle 1977). Four major topographic features subdivide the Souris River Basin: 1) the Missouri Escarpment, 2) the ground-moraine plain, 3) the bed of glacial Lake Souris, and 4) the southwest portion of the Turtle Mountains (see Figure 9) (Corps of Engineers 1978).

The western-most part of the Central Lowlands is a 30 to 50 mile wide strip (50 to 80 kilometers) known as the Missouri Coteau. The Missouri Coteau is a hummocky area where glacial stagnation occurred, and separates the Central Lowlands on the east, from the Great Plains on the west (Bluemle 1977). The Coteau stands approximately 400 feet (122 meters) above the ground-moraine plain on the northeast. Separating the two areas is the Missouri Escarpment, which is a gentle slope from the higher elevations of the Coteau to the lower ground-moraine plain (Corps of Engineers 1978).

The ground-moraine plain (or Glaciated Plains) extends from the Missouri Coteau to the ancient bed of glacial Lake Souris. The plain is undulating with numerous low, rounded and undrained depressions, mounds, and elongated ridges. Local relief is generally less than 30 feet (9.1 meters) and in places less than 10 feet (3 meters) (Corps of Engineers 1978). The entire length of the Des Lacs River Valley and portions of the Souris River Valley, upstream from Verendrye, North Dakota, lie in the area of the ground-moraine plain. These river valleys are more deeply entrenched than the rest of the plain.

The bed of glacial Lake Souris is found in the east central portion of the Souris River Basin, downstream from Verendrye. This feature, which varies significantly from the ground moraine plain, is some 80 miles (129 kilometers) long and up to 50 miles wide (81 kilometers) and was formed when glacial meltwaters were dammed by a receding ice mass. The surface of glacial Lake Souris is essentially flat, except for occasional sand dunes and numerous depressions (Corps of Engineers 1978).

Figure 9



Part of the Turtle Mountains occupies the extreme northeast corner of the basin. These mountains are an erosional outlier of the Missouri Coteau, and rise about 400 feet (122 meters) above the plain.

The areas of the current project are located along the Upper Souris Loop, in a region dominated by ground-moraine plain. The Upper Souris River Valley lies in stark contrast to the surrounding plain. This valley was cut when the river was swollen by large amounts of glacial meltwater and was subsequently aggraded to its present level after the last glaciers receded from the area. Thus, the Upper Souris has the appearance of being a small stream in an oversized valley. The Souris River lies about 100 to 200 feet (30.5 to 61 meters) below the ground-moraine plain with steep sided valley walls. The valley floor averages three-quarters of a mile in width and forms a relatively flat surface cut by the sinuous river channel, meander scars, and small alluvial fans (Lemke 1960; Corps of Engineers 1978).

3.2 GEOLOGY

The western two-thirds of North Dakota, along with parts of southwestern Manitoba, southeastern Saskatchewan, eastern Montana, and northwestern South Dakota is included within a feature known as the Williston Basin, which is both a structural and sedimentary basin. The basin was shaped in Cretaceous times, and the accumulation of sedimentary rocks in the basin cover the crystalline Precambrian rocks by at least 16,000 feet (4,800 meters) near the basin's center. The regional slope of the sedimentary rocks at the center of the Williston Basin averages about 60 feet in a mile (10 meters in a kilometer), or less than one degree. It is interrupted by small geologic structures in many places. Folds in the sedimentary rocks have resulted in fault lines and anticlines, such as the Nesson Anticline in northwestern North Dakota. In places salt in rocks of Paleozoic and Mesozoic age have dissolved, resulting in the collapse of overlying sediments. Some geologists have hypothesized that the Souris River Loop was created by the collapse of such salt beds (Bluemler 1977).

Two kinds of sedimentary deposits are found in North Dakota; bedrock and glacial sediment (Bluemler 1977). Bedrock units exposed or forming the buried pre-glacial topography of the Souris River Basin consist, in descending

order, of the Sentinel Butte, Tongue River, and Cannonball Formations of the Fort Union Group of the Tertiary System, and the Hell Creek and Fox Hills Formations of the Cretaceous Systems. Older Mesozoic and Paleozoic beds underlie these formations (Corps of Engineers 1978).

The dominant features within the Souris River Valley and the surrounding plains are primarily the result of Pleistocene glacial advances. Glaciers moved through the Souris region several times during the Pleistocene, but the most significant advance was the Mankato Substage of the Wisconsin glaciation. It was this glacial advance which accounts for most of the current topography in the area, obscuring pre-glacial features (Lemke 1960; Corps of Engineers 1978).

The existing Souris River Valley was entrenched into the ground-moraine by glacial meltwater as the Mankato ice sheet retreated northward. Originally the meltwaters discharged southeastward into glacial Lake Souris. As the ice within the Lower Souris Loop melted, the flow was left unimpeded northward, and the meltwaters gradually drained into Canada (Lemke 1960; Good and Fox 1978).

The terrace remnants present in the Upper Souris Valley were formed by glacial meltwaters also. These kame terraces are composed of sand and gravel deposits ranging up to 15 meters in thickness. Also occurring in the terraces are carbonate, granitic and gneissic rocks (Lemke 1960).

The unconsolidated surface deposits in the river valley consist either of Pleistocene glacial deposits or recent alluvium. The recent alluvium comprises only a small portion of the total surface deposits, and is found almost entirely within the river bottoms. Recent river alluvium consists of clays, sands, silts, and minor amounts of coarse sand and gravel. In the river valley these deposits usually exceed 30 feet (9 meters) in depth (Lemke 1960; Corps of Engineers 1978).

Within the Souris River Basin the glacial materials consist primarily of ground-moraine and sediments from glacial Lake Souris. Ground-moraine is a moderate amount of till that was deposited at the base of a moving glacier and by collapse from within the glacier as it melted, which formed a gently rolling landscape (Bluele 1977). The ground-moraine consists of impervious stony clay till with thin lenses of sand and gravel. This material varies in thickness between 50 to 300

feet (15 to 91 meters) on the Glaciated Plains. Within the river valley the thickness of the ground-moraine is usually less than 50 feet (15 meters) due to meltwater erosion. The deposits of glacial Lake Souris range in thickness to about 70 feet (21 meters) and are predominantly silt with moderate to poorly graded sand, with sand and gravel beaches near the ancient shore line (Corps of Engineers 1978).

Soils in the Souris River basin are developed on parent materials of glacial sediments, recent alluvium, and to a small extent, on outcrops of the Tongue River formation. Upstream from Minot, North Dakota the dominant soils are the Barnes-Seva, Barnes and Williams-Bowbells associations which are brown to black in color, and consist of loamy, moderate to well drained soils developed on glacial till. There are also the Zahl-Max-Williams-Velva association which are well-drained loamy soils formed on till and valley alluvium (Corps of Engineers 1978).

3.3 CLIMATE

The Souris River basin exhibits a northern continental climate characterized by extreme temperature variation; long cold winters and short warm growing seasons, with erratic precipitation. Temperatures have varied from a low of -54°F. to a high of 114°F. The mean annual temperature is 39°F. The annual precipitation averages 15.5 inches, of which 75 percent falls between late April and August, during the growing season. Average annual snowfall is 33 inches, or approximately 21 percent of the yearly average precipitation. During winter the prevailing winds are northwesterly, while in the summer southerly winds prevail (Corps of Engineers 1978).

Limited seasonal rainfall has favored the accumulation of organic materials in the soils, as have cool temperatures. Rainfall is not sufficient to leach the soil of nutrients or to cause substantial soil erosion. On the Glaciated Plains conditions have been favorable to the growth of prairie vegetation. Near the river, where the effect of rainfall variation is less critical, the climate is favorable for maintaining tall grasses and hardwood forest (U.S. Department of Agriculture 1977; Good and Fox 1978).

3.4 FLORA AND FAUNA

The floral communities of the Upper Souris River Valley have been discussed and described extensively in Kuchler (1964), Lautenschlager (1964), Burgess et al. (1973), and the Corps of Engineers (1978). These studies have been aptly summarized in Good and Fox (1978) and will be only briefly dealt with below.

The dominant vegetation unit in the study area closely corresponds to Kuchler's (1964) Northern Floodplain Forest, characterized by Populus-Salix-Ulmus. Elements of the Oak Savanna (Quercus-Andropogon) vegetation unit are also present within the floodplain forest. Bur oak (Q. macrocarpa) occurs in the wooded side coulees. Other elements of Oak Savannah (big and little bluestem; Andropogon gerardi; and A. scoparius) are also frequently interspersed in forested areas. Floodplain forests usually are spread out in a thin belt, up to about one half mile wide in places, connecting intermittent 1 to 25 acre wooded patches which lie within oxbow meanders along the river.

Low bottom species of the valley floor include American elm (Ulmus americanus), green ash (Fraxinus pennsylvanica), box elder (Acer negundo), and Populus spp. Also present are black willow (Salix lutea) and western wildrose (Rosa woodsii). High bottom species cluster along the coulees adjacent to the river, and are dominated by Agropyron spp., Andropogon spp., and Bouteloua spp. Low bottom areas in or near oxbows are interspersed through the floodplain forest, are not usually conducive to agriculture and contain reeds (Calamagrostis inexplansa; Calmovilfa longifolia), blue gramma (Bouteloua gracilis), prairie cordgrass (Spartina pectinata) and sedges (Carex spp.). Other bottom areas may be converted to wild hay and used as pasture land.

The surrounding upland prairie maintains a wheatgrass-bluestem-needlegrass community (Agropyron-Andropogon-Stipa). Other common species of the prairie include Echinacea, Psoralea, and Solidago.

The floral assemblage helps provide a suitable habitat for a variety of faunal species. Smaller mammals include ground squirrel (Citellus richarsoni) and jack rabbit (Lepus townsendii). Varieties of rodents (Peromyscus, Microtis) are also present. Semi-aquatic species such as mink (Mustela vison), beaver (Castor canadensis) and muskrat (Ondatra zibethicus) are common.

Predators include red fox (Vulpes vulpes), longtailed weasel (Mustela frevata) and coyote (Canis latrans). Other larger mammals, white-tailed deer (Odocoileus virginianus) and pronghorn antelope (Antilocapra americana) inhabit the area. Formerly, mule deer (Odocoileus hemionus), elk (Cervus canadensis) and grizzly bear (Ursus horribiles) were common. Bison (bison bison) is another species once common to the area. Other large game which may have once been present include bighorn sheep (Ovis canadensis), moose (Aces americanus), and caribou (Rangifer caribou) (Bailey 1926; Good and Fox 1978).

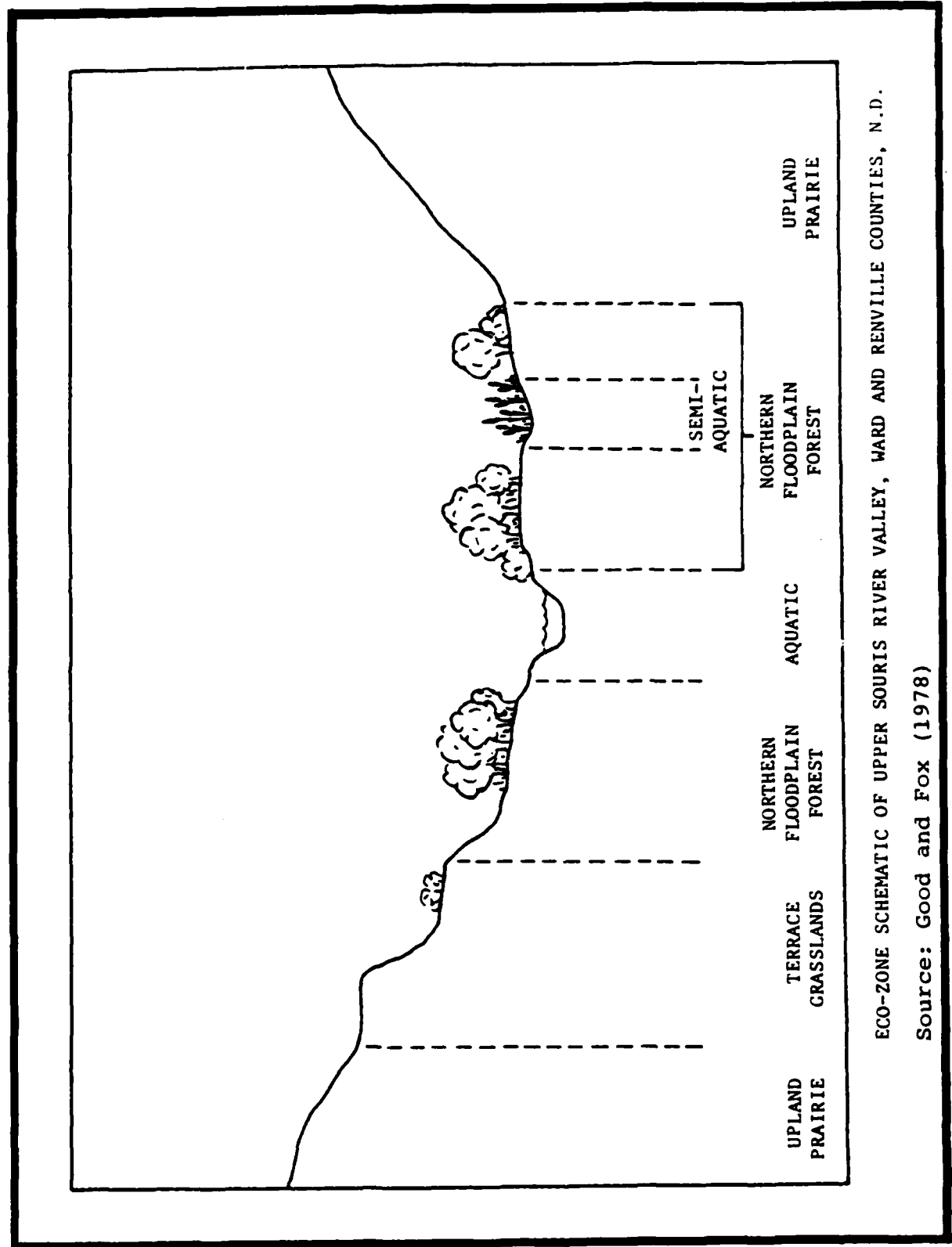
Waterfowl is plentiful within the Upper Souris Wildlife Refuge, and includes American coot, Canada goose, snow goose, mallard, gadwell, American wigeon, green-winged teal, blue-winged teal, northern shoveler, pintail, wood duck, redhead, canvasback, lesser scaup, and ruddy duck, to name a few. Other avian species noted in significant number at the refuge include western grebe, eared grebe, pied-billed grebe, ring-billed gull, Franklin's gull, double-crested cormorant, white pelican, great blue heron, American avocet, willet, killdeer, marsh hawk, and great horned owl. Upland game birds include gray partridge, sharpe-tailed grouse, and ring-necked pheasant, (Corps of Engineers 1978).

Fish species found in Lake Darling, and the Souris and Dec Lacs Rivers are similar to those found in the Midwest, with one notable exception. Carp are not present. However, 24 other fish species have been identified for the Upper Souris, and include northern pike, fathead minnow, white sucker, black and brown bullhead, yellow perch, and walleye (Corps of Engineers 1978).

3.5 ECO-ZONES

A set of six eco-zones was identified and defined by Good and Fox (1978) for the Upper Souris River Valley, as integrated systems which relate to human adaptations to the area. Each zone, determined by its physical location within the river valley, has its own unique combination of flora and fauna. It was the hypothesis of Good and Fox (1978) that these ecological zones could be associated with specific kinds of archaeological remains. These eco-zones are useful in categorizing the environment of the project area (see Figure 10), and are discussed below.

Figure 10



3.5.1 Northern Floodplain Forest

This zone is primarily situated on the floodplain along the river's edge, but also extends into the side coulees. The forested areas are interspersed with open grassland meadows. Many of these meadows are currently under cultivation. Within the natural setting, the dominant flora for this eco-zone include Populus, Salex, Ulmus, with Acer negundo and Fraxinus pennsylvanica. Major grasses in the meadows include Carex spp., and Bouteloua gracilis. Formerly bison, deer, elk, antelope, moose, and a wide variety of other fauna utilized this eco-zone. Because of its location by the river, this zone comprised nearly all of the current survey areas, up to the 1610 foot contour interval.

3.5.2 Aspen Parkland

This eco-zone does not occur in the current project area and is not discussed here. Good and Fox (1978) noted that it occurs along the Souris River in Canada.

3.5.3 Terrace Grasslands

Distinct terraces, known as kame terraces, were formed by glacial meltwater. They are usually flat. Vegetation includes typical mixed prairie grasses and shrubbery. The terraces are bisected by wooded side coulees. This area provides winter browse for deer and antelope and also supports smaller mammals such as rabbit and fox. The terrace grasslands are located between the floodplain forest eco-zone and the upland prairie. For this reason, only occasional terraces were encountered during the Powers Elevation survey. Most of these terraces lie above 1610 feet in elevation.

3.5.4 Semi-Aquatic

Formerly, the semi-aquatic eco-zone consisted primarily of the oxbow lakes created by the extensive meander system of the Souris River. Mink, beaver, muskrat, and various avian species flourished there. Today most of the dammed wetlands of the Upper Souris Wildlife Refuge qualify as a semi-aquatic environment, with seasonal pond type terrain. Various marsh grasses, reeds, and cattails grow in this eco-zone. Because the modern semi-aquatic eco-zone in the project area is mostly man-made, it is difficult to assign specific areas to this zone, in terms of its prehistoric utilization.

3.5.5 Aquatic

This eco-zone provided a reliable water source even in times of drought. Within our project area this zone consists basically of the Souris River itself. It must have been an extremely important area in terms of human adaptation to the valley. This zone could provide both fish and waterfowl as sources of subsistence. Its proximity to the Northern Floodplain Forest means that a wide variety of faunal and floral resources could have been utilized by prehistoric peoples.

3.5.6 Upland Prairie

The prairie eco-zone in the valley is an extension of the surrounding upland plains. This zone grades slowly to the terraces, and even as far as the floodplain. Vegetation is dominated by prairie grasses (Agropyron-Andropogon-Stipa). Formerly, this area provided grazing land for a variety of large mammals, especially in the summer. This eco-zone lies mostly above the current survey limits of 1610 feet, and was rarely encountered.

3.6 DESCRIPTIONS OF THE PROJECT AREAS SURVEYED

All of the project areas surveyed are located along the Souris River. As such, the basic topographic unit for all of the design feature areas consists of the deeply entrenched Souris River Valley, cut by glacial meltwater into the ground-moraine, as described above in Section 3.1. All of the survey areas are located within the limits of the bottomland-floodplain of the Souris River Valley. As defined above, these areas are predominately covered by Northern Floodplain Forest and also include areas described as Semi-Aquatic eco-zones.

3.6.1 Task 1: Velva Levee

The Velva levee area is within the modern floodplain and portions of the first terrace of the Souris River Valley. Most areas still in their natural state are dominated by stands of hardwood forest with an associated understory of shrubs and grasses. This type of vegetation is particularly heavy along the banks of the Souris River and its old meanders. A temporary earthen levee is currently in place between the river and the houses on the north side of town.

The southwestern portion of the project area (see Figure 4) is agricultural land. The survey transects crossed fields of hay and oats. On the northwestern side of the project area the survey was conducted through a dense forest along the river and its former channels, which concluded at the football field and ball park. At this point, on the south side of the river, there is a row of houses that form part of the town of Velva. The survey route follows the temporary levee, behind the houses, around the town. At the far eastern portion of the survey area the transects crossed a wheat field. The southern most portion of the proposed new levee is a vacant lot adjacent to a trailer park.

The cut-off channel survey area is located northeast of town, near two sewage pond; on land that is currently used for grazing. The diversion channel for Banner Coulee is located southwest of town, behind an industrial complex, and is covered by tall grasses (Figure 11).

3.6.2 Task 2: Lake Darling-Upper Souris River

Within the project area above Lake Darling the Souris River follows a meandering course, approximately 28 river miles long. A 1975 COE habitat analysis of the area showed that approximately 3,585 acres are contained within the 1610 foot elevation contours, broken into: 1) 1,180 acres of cultivated land; 3) 1,590 acres of woodland, prairie, and pasture; and 3) 815 acres of wetlands. From Dam 41 to Section 33, T.162N., R.86W., the land is managed by the U.S. Fish and Wildlife Service as the Upper Souris River Wildlife Refuge. Above the refuge all the land is privately owned (Figures 12-16).

Within the wildlife refuge the U.S. Fish and Wildlife Service has built a series of dams and channels to maintain wetlands. Along the river and in the side coulees are stands of hardwood forests. Tall grasses cover the terraces above the river. North of the refuge, much of the land is under cultivation. By the river banks there is still a stand of hardwood forest. There is also some open parkland and prairie which is used for grazing cattle (Figures 17 and 18).

3.6.3 Task 3: Burlington to Minot Levees and the Sawyer Levee

A total of six levees are planned around six separate subdivisions between Burlington and Minot. Like Velva,

SOURIS RIVER PROJECT

Figure 11



Barley Field Where Site 32MH3 is Located

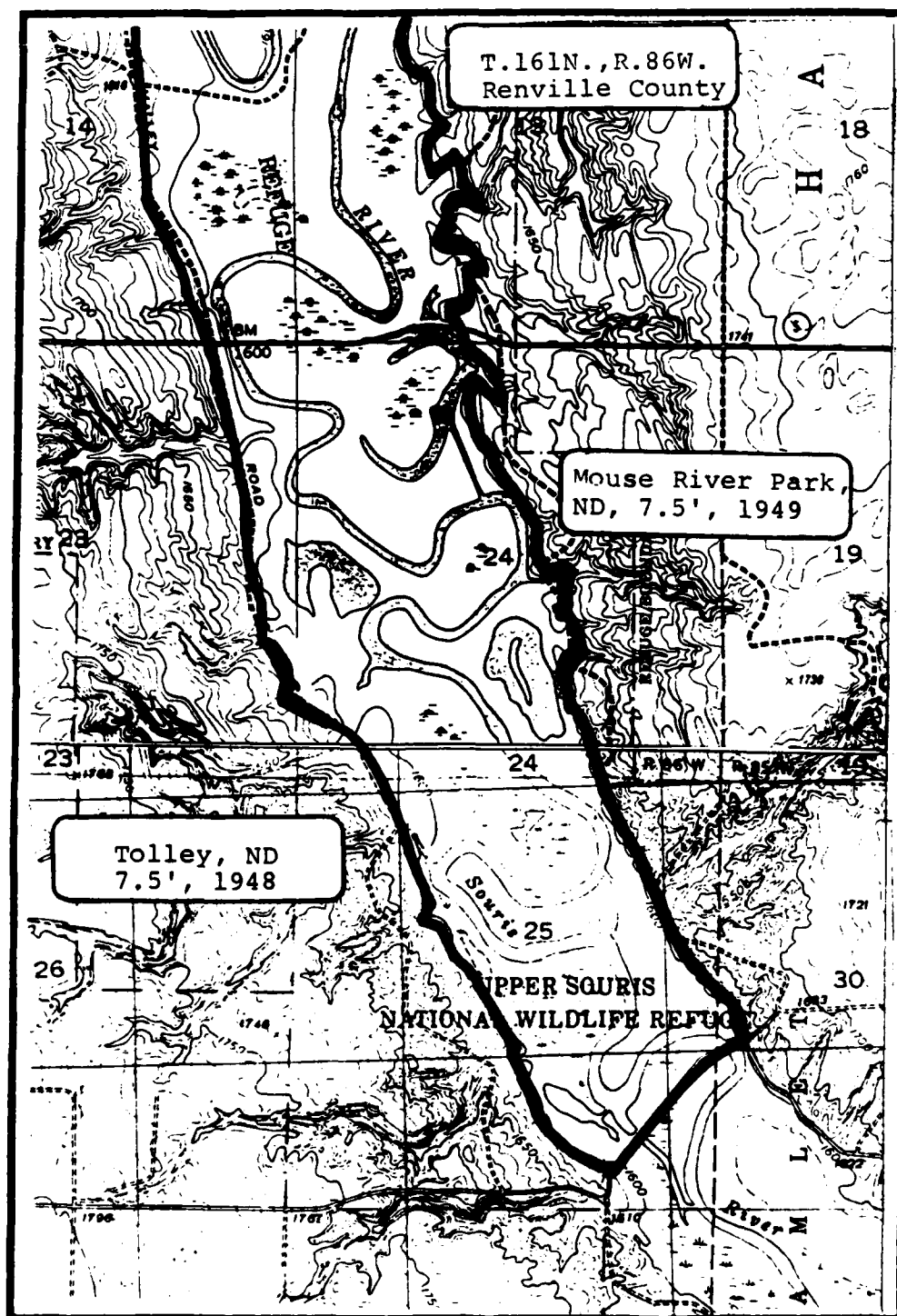


Northern Floodplain Forest Near the River

Views of the Velva Levee Area

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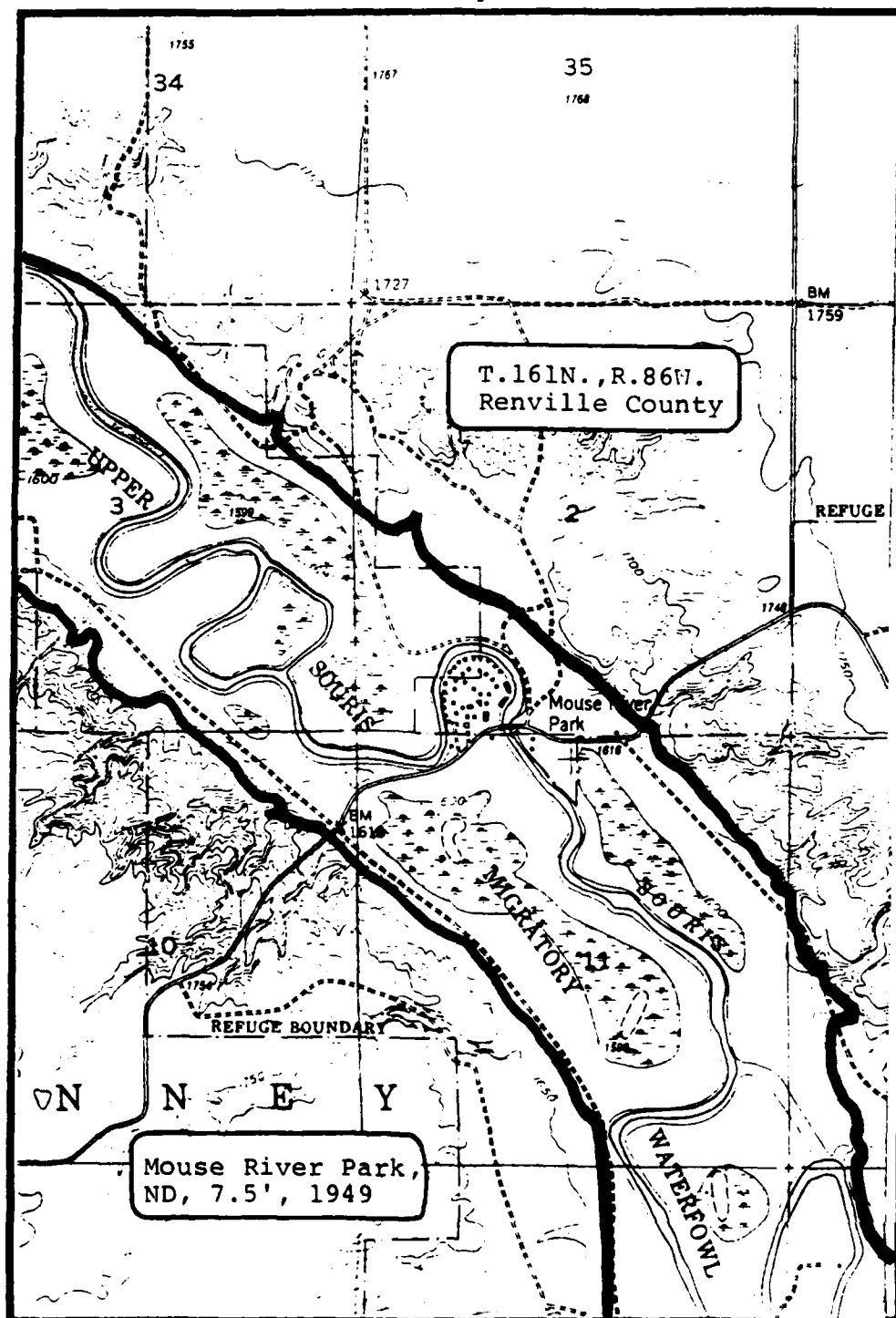
Figure 12



The Upper Souris Survey Area
Map A

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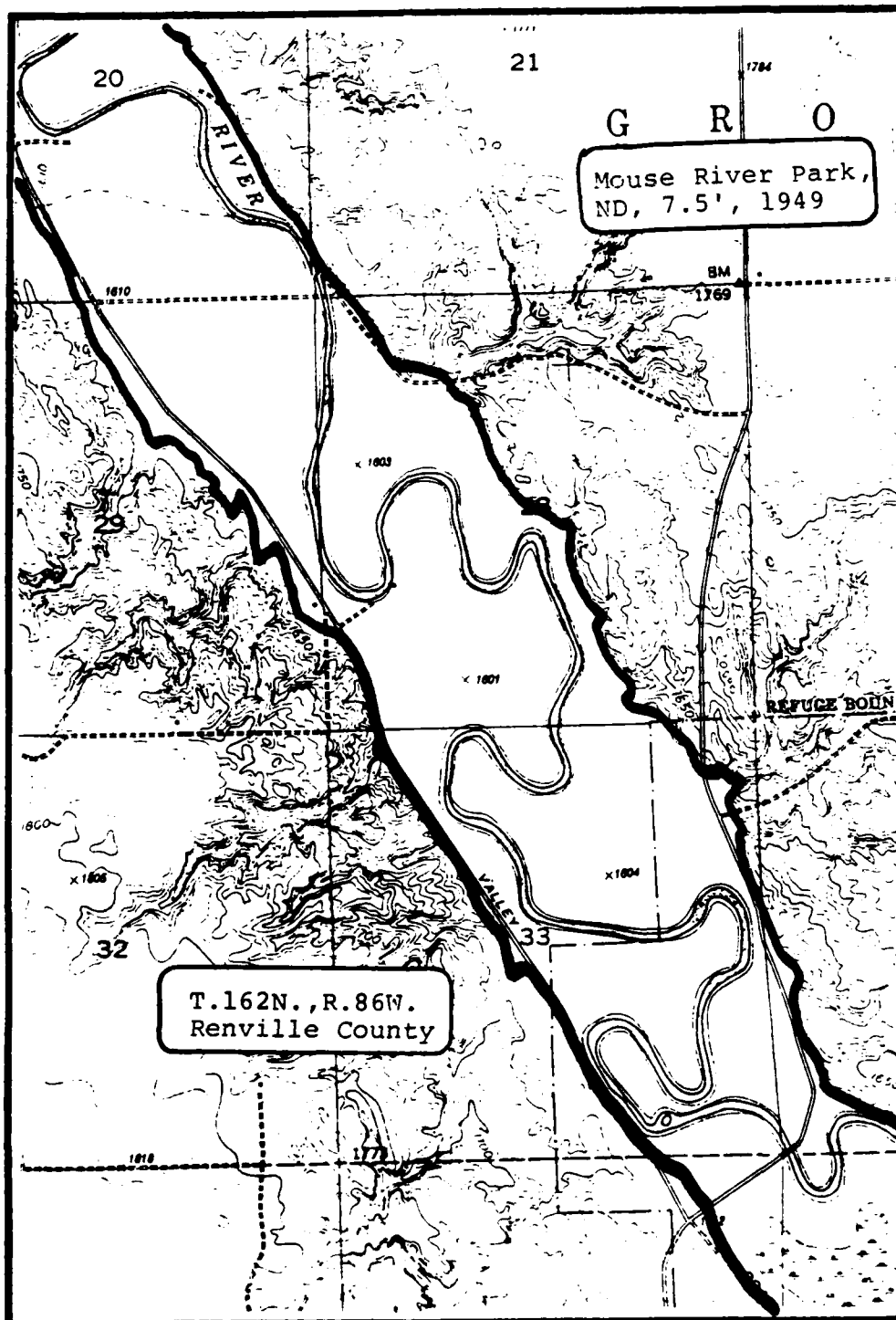
Figure 13



The Upper Souris Survey Area
Map B

SOURIS RIVER PROJECT

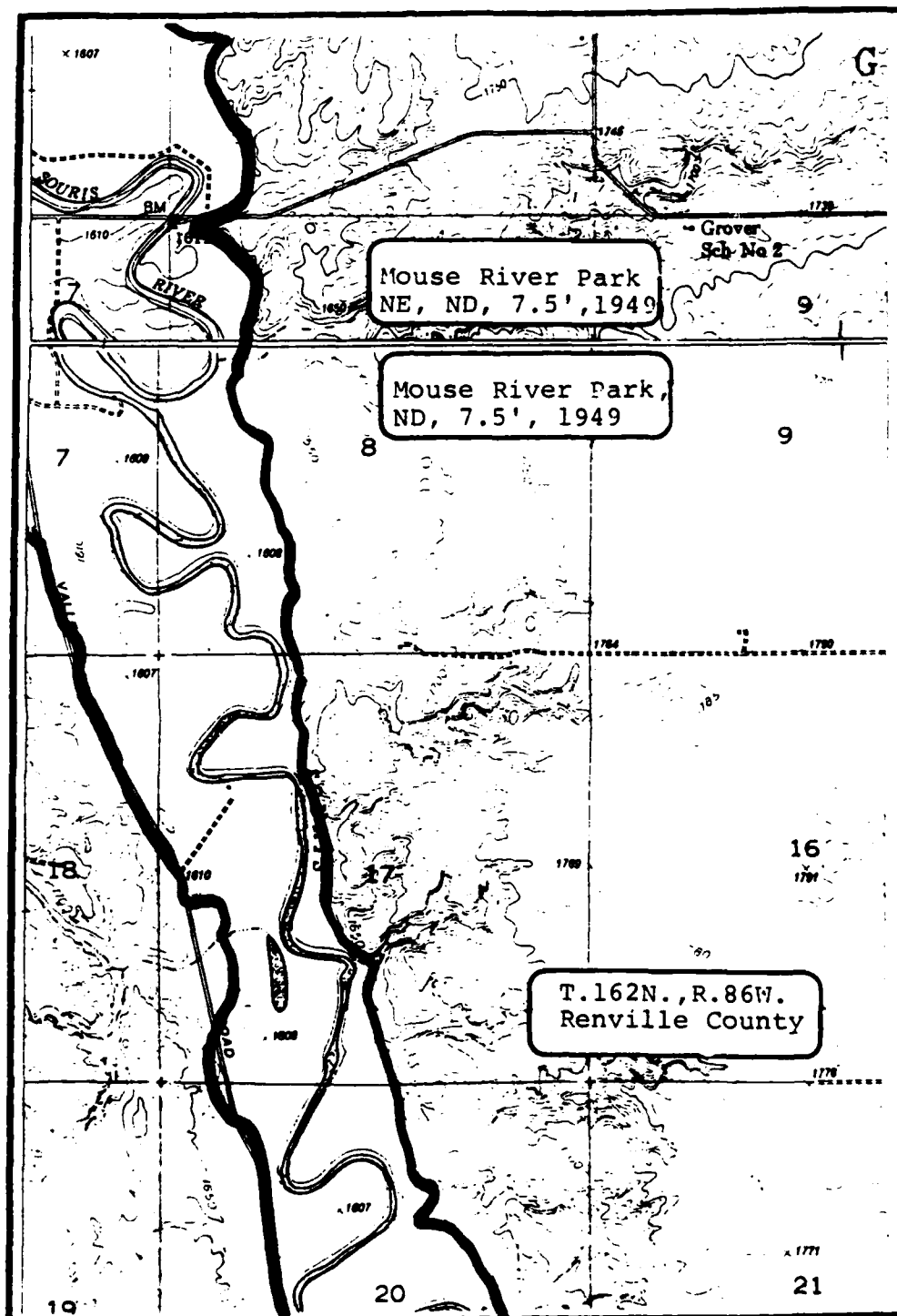
Figure 14



The Upper Souris Survey Area
Map C

SOURIS RIVER PROJECT

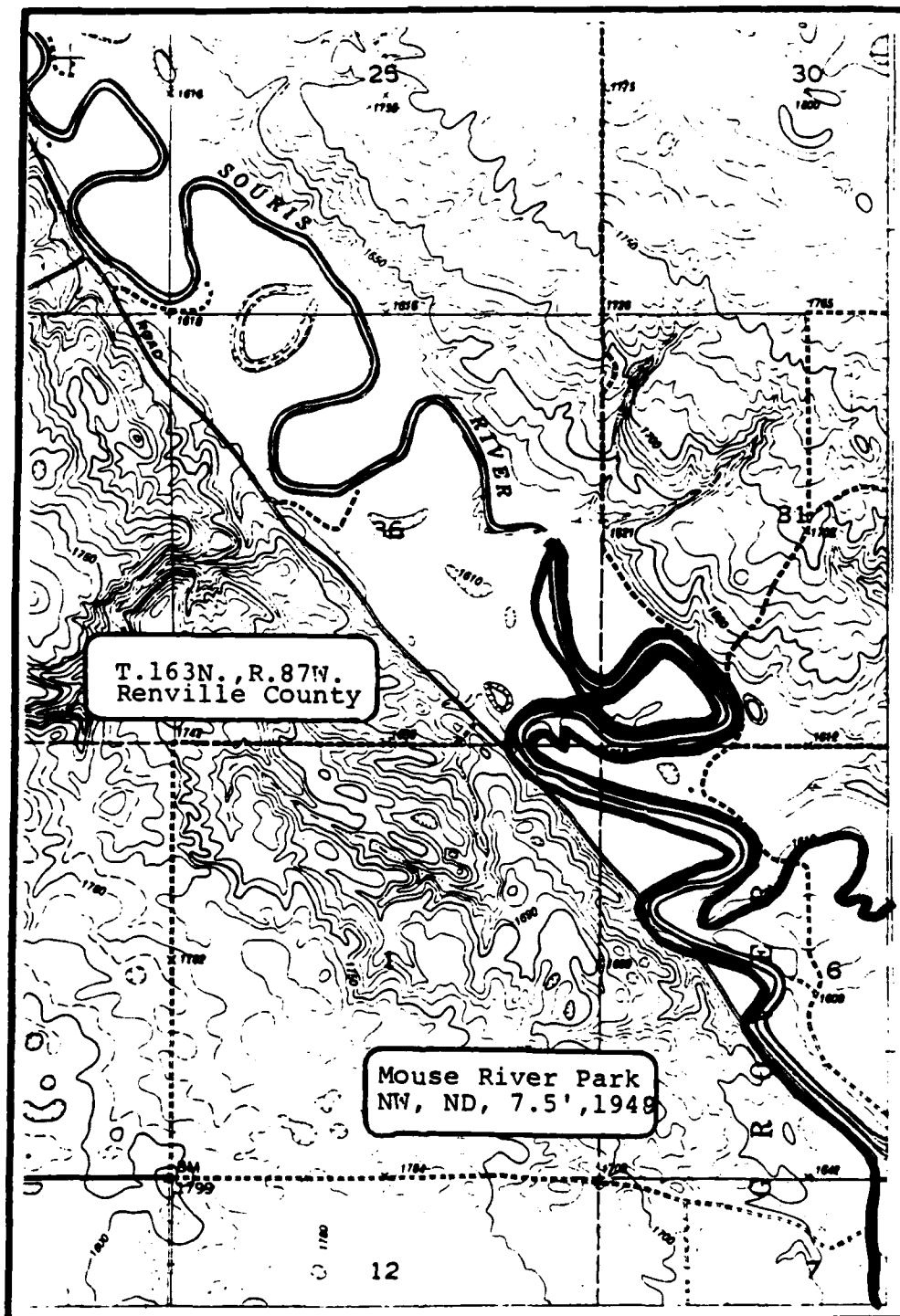
Figure 15



The Upper Souris Survey Area
Map D

SOURIS RIVER PROJECT

Figure 16



The Upper Souris River Survey Area
Map E

SOURIS RIVER PROJECT

Figure 17



The Souris River



Survey in Tall Grass

Views of the Wildlife Refuge

SOURIS RIVER PROJECT

Figure 18



Survey in a Barren Cultivated Field



Surveying in Wheat Stubble

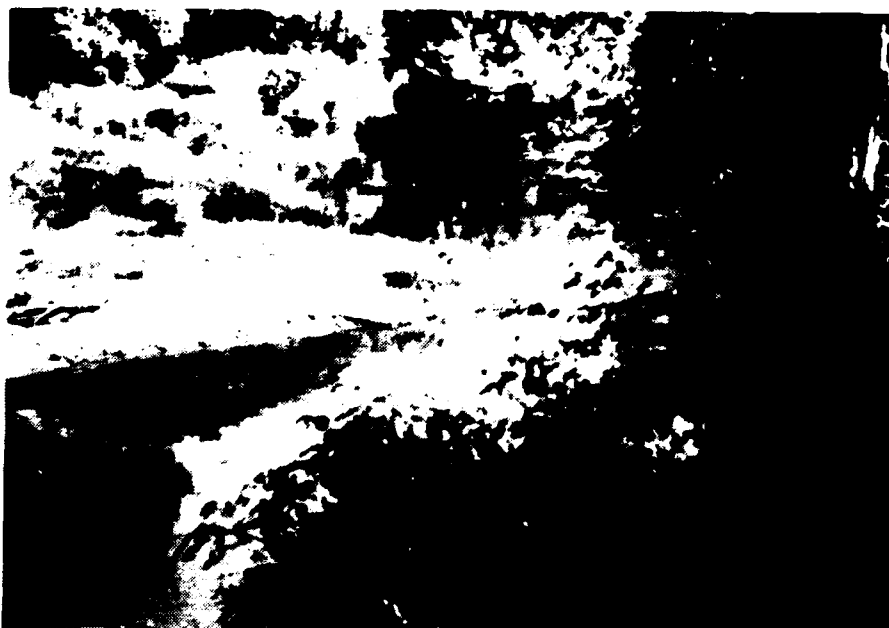
Views of the Upper Souris Area

these are residential tracts along the Souris River. Again, there are temporary earthen levees currently in place between the houses and the river. The six subdivisions are the Johnson's Addition in Burlington, the Brook's Addition, Talbot's Nursery, Country Club Acres, King's Court, and Tierrecito Vallejo in West Minot (see Figures 6 and 7). Most of the project areas are residential houses and streets. Talbot's is a trailer park. Like Velva, some sections along the river are dense forest and shrubbery. Other parts of the survey areas are grass lawns, garden plots, orchards, pasture, and vacant lots (Figure 19).

The survey at Sawyer is within the residential limits of the city, and the proposed new levee would surround the town on the south bank of the Souris River, along a large meander (see Figure 5). There is an existing levee in place between the river and the houses. The area immediately adjacent to the river on the floodplain is covered by a dense hardwood forest and understory of shrubs. Much of the property within the Sawyer survey boundaries is residential and consists of modern houses, lawns, and city streets (Figure 20).

SOURIS RIVER PROJECT

Figure 19



Confluence of the Des Lacs River and
Souris River within Johnson's Addition



Temporary Levee at the Brook's Addition

Views of the Burlington to Minot Levees Areas

SOURIS RIVER PROJECT

Figure 20

View of the Sawyer Levee Area



The Souris River at Sawyer

4.0 SUMMARY OF PREVIOUS INVESTIGATIONS

Archaeological investigations in the Souris River Basin can be traced back to the nineteenth century work of amateurs interested in understanding the conspicuous burial mound sites found throughout the region. Unfortunately, much of their work was widely speculative and confusing, and their field techniques amounted to little more than grave robbing. Hind (1859) reported burial mounds in the Souris region, near the 49th parallel, as early as 1858. A.J. Hill (1894) speculated that some of the mounds in the Dakotas had been built by Sioux. Captain H.G. Thomas (Comfort 1873), a member of the Hayden expedition, offered the opinion that the mounds near Jamestown, North Dakota were outgrowths of the Ohio Valley moundbuilder cultures. Bryce (1885, 1887) suggested that the moundbuilders in Manitoba were a mixture of Mandan and Welsh, or possibly Toltec. Interest in the burial mounds of the Souris River area continued into the early twentieth century, with the work of people like Montgomery (1906, 1908).

At this same time attention was turned to the remains of village cultures found along the Missouri River, particularly attempting to define the culture history of the Mandan, Hidatsa, and Arikara. This work included Will and Spinden (1906), De Land (1906), Libby (1908), Stirling (1924), Will (1924), Spaulding (1956), Strong (1940), and Will and Hecker (1944). The work of the River Basin Surveys from 1946 to 1964 produced numerous reports of surveys and excavations in North Dakota. The best overall synthesis of the archaeology of the Middle Missouri region is Lehmer (1971).

The first attempt to define the archaeology of the Great Plains in general terms was Wedel (1961). The prehistory of the Northern Plains has been presented by Mulloy (1958), Reeves (1970), and Frison (1978). Neuman (1975) clarified Woodland culture history in the Dakotas. For the Northeastern Periphery region of the Plains, early investigations include MacNeish (1958) and Mayer-Oakes' (1970) work in Manitoba. In the Souris River Basin, some of the major archaeological studies include Nero and McCorquodale's (1958) excavations at Oxbow Dam and Wettlaufer and Mayer-Oakes' (1960) investigations at the Long Creek Site. The regional culture history for southwestern Manitoba after the introduction of ceramics is aptly summarized by Syms (1977). Fox (1982) has presented an overview of the prehistory of the Souris River Basin based on recent University of North Dakota investigations.

Within the Souris River project areas in North Dakota, few professional archaeological inventories had been done prior to the 1970s. During the period from 1937-1938 Thad Hecker,

working for the Works Progress Administration (W.P.A.), recorded a number of site leads for the counties in the Souris Basin. But, as Schneider (1977) pointed out, "Past experience with similar records indicates that many have faulty legal descriptions, site descriptions and/or identifications." Hecker identified 36 site leads in the areas under consideration in this study (see Table 1). Of those, only two could be correlated with sites actually found on the ground during the Powers survey. Hecker reported a site lead for the S½ of Section 7, T.162N., R.86W. Powers located site 32RV7 in the NW¼SE¼SE¼ and SW¼NE¼SW¼ of Section 7, T.162N., R.86W. Hecker's site lead for the S½NE¼ of Section 18, T.155N., R.83W. may be related to site 32WD24, located in the NW¼SE¼NE¼ of Section 18, T.155N., R.83W.

In 1977 Fred Schneider of the University of North Dakota performed a literature review for the Upper Souris Basin, as part of the Burlington Dam project for the St. Paul District, Corps of Engineers. He found that in 1947 the Smithsonian Institution River Basin Surveys conducted a preliminary investigation of the Des Lacs River area, but recorded no sites (Bauxer 1947). In 1973 Nick Franke of the State Historical Society of North Dakota (SHSND) surveyed the West Minot Bypass, including Sections 18 and 21, T.155N., R.83W. and Section 12, T.155N., R.84W., but no sites were reported. In 1974 Carmichael conducted a linear survey along a proposed pipeline route in McHenry and Bottineau Counties. He recorded an historic homestead near Mohall. In 1976 Dill conducted a cultural resources inventory of a mine near Velva.

Schneider (1977) also reported various finds in the vicinity of the Souris River that offered evidence of a Woodland occupation of the region. Wood (1962) mentioned a Woodland site near Towner. Near Carpio a carved stone buffalo effigy was found (Woolworth 1959). A carved stone human effigy pipe was reportedly found near Velva (Johnson 1955). Metcalf and Carlson (1971) describe an atlatl weight found near Kenmare.

Since 1974 most of the archaeological work on the Upper Souris River in North Dakota has been conducted under contracts for the St. Paul District. Six cultural resource studies have been initiated in the area by various contractors working for the COE. In 1974 and 1975 a survey of channel modifications on the Souris River in the vicinity of Minot and in the areas of the proposed Burlington Dam was conducted by the State Historical Society of North Dakota, including parts of T.156N., R.84W. and T.156N., R.85W. Eight archaeological sites and two isolated finds were recorded. They included one disturbed burial mound, three rock cairns, one stone alignment, one

SOURIS RIVER PROJECT

Table 1

Site Files Search Results

McHenry County, North Dakota

T.153N.,R.80W.

Sec. 22 (NW $\frac{1}{4}$)	Mouse River Post Office (site lead) Tweton in REAP, 1978
Sec. 23	Erickson Store/Iris Theatre (site lead) Tweton in REAP, 1978
" "	Nazaren Church (site lead) Tweton in REAP, 1978
" "	Muus Brothers Store/J.C. Penney Store (site lead) Tweton in REAP, 1978
" "	St. Cecilius Catholic Church, Velva (site lead) Tweton in REAP, 1978

Renville County, North Dakota

T.161N.,R.85W.

Sec. 30 (NW $\frac{1}{4}$ NE $\frac{1}{4}$)	Archaeological Occupation (site lead) Hecker, 1938
" " (NW $\frac{1}{4}$ SW $\frac{1}{4}$)	32RV409 - Bone and Lithic Scatter Good and Fox, 1978
" " (SW $\frac{1}{4}$ SE $\frac{1}{4}$)	Archaeological Occupation (site lead) Hecker, 1938

T.161N.,R.86W.

Sec. 2 (S $\frac{1}{2}$ SW $\frac{1}{4}$)	32RV441 - Mouse River Park Schweigert, 1979
" " (W $\frac{1}{2}$ SW $\frac{1}{4}$)	Archaeological Occupation (site lead) Hecker, 1938
Sec. 3 (NW $\frac{1}{4}$)	Archaeological Occupation (site lead) Hecker, 1938
" "	Joslyn Post Office and Stage Station 1887-1889 (site lead) Tweton in REAP, 1978
Sec. 11 (NW $\frac{1}{4}$ NW $\frac{1}{2}$)	Archaeological (site lead) Hecker, 1938

Table 1
 Site Files Search (continued)
 page 2

Renville County, North Dakota

T.161N., R.86N.

Sec. 11 (S½NE½)	Archaeological (site lead) Hecker, 1938
Sec. 11 (SE½) & Sec. 12 (SW½)	Diversion Canal (site lead) Schweigert, 1979
Sec. 13 (SW½SE½ & SW½)	32RV434 McKinney Mill Site Schweigert, 1979
" " (NW½NW½)	Two Structures (site lead) Schweigert, 1979
Sec. 14 (CE½)	Archaeological (site lead) Hecker, 1938
" " (NE½NW½)	Concrete Bridge 1926 (site lead) Schweigert, 1979
" " (SE½NE½)	Abandoned Farmstead (site lead) Schweigert, 1979
Sec. 23 (NE½NE½)	Serpentine Rail Fence (site lead) Schweigert, 1979
" " (SE½NE½)	McKinney Post Office/Townsite (site lead) Tweton in REAP, 1978
" " (SE½NE½)	32RV101 McKinney Cemetary
" " (SE½)	Possible Nels Swenson Homestead Site (site lead) Schweigert, 1979
Sec. 24 (E½NE½)	Archaeological (site lead) Hecker, 1938
" " (S½SW½)	Archaeological (site lead) Hecker, 1938
" " (SW½SW½)	N.P. Swenson 1892 Homestead (site lead) Schweigert, 1979
Sec. 25 (NE½NW½)	Frank Swenson 1892 Homestead (site lead) Schweigert, 1979

Table 1
Site Files Search (continued)
page 3

Renville County, North Dakota

T.161N., R.86W.

Sec. 25	(SW $\frac{1}{4}$ NE $\frac{1}{4}$)	John Soderist 1892 Homestead (site lead) Schweigert, 1979
"	" (SE $\frac{1}{4}$ SE $\frac{1}{4}$)	1892 Homestead (site lead) Schweigert, 1979
"	" (NE $\frac{1}{4}$ NE $\frac{1}{4}$)	Archaeological (site lead) Hecker, 1938
"	" (SW $\frac{1}{4}$)	Archaeological (site lead) Hecker, 1938
"	" (SE $\frac{1}{4}$ SE $\frac{1}{4}$)	32RV410 - Bone & Lithic Scatter Good and Fox, 1978
"	" (SW $\frac{1}{4}$ SE $\frac{1}{4}$)	32RV428 - Tipi Rings Good and Fox, 1978

T.162N., R.86W.

Sec. 5	(NE $\frac{1}{4}$ SE $\frac{1}{4}$)	Tim Morris Farmstead (site lead)
Sec. 6	(NE $\frac{1}{4}$ SW $\frac{1}{4}$)	32RV437 Swenson Cabin Schweigert, 1979
"	" (NW $\frac{1}{4}$ NW $\frac{1}{4}$)	32RV440 Brekkas House Schweigert, 1979
"	" (SW $\frac{1}{4}$)	Barber Post Office/Townsite (site lead) Tweton in REAP, 1978
"	" (SE $\frac{1}{4}$ SE $\frac{1}{4}$)	Swenson Farmstead (site lead) Schweigert, 1979
"	" (SW $\frac{1}{4}$ NE $\frac{1}{4}$)	Archaeological (site lead) Hecker, 1938
Sec. 7	(SE $\frac{1}{4}$ NE $\frac{1}{4}$)	Curtis Ones Farmstead/Ole Syverson Homestead 1900 (site lead) Schweigert, 1979
"	" (NE $\frac{1}{4}$ SE $\frac{1}{4}$)	Steel Buildings (site lead) Schweigert, 1979
"	" (NE $\frac{1}{4}$ NE $\frac{1}{4}$)	Possible Hanson Homestead Site 1892 (site lead) Schweigert, 1979

Table 1
Site Files Search (continued)
page 4

Renville County, North Dakota

T.162N., R.86W.

Sec. 7 (CS $\frac{1}{2}$)	Archaeological (site lead) Hecker, 1938
Sec. 7 (SW $\frac{1}{2}$ NW $\frac{1}{2}$) & Sec. 8 (NW $\frac{1}{2}$ SW $\frac{1}{2}$)	32RV429 - Lithics, Bone, and Ceramics Good and Fox, 1978
Sec. 8 (NW $\frac{1}{2}$ NW $\frac{1}{2}$)	Pottery and Projectile Points (site lead) Schweigert, 1978
" " (SW $\frac{1}{2}$ SE $\frac{1}{2}$)	32RV435 Servold Homestead House Schweigert, 1978
Sec. 17 (SW $\frac{1}{2}$ NW $\frac{1}{2}$)	McCarroll Ranch 1904 (site lead) Schweigert, 1978
" " (NW $\frac{1}{2}$ NW $\frac{1}{2}$)	Archaeological (site lead) Hecker, 1938
" " (SE $\frac{1}{2}$ NW $\frac{1}{2}$)	32RV416 - Tipi Rings Good and Fox, 1978
" " (SW $\frac{1}{2}$)	32RV415 - Lithics, Bone, and Ceramics Good and Fox, 1978
Sec. 20 (NE $\frac{1}{2}$ SW $\frac{1}{2}$)	Abandoned Farmstead (site lead) Schweigert, 1979
" " (SE $\frac{1}{2}$ SE $\frac{1}{2}$)	Possible Johnson Homestead 1892 (site lead) Schweigert, 1979
" " (SE $\frac{1}{2}$)	Archaeological (site lead) Hecker, 1938
" " (SE $\frac{1}{2}$ NW $\frac{1}{2}$)	32RV413 - Bone and Lithic Scatter Good and Fox, 1978
Sec. 28 (NW $\frac{1}{2}$ NW $\frac{1}{2}$)	Granary (site lead) Schweigert, 1979
" " (NW $\frac{1}{2}$ SW $\frac{1}{2}$)	Knutson Farmstead (site lead) Schweigert, 1979
" " (NE $\frac{1}{2}$ SW $\frac{1}{2}$)	Possible Brian Homestead 1892 (site lead) Schweigert, 1979

Table 1
Site Files Search (continued)
page 5

Renville County, North Dakota

T.162N.,R.86W.

Sec. 29 (SW $\frac{1}{4}$ SW $\frac{1}{4}$)	Abandoned Farmstead (site lead) Schweigert, 1979
" " (SW $\frac{1}{4}$ SE $\frac{1}{4}$)	Archaeological (site lead) Hecker, 1938
Sec. 33 (NE $\frac{1}{4}$)	Archaeological (site lead) Hecker, 1938
" " (NE $\frac{1}{4}$ SW $\frac{1}{4}$)	32RV414 - Bone and Lithic Scatter Good and Fox, 1978
" " (S $\frac{1}{4}$ SE $\frac{1}{4}$)	Former site of Clyde Joslyn and McKinney Post Office 1892 (site lead) Schweigert, 1979

T.162N.,R.87W.

Sec. 1 (SW $\frac{1}{4}$ NE $\frac{1}{4}$)	Archaeological Occupation (site lead) Hecker, 1938
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T.163N.,R.87W.

Sec. 36 (SW $\frac{1}{4}$ NE $\frac{1}{4}$)	Richie Johnson Farmstead (site lead) Schweigert, 1979
" " (NW $\frac{1}{4}$)	32RV439 Johnson Site Schweigert, 1979
" " (NE $\frac{1}{4}$ SW $\frac{1}{4}$)	Four Tipi Rings (site lead) Schweigert, 1979
" " (NE $\frac{1}{4}$ & NE $\frac{1}{4}$ SE $\frac{1}{4}$)	32RV411 - Lithics, Bone, and Ceramics Good and Fox, 1978
" " (NE $\frac{1}{4}$ SE $\frac{1}{4}$)	32RV412 - Lithics, Bone, and Ceramics Good and Fox, 1978

Ward County

T.155N.,R.83W.

Sec, 7 (CSW $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
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Table 1
Site Files Search (continued)
page 6

Ward County

T.155N., R.83W.

Sec. 7 (SW $\frac{1}{2}$ SW $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (CW $\frac{1}{2}$ E $\frac{1}{2}$)	Wallin Coal Mine (site lead) State Engineering Report, 1914-1916 Dill, 1976
Sec. 18	Conan Coal Mine (site lead) State Engineering Report, 1909-1910
" " (NW $\frac{1}{2}$ NW $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (S $\frac{1}{2}$ NE $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (CSE $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
Sec. 21 (CSW $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (CNE $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (N $\frac{1}{2}$ NW $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938

T.155N., R.84W.

Sec. 2 (SE $\frac{1}{2}$ SE $\frac{1}{2}$)	Buildings 1885 (site lead) Schweigert, 1979
" " (NE $\frac{1}{2}$)	Burlington Coal Mine (site lead) State Engineering Report, 1913-1914 Dill, 1976
" " (SE $\frac{1}{2}$ SE $\frac{1}{2}$)	Wallace Coal Mine (site lead) State Engineering Report, 1909-1910
" " (NE $\frac{1}{2}$ NE $\frac{1}{2}$)	Archaeological Habitation (site lead) Hecker, 1938

Table 1
Site Files Search (continued)
page 7

Ward County

T.155N., R.84W.

Sec. 2 (CSE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
Sec. 12 (NW $\frac{1}{4}$)	Buildings 1885 (site lead) Schweigert, 1979
" " (SE $\frac{1}{4}$)	Davis Townsite/Coal Mine (site lead) Tweton in REAP, 1978
" " (NE $\frac{1}{4}$ SW $\frac{1}{4}$)	State Engineering Report, 1909-1910 Dill, 1976
" " (NW $\frac{1}{4}$ SE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (NE $\frac{1}{4}$ SW $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (NE $\frac{1}{4}$ NW $\frac{1}{4}$)	Archaeological Habitation (site lead)
" " (SW $\frac{1}{4}$)	Paleontological Invertibrate Fossils Holland in REAP, 1976
" " (NE $\frac{1}{4}$ NE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938

T.153N., R.81W.

Sec. 11 (NE $\frac{1}{4}$)	Echo Post Office (site lead) Tweton in REAP, 1978
" " (CNE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (NW $\frac{1}{4}$ SE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
Sec. 11 (SE $\frac{1}{4}$) & Sec. 14 (NE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
Sec. 12 (SW $\frac{1}{4}$)	Paleological Fossils Holland in REAP, 1976

Table 1
Site Files Search (continued)
page 8

Ward County

T.153N., R.81W.

Sec. 12 (SW $\frac{1}{4}$ SE $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938
" " (E $\frac{1}{2}$ NW $\frac{1}{4}$)	Archaeological Habitation (site lead) Hecker, 1938

possible hearth, and three stone circle sites (Franke 1975).

In 1977 the University of North Dakota (UNDAR) performed the literature search previously mentioned (Schneider 1977). The purpose of the study was to identify sites, objects, or structures important to regional, state, or national history and prehistory. The investigations included a five day field reconnaissance and review of the relevant literature and site files of the North Dakota Historical Society. In the Burlington Dam area only the eight sites previously recorded by Franke (1975) and a total of 786 site leads reported by Hecker in 1937-1938 could be documented.

In 1977 the University of North Dakota also conducted an extensive pedestrian survey of the Burlington Dam region (Good and Fox 1978). This included the area around the shoreline of Lake Darling up to an elevation of 1620 msl., and proposed Burlington Reservoir area downstream from Lake Darling to the proposed site of Burlington Dam. This included portions of T.161N., R.86W.; T.161N., R.85W.; T.156N., R.83W.; and T.157N., R.84W. Around the shorelines of Lake Darling a total of 23 archaeological sites were recorded. In the area downstream to Burlington Dam 11 archaeological sites were recorded. The area from T.161N., R.86W. north along the Upper Souris River to the Canadian border was only spot checked in a random manner. A total of six archaeological sites were found in this area, mostly from local informants. An intensive archaeological survey was also conducted for the proposed Des Lacs diversion tunnel right-of-way in T.156N., R.86W., but no cultural resources were found in this area.

Of the 40 archaeological sites recorded by UNDAR in 1977, 15 were stone circle sites and 25 were listed as occupation sites. Three of the stone circle sites had rock cairn features associated with them. One contained chipped stone artifacts in association with a stone ring. Ceramics were found at seven of the occupation sites. Four of the occupation sites had observable fire hearths associated with cultural material. The stone circle sites tended to be located in the Terrace Grassland eco-zone, have an abundance of Knife River flint artifacts, and are considered to be Plains Nomadic cultural manifestations. The occupation sites with ceramics were labeled as Plains Village manifestations. They showed a higher percentage of Swan River chert, and tended to be located in the Northern Floodplain Forest eco-zone (Good and Fox 1978).

A cultural resources survey was also conducted for the Reach A-3 improvement areas of the Minot channel project along the Souris River near Logan, North Dakota, by UNDAR in 1978. One prehistoric site was recorded (Loendorf 1978).

In 1978 an historical inventory of the Upper Souris River was conducted by Kurt Schweigert of the University of North Dakota, as part of the Burlington Dam cultural resources project. A "windshield" survey of standing structures was done from T.155N., R.83W. north to the Canadian border, along the Souris River. A total of 14 historic sites were formally recorded, including four log structures, two stone structures, and three wood frame homestead buildings. In addition, Schweigert appended a list of 151 site leads for structures, farmsteads and historic sites which he did not believe were significant. Four of the recorded historic resources were recommended as being eligible for nomination to the NRHP, and four others were thought to merit placement on the North Dakota Historic Sites Register (Schweigert 1979)

Three of the archaeological sites previously recorded by UNDAR in the Burlington Dam project area were tested in 1978. In addition, UNDAR surveyed a detour route, but no new archaeological sites were found. Of the three sites tested (32WD401, 32WD407, and 32WD408) only one (32WD407) yielded a significant amount of cultural material. The analysis of the material from 32WD407 indicated that it was a specialized campsite where meat processing took place (Good and Hauff 1980).

Of all the previous archaeological investigations along the Upper Souris River in North Dakota, the work by Good and Fox (1978) is most important, because it is the most applicable to the present study. The 1977 survey by UNDAR covered part of the area included within Task 2 (Lake Darling-Upper Souris River inventory) of the Powers scope-of-work. Six of the sites recorded by Good and Fox (32RV411, 32RV412, 32RV413, 32RV414, 32RV415, and 32RV429) are discussed in this current report.

In addition, Good and Fox (1978) present a research design which can be tested using the data from the Powers survey. They postulated that prehistoric peoples in the Souris River Valley mainly utilized three eco-zones: the Northern Floodplain Forest, the Terrace Grasslands, and the Upland Prairie. It was suggested that both Plains Village cultures and Plains Nomadic groups co-existed in the Upper Souris region from Woodland through Late Prehistoric times. Good and Fox further propose that each of these peoples used specific eco-zones within the area. The Plains Village cultures are shown to have settled on the river bottom near the Northern Floodplain Forest while the Plains Nomadic sites are indicated to have on the Terraces and Upland Prairie.

The UNDAR report also associated artifacts and features with specific cultural groups. The stone circle sites were thought to be related to the Plains Nomadic tradition while the lithic and ceramic scatters were linked to the Plains Village

people. Good and Fox (1978) claimed that the presence of Knife River flint at the Plains Nomadic sites suggests contacts with central North Dakota, while the predominance of Swan River chert at the Plains Village occupations indicates relations with southwestern Manitoba.

A short discussion of the recovered ceramics from the 1977 UNDAR survey is contained in Fox (1982). The majority of the sherds were body fragments and were either cord roughened or plain. On the basis of surface treatment and color, Fox classified most of the ceramics as Sandy Lake Ware. This ceramic tradition is well known in Minnesota and usually is assigned to the Late Woodland period. Some archaeologists have related Sandy Lake Ware to protohistoric Dakota groups, dating from A.D. 1100 to 1700 (Johnson 1979). Fox (1982) also noted that the Souris River collection had some affinities to Blackduck ceramics, another Late Woodland tradition known from western Minnesota. Fox identified two of the rims from Souris River sites as Middle Missouri ceramics. The classification of the Souris River ceramic collection by Fox (1982) stands in marked contrast to the Powers Elevation data, included in this present report as Dr. Ann Johnson's analysis of the Curtis Ones pottery collection (see Appendix D).

As far as the historic resources are concerned, five sites mentioned by Schweigert (1979) are discussed in the present study. This includes the McKinney Cemetery (32RV101), the McKinney Mill (32RV434), the Swenson Cabin (32RV437), the Brekkas Stone House (32RV440), and Mouse River Park (32RV441). In addition, nine of the site leads mentioned by Schweigert were recorded as historic resources during the 1982 Powers survey. This includes the Barber townsite, the Swenson farmstead, the Ole Syverson homestead, steel buildings at the Curtis Ones farm, the McCarroll ranch, an abandoned farmstead, a granary, the Knutson farmstead, and the Joslyn homestead (see Table 1).

The following section will present a regional culture history of the project area, covering both the prehistoric and historic periods. This will serve as the chronological-historical framework for the interpretation and identification of the cultural resources located within the project area. It includes a prehistoric overview to discuss the known archaeological manifestations of the region, and an historical overview based on written records of the area's more recent past.

5.1 PREHISTORIC OVERVIEW

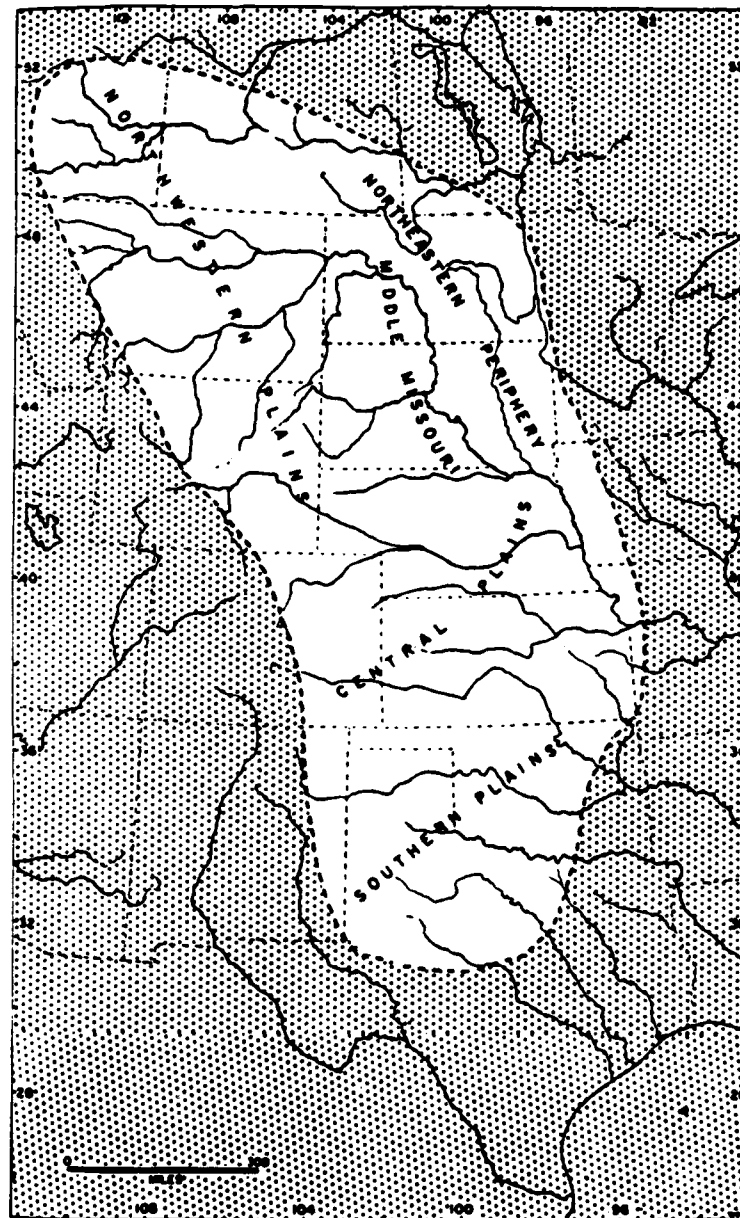
The creation of this prehistoric overview was dependent upon the work of other scholars who, over the last hundred years, have attempted to develop a better understanding of the region's archaeological remains. By prehistory, we mean to study aboriginal culture-history before contact with Euroamericans, circa 1738. As will be shown below, the interpretation of archaeological data has changed over time, as new sites are found and scholars have attempted to classify behavioral systems into cultural complexes. Thus, we begin this section with a discussion of archaeological terminology and taxonomy to show how these cultural complexes came to be created. Next, we present a synthesis of what is known about the regional culture history, broken into temporal and cultural periods.

One of the major problems in American archaeology is the lack of a consistent unilineal classification system for the interpretation of archaeological remains. Archaeological sites are generally discussed in terms of their location, artifact assemblage, cultural affiliation, and age. Unfortunately there is little consensus on applicable terminology for cultural periods, and some confusion exists over definitions of cultural regions. The following section presents some general statements about archaeological taxonomy.

In considering geographic units, Willey and Phillips (1958) presented the "site" as the smallest manifestation to be recognized by archaeologists in terms of cultural geography. The next largest unit they refer to as a "locality". A "region" is defined as a place that coincides with a minor physiographic subdivision where there is some continuity in cultural patterns. An "area" is the largest spatial concept, and corresponds to cultural areas as defined by ethnographers.

In terms of geographic location, the project area is part of the region Wedel (1961) called the Northeastern Periphery of the Great Plains cultural area (Figure 21). This region, north and east of the Missouri River, grades from the Missouri Coteau to the Central Lowlands physiographic provinces. It is dominated by tall grass prairie, but north of the forty-ninth parallel this gives way to the aspen parklands of

Figure 21



Map of the North American Plains area (heavy broken line) and its subareas.

Source: Wedel (1961)

Manitoba and Saskatchewan. Both Willey (1966) and Jennings (1974) discuss the Northeastern Plains as a single cultural region. It is bordered on the west by the Middle Missouri and Northwestern Plains regions, on the south by the Central Plains region, on the east by the Eastern Woodlands, and on the north by the Subarctic archaeological culture area (Wedel 1961; Willey 1966). Each of these surrounding regions has evidenced some cultural influence in the Northeastern Plains, as will be shown later.

Krieger (1964) made the broad statement that a culture consists of a group of similar archaeological manifestations found over a wide area. In American archaeology, various classification schemes have been devised in an attempt to group like traits together into tangible patterns of human behavior. One means of organizing archaeological data along cultural lines is called the "Midwestern Taxonomic Method," and was avocated by people such as W. C. McKern (1939) during the 1930s. This system eschewed time and space in favor of cultural typologies. The smallest unit of classification, according to the Midwest system, was the inventory of given traits at a single site, which was labeled a "component." At any site more than one component could exist, but they should be identifiably distinct from each other. Similar components from various sites could then be grouped together as a "focus." Several similar foci form a "phase."

Two other concepts were presented by Willey and Phillips (1958) to explain cultural patterns over time and space. One is called a "horizon," which refers to a continuity of cultural traits with a wide geographic distribution. The other concept is referred to as a "tradition," and implies the persistence of similar cultural traits through time. For example, when Syms (1977) notes that Blackduck ceramics are found over an area he calls it a horizon. On the other hand, Lehmer (1971) defined three cultural traditions (Central Plains, Middle Missouri, and Coalescent) within the Middle Missouri region, which overlap in time. Lehmer preferred to use the term "varient" to refer to subdivisions within a tradition. A varient means "a unique and reasonably uniform expression of a cultural tradition which has a greater order of magnitude than a phase, and which is distinguished from other variants of the same tradition by its geographic distribution, age, and/or cultural content" (Lehmer 1971:32).

American archaeologists have attempted to place the above cultural typologies within historic-chronological frameworks, ordering various traditions and variants over time using stratigraphy, artifact styles and forms, and absolute dating techniques such as radiocarbon. Willey and Sabloff (1974) refer to this as the "Direct Historical Approach." For

example, Strong (1935) organized the cultural sequence on the Great Plains according to the Midwest Taxonomic system, but arranged along chronological lines.

The major unit of time, in cultural terms, is usually referred to as a "period" or "stage." Each period is an epoch dominated by a general cultural pattern. Unfortunately, American archaeologists have chosen to mix and match their terms for cultural periods. Thus, Willey and Phillips (1958) presented several stages, indicative of cultural behavior, following sequentially from Lithic to Archaic to Formative to Classic to Postclassic. For the Great Plains, Mulloy (1958) simply proposed three major cultural-chronological periods: Early Prehistoric, Middle Prehistoric, and Late Prehistoric. Wormington and Forbis (1965) attempted to modify this by using the terms Paleoindian for the Early Prehistoric Period, Mesoindian for the Middle Prehistoric Period, and Neoindian for the Late Prehistoric Period. Frison (1978), for his chronology of the Northwestern Plains, chooses the terms Paleoindian for the Early Prehistoric Period, the Early Plains Archaic to be equivalent with the Altithermal climatic period as defined by Antevs (1955), the Middle Plains Archaic which matched the early Middle Prehistoric Period of Mulloy, the Late Plains Archaic which equals Mulloy late Middle Prehistoric Period, and the Late Prehistoric Period.

Willey (1966) listed four major cultural periods on the Great Plains: Paleoindian, Archaic, Woodland, and Plains Village. Malouf (1958) preferred the term "forager," to describe the archaic lifeways of Plains nomadic peoples. Lehmer (1971), who borrowed from both Willey and Malouf in creating a sequence for the Middle Missouri region, called the early hunting complexes up to 6000 B.C. the Paleoindian Period; the archaic complexes to 500 B.C. were referred to as Foragers; the Woodland Period followed to A.D. 900; then came the Plains Village pattern which terminated in the protohistoric period around A.D. 1740.

Reeves (1970) basically followed Mulloy's tripartite division of the prehistory of the Northern Plains in his cultural classification system. Up to 5500 B.C. was the Early Prehistoric Period, characterized by such Paleoindian complexes as Clovis, Folsom, Agate Basin, Cody, Fredrick, and Lusk. This was followed by the Middle Prehistoric Period, which Reeves divided into two substages. The Early Middle Prehistoric Period, from 5500 B.C. to 1500 B.C. included the Bitterroot, Oxbow, and McKean cultural complexes. The period from 1500 B.C. to A.D. 700, which Reeves called the Late Middle Prehistoric, included the Besant and Pelican Lake phases, and overlapped with the Early and Middle Woodland stage. The Late Prehistoric Period, from A.D. 700 to 1725, can be correlated with the Late Woodland stage, which was contemporaneous with the Avonlea cultural complex of the Northern Plains and the Plains Village tradition of the Middle Missouri region.

The following culture history of the project area borrows heavily from Reeves (1970), Willey (1966), Lemher (1971), and Frison (1978). It also presents Syms' (1977) Co-Influence Sphere Model, which postulates that different cultural groups co-existed in the Northeastern Plains, influencing the archaeological record of this region according to their seasonal commitments to certain environmental zones.

5.1.1 The Early Prehistoric Period

Although there is no way to determine how long man has been in the New World, most archaeologists believe that 15,000 years ago is a reasonable beginning. Populations are speculated to have crossed the Bering land bridge and migrated south. The physical evidence for the human occupation of the Great Plains is tied to artifacts which date back 12,000 years. This early occupation is referred to as the Paleoindian stage and is dominated by what Willey (1966) calls the Big Game Hunting Tradition. This is an adaptation to the grassland environment of the late Pleistocene, and sites from this period are characterized by large lanceolate points used to kill megafauna, such as mammoth and extinct forms of bison. The best known Paleoindian complexes are the Clovis, Folsom, and Plano cultures. The Dent site, in north-central Colorado, is a Clovis mammoth kill dated to around 9300 B.C. The Lindemeier site in northern Colorado and the Brewster and Hanson sites in Wyoming represent Folsom localities on the Northern Plains which have been radiocarbon dated from 8900 to 8130 B.C. The Plano cultures on the Plains includes Agate Basin types, dated to 8480 B.C. at the type site; Hell Gap, dated to 8110 B.C. at the Casper site and 7650 B.C. at Sister's Hill, Wyoming; Alberta dated to about 6640 B.C. at the Hell Gap site; and the Cody Complex, with dates ranging from 7076 B.C. at Finley, Wyoming to 5930 B.C. at the Horner site (Frison 1978).

There has been little concrete evidence of Paleoindian remains found around the project area. Schneider (1982) reported that most Paleoindian artifacts found in North Dakota come from the region west of the Missouri Coteau. The most important Paleoindian site in North Dakota is the Moe Site (32MN101), on the bank of Lake Sakakawea, near New Town. A large collection of artifacts was recorded from the eroding bank at the site by the Moe family and others from 1969 to 1973. In 1973

and 1974 the University of North Dakota conducted excavations at the site, but did not find remains of the Paleoindian occupation and no additional Paleoindian artifacts were recovered. This was thought to be the result of the riverbank eroding into the reservoir (Schneider 1975). Paleoindian projectile points collected from the site included Clovis, Folsom Plainview, Milnesand, Agate Basin, Angostura-Lusk-Frederick, and Scottsbluff forms.

In the collections of the State Historical Society of North Dakota are 14 specimens which were acquired by Thad Hecker, supposedly from the Souris Basin, and accessioned in 1942 (Schneider 1982). Unfortunately, there is no locational data with these specimens, and no way to document the sites from which they came. In the hands of private collectors in the Upper Souris region are also some Paleoindian projectile points. A Scottsbluff type was reported from the vicinity of the project area (Curtis Ones, personal communication). Richard Johnson has a collection which included Clovis, Folsom, Eden, and Agate Basin point types (see Appendix B), most of which are from the vicinity of New Town. Schneider (1982) calculated that 77 percent of the recorded Paleoindian points in North Dakota are mostly Knife River flint. The Johnson Paleo collection shows a similar preference for this material.

Elsewhere in the Souris Basin there is additional evidence of Paleoindian occupations, mostly from surface finds. Paleo specimens were recorded at the Cherry Point site and the Oak Lake vicinity in southwestern Manitoba (Fox 1982). But as Schneider (1982) has recently pointed out, the Paleoindian sequence in North Dakota is still poorly known since the evidence for this period comes only from surface finds with little provenience data. At this time no Paleoindian artifacts have come from an excavated, stratified site in the state.

5.1.2 The Middle Prehistoric Period

The next cultural stage is often referred to as the Archaic period, which developed at the end of the Pleistocene as the megafauna became extinct and people adapted to a more varied hunting and gathering subsistence pattern. The Archaic stage is typified by the appearance of site-notched, stemmed, and indented-base projectile point forms. These tend to be smaller than Paleo points, and were probably related to the increased use of the atlatl. Frison (1978) corresponds his Early Plains Archaic period with the arid climatic episode Antevs (1955) called the Altithermal. While some archaeologists have postulated that the Altithermal resulted in a cultural hiatus on the plains,

others, such as Reeves (1973), have argued that the real evidence to support this theory is lacking.

Frison's (1978) Early Plains Archaic is roughly equivalent to Reeves' (1970) Early Middle Prehistoric Period. This period dates back as far as 5680 B.C. according to evidence from Mummy Cave in Wyoming. Reeves (1973) defined the earliest cultural tradition from this period as the Mummy Cave Complex, containing what he refers to as Bitterroot and Salmon River Side Notched projectile point types. Sites on the Northeastern Plains which have yielded materials assigned to this complex include the Itasca bison kill in western Minnesota and Swan River in Manitoba.

The end of the Early Middle Prehistoric Period is marked by the appearance of the Oxbow Complex. This cultural complex is named after a distinctive point type first described from excavations at the Oxbow site on the Souris River in Saskatchewan, radiocarbon dated as early as 3250 B.C. (Nero and McCorquodale 1958). The Oxbow Complex was also found at Long Creek, a site on a tributary of the Souris River in Saskatchewan (Wettlaufer and Mayer-Oakes 1960). Reeves (1973) has noted that early Oxbow components resemble Bitterroot and Salmon River types, indicating that the Oxbow Complex probably developed out of the Mummy Cave Complex between 5500 and 3000 B.C. Later Oxbow components, between 3000 and 1500 B.C., however, are often found in association with the McKean Complex.

The appearance of the McKean Complex on the High Plains, typified by the McKean, Duncan, and Hanna projectile point styles, has been used by Frison (1978) to mark the beginning of what he calls the Middle Plains Archaic cultural period. At Angostura Reservoir in South Dakota the McKean Complex has been dated to 2280 B.C. (Wheeler 1958). In southeastern Manitoba MacNeish (1958) used the discovery of McKean point types at Lockport and Cemetery Point to define a cultural complex called the Whiteshell Focus, dated from 3000 to 1500 B.C.

The archaeological evidence for a late Early Middle Prehistoric occupation in the Souris River Basin is strong. Oxbow and McKean components were discovered at the Cherry Point site and in the Nash survey area in southwestern Manitoba (Fox 1982). Schneider (1977) postulated that it was during the Middle Archaic period that the habitation of western North Dakota may have reached its peak, in terms of the number of archaeological sites occupied. Local collectors in the Upper Souris River project area have many artifacts dating to this period (see Appendices B and C). An Oxbow projectile point was found at site 32RV3 during the 1982 Powers survey.

On the Northern Plains McKean points are replaced by a new type, a corner-notched style called Pelican Lake, which Frison (1978) uses to mark the beginning of the Late Plains Archaic period. Pelican Lake is a bison hunting cultural complex first defined by Wettlaufer (1955) from evidence at the Mortlach site in Saskatchewan. Reeves (1970) believes that Pelican Lake ushered in what he refers to as the Late Middle Prehistoric Period. At the Head-Smashed-In site in Alberta the Pelican Lake cultural strata were radiocarbon dated from 1090 B.C. to A.D. 25 (Reeves 1983a).

Also at the Mortlach site, Wettlaufer identified a culture known as Besant. This is an extremely sophisticated bison hunting complex typified by a large side-notched dart point. The Ruby site in the Powder River Basin of northeastern Wyoming was a Besant occupation radiocarbon dated between A.D. 280 to 150, with evidence of a bison entrapment corral and ceremonial structure (Frison 1978). In western North Dakota, at site 32MZ333, a cultural horizon was discovered containing a Besant projectile point in association with Woodland style ceramics and radiocarbon dated to between 91 B.C. and A.D. 60 (Floodman et al. 1983). Johnson (1977) argues convincingly that Besant should be considered a phase within the broad Plains Woodland cultural tradition.

In the Northeastern Plains region, the Woodland tradition (Willey 1966) overlaps with the end of the Late Plains Archaic and the beginning of the Late Prehistoric Period. According to Schneider (1977) the Woodland stage is primarily noted for the appearance of pottery, the construction of burial mounds, and the presence of projectile points which include Pelican Lake, Besant, and Avonlea. In southeastern Manitoba, McNeish (1958) first associated pottery with the Anderson Focus, which he estimated dated from 500 B.C. to A.D. 500, based on its similarities to the Hopewellian cultures of the Mississippi Valley. This was followed by the Nutimik Focus, supposedly dating from A.D. 500 to 1000, because of its connections with the Besant cultural complex.

Syms (1977) has described the first Woodland cultures on the Northeastern Plains under the term Orleans Composite, which includes materials identified on the basis of pottery as the Valley, Keith, Ash Hollow, and Sonota complexes. The Sonota Complex was defined by Newman (1975) from sites in the Dakotas as containing tool assemblages dominated by Knife River Flint, having a distinctive corner-notched projectile point which subsumes Besant, emphasizing the use of bison, having small burial mounds with bundle burials, and containing a distinctive ceramic style. Dates for Sonota sites cluster between 100 B.C. and A.D. 1000. The complex includes the Richards Kill Site and the Richards Village Site in Manitoba, and the Walter Felt bison kill and Muhlbach bison kill in Saskatchewan and Alberta (Syms 1977).

A Sonota-like burial chamber was excavated near Jamestown by the State Historical Society of North Dakota in 1982. Two burial mounds and a nearby campsite were examined during the project. Mound A was radiocarbon dated to A.D. 440 while Mound B was found to date to about A.D. 750. Both contained multiple burials and several different mortuary practices were in evidence. The campsite contained a large quantity of ceramics and projectile points spanning from A.D. 1 to 1600.

Syms (1977) believes that the Sonota complex co-existed with both the Besant and Avonlea cultures on the Northern Plains. Reeves (1983b) recently wrote that the term Sonota should be restricted to the Besant burial mound complex sites of the Middle Missouri.

5.1.3 The Late Prehistoric Period

The beginning of the Late Prehistoric Period is usually tied to changes related to the introduction of the bow and arrow. One early Late Prehistoric cultural complex is called Avonlea, and is characterized by a small, triangular side-notched projectile point. The Avonlea Complex was first described by Kehoe and McCordquodale (1961) based on a bison drive site in Saskatchewan. The earliest dates for Avonlea come from Head-Smashed-In, where it begins at about A.D. 150-250 (Reeves 1983b). Ceramics are now well documented for the Avonlea culture, such as those found at the Goheen site in Montana (Johnson and Fraley 1981).

Reeves (1983b) claims that in Manitoba the Avonlea Complex was replaced by the Blackduck culture around A.D. 700. MacNeish (1958) placed Blackduck within what he called the Manitoba Focus, dated from A.D. 1000 to 1350. At the Stott Site in Manitoba the Blackduck occupation spans the period from A.D. 800 to 1200 (Tisdale 1978). In Billings County, North Dakota Blackduck ceramics were found in association with a hearth feature radiocarbon dated to A.D. 235 at the Magpie Road Site (Campbell et al. 1983).

In the Middle Missouri region the first Plains Village cultures are roughly contemporaneous with the Late Woodland period of the eastern forests. The Initial Middle Missouri Variant of the Middle Missouri Tradition first appeared around A.D. 900, perhaps as a migration of people from southwestern Minnesota and northwestern Iowa. Initial Middle Missouri sites cluster in the Big Bend region, along the Missouri River from the White River to the Cheyenne River in South Dakota. The presence of projectile points resembling Avonlea at Initial Middle Missouri Variant sites indicates contact between the more settled village people of the Missouri River Valley and the more nomadic Late Prehistoric cultures of the Northern Plains (Lehmer 1971).

The Extended Middle Missouri Variant appeared about A.D. 1100, with a northern expression along the Missouri River in the Knife-Heart and Cannonball subregions of North Dakota and a southern grouping of sites in the Bad-Cheyenne subregion of South Dakota. During the period from A.D. 1250 to 1450 the southern Extended Middle Missouri Variant sites were abandoned. The existence of fortifications at contemporary Initial and Extended Middle Missouri villages indicates there were conflicts when the Extended Middle Missouri people in North Dakota began to push down into the Bad-Cheyenne subregion after A.D. 1100 and came into contact with the previously established Initial Middle Missouri culture in South Dakota. The Initial Middle Missouri complex faded out around A.D. 1300, while the Extended Middle Missouri Variant appears to have lasted to A.D. 1550, with a hiatus between A.D. 1250 and 1450 (Lehmer 1971).

The Coalescent Tradition in the Middle Missouri region began about A.D. 1400 with the appearance of the Initial Coalescent Variant culture. This cultural complex is thought to be an outgrowth of the Central Plains Tradition, perhaps representing a migration of people from the Central Plains to the Missouri River Valley. Initial Coalescent sites are concentrated in the Big Bend subregion of South Dakota. Around A.D. 1550 it seems that the culture evolved into what is called the Extended Coalescent Variant, with a geographic distribution from the White River to the North Dakota border. Coexistent with the Extended Coalescent was the Terminal Middle Missouri Variant, which expressed itself in the Cannonball and Knife-Heart subregions of North Dakota between A.D. 1550-1675.

Syms (1977) pointed out similarities between Middle Missouri ceramics and potsherds found at sites in southern Manitoba. Joyes (1969) reported Fort Yates ware, an Extended Middle Missouri Variant ceramic style, recovered from a site in the Pembina Valley. Middle Missouri pottery has also been documented along the Souris River (Fox 1982).

Contemporaneous with the development of Plains Village cultures on the Middle Missouri was the persistence of various burial mound complexes on the Northeastern Plains during the Late Plains Woodland/Late Prehistoric period. These mounds are located in groups along the James River, around Devils Lake, and on the Souris River. Archaeologists since Montgomery (1906; 1908) have speculated about the origins of these mounds. Wedel (1961) suggested that they can be correlated with the diffusion of Siouan people from the Upper Mississippi River Valley westward. He felt the ceramics from these mounds showed characteristics similar to Blackduck ware.

Syms (1977) has identified the Devils Lake-Sourisford Burial Complex as a series of conical burial mounds found in northern North Dakota, southern Manitoba, and southeastern Saskatchewan. Sites falling into this complex include the Reston burial, and the Fetland Site, which is located on the South Antler

River near the North Dakota-Canadian border. A temporal range of A.D. 1000 to 1600 is given for this complex, and Syms suggests that certain traits appear similar to both the Arvilla Burial Complex of the Red River Valley and Oneota, a Late Woodland manifestation of the Mississippi River Valley.

Also contemporaneous with the Plains Village cultures of the Middle Missouri were a group of ceramic making cultures identified in Canada. For example, the upper levels at Mortlach and Long Creek in southern Saskatchewan, along with components from Shippe Canyon in northern Montana, and the Cherry Point site in southwestern Manitoba have been grouped together as the Mortlach Complex (Syms 1977). Pottery from this complex is characterized by a dominance of plain and check-stamped surface finishes. Associated tools include late side-notched projectile point styles. The Mortlach Complex level at the Morkin Site yielded a radiocarbon date of A.D. 1700 and the presence of European trade goods at other sites containing this complex indicates it was a protohistoric-historic period culture. Other Late Woodland ceramic complexes from the southern Canadian Plains include the Selkirk Horizon defined in Saskatchewan from fabric impressed finishings on pottery, the Saskatchewan Basin sequence known from the Morkin Site, and the Cluny Complex, a proto-historic manifestation identified at the Cluny Site in Alberta. Pottery found on the Souris River may be related to the Late Woodland ceramic-making cultures of southern Canada (see Appendix D of this report).

The end of the Late Prehistoric Period on the Northern Plains is characterized by small side-notched arrow points, such as those included in the Old Woman's Complex at Head-Smashed-In and dated from A.D. 850 to 1800 (Reeves 1983a). This phase is ~~thought~~ to represent the predecessors of the Piegan tribe. Syms (1977) believes that the Mortlach Complex is related to the protohistoric Hidatsa or Crow, while the Selkirk Horizon may be ancestral to the Cree and the Blackduck Horizon is associated with Algonquian groups.

In the Middle Missouri region Lehmer (1971) classified the protohistoric cultures under the term Post-Contact Coalescent. The Heart River Phase of this variant is identified as the beginning of the Mandan and Hidatsa tribes. In South Dakota, the Felicia, Talking Crow, and Bad River Phases are related to the protohistoric Arikara. The Disorganized Coalescent Variant is roughly equivalent to to the start of the historic period, from A.D. 1780 to 1862. First the Mandan and Hidatsa congregated in villages along the Knife River, and then they were later joined by the Arikara at Like-a-Fishhook Village, near present-day Garrison, North Dakota (Smith 1972).

5.2 HISTORIC OVERVIEW

The historic period in the Souris River Valley began with the first direct Euroamerican contact with the tribes of the region. A long period of exploration followed, when the fur trade determined the nature of the relationship between Native Americans and Euroamericans. While the territory containing the project area changed political hands from France to Spain to England to the United States, the Souris River Valley remained an isolated and unsettled region. With the discovery of gold in Montana in 1861 this began to change. Military forts were established along the Missouri River, and attempts were made to open wagon roads through the Souris area. Conflict with the Sioux prevented permanent settlement by Euroamericans. By the end of the 1870s, however, the Sioux had been confined to reservations, and railroads began building westward through northern North Dakota. The arrival of the railroads resulted in the first period of Euroamerican settlement in the Souris River Valley, which was initially associated with the range cattle industry during the 1880s. Around the turn-of-the-century a second boom period of settlement occurred, stimulated by the expansion of railroad lines, platting of new towns, and the development of cash crop agriculture. While many of the first settlers in the Souris River Valley were from diverse ethnic backgrounds, the Second Boom was dominated by people of Northern European descent, particularly Germans and Scandinavians. Unfortunately, adverse environmental and economic factors hurt many small ranching and farming operations, resulting in a general out-migration from the region after 1910. The trend of abandonment of small farmsteads continued through the Depression of the 1930s. At that time many ranchers and farmers in the Upper Souris were willing to sell their land to the U.S. government, which built Lake Darling and established the Upper Souris Wildlife Refuge. Meanwhile the towns of Minot, Velva, and Sawyer developed into regional trade centers.

The following historical overview breaks this sequence into arbitrary units including: 1) early exploration and the fur trade; 2) the military frontier; 3) early settlement; 4) the Second Boom; and 5) urban development.

5.2.1 Early Exploration and the Fur Trade

In 1731 Pierre Gaultier de Varennes, Sieur de la Verendrye, began a quest in search of an overland route from the Great Lakes to the Pacific Ocean. Verendrye had been granted permission by Louis XV of France, then ruler of Canada, to conduct a campaign of exploration at his own expense.

Verendrye was to be granted absolute monopoly of any fur trade that was developed as a result of his explorations, and it was this incentive that led Montreal merchants to finance his journeys. The explorer established a string of forts and fur trading posts from Lake Superior to Lake of the Woods, Lake Winnipeg, and on the Red and Assiniboine Rivers (see Smith 1980 for the most recent work on Verendrye).

In 1738 Verendrye established Fort LaReine at a point where an established Indian trade trail crossed the Assiniboine River. This trail had apparently developed as a route by which sedentary tribes of the Missouri River, the Mandan, Hidatsa and Arikara, and the Assiniboine journeyed northward to trade corn, other victuals, and furs for European manufactured goods. The English Hudson's Bay Company had begun trading operations near York Factory about 1672, but it is likely that the Missouri River peoples obtained their trade goods indirectly through Cree or other Indian groups (Burpee 1927:312-313; Flandrew 1925). Verendrye's interest in the sedentary tribes was heightened by reports of Assiniboine Indians that the Mandans were a light-skinned people who knew of a route to the Western Sea.

In October, 1738, Verendrye departed Fort LaReine in company with his two sons and twenty other men, and traveled to a fortified earthlodge village on the Missouri River. The Verendrye party stayed with this group for several weeks, and returned to Fort LaReine in January of 1739. The route followed by the party has remained a matter of conjecture and argument among scholars because of the vague and sparing descriptions recorded by the explorer in a letter written to his superior some years after the journey. The party almost surely entered the area of what is now North Dakota at a point to the north and west of the Turtle Mountains, may have reached a point near the bottom of the Souris Loop, and then continued overland to the Missouri River near Bismarck. Other interpretations of the evidence place the villages of Verendrye's visit to the west of Minot, and indicate that the tribe visited was the Hidatsa rather than the Mandans (Burpee 1927:312; Libby 1916; Reid 1965; and Robinson 1966: 28-32).

Verendrye's disappointment that the people he visited were not white skinned was only surpassed by the discovery that the great river on which they lived flowed south and east, rather than west toward the Pacific Ocean. In 1742-1743 two of Verendrye's sons again travelled to the Missouri River villages and ventured far to the west and south, but did not find Indians who could tell them of the Western Sea. The failure of the expeditions to find the desired route did not detract from the importance of the explorations to

the French fur trade effort, however, and from 1738 to about 1780 the French-Canadians monopolized the trade of the Assiniboine-Souris-Missouri rivers area.

French trading activities in this area were conducted under questionable legality, at best. England claimed all lands that drained into Hudson Bay, including the basins of the Red, Assiniboine, and Souris rivers. In 1670 the English Crown granted to a group of adventurers and merchants, known as the Hudson's Bay Company, absolute rights of trade and government over the entire Hudson Bay drainage. At the close of the Seven Year's War in 1763, France ceded her Canadian possessions to England and her Louisiana territories to Spain. The Missouri River drainage remained the property of Spain until ceded back to France in 1800. France sold the Missouri River drainage to the United States in 1803 as part of the Louisiana Purchase. The middle Souris area became the property of the United States by treaties with Great Britain in 1818 and 1834.

The expulsion of the French government of Canada in 1763 removed the monopolistic licensing practices of the French fur trade, and left the traders virtually limited only by their own fortitude and financial resources. A period of fierce and violent competition followed, during which the rival partnerships extended the area of the Montreal trade from Lake Superior to the Upper Saskatchewan River and farther. The violence and ruinous price wars of the competition led in 1783 to an amalgamation of interests known as the North West Company, which included French Canadians, Scotsmen, and an occasional Yankee. The North West Company was generally the vanguard of the fur trade and the chief opposition to the Hudson's Bay Company from its formation until it merged with the latter company in 1821.

The North West Company did not monopolize the Montreal-based trade, however, and many independent traders continued to offer competition to the two major companies. In 1785 the North West Company itself was challenged by a group of dissatisfied traders known as the New North West Company, or more generally the XY Company. Led by Alexander McKenzie, a former employee of the North West Company, the XY Company waged bloody competition with both of the larger and older companies until absorbed by the North West Company in 1804 (Phillips 1961:II:110-114). All three of the major British companies, and independent traders as well, penetrated the Assiniboine-Souris-Missouri trade area from trading posts on the Assiniboine and lower Souris rivers in what is now Manitoba.

It is not known when the Montreal traders began to visit the Souris Valley in North Dakota on a regular basis, but there is some evidence that traders had traversed the region and were among the Mandans on the Missouri by the early 1770s (Gates 1933:39, 51). By 1780 the Canadian traders had established posts on the Assiniboine River, and had apparently extensively explored the region from their forts to the Missouri River villages (Davidson 1918:46; Masson 1889:II, "Equisse":17-18). The first regular terminus of the Assiniboine-Missouri trade appears to have been Fort Epinette, or Pine Fort, a North West Company post on the Assiniboine River some fifteen miles downstream from the mouth of the Souris. Built in 1785, Pine Fort not only enjoyed half the fur trade of the Assiniboine River and all the fur trade of the Missouri tribes, but was also market for the corn and other horticultural produce of the Missouri River tribes. The corn was of special value to the traders because of the distance and difficulties of transporting grain in canoes from Montreal. In 1785 the Mandans were themselves traveling to Pine Fort to trade (Stewart 1930:8; Wagner 1955:Map II).

The monopoly of Pine Fort was broken in the fall of 1793 when an independent trader established a post at the mouth of the Souris in order to intercept the Indians headed for Fort Pine. In short order the North West Company established Assiniboine House or McDonnell's House alongside the independent trader, and in 1794 Pine Fort was abandoned. Other competition soon established itself at the mouth of the Souris, so that during the season of 1794-1795 there were no less than five trading posts there. The Assiniboine River as a whole had upwards of twenty posts in 1795. In 1804 North West Company built Fort LaSouris on the Souris some miles upstream from the mouth, to replace Assiniboine House. Fort LaSouris was operated until 1807, when Pine Fort was re-established. The closest North West Company trading post to the North Dakota section of the Souris was Ash House, or Fort de la Frenier, built in 1795 on the Souris above the mouth of the Plumb River near the present Hartney, Manitoba. Ash House was operated for only a year or two before being abandoned because of the threat of attack by the Sioux (Tyrrell 1916:213; Coues 1897:I:305-306; Davidson 1918:47; Masson 1889:I:272; Stewart 1903:9, 11, 14, 22-23).

The Hudson's Bay Company was not to be done out of a share of the Assiniboine-Souris trade. As early as 1780 traders from York Factory, the Company's depot on Hudson Bay, may have explored the Souris and Assiniboine rivers and may have crossed the prairies to the Missouri River (Burpee 1935:356; Davidson 1918:46). In February, 1794, the Company actively entered the Souris-Missouri trade by establishing Brandon

House near the mouth of the Souris. From Brandon House the Company conducted its trade to the south by means of "freemen," who took trade goods on credit and paid with peltries on their return to the post. The Hudson's Bay Company also had a wintering post, known as Lena's House, on the south side of the Turtle Mountains, in competition with an XY Company post in 1801-1802 (McMorran 1935:56; Reid 1945:145).

The English and Canadian fur companies apparently never established major trading posts on the middle Souris River in what is now North Dakota, even though such establishments might have facilitated trade with the Missouri River tribes. The foremost reasons for the absence of posts on the middle Souris were probably the difficulty of navigation of the stream, hostile Indian inhabitants, and a relatively unprofitable trade situation with the Missouri tribes. The Souris loop area could be reached from the Assiniboine River posts in a shorter time by traveling overland than by canoe on the shallow and winding river. Once at the bottom of the Souris loop, the traders would necessarily again revert to pack animals because there was no water route between the Souris and Missouri rivers.

The middle Souris region was occupied by the Assiniboine and Dakota or Sioux tribes, who were as often as not hostile to the traders. As early as 1780 a series of forts on the Assiniboine River were attacked after a trader administered a lethal dose of opium to an Assiniboine. The uprising threatened to push all traders from the region before a smallpox epidemic diverted the Indians' attentions (Davidson 1918:46). In 1801 Alexander Henry of the North West Company expressed fears of encountering Assiniboine between the Mandan villages and Fort Assiniboine, "as they have never been known to give any quarter to white people in the country" (Burpee 1935:II:385).

The Dakota were seasonal worries to the traders because these Indians retired to villages to the south during the winters. During 1793 David Monin, North West Company clerk in charge of Pine Fort, was killed by the Sioux while he was returning from the Mandan villages. Ash House was abandoned because of the threat of Sioux attack, as probably was Lena's House in the Turtle Mountains (Davidson 1918:47; Tyrrell 1916:213; McMorran 1935:59). As late as 1857 the Dakota were harassing Hudson's Bay Company traders and Red River Metis hunters on the lower Souris (Hind 1971:143-144). The Hudson's Bay Company apparently also met hostility from the Mandans, who were generally peaceful and friendly toward whites. Brandon House was attacked in 1794 by the Mandans, who were a threat to the post until it was abandoned in 1832 (Stewart 1930:14,

30). Raids by Mandan war parties may have been instigated by the rival North West Company and later by the American Fur Company.

The profitability of the Missouri villages' trade probably tapered off rapidly after the establishment of competition there. As noted previously, the North West Company maintained a virtual monopoly on this trade from 1783 to 1793, but by 1805-1806 the North West Company had decided to abort its attempt to organize the Missouri trade. In 1805 trader Charles MacKenzie wrote, "It is incredible the great quantity of merchandise which the Missouri Indians have accumulated " (Masson 1889:I:334; II:87). The British companies may have continued the Missouri trade by means of the freemen system, but definitely they shifted their main efforts to more lucrative fur areas to the north and west.

After the merger of the North West Company with the Hudson's Bay Company in 1821, the competition for Souris River furs came from fur companies of the United States, principally the American Fur Company. In 1822 the Hudson's Bay Company abandoned its remaining fur posts south of the Forty-ninth Parallel, but some employees of the British company chose to remain in that territory, accepted citizenship in the United States, and formed the Columbia Fur Company. The new company, with headquarters at Lake Traverse in southwestern Minnesota and outfitting through St. Louis, quickly gained control of the fur trade from Lake Superior to the Missouri River (Keating 1959:325; Chittendon 1936:325). Although no trading posts are known to have been established by the Columbia Company in the Souris area, it is quite possible that temporary wintering posts were operated there. The Columbia Fur Company was absorbed by the American Fur Company in 1827.

The American Fur Company pursued a passive policy along the International Boundary for a number of years, and in fact accepted an annual payment from the Hudson's Bay Company to stay clear of the border region (Robinson 1966:73). In 1842 Pierre Chouteau Jr., who managed the firm for Jacob Astor, took control of the American Fur Company and the agreement with the British company ended. In the fall of 1844 Norman W. Kittson established an American post at Pembina on the Red River, which he moved to St. Joseph near present Walhalla, North Dakota, in 1853. Kittson established a line of posts along the border, including one post on the Souris River. Although there is very little information available on the identity or location of the Souris post, it may have been the wintering establishment of Peter Garrioch. Garrioch occupied a post on the Souris between 1843 and 1846, and has left a journal account of some aspects of his situation

(Garrioch MS 1846 (?):unpag.; Robinson 1966:77). One authority places Garrioch's post somewhere in the vicinity of Melita, Manitoba, but to the south of the border (McMorran 1935:60).

Kittson traded heavily with the Red River Metis. This distinct ethnic subculture grew from a few in 1805 to a thousand at Pembina in 1850, and the bulk of this population subsisted upon the products of semi-annual bison hunts into United States territory (Bond 1856:328; Robinson 1966:68; Coues 1897:268-269). Because of the Hudson's Bay Company monopoly on trade, the Metis north of the border were forced to sell their peltries to the Company at the Company's prices, and to buy all of their goods from the Hudson's Bay Company. Dissatisfaction with these policies led to wholesale smuggling of furs and goods across the border, and eventually to open violence between the Metis and the Company (Listenfelt 1913).

Unable to import goods on Hudson's Bay Company ships, independent traders from north of the border entered into contracts or agreements with Kittson, whereby Kittson supplied trade and other goods and the traders supplied the furs. Traders James Sinclair and Thomas McDermott, with whom Peter Garrioch was associated, entered into one such agreement in 1845. Another Metis trader by the name of McLaughlin entered into a contract with the American Fur Company at Fort Union, on the Missouri, to carry on trade with the Indians to the north of the Souris River (Robinson 1966:76; Listenfelt 1913:283, 300). Others who are reported to have wintered on the Souris were Joe Desjarlais, who may have traded or trapped near Minot about 1856, and William Moorhead who may have spent the winter of 1862-1863 near the present site of Towner. Metis and others continued to hunt and trap in the Souris Valley until the time of EuroAmerican settlement in the 1880s (Toftsrud 1936:11; Wemeth 1962:310-311; McMorran 1935:56, 61; Census of Dakota Territory 1885; Lounsberry 1898:132).

The Hudson's Bay Company met the opposition of the Americans in a number of ways, including the establishment of posts opposite the American posts. The Company had abandoned Brandon House in 1824 because of a dearth of fur in the region, but in 1828 this fort was re-established to counter American competition from the Missouri River posts. In 1825 to 1826 the Columbia Company had built a post on the Missouri at the mouth of the White Earth River, northwest of the present New Town, North Dakota, but the real competition for the trade with the Assiniboin of the Souris area developed with the establishment of Fort Union in 1828 and Fort Clark

in 1831. By 1832 Fort Union had captured most of the Assiniboin trade, and in that year the Hudson's Bay Company established Fort Ellice on the Assiniboine River in an attempt to regain the Company's former influence. Brandon House was operated on a full-time basis from 1828 to 1830, and was thereafter a wintering post until finally abandoned in 1832 (Robinson 1966:86-90; Stewart 1930:28-29, 51).

The Hudson's Bay Company also learned something from Kittson's employment of the independent Metis traders. In 1824 the Company appointed Metis Cuthbert Grant "Warden of the Prairies," and gave him specific instructions to trade furs and generally harass the Americans in the area from the Turtle Mountains westward to the Qu'Appelle River. In 1824 he established a post known as Grant's House on the lower Souris just west of what is now Hartney, Manitoba. This post probably remained in operation as an independent Metis post until 1855, and from 1855 to 1861 it was a Hudson's Bay Company wintering post. During the latter two years the post was under the able direction of James Sinclair, the former smuggling partner of Kittson at Pembina. The Metis traders had little respect for the international boundary, and it is quite likely that some of the fur trapping, if not actual trading, for this fort occurred in the area of the Souris within the United States (McMorran 1935:55; Map of Minnesota Territory 1851; Cram Map 1882).

5.2.2 The Military Frontier

At the close of the organized fur trade competition in the 1860s, the Souris River valley in North Dakota was probably no longer occupied on a permanent basis by any Indian group. Hunting and war parties of the Assiniboin, Dakotas, and possibly the Mandans, likely penetrated the area on occasion, and the Red River Metis continued to hunt the dwindling herds of bison. In the autumn of 1860 Charles Larpenteur, a well-known trader on the Missouri River, took an outfit of trade goods from St. Paul to Pembina and St. Joseph, and then westward to Fort Stewart in Montana. Larpenteur travelled by this route in order to "avoid all Indians," but especially the Dakota and Assiniboin. His route probably crossed the Souris near the present Sourisford, Manitoba, and again near Minot, North Dakota (Larpenteur 1962:311-315).

In 1862 members of several eastern bands of Dakota or Sioux, who were dissatisfied with the lack of treaty performances by the United States, rose up against white settlers in Minnesota in what has become known as the Minnesota Massacre. Military actions against the Dakota were conducted between 1862 and 1865, and were intended to both pacify and punish

the Indians. Thousands of Dakota fled westward and northward from Minnesota in fear of the somewhat indiscriminate reprisals by the U.S. Army. During the 1865 campaign General Alfred E. Sully led a force from Fort Rice, south of present Bismark, to Devils Lake and then to the Souris River. Sully skirted the bottom of the Souris Loop, apparently found no Indians, and then returned with his troops to the Missouri River. A large group of destitute Dakota camped on the Souris during the winter of 1867-1868. These Indians were enticed by promises of provisions to become the first settlers of the Devils Lake Sioux Reservation (Sturnezk Map 1872; Lochren et al. 1890:583; Wright 1953:71; Commissioner of Indian Affairs 1868).

The Souris Valley was visited by other military and civilian expeditions. In 1853 Governor Isaac I. Stevens led an exploring and mapping party through the region in search of a northern route for a transcontinental railroad. Steven's party, which included a military escort under the command of Lt. Cuvier Grover, reached the Souris Valley on July 24, 1853, near the site of present Velva, travelled along the south side of the valley to a point west of present Minot, and then headed northwestward around the headwaters of the White Earth River. A detachment under a Lt. Lander explored the Des Lacs valley in detail. To the west of the Souris valley, Stevens encountered both a Metis hunting party and a large village of Assiniboine (Wemeth 1962:310-311; Dakota Territory Map 1878).

The discovery of gold in Montana in 1862 led to the development of an overland wagon train traffic from Minnesota Territory to the gold fields. In the summer of 1862 Private James L. Fisk was relieved of his Civil War duties in Tennessee, promoted to the rank of captain, and assigned to lead an emigrant train from St. Paul to Fort Benton on the Missouri in western Montana. The Fisk train generally followed the trail of the Stevens survey, where they would have some idea of the terrain and conditions to be encountered. The party reached the Souris Valley on July 26, 1862, and continued around the bottom of the Souris Loop at a distance to the south where most coulees could be avoided. In 1863 Fisk led another wagon train over essentially the same route through the Souris region (Fisk 1862:35-39; White 1966:57-60, 75-89).

When leaving the Souris Valley in 1862, Fisk found and followed the trail of another wagon train that had departed from Minnesota about one month before the Fisk train. This train was led nominally by F. Chase Salter, but actually by Thomas A. Holmes, and seems to have followed closely the route of Charles Larpenteur in 1860. The train crossed the Souris, travelled $60\frac{3}{4}$ miles before recrossing the river,

and then proceeded westward toward Fort Union. The Holmes train was not accompanied by a military escort, and the Metis guides who had been hired at St. Joseph deserted the train out of fear of several Dakota that the train met near the Souris Valley. The train then made its way toward Fort Union and on to Fort Benton with the aid of Assiniboin and Blackfeet guides (Fisk 1862:35-59; White 1966:23-47).

Although the 1862 Fisk and Holmes wagon trains were the only known trains to pass through the Souris Valley, several others passed through what is now central North Dakota and it seemed as though a regular traffic would develop. In order to protect the overland route, and to pacify the Indians generally, several military posts were established. The forts established for this purpose in North Dakota were Fort Ransom on the Sheyenne River, Fort Totten on Devils Lake, and Fort Stevenson on the Missouri River near present Garrison. By the time these posts were established in the summer of 1867, however, the last of the known Minnesota wagon trains to go to the gold fields was on its way. Thereafter these military posts protected settlers and provided a center for communications and commerce for the earliest settlers. Fort Pembina was established in 1870 at Pembina in an attempt to maintain order and enforce customs laws in the boundary area, and at least one military force passed through the lower loop area of the Souris Valley enroute from Fort Stevenson to Fort Totten and Fort Pembina. The early military presence in the Souris region ended with the abandonment of Fort Stevenson in 1883, Fort Totten in 1890, and Fort Pembina in 1895 (Sturnezk Map 1872; Robinson 1966:182).

Although the location of the boundary between the British territories and the United States was always a matter of some concern for both governments, that concern was heightened with the development of extensive international trade and the westward rush of settlement after the Civil War. In 1869 the two governments began a joint effort to survey and make the boundary, and in 1873 the portion of the boundary in the Souris region was surveyed. The survey party of the United States was led by Colonel W. J. Twining, and was escorted by two companies of mounted infantry from Fort Abraham Lincoln. Many of the officers and men of this escort were killed with Custer at the Little Big Horn River in 1876. The surveyors and escort party camped for some time near the Souris crossing of the boundary in what is now Renville County (May 1913:195-225).

5.2.3 Early Settlement

The Euroamerican settlement of the Souris Valley upstream from Minot occurred as two rather distinct movements between

1883 and 1910. The initial settlers of the region were typically stock raisers who took advantage of the luxuriant water and grasses of the river valley, but also used the unfenced uplands as open range. This first phase of settlement began with the arrival of driven herds of cattle from the Missouri River and from Iowa and Minnesota through the Devils Lake region. A number of ranch settlers also came into the Souris Valley from the northeast, usually having passed from eastern Canada through Winnipeg and Brandon, Manitoba. The settlement sites of this first movement were limited almost exclusively to the Souris Valley itself, where the settlers had easy access to fresh water, timber for fuel and building purposes, and luxuriant stands of longstem grasses. In typical fashion, the ranchers claimed an extensive strip of the valley lands, possibly on both sides of the river, for the exclusive use of their herds and for forage production purposes (Ren-ville County Old Settlers Association 1976:11, 137; Stammen 1978).

The 1885 Census of Dakota Territory illustrates the ethnic diversity and the economy of the initial settlers. A total of 31 persons in 1884 lived in what would become Ren-ville County, of whom five were natives of Sweden, three were born in England, three were from Scotland, three from Ireland, three from Canada, and fourteen had been born in the United States. Eight of the men were engaged in stock raising: Nels Toverson (Tufveson) from Sweden; Robert M. and John T. Gray from England; George C. and Lewis Gray who were born in Canada; Benjamin Chew and Robert McKinney from Ireland; and Otis Young was the lone stock raiser from the United States. Associated with the stock raisers were eight "herders" and one cook. Two of the herders, Clyde Joslin and William Grinnell, later became operators of their own ranches in the Souris Valley. Also present in 1885 were four farmers: Bror Hansen from Sweden; William Johnson from England; Alexander Allen from Scotland; and his son George Allen from Wisconsin. One professional hunter, George Cartright from New York, was present with his family, and one trapper, William Craig from Scotland, was also in residence (Census of Dakota Territory 1885).

Downstream, in Stevens County, the area that would become Ward County, 257 persons lived clustered in the valleys of the Souris and Des Lacs rivers. Thirty-five of these residents were foreign born (place of birth unspecified); 33 were of Norwegian parentage, including nine American born of Norwegian fathers in Minnesota, Wisconsin, Iowa and Illinois; three Swedes; five Scots, four born in Canada and one in Scotland; four Germans, one born in Germany, two in Illinois and one in Minnesota; and one Irishman. The other

settlers were native born and came from Minnesota, Wisconsin, New York, Ohio and Illinois. Of this population only 54 considered themselves farmers, and only 1093 acres were planted in 1884. Stock raising was an important industry in this part of the Souris Valley, with 600 cattle sold that year, but the early settlement economy was much more diverse than in the area farther north.

The principal town at that time was Burlington, which was growing up around the store and coal mine of J.L. Colton near the mouth of the Des Lacs River. Lignite coal was to be found in many locations in the Souris Valley, but at Burlington thick veins of the fuel were exposed along the valley walls of the Des Lacs River. Colton and several others developed coal mines for the local market, but also for use of and export by the railroads that would penetrate the region. By the fall of 1883 six tons of coal had been excavated by Colton. Colton also established a brick factory near Burlington which operated sporadically until at least as late as 1927. By 1885 the Burlington area included resident professional brickmakers, brick masons, and coal miners, as well as stock raisers, farmers, and merchants. Colton served a major role in the evolution of Burlington. In 1884 he established its first newspaper, the "Burlington Reporter" and in 1889 he served as Ward County's representative at the State Constitutional Convention. When Ward County was organized in 1885, Burlington was selected to serve as its seat. The county seat was nominally moved to Minot after the 1888 county election, but the county business continued in Burlington until Minot finished the new courthouse in 1890 (Census of Dakota Territory 1885; Haughland MS 1927:25-26; Lounsberry 1896: 10-13, 1917:708; Diamond Jubilee Committee 1961:n.p.; Minot Daily News 1961:8/19:2).

The settlement and early industrial development at many early townsites was in part motivated by anticipation that one or more railroads would pass through that site. In 1883 the St. Paul, Minneapolis and Manitoba Railway, which would later be known as the Great Northern, reached Devils Lake from the east, connecting that point with Minneapolis and the railroad systems of the eastern United States. Construction halted at Devils Lake for three years, but land seekers and frontier businessmen began making their way overland to the Souris Valley. Many of the German and Scandinavian immigrants who settled the Souris Valley upstream from Minot came by this route. Others came northwestward from the next closest rail center, Jamestown, on the Northern Pacific Railroad. In 1886 the St. Paul, Minneapolis and Manitoba was extended to Minot, and the next year to Great Falls, Montana. The building of this railroad was a huge under-taking, with over 8,500 men

and 3,500 teams in one camp at Minot in the spring of 1887 (Robinson 1966:142).

Minot began as a boom town. In 1880 the population of Ward County was zero, but by 1887 alone Minot boasted a population of 1,000, a blacksmith shop, a bank and a newspaper, the "Rustler Tribune" (Commissioner of Immigration 1887:486; Ward County Independent 1935:6/27; North Dakota: A Guide to the Northern Prairie State 1950:162). Minot townsite was purchased by the Northwest Land Company, a subsidiary of the St. Paul, Minneapolis and Manitoba Railway (Great Northern Railway), from Erik Ramstad, a Norwegian immigrant who had settled on the site in 1883. The town was named for Henry D. Minot, a New England ornithologist and associate of James J. Hill, the principal owner of the Great Northern (Minot Daily News 1961:8/19). Minot's economy depended on the railroad from its earliest days. Besides creating many jobs for railroad workers, it created a means of export of the fruits of the settlers' labors. One industry enhanced by the availability of rail transport was the buffalo bone trade. Many homesteaders supplemented their incomes by collecting the bones from the prairie and shipping them east for use as fertilizer and in refining sugar. It is estimated that the bones of 250,000 buffalo were shipped through Minot between 1886 and 1891. The Minot bone business was so lucrative that the Northwestern Bone Syndicate moved to Minot in 1888, and began stockpiling bones because of the depressed market at that time. At one time its bone pile extended from Main Street nearly to Third Street. While the bone trade had mostly died out by 1891, as late as 1937 over a ton of bones was brought to Minot to sell (Barnett 1972:33).

The first settlers to the Velva area arrived in the early 1880s. August Peterson filed a claim on the land which is now Velva in 1882 or 1883. The townsite of Scription, located four miles southeast of Velva, was established in 1882 on land bought with Civil War soldiers' script by John C. Nickeus, a Jamestown attorney. The town served as the McHenry County seat until 1885 when the seat was moved to Towner. A colony of Blacks settled at Scription for three years (Williams 1961:157). McHenry County was created on January 4, 1873, from a part of Buffalo County and was officially organized on April 15, 1884. In 1880 the population of McHenry County was recorded as zero, but by 1885 the population had reached 800, including three Blacks. Census records also indicate that 280 farms were in McHenry County in 1885. By 1887 the county had six post offices: Lane, Logan, Mouse River, Pendroy, Towner and Villard (Commissioner of Immigration 1887:416-418; Williams 1961:157; Census of Dakota Territory 1885).

After the Great Northern was built to Minot, the Souris Valley was easily accessible for prospective settlers, and markets for produce were available. The Souris and Des Lacs Valleys slowly filled with settlers, but the settlement patterns remained a ribbon along the river valleys. Northward from Burlington several post offices were established as centers for the distribution of goods and services, and as communication centers to the local communities. Typically, these post offices were located in the house of a prominent rancher or farmer who would occasionally travel to the regular postal facilities at Minot or Burlington, and who would distribute mail to the other rural post offices on his way. Compensation for these rural postmasters consisted only of the receipts from the sale of stamps at that location, but many postmasters also operated a small general store in conjunction with their post offices.

Many of the distribution points for mail were known as post offices by the surrounding communities, but were never officially established. The known established post offices of the initial settlement period in the Upper Souris Valley were Overholt, Joslyn, McKinney, and Stafford. Overholt Post Office was established in the home of Ole Person, and named for Joe Overholt who was a homesteader and later operated a stage line through the valley. The post office remained in Person's home until 1901, when it was moved to Overholt townsite. Joslyn Post Office was first established in 1887 in the home of Clyde Joslyn, partner in the Mouse River Horse and Cattle Company. In 1889 the post office was moved to the store of Henry Ludke, where it remained until 1905. McKinney Post Office was established about 1886 in the home of Nels Swenson, and was named for Robert McKinney, partner in the ranching firm of McKinney and Young. The post office was moved in 1901 to the rural store of Carl Swenson and Louis Christian, and in 1904 it was moved to the new townsite of McKinney. The post office was discontinued August 15, 1916. Stafford Post Office was established in 1888 in the home of James Harkness, and named for settler Jebediah Stafford. The post office was moved in 1903 to the Hans Johnson store in Pleasant townsite and was discontinued in 1909.

Farther south, the Lonetree Post Office and townsite was established in 1888. By 1927 the population in Lonetree was 35. The townsite of Davis was established about 1884 near the Davis Coal Mine east of Burlington, and Gassman townsite was established about 1883 near the Gassman Coal Mine just west of Minot. The Logan Post Office was located in Section 14, T154N, R82W, in 1884. In 1904 the post office was moved to the townsite of Logan southeast of Minot. Logan has a population of 35 in 1927. The first Ward County Post

Office was the Terrell Post Office established in 1882 near Sawyer in the store of Nathan D. Terrel and Fred M. Lang (Diamond Jubilee Committee 1961:n.p.). The Echo Post Office was located in the home of William H. Wilson during the years 1887-1898, after which it was moved to Sawyer townsite (Williams 1961:250-252, 333-339; Platbook 1910; Renville County Old Settlers Association 1976:14-15, 537-539; Polk's Directory 1927:259). The Mouse River Post Office was established in Section 22, T153N, R80W, McHenry County, in 1884 and was discontinued in 1886. Robert O. Davidson served as postmaster.

Some of the post offices were served by stage coach lines between 1885 and 1906. Joe Overholt, mentioned above, established a stage service that began at Burlington, meandered between the scattered ranches in the Souris Valley, and terminated at his ranch or the Joslyn Post Office. Overholt's stage carried mail and merchandise, as well as passengers, and in 1886 it was extended northward to the newly established McKinney Post Office to the west of present Mohall. In 1886 a stage began running from Minot to McKinney, and continued to do so until 1893 when the Minneapolis, St. Paul and Sault Ste. Marie (Soo Line) reached Kenmare. Tom Lansley then established a stage route running roughly east to west from McKinney Post Office to Joslyn Post Office and on to Kenmare. Lansley also came into proprietorship of the Burlington-McKinney route, and in early 1900 Lansley apparently passed ownership of the east-west stage line to J.A. Juno. Stage lines continued to connect the rural post offices and villages in the Souris Valley until 1906, by which time railroads had penetrated the area in several lines and had captured most of the passenger and freight traffic (Renville County Old Settlers Association 1976:12-13).

5.2.4. The Second Boom

The first wave of settlement that began in 1883 ended about 1893, and conformed roughly to what is known as the "Great Dakota Boom". Near the end of that era severe environmental conditions on the Great Plains and economic unrest in the United States combined to slow the spread of settlement in North Dakota. The flow of settlers into the Souris Valley did not stop completely during the years 1893-1900 and the valley settlers did not abandon their claims and move elsewhere. Climatic conditions did force at least one rancher, William Harkness, to drive his stock to the Missouri River drainage when the Souris River area was devastated by drought in 1900, and other herds were reduced for lack of feed. The durability of the first settlement was due largely to the natural advantages of the Souris Valley, but also to the

virtual self-sufficiency of the farm-ranch units. Although the typical main occupation of a settlement unit was in stock raising, most settlers also raised some grain and nearly all settlers planted large gardens (Renville County Old Settlers Association 1976:passim; Hembre 1977:passim; Robinson 1966:133-135; Harkness 1977:pc).

By 1900 the worst of the financial and climatic crises seemed to be ending, and by 1901 a second tide of land-seekers had descended on the upper Souris Valley. Between 1900 and 1905 nearly every quarter-section of land in the north-central part of North Dakota was claimed, and the settlement units in the Souris River area averaged not more than 160 acres each. This intensive small-unit settlement began at a time when most of the fertile Souris Valley lands had been claimed, and the new settlers were limited to upland areas without frontage on the river. The upland areas offered little fresh surface water and virtually no timber for fuel, shelter, or building purposes. Many upland settlers maintained small herds of cattle and sheep, but the main economy of these units was in the production of cereal grains and flax seed for sale on the national markets.

The small size of the farming units and the lack of appreciable diversification made the "Second Boom" units especially dependent on favorable climatic conditions and on market prices. When drought, frost, and untimely precipitation occurred, the staple crops could be severely damaged and the farming unit as a whole could become unviable. By 1910 settlers of the "Second Boom" had begun to abandon their farms in the Souris uplands, and by 1915 an investigating commission found that, of all the land entries filed in the Minot and Devils Lake land offices from 1888 to 1904, less than 35 percent were still occupied. A large number of the unoccupied lands had been claimed by speculators and later sold to other settlers. It has been estimated that as many as one-third of all persons who filed homestead claims in North Dakota between 1900 and 1910 were speculators and did not intend to stay on the land (Robinson 1966:245; Servold 1978:pc).

The Second Boom in the Upper Souris area was accompanied by renewed railroad construction and the establishment of new townsites and post offices. In 1893 the Soo Line laid track from Minot northward to Portal on the Canadian border, and had thereby provided the Upper Souris area with a railhead at Kenmare, some eighteen miles west of the Souris Valley. In 1903 and 1904 the Great Northern Railway penetrated the interior of the Souris loop with a line that ran from Granville to Sherwood. This line also ran roughly parallel to the river and to the east some fifteen miles. In 1905 the Soo Line constructed its "Wheat Line" from Oslo, Minnesota, to Kenmare,

in order to tap the rich grain traffic that had previously gone to the Great Northern. The "Wheat Line" ran in an east-to-west direction, crossing the river to the south of the town of Greene (Robinson 1966: 237-239; Renville County Old Settlers Association 1976:16).

The townsites of Sherwood, Mohall, Loraine, Lansford, Forfar, Glenburn, Wolseth, Deering, and Rising sprouted at six-mile intervals along the Great Northern line in 1904. The next year, the towns of Grano, Tolley, and Norma were built on the "Wheat Line", and in 1909 the townsite of Greene was established within the Souris Valley itself. Greene was founded by M. O. Hall, also the founder of Mohall, and was intended by its supporters to be the county seat of the newly created Renville County. Greene was established not only near the crossing of the Souris by the "Wheat Line", but also near a favorite picnic and recreation spot called Smith's Grove.

Hall constructed a large two-story brick building on the townsite, with the expectation that the structure would be used as the county courthouse. The building housed a bank, a hardware store, barber shop, billiard parlor and a restaurant, all on the first floor, while on the second floor was a dance hall and opera house. The townsite also contained a hotel, a general store, two elevators, a lumber yard, an implement dealership, and a school. When Mohall won the election for location of the county seat in 1910, Greene began a steady decline that was accelerated with the construction and filling of Lake Darling in the 1930s. In 1978 the townsite contained a school building, an abandoned depot, two grain elevators, and several wood-frame houses (Renville County Old Settlers Association 1976:314-316; Larson 1978:pc).

Other townsites developed along the Souris, but away from the railroads from 1900 to 1910. McKinney townsite was begun in 1901 at the site of the only bridge across the stream in several miles. The townsite was platted by Peter Bertelson with the expectation that the "Wheat Line" would cross the river there. Bertelson built a general store on the site, and was joined by the store of William E. Grinnell. Within a year the town included a hotel, a restaurant, a drugstore, a butcher shop, two livery stables, a lumber yard, a bank, a barbershop, a confectionary, a pool hall and blind pig, a doctor's office, and a newspaper, the "Mouse River Journal." In 1903 William Paff began construction of a water-powered mill on the Souris, and by September, 1904, the mill was in operation. Paff's mill did a good business in the early years of operation, grinding wheat into flour for local consumption and also grinding feed for livestock. The McKinney Mill burned down on May 10, 1906, was rebuilt in the same location, and continued to operate under several proprietors until 1928.

McKinney's hopes of being served by the "Wheat Line" were dashed by the catastrophic flood of 1904 when water rose to above the first story level of business in the town. The Soo Line established the town of Tolley on the upland and by late 1905 many business buildings were being moved from McKinney to Tolley. In October, 1906, the Great Northern Railway purchased the McKinney townsite from Bertelson, and surveys were run for a branch line from Antler to McKinney and on to Kenmare. The line was not built, however, and the town once again began to decline. The last store ceased operations and the post office closed at McKinney on August 15, 1916. In 1934 the mill was moved from the site and demolished, and in 1935 the Civilian Conservation Corps demolished the remaining buildings on the townsite in advance of the filling of Lake Darling. The visible remains of the townsite are the brick and concrete footings for the mill, several cellar depressions to the west of the mill, and the McKinney Cemetery about one-fourth mile south of the townsite. The McKinney Cemetery was placed on the National Register of Historic Places in December 1978 (Renville County Old Settlers Association 1976:537-539).

The smaller rural communities of Pleasant, Barber, Overholt, Glenn and Questad were also established and operated during the height of the Second Boom. Pleasant townsite was established around the store of Hans Johnson, and was named for its setting. In 1903 the Stafford Post Office was moved to the Johnson store, and the little town also had a blacksmith shop, a saloon, and a church. The town declined with the boom, and in 1909 the post office was discontinued. Barber Post Office and townsite was established in the home of a rancher named Barber in 1896, but the town began with the establishment of the store of Anton and Per Berg in the spring of 1904. At its height the town had a grocery store, livery stable, blacksmith shop, drug store, millinery shop, and a hardware store. The last business, a grocery store, closed in 1909 (Renville County Old Settlers Association 1976:13-14; Servold 1978:pc).

Overholt Post Office was apparently never officially established in the home of the man for whom it was named, but Joe Overholt ran a store and blacksmith shop where settlers could pick up their mail before the Overholt Post Office was established in the home of Ole Person. Glenn Post Office was operated in the home of Fred H. Giddings from May 22, 1903, until July 24, 1906. Questad Post Office was established in the farm home of Ingwald M. Questad on December 30, 1901, and was discontinued May 31, 1909. A small store was operated in conjunction with the post office. The smaller post offices and townsites were established and run primarily as supply and communication centers for settlers during the height of the Second Boom, and none of these operations survived the end of the boom period.

5.2.5 Urban Development

Like many early North Dakota towns owing their birth to the railroad expansion, Minot received a new burst of growth during the "Second Boom" after 1900. The increased population brought the concurrent problems of alcohol, gambling and prostitution, and during the early twentieth century Minot became known for its general lawlessness. In 1905, when the county population was approximately 10,000, the Ward County District Court tried about 58 cases. In 1970 the same court tried about 69 cases although the population had grown to 58,000. Thus, while the population had increased 600% during that time, the court load increased only 20% (Martin and Smith 1980:12).

The early political experience of Minot leaned towards socialism. It was the first North Dakota city to adopt the commission form of government, and Socialist Arthur LeSuer was elected the first president of the city commission in 1911. In 1913 members of the Industrial Workers of the World, a socialist group, came to Minot to recruit new members, a move that led to violence and arrests. In 1914 the Socialist Party of Americans held its three-day convention in Minot, and later moved its headquarters there from Fargo (Martinson 1969:52,77).

The city of Sawyer also owed its origins to the railroad expansion of the 1890s. Named for an official of the Minneapolis, St. Paul and Sault Ste. Marie (Soo Line), Sawyer became a regular post office in 1898. The town was platted in 1902 by the Soo Line and by 1906 it had a population of 250. By that time the thriving community had a school, four general stores, one hardware store, two banks, a newspaper, a barber shop, a harness shop, two lumber yards, a butcher shop, two real estate companies, four grain elevators, a feed mill and a cabinet maker (Anon 1906:81). Like many towns of the region, the economy of Sawyer was boosted by the lignite mining industry. In 1906 Marcus and Calvin Beighle, brothers from Illinois, filed a coal claim southwest of Sawyer and planned to open a major mine. During 1906 it was reported that there were a total of six mines within a ten mile radius of Sawyer (Lounsberry 1917: VII:311, 455: Anon 1906:81).

One religious group has been dominant in Sawyer's history. In July, 1909, the Church of the Nazarene held its camp meeting on the banks of the Souris River near Sawyer. At that meeting the camp board decided to purchase the land for use as the church's annual meeting location and named the area the "North Dakota District Campgrounds." A lodge and other buildings were built on this site and regular church meetings were held here for many years (Golden Anniversary Committee n.d.:4, 12).

The city of Velva began to emerge when the Soo Line arrived in 1893. In that same year the Muus Brothers general store, Velva's first store, began operating out of a box car. By 1902 the Muus Brothers store constructed a building of sandstone quarried three miles southwest of Velva by two Swedish stone masons (Anderson 1955:3, 5-6; Hennessy 1910:549). Velva experienced a burst of growth, if not economic, at least spiritually uplifting, during the early 1900s. Its first church, the Oak Valley Lutheran Church, was founded in 1900, as was the Methodist Church. St. Ceciliass Catholic Church was built in 1905, although priests had been visiting the area since the 1890s. The Nazarine Church was built in 1914 (Anderson 1955:24).

Like many early North Dakota cities, Velva suffered the inevitable fires in its downtown district. While neither of Velva's two incidents were as disastrous as the early fires in Minot, Fargo and Bismarck, a two story hotel was destroyed in 1903 and a blacksmith shop in 1907 (Anderson 1955:9). Velva's disaster came in another form-flooding. In April 1904, the Souris River overflowed its banks and the valley was filled hill to hill for nearly 200 miles. The first flood water struck Velva at noon and flooded the city within three or four hours. The waters continued to rise for a week and then crested for ten days. During the height of the flood, only five buildings on Main Street had floors above water. There was one small dry island on Main Street-the post office-which continued to operate with a foot of water on the floor. The flood waters did not fully retreat until the first week of June (Anderson 1955:10). As with most communities in the area, Velva had a coal mining industry. The Traux-Traer Mine which opened in 1927 was the most important mine in the area. In the 1950s this mine was producing more than 400,000 tons of coal a year (Minot Daily News 1961:8/9:2; Kazeck 1956:157).

The development of the townsites of Sawyer and Velva followed familiar patterns for the region. The original townsite plats fronted on the railroad and the four or five blocks closest to the depot became the business district of the town. Although both Sawyer and Velva also fronted on the Souris River, the river had little influence on the economy and physical nature of the town and consequently, the northern portions of the two towns were occupied much later as residential sites than were areas closer to the railroad. Apparently neither Sawyer nor Velva ever had water-powers industry.

Minot had continued to maintain its position as the regional trade center, and satellite towns including Burlington and Sawyer have diminished in population and vitality since about 1920. The urban spread of Minot has begun to affect the old townsites, however, and several subdivision developments have

been platted adjacent to Burlington and Sawyer since 1974. Velva is apparently far enough removed from Minot to have maintained its own importance as a rural trade center. Unlike Burlington and Sawyer, Velva has developed its own regional economy, based on coal mining, an electrical generating plant, and agriculture. All three communities, however, have evidence of recent residential expansion.

6.0 RESEARCH DESIGN

The point of this research design is to present a theoretical framework for the interpretation of the data collected during the field work. While the intensive study of the archaeology of the Souris River Basin has just begun, a substantial body of information has already been accumulated. These data have recently been summarized by Fox (1982). Although Fox recognized that many ambiguities exist in the Souris data, he also wrote that, "it is clear that the archaeological record of the Souris Basin as we know it today contains at least prima facie evidence of considerable cultural interaction (through trade, diffusion and other mechanisms), culture contact (periodic encounters with synchronic but contiguous groups), and coexistence between synchronic and sympatric but culturally disparate groups" (Fox 1982:104). Borrowing from Syms' (1977) concept of the Co-influence Sphere Model, Fox argued for the need for a theory of cultural dynamics which stresses interaction between coexisting cultural groups, rather than the old notion of a unilineal chronology, as presented by scholars such as Mayer-Oakes. The old school attempted to explain changes in archaeological attributes in terms of temporal change, but Syms puts forth the theory that artifact assemblages may be influenced by diffusion of traits between different coexisting cultural groups.

Syms (1977) concentrated on ceramic-producing groups known from the Late Prehistoric Period to illustrate that different cultures coexisted in Southwestern Manitoba, but their influence varied with the degree of their commitment to the region. His Co-influence Sphere Model is an attempt to explain ceramic variability in terms of which groups exerted the most influence in the region according to their seasonal use of specific environmental zones. For example, Syms counted 15 archaeological components, representing hypothesized cultural units, which utilized Manitoba to some extent during the Late Woodland Stage. Both Woodland groups from the Boreal Forest zone and various Plains groups can be said to have occupied the region, to varying degrees, during this period. Thus, Syms postulated that in the Late Prehistoric Period, Boreal Forest influences were expressed by the continued appearance of Blackduck Horizon ceramics; while the probable presence of Extended Middle Missouri ceramics and the Devil's Lake-Sourisford Burial Mound Complex represented the influence of horticultural groups from the Northeastern Plains. Other sites, like Snyder Dam, from the same time period, contain the hybridization of traits from both the Boreal Forest and Northeastern Plains cultural groups (Syms 1977).

The research design formulated during the 1977 Burlington Dam investigations of the University of North Dakota (UNDAR) attempted to associate archaeological sites with specific ecological zones (Good and Fox 1978). Their study indicated that at least three eco-zones along the Souris River (Northern Floodplain Forest, Terrace Grasslands, and Upland Prairie) were regularly utilized by prehistoric peoples. The Northern Floodplain Forest sites were predominately occupation sites thought to be related to Woodland groups. Sites in the Terrace Grasslands mostly contained stone circles which were associated with Plains nomadic peoples.

The lack of both mounds and village sites convinced the UNDAR investigators that the Souris region was utilized mainly for hunting during the Late Prehistoric Period. Sites tended to be small, lacked evidence of structures, but contained chipped stone tools indicative of a hunting and gathering economy. Good and Fox (1978) speculated that sites which contained ceramics represented Woodland camps, while those without ceramics were indicative of Plains nomadic cultures. Seven sites recorded by UNDAR along Lake Darling and the Upper Souris River yielded a total of 87 ceramic sherds. Most were classified by Fox (1982) as Sandy Lake Ware. Attributes similar to Blackduck ceramics were also noted. Two sherds were thought to represent Middle Missouri ceramics.

Lithic materials associated with the Upper Souris River ceramic sites showed a low percentage of Knife River flint and a high frequency of Swan River chert. Non-ceramic sites showed the exact opposite trend; high numbers of Knife River flint in comparison to Swan River chert. Good and Fox (1978) believe that the dominance of Swan River chert in Woodland sites indicates a northern influence. The stone circle sites, on the other hand, are thought to have been occupied in Late Prehistoric times by Plain nomadic groups or people related to the Plains Village pattern of the Middle Missouri region. Fox (1982) postulated that the reduction of Knife River flint may reflect the disruption of inter-group trading networks. He pointed out that Lehmer (1971) believed that Knife River flint was gradually replaced by other material types outside of the Knife-Heart region during the Coalescent Tradition period.

In 1979 UNDAR conducted additional investigations in the Souris Basin region, following a narrow right-of-way from the Missouri Couteau to the Souris River at Minot. They found that most of the sites contained stone circles. Three burial mound sites were also recorded. Fox (1982) noted that the mounds were probably related to a Woodland occupation, while

the stone circle sites were the remains of nomadic bison hunters from the Plains.

While Good and Fox (1978) concentrated their research design on the association of sites with certain eco-zones, the Powers Elevation research design, as first presented in our technical proposal in response to the Corps' solicitation for this project (Corps of Engineers 1982), addresses simpler questions which more directly relate to the COE's cultural resource management needs. Our research questions are aimed at defining the nature of the sites encountered in the region. Since this project is interested in the identification and evaluation of cultural remains, three basic topics of study have been chosen as the core of the research design. These topics are function, chronology, and environment. A series of questions for each of these topics serve to focus the analysis of the data collected in the field.

In terms of function, the most important question is, what kind of sites are found during the archaeological survey? What do these sites tell us about settlement and subsistence patterns? What are the inferred functions attributed to stone circle sites? How do the stone circle sites differ from open occupation campsites?

In regard to chronology, the most important factor is attempting to relate sites to a specific time period or cultural group. Can sites in the project area be dated from their physical remains? What time periods and cultural groups are represented? Can Fox's hypothesis (Good and Fox 1978; Fox 1982), that different cultural groups coexisted in the Souris River Valley during the same time period, be supported? Can it be proven that sites with ceramics come from one time period while non-ceramic sites come from another, or are they contemporaneous? If sites with pottery are found, what periods and people do they represent? Over time is it possible to trace social interaction, change, or trading relationships? Are Archaic cultures, as defined by MacNeish (1957) and others for the Canadian Plains, apparent in the Souris River Valley? Is there evidence of influences from the Middle Missouri and Coalescent traditions as outlined by Lehmer (1971), or are influences from the north, like Blackduck, as described by Syms (1977), more apparent?

The third topic to be investigated has to do with the environment. How many of the eco-zones defined by Good and Fox (1978) exist in the current project areas? Are certain kind of sites located in certain environmental or geographic areas? From the information obtained during the survey, is

it possible to make predictions about site locations based on environmental data?

It should be pointed out that our conclusions will be limited by the restrictions of the surface inventory, the artificial boundaries of the specific survey areas, and the nature of the archaeological data recovered. While some of the research questions can be addressed using the surface survey data, more detailed, broad based statements about cultural patterns must await the acquisition of additional information through the subsurface testing program. Other questions may be answered by the stratified excavation of certain sites in the region. Powers Elevation conducted test excavations at a number of sites in the project area during the 1983 and 1984 field seasons. The data recovered at from this program will be applied to the above research questions.

The same three topics: function, chronology, and environment, can be applied to historic sites. The functional approach to historic remains should ask questions such as what kind of sites are located in the project area? Surveys of similar regions on the plains have shown that the remains of early exploration and the fur trade are ephemeral and are easily destroyed by the combined forces of man and nature. The most likely historic sites to be encountered are late nineteenth century and early twentieth century farmsteads and ranch-related features. Many of the buildings located in the survey areas are modern, and related to the urban development of the communities of Velva, Sawyer, Minot, and Burlington.

The chronological approach should address historic sites with such questions as, what time periods are represented? What historic events influenced the settlement of this region? A regional approach can be taken to examine settlement patterns over time. Are the existing historic sites more representative of the first period of settlement in the Souris River Valley during the 1880s, or is the Second Boom period of the turn-of-the-century more evident? When did the population of Minot begin to expand with the formation of surrounding subdivisions?

The study of environmental issues should look at site locations in relation to function. Are sites of similar function located in similar environmental situations? How does site types present reflect land-use? Was cattle ranching or farming the dominate economic activity in the Souris River Valley in historic times? How has urban expansion and development affected land-use?

The point of the historical research will be to formulate generalizations bout historic patterns of human behavior, using archival data. Such topics as land tenure, ethnicity and demographic change can be examined using written records.

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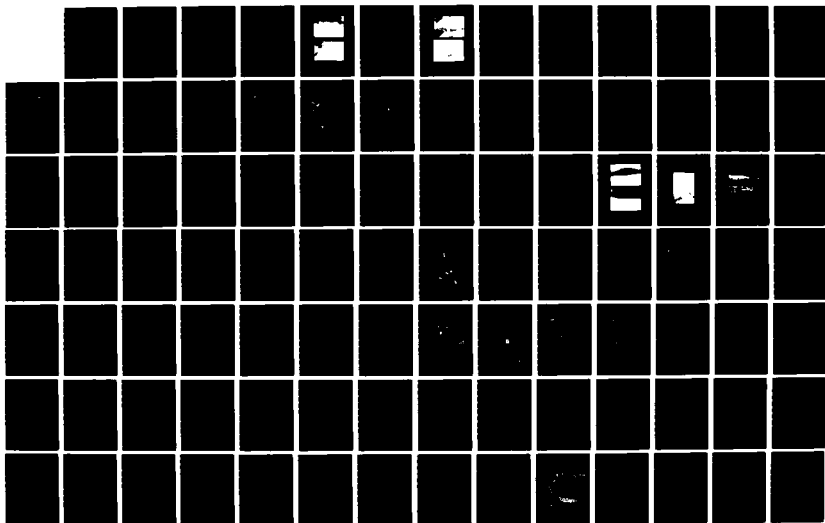
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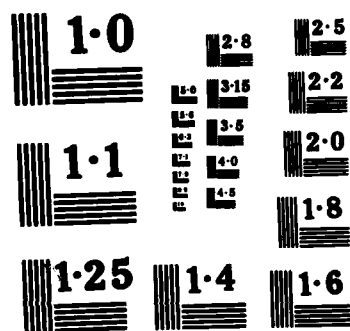
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NATIONAL BUREAU OF STANDARDS
MICROCOPY RESOLUTION TEST CHART

7.0 METHODOLOGIES

The following section will describe the methods used during both the archaeological survey and the historical research. It can be noted that the archaeological investigation techniques differed according to terrain, ground cover, and the specific project area being surveyed. The historical research and recording standards also varied according to the nature of the resources being studied and the survey area.

7.1 ARCHAEOLOGICAL FIELD METHODS

The archaeological inventory and limited testing program associated with the first three tasks specified in Contract No. DACW37-82-C-0030 were conducted by Powers Elevation in August and September of 1982. This was basically a survey level investigation of the project areas, performed according to the schedule set forth by the St. Paul District. Task 1, the Velva levee survey, was conducted on August 26 and 27, 1982 by Paul Friedman and Gregory Newberry of Powers Elevation. Task 2, the survey of the Upper Souris River area above Lake Darling, was done by Mervin Floodman, Paul Friedman, Douglas Dykeman, George Ramsay, and Nick Franke, all working for Powers, from September 7 through 24, 1982. The survey of the Sawyer levee was accomplished by Paul Friedman and Gregory Newberry on August 30, 1982. The rest of Task 3, the survey of the levees around residential subdivisions between Burlington and Minot, was conducted by Powers personnel on September 16, 1982. Additional testing of areas within the Upper Souris National Wildlife Refuge was performed by Mervin Floodman, Sara Virginia Lieper, and Barbara Hickman of Powers Elevation in June, 1984.

The designated project survey areas were denoted on the appropriate USGS 7.5 minute topographic quadrangle maps. The Velva levee survey was conducted within Sections 22 and 23, T.153N., R.80W., McHenry County, shown on the Velva, North Dakota quadrangle, 1949 (Figure 4). The Sawyer levee survey was conducted in Sections 11 and 12, T.153N., R.81W., in Ward County, on the Sawyer, 1948 quadrangle (Figure 5).

The Lake Darling-Upper Souris River project area in Renville County, North Dakota was located on the Tolley, 1948; Mouse River Park, 1949; Mouse River Park NE, 1949; and Mouse River Park NW, 1949, topographic maps. It included portions of Section 30, T.161N., R.85W.; Sections 2,3,11,13,14,23,24, and 25 in T.161N., R.86W.; Sections 5,6,7,8,17,20,21,28,29, and 33 in T.162N., R.86W.; Section 1 in T.162N., R.87W.; Section 31 in T.163N., R.86W.; and Section 36, T.163N., R.87W. (Figures 12-16).

The Burlington to Minot levees were found on the Burlington, 1948; Minot NW, 1948; and Minot, 1966 topographic quadrangles, all in Ward County, North Dakota. The Johnson's Addition

is within the town of Burlington and includes the confluence of the Des Lacs and Souris rivers within the survey boundary, in Section 1, T.155N., R.84W. The Brook's Addition is found in Section 12, T.155N., R.84W., along the east bank of the Souris River just north of Minot Country Club. Talbot's Nursery is on the west bank of the Souris River in Section 7, T.155N., R.83W. Country Club Acres is on the west bank of the Souris River, with some levee features on the east bank, in Section 18, T.155N., R.83W., just south of Minot Country Club. King's Court is within a tight meander loop of the Souris River, south of Country Club Acres on the west side of the river in Section 18, T.155N., R.83W. Tierrectio Vallejo is located in West Minot, along the north bank of the Souris River in Section 21, T.155N., R.83W. (Figures 6-8).

In addition to the USGS topographic quadrangle maps, the field crews employed a set of larger scale engineering maps with five-foot elevation contour intervals, prepared for the COE by K. B. Mackinchan and Associates. When a site was found, its location was noted on both sets of maps. North Dakota Cultural Resources Inventory Site forms were filled out for all sites recorded, and isolated finds were recorded on forms provided by the Powers Elevation Archaeology Department. These site forms were included with the preliminary reports of these investigations (Newberry, Friedman, Schwiegert, and Tate 1982; Floodman, Friedman, and Schwiegert 1982a, 1982b).

7.1.1 Methodology for Velva, Sawyer, and Burlington to Minot Levees

The proposed centerlines for the levees, channel diversions, channel cut-offs, and drainage outlets were noted from the Scope-of-Work (Corps of Engineers 1982), and the engineering maps. This information was then transferred on to the USGS topographic quadrangles used as field maps. In many cases temporary earthen levees were already present along the route of the proposed new levees. Flagging and pinflags occasionally marked the new levee routes.

Whenever possible, a 100-foot corridor was inventoried on either side of the toe of the levee or top bank of the channel. In many cases the total 200-foot right-of-way could not be fully inspected because of the presence of the river, the slope of the bank, or the obstructions of houses, lawns, fences, and streets. All proposed design features were walked using transects, with crew members spaced approximately 15 meters apart.

Terrain surveyed included existing levees, manicured lawns, dense floodplain forest and underbrush, cultivated fields, and paved roadways. Visibility varied from fair (50 to 60 percent) to poor (less than 10 percent). Areas not

covered by houses, lawns and streets were often obstructed by a dense growth of forest and associated understory species which offered little potential for visibility. More closely inspected were areas which offered better visibility, such as garden plots, orchards, vacant lots, cultivated fields, erosional areas, and exposed portions of the riverbank. Much of the area to be surveyed for these levees and channels has already been extensively modified by the construction of houses, streets, and the temporary earthworks. Whatever cultural resources that may have existed here have been largely impacted, destroyed, or buried. These factors influenced the number of sites located during the pedestrian survey, and make it almost impossible to ascertain the potential for subsurface remains (Figure 22).

One site, 32MH3, was recorded along the Velva levee. This site could not be tested at that time because it lay in an unharvested field of oats. Site 32WD24 was located along the Country Club Acres subdivision of the Burlington to Minot levees. It could not be tested because the cultural levels lay deeply buried within the river cutbank. These sites will be discussed in detail later in this report. No prehistoric sites were found along the Sawyer levee.

7.1.2 Methodology for the Lake Darling-Upper Souris River Survey

As specified in the Scope-of-Work (Corps of Engineers 1982), all areas between the Souris River and the 1610-foot msl elevation contour were inspected for cultural resources, from Dam 41 north to Section 36, T.163N., R.87W. (see Figure 3). These areas were delineated from both the USGS topographic quadrangle maps and the larger scale five-foot elevation contour engineering maps. The large scale engineering maps were used to direct the survey in the field.

The original survey strategy was to cover all of the ground area in closely spaced transects. The survey began on the east bank of the Souris River at Dam 41 and moved northward to Mouse River Park. This section of the project area was covered using two crews in a "leap frog" technique. Spacing of the crew members was based largely on topography and visible terrain. Severe limitations to the planned strategy became readily apparent. Visibility within the Upper Souris National Wildlife Refuge was very poor due to the tall grasses, reeds, marsh areas, etc. The maintenance of the natural vegetation as a wildlife habitat has resulted in almost completely obscuring the ground surface. Some visibility existed within areas of the floodplain forest, inside meander loops, and in some of the grassy meadows. When possible, river cutbank exposures and erosional areas were examined in profile. However, the location of cultural sites by normal surface methods was clearly limited due to the conditions cited above.

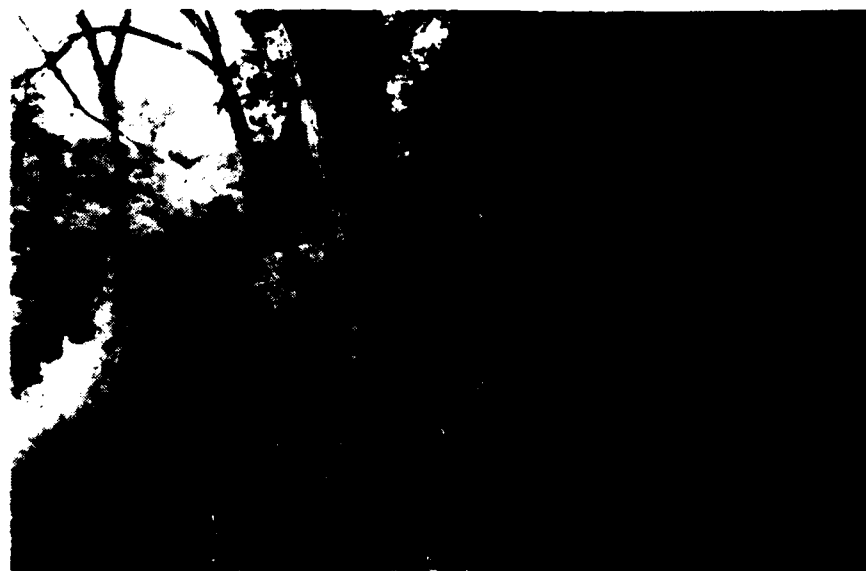
As a result, the investigation strategy was altered to cover the remaining survey area in the best possible manner, with the highest probability for locating cultural resources.

SOURIS RIVER PROJECT

Figure 22



A: Johnson's Addition Area in Burlington
Notice Houses and Temporary Levee in Place



B: Undeveloped Portion of Country Club Estates
Still in Northern Floodplain Forest

Views of the Burlington to Minot Levees Survey Areas

It was decided to concentrate the pedestrian survey in the area above the refuge, north of Section 33, T.162N.,R.86W. This section of the project area was relatively open, with visibility increased by the presence of harvested, cultivated fields. It was thought that once the cultivated fields had been investigated, and site locations recorded, a possible pattern of prehistoric site locations would become apparent, enabling the field crew to estimate which areas within the wildlife refuge would have the highest site potential. These areas could then be shovel probed in an attempt to find subsurface remains, or sites hidden by dense vegetation.

To survey the cultivated portions of the project area, one large crew was utilized, with the five crew members spaced out over the fields at 15 to 20 meter intervals. The area north of the wildlife refuge included stubble fields of recently harvested grains, fallow fields just turned over, pasture and grasslands, hay meadows, and forested parklands close to the river's edge. Since it did not rain while the crew was in the field, cultural materials were not easily visible in the cultivated areas. In the fields of wheat stubble, the transects were so placed as to walk parallel to the rows, in order to maximize visibility. Hay meadows and pastures with thick ground cover, grassed terraces, and portions of the forested parkland were also walked by parallel transects. An attempt was made to examine all exposed river bank profiles and erosional areas (see Figure 23).

When sites were located, all crew members spaced out over the surrounding area in a random manner, to determine the extent and nature of the cultural materials and the limits of the site. Artifacts were photographed and described. Some diagnostic artifacts and representative patterned tools of the cultural assemblages were collected. The remaining material was left in situ. Both black and white and color photographs were taken of each site area. Any cluster of three or more artifacts in close proximity was recorded as a site. One or two artifacts were recorded as an isolated find. In addition to finding new sites, the six prehistoric sites previously recorded by the University of North Dakota within the Upper Souris project area were relocated and examined.

All of the ground between the river and the 1610-foot elevation contour from Section 33, T.162N.,R.86W. to the end of the project area in Section 36, T.163N.,R.87W. was closely inspected using pedestrian survey techniques. Starting in Section 6, T. 162N.,R.86W., the survey area

SOURIS RIVER PROJECT

Figure 23



Parkland Terrian Along the Edge of the River



Examining a Cutbank

Views of the Upper Souris Area

narrowed considerably, with the 1610 foot contour line falling just along the edge of the river. To cover the remaining area, north of Section 36, T.163N., R.87W., the crew was again divided into two teams, which walked along the river in a "leap frog" manner, closely inspecting the cutbank for eroding deposits.

After completing the survey of the cultivated areas above the wildlife refuge, all the newly recorded sites below 1610 feet in elevation were shovel probed to ascertain the depth of cultural remains and the potential for buried deposits beneath the plowzone. Only one or two probes were dug at each site. They were approximately 30 cm in diameter, and excavated well below the modern cultivation level, to between 30 to 40 cm in depth. The fill was screened through $\frac{1}{4}$ inch mesh.

The remaining portions of the Upper Souris River National Wildlife Refuge which had not been closely examined previously were dealt with after the cultivated areas had been surveyed. Above Mouse River Park to the end of the wildlife refuge, on both sides of the river, and below Mouse River Park on the west bank of the Souris south to Dam 41, areas which were thought to have high potential for site locations were walked in a single sweep transect. This included places elevated above the river, terraces, oxbows, and patches of ground with good surface visibility.

Because much of the refuge was covered by dense vegetation, shovel probes were excavated at places thought to have high site potential. The survey of the cultivated portions of the river valley above the wildlife refuge appeared to indicate that sites tended to be located along intermittent drainages to the Souris, and next to sharp meanders of the river. The shovel probes on the west bank of the river below Mouse River Park, and on both sides of the Souris north to the refuge boundary, were dug in an intuitive manner at similar locations. This work was performed in 1982.

At the request of the COE, Powers also excavated a series of shovel probes on the east bank of the Souris River, within the wildlife refuge between Mouse River Park and Dam 41. These probes were concentrated in areas which had soils similar to the soils where the up river sites were found. This work was done in 1984.

A total of 51 probes were excavated in the wildlife refuge during the 1982 field season. In 1984 a total of 76 shovel probes were dug at six specific areas in the refuge.

As previously mentioned, many portions of the refuge are wetlands and marshes created by the recent construction of dams by the U.S. Fish and Wildlife Service, to improve the habitat of the refuge. These wetlands and marshes were not tested because they were considered to have low potential for yielding significant cultural resources.

In addition, there were islands created by the construction of channels through meander loops which were inaccessible. However, this areas tended to be low lying, covered with thick vegetation, and are considered to have a low potential for containing significant cultural resources. The soil survey of Renville County shows most of these locations as marsh (Thiele et al. 1977). A boat was obtained to examine the river banks in the upper reaches of the project area, but due to obstructions in the river the boat could not be taken through the wildlife refuge. It is believed that in total the field crew visually inspected about 80% of the ground in the Upper Souris area.

7.2 HISTORICAL RESEARCH AND FIELD METHODS

The historical research and survey of standing structures was conducted as a separate effort, but in close cooperation with the archaeological investigations. The historical work was carried out by Cultural Research and Management, Inc., under a subcontract with Powers Elevation, with Mr. Kurt P. Schweigert serving as Project Historian.

The theoretical approach applied to the historical cultural resource investigations was that all aspects of human behavior in historic times in the study area were worthy of study, even very recent manifestations. Thus, all structures, standing or in ruins, no matter how modern, were examined, recorded, and assessed. The history of the project area was interpreted not only by its physical sites, but in a broader sense by its architecture, demographic make-up, economic trends, social organization, as well as any special or environmental preferences noticed among its residents.

Initial archival research was begun in August, 1982, and was carried on intermittently until the end of February, 1983. The archival research phase of the investigation focused on examination of published, manuscript or other documentary materials concerning the project area and its known or reported historic sites. Historic site investigations of the area had previously been undertaken in 1978-1979 by the University of North Dakota Archaeological Research, and in 1979 a report titled "Historical Cultural Resource Survey of the Upper Souris River, North Dakota", was prepared by Kurt P. Schweigert. This report was heavily relied upon in the preparation of this product. Other important archival resources were located in the collections of the Dakota Room of the Chester Fritz Library at the University of North Dakota, and the general histories of Dakota Territory, North Dakota and the Provinces of Manitoba and Saskatchewan available at the State Historical Society of North Dakota.

Documentary material concerning the fur trade era on the Souris River were found primarily in major publications about the American and British fur industries. Specific information was gathered from published and unpublished collections of the State Historical Society of North Dakota, including relevant excerpts from Hudson's Bay Company archives and the Peter Garrioch Journal of 1843-1847. Additional fur trade material was gathered from publications of the Historical and Scientific Society of Manitoba. Information about military operations and the 1873 International Boundary Commission activities were gathered from collections of the Dakota Room at the University of North Dakota.

Documentary material concerning early settlers and settlement sites, stage stations, post offices, and townsites was found in a number of sources, including a history of Renville County, the earliest General Land Office survey maps, and the 1885 Census of Dakota Territory. The General Land Office maps and notes of the surveyors were produced between 1885 and 1892, and the locations of many early settlement sites, trade centers, and trails are accurately illustrated. The 1885 census contains ethnic and economic information about the earliest settlers of the Souris Valley. Homesite and townsite locations of the "Second Boom" era, 1901-1915, are illustrated in several atlases available at either the State Historical Society or the University of North Dakota.

Field survey operations at the proposed levee and channel modifications near Velva, North Dakota, were conducted on 17 and 18, August, 1982, by Kurt P. Schweigert and Ron W. Deiss. A total of 24 sites were recorded and photographed. Recordation of the historic period cultural resources in the remaining survey areas was conducted in four episodes of field survey between October 20 and December 6, 1982. On 20 and 21, October, 1982, Ron W. Deiss and Nick Franke recorded some of the sites encountered by the archaeological crew of Powers Elevation in the Upper Souris area. Between 1 and 7, November, 1982, a major portion of the historic period resources were surveyed and recorded in the Lake Darling/Upper Souris River, Sawyer, King's Court and Talbot's Nursery portions of the project area. The last two episodes of field work occurred on 16 November and 6 December, 1982, during which times the Country Club Acres, Tierrecito Vellejo, Brook's Addition and Johnson's Addition were surveyed.

Field methods included pedestrian survey, production of verbal notes, mapping of sites, and photography of features and sites. Features in rural sites in the Upper River portion of the survey were measured, but features on urban sites were not measured because of the perceived low research value of the latter information.

Field data on sites and structures were maintained in journal form until the close of the survey, at which time the pertinent information was transferred to the appropriate site forms. Rural farmsteads, such as those found along the Upper Souris River above the wildlife refuge, were recorded as discrete sites. Urban subdivisions, such as those located along the Burlington to Minot levees, however, were recorded as single sites, with many features. Each house within the subdivision was thus treated as a feature, while the residential tract itself was recorded as a macro-site. This was done because in many of the modern housing tracts along the levees, structures were of homogeneous construction styles and similar ages. In some cases only the portions of the subdivision which were located within the 200 foot wide survey corridor was recorded; so that for these housing tracts the site form represents only a portion of the total macro-site actually present.

The exceptions to the rule for recording urban sites were the survey of Velva and Sawyer. Here the houses were less homogeneous, and different architectural styles and eras of construction were represented. In Sawyer sites were recorded according to property boundaries or distinct groups of buildings. At Velva, each historic structure was recorded as a separate site.

Over 500 historic features and buildings were examined during the historical inventory. They ranged from archaeological remains where no structural evidence still stands, to rural farmsteads with their agriculturally related features, to modern urban residential dwellings. Along the levees between Burlington and Minot, the sites recorded at the Johnson's Addition, Brook's Addition, Talbot Trailer Park, Country Club Acres, King's Court, and Tierrectio Vallejo contain recent homes which are not considered historically important. Both the towns of Velva and Sawyer contain residential structures of more diversity, a few of which could have either architectural or historical merit. On the Upper Souris River were both abandoned farmsteads and currently occupied and operating farms. Historical locations which appeared to have some potential for architectural or historical significance were further investigated through public records such as local county deed and tax rolls, and the General Land Office tract books and survey plats.

Site forms for the historical resources recorded during the Souris River Project survey were included in the preliminary reports produced by Powers Elevation (Newberry, Friedman, Schweigert and Tate 1982; Floodman, Friedman and Schweigert 1982a; 1982b).

8.0 INVESTIGATION RESULTS

During the cultural resources survey of the first three priority areas of the Souris River Project, a total of 16 new prehistoric sites and 61 new historic properties were located and recorded. In addition, seven prehistoric isolated finds and four historic isolated artifacts were recorded in the Lake Darling-Upper Souris River project area. Also in the Upper Souris area, Powers Elevation re-evaluated six prehistoric sites and five historic sites previously recorded by the University of North Dakota. The data are presented below, divided into prehistoric and historic discussions. Each section then gives site specific descriptions within each task area.

8.1 ARCHAEOLOGICAL SURVEY RESULTS

A total of 16 archaeological sites and eight prehistoric isolated finds were recorded during the Powers Elevation survey program of the three priority tasks performed during the 1982 field season for the Lake Darling-Souris River Project. Of these, one archaeological site and one isolated find were recorded during Task 1, the Velva levee cultural resources survey (Newberry, Friedman, Schweigert, Tate 1982). The vast majority of the archaeological sites (14 total) and all seven remaining isolated finds were recorded during Task 2, the Lake Darling-Upper Souris River cultural resources survey (Floodman, Friedman, Schweigert 1982a). The remaining archaeological site was recorded during Task 3, the Burlington-Minot and Sawyer levees cultural resources survey (Floodman, Friedman, Schweigert 1982b).

Each of the archaeological sites discovered and recorded during the 1982 field survey are briefly discussed and described below. Also included is a short summary of the isolated finds. Additional details are present within the site and isolate forms enclosed in the 1982 preliminary reports cited above. The recorded materials and sites are separated into three subsections for each task of the current COE contract performed.

Additionally, six archaeological sites had been previously recorded during the 1977 UNDAR survey of the shoreline of Lake Darling and the proposed Burlington Dam (Good and Fox 1978). These sites lay within the current scope-of-work for the Task 2 survey of Lake Darling-Upper Souris River. All six of these sites were relocated and evaluated during the course of Powers Elevation survey program. These sites are also briefly described and discussed under the Task 2 results.

Also discussed under the Task 2 heading are the results of a program of shovel probe testing of various areas within the Upper Souris National Wildlife Refuge. In 1982 a total of 51 shovel probes were excavated. Of these, two produced cultural material and were recorded as sites (32RV15 and 32RV16). In 1984 76 additional probes were dug; all negative.

Each site discussed will be labeled by both its Smithsonian Institution Trinomial System (SITS) number and its temporary field number (in parenthesis).

8.1.1 Task 1, The Velva Levee Survey

One archaeological site was recorded during the Velva Survey and assigned Smithsonian Institution Trinomial System (SITS) number 32MH3 by the State Historical Society of North Dakota (Figure 24).

32MH3 (PE-S-1)

Site 32MH3 is located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 22, T.153N., R.80W. The site is located on the current Souris River floodplain at an elevation of 460 meters. As defined, the site covers an area of approximately 10 meters square and lies 297 meters south of the present channel of the Souris. The site is located in a large cultivated oat field, with a dense cover of unharvested oats at the time of the survey. The site is situated on the south edge of the field 26 meters north of the fenceline adjacent to the railroad tracks. The site consists of a very light and diffuse scatter of chipped stone, bone, and fire-cracked rock. Given ground visibility, the site may actually be much larger than observed.

Artifacts collected:

None.

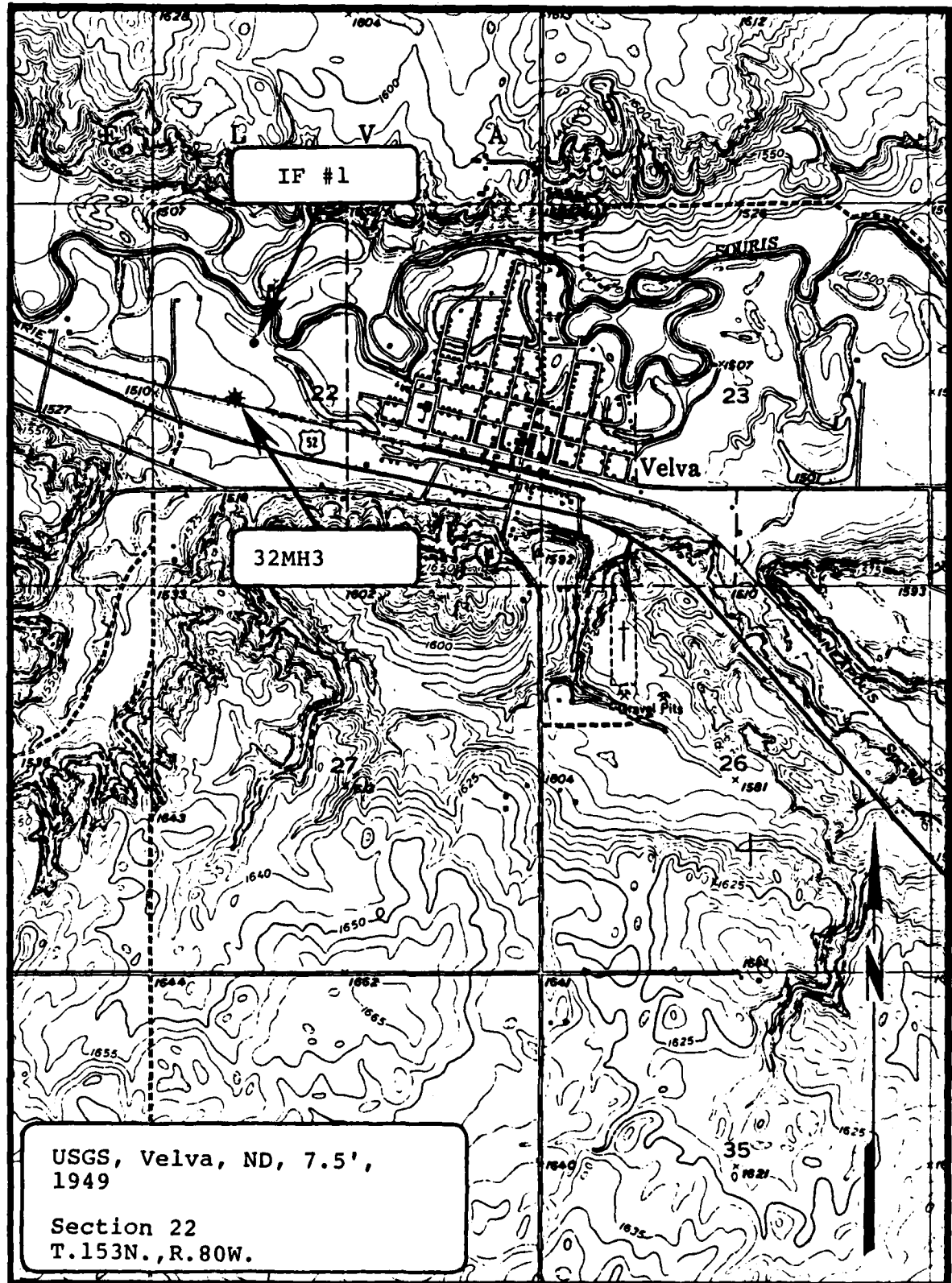
Artifacts observed:

- 1 bifacial thinning flake of Knife River flint.
- 2 bone fragments (probably Bison).
- 1 piece fire-cracked rock - reddish tan sandstone.

Testing results:

Because the site is located in a privately owned oat field that was not harvested at the time of survey, the site was not immediately shovel tested.

Figure 24



NRHP Eligibility and Recommendations:

The site integrity has certainly been compromised by repeated cultivation; however, in situ materials may exist beneath the plowzone. The exact nature of the site's significance and potential eligibility to NRHP is undetermined pending a subsurface testing program to determine the exact nature of the site's sub-plowzone deposits. This testing should be commenced in spring or fall while the field is fallow and be of such a nature as to determine the exact site depth, boundaries, nature of the site's significance and potential eligibility to NRHP.

One isolated find was recorded and assigned field number PE-S-IF-1 (Figure 23).

PE-S-IF-1

Isolate PE-S-IF-1 is located in NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22, T.153N., R.80W. The isolate consisted of a single flake of Knife River flint/brown chalcedony. The flake was recorded in a large oat field at an elevation of 457 meters on the current Souris River floodplain. The isolate was recorded 91 meters south of the present Souris River channel. Ground visibility was 50% and no other cultural materials were observed. As the artifact was isolated, it is not deemed significant and no further work is recommended. This isolate may be associated with site 32MH3.

8.1.2 Task 2, The Lake Darling-Upper Souris River Survey

The archaeological survey of the Upper Souris River Valley above Lake Darling included the recordation of newly discovered prehistoric site locations and isolated finds, the re-evaluation of the sites previously recorded in 1977 by UNDAR, and shovel testing within the Upper Souris Wildlife Refuge.

8.1.2.1 Powers Elevation Archaeological Sites

A total of 14 prehistoric sites were recorded by Powers during the 1982 field season, and assigned SITS numbers 32RV3 - 32RV16 by the SHSND. Site locations are shown on Figure 25 and Figures 26-29.

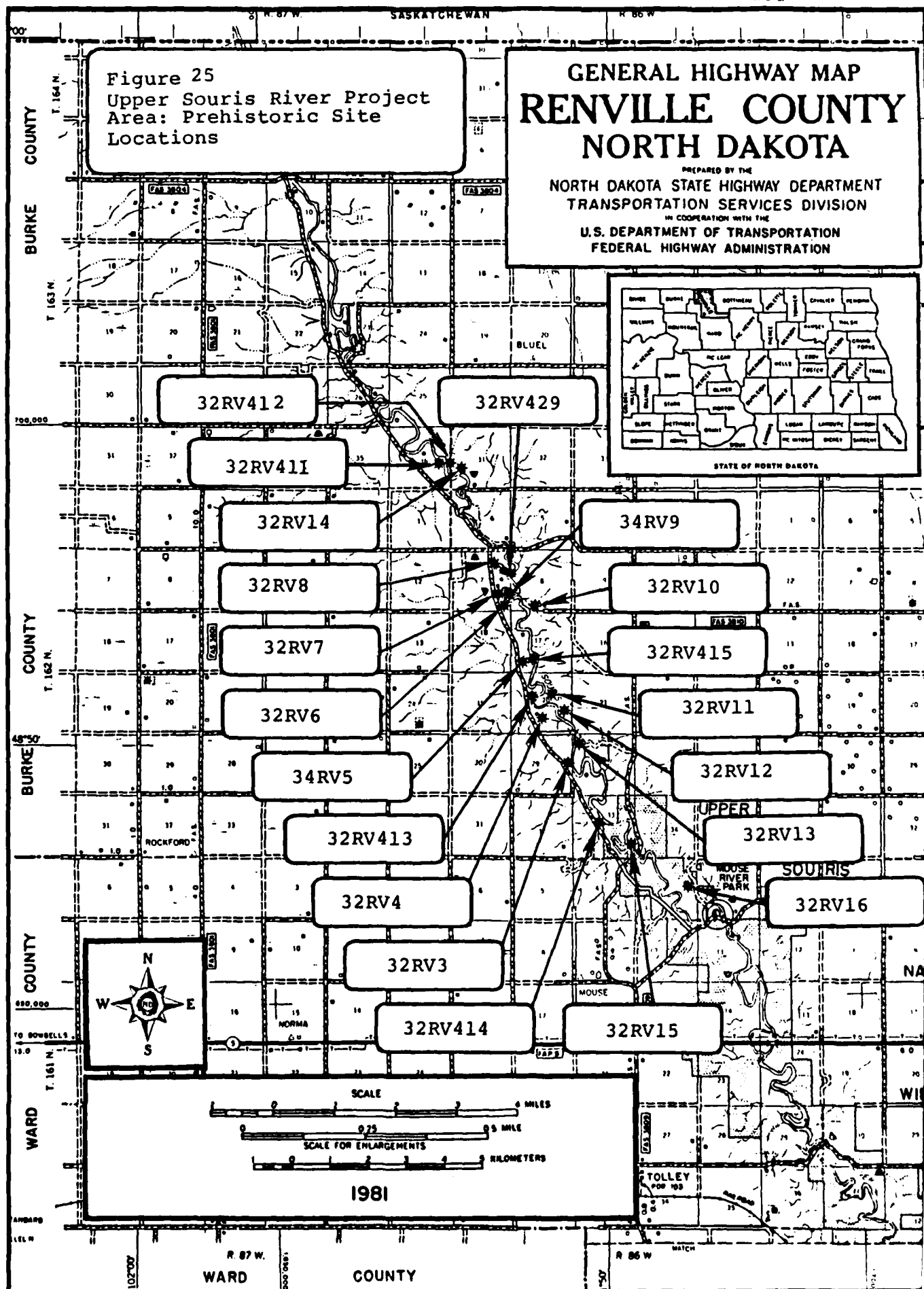
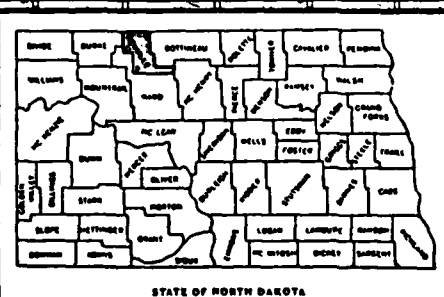
32RV3 (PE-82-LD-1)

Site 32RV3 is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T.162N., R.86W. The site is situated on a terrace above the

Figure 25
Upper Souris River Project
Area: Prehistoric Site
Locations

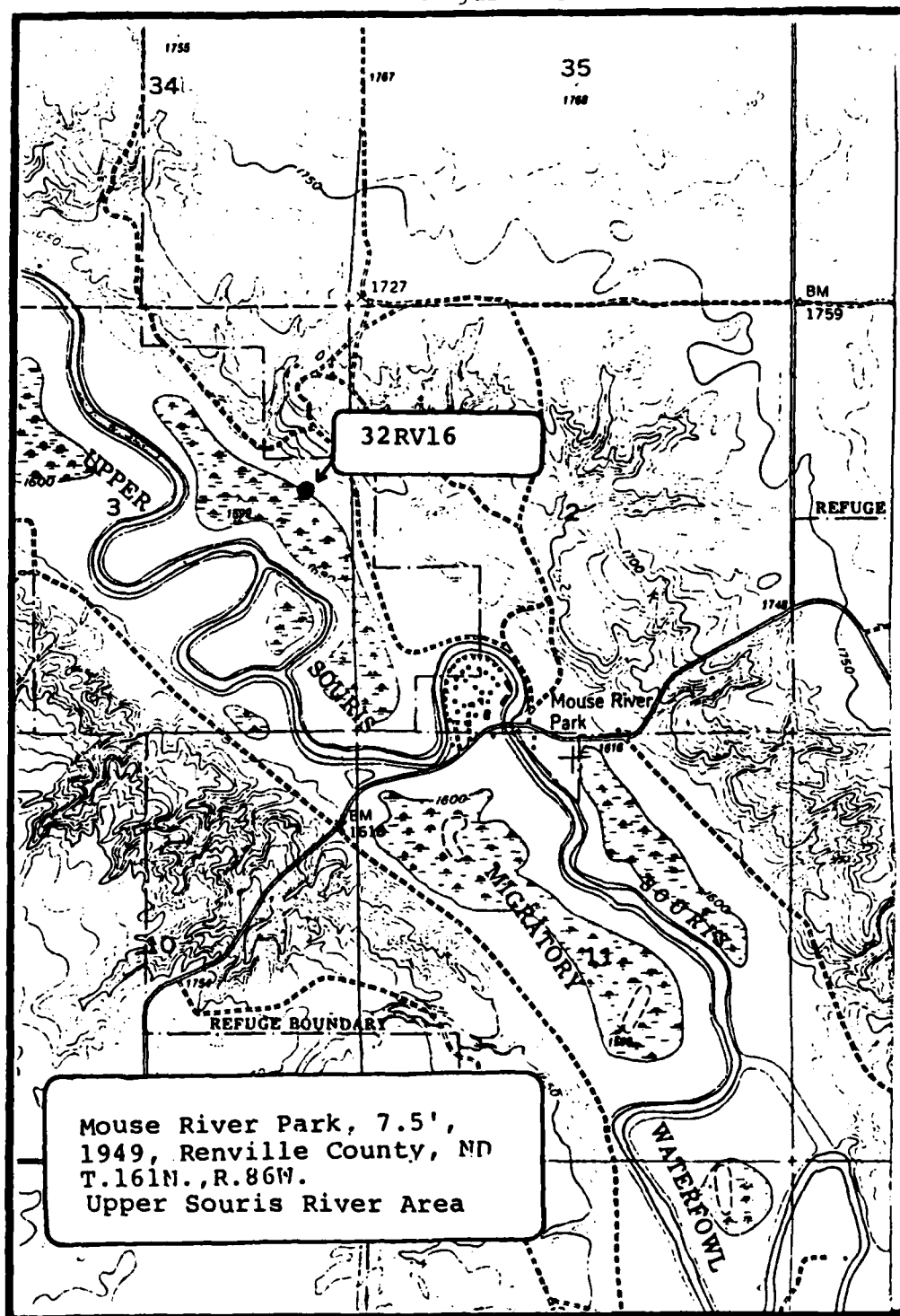
GENERAL HIGHWAY MAP RENVILLE COUNTY NORTH DAKOTA

PREPARED BY THE
NORTH DAKOTA STATE HIGHWAY DEPARTMENT
TRANSPORTATION SERVICES DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



SOURIS RIVER PROJECT

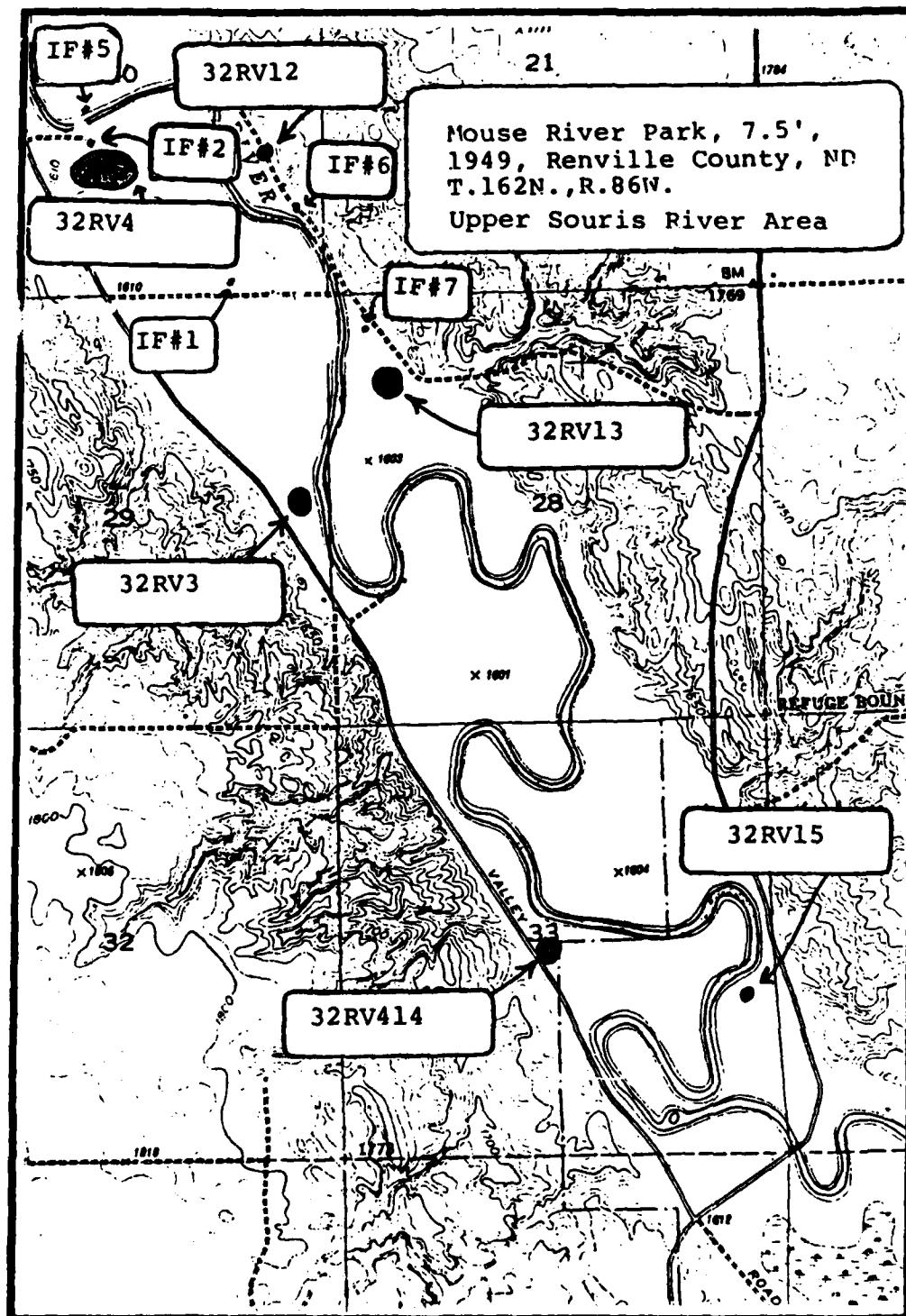
Figure 26



Prehistoric Site Locations
Map A

SOURIS RIVER PROJECT

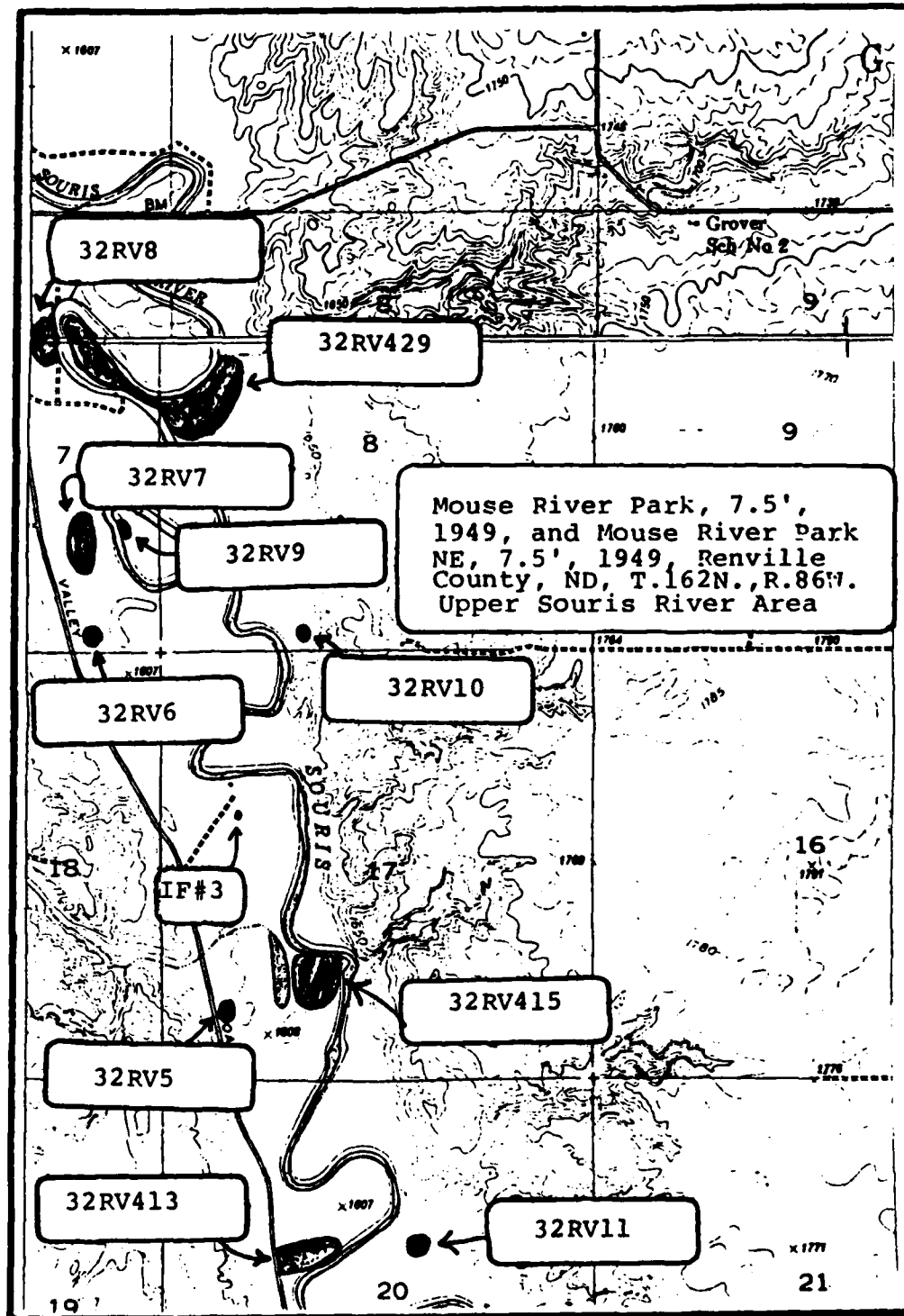
Figure 27



Prehistoric Site Locations
Map B

SOURIS RIVER PROJECT

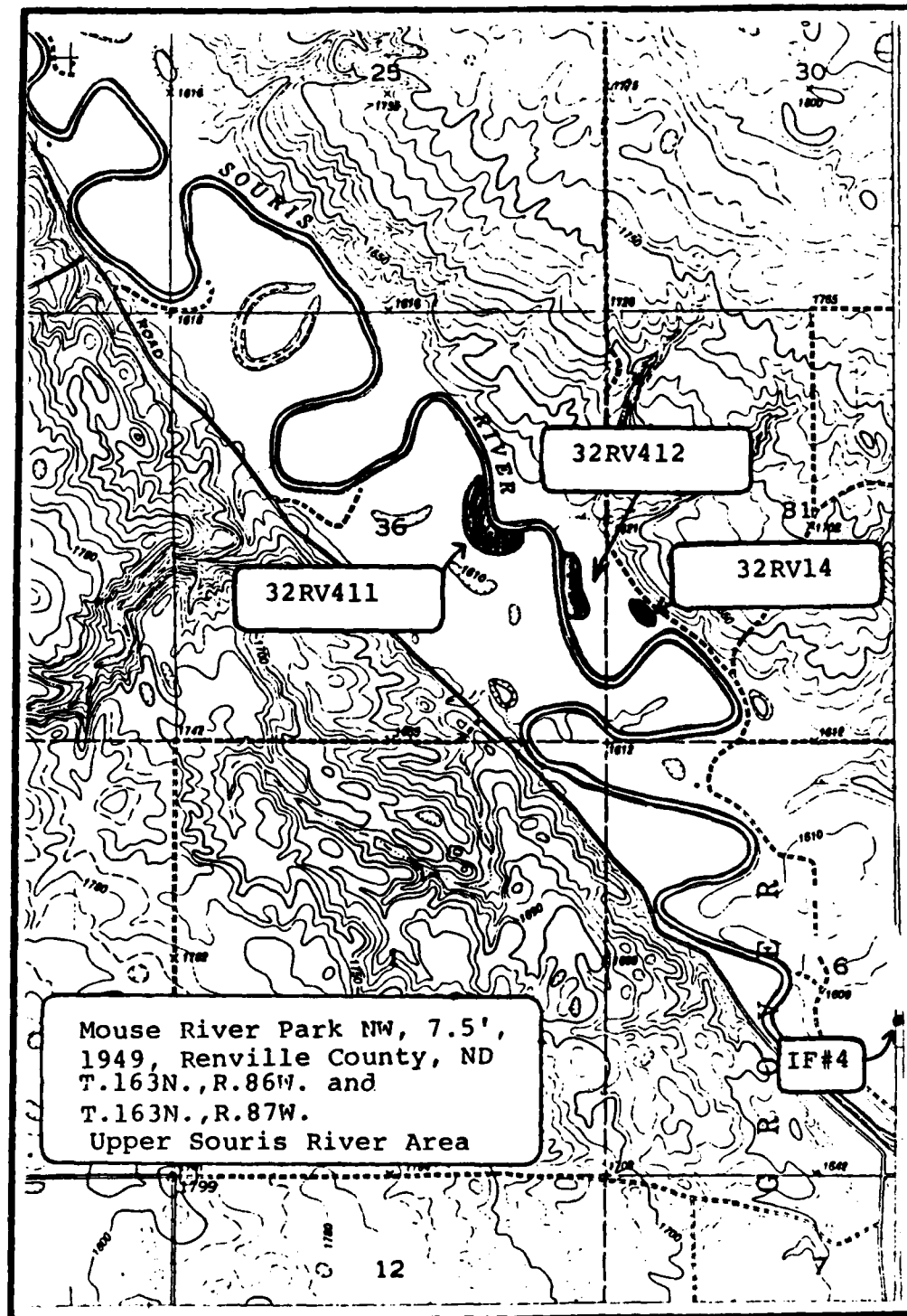
Figure 28



Prehistoric Site Locations
Map C

SOURIS RIVER PROJECT

Figure 29



Prehistoric Site Locations
Map D

west bank of the Souris River and covers an area of approximately 8361 square meters at an elevation of 489 meters (1605 feet). The site, as defined, lies 61 meters west of the current Souris River channel. The site is located in a cultivated field just recently turned over at the time of the survey. No rain had fallen since the plowing, which limited visibility. The site lies on the south edge of the field just north of the fenceline and 65 meters north of a deep, intermittent stream channel. The site extends from the road on the west, but not to the fieldline on the east. Site materials observed consist of a widely scattered concentration of lithic artifacts. No ceramics were observed. 32RV3 has been tentatively classified as having an Early Archaic cultural component, based upon the recovery of an apparent Oxbow-type projectile point from the site area.

Artifacts collected:

(See Appendix A)

- 1 Swan River chert projectile point base (Oxbow)
- 1 white quartzite biface fragment
- 1 Knife River flint endscraper

Artifacts observed:

- 3 Swan River chert flakes
- 1 utilized brown quartzite primary flake
- 3 large angular quartzite flakes with cortex
- 1 white quartzite tertiary flake

Testing Results

A total of two shovel probes were placed within the defined site limits. Probe #1 was placed on the western portion of the site and Probe #2 on the eastern portion of the site.

Probe #1

- 0-21 cm plowzone
- 21-35 cm sandy silt
- 35-92 cm clayey silt
with caliche

Probe #2

- 0-31 cm silty clay, hard,
dark black, compact
plowzone
- 31-42 cm brown sandy
silt

The sandy silt layer is intact with the beginnings of caliche development. The cultural horizon appears to lie above this level and is confined to the disturbed area of the modern plowzone.

NRHP Eligibility and Recommendations:

32RV3 is a sparse lithic scatter located in a cultivated field. A total of 11 pieces of cultural debris were found in an area estimated at 8361 square meters. The plowing of the field has probably impacted the integrity of the site. Powers does not feel that this site is eligible for nomination to the NRHP. The two shovel probes do not indicate that intact subsurface cultural remains will be found below the plowzone. However, some archaeologists believe that small, surface, and disturbed sites can yield significant information relating to prehistoric activities. Therefore, it is recommended that additional testing take place at 32RV3 to verify our initial assessment of the site and clarify its NRHP status (see Talmage and Chesler 1977 for a discussion of the relevance of plowzone archaeology).

32RV4 (PE-82-LD-2)

Site 32RV4 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 20, T.162N., R.86W. The site is situated on a terrace above the west bank of the Souris River. The site area is approximately 22,204 square meters and lies at an elevation of 491 meters (1610 feet). The defined site area lies 488 meters west of the current Souris River channel in a large wheat field with a dense cover of harvested stubble at the time of the survey. The site lies south of the Knutson farm, 10 meters north of a small intermittent stream drainage flowing east to the Souris. The site extends over a low knoll which reaches an elevation of 1611 feet. The site is very sparse and widely scattered. Cultural materials consist totally of lithic debris with few tools or finished artifacts and many pieces of angular debris with and without cortex. The site area is covered by a fairly heavy cover of gravel and cobble deposits on the surface, which suggests little site depth or potential for deeply buried cultural materials. The presence of a fully grooved maul from the site area suggests a Late Prehistoric occupation. No other artifacts of temporally diagnostic nature were observed.

Artifacts collected:

1 large granitic maul, fully grooved (Appendix A)

Artifacts observed:

- 1 Knife River flint tertiary flake
- 1 Swan River chert core
- 1 quartzite flake with retouch on right lateral margin
- 1 quartzite river cobble core
- 1 basaltic core fragment
- 1 bifacially retouched primary flake of Swan River chert
- 1 white quartzite tertiary flake
- 1 red quartzite cortical flake

Testing Results:

108

A total of two shovel probes were excavated within the site limits. Probe #1 was placed on the western portion of the site and Probe #2 on the eastern portion of the site.

Probe #1

0-18 cm plowzone
18-26 cm sandy silt
26-40 cm clayey silt

Probe #2

0-29 cm plowzone
24-30 cm sandy silt
30-36 cm clayey silt

The sandy silt horizon exhibits the beginning of caliche development and is intact and undisturbed. It appears the cultural materials are, therefore, located above this zone and appear to be entirely within the zone of modern cultivation.

NRHP Eligibility and Recommendations:

32RV4 is a very sparse lithic scatter, of only nine artifacts observed over 22,204 square meters. Much of the cultural material was coarse, consisting of angular pieces of scatter or cores and primary flakes. The site has been plowed and its integrity has been disturbed. The two shovel probes revealed little potential for significant cultural deposits beneath the plowzone. Our initial evaluation is that this site does not appear to be eligible for the NRHP. However, because of the large size of the site, it is recommended that a more extensive program of shovel probes would more surely determine the National Register status of 32RV4.

32RV5 (PE-82-LD-3)

Site 32RV5 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 17, T.162N., R.86W. The site is located on the west bank of the Souris River at an elevation of 491 meters (1611 feet). As defined, the site covers an area of approximately 4636 square meters and lies 457 meters west of the current Souris River channel. The site is located within a large cultivated wheat field with a dense cover of harvested stubble at the time of the survey. The site is situated in a small flat just east of the valley road along a row of powerlines and west of a large meander. East of the meander scar lies site 32RV415 (McCarroll site) previously recorded by UNDAR (Good and Fox, 1978). 32RV5 consists of a sparse and widely scattered concentration of chipped stone debris with dense amounts of gravels present on the site surface. No temporally diagnostic artifacts were observed.

Artifacts collected:

None.

Artifacts observed:

- 1 quartzite river cobble core.
- 1 secondary flake of Knife River flint.
- 2 Swan River chert flakes.
- 1 large primary flake of quartzite.

Testing Results:

A total of two shovel probes were excavated within the site boundaries. No cultural materials were recovered.

Probe #1

0-21 cm plowzone
 21-26 cm mixed light
 and dark sands
 26-28 cm sand lens
 28-41 cm mixed sand and
 silt
 41-58 cm calcified horizon,
 clay caliche stains

Probe #2

0-24 cm plowzone
 24-34 cm light brown sands
 34-40 cm brown, silty clay

NRHP Eligibility and Recommendations

32RV5 is another sparse lithic scatter, with only five artifacts found over 4636 square meters. The site has been severely impacted by modern cultivation. The two shovel probes show that the likelihood of finding intact significant cultural deposits below the plowzone is low. Powers does not believe that this site qualifies for nomination to the NRHP. However, additional shovel probes at the site would determine the validity of our evaluation, and clarify the NRHP status of 32RV5.

32RV6 (PE-82-LD-4)

Site 32RV6 is located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 7, T.162N., R.86W. The site is situated on the west bank of the Souris River at an elevation 491 meters (1608 feet). As defined, the site covers an area of 5806 square meters and lies 274 meters west of the current channel of the Souris. The site is currently under cultivation with a dense cover of harvested wheat stubble at the time of the survey. The site lies on the side and top of a small knoll located between the valley road on the west and 61 meters west of a large meander scar/oxbow on the east. The site materials did not extend to the edge of the meander scar nor to the roadway. The site consists of a sparse concentration of widely scattered lithic artifacts. No temporally diagnostic artifacts were observed.

Artifacts collected:

1 Swan River chert discoidal biface/chopper (Appendix A).

Artifacts observed:

5 Swan River chert (coarse white) tertiary flakes.
 1 Swan River chert core.
 1 grey Swan River chert retouched flake.
 1 large tertiary flake Swan River chert.

Testing Results:

Only one shovel probe was excavated within the site area.

Probe #1

0-21 cm plowzone dark black clay, silt, sand
 21-34 cm top of intact light brown C-horizon very sandy

Between 21-34 cm mixed light and dark brown sands and silts. There is little to no potential for intact buried material as 21-34 cm may represent an older plowzone with recent accumulation and modern plowzone overlying this zone.

NRHP Eligibility and Recommendations

32RV6 is a sparse lithic scatter, with nine artifacts observed over 5806 square meters. Modern plowing has disturbed the integrity of this site. The single shovel probe appears to indicate that there is minimal potential for intact significant buried cultural deposits to be found below the plowzone. Our provisional assessment of this site is that it does not qualify for the NRHP. However, the validity of this evaluation could be better judged if additional shovel probes were excavated at 32RV6.

32RV7 (PE-82-LD-5)

Site 32RV7 is located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ and SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 7, T.162N., R.86W. The site is situated on a terrace above the west bank of the Souris River and covers a large area of approximately 26,108 square meters at an average elevation of 489 meters (1605 feet). The site lies 91 meters west of the current channel of the Souris River. The site is currently under small grain cultivation with a dense cover of harvested wheat stubble at the time of the survey. The site is located in a field south of the Curtis Ones home on a small rise on the west edge of an old channel scar and extends eastward to the alfalfa field adjacent to the valley road. The cultural materials were concentrated on the south edge of the site adjacent to the

alfalfa field. Six of eight flakes were located in this area. The alfalfa field exhibits numerous rodent mounds with dense gravels. Similarly, the wheat field has a thick gravel layer on the surface suggesting little potential site depth or potential for significant buried materials. No temporal diagnostic artifacts were observed.

Artifacts collected: (Appendix A)

- 1 brown mottled chert biface.
- 1 utilized Knife River flint flake.

Artifacts observed:

- 1 brown quartzite secondary flake.
- 2 white quartzite secondary flakes.
- 1 tertiary flake of white-brown quartzite.
- 1 white quartzite primary flake.
- 1 Knife River flint core fragment, angular debris.

Testing Results:

One shovel probe was excavated in the area of concentration on the south edge of the site.

Probe #1

- 0-17 cm plowzone
- 17-23 cm gravels - probable outwash

The layer of gravels/outwash immediately underlies the modern plowzone. This suggests the layer of cultural material lies above this contact zone and is now obliterated by the plowzone.

NRHP Eligibility and Recommendations:

32RV7 is a sparse lithic scatter of only eight observed artifacts in a 26,108 square meter area. The site appears to have been disturbed by cultivation. The shovel probe shows that the plowzone exists directly on top of outwash gravels, indicating that there is little potential for buried cultural remains at 32RV7. But because of the large size of this site, additional testing would help to more accurately assess its NRHP eligibility.

32RV8 (PE-82-LD-6)

Site 32RV8 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 7, T.162N., R.86W. It is situated on a terrace directly above the west bank of the Souris River. The site is

situated at an elevation of 489 meters (1608 feet) and covers an area of approximately 9272 square meters. The site lies just 30 meters from the current Souris River channel. The site area is currently utilized for small grain cultivation and at the time of the survey had just recently been turned over. No rain had fallen, which limited the surface visibility somewhat. The site lies directly across the river from site 32RV429 (Curtis Ones Site) previously recorded by UNDAR (Good and Fox 1978). The site extends from the river edge west almost to the valley road. Deep cutbanks across the river show good potential for deeply buried cultural horizons with multiple buried paleosols. The site materials include widely scattered lithic debris and one cord marked, grit-tempered pottery sherd. The presence of the ceramic sherd indicates a probable Plains Woodland or Plains Village associations.

Artifacts collected:

None.

Artifacts observed:

- 1 Swan River chert tertiary flake.
- 1 brown quartzite secondary flake.
- 1 gasaltic primary flake.
- 1 Swan River chert primary flake.
- 1 primary quartzite flake with unifacial retouch.

Testing Results:

A total of two shovel probes were excavated at 32RV8.

Probe #1

0-18 cm modern plowzone
 18-29 cm light tan clay
 29-36 cm dark clayey silt
 36-52 cm lighter clayey
 silt

Probe #2

0-15 cm modern plowzone
 15-21 cm mottled light/dark
 sandy silt
 21-23 cm dark humic band
 23-34 cm light tan silty
 clay
 34-36 cm dark, intermittent
 band
 36-41 cm light tan silty
 clay
 41-43 cm dark humic band
 43-50 cm light tan silty
 clay

The shovel probes indicate that the upper cultural horizon observed is apparently destroyed by the modern plowzone.

However, the presence of alternating light and dark bands in Probe #2 clearly indicates a high potential for buried cultural materials not visible by surface inspection. Although no cultural materials were recovered, the potential for subsurface cultural deposits clearly exists within one or more buried soil zones.

NRHP Eligibility and Recommendations:

The observed surface cultural horizon at 32RV8 appears destroyed by modern plowing. The clay layer 18-29 cm in Probe #1 is intact, indicating the cultural materials are above this layer. Probe #2 showed definite proof of potential for subsurface cultural deposits with multiple buried soils/humic layers present. Any materials beneath the modern plow-zone would be intact. If buried cultural components exist (although none were encountered in the probe), the site could be of extreme significance. Further testing of the site for deeply buried cultural components is necessary to adequately assess the exact nature of the site's significance and potential eligibility to the NRHP. This testing should be conducted prior to potential impacts to the site and should be of sufficient nature to determine the presence of any deeply buried cultural components.

32RV9 (PE-82-LD-7)

Site 32RV9 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 7, T.162N., R.86W. The site is situated on a terrace immediately above the east bank of the Souris River. The site lies at an average elevation of 489 meters (1605 feet) and covers an estimated area of at least 830 square meters. The exact site boundaries are impossible to determine. The site is located on the inside of a large meander loop which lies directly east and across the river from the Curtis Ones home. The site is visible only along the steep, eroding, west-facing cutbank. The upper portion of the terrace is covered by undisturbed Northern Floodplain Forest. The site was defined on the basis of a bone lens eroding from the cutface at ca. 65-70 cm below the current ground surface. The bone layer extends laterally for several meters. Charcoal flecking is visible amid the bone layer and along the buried paleosol containing the observed faunal materials. Several former paleosols/stable soil zones are visible both above and below the bone layer. No other cultural horizons were noted at the time of the survey; however, the potential for other buried cultural components is high. The lateral dimensions of the site are intact and undisturbed. The site is currently endangered by continued erosion and slumpage of the cutbank from the river below.

Artifacts collected:

None.

Artifacts observed:

No artifacts were observed at the time of the survey. It is thought, however, that the bone and charcoal layer at this site may have a cultural origin. Curtis One reported (personal communication 1982) that a relative found a projectile point eroding out of the riverbank at this location. The artifact was not observed as it is not in Ones' possession.

Testing Results:

Because the suspected cultural level at this site is deeply buried, the use of shovel probes to assess its significance was judged to be ineffective.

NRHP Eligibility and Recommendations:

The integrity of site 32RV9 is still intact, because the site area has not been cultivated. Because the suspected cultural level is deeply buried, the site has not be adversely impacted except at the river, where there is erosion and slumpage, as well as one reported incident of artifact collecting. The site's buried nature, good condition, and relative proximity to 32RV429, an important prehistoric campsite recorded by UNDAR (Good and Fox 1978), makes it potentially eligible for nomination to the NRHP. There is a high potential for finding significant buried cultural materials associated with the bone and charcoal level of this site. Powers recommends that it be tested to verify our evaluation, and to prevent further loss of data due to continued erosion and bank slumpage.

32RV10 (PE-82-LD-8)

Site 32RV10 is located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 8, T.162N., R.86W. The site is located on a flat terrace on the east bank of the Souris River and covers an area of approximately 3496 square meters. The site lies at an average elevation of 492 meters (1613 feet) at a distance of 61 meters east of the current Souris River channel. 32RV10 is currently under small grain cultivation and was covered by a dense harvested wheat stubble at the time of the survey. The site is located on a small rise of the terrace at 1613 feet. The site is located at the south end of a large field demarcated by fencelines. The site is a very sparse, widely scattered concentration of lithic artifacts amid a fairly dense surface layer of gravels and cobbles. No temporally diagnostic artifacts were recovered.

Artifacts collected:

None.

Artifacts observed:

- 1 bifacially modified flake of Swan River chert.
- 1 secondary flake of Swan River chert.
- 1 angular flake of Swan River chert.
- 1 large primary flake of river cobble quartzite.

Testing Results:

32RV10 is located at an elevation of 1613 feet, outside the project boundaries. It was discovered while the field crew was walking to a survey area. The site is above the projected impact zone of 1610 feet, and thus should not be adversely affected if the COE raises the level of Lake Darling according to its current plans. 32RV10 was not tested. This is because it will not be impacted by the COE, did not need shovel probes to assess its eligibility status judging from the surface artifacts, and did not appear to contain important data.

NRHP Eligibility and Recommendations:

32RV10 is a sparse lithic scatter, consisting of just four observed artifacts over a 3496 square meter area. The site has been impacted by modern cultivation. The artifacts were intermixed with gravels and cobbles, suggesting thin soil development over glacial till. Because of the gravel outwash, there is probably little potential for buried cultural deposits to be located beneath the plowzone. 32RV10 revealed no features, projectile points, or important artifacts, and offers minimal significant information about the prehistory of this region. Therefore, it is judged not to be eligible for the NRHP, and no further work is recommended for this site.

32RV11 (PE-82-LD-9)

Site 32RV11 is located in the center of the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 20, T.162N., R.86W. The site is located on the east bank of the Souris River at an elevation of 489 meters (1605 feet). As defined, the site covers an area of approximately 3716 square meters and is located 152 meters east of the current Souris River channel and 50 meters south of a large intermittent stream. The site is currently under small grain cultivation and a dense layer of harvested wheat stubble covered the site when surveyed. The site is situated at the north end of the field along the eastern fenceline. The site vicinity is flat, with the cultural materials observed concentrated on a small knoll or rise which is believed to represent the main site area. The materials observed consist of a very sparse, widely scattered concentration of lithic debris. No temporally diagnostic artifacts were observed.

Artifacts collected:

None.

Artifacts observed:

1 tertiary flake Swan River chert.
 1 large secondary flake Swan River chert.
 1 brown chert biface fragment.
 1 possible hammerstone of quartzite (river cobble).

Testing Results:

A total of two shovel probes were excavated within the area of the small knoll.

Probe #1

0-20 cm modern plowzone
 20-31 cm brown sandy silt
 31-39 cm clayey silt with
 caliche

Probe #2

0-19 cm plowzone
 19-34 cm brown sandy silt
 34-39 cm clayey silt with
 caliche

No cultural materials were recovered. The brown sandy silts and caliche clayey silt levels were intact. This indicates that the probable cultural zone laid above this level and was destroyed by the current plowzone.

NRHP Eligibility and Recommendations:

32RV11 is a sparse lithic scatter, with only four artifacts observed over a 3716 square meter area. No culturally or temporally diagnostic artifacts were found. The integrity of the site has been impacted by modern cultivation. The two shovel probes do not indicate that additional or significant cultural materials exist below the plowzone. Therefore, provisionally, this site is rated as not eligible for the NRHP. However, a more intensive testing program at the site would verify this evaluation, and formally determine the National Register status of 32RV11.

32RV12 (PE-82-LD-10)

Site 32RV12 is located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 20, T.162N., R.86W. The site is located on the east bank of the Souris River at an elevation of 489 meters (1604 feet). As defined, the site covers an area of about 25 square meters located 125 meters east of the Souris River and 91 meters southeast of an intermittent stream. The site consists of a single stone circle, ca 5 meters in diameter, made up of 14 stones, predominantly large granitic cobbles. The stone circle is only partially visible, and the east edge of the circle against the rising valley wall appears to be buried. The arc of stones to the west is very clear and distinct and lies within a two-wheel track trail. The wheel ruts are deeply encised into the site area. The terrace rises sharply

to the east and is terraced grassland covered by many large glacial cobbles. To the west the terrace drops sharply to bottomland covered by dense floodplain forest. One shovel probe in the center of the arc produced a single flake of Knife River flint. Other cultural materials are also located in the vicinity. Isolate #6, consisting of two tertiary flakes of Swan River chert, was located ca 400 feet south and slightly east of the recorded stone circle along the same field trails. No other artifacts or features were recorded between the site and the isolate or in the near vicinity. The relationship of the stone circle site and the isolated find is not clear from the surface survey. Thus, they were recorded separately. The area has not been disturbed by cultivation. No temporally diagnostic artifacts were recovered.

Artifacts collected:

1 tertiary flake of Knife River flint from the shovel probe located within the stone circle. The artifact is described further in Appendix A.

Artifacts observed:

None (see isolated find #6)

Testing Results:

One shovel probe was placed within the apparent center of the arc of the stone circle.

Probe #1

0-17 cm black humus layer - 1 flake recovered from this zone
 17-36 cm dark brown black clayey silt
 36-44 cm silty grey clay

The flake recovered from the probe in the layer 0-17 cm suggests the cultural level is confined to this layer with potential for further, intact buried cultural deposits present at the site.

NRHP Eligibility and Recommendations:

Other than the slight disturbance by vehicular traffic, the site is undisturbed with potential for further intact cultural materials, as evidenced by the shovel probe. Other cultural materials are in the vicinity (Isolate #6), whose relationship to the stone circle is unclear. The site is somewhat unique with a stone circle located on a very low terrace close to the river floodplain. Further testing may reveal significant deposits of scientific value to the regional culture history. On cursory evidence, this site

appears potentially eligible to the NRHP. Further testing to determine the exact nature of the site and the extent of cultural deposits in the vicinity of the stone circle is recommended.

32RV13 (PE-82-LD-11)

32RV13 is located in the S $\frac{1}{4}$ of the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 28, T.162N., R.86W. The site is situated on a terrace above the east bank of the Souris River and covers an area of approximately 23,225 square meters at an elevation of 490 meters (1608 feet). The site, as defined, lies 152 meters east of the Souris River channel. The site is currently under small grain cultivation and was covered by a dense stubble of harvested wheat during the survey. The site lies in the northwest edge of the large field between the Souris River and a well-used field trail on the east. The site is concentrated on a small rise or knoll. Cultural materials consist of a sparse, very dispersed scatter of lithic debris. Numerous fills, gravels, and cobbles are present on the surface of the field, suggesting little depth and minimal potential for buried deposits beneath the plowzone. No temporally diagnostic artifacts were recovered.

Artifacts collected:

None.

Artifacts observed:

- 1 Swan River chert core.
- 1 quartzite river cobble core.
- 1 Swan River chert utilized flake.
- 5 Swan River chert tertiary flakes.
- 1 large quartzite angular debris.

Testing Results:

A total of two shovel probes were placed within the site limits.

Probe #1

0-21 cm dark brown/
black plowzone
21-30 cm light brown
gravels/outwash

Probe #2

0-19 cm dark brown/black
plowzone
19-39 cm sandy silts/mixed
gravels - light
brown

The probes reveal light brown sandy silts mixed with outwash gravels just below the modern plowzone, indicating thin soil development over glacial till and low potential for buried cultural materials.

NRHP Eligibility and Recommendations:

32RV13 is a sparse lithic scatter, with only nine artifacts observed over an area covering 23,225 square meters. The site has been disturbed by modern cultivation. The plowzone rests on top gravel outwash, which indicates there is a low potential for buried cultural remains. Provisionally, Powers rates this site not eligible for the NRHP. However, because of its large size, it might be useful to excavate more shovel probes across the site, to verify our evaluation and make certain that the site will not yield significant data.

32RV14 (PE-82-LD-12)

Site 32RV14 is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 31, T.163N., R.86W. The site is situated on the east bank of the Souris River at an elevation of 492 meters (1614 feet). As defined, the site covers an area of approximately 9272 square meters and lies about 15 meters north of the current Souris River channel. The site area lies within a currently cultivated field recently turned over at the time of the survey. The site area had not received rain prior to the investigation. 32RV14 lies on the eastern edge of the field and against the meander loop of the Souris River to the south. The site lies in close proximity to site 32RV412 previously recorded by UNDAR (Good and Fox 1978). No scatter of cultural materials was noted between the two sites and no indications of materials from this area are mentioned on the previous site form or report. 32RV14 was, therefore, recorded as a separate site. Cultural materials consisted of a scatter of lithic debris and tools, none of which were temporally diagnostic.

Artifacts collected:

None.

Artifacts observed:

- 1 large white quartzite core.
- 1 bifacially flaked Swan River chert chopper.
- 1 Swan River chert biface.
- 1 Swan River chert utilized flake.
- 1 Swan River chert triangular biface/blank.
- 1 Knife River flint flake (tertiary).
- 1 Knife River flint secondary flake.
- 1 grey chert core.
- 1 Swan River chert core fragment.
- 3 tertiary Swan River chert flakes.

Testing Results:

Site 32RV14 was found and recorded while the field crew was walking to examine previously recorded site 32RV412. 32RV14 is located outside the present survey boundary of 1610 feet elevation contour, being situated at an elevation of approximately 1614 feet. Therefore, it was not tested since it is not believed to be within the impact zone for the currently planned COE project on the Souris River.

NRHP Eligibility and Recommendations:

32RV14 showed a wide range of tools and lithic artifacts. Although it has been impacted by modern cultivation, Powers feels there is some potential for this site to yield significant data. It is located near 32RV412, an important prehistoric site previously recorded by UNDAR. 32RV14 may have subsurface cultural materials intact below the plowzone. A testing program at this site would be necessary to determine if this is the case. Such a program should be considered if the current COE plans change, and the impact zone of the Souris River Project exceeds 1610 feet.

32RV15 (PE-82-LD-13)

Site 32RV15 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, T.162N., R.86W. The site lies on the east bank of the Souris River within the boundaries of the Upper Souris Wildlife Refuge. The site is situated at an elevation of 489 meters (1604 feet). The site lies in the bottomland amid tall marsh grasses, reeds, and floodplain forest 76 meters east of the current river channel. The site area may or may not have been cultivated in the past. The site was located by a random shovel probe pattern over areas of the refuge offering no surface visibility. One probe produced evidence of cultural occupation - one flake and charcoal flecks. Given the sparse nature of the sites recorded in cleared fields and the low probability of productive probes, the area was designated as a site.

Artifacts collected:

1 flake of Swan River chert (Appendix A).

Artifacts observed:

None.

Testing Results:

One probe produced cultural materials.

Probe #1

0-21 cm dark black humic layer with charcoal flecks - produced one flake of Swan River chert.

21-38 cm grey loam charcoal fleck occurs at top of the grey loam contact area.

The presence of one cultural item and charcoal flecking in the top 21 cm of the soil profile suggests the possibility of further cultural deposits obscured by the dense vegetation.

NRHP Eligibility and Recommendations:

The significance of the site and the potential eligibility to the NRHP is undetermined pending further subsurface testing of the site. The testing should provide further information on site boundaries, depth, condition (i.e., whether or not the site area has been cultivated), and significance. The testing may involve further systematic probing with corresponding meter squares as deemed necessary.

32RV16 (PE-82-LD-14)

Site 32RV16 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 3, T.161N., R.86W. The site lies on a terrace of the east side of the Souris River at an elevation of 489 meters (1605 feet) within the Upper Souris National Wildlife Refuge. The site lies 305 meters northeast of the current Souris River channel. The site lies along the eastern edge of the bottomland against the steep toeslopes of the valley edge. The site sits on a low area of marsh grasses and tall reeds. It was found by a random program of shovel testing areas of the refuge obscured by grasses. One probe produced cultural material - a large quartzite core. Two other probes in the vicinity were negative. The site area is designated as previously having been cultivated on the 5 foot contour engineering maps.

Artifacts collected:

1 large quartzite core (Appendix A).

Artifacts observed:

None.

Testing Results:

3 probes were dug within the immediate site vicinity. Only Probe #1 produced cultural material.

Probe #1

0-18 cm dark grey loam
18-33 cm light grey clay
loam

Probe #2

0-15 cm dark grey loam
15-32 cm light grey loam

Probe #3

0-17 cm dark grey loam
17-36 cm light grey loam

The dark grey loam is believed to represent a former plowzone.

NRHP Eligibility and Recommendations:

Although the site is not currently under cultivation, the site is in an area designated as a former cultivated field. The significance of the site has not been ascertained. Further systematic probing of the site area to determine depth, limits, and potential eligibility to NRHP is necessary. It is recommended the shovel testing be accompanied by use of formal 1x1 meter squares as deemed necessary.

Figures 30 to 32 illustrate several of the sites mentioned above.

8.1.2.2 Sites Previously Recorded by UNDAR

Six sites previously recorded by UNDAR in 1977 (Good and Fox 1978) were relocated and examined by Powers Elevation. Figures 25 to 29 illustrate the location of these sites. Powers' description and evaluation of them follow.

32RV411 (Richie Johnson Site)

32RV411 is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ and NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, T.163N., R.87W. The site is located in the west bank of the Souris River at an elevation of 492 meters (1614.5 feet). The site is recorded as indeterminate in size, lying in a cultivated field just southeast of the ranch buildings of the Richard Johnson farm. The site lies immediately adjacent to the river bank. The site has been extensively collected by Richard Johnson over the years. He also reports numerous hearth features are visible when the ground is freshly turned. Selected artifacts from Johnson's collection are presented in Appendix B. While his collection is extensive, not all materials are from sites in the immediate area. From examination of the collected materials and from personal communications, it is believed the site has multiple components, with artifacts ranging

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Figure 30



A: 32RV3, Looking Northeast

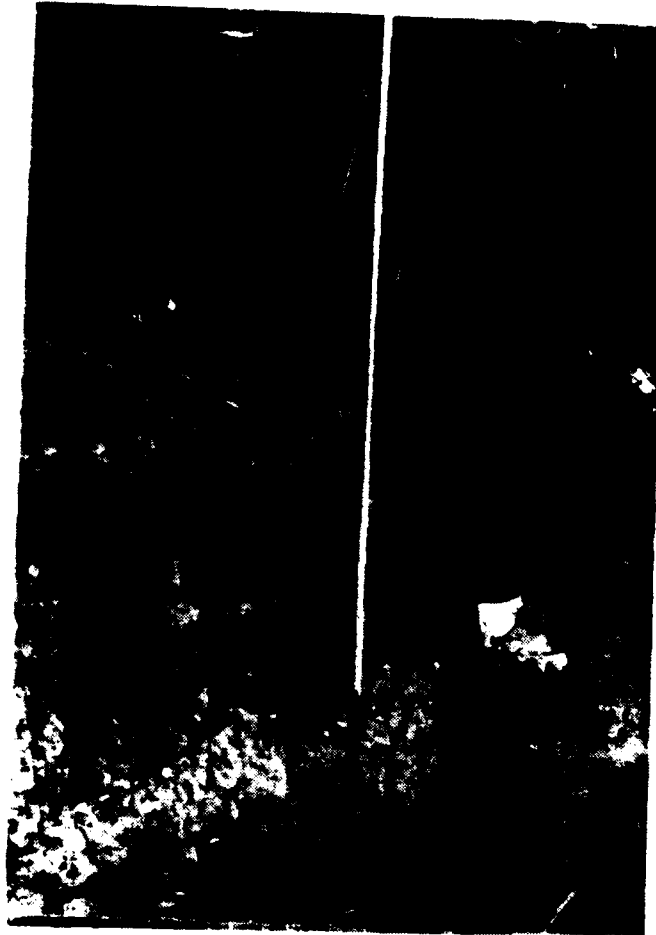


B: 32RV7, Looking Southeast

Views of Sites in the Upper Souris Area

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Figure 31
View of 32RV9



Bone Lens Eroding From Bank

SOURIS RIVER PROJECT

Figure 32

View of 32RV12



Stone Circle in Two-Track Road

from Early Archaic to the historic period. It is difficult to determine exactly which artifacts in Johnson's collection came from 32RV411. However, an extensive occupation during Plains Village times seems unquestionable, based on Mr. Johnson's ceramic collection. The historic artifacts from this site might be related to 32RV439, recorded by Schweigert in 1978 as a possible fur trade location where musket balls, gunflints, cartridge casings, and trade beads were found.

The UNDAR report described 32RV411 as "a very extensive and important site" (Good and Fox 1978:68). Large scale testing was recommended in order to adequately evaluate its potential significance and potential eligibility to the NRHP. The reassessment of the site by Powers Elevation concurs with these recommendations. However, as the site lies above the 1610 foot elevation at 1614.5, the site should not be in danger of immediate, primary impact as outlined in the current COE project specifications (Corps of Engineers 1982).

32RV412 (Myrna Johnson Site)

32RV412 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, T.163N., R.87W. The site is located on the east bank of the Souris River at an elevation of 492 meters (1614 feet). The site extends for about seven acres and lies in a cultivated field some 75 meters east of the current Souris channel. The site lies just southeast and across the river from site 32RV411. Again, the site has been extensively collected by the owner, Richard Johnson. While the collection is fairly extensive, it is difficult to determine exactly which of the artifacts collected come from the 32RV412 site area. Judging from Mr. Johnson's comments and the wide variety of material present, it is highly probable that the site represents multiple occupation periods. Powers Elevation recovered one small corner-notched projectile point from the site area (see Appendix A and also Appendix B for the Johnson collection).

32RV412 undoubtedly includes an extensive Late Prehistoric occupation, judging from the projectile point found by Powers, as well as several other cultural periods being represented in the Johnson collection. UNDAR believed the site was utilized by Woodland people, or the Plains Village cultural tradition, based on ceramics they found at 32RV412. They recommended test excavations at the site to assess its NRHP eligibility. Powers agrees that if the site is to be impacted by a federal undertaking it should be properly tested and evaluated. However, it is located at 1614 feet in elevation, and therefore should be outside the area of impact of the current COE project.

32RV413 (Judy Knutson Site)

32RV413 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 20, T.162N., R.86W. It is adjacent to the west bank of the Souris River. The site covers 5000 square meters and lies at an elevation of 490 meters (1607.5 feet). 32RV413 was recorded by UNDAR as a sparse scatter of broken bison bone, fire-cracked rock, and flakes found in a plowed field. One small side-notched projectile point was supposedly collected from the site by the owner, Ms. Judy Knutson. When the site was revisited by Powers only a few bone fragments and one Swan River chert flake were visible. Good and Fox (1978) believed that flood erosion had impacted the integrity of the site, and that it no longer met the criteria for nomination to the NRHP. Powers thinks that a subsurface testing program could check the validity of the UNDAR evaluation.

32RV414 (Davidson Site)

32RV414 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T.162N., R.86W. The site covers 10,000 square meters adjacent to the Souris and south of a small intermittent tributary to the river. It is just outside the boundary for the Upper Souris National Wildlife Refuge. 32RV414 was recorded by UNDAR in 1977 as a scatter of bison bone, fire-cracked rock, and lithic artifacts found in a plowed field. Good and Fox (1978) classified it as a Plains Nomadic exploitation of the Northern Floodplain Forest eco-zone during the Late Prehistoric Period. Powers revisit to the site was unproductive. No new cultural materials were discovered. UNDAR recommended that 32RV414 be tested to evaluate its NRHP significance before it is inundated or disturbed by the COE project. Powers concurs that testing the site would firmly establish its eligibility status.

32RV415 (McCarroll Site)

32RV415 is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 17, T.162N., R.86W. It lies adjacent to the west bank of the Souris River, just east of an oxbow lake, at an elevation of 489 meters (1605 feet). The site covers 20,000 square meters and is located in a wheat field. UNDAR described it as an extensive occupation area where bison bone, flakes, fire-cracked rock, projectile points, and ceramics were found. Good and Fox (1978) classified it as a Plains Village manifestation of the Late Woodland tradition. They recommended that it be tested to determine its eligibility for the NRHP. When Powers revisited the site, little cultural material was evident in the harvested field. However, the site location appeared to have potential for buried cultural remains. We agree with UNDAR that testing at 32RV415 would reveal if it qualifies to the National Register.

32RV429 (Curtis Ones Site)

32RV429 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 7 and the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 8, T.162N., R.86W. The site lies on the east bank of the Souris River at an elevation of 490 meters (1609 feet). The site is relatively large in relation to other sites and covers about 25 acres. The site occupies a peninsular setting adjacent to the Souris River. The southeastern portion of the site is the main part of the site and is located in a cultivated field. The remaining peninsula to the northwest is undisturbed floodplain forest. The site has been extensively collected by the owner, Curtis Ones. This collection is partially presented and described in Appendix C. Unlike the Richard Johnson collection, the Ones material is entirely from the recorded site area of 32RV429. This collection offers positive proof of multiple components at this site ranging from Early Archaic to Protohistoric/Historic times. Besides a great deal of surface materials, charcoal and burned earth are visible buried in the deep cutbanks adjacent to the river edge. The potential for a deeply buried, stratified site is extremely high. We believe the site warrants extensive testing to assess the range of site depth and of cultural occupations present. This site definitely meets the requirements for nomination to the NRHP. As the site is located on an average elevation of ca 1609 feet, it is in danger of impact and continued erosion from periodic inundation. The site should therefore be tested and evaluated for potential salvage operations in the near future.

8.1.2.3 Isolated Finds Recorded by Powers Elevation

The Powers Elevation survey also located seven isolated prehistoric artifacts. These are described below.

PE-82-LD-IF#1

Isolate PE-82-LD-IF#1 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 20, T.162N., R.86W. The isolate consists of one fully grooved and polished ground stone axe head (see Appendix A). The axe was located in a cultivated field covered by dense, harvested wheat stubble, along the western edge of a dry oxbow meander of the former Souris River channel. The artifact was situated at an elevation of 489 meters (1605 feet), at a distance of 305 meters northeast of the current river channel. No further work in the area is recommended.

PE-82-LD-IF#2

Isolate PE-82-LD-IF#2 is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 20, T.162N., R.86W. The isolated artifact consisted of a single river cobble quartzite core exhibiting the removal of three decortication flakes. The core was located on the east bank of the Souris in a cultivated wheatfield just north of 32RV4. The artifact may be associated with the site but was located well north of the other site materials. It was situated at an elevation of 490 meters (1608 feet) 91 meters south of the current Souris channel. As the artifact is an isolate, no further work is recommended.

PE-82-LD-IF-#3

Isolate PE-82-LD-IF-#3 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 17, T.162N., R.86W. It consists of one large decortication flake of quartzite with probable utilization on the distal and lateral edges. The dorsal surface is 100 percent cortex covered; the platform area is non-cortical. The artifact was located in a cultivated field just south of the McCarroll farm buildings. The isolate is recorded at an elevation of 490 meters (1608 feet) and situated 137 meters south of the current Souris River channel. It is not significant and no further work is required.

PE-82-LD-IF-#4

Isolate PE-82-LD-IF-#4 is located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 6, T.162N., R.86W. The isolate consists of a single ceramic, grit-tempered rimsherd. A late Woodland/Plains Village cultural assessment has been given the rim. The sherd was located in a cultivated field just south-east of a small intermittent stream. The isolate was found on the east bank of the Souris at an elevation of 490 meters (1608 feet) and 442 meters east of the current Souris channel. No other cultural material was observed in the vicinity, so no further work is recommended at this location.

PE-82-LD-IF-#5

Isolate PE-82-LD-IF#5 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 20, T.162N., R.86W. The isolate consists of a single tertiary waste flake of Swan River chert with no evidence of retouch or utilization. The flake was recorded within a cultivated field in a large meander loop of the Souris River. The artifact was located at an elevation of 489 meters (1606 feet) at a distance of 91 meters north of the current river channel. No further work is recommended at the isolate area.

PE-82-LD-IF-#6

Isolate PE-82-LD-IF#6 is located in the NW¼NE¼SE¼SE¼ of Section 20, T.162N., R.86W. The isolate consists of two tertiary flakes of Swan River chert in close proximity to each other. Neither is utilized or retouched. The isolate was recorded along a two-track trail just south of recorded site 32RV12. The association with this ring site is unknown. The area is uncultivated and undisturbed, (see discussion of site 32RV12 above). The isolate lies at an elevation of 489 meters (1604 feet) and is 122 meters north of the current Souris channel. Further shovel probing of this area is recommended at the future time when site 32RV12 is tested to determine the relationship, if any, to the site area.

PE-82-LD-IF-#7

Isolate PE-82-LD-IF-#7 is located in the SE¼NW¼NW¼NW¼ of Section 28, T.162N., R.86W. The isolate consists of two artifacts in close proximity. One is a Swan River chert core fragment and the others a Swan River chert tertiary flake. Both artifacts are of the same material type and probably represent the same piece of raw material. The isolate was located on the north edge of a cultivated field on the east bank of the Souris River. The artifacts were situated at an elevation of 490 meters (1608 feet) and lie 61 meters east of the current Souris River channel. The isolate is not believed significant and no further work is recommended.

8.1.2.4 Wildlife Refuge Testing Results

As discussed previously, (in Section 7.1.2) following the pedestrian survey of the cultivated northern portions of the project area, a systematic program of shovel testing was initiated over portions of the Upper Souris National Wildlife Refuge. These areas were densely overgrown by natural vegetative communities which made surface survey techniques impractical. This testing program was designed to identify potential site areas located in similar situations to where sites were found in the cultivated fields north of the refuge. The 1982 testing program was mainly intuitive. Likely site locations, based upon upriver survey results, were believed to be adjacent to intermittent stream courses flowing into the Souris River, near oxbows, and next to sharp meanders of the river. These settings were concentrated upon in the testing program in the refuge.

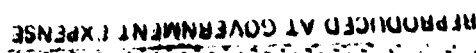
In 1982 a total of 51 shovel probes were excavated within the limits of the wildlife refuge, on both sides of the river north of Mouse River Park to the refuge boundary, and on the west side of the Souris south of Mouse River Park to Dam 41. The location of these probes are illustrated on Figure 33. The description of the soil zones noted for each of the 51 probes is given in Appendix E of this report.

Of the 51 probes excavated, only two (3.9%) yielded cultural material. The area around the productive probes were designated as sites 32RV15 and 32RV16, and are discussed above in Section 8.1.2.1. These probe locations were assigned site numbers because the sparse nature of the other sites recorded in the project area, and the low probability of finding cultural materials in a random shovel probing effort indicates the likelihood that additional cultural remains will be found in the vicinity of the productive probes. Powers believes that the potential for further buried cultural materials in the immediate vicinity of the productive probes is high. Extensive probing of these site locations was not done in 1982, because it was thought to be outside the scope of the survey effort. However, Powers recommended that 32RV15 and 32RV16 be tested in the future to determine the extent and nature of any subsurface deposits, and to judge the NRHP eligibility of the two site locations. This work was carried out during the testing phase of the current project in 1983 (see Floodman 1984a).

In their review of the first draft survey report, the COE requested that more shovel testing be done in the Upper Souris Wildlife Refuge, specifically on the east bank of the river from Dam 41 to Mouse River Park. This region had been walked in 1982, but because of dense vegetation, the COE felt that cultural resources may be obscured. The testing was to be done at areas with similar soil associations to the places where sites were found north of the wildlife refuge. This work was done during the 1984 field season and was described in the preliminary report of that effort (Floodman 1984b). Six specific areas were agreed to be tested in a meeting held on June 6, 1984, between David Berwick of the St. Paul District, and Mervin Floodman, Project Archaeologist for Powers Elevation. These six areas are illustrated on Figure 34.

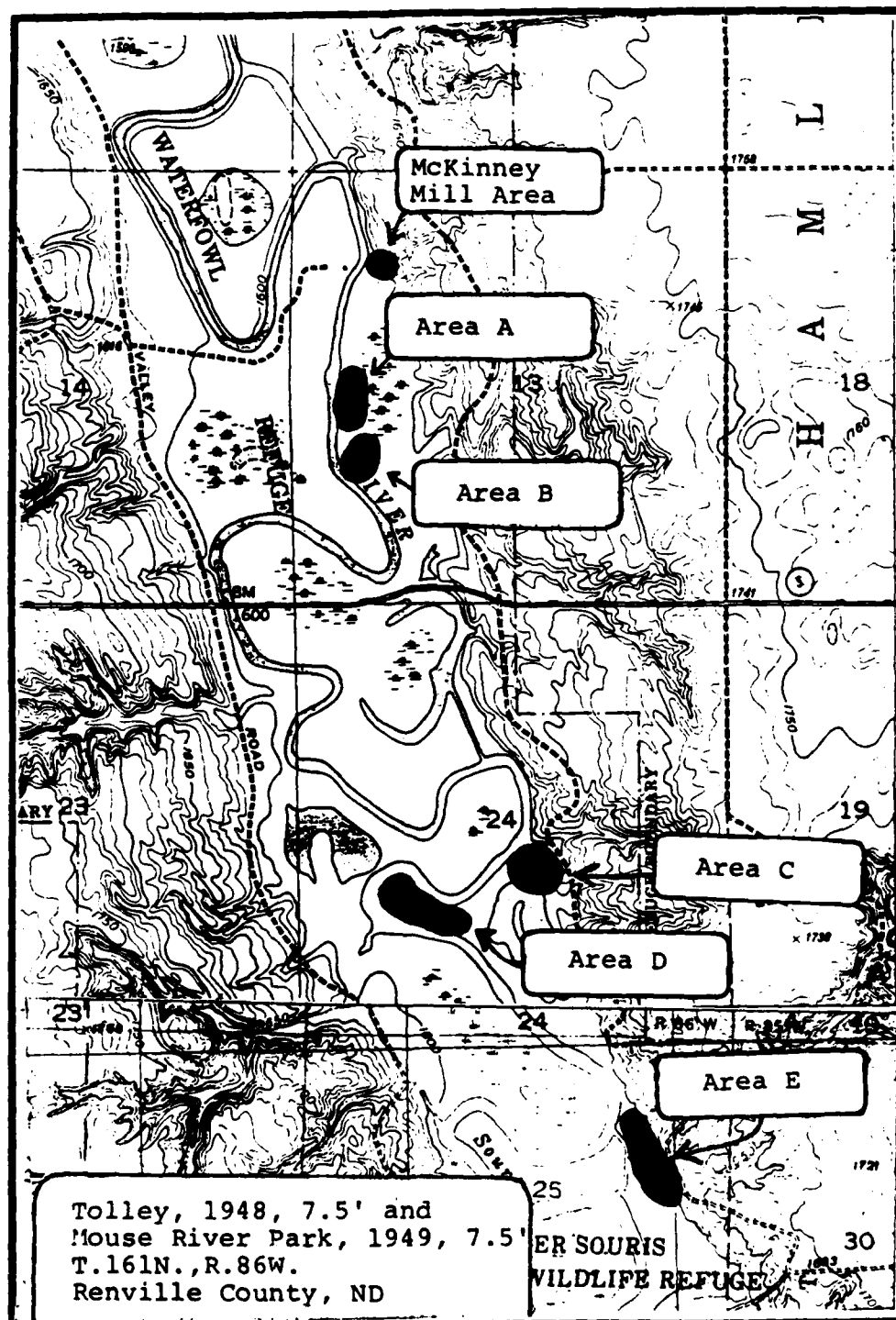
The McKinney Mill Area

The first area tested in 1984 was the McKinney Mill area, located near historic site 32RV434, the McKinney Mill site. The tested area lies in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ and NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 13, T.161N., R.86W. It is situated along the east bank of the Souris River, at the bottom of an intermittent drainage which flows to the Souris from the northeast. The



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Figure 34



Upper Souris River Area
1984 Test Probe Locations

area is adjacent to the Northern Floodplain Forest, and is heavily grassed.

The Renville County soil survey (Thiele et al. 1977) indicates that this area is composed of LaDelle silty clay loams. This soil is nearly level, with one to three percent slopes, and is found on the floodplain of the Souris River. In a representative profile, the upper eight inches is black silty clay loam, and the next 18 inches is very dark grayish-brown silty clay loam. LaDelle soils are well suited for cultivation, and some areas are in native woodland and grasses. It is often flooded, especially in the spring.

A total of 14 shovel probes were excavated at the McKinney Mill area. The probes averaged about 30 cm in diameter, and went from 30 to 50 cm deep. A topsoil zone was encountered between 18 and 50 cm. This may have once been a plowzone, but it was difficult to tell from the soil profiles examined. No cultural materials were recovered from any of the probes.

Test Area A

This area is located south of the McKinney Mill area, in the S $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ and N $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T.161N., R.86W. The test area is situated on the east bank of the Souris River, just north of an intermittent stream, in a low marshy grassy place.

As with the McKinney Mill area, Test Area A is located on LaDelle silty clay loams. A total of 18 shovel probes were excavated here. The probes were started 15 m apart, and then widened to 30 m intervals. Some spots were very wet, because of the marsh adjacent to the test area. The probes averaged 30 cm in width, and were dug to a depth of between 41 and 53 cm. The top level was amorphous, and it was difficult to determine if the topsoil level, seen at between 19 and 45 cm, was the result of past cultivation. No cultural resources were found in any of the probes.

Test Area B

Test Area B is located just south of Test Area A, on the other side of the intermittent stream, in the S $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T.161N., R.86W. It is situated on a flat grassy terrace, on the east bank of the Souris River.

The Renville County soil survey shows this area as composed of Ludden silty clays. This is a deep, poorly drained soil found on the bottom lands in the Souris River Valley. In a representative profile the surface layer is a very dark gray silty clay to 24 inches, underlain by a dark grayish brown silty clay. It is flat, from zero to one percent slope, and is often flooded. The soil is used for cultivated crops, but is also covered by native woodlands and grasses used as pasture and for hay.

The area tested was grassed, with trees lining the river and stream, including willows and reeds, and some very wet places. A total of nine shovel probes were excavated, to a depth between 40 and 50 cm. A topsoil zone was identified between 29 and 38 cm. The area may have been cultivated in the past, but the shovel probes did not prove this conclusively. No cultural materials were discovered in any of the probes.

Test Area C

Test Area C is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T.161N., R.86W. It is situated at the mouth of an intermittent drainage running into the Souris from a northeast direction. The area is on a flat terrace, above the intermittent stream, on the east bank of the Souris River. The area is currently occupied by a dense stand of Northern Floodplain Forest, with more open grassy places in the center and on the northeast side. It does not appear that this area was ever cultivated.

The soils here are LaDelle silty clays along the intermittent drainage, and Svea loams on the terrace to the south. The Svea series consist of deep, moderately well drained, level to gently sloping loamy soils. It is found on valley foot slopes above the floodplain, averaging from three to six percent grade. They are formed in glacial till and in alluvium. In a representative profile the surface level is black loam, to about seven inches, with a subsoil of very dark brown, friable loam about 12 inches thick. It is suited for crops.

A total of 13 shovel probes were excavated in Test Area C, placed in two transects at 15 m intervals. Total depth of the probes ran from 15 cm to 45 cm. The topsoil level was distinguished between 10 and 35 cm. No cultural materials were recovered from the probes.

Test Area D

Test Area D is located just southwest of Area C, within a tight meander loop of the Souris River, in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ and the SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 24, T.161N., R.86W. The entire area is a dense stand of Northern Floodplain Forest and has never been cultivated. The soils are deep alluvial LaDelle silty clays.

A total of ten shovel probes were excavated along two transects, spaced at 30 m intervals. They were uniformly dug to 45 cm, and show profiles which are undifferentiated. The topsoil zone averaged from 29 to 36 cm and consisted of a dark black loam with lots of humus and roots present. The soils then turn to lighter brown-gray silty loams and mottled gray-brown silty loams. No cultural materials were encountered in any of the probes.

Test Area E

The sixth area tested is located in the W $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 25, T.161N., R.86W. It is situated on the valley foot slope east of the Souris River floodplain, at the mouth of an intermittent drainage running to the river from the northeast. A large meander opens to the west but has been cut-off by a man-made channel. The interior of the meander is marsh land. Test Area E is grassed, and surrounded by Northern Floodplain Forest. Soils here are Svea loams of one to three percent slope.

A single transect of 12 shovel probes were dug at 30 m intervals in Test Area E. Depth of the probes averaged between 41 and 45 cm. A topsoil level was noted between 24 and 34 cm. No cultural remains were found in any of the probes.

In all, a total of 76 shovel probes were excavated in the six designated areas of the Upper Souris River Wildlife Refuge, on the east side of the river between Dam 41 and Mouse River Park, during the 1984 field season. None of these probes revealed any cultural materials and no new archaeological sites were located or recorded.

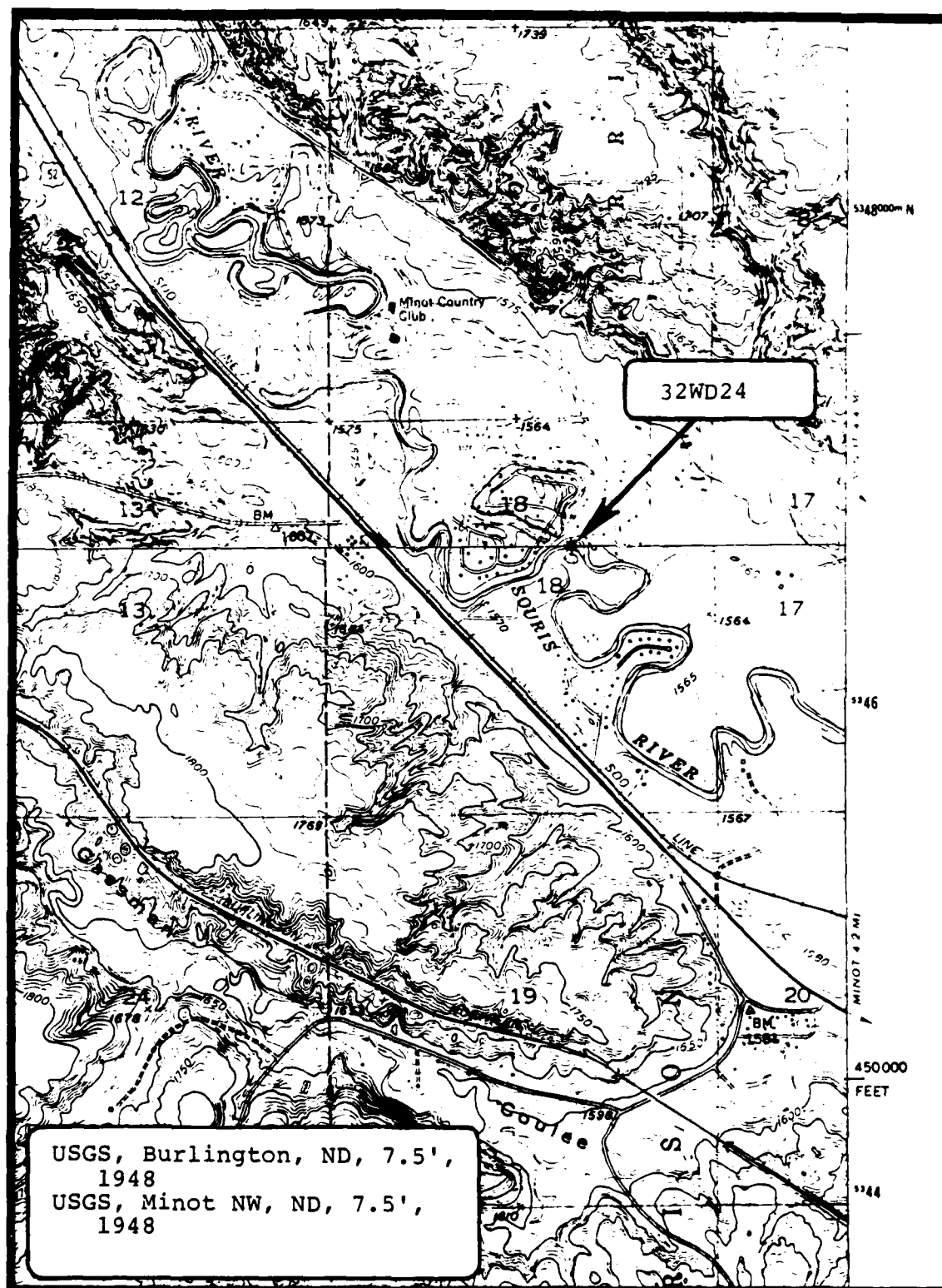
8.1.3 Task 3, The Burlington to Minot and Sawyer Levees

During the 1982 cultural resources survey, only one prehistoric archaeological location was found and recorded along the proposed Burlington to Minot levees and the Sawyer levee. This site was assigned SITS number 32WD24 by the State Historical Society of North Dakota. It was found while walking along the Country Club Estates portion of the Burlington to Minot levees (see Figure 35).

32WD24 (PE-82-BM-1)

Site 32WD24 is located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18, T.155N., R.83W. The site is on the south bank of the Souris River, at an elevation of 475 meters (1558 feet). As defined, the site covers an area of about 1830 square meters. However, because it was found in a river cutbank, the actual dimensions of the site cannot be fully known without a more extensive testing program. The site lies 15 meters south of the current Souris River channel, on a high terrace which is eroding. It is visible

Figure 35



Burlington to Minot Levees, Site Location

by inspection of the cutbank. The site consists of a lens of charcoal and bone eroding from a distinct paleosol about 1.5 to 1.75 meters below the current ground surface. The bone and charcoal lens extends laterally for several meters. The cultural layer is not dense but bone and charcoal flecks are scattered occasionally from the same soil layer. Another charcoal lens is evident about 25 to 30 centimeters below this horizon. No bone or lithic materials were associated with this level. Other bone and charcoal lenses were noted scattered over the cutbank from other, separate levels. The possibility of a multiple component, stratified site is suggested. No cultural materials were observed on the surface or top 1.5 meters of the cutbank profile at the time of the survey.

Artifacts Collected:

None

Artifacts Observed:

No lithic or ceramic artifacts were observed. Only the lenses of charcoal and associated bone.

Testing Results:

The shovel testing of the site was not feasible due to the extreme depth of the materials observed. No testing was conducted when the site was recorded.

NRHP Eligibility and Recommendations:

Other than continued erosion of the cutbank, the site is undisturbed and well buried beneath the surface. The exact nature of the site's significance and potential eligibility to the NRHP remain undetermined pending a deep subsurface testing program. As the site is intact, with good potential for multiple components, it should be considered potentially significant. The testing should be done prior to any future impact to the site area.

8.2 HISTORICAL SURVEY RESULTS

A total of 61 new historic site locations were recorded within the three task priority areas surveyed during the 1982 field season. Twenty-five historic sites were recorded during Task 1, the Velva levee survey. Fifteen new historic properties were located in Task 2, the Lake Darling-Upper Souris River survey area. In addition, five sites previously recorded by UNDAR on the Upper Souris above Lake Darling were re-evaluated. In Task 3, the Burlington to Minot levees and Sawyer levee survey areas, 21 historic sites were recorded. Seven of these were found along the Burlington to Minot levees and 14 were located at Sawyer. Many of these sites contain multiple features and structures. Some are the modern expression of suburban residential life, while others, particularly in the Upper Souris region, are rural farmstead complexes. The historic investigations were carried out by Cultural Research and Management, Inc., under a subcontract to Powers Elevation.

8.2.1 Velva Levee Survey

A total of 25 historic sites were located and recorded during the Velva levee survey. Those with temporary numbers CRM1 to CRM24 received SITS numbers 32MH4 to 32MH27. One historic site, labeled as temporary field number PE-S-2, has yet to be assigned a permanent site number. These sites are all located within the town of Velva in Sections 22 and 23, T.153N., R.80W. (see Figure 36). The exact site locations and site forms appear in the preliminary report of these investigations (Newberry, Friedman, Schweigert, and Tate, 1982).

32MH4 (CRM1)

This site is a rectangular pole animal shelter and part of a corral. It is located in a meander loop of the old Souris River channel in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 22, T.153N., R.80W. The site exhibits no particular architectural or other physical significance and there are no known significant historical associations to the site. This site is not considered eligible for nomination to the National Register of Historic Places, and no further work is recommended for this site.

32MH5 (CRM2)

This site is a one-story wood frame dwelling with a two-stall wood frame garage. The structure was built in 1960 and exhibits no architectural distinction. The site is not eligible for listing on the National Register of Historic Places, and it is recommended that no further attention be given this site.

32MH6 (CRM3)

This site consists of a recently-constructed wood frame dwelling, with a gable garage. A chalet-frame religious grotto is northeast of the garage. The site exhibits no architectural or other physical distinction and is not eligible for nomination to the National Register of Historic Places. No further work on the site is recommended.

32MH7 (CRM4)

This site is a wood frame dwelling with attached garage, all of recent construction. The site exhibits no architectural or other physical distinction and is not eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given to this site.

32MH8 (CRM5)

This site is a recently constructed frame dwelling with attached one-stall garage. The site has no architectural or other physical distinction and no known significant historical associations. The site is not eligible for listing on the National Register of Historic Places and no further work is recommended for this site.

32MH9 (CRM6)

This site consists of a two-story wood frame "Cottage" with major window dormers and an attached breezeway and one-stall garage. The site exhibits no physical or architectural distinction and is not eligible for nomination to the National Register of Historic Places. No further work on the site is recommended.

32MH10 (CRM7)

This site consists of a one-story wood frame dwelling, attached garage, and metal storage building. The site exhibits no architectural or other physical distinction and is not eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given to this site.

32MH11 (CRM8)

This site is a one-story frame dwelling and garage. The site exhibits no architectural or other physical distinction and is not eligible for nomination to the National Register of Historic Places. No further work on this site is recommended.

32MH12 (CRM9)

This site consists of a concrete slab and debris deposit, including a cot bed frame, mattress spring, inner tube, stove piping and an electric motor. A local informant stated that this was once the workshop of Gaylord McDowell. The site exhibits no physical distinction and it is unlikely that the site would yield any useful historical information. The site is not eligible for listing on the National Historic Places and no further work on the site is recommended.

32MH13 (CRM10)

This site consists of a one-and-a-half story wood frame dwelling with a shed addition and an exterior cellar entrance. Also present is a garage with a shed roofed outhouse or shed addition and another wood frame outhouse northeast of the garage. None of the features on this site exhibit particular architectural or other physical distinction and the site does not appear to be eligible for nomination to the National Register of Places. It is recommended that no further attention be given to this site.

32MH14 (CRM11)

This site is a one-story frame dwelling with a flare-hip window dormer on the east slope of the gable roof. The structure exhibits no particular architectural or other physical distinction and is not eligible for listing on the National Register of Historic Places. No further work on this site is recommended.

32MH15 (CRM12)

This site consists of a one-story frame dwelling with attached garage. The structure exhibits no particular architectural or other physical distinction and does not appear to be eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given to this site.

32MH16 (CRM13)

This site consists of a one-story frame dwelling and a gabled frame outbuilding. The dwelling has a truncated pyramidal roof and a hipped window dormer on the west roof slope, a hipped portico with wooden columns, and false shutters on ground floor windows. This site occupies an apparently un-platted 200' x 300' lot in the ~~W&W~~ of Section 23. This property was patented as a Homestead Entry to Ole Nelson on 17 August, 1894, passed by Warranty Deed

to Thomas D. Henderson on 16 June, 1898, and returned by Warranty Deed to Ole Nelson on 1 November, 1901. Nelson issued a Warranty Deed to Halvor Everson on 10 April, 1906, and Everson executed a Warranty Deed to Andrew Swenson on 10 June, 1910. By final decree of Andrew Swenson's estate, the property went to Martha Swenson, and by distribution of her estate the title went to Orville Swenson, Mrs. V. J. Sauer, Mrs. T. E. Oxford and Mrs. Warren Whitten on 12 December, 1930. The deed record is hereafter incomplete and confused. In October, 1945, Newton and Olga Nelson apparently issued a Warranty Deed to Edward Bergen. On 1 November, 1961, Edward L. Thomas and Bertha Thomas executed a Warranty Deed to Jerry and Lorraine McDowell. On 13 June, 1978, Lorraine A. McDowell issued a Warranty Deed to James A. Hagen and Rhoda J. Miller.

Ole Nelson, Halvor Everson and Thomas Henderson were early speculators in the Velva townsite, as well as prominent local farmers. The date of construction of the house cannot be determined from existing tax assessment records or other records of McHenry County, but the style and exterior materials of the building were popular in the region during the period 1900-1920. The building appears to retain most of the original exterior design and materials, but appears to have been altered by construction of a basement and addition of decorative shutters at an unknown date or dates. According to Mrs. Rhoda Hagen, present occupant, the interior of the structure has been altered through remodeling. Although this dwelling may be one of the oldest surviving structures in Velva, it has little apparent architectural or historical distinction. This site would therefore probably not be eligible for listing in the National Register of Historic Places, and no further work is recommended for this site.

32MH17 (CRM14)

This site consists of a flat-roofed concrete block pumping station. The structure exhibits no architectural or other physical significance and is not eligible for nomination to the National Register of Historic Places. No further work is recommended for this site.

32MH18 (CRM15)

This site is a wood frame dwelling and a metal utility building. Neither structure exhibits particular architectural or other physical distinction and the site is not eligible for listing on the National Register of Historic Places. No further work is recommended for this site.

32MH19 (CRM16)

This site consists of a one-and-a-half story frame dwelling with a gabled end addition. The structure was moved to the site in 1945-46 and the addition was built in 1964. A out-house and utility building are located behind the dwelling. This site has no particular physical or architectural distinction and is not eligible for nomination to the National Register of Historic Places. It is recommended that no further attention be given to this site.

32MH20 (CRM17)

This site includes a large two-story gabled frame dwelling and a gabled frame garage. The dwelling is late-Victorian or post-Victorian style with a balustraded front porch, a cameo oval window on the west facade, a semi-hexagonal bay window on the south side, and sheathed in pressed metal. The interior of the house has original wooden floors, plastered walls, beveled glass windows, and ornate woodwork. Although the house has been continuously occupied, it has deteriorated due to lack of maintenance of both the interior and exterior.

The exact date of construction of the dwelling has not been determined, but it probably was constructed in 1910 or 1911. The site occupies Lot 1, Block 1, of Nelson's Subdivision of Velva, which was platted on 29 November, 1910. The first tax assessment for the property which identifies a dwelling was in 1911. At that date, Anna N. Nelson owned the property and probably occupied the dwelling (McHenry County Auditor, Tax Records). The dwelling may have been built at an earlier date, when the site was part of a large outlot, but construction in the 1910-1911 period would correspond to the major era of expansion of the townsite and building of larger homes in Velva. The present owners have occupied the site since 1939. Between about 1915 and 1939 the owners and/or occupants are unknown. According to Emma Swanson, present occupant and one of the owners of the site, the house was built by a man named Nelson, who built other structures in Velva. This statement was supported by Jean Nelson, Velva City Auditor, although neither informant knew the builder's first name (Emma Swanson 1980 Personal Communication; Jean Nelson 1982 Personal Communication). The builder quite likely was A. W. Nelson, a contractor who reportedly built most of the early businesses and residences in early Velva (Anderson 1955:6).

This site appears to be eligible for nomination to the National Register of Historic Places on the basis of its architectural design, integrity of location and features, apparent association with an important local craftsman/builder,

and as an example of this period of form construction. This site should be further investigated by means of interviews with long-time Velva residents, and a complete abstract of title should be compiled. A complete title history was not compiled in the present study due to an error in legal location of the site at the time of deed research. This is one of the older houses in Velva. The site should be considered eligible for the National Register and should be avoided and protected during levee construction activities.

32MH21 (CRM18)

This site is a one-story gabled garage. The site exhibits no particular architectural or other physical significance and is not eligible for listing on the National Register of Historic Places. No further work is recommended.

32MH22 (CRM19)

This site consists of two wood frame structures and a small gambrel-roofed utility shed. The structures are all of recent construction and exhibit no particular physical or architectural distinctions. The site is not eligible for nomination to the National Register of Historic Places and no further work is recommended.

32MH23 (CRM20)

This site is a two-story frame dwelling with attached garage. A low closed structure leads from the south side of the structure and may be a pump house. The site exhibits no particular physical or architectural distinctions and is not eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given this site.

32MH24 (CRM21)

This site consists of a one-story frame dwelling, a privy and a wood frame garage. The dwelling was moved to the site in 1937. None of the structures on this site exhibit particular architectural or other physical significance and the site is not eligible for nomination to the National Register of Historic Places. No further work on the site is recommended.

32MH25 (CRM22)

This site consists of a two-story dwelling, attached one-story addition, and a wood frame utility building. The house was built in 1946 by Jess Good for his son. Jess Good

presently resides in Velva at 32MH24. The site exhibits no particular architectural distinctions and is not eligible for nomination to the National Register of Historic Places. It is recommended that no further work be done at this site.

32MH26 (CRM23)

This site consists of a one-story wood frame dwelling, a two-stall garage, and a smaller wood frame garage. The site is fairly recent, and exhibits no architectural distinctions. It is judged not eligible for nomination to the National Register, and no further work is needed here.

32MH27 (CRM24)

This site consists of two mobile homes in Valley Park Manor, together with a power transformer. The structures are recent, and have no historical, architectural, or engineering significance. This site is not eligible for nomination to the National Register of Historic Places, and it requires no further attention.

PE-S-2

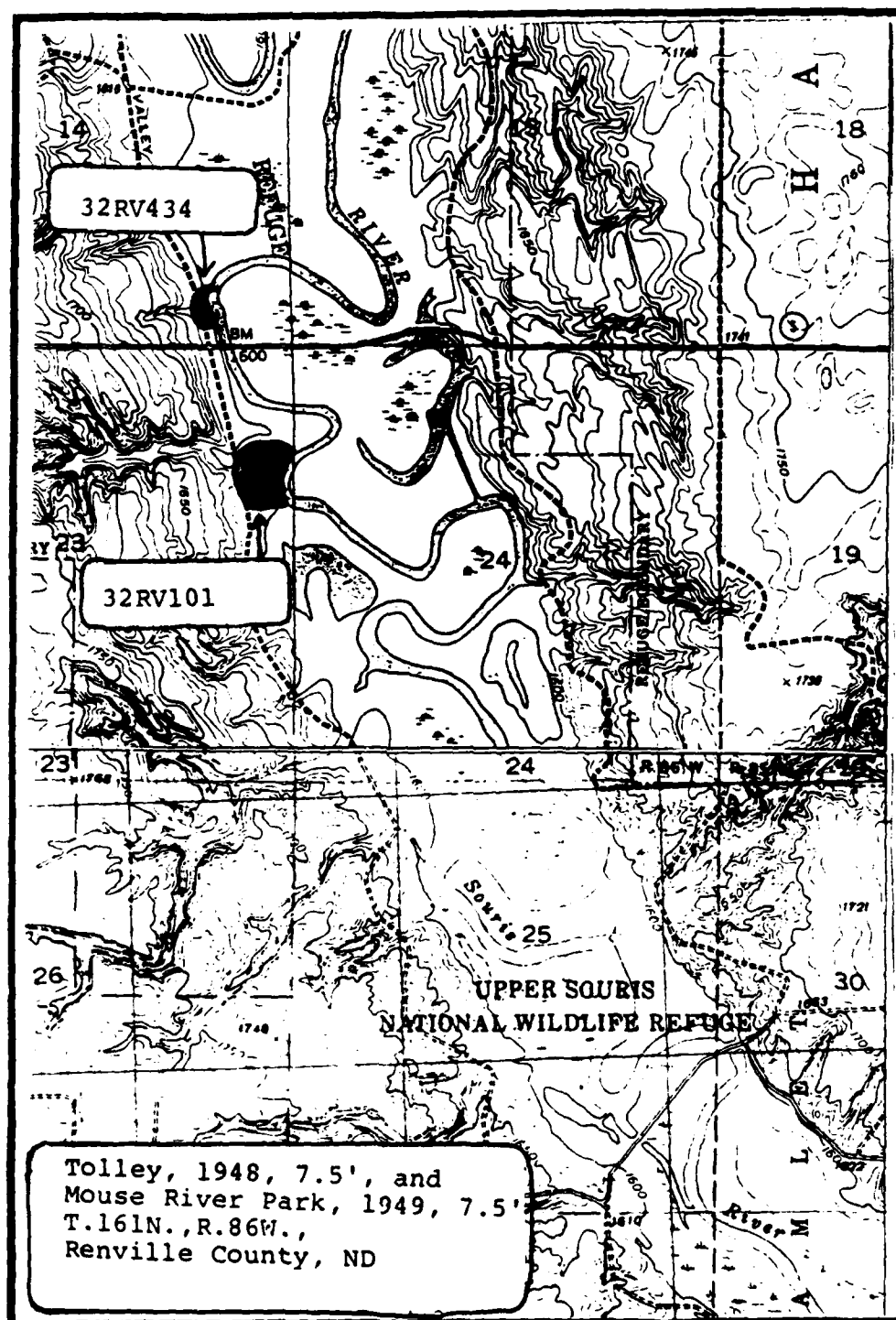
This site is located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 22, T.153N., R.80W., on the north bank of the Souris River. It consists of a granite rock on a concrete base with the north face of the boulder having an indentation and the remains of four pins. Apparently this rock once held a plaque. Local informants claim that the marker was set by the American Legion during a 4th of July ceremony around 1930 to honor George Washington, the nation's first president. Since the marker was dedicated the area has been repeatedly flooded, and the marker has not been kept up. The marker is not significant in local, regional, or state history. The SHSND did not believe it warranted having an SITS number assigned to it, because the marker does not relate to any historical event in North Dakota (Chris Dill, Personal Communication 1982). The site is not eligible for the NRHP, and no further work should be done here.

8.2.2 Lake Darling-Upper Souris River Survey

Twenty historic period sites are known to exist with the Lake Darling-Upper Souris River survey area. Fifteen of these sites were recorded during the 1982 Powers survey. The other five sites were recorded by Schweigert (1979) during the University of North Dakota study of the Burlington Dam area. All 20 historic sites are illustrated on Figures 37-41. The previously recorded sites are discussed in the present report in order to update information about their current

SOURIS RIVER PROJECT

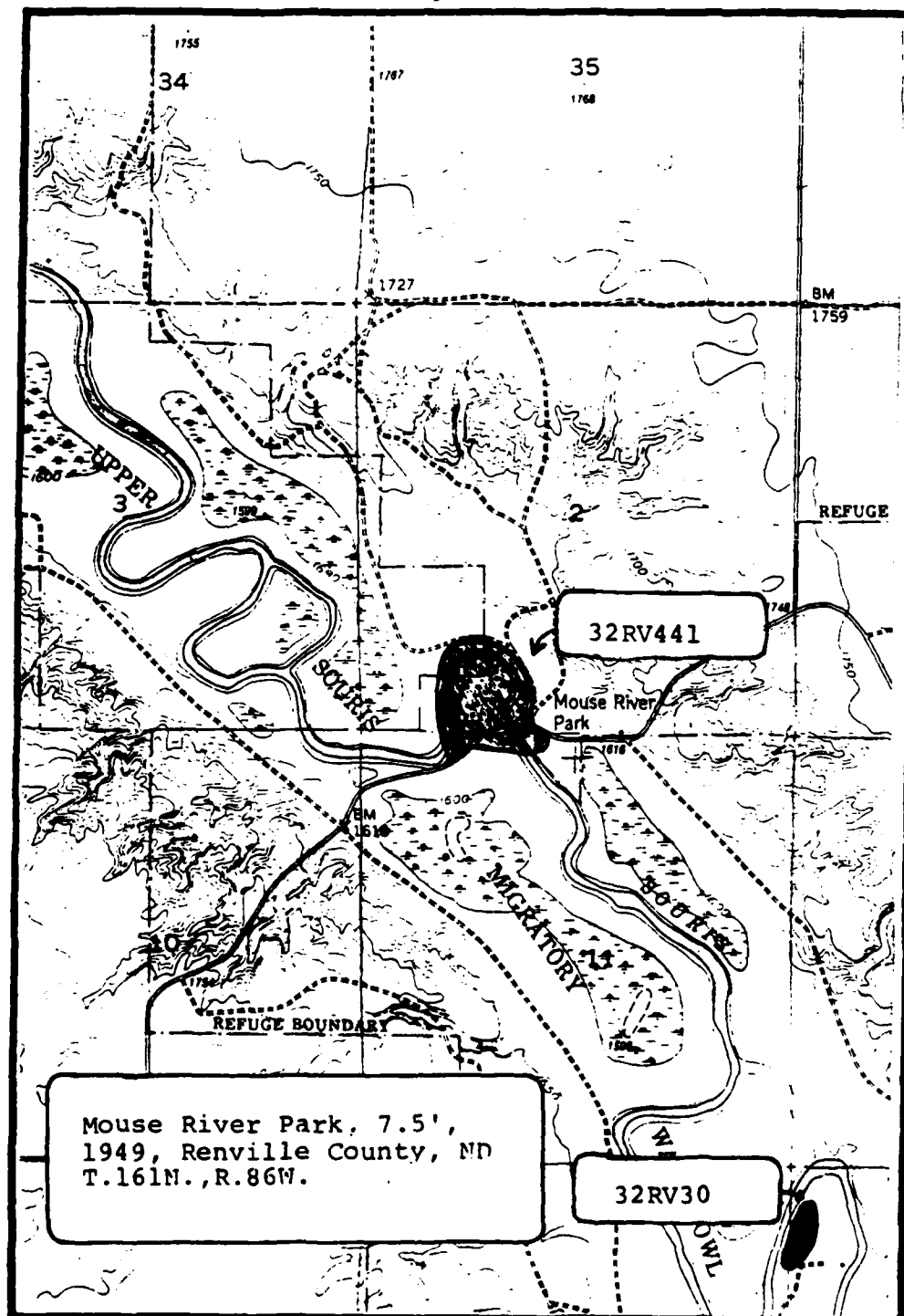
Figure 37



Historic Sites on the Upper Souris River
Map A

SOURIS RIVER PROJECT

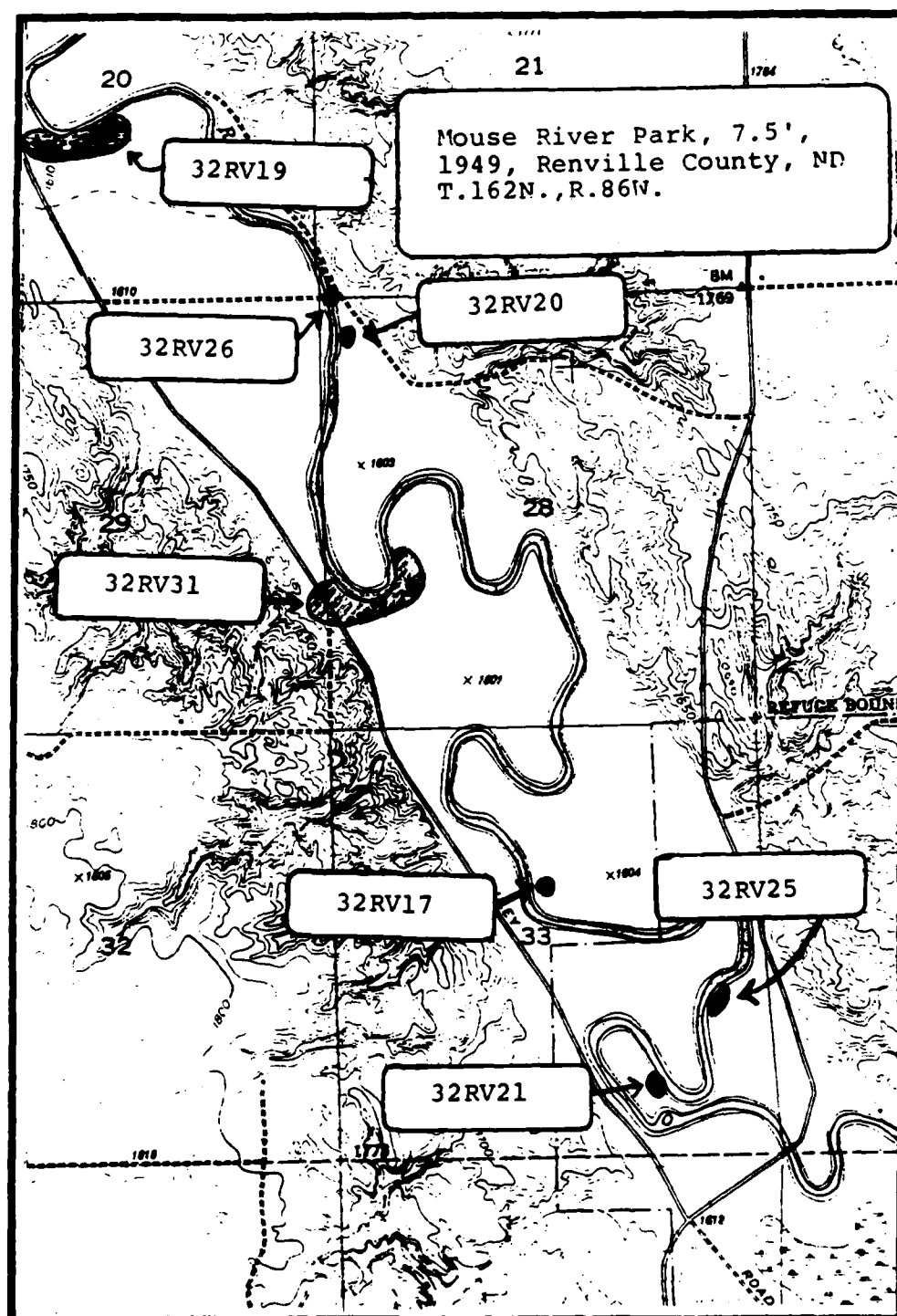
Figure 38



Historic Sites on the Upper Souris River
Map B

SOURIS RIVER PROJECT

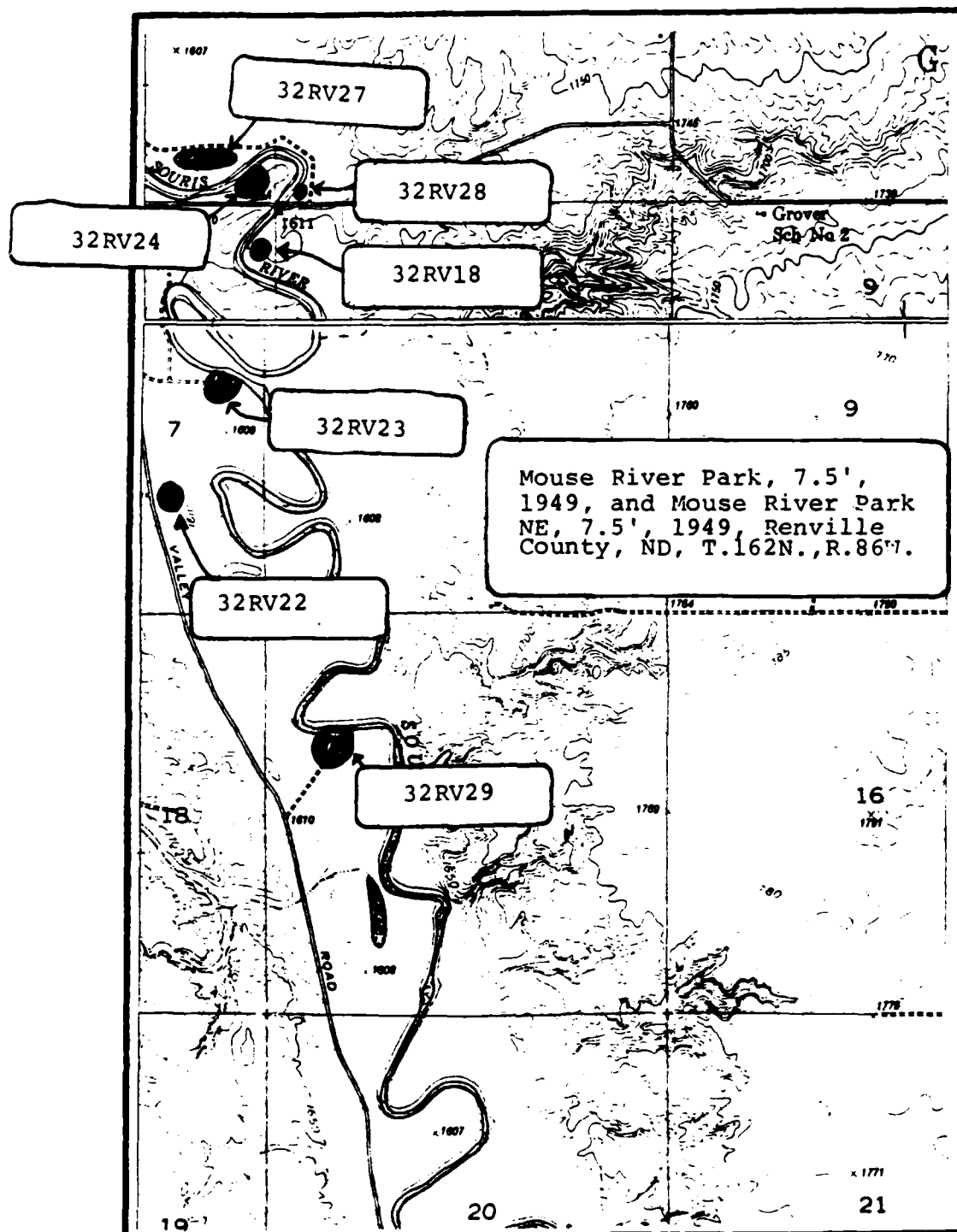
Figure 39



Historic Sites on the Upper Souris River
Map C

SOURIS RIVER PROJECT

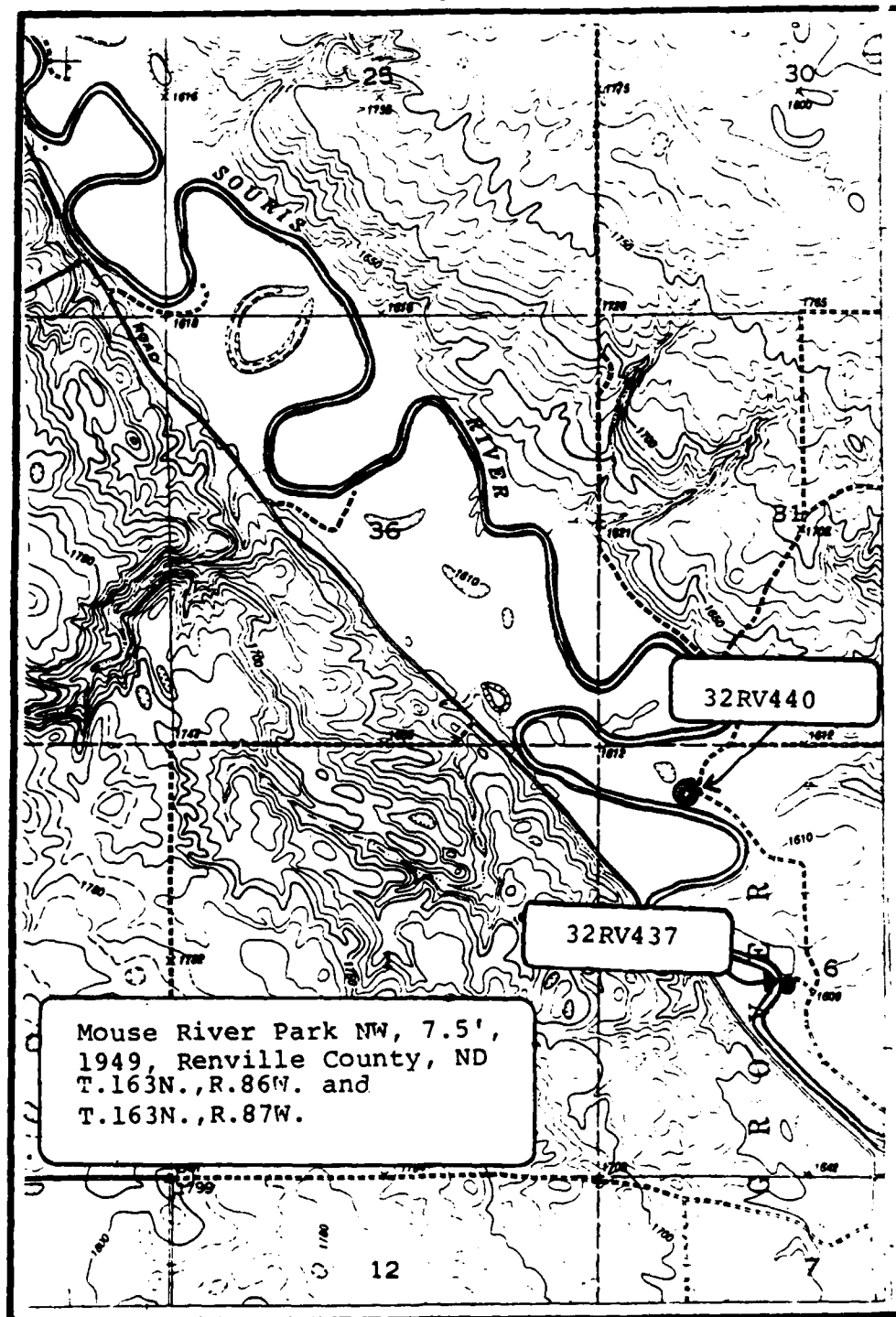
Figure 40



Historic Sites on the Upper Souris River
Map D

SOURIS RIVER PROJECT

Figure 41



Historic Sites on the Upper Souris River
Map E

physical condition, or to give additional historical data about those sites. The following discussion includes descriptions of all 20 sites, a brief historical background for some sites, evaluation of National Register eligibility, and recommendations for management of the sites.

8.2.2.1 Powers Elevation Recorded Historic Sites

Fifteen new historic sites were recorded for Powers Elevation by Cultural Research and Management, Inc. during the 1982 field season and given SITS numbers 32RV17 to 32RV31 by the State Historical Society of North Dakota.

32RV17 (CRM-B)

32RV17 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 33, T162N., R86W. This site consists of a one-story frame gabled granary with no architectural or other physical distinction. Archival sources indicate no particular significance for this site and, therefore, this site is not eligible for listing in the National Register of Historic Places.

32RV18 (Tripod Cabin Site)

32RV18 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 7, T.162N., R.86W. This site consists of a one-story rectangular wood frame dwelling with gabled roof. The structure contains various domestic artifacts post-dating 1900, a surveyor's tripod, and a curtain stretcher. A settlement by "Hanson" is shown on the 1892 General Land Office survey plat, but this notation is probably slightly in error, referring to the homestead of Bror Hanson in SE/SE of Section 6. The site was claimed under a Homestead Entry by Ole Syverson on 25 June, 1894, and was patented by him on 28 November, 1900. Syverson executed a Warranty Deed to Christian Ones on 15 January, 1942, but on 3 December, 1942, Christian and Edith Ones issued a Warranty Deed back to Syverson for that property. On 9 November, 1965, Syverson again issued a Warranty Deed to Christian and Edith Ones. The property has remained in the Ones family since that time.

One source (Hembre1977:47) states that Ole Syverson "For many years ... had a little cabin buried in the woods beside the old Barber Bridge, on a corner of his original homestead. He spent his summers in his garden. He specialized in strawberries." That description fits the present site well. Also, area residents Gordon and Norman Swenson identified the building as "Ole Syverson's old place" (Gordon and Norman Syverson 1982 personal communication). A name, "Fred Brunskill", is written on an interior door, and it is possible that the site was re-occupied by someone other than Syverson after 1961.

This site does not exhibit architectural or other physical distinction and archival sources do not indicate historical significance for the site. The site is not eligible for nomination to the National Register of Historic Places, and no further work is recommended for this site.

32RV19 (Knutson Farm 2)

32RV19 is located on SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T.162N., R.86W. This site is an abandoned farmstead including a one-and-a-half story frame dwelling, frame garage, a large frame gambrel barn, four outbuildings within the main area of the site and two gabled frame granaries 300 to 400 meters west of the main site.

This site was homesteaded by Orlando Johnson in 1901. The deed record is incomplete, but on 25 October, 1910, Eva M. and R. A. Rogers executed a Warranty Deed to Elma Olson, who had homesteaded earlier in the same vicinity. Elma A. and Andrew Olson executed a Warranty Deed to Bertha V. Olson on 22 November, 1930. Apparently one of the owners before 1928 had incurred a debt to the McKinney Mill; on 8 March, 1936, Frank P. Leavitt, the last owner/operator of the mill, executed a quit claim deed for the property to Elma Olson. The deed record is again incomplete; on 4 April, 1952, Elma Olson executed a Warranty Deed to Ingeborn Knutson. Since 1952, the property has remained in the Knutson family, passing from Ingeborg to Joseph to John Knutson (Renville County Old Settlers Association 1976:335; Renville County Register of Deeds: Hembre 1977:46). According to the present owner, John Knutson, the site was last permanently occupied in the 1930s by the Andrew Olson family, but a renter also lived in the house after that date. Knutson said that the house now on the site may be the original homestead dwelling, but that he had no direct knowledge of dates of construction for any of the buildings on the site (John Knutson 1983: Personal Communication).

This site exhibits no architectural or other physical distinction and archival sources indicate no historical significance for the site. The site is, therefore, not eligible for the National Register of Historic Places and no further work is recommended.

32RV20 (Granary 1)

32RV20 is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 28, T.162N., R.86W. This site consists of a one-story frame gabled granary with no architectural or other physical distinction. Archival sources indicate no particular significance for this site, and therefore this site is not eligible for listing in the

National Register of Historic Places.

32RV21 (Peninsula Site)

32RV21 is located in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, T.162N., R.86W. This site is an abandoned farmstead with five known features: a large concrete and fieldstone dwelling foundation, two small circular depressions, a rusted automobile body, and an eroding artifact deposit. Artifacts include a base of a machine-made fruit jar, rubber jar seals, and other unidentified rubber. A ditched road leads to the site from the east. This site was a part of a homestead entry filed by Clyde Joslyn on 15 May, 1893, and patented apparently by commutation to Cash Entry on 25, November, 1893. The deed records are incomplete for the site, but between 1893 and 1915 a Mary K. Klemmens gained title to the land. On 9 January, 1915, she issued a Warranty Deed to Ethel Jones, who transferred title to Richard Axtell on 25 October, 1916. Richard Axtell executed a Warranty Deed to Godfrey and Mildred Davidson on 10 January, 1944 (BLM:General Land Office Tract Books; Renville County Register of Deeds).

Clyde Joslyn (Joslin) came to Dakota Territory in the spring of 1885 to engage in cattle and horse ranching, but apparently first worked as a herder for one of the ranches then operating along the Souris, probably McKinney and Young (Dakota Territorial Census 1885). At an unknown date, Joslyn became a partner with Robert McKinney and Otis Young in the Mouse River Horse and Cattle Company. Joslyn and his partners began with 500 heifers and continued to increase their herds through the 1880s and 1890s. Joslyn's own headquarters were indicated by the 1892 General Land Office plat of the township to be in the S $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 33, T.162N., R.86W. Joslyn probably quit his ranching operation after 1901, when major homestead settlement began in the region, and by 1931 he was living in Zanesville, Ohio (Joslyn 1931:147-149). For a time he also apparently operated one of the first rural post offices of the region on his ranch headquarters (Williams 1961:252).

The condition of the concrete foundation and the nature of the artifacts indicate that the site dates from after 1900, and probably from the period 1920-1945. Richard Axtell, who owned the property during that time, had homesteaded the adjoining SW $\frac{1}{4}$ of Section 32, T.162N., R.86W., in 1901, and no evidence has been found indicating that he moved to the present site. By 1901, Axtell had moved a one and a half story frame house to his homestead and in later years made other improvements to that site. His homestead was later occupied by his son-in-law, Godfrey Davidson (Davidson, Personal Communication, 1982; Renville County Old

Settlers Association 1976:346). The date of occupation of the site is, therefore, unknown, and it is recommended that limited testing of the site be conducted to determine if the site was the headquarters of Joslyn's Mouse River Horse and Cattle Company. Artifactual remains in situ are not known to exist elsewhere in the region for early open-range ranch operations, and the discovery of such remains could have significance for interpretation of the region's history.

32RV22 (Curtis Ones New Farm)

32RV22 is located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 7, T.162N., R.86W. This site is a farmstead which has been occupied since about 1975. Structures on the site consist of a ranch style dwelling, a garage, a metal quonset building, a machine shed and several granaries. The architecture on this site is not distinctive and the site exhibits no other physical distinction or likelihood to yield important cultural information. This site is not eligible for listing on the National Register of Historic Places and no further attention is recommended.

32RV23 (Curtis Ones Old Farm)

32RV23 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 7, T.162N., R.86W. This site is an abandoned farmstead including a large two-story frame dwelling, a small one-story frame dwelling, a shed outhouse, a "saltbox" roofed poultry house, a metal-clad pole barn, a poured concrete foundation, and a frame granary. According to the present owner, Curtis Ones, Ole Severson built the large house on the site in 1904-05 from plans purchased from Sears-Roebuck. The smaller dwelling was built in 1949.

The site was homesteaded by Ole Syverson (Severson) in 1904 and he received patent on 28 November, 1900. Syverson executed a Warranty Deed to Christian Ones on January 15, 1942. After the death of Christian Ones in 1973 and his wife in 1975, the property passed to their children. Curtis Ones, Christian's son, now occupies the property (General Land Office Tract Books; Renville County Old Settlers Association). Ole Syverson was born in Minnesota in 1872 and came to the Souris Valley about 1894. Local tradition has it that he was a deputy marshall for Ward County for a time when that county included what is now Renville County. He married Lena Anderson in 1898, and Ole and Lena raised cattle and farmed until she died in 1941. After selling the land Ole apparently lived on the homestead until 1961 when he entered a retirement home (Hembre 1977:47-48); Renville County Old Settlers Association 1976:359).

The existence of a verifiable "catalog" house in this rural area is interesting. The house was built after the spring flood of 1904, and apparently retains a high degree of design and material integrity. The complex at 32RV23 is associated with Ole Severson and the Ones family, long time residents of the Souris River Valley. The site is representative of the agricultural settlement of the Valley during the Second Boom Period. Its architectural uniqueness and association with important local historical patterns makes this site eligible to the National Register of Historic Places.

32RV24 (Swenson Farm)

32RV24 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 6, T.162N., R.86W. This site is an occupied farmstead consisting of a one-story wood frame dwelling, one outbuilding and a privy. This is the former site of the Barber Post Office and townsite which was active from 1904 to 1909, but no remains of this older occupation are visible at this location. (Renville County Old Settlers Association 1976:13). The site was apparently re-occupied in 1968 when the Swenson brothers moved to the site from their log house to the north. All structures are relatively recent, and the site retains little visible integrity of its former occupation. Intensive pedestrian survey of the area produced no artifacts or indications of structural remains of the earlier occupation. Due to the lack of distinctive architecture or associations, this site does not appear to be eligible for listing on the National Register of Historic Places. No further work on this site is recommended.

32RV25 (Depression Site)

32RV25 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 33, T.162N., R.86W. This site consists of three depressions and a two-track road just east of the Souris River channel. Feature 1 is roughly a rectangular depression about 6 feet north to south and 12 feet east to west, with the west end venting into the lower contour of the Souris bank. Feature 2 is a rectangular depression approximately 10 feet by 15 feet and up to three feet deep. Feature 3 is an eight foot square depression, about three feet deep at center. Feature 4 is a well-defined two-track road to the east and southeast of the depression which continues to the southwest where it meets a road leading to the Peninsula Site (32RV21). No artifacts were observed on the site.

A Desert Land Entry was filed for this property by Nels Tufveson on 9 June, 1897, but was cancelled by Commissioner's Letter "G" on 21 July, 1899. A Homestead Entry for the same property was filed by Elva Olson on 3 July, 1897, but was

cancelled by relinquishment on 5 April, 1899. A Homestead Entry by Peter L---- (unreadable) was patented on 9 November, 1901 (BLM:General Land Office Tract Books). The deed record for the property is incomplete, but by 1910, Nels Tufveson and his wife had regained title. On 3 February, 1910, they transferred title to their daughter, Ida Tufveson, who eventually married E. J. Forsberg. Ida and E. J. Forsberg executed a Warranty Deed to the United States of America on 14 August, 1937 (Renville County Register of Deeds). The property is now part of the Upper Souris Wildlife Refuge.

The 1892 General Land Office survey plat of this township indicates that Clyde Joslyn had his headquarters in the S $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, but the notation on the survey plat may be slightly in error. Joslyn was a partner in the Mouse river Horse and Cattle Company, one of the major open-range ranches in the Souris Valley from 1885 to about 1900 (See discussion of site 32RV21). Joslyn patented a homestead claim in the S $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, but his ranching headquarters may have included the present site. The filing of a Desert Land Entry by Nels Tufveson probably indicates a desire by him to keep this land from being homesteaded; no lands in the vicinity of the Souris River would be qualified for entry under the Desert Lands Act, but the determination process usually took several months to several years. Tufveson may have hoped to irrigate hay fields to the east of the site by drawing water from the Souris; irrigation was the key improvement required for patent of lands under the Desert Lands Act. Tufveson himself was an early open-range rancher, having arrived in the Souris Valley in 1884 and settled in Section 6, T.162N., R.86W. In later years Tufveson would operate a dairy on his homestead and would become a prominent real estate trader in Minot (State Historical Society of North Dakota:NRHP Potential Files).

This site may, therefore, date from the open-range ranching occupation of 1885-1897, the Homestead/Desert Lands filings of 1897-1899, or the Homestead claim of 1901 and later. If the site is the remains of improvements made under the filings of the Homestead Act or Desert Lands Act, the site does not appear to be of sufficient historical gravity to be eligible for the National Register of Historic Places. If the site is the remains of the Mouse River Horse and Cattle Company ranch headquarters, the site could contain major important information about the open-range era of settlement in the Souris Valley. Subsurface testing of the site should be conducted to determine the age, function and extent of the site.

32RV26 (Bridge Site)

32RV26 is located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 21, T.162N., R.86W. This site consists of the wooden piling remains of a bridge across the Souris River. No artifacts or other features were observed on the site. This site has no known historical significance and exhibits no architectural or engineering distinction and is not, therefore, eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given to this site.

32RV27 (Dump Site)

32RV27 is located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 6, T.162N. R.86W. This site is an apparent trash burning site, possibly related to the Swenson farmstead just across the river to the southwest. The site is a sparse scattering of butchered bone, beer cans and bottles, sewer pipe, and undiagnostic glass and china shards spread within five slightly raised areas of reddened earth. The site exhibits no physical distinction of likelihood to yield important cultural materials. Archival resources indicate no particular historical significance for the site. This site is not eligible for listing on the National Register of Historic Places and no further attention to the site is recommended.

32RV28 (Foundation Site)

32RV28 is located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 5, T.162N., R.86W. This site consists of a heavily sodded rectangular foundation of unmortared and uncut fieldstone, and a rectangular depression. The site is located about ten feet east of the Souris River bank. No artifacts or other cultural materials were found on the site.

This site is the approximate location of the Barber Post Office and Townsite, ca. 1904-1909, but available evidence indicates that the townsite was to the west of the river in Section 6 (Hembre 1977:50; Renville County Old Settlers Association 1976:347). Old bridge pilings just downstream from the present bridge may indicate the location of the early Barber Bridge, which was the nucleus of the settlement. A plat of Barber was not discovered in the files of the Renville County Register of Deeds, and it is possible that the community was never officially platted. The present site (SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 5, T.162N., R.86W.) was homesteaded by Bror Hanson on 21 April, 1893, and patented by him on 28 July, 1897. Hanson retained the land until 25 June, 1918, when he executed a Warranty Deed to Oliver

Clevens and Nettie Hanson. Oliver and Nettie Clevens executed a Warranty deed to Nettie Weirum, nee Hanson, on 14 October, 1932. Nettie and Orwald Weirum executed a Warranty Deed to Gordon Swenson on 18 April, 1947 (General Land Office Tract Books; Renville County Register of Deeds). None of these owners were particularly prominent in local history.

The origin and significance of this site are unknown at this time. If this site is a remaining vestige of the Barber townsite, the site may have some importance for historical archaeological investigation of "Second Boom" era rural communities. The site may be remains of the open-range ranch headquarters of a man named Barber, for whom the post office and townsite were named. Local tradition has the post office established in Barber's ranch in 1896, but that he soon thereafter moved to Colorado (Hembre 1977:50). General Land Office survey plats of 1892 and entry tract books give no indication of a "Barber" in the vicinity of this site. The site might also be the remains of the early homestead of Bror Hanson. This site should be tested by an historical archaeologist to determine its subsurface remains, possible dates of occupation and exact function.

32RV29 (McCarrol Ranch)

32RV29 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 17, T.162N., R.86W. This site is an active farmstead including a large gabled frame dwelling, a mobile home on a permanent foundation, a building resembling a threshing cook car, a pole barn, a scale house, animal feeders, a small gabled barn, and a one-and-a-half story gabled frame dwelling converted to a garage. The older structures on the site retain very little integrity or original design, materials, or location and the site itself has been repeatedly altered as the farming/ranching operation evolved. The central portion of the main dwelling was built in 1904, but has been completely remodeled and appended since 1978. The one and a half story "Homestead Style" house converted to a garage has been moved to the site since 1978 and both exterior and interior have been extensively altered. The apparent cook car retains its shape and materials, but has been converted to other uses. The interior of this structure was not visible during the present survey.

This site was part of a Homestead Entry by Pedar Janson made on 29 April, 1893, and patented by him on 17 March, 1899. The Renville County deed record is incomplete; on 13 February, 1913, Henry Schoenrock issued a Warranty Deed to C. D. Aaker. Later land transactions were: Warranty

deed, C. D. Aaker to Ida Johnson on 18 April, 1913; Warranty Deed, Ida Johnson to J. E. McCarrol on 10 January, 1925; Final Decree, J. E. McCarrol Estate 13 August, 1843; Quit Claim Deed, Margaret McCarrol to Edward and Donald McCarrol and Marjorie Schroeder, 22 April 1949; Warranty Deed, Sidney and Dorothy B. McCarrol to Donald and Edward McCarrol on 17 July, 1956; Warranty Deed, Marjorie and Frank Schroeder to Donald and Edward McCarrol on 9 August, 1957 (General Land Office Tract Books; Renville County Register of Deeds). Pedar Johnson (Janson) immigrated from Sweden and came to the Souris Valley about 1884. Johnson built a log home and lived in that house until the flood of 1904, after which he built the central portion of the dwelling now on the site. Johnson reportedly died in 1914 and his family moved to Washington state. Three of Johnson's six children born on the site died in infancy; one is buried in McKinney Cemetery and two are buried across the river from the farmstead. The McCarrol family came to the Souris Valley in 1908. The present operator of the site, Roger Yale, is married to the former Marjorie McCarrol (Renville County Old Settlers Association 1976:351-353).

This site exhibits no particular architectural or other physical distinction, other than the presence of the apparent former cook car. Archival sources indicate no particular historical significance for this site or the persons who have owned and occupied the site. The site itself is, therefore, not eligible for the National Register of Historic Places. The apparent cook car may have significance as an historic object/artifact, however, and efforts should be made to preserve and protect the cook car if the site is expected to be directly impacted as the result of the proposed Corps project.

32RV30 (CRM-A)

32RV30 is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 13, T.161N., R.86W. This site is the apparent remains of a farmstead and includes a rectangular poured concrete dwelling basement, a rectangular depression, a collapsed rectangular pole lean-to, and a small amorphous depression. Artifacts observed on this site were a corrugated metal culvert, wagon leaf springs, round wire nails, and utility wire. The site may have been the headquarters for the homestead of Nils P. Lindlauf, who filed an entry for the land on 3 March, 1893, and received patent on 24 November, 1899. Nils and Anna Lindlauf issued a Warranty Deed to Alexander F. Johnson on 11 September, 1900, and Johnson executed a Warranty Deed to the United States of America on 18 December, 1935 (General Land Office Tract Book; Renville County Register of Deeds).

Nils Lindlauf emigrated from Sweden to the United States at the age of 16, and four years later came to the Souris Valley. In 1890 he married Anna Olson, also a Swedish immigrant. Although the Lindlaufs sold the land in 1900, they apparently had returned to the site by 1904 and lived there until their deaths in 1932 and 1934. The Lindlaufs had eight children, one of whom died in infancy (Hembre 1977:23-34).

This site does not exhibit particular architectural, artifactual or other physical distinction and archival sources do not indicate historical significance for the site or any of its previous owners. This site is therefore not eligible for listing in the National Register of Historic Places and no further research is necessary for this site.

32RV31 (Knutson Farm 1)

32RV31 is located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 28, T.162N., R.86W. This site is a large farmstead which has been abandoned as a dwelling site, but which is in use for farming/ranching activities. The site contains 24 features, each of which is a standing structure or a cohesive group of standing structures. The apparent main dwelling of the farmstead is a one and a half story frame gabled structure with one story gabled side addition. Two other dwellings are on the site: a one-story gabled frame structure with wood shingle exterior wall treatment and a one-and-a-half story gabled frame "Homestead Style" house which has apparently been moved to the site and set on concrete blocks. Outbuildings include two privies, a frame machine shop-smithy, a large monitor-roofed frame granary, a rainbow-roofed frame barn with concrete block ground story, a collapsed frame rainbow-roofed barn, a saltbox-roofed frame chicken house, a gabled frame machine shop and two metal quonset huts.

This site was apparently claimed by squatter Ole Johnson in 1893. The deed record is incomplete, but Joe Knutson bought the place from the original homesteader and by 1930 Norman Knutson had gained title. Title passed to Mervin Knutson on Norman Knutson's death in 1972. According to Mervin Knutson, the main house on the farmstead was build about 1910, the shingle-sided dwelling was build as a bunkhouse for hired men about 1910, and the large barn was built in 1950 (Mervin Knutson 1983: Personal Communication; Hembre 1977:46).

The architecture on this site is not distinctive, except possibly for the variety of roof shapes, and the site exhibits no other physical distinction or likelihood

to yield important cultural information. The site is a good example of the evolution of structural types and shapes in response to changing technologies and exploitive practices of the region since 1910, but the representative values of the site are probably not of sufficient gravity to support a nomination to the National Register of Historic Places. The best hope for preservation of the representative values probably is for the site to remain in active use as it now is.

8.2.2.2 Sites Previously Recorded by UNDAR

Five historic sites were previously recorded by the University of North Dakota in 1978 (Schweigert 1979). The sites have been re-evaluated as follows.

32RV101 (McKinney Cemetery)

32RV101 is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 23, T.161N., R.86W. The McKinney Cemetery is a pioneer-era cemetery recorded by Schweigert in 1978. The cemetery contains about 300 graves which date from the late 1880s. The headstones on the site display the ethnicity and family associations of members of a once-thriving but now extinct community. The site also contains a log dwelling built in 1886 and moved to the site and "restored" in 1937 by the Civilian Conservation Corps. The cemetery was listed on the National Register of Historic Places on 28 December 1978, on the basis of its representation of an important settlement community. This site should be avoided during surface-disturbing activities; moving the cemetery would not be an appropriate mitigation of impact because integrity of location is a key element in the significance of this site.

32RV434 (McKinney Mill Site)

32RV434 is in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 14 and SW $\frac{1}{4}$ of Section 13, T.161N., R.86W. This site was recorded by Schweigert in 1979, and includes fieldstone and concrete remains of a large foundation and several depressions in a coulee coming into the site from the west. A submerged weir may also exist in the river on the east side of the site. These features are apparently the remains of the water-powered Mouse River Roller Mill, better known as the McKinney Flour Mill. In 1903 William T. Paff constructed and began operating a steam-powered roller mill to the west of the growing town of McKinney. In September, 1904, a dam was completed across the channel of the Souris River and a mill race and wheel system were installed. The first mill building burned in 1906 and the mill was immediately rebuilt, apparently with the same equipment and motivation system.

The operation ground wheat into flour and bran for local settlers on a share basis, and also produced flour that was marketed in area stores under several brand names. The initial heavy demand for the mill's products declined as a general outmigration reduced the number of settlement units in the area after 1915 and as railroads and automobiles increased the availability of better quality flour from Minneapolis. In 1928 the mill was closed. The mill building was moved from its foundation in 1934 and was demolished in 1935.

Contrary to implications in Schweigert (1979), the mill site was apparently not also the location of the townsite. A number of photographs exist in published and unpublished sources that show the townsite to have been on the east side of the river, and the Original Townsite Plat of McKinney (1902) is in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 14, about a quarter mile east of the mill site (Renville County Auditor: Townsite Plat of McKinney; Hembre 1977:29-36; Renville County Old Settlers Association 1976:533-539; Photographs in Community Room, Renville County Courthouse). The townsite of McKinney has not been recorded in the present or previous surveys, and it is likely that the site is now buried under silt deposited by several floods since 1935.

By 1903 McKinney had three general stores, two hardware stores, two livery stables, a lumber yard, bank, hotel, restaurant, drug store, butcher shop, pool hall and saloon, a medical doctor, and a newspaper, the Mouse River Journal. In the spring of 1904 the Souris River rose far above its banks and flooded most of the town. This flood probably began the decline of the town, but when the Soo Line Railroad bypassed McKinney in 1905 and platted Tolley well above the high water level, McKinney lost its position as a regional trade center. Some of the commercial structures were moved to Tolly. The U.S. Government bought the townsite in 1935 and shortly thereafter the remaining buildings were demolished by the Civilian Conservation Corps (Hembre 1977:36; Renville County Old Settlers Association 1976:537-538).

The depressions to the west of the mill foundation remains on the recorded site 32RV434 probably are remains of granaries or other structures ancillary to the mill. Photographs from the 1903-1915 period vaguely show wood frame structures to the west of the mill, but the photographs are taken from such a distance and angles that the functions, forms, and even the number of structures on the site cannot be discerned. As indicated by the listing of the McKinney Cemetery in the National Register of

Historic Places, sites associated with the McKinney townsite and mill have significance in local and regional history. The National Register eligibility of the mill site, 32RV434, would seem to depend on the nature and integrity of archaeological remains of the mill complex. The site should be archaeologically tested by a qualified historical archaeologist to determine eligibility, and should be avoided if possible until that time.

32RV437 (Swenson Cabin)

32RV437 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 6, T.162N., R.86W. This site is a two-pen long house with gabled roof and a frame addition. It was first recorded by Schweigert in 1978. This cabin was originally constructed by Nels Toverson in 1884. It was later occupied by Gordon and Norman Swenson until 1968 when they moved to site 32RV24. 32RV437 may be one of the only log cabins still in existence which dates back to the early ranching era on the Upper Souris River. The UNDAR report stated that "this structure is well qualified for nomination to the National Register of Historic Places" (Schweigert 1979:35). We agree with this assessment, and urge the COE to begin the nomination process.

32RV440 (Brekkas Stone House)

32RV440 is located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 6, T.162N., R.86W. This site was recorded by Schweigert in 1978 and includes a large, two-story, gabled dwelling, a large gambrel frame barn, and a frame poultry house with "half minotor" roof. The dwelling on the site is constructed of quarry-finished native fieldstone mortared with concrete, with frame gable ends and a gabled frame one-story addition. The stone portion of the house and the large barn were built in 1904 and 1905, respectively, after the original homestead buildings on the site were destroyed by a spring flood. The wood frame addition to the dwelling housed the last functioning business, a general store, at the Barber townsite, and was moved to the present site in 1909.

The builder of the dwelling and barn, Andrew Johnson Foss, was born in Sweden in 1870 and came to Minot in 1888. Foss and several of his brothers worked on construction of the Minneapolis, St. Paul and Manitoba Railway (Great Northern) as the line was built westward from Minot, and during winters they worked at the coal mines at Burlington. In 1896 Andrew Johnson Foss homesteaded land in Section 37, T.162N., R.97W., and his sisters, Mary and Hilda Johnson, homesteaded lands in Section 6, T.162N.,

R.86W. These settlements were made before the general homestead settlement of the Souris region, and Andrew Foss initially used the unclaimed uplands as range for his cattle and horses. He later concentrated on raising horses and sheep. At an unknown date he changed his name from Andrew Johnson to Andrew Johnson Foss to set himself apart from at least one other Andrew Johnson in the vicinity, according to local tradition (Lawrence Servold 1978:Personal Communication; Renville County Old Settlers Association 1876:694; Hembre 1977:51-52).

By 1904 he had gained title to the present site (NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 6, T.162N., R.86W.) and "In 1904 Andrew hired some homesteaders to build him a stone house and in 1905, he built a large barn" (Renville County Old Settlers Association 1976:694). The builders may have been John, Ben and Herman Schroeder, who claimed lands about fifteen miles to the southeast of the present site in 1901 and who built several large dwellings in the Tolley area with stonework similar to that in the Foss house (Hembre 1977:198-199; Renville County Old Settlers Association 1976:593). According to Hartman Brekkas, the present owner, the Foss family continued to live on the site until 1946-47, when Brekkas bought the property.

The Brekkas site is of interest because of the stone construction of the house, the motifs and arches seldom found in area vernacular architecture, and the origin of the frame addition to the house. The site itself apparently retains much of its ca. 1905 integrity. The site dates back to 1904 and represents the permanent settlement of the Souris River Valley during the Second Boom period. It is therefore thought to be eligible for nomination to the National Register of Historic Places.

32RV441 (Mouse River Park)

32RV441 is located in the S $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 2, T.161N., R.86W. This site was recorded by Schweigert (1978), but was not mapped or photographed at that time. Efforts in the present study consisted of photographing each structure and preparation of a sketch map for the site. This site is a recreational and meeting area established in 1911, and continues to be an important site for political, religious, social and recreational activities. At present the park includes many wood frame summer cabins and permanent homesites, a tavern and dance hall, a rollerskating rink, a restaurant, and public camping and fishing areas. The area was first platted as a park on October 1, 1912, by Mrs. W.E. Grinnell, wife of an early rancher in the area, and lots were sold beginning in January, 1913.

On 18 August 1913, most of the park area was purchased by the Mouse River Chautauqua Association, which held summer educational and religious meetings there until the late 1920s. A large auditorium and dance hall was built in 1914, and in 1917 a store, restaurant, bath houses, barn and enclosing fence were completed. The park also included a small zoo for a time. The Chautauqua meetings drew large crowds, many of whom camped at the park and who were entertained by such speakers as Madam Shuman Heink, Billy Sunday, William Jennings Bryan, and many state politicians. An early band of Lawrence Welk reportedly played in the dance pavilion, and the House of David baseball team took on the local team at the diamond to the east of the main park grounds.

In 1953 the park was officially deeded to Renville County and the name was changed to Renville County Memorial Park. The county has supported the park since that date by means of a county-wide mill levy. The Mouse River Park was a focus of regional history from 1912 to about 1930, and it continues to be a popular regional meeting site and recreation area. The site is probably irreplaceable for recreation purposes, and some area residents continue to hold strong historical associations with the park site. Although the vernacular architecture of the park buildings does not appear to warrant large preservation efforts, and many structures are of recent origin, the site meets the National Register criteria of being associated with people and events important to local history. We recommend that it be nominated to the NRHP.

8.2.3 Burlington to Minot Levees and Sawyer Levee Surveys

A total of 21 new historic sites were recorded in the Burlington to Minot levees survey areas and the Sawyer levee survey area. Our evaluation of these sites is given below.

8.2.3.1 Burlington to Minot Levees Historic Sites

Seven historic sites were recorded in the Burlington to Minot levees survey areas, and assigned SITS numbers 32WD33 to 32WD37 and 32WD44 and 32WD45 by the State Historical Society of North Dakota. Six of these sites are portions of residential subdivisions and contain multiple features and house complexes. One site is a farm complex. These sites are located in Sections 7, 21, and 18 of T.155N., R.83W., and Sections 2, 12, 35, and 36 of T.155N., R.84W., (see Figures 6 to 8). The exact boundaries, location, and details about each site can be found in the site forms included in the preliminary report of these investigations (Floodman, Friedman, and Schweigert 1982b).

32WD33 (Tierrecito Vallejo)

This site is a composite of 15 dwellings and related out-buildings in a subdivision addition to the City of Minot, North Dakota (Figure 42). It is located in the N $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$; N $\frac{1}{2}$ -SW $\frac{1}{4}$ SE $\frac{1}{4}$; NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ and the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 21, T.155N., R.83W. All the buildings in the subdivision have been constructed since 1965 and have no known architectural or historical distinctions. Tierrecito Vallejo was plat- ted in September, 1964, (Ward County Register of Deeds). General historical sources for the region do not ascribe particular historical significance to the site. The site is not eligible for listing on the National Register of Historic Places and no further attention to the site is recommended.

32WD34 (Vallejo Farm)

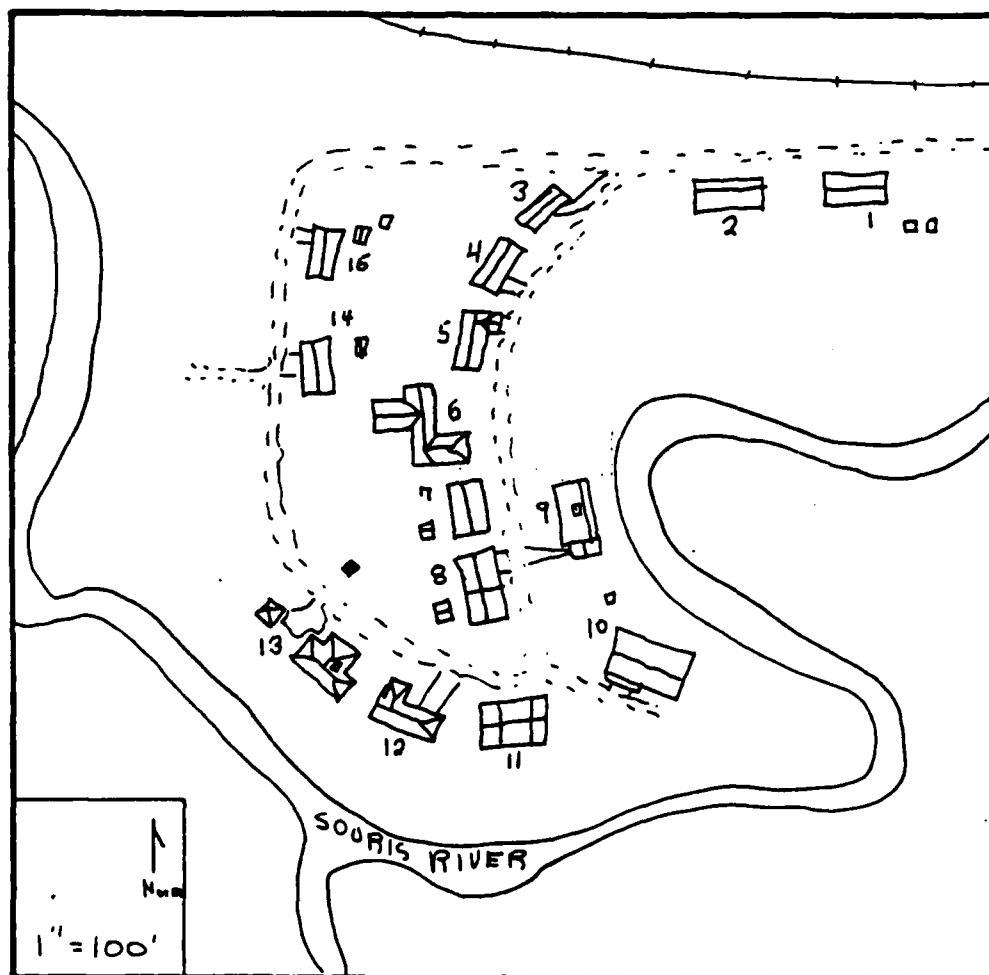
This site is an abandoned farmstead with a large two-story frame dwelling, a shed privy, three other frame outbuild- ings and horse-drawn and modern farm machinery (Figure 43). It is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 21, T.155N., R.83W.

This site was patented to Marie Jacobson on 3 September 1890. Marie Jacobson issued a warranty deed to E.A. Mears on 24 August 1892, and on 10 February 1893, E.A. Mears executed a warranty deed in favor of the Minneapolis, St. Paul and Sault Ste. Marie Railroad for a 100-foot wide strip across the quarter-quarter section. Other owners and dates of acquisition of the property were: First Bank of Towner, 1896; George Egan and Silas Wells, 1896; Ward County, 1898; E.H. Wells, 1898; Catharene Ehr, 1899; J.E. Elsberry, 1916; Earl B. Talmadge, 1916; W.P. Peterson, H.O. Mathieson and C.N. Christopherson, 1919; Ward County, 1925; Milwaukee Downer College, 1925; Minot Colliery, 1928; Carol Buttles, 1937; Minot Sand & Gravel 1938; Tierrecito Vallejo, Inc., 1964. Apparently this site has been plat- ted as Outlot 12 of the Tierrecito Vallejo First Subdivision to the City of Minot.

This site appears to have been prime speculation property since before 1900, and Egan, Silas Wells and E.H. Wells were prominent real estate investors/brokers in the area. The site itself exhibits no particular architectural or other physical distinction, and archival sources do not indicate special historical significance for this site. This site has little physical integrity due to the large number of alterations to the buildings and removal of at least one large building. The east edge of the site has been disturbed by construction of a flood dike. The site is therefore not eligible for nomination to the National Register of Historic Places and no further work is recom- mended for this site.

SOURIS RIVER PROJECT

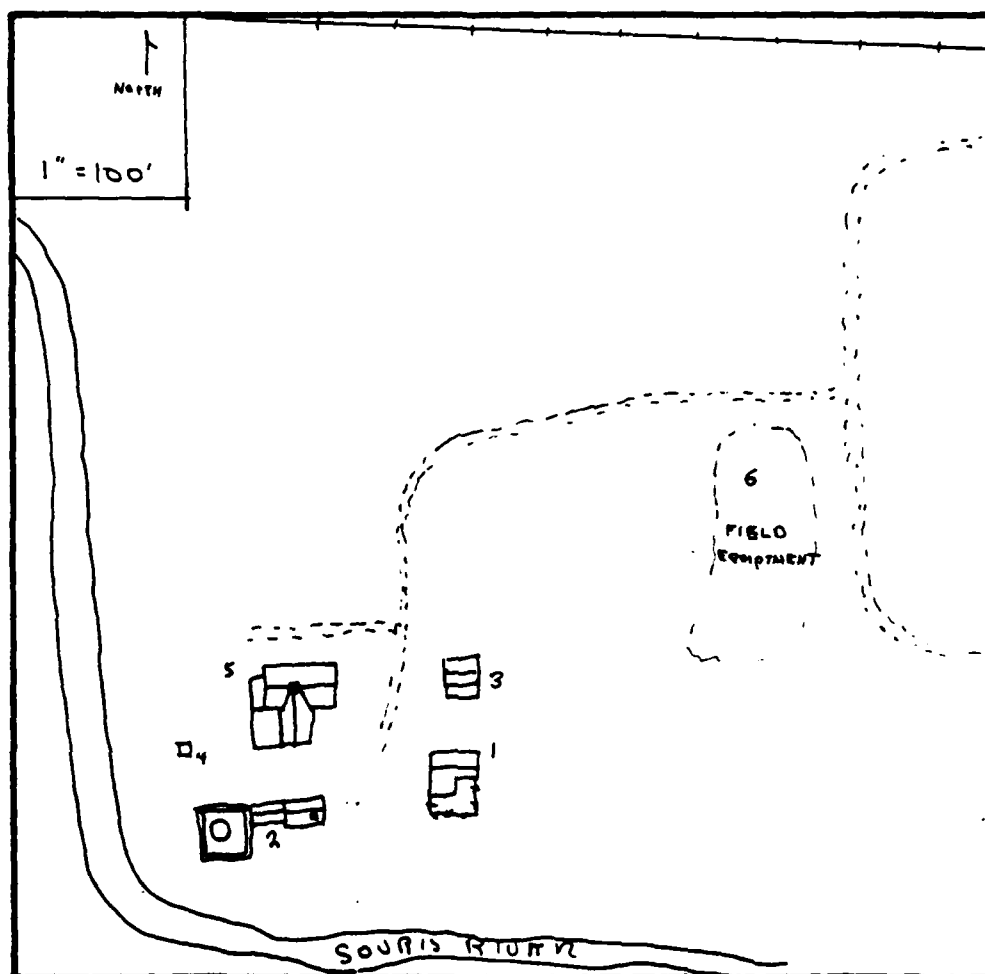
Figure 42



32WD33, Tierrecito Vallejo

SOURIS RIVER PROJECT

Figure 43



32WD34, Vallejo Farm

32WD35 (Talbot's Trailers)

This site is a group of 27 mobile homes and associated outbuildings, within a single residential subdivision of the City of Minot, North Dakota (Figure 44). It is located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$; N $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$; and the SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 18, T.155N., R.83W. The site exhibits no architectural or other physical distinction and general historical sources for the region ascribe no particular historical significance to the site itself. The site is not eligible for listing on the National Register of Historic Places and no further work is recommended on the site.

32WD36 (Brook's Addition)

This site is a composite of 40 relatively recent dwellings and associated outbuildings in the Brooks Addition residential subdivision of the City of Minot, North Dakota (Figure 45). It is located in the S $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$; N $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$; N $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$; SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$; S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$; and the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, T.155N., R.84W. All structures have apparently been built after 1960 except two wood frame dwellings (Features 5 and 6) which appear to be older and may have been moved to this site. The site exhibits no architectural or other physical distinction, and historical sources for the region ascribe no particular historical importance to the site. The site does not appear to be eligible for listing on the National Register of Historic Places and no further attention is recommended for this site.

32WD37 (Kings Court)

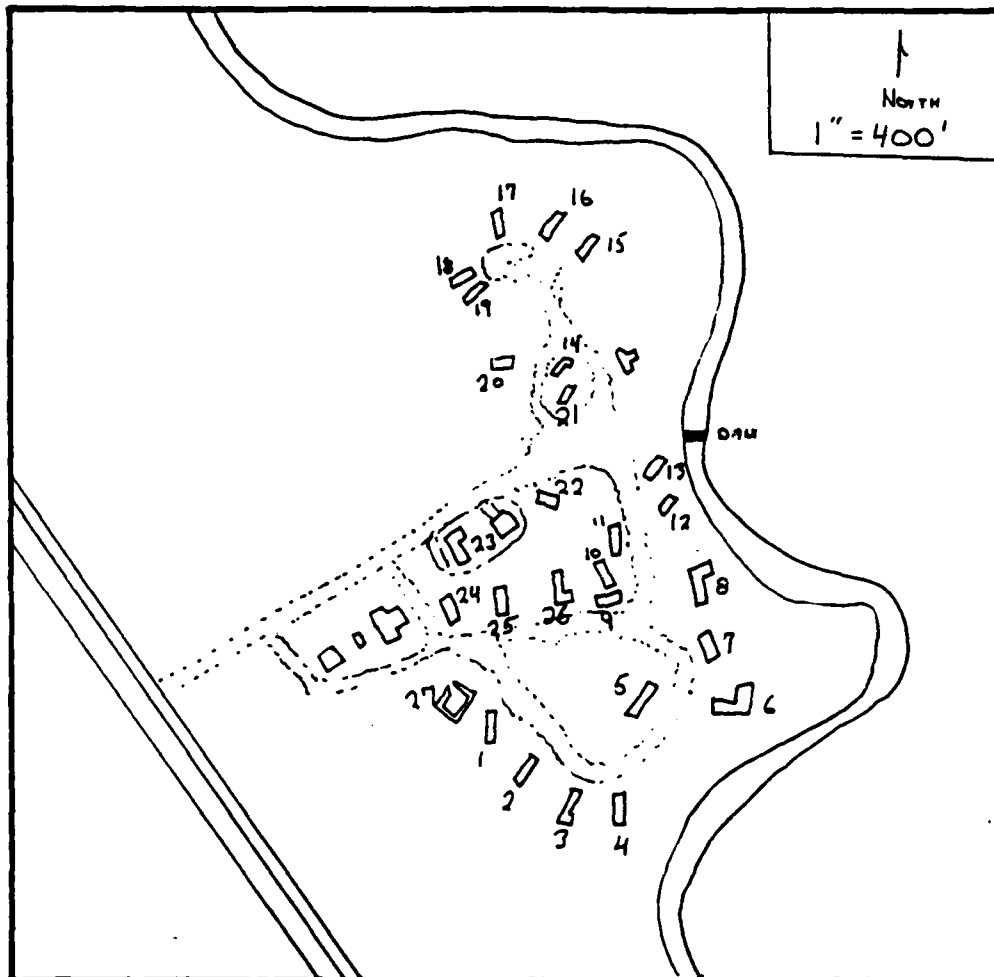
This site consists of 28 residential dwellings and associated outbuildings in the Kings Court subdivision of the City of Minot, North Dakota (Figure 46). It is located in the S $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$; N $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$; and the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 18, T.155N., R.83W. All dwellings appear to post-date 1960 and construction of new homes in the site continues. The site has no known architectural or other physical distinction, and general historical sources of the region ascribe no particular historical significance to the site. The site is not eligible for listing on the National Register of Historic Places and no further work on the site is recommended.

32WD44 (Johnson's Addition)

This site consists of 24 residential dwellings and associated outbuildings within the Johnson's Addition to the City of Burlington, North Dakota (Figure 47). It is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$; NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; S $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; N $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$; and the S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 1, T.155N., R.84W. Most of the features appear to post-date 1960 and a few features are in

SOURIS RIVER PROJECT

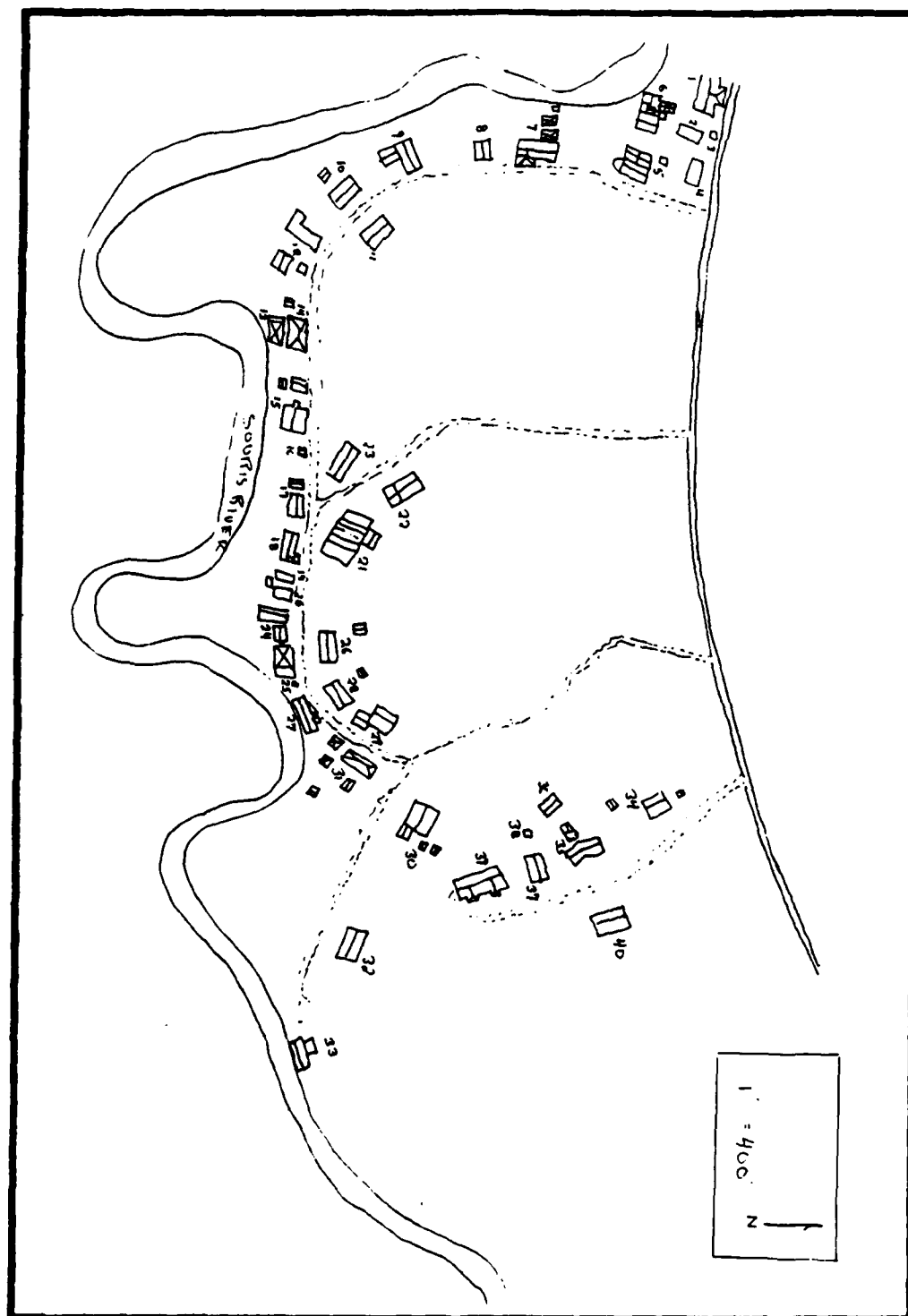
Figure 44



32WD35, Talbot's Trailers

SOURIS RIVER PROJECT

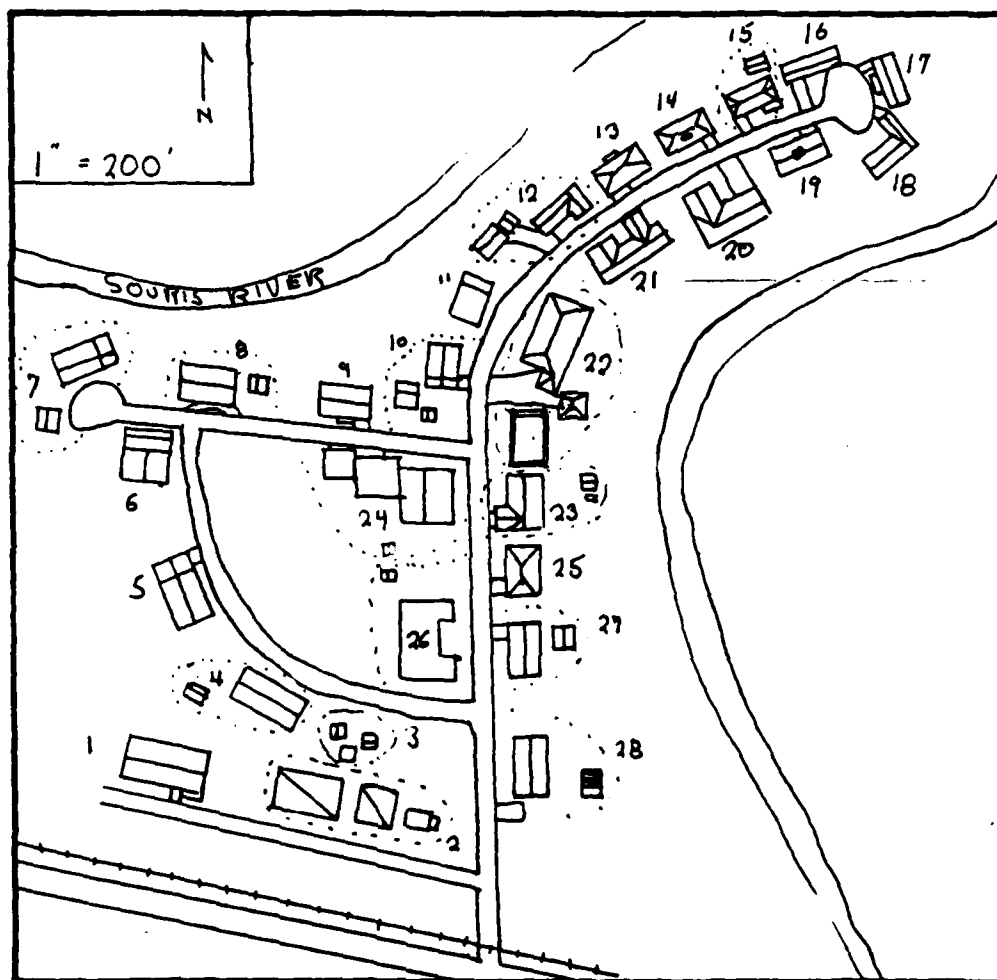
Figure 45



32WD36, Brook's Addition

SOURIS RIVER PROJECT

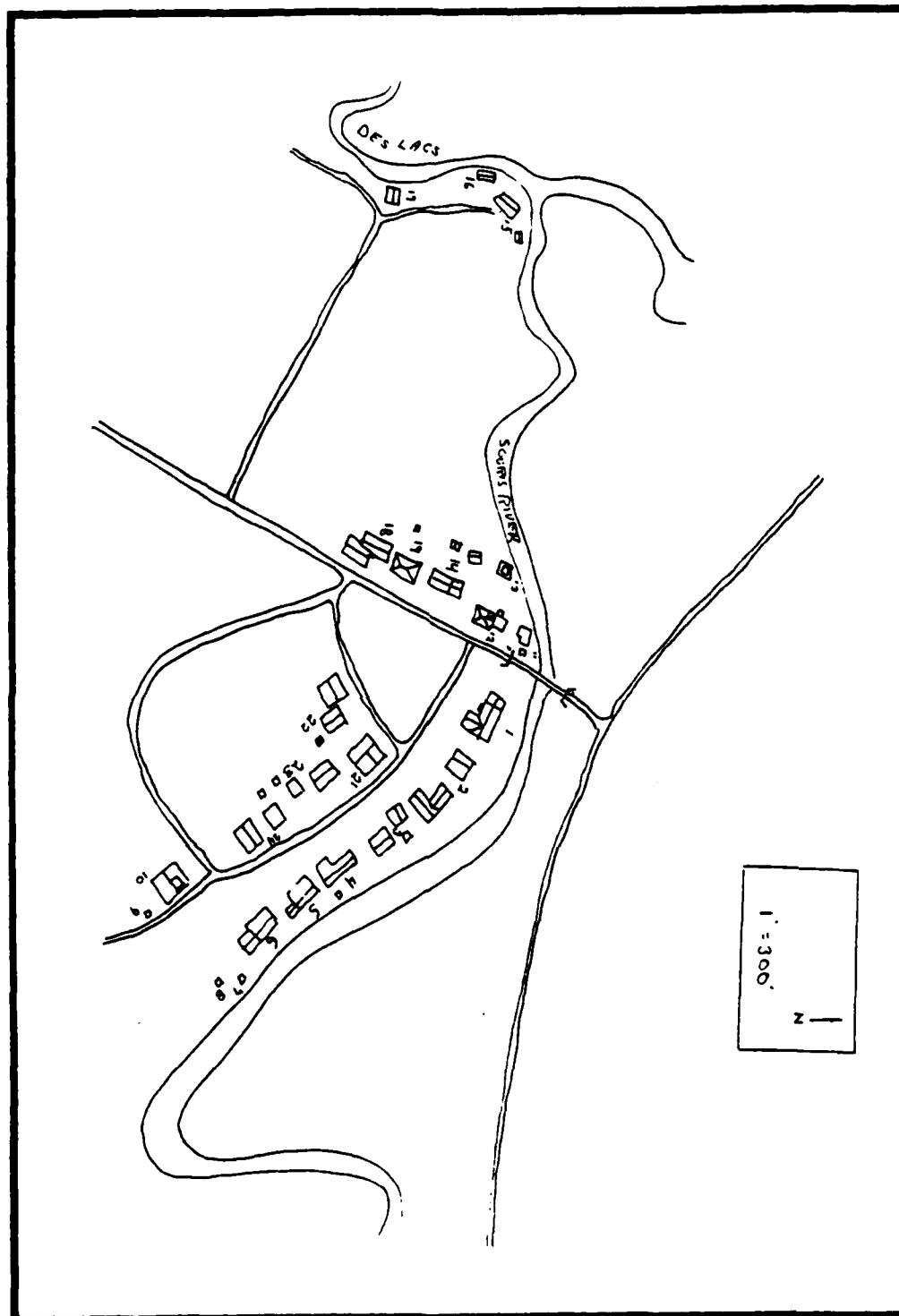
Figure 46



32WD37, Kings Court

SOURIS RIVER PROJECT

Figure 47



32WD44, Johnson's Addition

ruins as a result of construction of a temporary levee. The site exhibits no architectural or other physical distinction, and general archival sources do not indicate a particular historical significance for the site. The site is not eligible for listing on the National Register of Historic Places and no further work on the site is recommended.

32WD45 (Country Club Acres)

This site is a composite of 26 private residential dwellings and associated outbuildings within the Country Club Acres Addition to the City of Minot, North Dakota (Figure 48). It is located in the N $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$; E $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$; NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; N $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; S $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, and the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18, T.155N., R.83W. All the buildings in this subdivision are modern in architecture and materials, having been constructed since 1960. Construction continues on other dwellings and outbuildings within the development. The site is not considered significant and does not appear to be eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given to the site.

8.2.3.2 Sawyer Levee Historic Sites

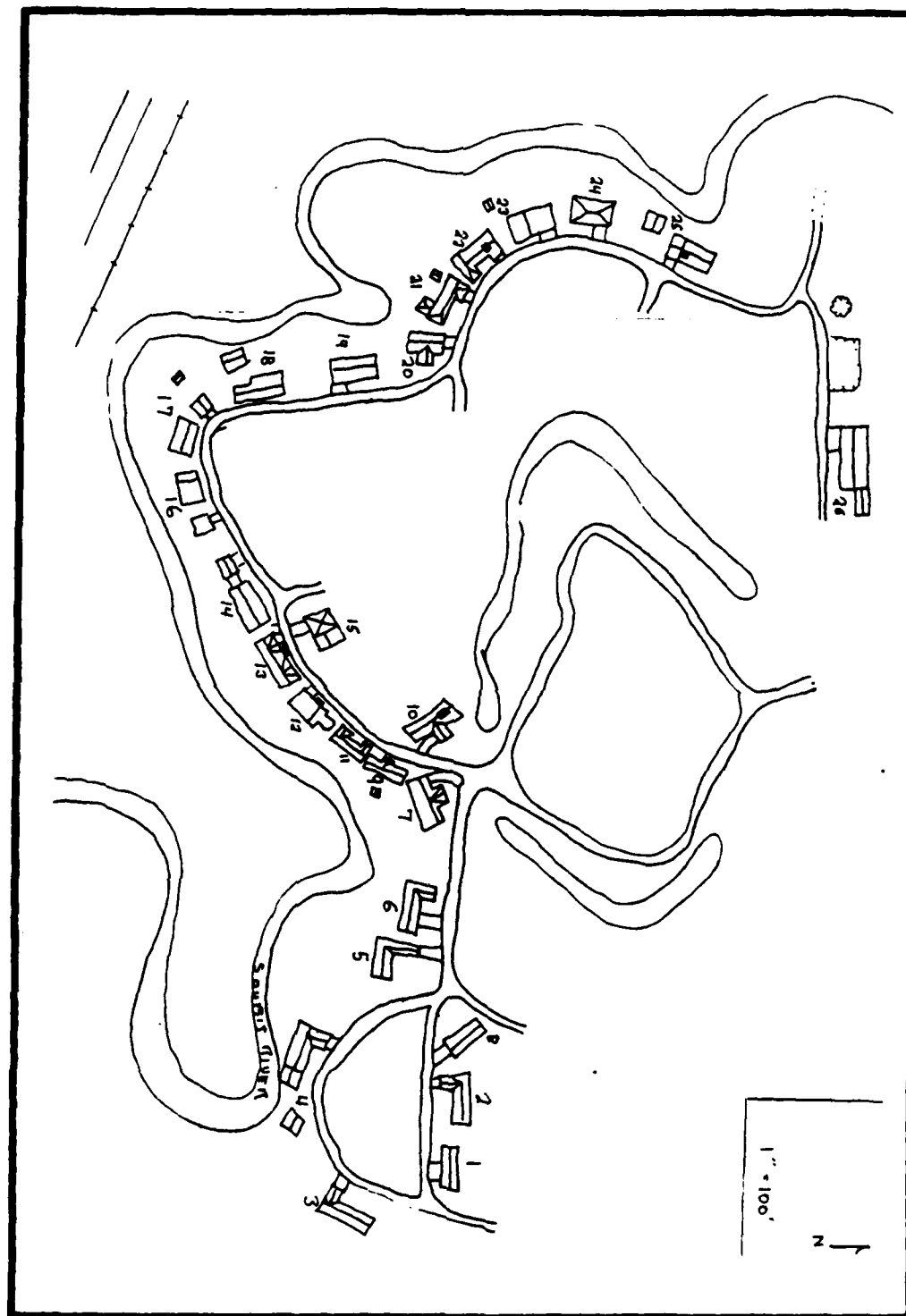
In Sawyer 14 new historic sites were recorded. Some of these sites are single integrated residential house complexes, others are combinations of several similar house complexes, and still others are combinations of different kinds of structures. All of these sites contain multiple features (Figure 49). Because of the similarity of features at some contiguous locations, several of the 17 temporary sites noted in the preliminary report have been reassessed and combined. Thus, temporary sites number 5 and 6 are now combined into a single site (32WD39), as are temporary sites numbers 2, 3, and 4 (32WD38). The SHSND has assigned SITS numbers 32WD25 to 32WD32 and 32WD38 to 32WD43 to the Sawyer Levee historic sites. These sites are located in Section 2 and 11, T.153N., R.81W. (see Figure 5). Their exact boundaries and features are discussed in detail in the site forms included in the preliminary report for this survey task (Floodman, Firedman, Schweigert, 1982b).

32WD25 (Sawyer 1)

This site is a mobile home with attached wood frame entry shed. A garage and small metal utility building are southwest of the mobile home. This site has no known cultural significance and is not eligible for listing on the National Register of Historic Places. No further attention to this site is recommended.

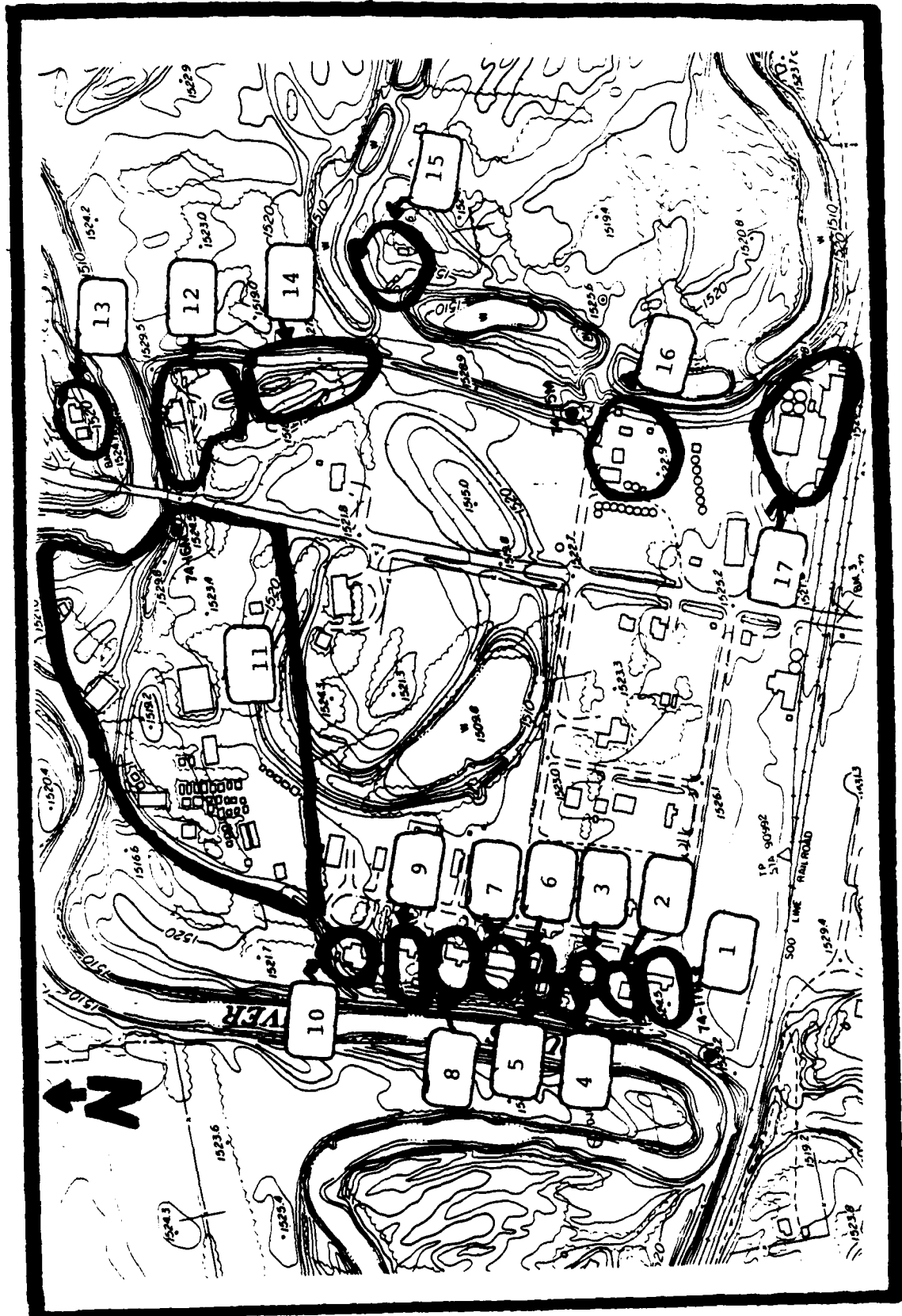
SOURIS RIVER PROJECT

Figure 48



32WD45, Country Club Acres

Figure 49



Historic Sites in Sawyer

32WD26 (Sawyer 7)

This site consists of a one-story frame dwelling with attached garage and a separate two-stall frame garage. All structures are of recent construction and exhibit no architectural or other physical distinction. The site is not eligible for listing on the National Register of Historic Places and no further work is recommended.

32WD27 (Sawyer 8)

This site is a one-story frame dwelling with attached garage. To the west of the dwelling, across the dike, is a one-story frame shed. The site exhibits no particular architectural distinction or significant historical associations and is not, therefore, eligible for listing on the National Register of Historic Places. No further work is recommended on this site.

32WD28 (Sawyer 9)

This site consists of a one-story dwelling, an outbuilding, and the ruins of another outbuilding. The site exhibits no architectural or other physical distinction and has no significant historical associations. The site does not appear to be eligible for listing on the National Register of Historic Places and no further attention to the site is recommended.

32WD29 (Sawyer 10)

Present on this site are a one-and-a-half story dwelling and a wood frame shed. The shape of the house and roofline of its attached garage are interesting and may reflect the work of a local architect. Otherwise the site has no physical distinction or significant historical associations. The site does not appear to be eligible for listing on the National Register of Historic Places and no further work is recommended.

32WD30 (Sawyer 13)

This site consists of a one-story frame dwelling and a wood frame garage. The site exhibits no architectural or other physical distinction and has no significant historical associations. The site is not eligible for listing on the National Register of Historic Places and no further attention to the site is recommended.

32WD31 (Sawyer 14)

This site is a junkyard containing many auto parts and various other machinery parts. Also present on the site is a small frame shed. The site contains some horse-drawn machinery commonly found in area farmsteads and exhibits no other physical distinction or likelihood to yield important cultural information. The site is not eligible for listing on the National Register of Historic Places and no further work is recommended.

32WD32 (Sawyer 15)

This site is a storage yard including three small wood frame buildings which were moved to the site and a large area of stored metal parts, poles and cut lumber. The site exhibits abundant signs of being used as a pasture or corral for horses. The site has no physical distinction and no significant historical associations and is, therefore, not eligible for listing on the National Register of Historic Places. No further work on the site is recommended.

32WD38 (Sawyer 2)

This site consists of a one-story wood frame dwelling, a garage and four outbuildings. The site has no architectural or known historical significance and is not eligible for listing on the National Register of Historic Places. It is recommended that no further attention be given this site.

32WD39 (Sawyer 5)

This site consists of a wood frame dwelling, a garage, a utility building, a shed and a privy. The site exhibits no particular architectural or other physical distinction and no significant historical associations are known. The site is not eligible for listing on the National Register of Historic Places and it is recommended that no further work be done on this site.

32WD40 (Sawyer 11)

This site is an abandoned Church of Nazarene camp located on Lot 1, Block 2, of Ruth's Addition to Sawyer. The site includes a large frame meeting hall with pyramidal roofs, several rectangular frame cabins with gabled roofs, a gabled concrete block lavatory building, a large gabled frame kitchen/dining hall, a recently-constructed concrete block garage, and a recently moved-in one and a half story frame "Homestead Style" dwelling. A flood dike has been built through the site, and all of the structures have deteriorated due to weathering and vandalism.

The site is the North Dakota District Campground of the Church of the Nazarene. The first tent meeting was held on this site in July, 1909, and according to one source, a piece of ground was then purchased for use as an annual camp (Golden Anniversary Committee 1959:4). Deed records indicate that title to the present site was not obtained by the church until 1916, however (Ward County Register of Deeds). According to Mrs. Louise

Jevne, the large tabernacle building was built shortly after camp meetings began at the site. Annual meetings were held there from 1909 to 1969, when flood damage and the effects of dike construction made the site unsuitable for the meetings. The meetings have been held at Jamestown since that time (Louise Jevne 1983:personal communication). Mrs. Jevne is historian for the First church of the Nazarene in Minot, and her information came from newsletters of the North Dakota District of the Church of the Nazarene.

This site has considerable significance in the religious history of North Dakota, but because it is essentially a religious institution, it is categorically excluded from eligibility for nomination to the National Register of Historic Places. The site does not appear to have sufficient merit on the grounds of architecture or cultural association to otherwise qualify for the National Register. Although the main tabernacle building is somewhat unusual in design, that building and the other structures on the site are strictly utilitarian in construction and the site layout has no apparent distinction. No further work is recommended for this site.

32WD41 (Sawyer 12)

This site consists of a one-story hipped frame dwelling, two gabled frame garages, a shed outhouse, and a small A-frame animal shelter. The dwelling appears to have very good exterior integrity, but the interior has been extensively remodeled and altered. According to the present owner and occupant, Robert E. Pitkin, the house was built in 1914 by Leo Peterson of Velva. Pitkin's estimate of construction date was drawn from invoices for building materials which were found in walls of the house during remodeling. The site occupies part of Lot 1, Block 1, of Ruth's Addition to Sawyer, the plat for which was recorded in county records on 13 September 1915. Two days earlier, on 11 September 1915, W.A. Ruth and Tabitha L. Ruth executed a warranty deed to Thomas McGrew. On 6 July 1920, McGrew issued a contract for deed to Roy M. Hull, which was terminated by a quit claim deed to McGrew on February 25, 1922. McGrew and his wife executed a warranty deed to J.P. Pitkin and Mae Pitkin on 1 November 1937, and J.P. Pitkin executed a warranty deed to his son, Robert E. Pitkin, on 6 July 1940. Various transactions have taken place since 1940 concerning portions of the property to the south and east of the present site, but this site has remained in the ownership of R.E. Pitkin (Ward County Register of Deeds).

This site appears to have been built as an extension of a residential section of Sawyer and therefore probably dates from shortly after the property was platted in 1915. There are no indications on the site of barns or other structures that would imply earlier use of the site for purposes other than urban residence. The style and materials of the dwellings are common to the period 1900-1920 for the region, and it is possible that the house was built according to plans obtained through a mail order catalog. The exterior of the dwelling retains almost complete integrity of original design and materials, but otherwise this dwelling and the site exhibit no particular historical or architectural distinction. The site does not appear to be eligible for listing in the National Register of Historic Places, and no further work is recommended for the property.

32WD42 (Sawyer 16)

This site consists of a wood frame dwelling, two sheds, a barn or machine shop, and a concrete pumping station of recent origins. It is not known whether the frame buildings have common origins or were moved to their present location. The site exhibits no particular architectural or other physical significance and no known significant historical associations. The site does not appear to be eligible for listing on the National Register of Historic Places and no further attention is recommended for the site.

32WD43 (Sawyer 17)

This site consists of two grain elevators, one open and the other enclosed, four cylindrical metal Butler grain bins, and two wood frame granaries. The open elevator was designed by Allied Contractors, Inc., of Minot. The elevator complex extends to the south, and the recorded site consists only of that portion of the complex within the project area. The site exhibits no particular architectural or engineering significance and has no known significant historical associations. The site is not eligible for listing on the National Register of Historic Places and no further work is recommended.

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CULTURAL RESOURCES SURVEY FOR THE LAKE DARLING-SOURIS
RIVER PROJECT NORTH. (U) POWERS ELEVATION DENVER CO
ARCHAEOLOGY DEPT B E RIPPETEAU ET AL. 13 JUN 85

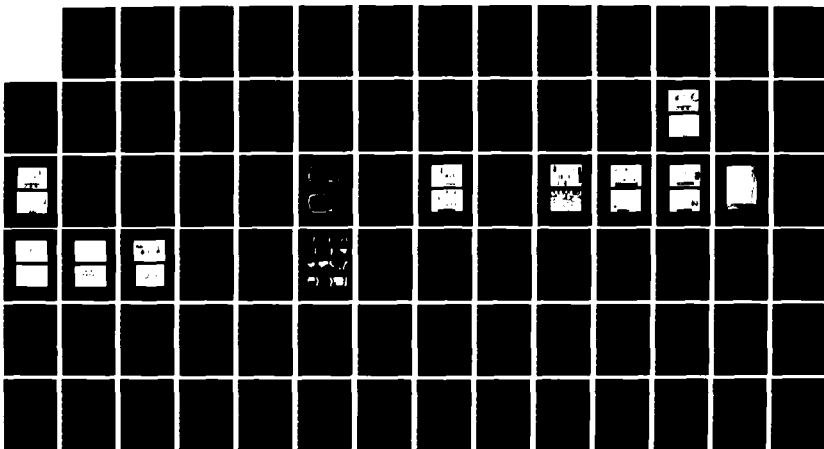
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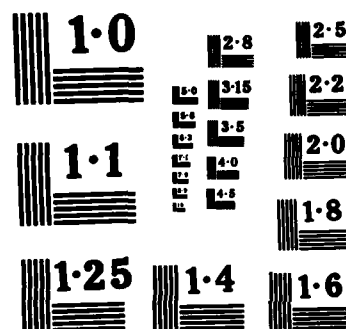
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MICROCOPY RESOLUTION TEST CHART

9.0 SUMMARY

A total of 77 new cultural sites were recorded by Powers Elevation during the 1982 field work on the Souris River Project. Sixteen of these locations were prehistoric sites while 61 were historic properties. Most of the historic sites included standing structures and had multiple features. In the Upper Souris area the historic locations were mainly farmstead complexes. In the suburban areas adjacent to the Burlington to Minot levees the historic sites were large enough to include entire subdivisions; while at Velva and Sawyer the residential properties were divided up into related house complexes. Almost all of the prehistoric archaeological sites were recorded in the Upper Souris River area above Lake Darling. This region was much less disturbed than the other project areas which have been impacted by both the creation of temporary levees and urban construction.

In addition, Powers Elevation re-evaluated six prehistoric sites and five historic sites previously recorded by the University of North Dakota (Good and Fox 1978; Schweigert 1979). All of these sites are located within the Task 2 project area, on the Upper Souris River above Lake Darling.

9.1 CONCLUSIONS

Below are some general conclusions about the cultural resources in the Souris River Project area. This discussion is broken down into prehistoric and historic sections, to better address the differing nature of the data collected.

9.1.1 Prehistoric Archaeological Discussion

A total of 16 archaeological sites were recorded during the 1982 field season by Powers Elevation. This work included the survey of three separate priority task areas. The majority of prehistoric site locations were found in the Task 2, Lake Darling-Upper Souris River area. One archaeological site each was recorded for Task 1, the Velva levee area, and Task 3, the Burlington to Minot levees and Sawyer levee areas.

Of the five defined eco-zones mentioned in Section 3.0, the current survey areas were situated almost entirely within the bottomland areas of the Northern Floodplain Forest, Semi-aquatic, and Aquatic environmental zones. While Terrace Grasslands were occasionally encountered, for the most part this eco-zone lay outside the Scope-of-Work (Corps of Engineers 1982). Since the survey areas were adjacent to the river, below an elevation of 1610 feet, all prehistoric site locations can be assigned to the Northern Floodplain Forest eco-zone.

Good and Fox (1978) summarized the 1977 UNDAR investigations along the Upper Souris River and stated that the Northern Floodplain Forest contained both Plains Village ceramic manifestations and non-ceramic Plains Nomadic sites. While the Northern Floodplain Forest was especially well suited for Plains Village cultures, most of the stone circle sites, assumed to represent Plains Nomadic occupations, were found on the Terrace Grasslands. Of the 16 sites recorded by Powers, only one site (32RV8), producing a single potsherd, can be assigned to the Plains Village pattern. Likewise, only one site (32RV12) contained a stone circle and can thus be placed within the Plains Nomadic category. Only two other sites can be placed within a cultural-historic framework, based on artifact types. 32RV3 is considered to be a Early to Middle Archaic manifestation, based on the presence of an Oxbow type projectile point. 32RV4 is classified as a Late Prehistoric occupation because a stone maul was found here. Malouf (1962) believes that stone mauls were a characteristic artifact of the Late Prehistoric Period on the Northern Plains, and were used in food preparation. The cultural affiliation of all of the other prehistoric sites is unknown.

Surprisingly, few sites were located which produced diagnostic cultural items. 32RV8 was the only ceramic site and 32RV3 was the only site producing an identifiable projectile point. The paucity of diagnostic artifacts severely limits our ability to make general statements about chronology in the Souris River region. UNDAR (Good and Fox 1978) noted the sparse nature of the Upper Souris prehistoric sites. This held true for our study as only sites 32RV3 and 32RV13 produced over ten artifacts from surface inspection. The lack of cultural material also limits our ability to draw conclusions about function and subsistence activities at these sites.

Lithic materials from the prehistoric sites show that three main raw materials were in use: Swan River chert, Knife River flint, and river cobble quartzite. Other materials, such as granite, basalt, and cherts, were utilized, but in much smaller quantities. For southwestern Manitoba, Syms (1977) made certain generalizations about lithic materials and their association with certain cultural periods. Knife River flint was the preferred material for Paleoindian artifacts, while Swan River chert was used for Archaic forms like McKean, with Knife River flint increasing in the Late Archaic Period and for Late Prehistoric side-notched points. Examination of artifact collections along the Upper Souris in the hands of private collectors (see Appendix B and C), which span a wide temporal period, shows that Knife River flint was the preferred material for both Paleoindian and Archaic projectile points, while Swan River chert was in evidence mainly in the Late Prehistoric Period.

Good and Fox (1978) also tried to correlate raw material types with certain cultural periods. They found that in ceramic components of the Plains Village cultures, Swan River chert was the dominant lithic material. Non-ceramic sites assigned to the Plains Nomad tradition were found to contain more Knife River flint.

Table 2 presents a summary of the lithic materials utilized in artifacts found at the sites recorded by Powers Elevation during the 1982 Souris River Project. The totals include waste debris as well as formalized tools. Little difference was seen between the lithics chosen for either tools or debitage in the UNDAR study (Good and Fox 1978), so we have combined both categories when considering material types in the analysis of the Powers 1982 data. The totals in Table 2 were tabulated from the number of artifacts observed at each site, as described in Section 8.1. Most artifacts were left in situ, but those collected are described in detail in Appendix A.

The preference for Swan River chert at ceramic sites, noted by Good and Fox (1978), was found to hold true for the Powers survey. At 32RV8, the only ceramic site located, 40 percent of the lithic material is Swan River chert, 40 percent is quartzite, and none was Knife River flint. The observation that Knife River flint predominates at stone circle sites was also found to hold true for the Powers' survey. 32RV12, the only stone circle site recorded, yielded one flake of Knife River flint, and no Swan River chert artifacts.

Conclusions for other sites recorded in 1982 are somewhat dubious. Sites 32RV5, 32RV6, 32RV10, 32RV11, 32RV13, and 32RV14 may tentatively be classified as Plains Village manifestations on the basis of the predominance of Swan River chert. However, lack of association with ceramics at these sites makes this evaluation tentative at best. Similarly, sites 32RV7 and 32MH3 may represent Plains Nomadic occupations since there is more Knife River flint than Swan River chert in evidence, but this is little more than guess work. For the other sites, classifications are difficult, and they could represent either cultural affiliation. Sites 32RV9 and 32WD24 are excluded from the above discussion, since both are deeply buried sites which could predate Woodland period cultural activities.

Good and Fox (1978) hypothesized that the patterning of lithic materials indicates that both Plains Village and Plains Nomadic peoples co-existed throughout the Woodland period in the Upper Souris River region. Fox (1982) went on to speculate that most of the ceramic sites were associated with protohistoric Sioux groups, on the basis of his identification of most of the potsherds collected during the 1977 UNDAR survey as being Sandy Lake Ware. He also pointed out that the presence of Blackduck traits and Swan River chert indicated cultural associations with northern and eastern peoples, while the few Middle Missouri ceramics and Knife River flint show ties to the south and west.

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Table 2
Summary of Lithic Raw Material
Utilization by Site

Site Number	Swan River Chert		Knife River Flint		River Cobble Quartzite		Other Materials		Totals	
	#	%	#	%	#	%	#	%	#	%
32RV3	4	36.4	2	18.2	5	45.4	-	---	11	100
32RV4	2	22.2	1	11.1	4	45.5	2	22.2	9	100
32RV5	2	40.0	1	20.0	2	40.0	-	---	5	100
32RV6	9	100.0	-	---	-	---	-	---	9	100
32RV7	-	---	2	22.2	6	66.7	1	11.1	8	100
32RV8*	2	40.0	-	---	2	40.0	1	20.0	5	100
32RV9	-	---	-	---	-	---	-	---	-	---
32RV10	3	75.0	-	---	1	25.0	-	---	4	100
32RV11	2	50.0	-	---	1	25.0	1	25.0	4	100
32RV12	-	---	1	100.0	-	---	-	---	1	100
32RV13	7	77.8	-	---	2	22.2	-	---	9	100
32RV14	8	66.7	2	16.7	1	8.3	1	8.3	12	100
32RV15	1	100.0	-	---	-	---	-	---	1	100
32RV16	-	---	-	---	1	100.0	-	---	1	100
32MH3	-	---	1	100.0	-	---	-	---	1	100
32WD24	-	---	-	---	-	---	-	---	-	---

*Ceramic Site

The analysis of ceramics from the Curtis Ones Site (32RV429) (see Appendix D) casts some doubts upon Fox's conclusions. The presence of Swan River chert clearly links the Souris River in North Dakota with southern Manitoba. Dr. Johnson (Appendix D) has pointed out that some of the Curtis Ones pottery is similar to ceramics produced in western Manitoba and eastern Saskatchewan. No associations with Blackduck types was noted. However, the identification of ceramics from the region as Sandy Lake Ware is doubtful. Dr. Johnson identified most of the pottery from 32RV429 as similar to Extended Middle Missouri Variant ceramics. The connections between the Upper Souris area and Middle Missouri peoples during the Plains Village period is much more plausible than the idea that it was the proto-historic Sioux from Minnesota who dominated the region. Syms (1977) pointed out that there is ethnohistoric evidence that the Middle Missouri tribes, such as the Mandan and Hidatsa, utilized the Souris River Basin. The presence of Knife River flint at the Upper Souris sites also is evidence of a connection with central North Dakota cultures.

Certain broad statements about cultural activities in the Upper Souris region can be made from the prehistoric archaeological data collected during the 1982 Powers survey. As Good and Fox (1978) pointed out, the sparse nature of the prehistoric sites and the lack of village complexes along the Upper Souris River indicates that this was a tertiary region, utilized by various groups on a seasonal basis predominantly for hunting. This means that the different cultures could use the area during the same temporal period, along the lines of Sym's (1977) Co-Influence Sphere Model. During the Late Prehistoric Period, Middle Missouri people of the Plains Village culture, Late Woodland groups from Canada, and Plains Nomads all coexisted in the Souris River Basin. While the evidence to support these conclusions is slim, the hypotheses could be better tested when subsurface excavations are conducted in the region in the future.

Additional evidence of an Archaic occupation in the Souris River Valley may also have to rely on future investigations. It is possible that the deeply buried sites (32RV9 and 32RV24) represent pre-Woodland remains.

9.1.2 Historic Sites Discussion

Two major categories for types of historic sites located in the Souris River Project areas emerge from these investigations. One is the rural farmstead. Of the 15 historic sites recorded during the 1982 field season for Task 2, Lake Darling-Upper Souris River area, 11 were farmsteads or related agricultural features. In the Task 1, Velva Levee area, and Task 3, Burlington to Minot and Sawyer Levee areas, only one site was a farmstead. Most of the other sites for Task 1 and Task 3 fall into the other category for historic properties, that of residential housing in an urban district. Of the five historic sites previously recorded by UNDAR in the Upper Souris area, two are farmsteads.

The history of the non-native settlement of the Upper Souris region (see Section 5.2) indicates that the first wave of permanent Euroamerican settlers arrived in the area during the 1880s. The 1885 census for the Dakota Territory showed that ranching was the predominant activity, employing 55 percent of the residents of Renville County, while farming was somewhat secondary. Farming has increasingly become more important in the Upper Souris region, and today most residents along the river engage in raising both crops and livestock. Only three sites (32RV21, 32RV25 and 32RV437) can be tied to the first period of historic settlement in the Upper Souris region. 32RV21 may be related to the Mouse River Horse and Cattle Company, dating to the 1880s. Clyde Joslyn, the man who filed the homestead entry on the land in 1893, was a partner in this firm. 32RV25 is a set of three depressions which may also be related to the Mouse River Horse and Cattle Company. 32RV437, the Swenson Cabin, can be dated back to 1884 when it was first built by Nels Toverson.

Most of the sites in the Upper Souris area are related to the so-called Second Boom period of settlement, dating around the turn-of-the-century. An examination of chains-of-title for ten of the upper river sites indicated a range of settlement from about 1884 to 1904. The mean date for claiming a homestead was 1895. The 1885 Dakota Territory Census showed that only 16 percent of the first settlers in the Renville County were Swedish. The Second Boom, however, was dominated by Scandinavians. Of the ten sites researched, 80 percent of the original settlers had Scandinavian surnames, and 40 percent were identified as immigrants from Sweden. The graves at McKinney Cemetery (site 32RV101) reflect this ethnic occupation, as many of the grave stones are written in Swedish. The two townsites on the Upper Souris, McKinney and Barber, both date to the Second Boom period; as does the McKinney Mill (32RV434), dated to 1903. The historic records indicate that by the end of the Second Boom, by 1910, there was a claimant for every 160 acre parcel in the region.

The sites in Task 1 and Task 3 areas are the product of a different sequence of events. While Velva can trace its beginnings back to 1893, most of the sites recorded around the levee appear to date to the 1960s. Velva began as a region rail stop and trade center for an agricultural hinterland. It developed a stable economy based on farming, coal mining, and an electrical generating plant. Only two sites recorded in Velva reflect its early heritage. 32MH16 may be the house of Ole Nelson, and judging by architectural style it dates back to around the turn-of-the-century. 32MH20 was built by A. W. Nelson in 1910-1911.

The town of Sawyer has a history similar to Velva, having gotten its start as a rail head and post office in 1898. Its

economy was based on lignite mining and agriculture. Most of the sites recorded along the Sawyer levee are of recent origin, dating mainly to the period after 1960. Two sites can be related to the early history of Sawyer. 32WD40 is an abandoned Church of Nazarene camp which dates back to 1909. 32WD41 is a house which was built by Leo Peterson in 1914.

Burlington was born around the store and coal mine founded by J. L. Colton near the mouth of the Des Lacs River in 1883. Minot also had its beginnings in the 1880s, growing up as a major rail center. While Burlington has remained small, Minot has become the largest city in the region, with a college and an Air Force base. With the urban expansion of Minot during the 1960s, much of the land between Burlington and Minot became the location of residential subdivisions. The subdivision of Tierrecito Vallejo was platted in 1964. All of the features of the sites in the Burlington to Minot levees areas appear to date after 1960, with one exception. 32WD34 is a farmstead complex which dates back to the 1890s.

9.2 RECOMMENDATIONS

Of the 16 newly recorded prehistoric locations found during the 1982 Powers survey, eight have been classified as presumed not to qualify for nomination to the National Register of Historic Places, while five are thought to be potentially eligible for nomination, and three are judged to be of undetermined eligibility. Of the six previously recorded prehistoric archaeological sites in the project area which were inspected and re-evaluated by Powers, four appear to be potentially eligible for the NRHP, while two are presumed not to be eligible (see Table 3).

Most of the presumed not eligible sites are sparse lithic scatters located along the Upper Souris River, above Lake Darling, in priority task area 2. During the 1982 field season Powers excavated one or two shovel probes at each of these sites, but little evidence for subsurface cultural materials beneath the plowzone was observed. The integrity of these sites is also questionable, due to the fact that they were all found in cultivated fields. Some archaeologists have argued that small, surface and disturbed sites can contain important archaeological information (Talmage and Chesler 1977). Although the small, disturbed surface sites found along the Upper Souris River do not appear to qualify for the National Register, this opinion is based on surface physical manifestations at these sites, and only a few shovel probes. Powers Elevation recognizes that a more extensive testing program at all of the sites we rate as presumed not eligible for the NRHP would best serve to verify the correctness of these evaluations.

All of the prehistoric archaeological sites evaluated by Powers as being potentially eligible for nomination to the National Register have some evidence of intact, buried

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Table 3

Summary of Prehistoric Cultural Resources

<u>Site #</u>	<u>Site Type</u>	<u>Cultural Affiliation</u>	<u>Location</u>	<u>Elevation</u>	<u>NRHP Evaluations/ Recommendations</u>
32RH3	Lithic Scatter	Unknown	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 22, T.153N., R.80W.	1509 ft	Undetermined Eligibility - Test
32RV3	Lithic Scatter	Early/Middle Archaic	NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 29, T.162N., R.86W.	1605 ft	Presumed Not Eligible - Test
32RV4	Lithic Scatter	Late Prehistoric	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 20, T.162N., R.86W.	1610 ft	Presumed Not Eligible - Test
32RV5	Lithic Scatter	Unknown	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 17, T.162N., R.86W.	1611 ft	Presumed Not Eligible - Test
32RV6	Lithic Scatter	Unknown	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 7, T.162N., R.86W.	1608 ft	Presumed Not Eligible - Test
32RV7	Lithic Scatter	Unknown	NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ and SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 7, T.162N., R.86W.	1605 ft	Presumed Not Eligible - Test
32RV8	Lithic Scatter/ Ceramics	Plains Village/ Plains Woodland	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 7, T.162N., R.86W.	1608 ft	Potential Eligible - Test
32RV9	Buried Bone Lens	Unknown	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 7, T.162N., R.86W.	1605 ft	Potentially Eligible - Test
32RV10	Lithic Scatter	Unknown	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 8, T.162N., R.86W.	1613 ft	Presumed Not Eligible No Further Work
32RV11	Lithic Scatter	Unknown	C SW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 20, T.162N., R.86W.	1605 ft	Presumed Not Eligible - Test
32RV12	Stone Circle	Late Prehistoric (Plains Nomad)	SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 20, T.162N., R.86W.	1604 ft	Potentially Eligible - Test
32RV13	Lithic Scatter	Unknown	S $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 28, T.162N., R.86W.	1608 ft	Presumed Not Eligible - Test

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Table 3 (continued)

Summary of Prehistoric Cultural Resources

<u>Site #</u>	<u>Site Type</u>	<u>Cultural Affiliation</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32RV14	Lithic Scatter	Unknown	SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 31, T.163N., R.86W.	1614 ft	Potentially Eligible No Further Work
32RV15	Lithic Scatter	Unknown	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 33, T.162N., R.86W.	1604 ft	Undetermined Eligibility - Test
32RV16	Lithic Scatter	Unknown	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 3, T.161N., R.86W.	1605 ft	Undetermined Eligibility - Test
32RV411	Lithic Scatter/ Ceramics	Archaic-Historic	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ and NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 36, T.163N., R.87W.	1614 ft	Potentially Eligible No Further Work
32RV412	Lithic Scatter/ Ceramics	Archaic-Protohistoric	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 36, T.163N., R.87W.	1614 ft	Potentially Eligible No Further Work
32RV413	Lithic Scatter	Late Prehistoric	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 20 T.162N., R.86W.	1607 ft	Presumed Not Eligible - Test
32RV414	Lithic Scatter	Late Prehistoric (Plains Nomad)	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 13, T.162N., R.86W.	1609 ft	Presumed Not Eligible - Test
32RV415	Lithic Scatter/ Ceramics	Plains Village/ Plains Woodland	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 17, T.162W., R.86W.	1605 ft	Potentially Eligible - Test
32RV429	Lithic Scatter/ Ceramics	Archaic-Protohistoric	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 8, T.162N., R.86W.	1609 ft	Potentially Eligible - Test
32WD24	Buried Bone Lens	Unknown	NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 18, T.155N., R.83W.	1558 ft	Potentially Eligible - Test

cultural deposits, or an indication that they may contain information important to a better understanding of the regional cultural prehistory. Two are deeply buried bone and charcoal lens seen eroding out of the cutface of the river bank. One is a tipi ring site. One is a lithic scatter located near a large occupation site. Five are occupation sites with both lithic artifacts and potsherds visible. These sites must be tested to better understand their cultural associations and to ascertain if they do indeed qualify for nomination to the NRHP.

The sites which are rated as being of undetermined eligibility are locations where further assessment of the cultural components were adversely influenced by surface conditions. In one case, the site was within an unharvested barley field. In the other situations, the sites were located by shovel probes in the wildlife refuge. The two sites found in the wildlife refuge were not further investigated at the time of their discovery, because extensive testing was believed to be outside the scope of the survey contract. We recommend that these sites be formally examined and evaluated during the testing portion of this project, to be conducted in 1983 and 1984.

Of the 61 newly recorded historic sites, 56 are judged not to be eligible for nomination to the NRHP. No further work need be done at these sites. Many of these are modern residential dwellings or housing subdivisions. Most of these houses were built after 1960. The criteria for nomination to the National Register clearly excludes such recently constructed sites. 36 CFR Part 60.4 reads, in part, that "Ordinarily...properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register." Most of these modern residential structures are not architecturally distinctive, have no significant historical associations, and will not yield information important to local, regional, state, or national history.

Two of the sites recorded during the 1982 investigations have been rated as potentially eligible for the National Register of Historic Places. One is a residential structure in Velva; the other is a farmstead on the Upper Souris River. We recommend that the St. Paul District nominate these site to the National Register, and protect them from future impacts relating to the Souris River Project. If the eligible sites are to be impacted, then the COE must mitigate those adverse effects through a site specific data recovery program.

Three of the historic sites recorded in 1982 have been evaluated as being of undetermined eligibility status.

For these sites we recommend that a subsurface archaeological testing program be undertaken, to determine their actual historical associations, functions, age, and the integrity of their physical remains.

Five previously recorded historic sites were visited and re-evaluated by Powers in 1982. One is ruled to be of undetermined eligibility and an archaeological testing program is recommended for that site. One is already listed on the National Register. The other three sites are potentially eligible for nomination. We recommend that these three sites be nominated to the NRHP by the St. Paul District. All NRHP eligible sites must be protected from impacts during construction activities associated with the Lake Darling-Souris River Project. If the project is to impact these sites, then measures to mitigate the adverse affects must be taken by the COE (see Table 4).

Below is a summary of our recommendations for each of the priority task areas surveyed by Powers in 1982.

9.2.1 Task 1, Velva Levee

One prehistoric archaeological site was discovered within the proposed Velva levee construction area. Site 32MH3 is a sparse scatter of bone, lithic debitage, and fire-cracked rock. It was not tested at the time of the survey because it was located in an unharvested barley field. At the current time, the potential significance of this site is undetermined. It is recommended that site 32MH3 be tested prior to levee construction. This testing should be conducted in early spring or late fall when the field lies fallow, and should be of sufficient nature to determine depths of deposit and site dimensions. The evaluation of the site in terms of the criteria for nomination to the NRHP can be done after such a testing program is completed.

Twenty-five historic locations were recorded during the Velva levee survey. Only one site is thought to be eligible to the National Register. 32MH20 is a house built by A. W. Nelson around 1910-1911. It dates to the beginnings of the town of Velva. Because of its association with a well known local builder, its unique architectural style, its integrity of location and features, and its relationship to local history, this site meets the NRHP criteria. If construction of the levee impacts the site, such impact should be mitigated through a data recovery program designed specifically for this site.

SOURIS RIVER PROJECT

Table 4

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32MH4	Corral	Unknown	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP* NFW**
32MH5 Selzer House	Dwelling	1960	SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH6 Wald House	Dwelling	1960s	SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH7 Lee House	Dwelling	1960s	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH8	Dwelling	1960s	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH9 Anderson House	Dwelling	1960s	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH10 Shook House	Dwelling	1960s	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH11 Ganje House	Dwelling	1960s	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH12 McDowell Place	Work shop	1940s(?)	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1505 ft	Not Eligible for the NRHP NFW
32MH13	Dwelling	post- 1920s(?)	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1509 ft	Not Eligible for the NRHP NFW
32MH14	Dwelling	post- 1920s(?)	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N.,R.80W.	1507 ft	Not Eligible for the NRHP NFW

*NRHP = National Register of Historic Places
 **NFW = No Further Work

SOURIS RIVER PROJECT

Table 4 (cont.)

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32MH15	Dwelling	post-1920s(?)	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.22, T.153N., R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH16 Nelson House	Dwelling	ca. 1900	SW $\frac{1}{4}$ NN $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1507 ft	Not Eligible for the NRHP NFW
32MH17	Pumping Station	post-1960	NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1502 ft	Not Eligible for the NRHP NFW
32MH18 Selberg House	Dwelling	1960s	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1500 ft	Not Eligible for the NRHP NFW
32MH19 Sloan House	Dwelling	1945	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH20 Swanson House	Dwelling	1910	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Eligible for the NRHP Nominate - Protect
32MH21	Dwelling	post-1920s(?)	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH22	Outbuildings	1960s	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH23 Gyrde House	Dwelling	post-1920s(?)	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH24 Good House	Dwelling	1937	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH25 Long House	Dwelling	1946	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW
32MH26 Carlson House	Dwelling	1960s	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N., R.80W.	1506 ft	Not Eligible for the NRHP NFW

SOURIS RIVER PROJECT

Table 4 (cont.)

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32MH27	House Trailers	1960s +	NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.23, T.153N.,R.80W.	1506 ft	Not Eligible for the NRHP NFW
32RV17	Granary	Unknown	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.28, T.162N.,R.86W.	1603 ft	Not Eligible for the NRHP NFW
32RV18	Farmstead	1894(?)	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.7, T.162N.,R.86W.	1603 ft	Not Eligible for the NRHP NFW
32RV19 Knutson Farm 2	Farmstead	1901	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.20, T.162N.,R.86W.	1606 ft	Not Eligible for the NRHP NFW
32RV20	Granary	Unknown	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.28, T.162N.,R.86W.	1608 ft	Not Eligible for the NRHP NFW
32RV21 Joslyn Homestead	Farmstead/ Cattle Ranch	1893(?)	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.33, T.162N.,R.86W.	1604 ft	Undetermined Eligibility Test
32RV22 Curtis Ones Place	Farmstead	1975	SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.7, T.162N.,R.86W.	1610 ft	Not Eligible for the NRHP NFW
32RV23 Syverson Homestead	Farmstead	1904	SE $\frac{1}{4}$ S. $\frac{1}{4}$ NE $\frac{1}{4}$, Sec.7, T.162N.,R.86W.	1605 ft	Eligible for the NRHP Nominate - Protect
32RV24 Swenson Farm	Farmstead	1968	SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.6, T.162N.,R.86W.	1605 ft	Not Eligible for the NRHP NFW
32RV25 Mouse River Horse and Cattle Company (?)	Cattle Ranch/ Depressions	1880s(?)	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.33, T.162N.,R.86W.	1605 ft	Undetermined Eligibility Test
32RV26	Bridge	Unknown	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.21, T.162N.,R.86W.	1600 ft	Not Eligible for the NRHP NFW
32RV27	Trash Dump	1960s(?)	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.6, T.162N.,R.86W.	1605 ft	Not Eligible for the NRHP NFW

SOURIS RIVER PROJECT

Table 4 (cont.)

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32RV28 Barber Townsite(?)	Townsite/ Foundation	1904	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 5 T. 162N., R. 86W.	1605 ft	Undetermined Eligibility Test
32RV29 McCarroll Ranch	Farmstead	1893	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 17, T. 162N., R. 86W.	1607 ft	Not Eligible for the NRHP NFW
32RV30 Lindlauf Homestead	Farmstead	1893	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 13, T. 161N., R. 86W.	1599 ft	Not Eligible for the NRHP NFW
32RV31 Knutson Farm 1	Farmstead	1893	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 28, T. 162N., R. 86W.	1604 ft	Not Eligible for the NRHP NFW
32RV101 McKinney Cemetery	Cemetery	1880s +	SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 23, T. 161N., R. 86W.	1600 ft	Listed on NRHP Avoid
32RV434 McKinney Mill	Mill remains	1903	SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 14 and SW $\frac{1}{4}$, Sec. 13, T. 161N., R. 86W.	1600 ft	Undetermined Eligibility Test
32RV437 Swenson Cabin	Farmstead	1884	NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 6, T. 162N., R. 86W.	1609 ft	Eligible for the NRHP Nominate - Protect
32RV440 Brekas Stone House	Farmstead	1904	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 6, T. 162N., R. 86W.	1610 ft	Eligible for the NRHP Nominate - Protect
32RV441 Mouse River Park	Park	1912	S $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 2, T. 161N., R. 86W.	1600 ft	Eligible for the NRHP Nominate - Protect
32WD33 Tierrecito Vallejo	Residential Subdivision	1964	SE $\frac{1}{4}$, Sec. 21, T. 155N., R. 83W.	1560 ft	Not Eligible for the NRHP NFW
32WD34 Vallejo Farm	Farmstead	1890	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 21 T. 155N., R. 83W.	1560 ft	Not Eligible for the NRHP NFW
32WD35 Talbot's Trailers	Trailer Park	1960s(?)	SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 7, and NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 18, T. 155N., R. 83W.	1560 ft.	Not Eligible for the NRHP NFW

SOURIS RIVER PROJECT

Table 4 (cont.)

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32WD36 Brook's Addition	Residential Subdivision	1960s(?)	W $\frac{1}{2}$ NE $\frac{1}{4}$ and E $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec.12, T.155N.,R.84W.	1569 ft	Not Eligible for the NRHP NFW
32WD37 King's Court	Residential Subdivision	1960s(?)	SE $\frac{1}{4}$, Sec.18, T.155N.,R.83W.	1563 ft	Not Eligible for the NRHP NFW
32WD44 Johnson's Addition	Residential Subdivision	1960s(?)	SE $\frac{1}{4}$ NW $\frac{1}{4}$ and NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.1, T.155N.,R.84W.	1563 ft	Not Eligible for the NRHP NFW
32WD45 Country Club Acres	Residential Subdivision	1960s(?)	NW $\frac{1}{4}$, Sec.18, T.155N.,R.83W.	1562 ft	Not Eligible for the NRHP NFW
32WD25	Mobil Home	1965	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD26	Dwelling	1970	SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD27	Dwelling	1960s(?)	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD28	Dwelling	1960s(?)	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD29	Dwelling	1960s(?)	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD30	Dwelling	post- 1920s(?)	SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec.2, T.153N.,R.81W.	1520 ft	Not Eligible for the NRHP NFW
32WD31	Junk yard	Unknown	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1520 ft	Not Eligible for the NRHP NFW
32WD32	Storage yard	Unknown	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1525 ft	Not Eligible for the NRHP NFW

SOURIS RIVER PROJECT

Table 4 (cont.)

Summary of Historic Cultural Resources

<u>Site #/Name</u>	<u>Site Type</u>	<u>Age</u>	<u>Location</u>	<u>Elevation</u>	<u>Recommendations</u>
32WD38	Dwelling complex	1960s(?)	SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD39	Dwelling complex	1960s	SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD40 Church of Nazarine Bible Camp	Bible Camp	1909	NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1523 ft	Not Eligible for the NRHP NFW
32WD41 Peterson House	Dwelling	1914	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1524 ft	Not Eligible for the NRHP NFW
32WD42	Farmstead/ Pumping Station	Unknown	NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1523 ft	Not Eligible for the NRHP NFW
32WD43	Grain Elevator	1960s(?)	NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec.11, T.153N.,R.81W.	1527 ft	Not Eligible for the NRHP NFW

9.2.2 Task 2, Lake Darling-Upper Souris River Area

Eight of the prehistoric sites recorded by Powers Elevation during the 1982 survey of the Lake Darling-Upper Souris River area have been evaluated as presumably not eligible for nomination to the National Register of Historic Places. This includes sites 32RV3, 32RV4, 32RV5, 32RV6, 32RV7, 32RV10, 32RV11, and 32RV13. Also, two of the sites previously recorded by UNDAR, 32RV413 and 32RV414, appear not to qualify for the NRHP. However, because these sites were judged on surface remains alone, with just a few random shovel probes used to examine the potential for subsurface deposits, it is recommended that a more extensive testing program be carried out at nine of these ten sites to determine for certain what their NRHP status is. The only exception is 32RV13, which is outside the area of impact of the project as currently planned.

Two sites recorded by Powers in 1982 in the Upper Souris region have been rated as being of undetermined eligibility. These are the two prehistoric site locations found using shovel probes in the Upper Souris Wildlife Refuge. At 32RV15 a single probe yielded a single artifact. At 32RV16 a single artifact was discovered in one probe, while two other shovel probes were negative. Given the low probability of finding an artifact in a shovel probe in a region where archaeological sites have very low artifact densities, both these locations were assigned site numbers. It is recommended that they be more extensively tested in the up-coming field season. A formal testing program at these sites would determine their cultural extent, nature, and NRHP eligibility.

Four of the prehistoric archaeological sites recorded by Powers in 1982 and four of the sites in the Upper Souris region previously recorded by UNDAR have been rated as being potentially eligible for the National Register of Historic Places. This includes 32RV8, 32RV9, 32RV12, 32RV14, 32RV411, 32RV412, 32RV415, and 32RV429. 32RV8 is a small lithic scatter which yielded a single potsherd. It is across the river from 32RV429, a large important occupation site, and examination of the river bank, plus the two shovel probes dug here, indicate that 32RV8 could have the potential for intact buried cultural remains beneath the plowzone. 32RV9 is a lens of bone and charcoal eroding from the cutbank of the river, some .75 m below the ground surface. It is just south of 32RV429, and an informant told us that a projectile point was once removed from the site. 32RV12 is a stone circle that yielded a flake when probed with a shovel. 32RV14 is a lithic scatter located just east of 32RV412, which could contain buried cultural deposits. 32RV411 is the Richie Johnson site which has produced a wide range of cultural materials, from Early Archaic to historic era artifacts (see the Johnson collection in Appendix B of this report). 32RV412 is the Myrna Johnson

site, which also contains a wide range of artifacts (see Appendix B). 32RV415 is the McCarroll site, which was assigned to the Plains Village manifestation of the Late Woodland stage by UNDAR based on projectile point styles and ceramics found at the site. 32RV429 is a large occupation referred to as the Curtis Ones site. Artifacts from this location range from the Early Archaic to the protohistoric period (see Appendix C).

Three of the potentially eligible sites, 32RV14, 32RV411, and 32RV412, need not be further dealt with at this time, since they are above 1610 feet in elevation, and should not be impacted by the COE project as currently planned. The other five prehistoric sites rated as potentially eligible for the NRHP should be tested to verify this evaluation. If a formal testing program at each of these sites confirms that they do indeed qualify, then the St. Paul District should nominate them for the National Register of Historic Places. They must also be protected from the impacts of the COE project. If they are to be impacted, then the COE must mitigate those adverse affects through a site specific data recovery program. Before the data recovery program begins, a research design should be formulated so that the data obtained can be placed into an intellicutual framework.

A total of 20 historic sites are located in the Upper Souris project area above Lake Darling. Fifteen of these sites were located by Powers Elevation during the 1982 field season and five were previously recorded by UNDAR. Of the 1982 sites, only one is recommended as eligible for nomination to the National Register of Historic Places. Site 32RV23, the old Curtis Ones farm, includes a house built in 1904 by Ole Severson, the original homesteader, from plans purchased from Sears-Roebuck. The house is in good condition, and retains a high degree of design and material integrity. Because of its architectural uniqueness, and its association with an early homesteader, this site is considered eligible for nomination to the NRHP.

Three sites recorded by UNDAR in 1978 (Schweigert 1979) are also considered eligible for listing on the National Register. 32RV437 is the Swenson log cabin, first built and occupied in 1884 by Nels Toverson. This is one of the few sites intact which dates back to the first period of Euroamerican settlement of the Upper Souris region. 32RV440 is the Brekkas Stone House. It was built by Andrew Johnson Foss in 1904. The house is of interest because of its stone construction, and trim motifs. 32RV441 is Mouse River Park. This park dates back to 1912, when it was created as a regional Chautauqua. It is associated with important historical people and events, and has retained its functional integrity as a recreation center for the area up to modern times.

It is suggested that the St. Paul District nominate these eligible historic sites to the National Register. One property within the project area, site 32RV101, the McKinney Cemetary, is already listed on the Register. Together, all the sites which are either listed or judged eligible for listing on the NRHP should be protected from adverse impacts. If the construction of the COE project at Lake Darling will affect these sites, then a data recovery program must be formulated for each resource to mitigate those impacts.

In addition to the sites which are clearly eligible to be listed on the NRHP, four historic sites are of undetermined eligibility. 32RV21 is the remains of a homestead that might be related to the Mouse River Horse and Cattle Company, dating back to the 1880s. A subsurface testing program is recommended to clarify its chronological and functional affiliations with that important historical operation. 32RV25 is a series of depressions which might also be related to the Mouse River Horse and Cattle Company. Again, subsurface testing is recommended to clarify that relationship. 32RV28 is a fieldstone foundation that may be related to the townsite of Barber, founded in 1904. Subsurface testing could provide more information as to its function and chronological association with this early townsite. The McKinney Mill, site 32RV434, also dates back to around 1903. All that remains is the foundation. A subsurface testing program would determine if any remains left there are likely to yield information important to local history.

The rest of the historic sites are not considered eligible for nomination to the NRHP and no further work is recommended for those sites. Our recommendations for the historic sites are summarized in Table 4.

9.2.3 Task 3, Burlington to Minot Levees and Sawyer Levee

One archaeological site was recorded during the survey of the Country Club Acres subdivision of the Burlington to Minot levees. Site 32WD24 is believed to be potentially eligible for listing on the NRHP. The site is a level of bone and charcoal seen eroding from the riverbank. The site lies some 1.5-1.75 meters below the present ground surface. Because it is deeply buried it should be relatively intact and undisturbed. Also, because it is deeply buried, it is not known what kind of impact project construction activities will have on it. If levee construction threatens this site, it is recommended that a subsurface testing program be initiated to determine the exact nature and extent of the deposits, and to fully evaluate it in terms of the criteria for nomination to the National Register.

Seven historic sites were recorded along the Burlington to Minot Levees and 14 historic sites were recorded at Sawyer. None are deemed eligible for nomination to the National Register of Historic Places and no further work is recommended for these sites.

9.2.4 Plans for Future Work

Task 4 of this contract calls for the testing of four of the prehistoric sites previously recorded by UNDAR during their survey of the shoreline of Lake Darling and the proposed Burlington Dam. These sites were originally to be: 32RV404, 32RV407, 32RV420, and 32RV422. Upon examination of these locations it was discovered that sites 32RV404 and 32RV407 were under the waters of Lake Darling, and therefore could not be tested. The COE then replaced them with sites 32RV419 and 32RV421. The work on these sites was conducted by Powers Elevation during the 1983 field season (Floodman 1984a).

On September 10, 1983 the COE issued Modification No. P00001 of Contract No. DACW37-82-C-0030. This called for the archaeological testing of prehistoric sites 32MH3, 32RV3, 32RV4, 32RV5, 32RV6, 32RV7, 32RV8, 32RV9, 32RV11, 32RV12, 32RV13, 32RV15, 32RV16, 32RV413, 32RV414, 32RV415, 32RV429; and 32WD24; and historic sites 32RV21, 32RV25, 32RV28, and 32RV434. This work was carried out during the 1983 and 1984 field seasons (Floodman 1984a; 1984b).

These further archaeological investigations allowed for a final determination of NRHP eligibility to be made for each of the sites to be affected by the Souris River Project, based on a systematic program of subsurface probing. The final report of the 1983-1984 testing program is due to be produced by July, 1985.

SECTION 10.0

APPENDICES

Appendix A: Analysis of Collected Lithic Materials from Task 2, Lake Darling-Upper Souris River Project Area.

Appendix B: Analysis of the Richard Johnson Artifact Collection

Appendix C: Analysis of the Curtis Ones Artifact Collection

Appendix D: Analysis of the Curtis Ones Ceramic Collection

Appendix E: 1982 Shovel Probe Results Summary

Appendix A

Analysis of Collected Lithic Materials from Task 2,
Lake Darling-Upper Souris River Project Area.

By Mervin G. Floodman

The following section is a descriptive analysis of the artifacts collected during Task 2, the cultural resources survey of the Upper Souris region above Lake Darling. A total of 13 artifacts were collected, off of seven sites, plus a single prehistoric isolated find. The descriptions below identify the form of the artifact, its material, dimensions, and weight.

32RV3

A total of four artifacts were collected from 32RV3. One is a projectile point base, one is a biface fragment, one is a scraper, and one is a utilized flake (see Figure 50a).

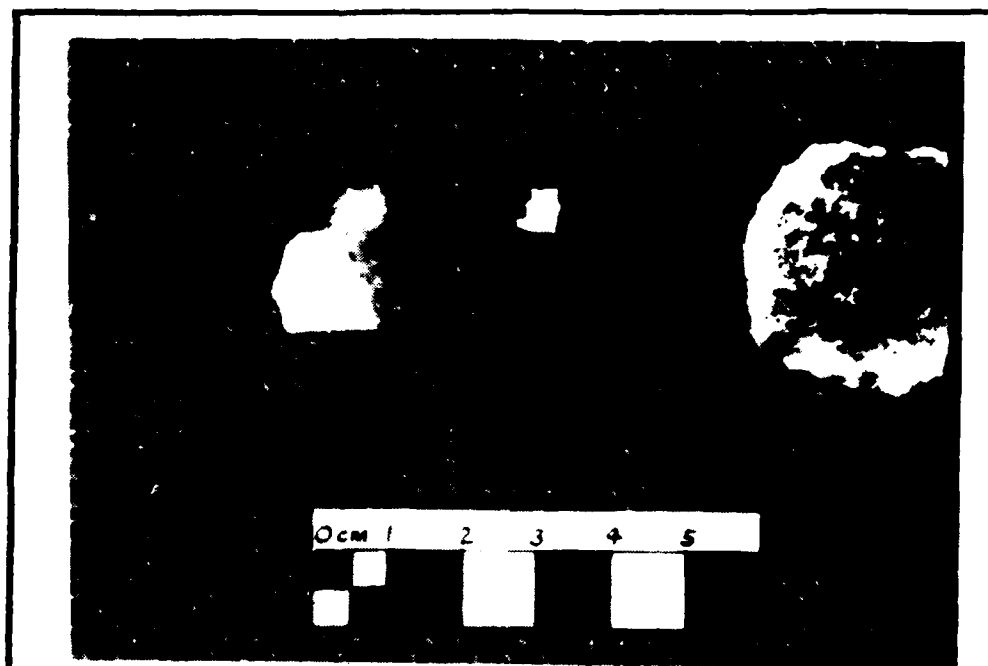
32RV3-1 Projectile Point Base

Raw material	White chert/Swan River chert
Total length	Incomplete
Maximum width	18.0 mm
Maximum thickness	7.0 mm
Bladeedge length	Incomplete
Stem length	9.0 mm
Base width	Incomplete
Neck width	9.0 mm
Notch width	6.0 mm
Notch depth	2.0 mm
Shoulder width	Incomplete
Weight	3.0 grams

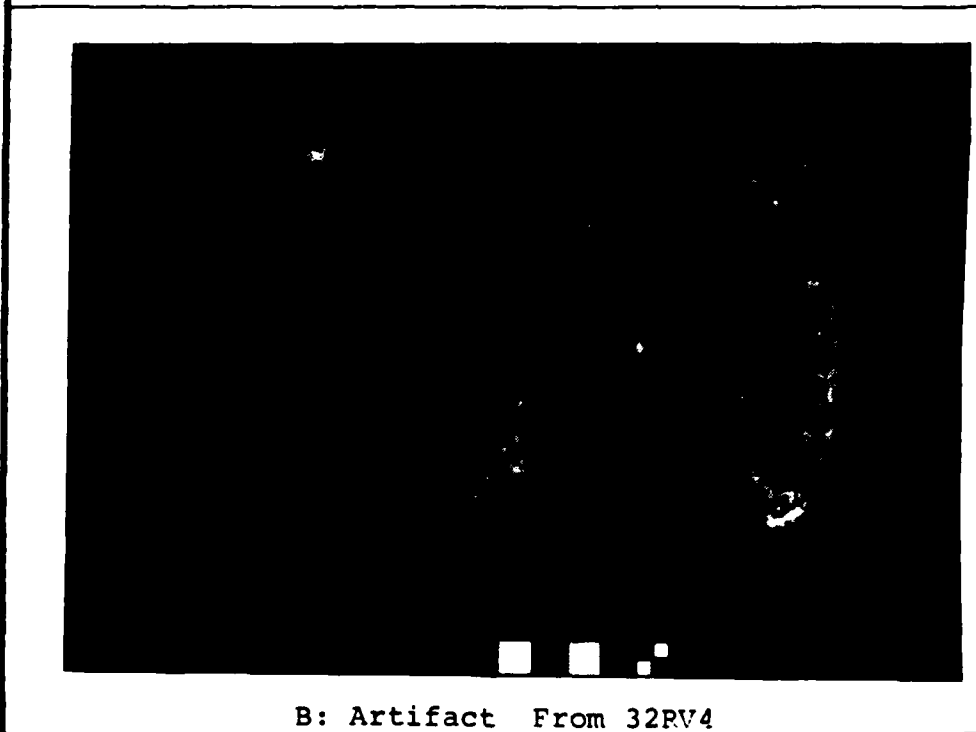
This artifact represents the basal portion of a projectile point broken through the midsection. One basal ear is also missing. The specimen bears evidence of both soft hammer percussion and fine pressure retouch along the blade and basal edges. Wide, shallow side notches are present forming a rounded, acute angled stem/base juncture. The base is concave forming a distinctive basal ear. The point is bi-convex in cross-section. The projectile point is similar to distinctive Oxhow type point or a similar Early Archaic variety.

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Figure 50



A: Artifacts From 32RV3



B: Artifact From 32RV4

Views of Artifacts From Selected Sites

32RV3-2 Biface Fragment

Raw Material	Swan River chert
Length	27.0 mm (Incomplete)
Width	34.0 mm
Thickness	16.0 mm
Weight	16.1 grams

The artifact probably represents the basal portion of a large biface/blank. The specimen has a plano convex cross section. It is manufactured by percussion flaking from both the dorsal and ventral surfaces. The ventral surface bears evidence of post-detachment removals over approximately 90 percent of the surface. The dorsal surface is markedly convex and exhibits cortex along the central portions of the artifact. The artifact was probably fractured during manufacture. No evidence of utilization is present.

32RV3-3 Retouched Flake/Scraper

Raw material	Knife River flint
Length	17.0 mm
Width	21.0 mm
Thickness	3.5 mm
Weight	2.0 grams

This artifact was manufactured on a small tertiary flake. The flake has been unifacially retouched along the dorsal surface on both lateral margins and the distal end. The steep-angled working edges of the specimen bear use-wear scars perpendicular to the working edge suggesting a scraping motion. Micro spalling and step fractures are readily apparent.

32RV3-4 Utilized Flake

Raw material	Knife River flint
length	24.0 mm
width	15.0 mm
thickness	5.5 mm
weight	2.5 grams

This artifact represents a secondary flake that has cortex present along the right lateral margin. The opposite side (left lateral margin) exhibits extensive use-wear damage in the form of micro-spalling with both feather and step terminations visible. The scars appear to be slightly oblique to the working edge suggesting a cutting motion. The cortical right lateral edge also shows evidence of utilization in the form of spalling perpendicular to the edge suggesting a scraping motion. The left lateral margin is most heavily utilized.

32RV4

One artifact was collected from 32RV4 (see Figure 50b).

32RV4-1 Grooved Maul

Raw material	Granitic
Length	160.0 mm (approx.)
Width	111.5 mm (approx.)
Thickness	89.0 mm (approx.)
Weight	3.2 kilograms (approx.)

This large granitic maul has been modified by pecking and smoothing a groove around the midsection of the stone. The groove averages about 25 mm. in width and perhaps 8 or 9 mm. in depth. One end of the stone has been flattened and smoothed. A degree of battering is present on this working edge. The other end of the stone is unmodified. Several scars are present on the surface of the artifact from repeated plowing of the field containing the artifact.

32RV7

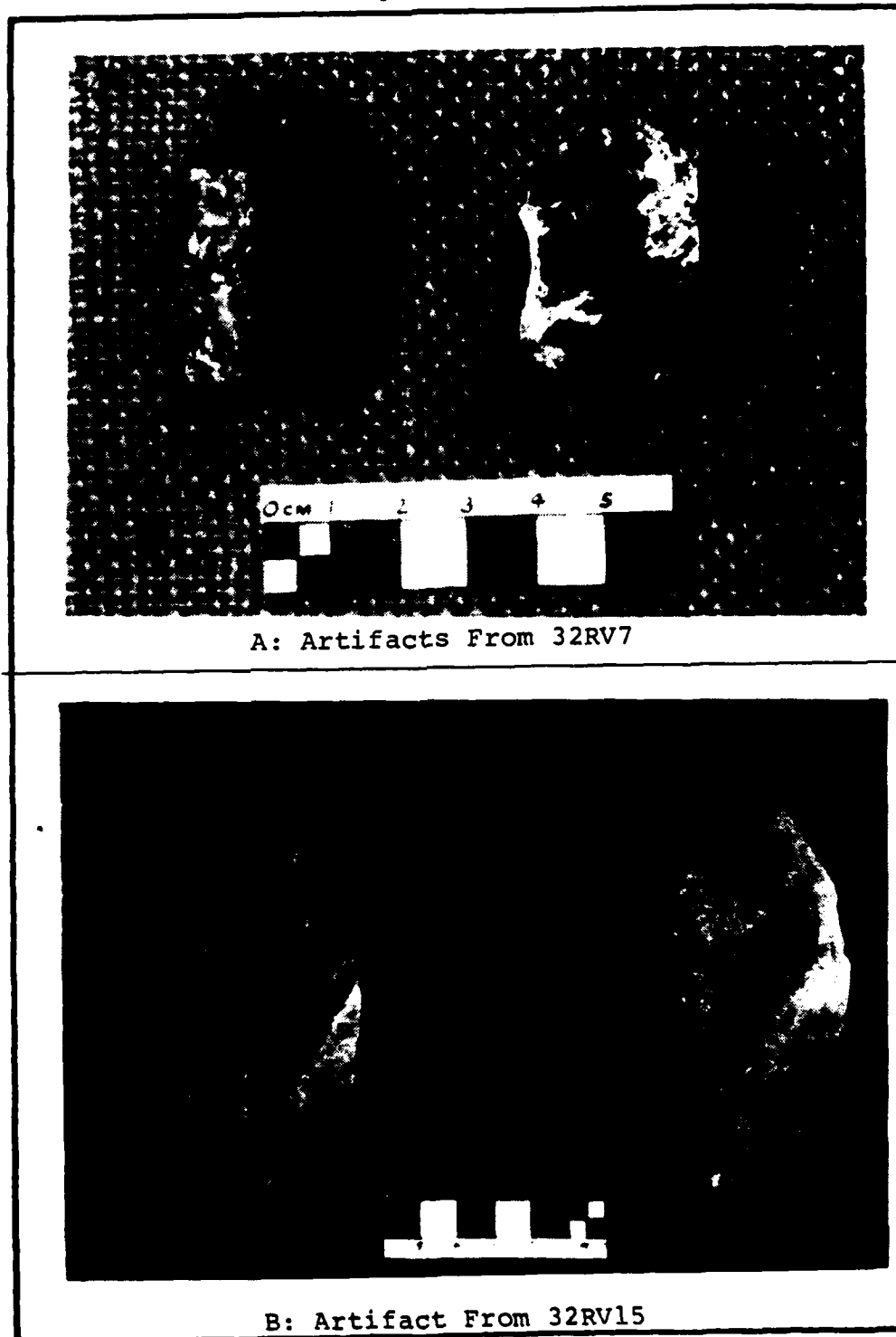
Two artifacts were collected at 32RV7 (see Figure 51a).

32RV7-1 Biface Fragment

Raw material	Brown fossiliferous chert
Length	28.0 mm
Width	43.5 mm
Thickness	9.0 mm
Weight	11.5 grams

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Figure 51



View of Artifacts From Selected Sites

This specimen was manufactured by percussion flaking and exhibits cortical surface on both sides. This suggests it may be manufactured from a small, thin nodule. The artifact is not complete and was broken during manufacture. It has therefore, been classified as a blank.

32RV7-2 Utilized Flake

Raw material	Knife River flint
Length	45.5 mm
Width	21.0 mm
Thickness	12.0 mm
Weight	12.3 grams

The artifact is a utilized secondary flake of Knife River flint. No platform or bulb of percussion remain. The flake was removed during the initial edging of core preparation. Both lateral margins are utilized and both have cortex along the working edge. The utilized margins are characterized by microspalling and step fractures perpendicular to the working edge suggesting a scraping motion. In addition, use-wear is evident on both the dorsal and ventral flake surfaces suggesting a bi-directional scraping technique.

32RV11

One artifact was collected at this site.

32RV11-1 Discoidal Biface/Chopper

Raw material	Swan River chert
Length	86.0 mm
Width	104.0 mm
Thickness	31.0 mm
Weight	246.2 grams

This artifact was manufactured on a large tertiary flake blank by direct percussion. The large platform is remnant as is part of the bulb although portions of the bulb have been flaked. No cortex is present on the artifact. The artifact is plano-convex in cross section. The edges are sinuous with apparent grinding present. No evidence of sustained use-wear is present.

32RV12

One artifact was recovered at 32RV12 in a shovel test probe.

32RV12-1 Tertiary Waste Flake

Raw material	Knife River flint
Length	13.0 mm
Width	10.5 mm
Thickness	3.0 mm
Weight	0.4 grams

No platform or bulb of percussion is present. The artifact represents a small, non-retouched, non-utilized waste by-product of stone tool manufacture.

32RV15

One artifact was collected from 32RV15 (see Figure 51b).

32RV15-1 Retouched/utilized flake

Raw material	Swan River chert
Length	39.0 mm
Width	29.0 mm
Thickness	10.0 mm
Weight	11.9 mm

The artifact has been manufactured by retouch along both right and left lateral margins of a large tertiary flake. The artifact exhibits a marked plano-convex cross-section. The steep edge angles of the laterally retouched margins suggest a scraping function. The use-wear is not heavy or pronounced. A deep shovel gouge is present at the distal edge of the artifact.

32RV16

One artifact was collected at this site.

32RV16-1 Core/Core Fragment

Raw material	Quartzite river cobble
Length	111.7 mm.
Width	80.1 mm.
Thickness	49.0 mm.
Weight	475.7 grams

The artifact represents a large fragment of a river cobble core. Flakes are randomly removed and bi-directional. Cortical surfaces are present on both sides of the core. The core has not been prepared or shaped for removal of pre-designed flakes.

32RV412 (Myra Johnson Site).

One artifact was collected from 32RV412 which is a site first recorded by UNDAR in 1977.

32RV412-1 Projectile Point

Raw material	Coarse grey chert
Total length	26.5 mm
Maximum width	17.0 mm
Maximum thickness	3.5 mm
Bladeedge length	20.0 mm
Stem length	7.0 mm
Base width	Incomplete
Neck width	11.5 mm
Notch width	4.0 mm
Notch depth	3.0 mm
Shoulder width	17.0 mm
Weight	1.5 grams

The artifact is a small triangular side-notched projectile point. The tip is blunt pointed with excurvate blade edges. The edges are smoothed by random pressure flaking. The soulders are straight to slightly tapered and formed by broad side-notches. The stem-base juncture is a rounded acute angle with a straight base. The base thinned by small vertical pressure flakes and is not ground.

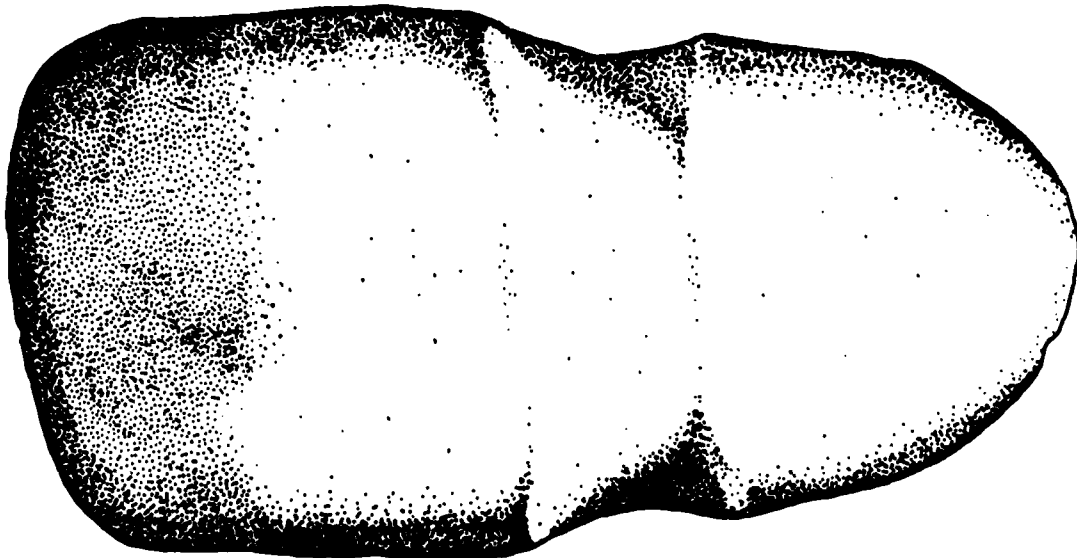
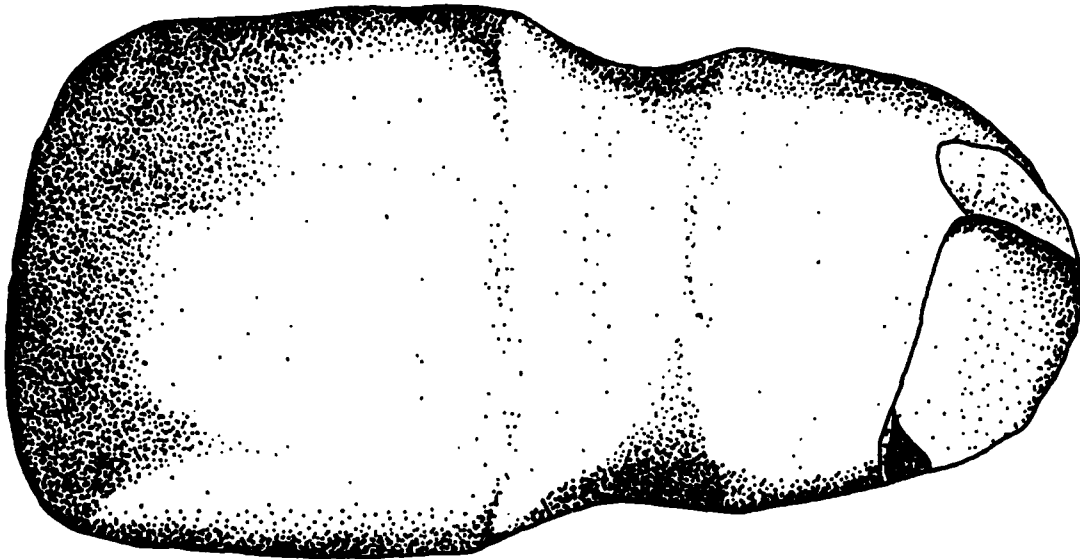
Isolated Find PE-82-LD-#1

This is a single prehistoric isolated find (see Figure

Raw material	Diorite
Length	150.0 mm
Width	78.0 mm
Thickness	35.0 mm
Weight	.75 kilogram (approx.)

This artifact represents a small grooved axe. The groove is formed by pecking and slight smoothing or grinding. It is present around three-quarters of the artifact. One side has not been grooved. The other side and both top and bottom have been grooved. One edge is pecked and ground to form a sharp bit. The grinding extends back 30 to 35 mm from the bit edge. Other portions of the body of the axe have been smoothed and ground only sporadically. A large flake has been removed from the end opposite the bit; possibly an impact fracture. Some scarring from plowing in the field can be seen.

Figure 52
THE SOURIS RIVER PROJECT



1.E 1

Drawn actual size

Appendix B:

Analysis of the Richard Johnson Artifact Collection.

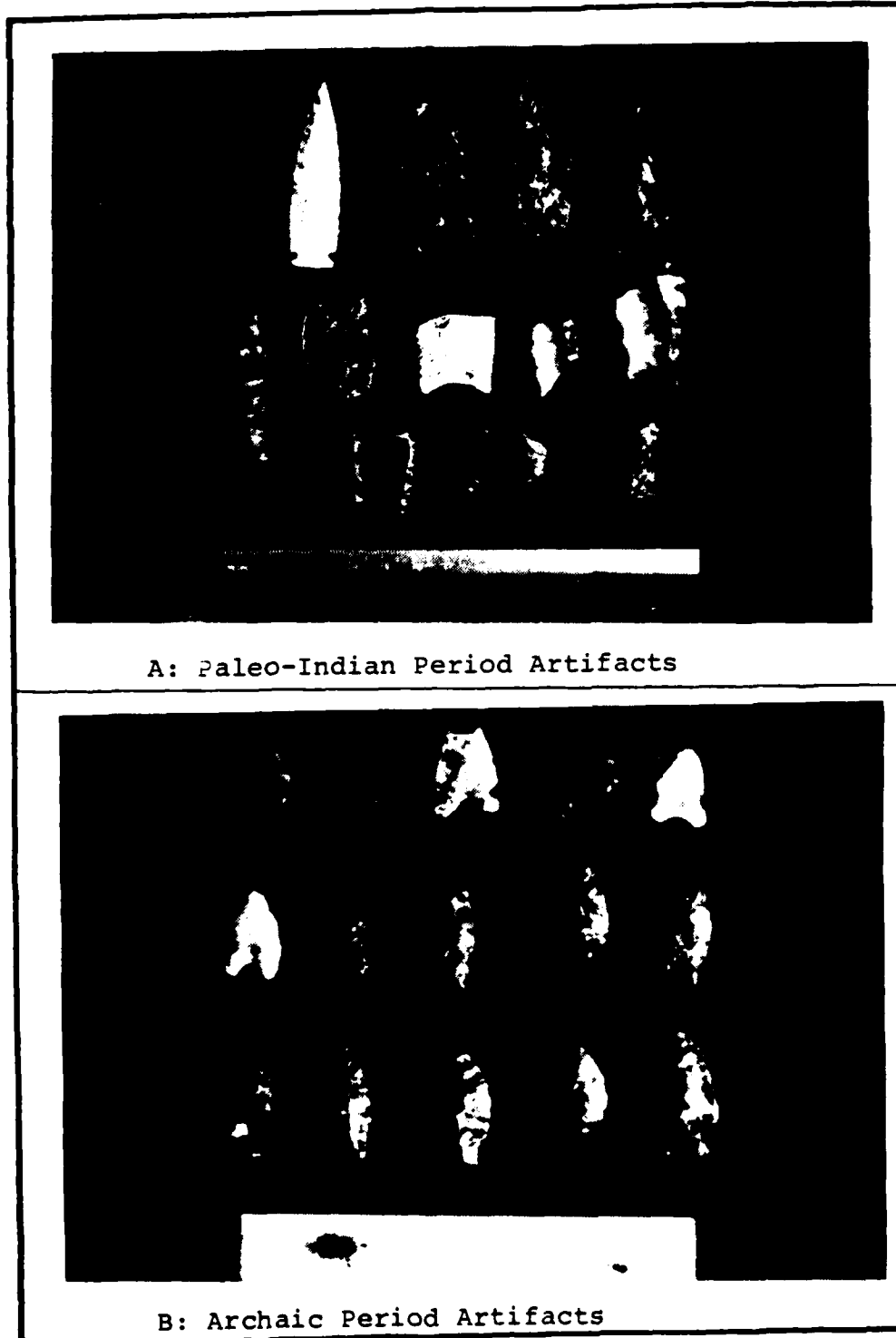
By Mervin G. Floodman

The following photographic figures represent a short summary of the materials within the collection of Richard Johnson. Mr. Johnson has been an avid collector of prehistoric artifacts for years. His collection contains thousands of items representing a cross-section of almost all known cultural manifestations present on the Northern Plains. His vast collection contains mainly items from local sites within the Souris basin and surrounding plains. But also includes items from wide areas of North Dakota and many other areas and states as well. Much of his collection has been obtained from sites 32RV411 and 32RV412 within the current project area. It was not possible to determine exactly which items were from these sites in the short visit we had with him to observe a portion of his collection. He has clearly stated, however, that none of the Paleoindian artifacts (Figure 53a) were recovered within the Souris River Valley. The points were collected from areas higher up on the surrounding plains. Some of these come from the vicinity of New Town, North Dakota. The carved catlinite piece in the shape of a small axe with incised anthropomorphic figure (Figures 56b & 57) has been clearly identified as coming from site 32RV411. From comments made by Mr. Johnson, it is evident that a wide variety of point types ranging from Early Archaic Oxbow type points through Protohistoric metal points have all been recovered from the defined site areas of 32RV411 and 32RV412 which clearly indicates multiple occupations and mixing of several cultural horizons within the modern plowzone at those sites. Ceramics were also found at these sites (Figure 55b). The range of artifact types recovered from sites 32RV411 and 32RV412 indicates that both sites have potential for yielding information important to prehistory and should therefore be considered as potentially eligible for nomination to the National Register of Historic Places.

Figure 53a- Paleoindian artifacts. This plate shows a summary of some of the Paleoindian items in Mr. Johnson's collection. Present are one Clovis Point base (bottom row, second from right), several Folsom, Eden and Agate Basin point types. Extreme patination is present on several of the projectile points.

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Figure 53



Views of Richard Johnson's Artifact Collection

Figure 53b- Middle Prehistoric or Plains Archaic artifacts. Oxbow, McKean, Duncan, Hanna point types are represented. These represent both Early and Middle Archaic forms.

Figure 54a- This plate is predominantly projectile points of the Late Archaic and Woodland time periods, including Besant, Pelican Lake and various untyped side and corner notch varieties. One Paleoindian point, a Scottsbluff, is present in the bottom row, the extreme right.

Figure 54b- This plate represents one of Mr. Johnson's artifact boards. A wide variety of point types and time periods are represented from Archaic Oxbow forms through small side notched points of Late Prehistoric Plains Village and Plains Nomadic cultures.

Figure 55a- Late period points of Plains Village and Plains Nomadic dominate this figure. Also present are Avonlea, a metal Protohistoric/Historic point, and one Hanna point (upper right corner).

Figure 55b- A sample of the ceramic rim sherds present in Mr. Johnson's collection. A wide variety of pottery styles and cultural periods are present. None of the pottery was identified or typed at this time.

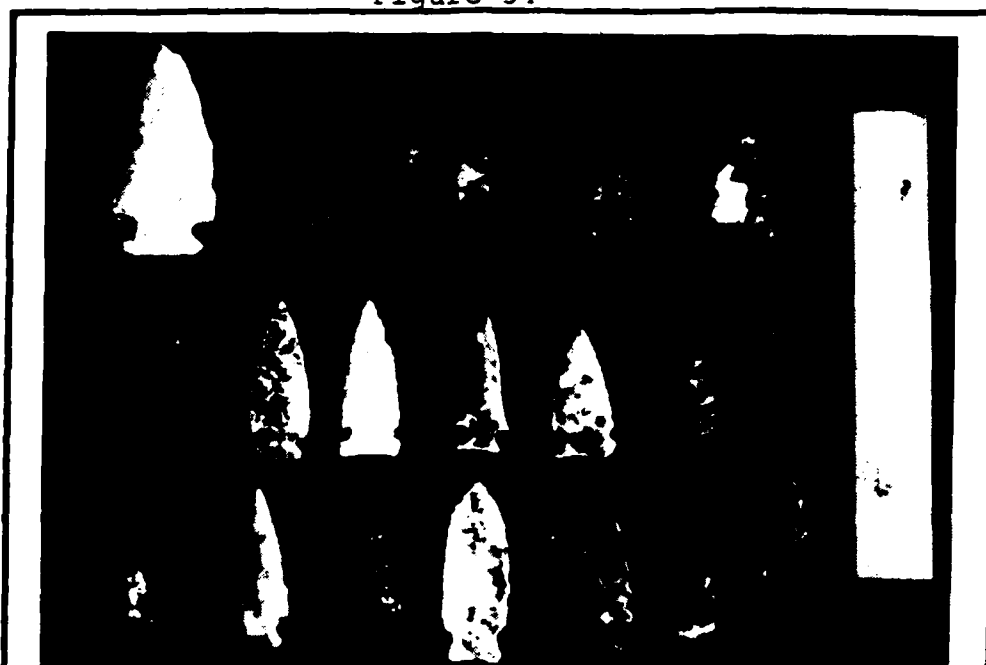
Figure 56a- Several large bifaces and knives present in the Johnson collection of unknown time period. One at the far right is heavily patinated.

Figure 56b- Selection of ground stone axes. Many more are present in Mr. Johnson's collection. Lower right is a catlinite object of unknown function. The object is carved to the form of an axe head and bears an engraved anthropomorphic figurine and arrow on one side. Mr. Johnson's collection also includes stone mauls (none pictured).

Figure 57 - Close-up detail of catlinite piece with incised anthropomorphic figure as described above.

SOURIS RIVER PROJECT

Figure 54



A: Woodland Period Artifacts

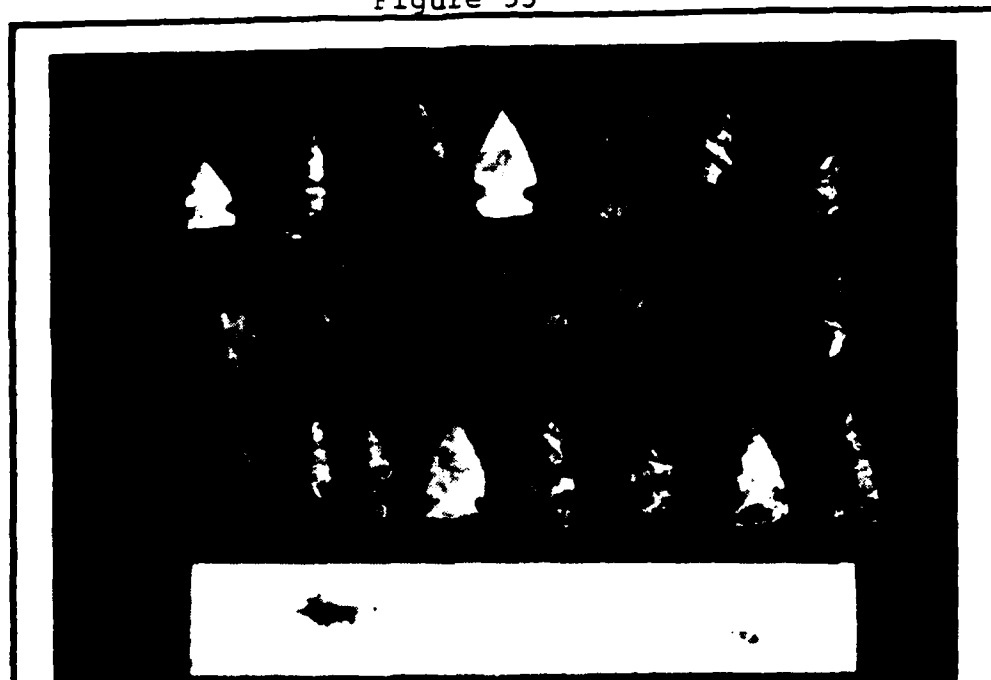


B: Artifact Board

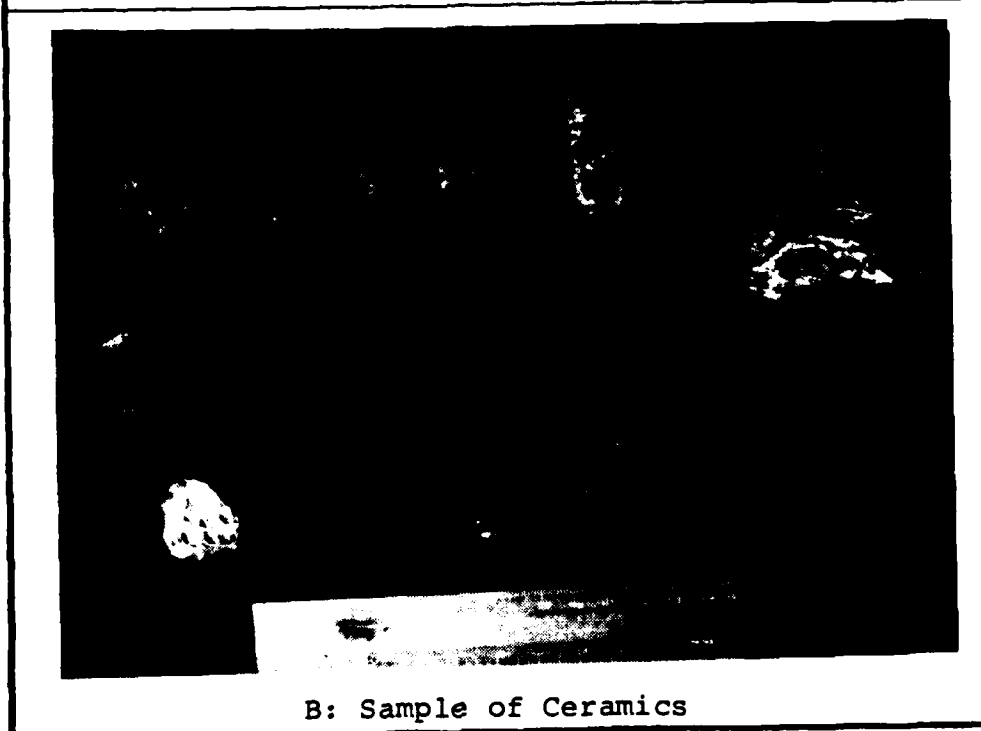
Views of Richard Johnson's Artifact Collection

SOURIS RIVER PROJECT

Figure 55



A: Late Prehistoric Period Artifacts

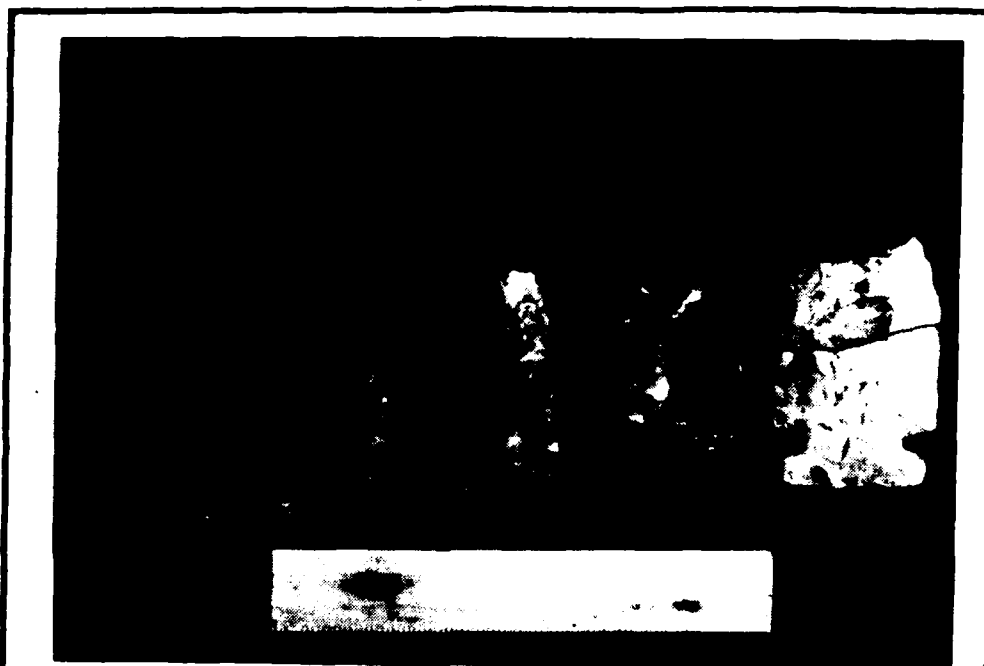


B: Sample of Ceramics

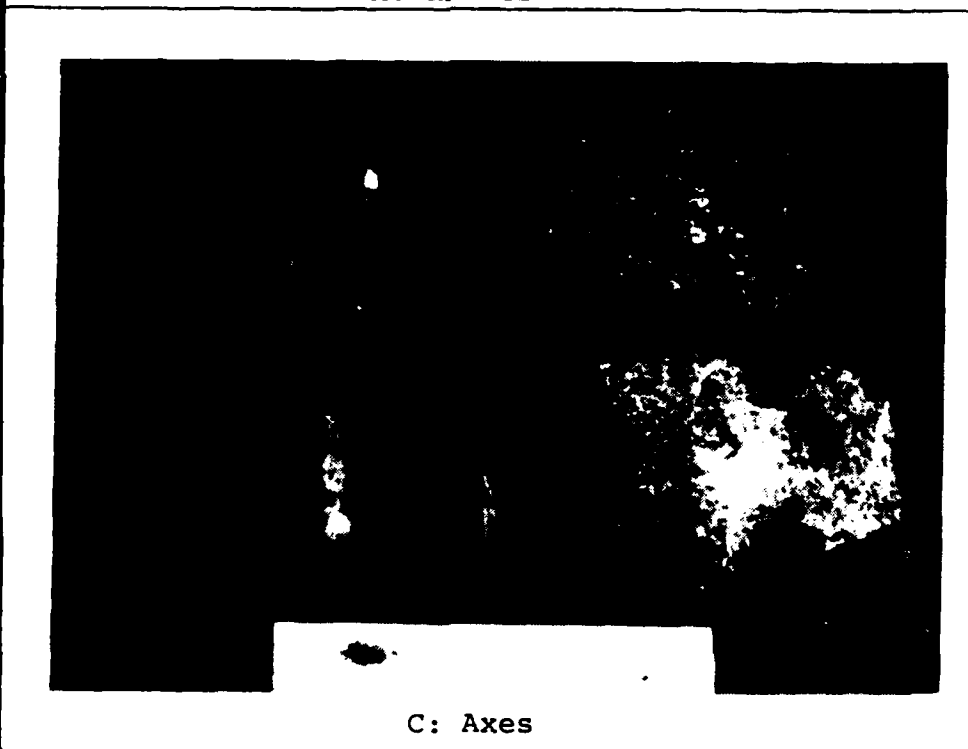
Views of Richard Johnson's Artifact Collection

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Figure 56



A: Knives



C: Axes

Views of Richard Johnson's Artifact Collection

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Figure 57



Engraved Axe

Views of Richard Johnson's Artifact Collection

Appendix C:

Analysis of the Curtis Ones Artifact Collection.

By Mervin G. Floodman

The following photographic figures represent a short summary of the materials within the collection of Curtis Ones. All of the following materials have been collected by Mr. Ones from site 32RV429 over a period of some years. Unlike the collection of Richard Johnson, all of these materials can be identified as coming from 32RV429 and directly linked to the cultural occupation of that site. A wide range of projectile point types present in this collection indicate clearly that the site has been occupied repeatedly since at least Early Archaic times through protohistoric times. As these materials were recovered from within the current plowzone, considerable mixing of portions of the site's cultural history is evident. The site has excellent potential for further, deeply buried cultural materials and thus fits the requirements for eligibility to the National Register of Historic Places.

Figure 58a-Artifacts of the Middle Prehistoric or Middle Plains Archaic period. The point on the left has been tentatively identified as Oxbow, center Hanna, on the right Duncan.

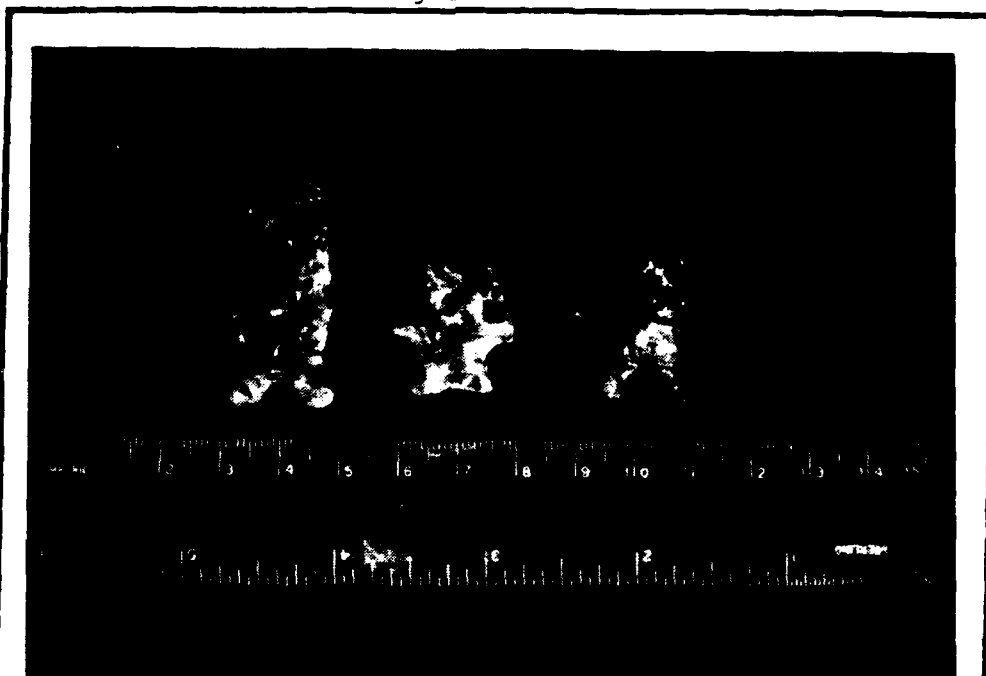
Figures 58b & 59a-These projectile points can be assigned to the Late Plains Archaic or Woodland periods, and include Pelican Lake and Besant projectile point styles, as well as some large untyped side and corner notched points. It can be seen that Knife River flint dominates the Archaic period.

Figure 59b- These points are representative of the Late Prehistoric and Protohistoric periods associated with Plains Village and Plains Nomadic occupations. Small side and corner-notched points, triangular un-notched and a protohistoric metal point are present. The upper left hand corner represents an earlier Avonlea point. In this group, materials other than Knife River flint are present.

Figure 60a- This plate represents a sample of the large bifacial knives and scrapers present in the Ones Collection. The materials are of unknown cultural or temporal periods.

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Figure 58



A: Middle Archaic Period Projectile Points



B: Late Archaic Period Projectile Points

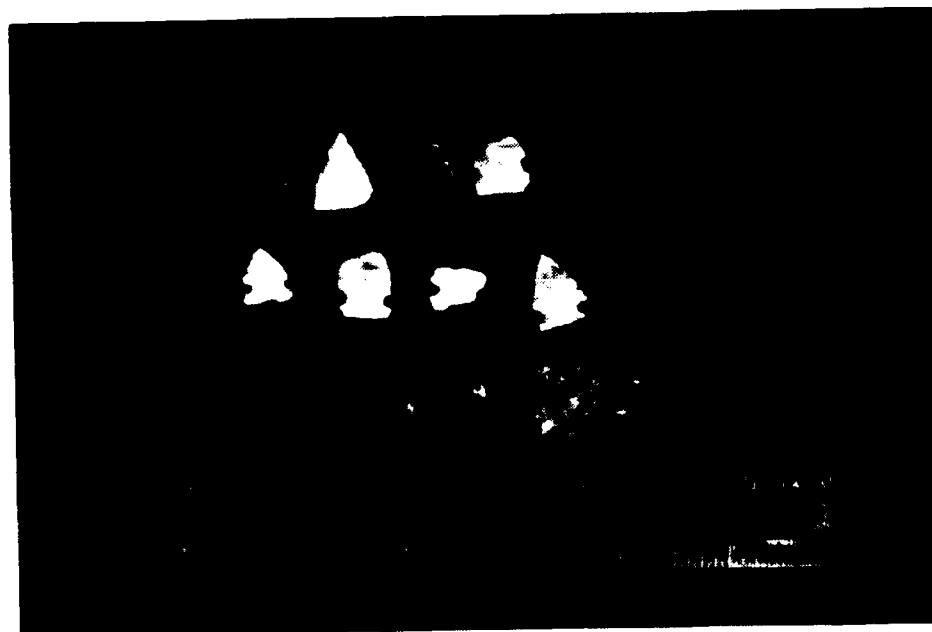
Views of the Curtis Ones Artifact Collection

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Figure 59



A: Woodland Period Artifacts



B: Late Prehistoric Period Artifacts

Views of the Curtis Ones Artifact Collection

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Figure 60



A: Knives and Scrapers



B: Worked Stone Items

Views of the Curtis Ones Artifact Collection

Figure 60b- This plate shows a large circular catlinite disc which has been bi-conically drilled through the center and of unknown function. The remaining artifact is a broken steatite pipe bowl. These artifacts are most likely associated with a late period Plains Village occupation.

Pottery from 32RV429 is analyzed in Appendix D.

Appendix D

Analysis of the Curtis Ones Ceramic Collection

By Ann M. Johnson

The purpose of this report is to describe part of the ceramic collection from site 32RV429, the Curtis Ones Site. This site was first recorded by the University of North Dakota in 1977 and discussed in their subsequent report (Good and Fox 1978). The ceramic sherds examined in this analysis were collected by the land owner, Curtis Ones, from the site located in a cultivated field and loaned to Powers Elevation. The collection contains 13 specimens; 9 rims (with lips), one lower rim (without lip), 1 neck, a piece of shoulder from just below the neck, and 1 body sherd. These specimens were labeled A through M (see Table 5 and Figure 61).

This collection posed severe difficulties when trying to determine how many different ceramic groups were present. It seemed obvious that this was a multi-component site. The collection taken as a unit shows a range of color and tempering that grades without obvious division points. These two characteristics, temper and color, are not by themselves of particular typological and diagnostic value in the Northern Plains where almost all pottery is buff to dark gray and grit tempered. There may be specific exceptions to that generalization but none were present in the Curtis Ones collection.

For the Souris River Basin, the cultural chronology and the ceramic variation that may be expected are poorly understood. Therefore, after considering the foregoing, it was decided to describe the ceramics in characteristic groupings. Five descriptive groups were created, based on paste (including the amount of temper and texture), form (including profile and thickness), and surface treatment. The largest group, labeled Group 1, generally shares many characteristics with ceramics from the Middle Missouri Tradition (especially the Extended Middle Missouri Variant) (see Figure 61, sherds b,c,d,f,g,h,i,k, and l). Group 2 (Rim H; see Figure 61, sherd a) has a lip profile not found in either the Middle Missouri Tradition or the later Coalescent Tradition ceramic types. Group 3 (Rim I; Figure 61, sherd j) was isolated on form, decoration, and paste. Group 4 (Rim G; not illustrated) has a different color and surface treatment. Group 5 (Rim D; Figure 61, sherd e) has a different profile and surface treatment. In isolating these groups, the Curtis Ones specimens were compared to a reference collection containing sherds from the Big Hidatsa Site (Knife River Phase), the

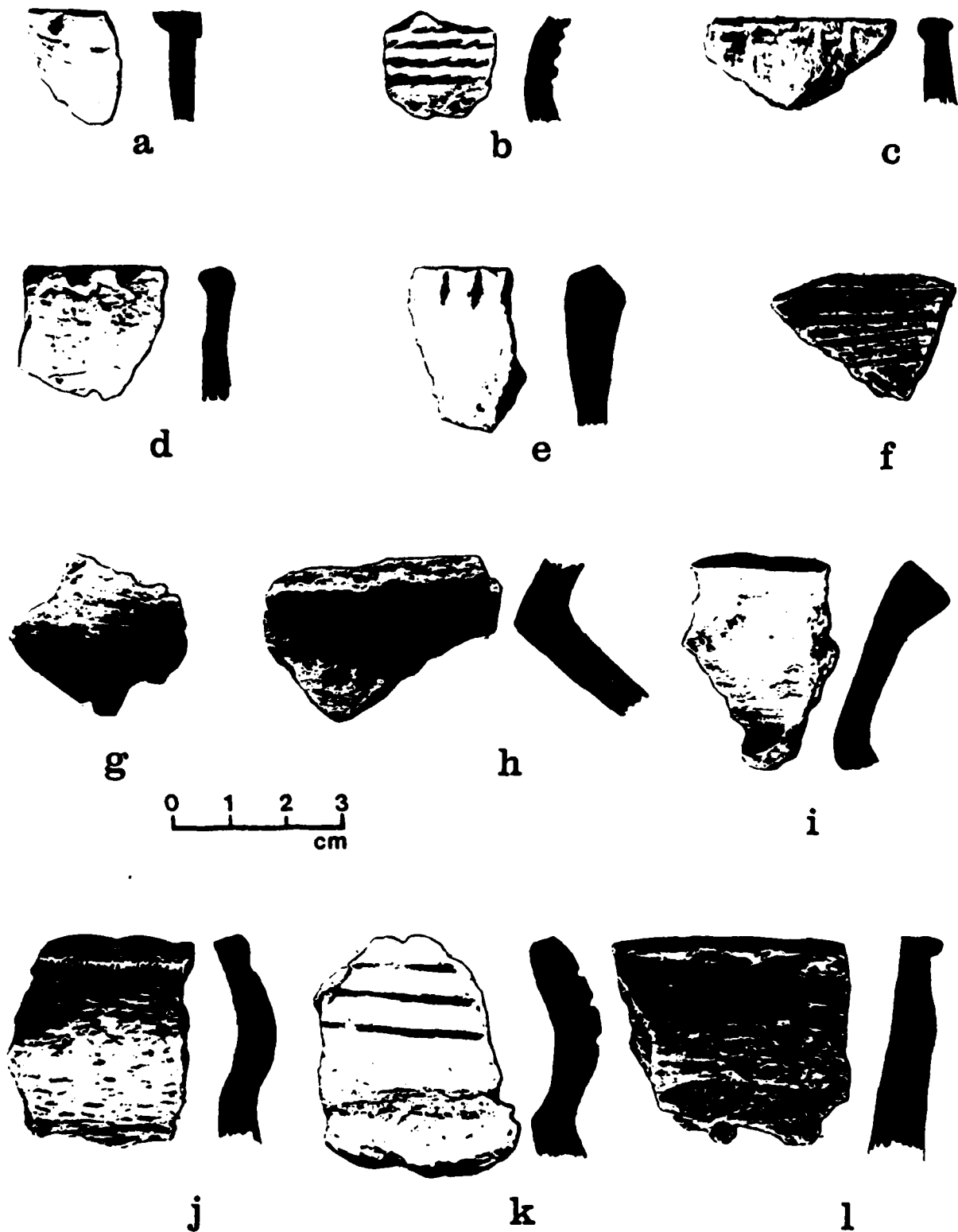


Figure 61

SOURIS RIVER PROJECT

Table 5

Ceramic Sherds Organized by Group

<u>Photo Number</u>	<u>Sherd Number</u>	<u>Group Number</u>
Figure a	H (rim)	2
Figure b	K (lower rim)	1
Figure c	F (rim)	1
Figure d	E (rim)	1
Figure e	D (rim)	5
Figure f	M (shoulder)	1
Figure g	L (body)	1
Figure h	J (neck)	1
Figure i	C (rim)	1
Figure j	I (rim)	3
Figure k	A (rim)	1
Figure l	B (rim)	1
Not Illustrated	G (rim)	4

Huff Site (Terminal Middle Missouri Variant), the Travis I Site (Extended Middle Missouri Variant), and the Shippe Canyon Site (Mortlach Phase).

With the exception of Body Sherd L (Figure 61g), the original location of all the specimens on the vessel could be ascertained due to the presence of critical horizontal areas (lip, neck, rim, and shoulder). Height was measured vertically, while width was measured horizontally. For Body Sherd L, height was the greatest surface measurement, with width measured at right angles to it. Thickness was measured on two opposite sides and the range is given in Table 6. Thickness may vary considerably if the sherd tapers. The individual specimen descriptions should explain any such measurements.

The amount of temper is an estimated value. If there were very few aplastics visible, "little" or "few" were the descriptions used. If the temper was very visible and appeared to make up about a fourth or more of the paste, then "plentiful" was the description used. This is believed to be equivalent to the amount of temper in Extended Middle Missouri Variant ceramics. The "moderate" category was in between the two other extremes, and was most commonly used to describe the present collection being analyzed.

Ceramics have long been known to be sensitive indicators of cultural change and to be diagnostic artifacts for individual cultures. Although decoration and surface treatment are important attributes, the paste or fabric is more primary. Therefore, to facilitate the examination of the paste, one edge (greater than two centimeters long) of each sherd was cleaned using water and a soft toothbrush. Because toothbrush abrasion can inadvertently create an artificially smooth surface, non-cleaned edges were examined for natural break and texture. Generally, a straight edge was chosen for cleaning so as to facilitate microscopic inspection.

RESULTS

GROUP 1

SAMPLE:

6 rims, 1 lower rim, 1 neck, 1 shoulder, 1 body sherd, representing a minimum of 7 vessels (Figure 61, b,c,d,f, g,h,i,k,l).

SOURIS RIVER PROJECT

Table 6

The Curtis Ones Ceramics: Measurements

Sherd Numbers:	A	B	C	D	E	F	G	H	I	J	K	L	M
Measurements:													
Weight (grams)	15.4	18.2	7.8	6.0	3.5	2.9	2.6	2.0	9.7	11.3	2.1	5.3	4.1
Rim Height (mm)	45.6	36.9	38.7	28.8	24.6	15.8	24.6	20.0	37.4				
Rim Width (horizontal-mm)	33.9	41.2	26.6	17.7	24.8	33.1	20.0	15.3	31.2				
Rim Thickness (mm)	7.7	11.1	5.2	10.6	4.8	4.9	5.6	4.7	6.4				
Lip Width (mm)	5.7	6.2	9.7	5.6	6.7	6.1	5.4	8.1	7.0				
Temper													
Little	X								X				
Moderate		X	X		X	X	X	X		X		X	X
Plentiful				X							X		
Body Thickness (mm)	*7.4								*8.2-	8.8	5.0	4.9-	5.0-
Length (mm)									27.7	18.1	34.0	32.9	
Width (mm)									43.8	19.2	29.8	22.2	

Notes: * neck at greatest curvature
widths are all horizontal measurements
heights are all vertical measurements
thickness are usually two measurements

PASTE:

Clay: The clay is assumed to be local. No special analyses have been run.

Temper: Crushed granite or grip, composed primarily of white quartz and small amounts of mica and feldspar. Its size ranged from 0.5 mm to almost 4 mm in diameter, although the majority is about 1.0 mm. The amount of temper varies considerably from almost absent to plentiful. Rim A has small sized grit and it is relatively sparse. In addition, Rim A has a few sand grains in the clay that may be natural inclusions in the clay. Most of the sherds have one-third to one-half the temper visible as is expected for Middle Missouri Tradition pottery, while sherds K and L have about the amount and size temper as Extended Middle Missouri Variant ceramics. Sherd L has the largest pieces, some of which were almost equal to the vessel wall in thickness.

Method of Manufacture: Initial stages are unknown, although some variety of mass modeling is likely. Later stages included paddling and then smoothing of these paddle impressions, sometimes to the point of total removal (cf: Wilson, Wood, and Lehmer 1977).

Texture: The paste is fine to medium blocky for Rims C, E, F, Neck J, and Shoulder M; medium for Rim A and Lower Rim K, and Body L; and very blocky for Rim B. "Blockiness" refers to the rises and dips on a broken edge where clay and temper pulled away from one another. This is believed to vary with the amount and size of the temper, firing temperature, the amount, type and mixing of clay, and perhaps manufacturing processes.

Hardness: 3-4 (Moh's Scale).

COLOR:

The collection, when dry, had brown to dark gray exteriors, black to dark brown interiors, and black to very dark gray cores. When wet, the exterior was brown/dark brown (10YR4/4), with the core and interior surface black (2.5Y2/0). Rim C has firing clouds. Rim A has a mottled light/dark surface and one suspects firing clouds would be recognized on larger vessel sections. Charred material adhered to the interior surfaces of Rim A, Rim B, Rim C, Neck J, and the interior and exterior of

Shoulder M. Neck J has a localized bright orange oxidation rind just beneath the exterior surface on the lower rim. This is very thin and does not extend much more than 16 mm (horizontally). The color range for all the Group 1 sherds is presented below:

<u>Sherd</u>	<u>Dry Color</u>	<u>Wet Color</u>
A, C, J	Brown to dark gray exterior, & black to dark gray core, & black to dark brown interior.	Brown/dark brown (10YR4/4). Black (2.5Y2/0). Black (2.5Y2/0). Black (2.5Y2/0). Black (2.5Y2/0).
B, M	Black exterior, & black core, & black interior.	Black (2.5Y2/0). Black (2.5Y2/0). Black (2.5Y2/0).
E	Very pale brown exterior, & black core, & very pale brown interior.	Yellowish brown (10WY5/6). Black (2.5Y2/0). Yellowish brown (10YR5/6).
F	Very pale brown (exterior, & core, & interior).	Strong brown (7.5YR5.6).
L	Light tan/dark gray exterior, & gray core, & light gray interior.	Streaky light yellowish brown (2.5Y6/4) and black (2.5Y2/0). Black (2.5Y2/0). Yellowish brown (2.5Y6/4).

SURFACE TREATMENT:

Different parts of the vessel received different types and degrees of attention. With this in mind, the rims are described together, the neck and shoulder together, and the body sherd alone.

The rim exteriors (except for Rim F) were smoothed. Rim E is incompletely smoothed, while Rims A and C, and sherd K are smooth. This proceeded to light polish with a reflective surface for Rim B. Rim F (Figure 61c) has vertical simple stamping. The marks are 9.5 mm wide although this vessel fragment is too small to allow a measurement of their length. For Lower Rim K (Figure 61b) decoration makes it impossible to determine whether the surface was totally smooth before the decoration was applied.

The interiors are generally smooth, although Rim B

(Figure 61l) is polished and Rim E (Figure 61d) and Lower Rim K are more irregular. Temper is not generally visible on the surfaces. Rim K has very small temper, as does Rim F.

For Neck J (Figure 61h) and Shoulder M (Figure 61f) the temper is not visible on the surfaces. Smoothing of the neck exterior failed to remove all trace of previous surface treatment that appears to have been applied using simple stamping on the neck/shoulder area. The neck interior is smooth. The shoulder was smoothed on both the exterior and interior surfaces. The lowest undecorated margin of the exterior surface appears to have simple stamping.

Body L (Figure 61g) has a very smooth exterior with a few narrow parallel striations marring the surface. The interior is incompletely smoothed with shallow pits and small bumps of clay. Several pieces of temper are visible on the exterior surface. Non-rim sherd attributes are summarized on Table 7.

FORM:

A wide range of rim and lip profiles are present; these are summarized on Table . Lips are flattened. Rim A (Figure 61k) is a well defined "S" profile of equal thickness throughout. Rim B (Figure 61l) is a vertical straight rim that tapers towards the lip. Rim C (Figure 61i) is outflaring but thickens towards the lip. Rims E and F are small, but may be slightly incurved from the vertical. For these two specimens, and Rim B, excess clay from flattening the lip was pushed to both the exterior and interior, leaving a slight ridge around the vessel. For Rim B, subsequent smoothing partially removed this ridge.

Parts or all of four necks are present (Rims A, C, Neck J, and Shoulder M) and strongly suggest these vessels had well defined constrictions above the shoulder. On Neck J, the interior bears a sharp horizontal ridge at the point of greatest angle (approximately 120 degrees).

Decoration: This may occur in four areas on the vessel: the lip (Rims A and C), the lip/upper rim (Rim E), the rim (Rim A and Lower Rim E), and the shoulder (Shoulder M). Rim A has tool impressions on the lip and trailed lines on the rim. The tool impression has a vertical

SOURIS RIVER PROJECT

Table 7

The Curtis Ones Collection: Non-Rim Sherd Attributes

Sherd Numbers:		J	L	M
Attributes:				
Exterior Surface Finish				
Smoothed				X
Polished			X	
Smoothed Over Simple Stamped		?		
Profile				
Gentle Curve			X	X
Sharp Curve		X		
Decoration Techniques				
Trailed				X
Cord Impressed			X	
Decoration Motifs				
Parallel Rows			X	X

side and an angled opposite side. These marks cut the lip/exterior angle slightly, and are 5-6 mm at their widest point and extend across the lip and encircle the vessel mouth. The tool appears to have been triangular in cross-section and in plan-view. The upper half of Rim A (Figure 61k) bears three parallel horizontal lines. These are 1-2 mm wide and from 0.3-1.0 mm deep. The lines are 4-5 mm apart. The tool appears to have been drawn through partially dry clay and the resistance may account for the variable depth of the lines.

Rim C (Figure 61i) has shallow, straight tool impressions across the lip. However, the lip widens and right at the break there is the suggestion that there may have been a node. Nodes are often decorated, so the motif may have been more complicated than a simple row around the vessel mouth.

Rim E (Figure 61 d) has a single row of round impressions on the lip/exterior edge. The pressure deformed the ridge of excess clay into a wavy line. The tool was round in cross-section.

A single sherd (M, Figure 61f) is assigned to the shoulder of a vessel on the basis of its curvature, decoration, and the slight thickening that is interpreted as approaching the shoulder angle. This sherd has trailed lines that may have been more or less parallel, or slightly spreading, like a fan. Several widths and thicknesses are present. The wide lines are 1.5 mm across and 0.5 mm deep, while the narrow lines are 0.2 mm wide and 0.1-0.2 mm deep. The wide lines were made by a tool that was rounded in cross-section, while the shape of the tool used to make the narrow lines cannot be determined. It is possible that different tools were used on a vessel that had partially dried inbetween applications, or that one set of marks had been partially smoothed over and the pattern changed or redone, leaving the wide-deep lines more visible.

GROUP 2

SAMPLE:

1 rim (H), representing 1 vessel (Figure 61 g).

PASTE:

Clay: See descriptions for Group 1.

Temper: There is a medium amount of quartz/granite in the 0.5 to 1.0 mm diameter range.

Method of Manufacture: See descriptions for Group 1. Incomplete smoothing has left a faint, uneven exterior surface that is indicative of paddling with a patterned paddle.

Texture: Well mixed, compact, and medium blocky. No laminations or cracks parallel to the vessel walls.

Hardness: 3.5 (Moh's Scale).

COLOR:

The exterior is very dark grayish brown (10YR3/2). The core and interior surface are black (7.5YR2/0).

SURFACE TREATMENT:

The exterior rim has faint remnants of a paddled surface. Smoothing has left only faint traces. While one cannot be certain, and other surface treatments cannot be ruled out, a cord roughened surface is more likely than simple stamped. Manipulations of the exterior surface created a very thin layer of fine clay particles. It is this layer that is very dark grayish brown in color.

The interior surface is smoothed with numerous very fine horizontal and parallel striations.

The lip is very similar to the interior surface with smoothing and striations around the vessel mouth. These may have been created during flattening.

FORM:

The rim is apparently straight and vertical. The lip has an "L" shaped profile with the foot protruding inward. Excess clay on the exterior edge of the lip was folded down and attached to, but not completely smoothed into, the upper rim.

Decoration: Tool impressions, set just slightly right diagonal off of vertical, are on the exterior ridge left by the excess clay at the lip/rim junction. These were made by a tool with an oval cross-section that tapers slightly and are set at a minimum of 9 mm apart around the rim.

GROUP 3

SAMPLE:

1 rim (I) representing 1 vessel (Figure 6lj).

PASTE:

Clay: See descriptions for Group 1.

Temper: Sparse crushed grit, 0.5 to 1.5 mm in diameter.

Method of Manufacture: Some form of lump modeling is likely for the early stages. Paddling with a sinew-wrapped paddle shaped the vessel walls. This was finished by partial smoothing.

Texture: Medium blocky, very compact, extremely homogeneous, very fine paste. There are no limitations or cracks parallel to the vessel walls.

Hardness: Near 4 (Moh's Scale).

COLOR:

The exterior is mottled, brown/dark brown (7.5YR4/4), very dark brown (10YR2/2), and black (7.5YR2/0). It is probable that firing clouds would be present on a larger vessel section. The exterior also has a light white caliche deposit in depressions on the surface. The core and interior are black (7.5YR2/0). Some charcoal/charred material still adheres to the interior.

SURFACE TREATMENT:

The entire exterior had been horizontally paddled with a sinew-wrapped paddle. The sinew is very narrow (0.7 mm) with no observable twist. This is apparently the same material used in the "cord-wrapped rod" decoration. Smoothing on the upper half of the rim is more complete and there is some polish on the ridges. Temper is not visible on the surfaces. The lip is fairly smooth. The interior has many parallel/horizontal narrow and shallow striations. The surface is nearly smooth with minor rim-patterned pitting. Some charred material adheres to the interior surface.

Decoration: The lip and upper rim had cord-wrapped rod impressions. It is believed the same tool was used for

each, with slightly more pressure on the lip causing a minor deformity of the lip profile. The lip has right diagonal impressions every 5 mm around the mouth. The rim has a single row, 4-5 mm below the lip.

FORM:

The rim has an "S" profile and distinct neck; and is of even thickness. The lip is flattened and application of design to the lip may account for the lip being slightly wider than the rim.

Comment: The neck portion is strongly curved with a suggested reconstruction of the neck diameter of about 7.5 cm. Thus, this particular vessel must have been quite small.

GROUP 4

SAMPLE:

1 rim (G), representing 1 vessel (not illustrated).

PASTE:

Clay: See descriptions for Group 1.

Temper: A few pieces of grit are visible in the 1.5 to 2.5 mm range, but most are about 0.5 mm in diameter. The largest sizes are infrequent, while the smallest are plentiful.

Method of Manufacture: Lump modeled and shaped by cord-wrapped paddle, followed by incomplete smoothing.

Texture: Compact without laminations or cracks parallel to the vessel walls. Broken edges are slightly rounded. Breaks tend to be at 90 degree angles to the surface.

Hardness: 3 (Moh's Scale).

COLOR:

The exterior and interior are brown/dark brown with the exterior tending to be slightly lighter (7.5YR4/2) and the interior slightly darker (7.5YR3/3). The core is black (7.5YR2/0).

SURFACE TREATMENT:

The exterior has a smoothed-over patterned surface that is believed to have been cord-roughened or fabric-impressed, but not net-impressed. Smoothing has left a randomly pitted surface. The lip's surface is very irregular and might have been paddled or impressed to incomplete smoothing.

The interior is quite smooth with only a few very shallow irregularly-shaped pits.

FORM:

The rim is apparently nearly straight or vertical, although a larger section might show a very shallow inward curve. The lip is rounded.

Decoration: None.

GROUP 5

SAMPLE:

1 rim (D), representing 1 vessel (Figure 61 e).

PASTE:

Clay: See descriptions for Group 1.

Temper: Crushed granite or grit in the 0.5 mm to 1.4 mm size range. Moderate amount.

Method of Manufacture: See descriptions for Group 1. Paddling was involved at some stage in the process.

Texture: Well mixed, slightly coarse paste that has a slight tendency to be laminated parallel to the vessel walls and to be medium blocky.

Hardness: 3-4 (Moh's Scale).

COLOR:

The exterior is brown/dark brown (10YR4/4), with black core and interior (2.5Y2/0). There may have been firing clouds, although the small size of the rim precludes positive assignment of this trait.

SURFACE TREATMENT:

The lip is smooth. The exterior has a smoothed over, but unknown type of impression. This may be cord-impressions, or net or fabric-impressions. It is unlikely that these were made by simple stamping. The interior has a semi-smoothed surface with irregular, although primarily horizontally oriented shallow depressions.

FORM:

The lip is flat, but bevels in and downward. The upper rim is wider than the lower rim and bulges out and down. The straight rim appears to have been oriented primarily vertically.

Decoration: Rim D has a flat lip that slopes down into the vessel mouth. The upper rim is rounded out and down from the lip/rim junction. This thickened area has a series of short parallel vertical lines encircling the vessel. The lines are 7-8 mm long and 1 mm deep. They may have been made with a fingernail, but this cannot be demonstrated with certainty. The upper portion is slightly collapsed following some smoothing just below the lip/rim junction.

DISCUSSION

The Curtis Ones collection was divided into groups according to paste, surface treatment, profile, and decoration. Five groups resulted. Group 1 contains 6 rims (including Lower Rim E that is missing the lip) and all non-rim sherds. The vessels appear to have been globular with well defined shoulders and necks with straight, outflaring, or S-shaped rims. The lips (n=5) are flat. Decoration is present on the lip, lip/upper rim, and shoulder, and includes tool impressions and trailing. Each of the remaining groups has one member. Table 8 presents the rim attributes of the collection.

For all the groups described here, the closest comparisons are to be found within the Extended Middle Missouri Variant. This is especially true for Group 1. Rim A (Figure 61k) fits within Fort Yates Ware categories. Other rims are not as easily identified for specific cultural traits, but at least several could be found within comparable large Extended Middle Missouri Variant collections. The surface treatment, decoration, decorative motif, and paste would be compatible.

SOURIS RIVER PROJECT

Table 8

The Curtis Ones Ceramics: Rim Attributes

Rim Numbers:	A	B	C	D	E	F	G	H	I	J	K	L	M
Attributes:													
Exterior Surface Finish													
Smooth	X		X		X			X			X		X
Polished													
Smoothed Over Simple Stamped													
Polished Over Smoothed Simple Stamped	X												
Smoothed Over Fabric Padded													
Simple Stamped						X							
Smoothed Over Cord Impressed													
Rim Profiles													
Straight		X						X					
Outcurved			X	X							X		
S Shaped	X												
Slight S					X	X	X						
Rim Decoration Technique													
Cord Wrapped Rod									X				
Trilled													
Cord Impressed											X		
Rim Decoration Motifs													
Single Horizontal Line									X				
Three Horizontal Lines													
Four + Horizontal Lines												X	

If some or all of these vessels were not made by Extended Middle Missouri people, several alternative hypotheses can be offered. 1) It seems reasonable that the pottery represents strong Extended Middle Missouri influences in the Upper Souris region. Contact through hunting or trading has already been suggested by Fox (1982), 2) Another presently unnamed pottery type with the characteristics of this collection may be defined sometime in the future. The previous survey by UNDAR (Good and Fox 1978) collected rims with flat lips and perhaps future studies could add to this collection. It is unlikely that these ceramics are related to either the Blackduck or Selkirk Horizons presently defined for the Late Woodland Period in the area (Syms 1977).

For the other Groups (2, 3, 4, and 5), comparisons are less clear. None appear to be related to the Mortlach Phase (Joyes 1973), although Mortlach Phase ceramics could be expected along the Souris River (cf: Wettlaufer and Mayer-Oakes 1960). A considerable number of ceramic sites are known for this general area, especially southwestern Saskatchewan, but few have been adequately described. Syms (especially 1979) is slowing attempting to up-grade this situation, but as many of the ceramic collections lack dates, vertical provenience, or clear associations with diagnostic projectile points, the refinement of the regional culture history is difficult. Several varieties of woven impressions (net, fabric) with several kinds of knots are beginning to be identified on aboriginal pottery from Saskatchewan and Manitoba (cf: Saylor 1978). This type of surface treatment is absent in Plains Village ceramics. Also, Plains Village lip forms do not include the "L" profile. It is on these bases then, that Groups 2, 3, 4, and 5 are suggested to be related to Late Woodland ceramics from southern Manitoba and Saskatchewan. These ceramics may be related to a whole cultural north and westward demographic movement out of Minnesota into Canada during the Late Woodland Period, or they may be the development of local people, influenced by Canadian Woodland cultures during this time.

One problem which remains, is the previous identification of pottery from the Upper Souris area as being "Sandy Lake Ware" (Fox 1982:100). Sandy Lake Ware was first thought to have followed Blackduck (Anfinson 1979:176). This assignment has been refined recently and now Sandy Lake Ware is believed to have been associated with protohistoric Dakota (Sioux) groups (Anfinson 1982:81). The pottery is found throughout northern Minnesota and into southeastern Manitoba and southern Ontario. Its identification in north-central North Dakota would have interesting implications

in terms of intertribal contact and cultural dynamics in the area.

Sandy Lake Ware was defined by Cooper and Johnson in 1964. It is characterized by grit or shell temper; thin, straight rims; no thickening of the lip, with the lip normally undecorated and flattened; straight rims, or rims occasionally incurved with no exterior decoration; and the exterior surface has vertical cord markings or smoothed surface. Decoration is confined to the interior rim and tool impressed notches that extend from a point approximately 1 cm below the lip to the inner edge of the lip. The pottery is rather soft (2-3 Moh's Scale) (Cooper and Johnson 1964:474-479).

This description drastically contrasts with the Curtis Ones ceramics. In the collection from 32RV429 there is no shell temper, lips and rims may be decorated, and their profiles are quite variable. There are no examples of the interior notching which is so diagnostic for Sandy Lake Ware. Fox (1982:100) appears to identify potsherds from the Upper Souris as Sandy Lake Ware "on the basis of surface treatment and the dominant color." According to Dr. Eldon Johnson (personal communication), neither color nor surface treatment are particularly diagnostic traits for Sandy Lake Ware.

As rims bear the critical diagnostic features for Sandy Lake Ware, it is felt that the Curtis Ones collection, with 10 rims, is a better sample for the identification of Sandy Lake cultural traits in Upper Souris River ceramics than the 1977 UNDAR collection (Good and Fox 1978), which only included two rims. One must recognize the inherent differences between the collection reported by Good and Fox (1978) and the one described here. Since none of the ceramics from Mr. Ones' personal collection could be assigned to a Sandy Lake Ware category, the identification of one of the cultural components at 32RV429 being associated with protohistoric Dakota is very much in doubt.

CONCLUSIONS

The ceramics collected by Curtis Ones from site 32RV429 contains 10 rims and three body sherds and these pieces are described herein. This site appears to contain multiple ceramic components, relating to both the Extended Middle Missouri Variant and Late Woodland cultures of southern Saskatchewan and Manitoba. Pottery from 32RV429 had previously been identified as Sandy Lake Ware, but analysis of this collection does not seem to support this conclusion. The ceramic culture history of the Souris River basin is still poorly defined, and specific cultural relationships with surrounding regions have yet to be determined.

APPENDIX E

1982 SHOVEL PROBE RESULTS SUMMARY

- | | | |
|-----|----------|--|
| # 1 | 0-18 cm | dark brown/black silty clay loam with large ped structure |
| | 18-34 cm | light brown/tan silty clay loam
no cultural materials |
| # 2 | 0-40 cm | dark black clay loam-moist, sticky with large ped structure slight change in texture/not color. More clay at base in former cultivated field.
no cultural materials |
| # 3 | 0-15 cm | black humus layer |
| | 15-30 cm | lighter, dark brown silty clay in forested area/meander
no cultural material |
| # 4 | 0-10 cm | black humus layer |
| | 10-27 cm | lighter, dark brown silty clay in forested area on meander edge
no cultural material |
| # 5 | 0-33 cm | dark brown/black sandy clays, hard and compact. No visible stratigraphy or plowzone in corner of alfalfa field.
no cultural material |
| # 6 | 0-35 cm | dark, black clay with some silts wetter and more sticky with depth in shortgrass by drainage
no cultural material |
| # 7 | 0-26 cm | organic humus dark black silty clay |
| | 26-40 cm | lighter brown silty clay
tall grass by intermittent drainage
1 bone fragment, no cultural material |
| # 8 | 0-10 cm | organic humus layer, black |
| | 11-46 cm | dark brown silty clays and roots |
| | 46-51 cm | lighter silty clays
forest on meander loop
no cultural material |
| # 9 | 0-28 cm | black silty clay |
| | 28-45 cm | light dark brown silty clay forest by meander
3 bone fragments, no cultural material |

- | | | |
|-----|---------------------------------|--|
| #10 | 0-17 cm
17-55 cm | organic humus/silty clay
dark brown silty clays grades lighter
at bottom on meander loop by river
no cultural material |
| #11 | 0-18 cm
18-44 cm
44-50 + | dark black silty clay, humus layer
dark brown silty clay
grey clay
1 glass fragment (0-18 cm); 3 bone
fragments |
| #12 | 0-15 cm
15-32 cm | black sandy silts/humus
light brown sandy silt, little clay
small pebbles on rise above marsh
no cultural material |
| #13 | 0-17 cm
17-31 cm | black sandy silts/humus
light brown sandy silt, numerous pebbles
throughout; 30 meters south of #13
no cultural material |
| #14 | 0-17 cm
17-30 cm | black sandy silts
light brown sandy slits, pebbles through-
out; 30 meters south of #13
1 bone fragment |
| #15 | 0-18 cm
18-28 cm | black sandy silts/humus
light brown sandy silts, pebbles through-
out; 30 meters south of #14 |
| #16 | 0-20 cm
20-30 cm | black sandy silts/humus
light brown sandy silt, pebbles
30 meters south of #15
no cultural material |
| #17 | 0-19 cm
19-31 cm | black sandy silts/humus
light brown sandy silt, pebbles
30 meters south of #16
no cultural material |
| #18 | 0-26 cm
26-32 cm | deeper black humus layer, grades lighter
at 12 cm
lighter brown sandy silt
30 meters south #17
no cultural material |
| #19 | 0-10 cm
10-24 cm
24-33 cm | dark grey/black loam
calcic B with lots of carbonates from
repeated inundation
light grey clay loam
no cultural material |

- #20 0-21 cm dark grey loam humic layer
 33-38 cm tan sandy loam on terrace or river edge
 no cultural material
- #21 0-21 cm dark grey loam
 21-39 cm light grey loam with calcium carbonate
 no cultural material
- #22 0-21 cm dark grey/brown loam (probable plowzone)
 21-45 cm light grey loam
 45-54 cm light grey clay loam by river meander
 no cultural material
- #23 0-22 cm grey/brown loam (possible plowzone)
 22-39 cm lighter dark grey loam
 39-47 cm grey clay loam
 no cultural material
- #24 0-19 cm dark brown/black loam (possible plowzone)
 19-38 cm lighter dark grey loam
 38-44 cm grey clay loam, tall grasses
 no cultural material
- #25 0-19 cm plowzone dark black loam
 19-38 cm light grey loam
 38-41 cm darker loam with carbonates
 no cultural material
- #26 0-18 cm dark grey/black fine sandy loam
 18-31 cm grey/tan sandy loam
 31-37 cm coarse sandy
 on terrace point north of McKinney
 Cemetery
 no cultural material
- #27 0-14 cm dark grey brown sandy clay
 14-24 cm light brown/tan sandy clay with gravels
 on terrace south of McKinney Cemetery
 no cultural material
- #28 0-17 cm dark brown/black loam
 17-32 cm sandy brown/gravels (outwash)
 no cultural material
- #29 0-22 cm dark grey loam humus layer
 22-35 cm light grey loam
 tall grass north end refuge
 no cultural material

- #30 0-20 cm dark grey loam with pebble inclusions
 20-30 cm tan sandy loam with pebble inclusions
 small amounts calcium carbonate throughout
 no cultural material
- #31 0-21 cm humic layer of dark grey loam
 flake and charcoal at 19 cm
 21-38 cm grey loam charcoal fleck at top of this layer
 recorded as site 32RV15 (see above)
- #32 0-17 cm dark grey loam (possible PZ)
 17-34 cm light grey loam stage.development clacium
 carbonate
 no cultural material
- #33 0-18 cm dark grey brown humus layer
 18-25 cm light grey clay loam
 no cultural material
- #34 0-18 cm dark grey loam
 18-25 cm light grey clay loam
 no cultural material
- #35 0-19 cm dark grey loam, (possible plowzone)
 19-40 cm tan sandy loam
 no cultural material
- #36 0-17 cm dark grey loam
 17-36 cm light grey clay loam
 no cultural material
- #37 0-15 cm dark grey/brown loam
 15-32 cm light grey clay loam
 no cultural material
- #38 0-18 cm dark grey loam, large cobble/core quartzite
 18-33 cm light grey clay loam
 recorded as site 32RV16 (see above)
- #39 0-23 cm fine sandy loam humic layer
 23-34 cm sandy loam with iron oxide inclusion
 34-39 cm tan sand
 pebbles occurred throughout pit
 no cultural material
- #40 0-16 cm dark grey fine sandy loam
 16-34 cm dark grey fine sandy loam with pebbles
 and inclusion of calcium carbonates
 no cultural material

- | | | |
|-----|---------------------|--|
| #41 | 0-25 cm
25 + cm | dark grey sandy loam
gravel outwash terrace
no cultural material |
| #42 | 0-21 cm
21-35 cm | dark grey fine sandy loam
light grey fine sandy loam with occasional
calcium carbonate
no cultural material |
| #43 | 0-20 cm
20-40 cm | dark grey fine sandy loam
light grey fine sandy loam
no cultural material |
| #44 | 0-21 cm
21-36 cm | fine sandy loam dark grey
light grey fine sandy loam
charcoal fleck ca. 23 cm
no cultural material |
| #45 | 0-18 cm
18-35 cm | dark grey sandy loam
light grey sandy loam some calcium carbonate
ca. 18 cm charcoal fleck
no cultural material |
| #46 | 0-19 cm
19-38 cm | dark grey fine sandy loam
light grey fine sandy loam
2 bone fragments, ca. 19 cm
no cultural material |
| #47 | 0-40 cm | fine sandy loam dark brown/grey
by river bank
no cultural material |
| #48 | 0-37 cm
37-49 cm | fine tan sand with iron oxides
loamy sand grey in color with iron oxide
clam shell fragments
no cultural material |
| #49 | 0-18 cm
18-36 cm | dark brown/black humic layer
grey clay loam
no cultural material |
| #50 | 0-15 cm
15-37 cm | black humus
grey clay loam
no cultural material |
| #51 | 0-13 cm
13-35 cm | black humus
dark grey clay loam
no cultural material |

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