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# **The Yellowstone River Study Unit**

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This Study Unit is made up of a portion of McKenzie County and one township in Golden Valley County which drain northwestward into the Yellowstone River. The township containing the Yellowstone-Missouri river confluence, partly in Williams County, is also assigned to this Study Unit because most of it drains to the Yellowstone.

## Description of the Unit

The total area of the Yellowstone River Study Unit (YRSU) is 765mi<sup>2</sup>. This area is depicted in Figures 13.1 and 13.1A. Following the figures there is a list of the townships assigned to this unit (Table 13.1). Portions of nine of these townships are in Montana accounting for an adjustment in area calculations.

## Physiography

Most of this Study Unit lies in the McKenzie Upland physiographic region. It is made up principally of rolling plains except in badlands areas and near prominent buttes (Bluemle 1989:24). Glacial gravels occur in upland areas in proximity to the Yellowstone-Missouri confluence. Local relief, which is defined as the maximum difference in elevation within any township-sized area, is 300-500 ft (ibid.).

Exposures of Sentinel Butte and Bullion Creek Formation bedrock outcrop in places in the central and southern portions of the unit. Glacial till dominates upland exposures of parent material in the northern portion of the unit. Most sediments exposed within the small portion of the Yellowstone valley in North Dakota consist of Holocene alluvium.

## Drainage

The Yellowstone River rises in northwestern Wyoming and flows northeastward to its confluence with the Missouri River near the North Dakota-Montana state line (Figure 13.2). (Historic Fort Union and Fort Buford were situated in the confluence locality.) The total length of the Yellowstone channel is nearly 900 miles averaging a drop of 13 ft per mile from 10,800 ft at its headwaters in the Rocky Mountains to 1,860 ft at the confluence. The very small reach of the Yellowstone within North Dakota has a gradient of less than 1 ft per mile. The total area of the Yellowstone basin is 69,820 mi<sup>2</sup>.

Figure 13.1: Map of the Yellowstone River Study Unit.

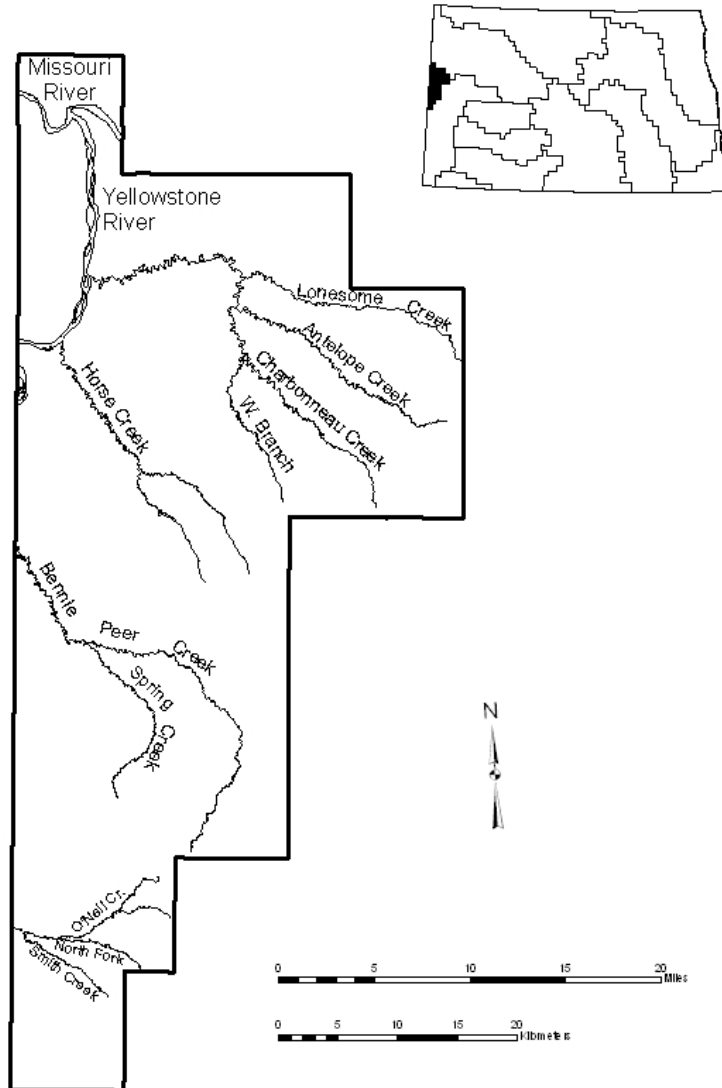
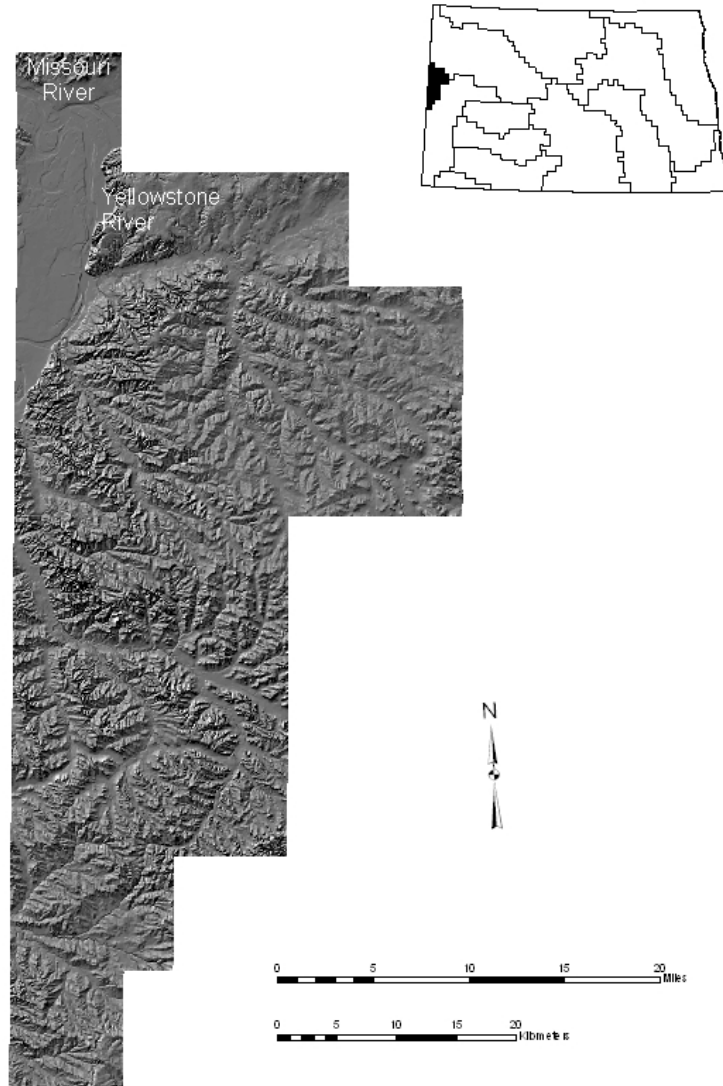


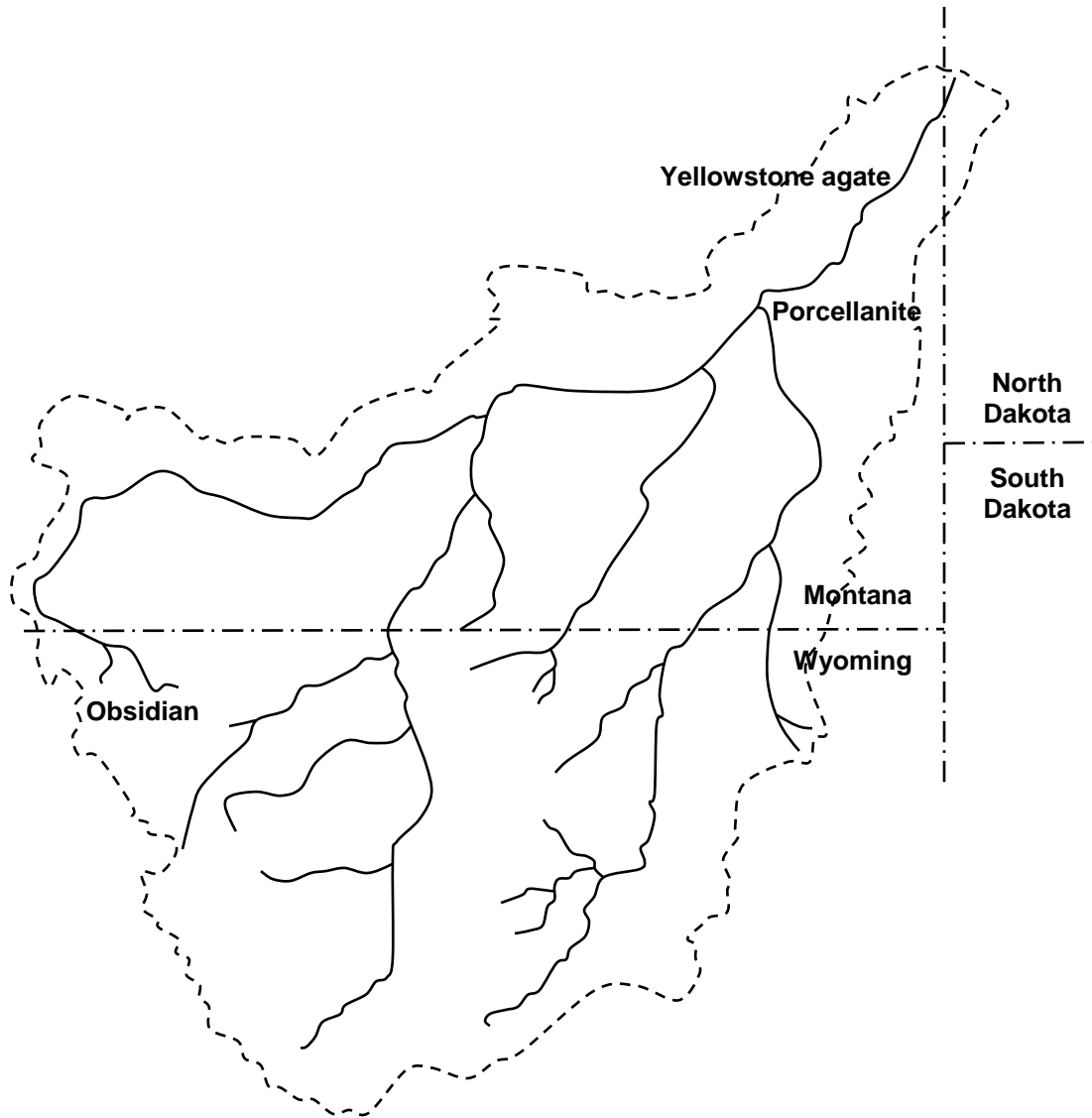
Figure 13.1A: Shaded relief map of the Yellowstone River Study Unit.



**Table 13.1: Townships in the Yellowstone River Study Unit.**

TOWNSHIP	RANGE
144	105
145	104
145	105
146	103
146	104
146	105
147	103
147	104
147	105
148	103
148	104
148	105
149	101
149	102
149	103
149	104
150	101
150	102
150	103
150	104
151	102
151	103
151	104
152	104

Figure 13.2: Map of the Yellowstone River drainage basin in Wyoming, Montana, and North Dakota. Major source areas of obsidian, Yellowstone agate, and porcellanite are depicted.



Prominent named tributaries of the Yellowstone which head in the North Dakota portion of the basin are Bennie Pierre Creek, Horse Creek, Sheep Creek, Antelope Creek, Lonesome Creek, and Charbonneau Creek. These are all intermittent streams in the North Dakota portions of their reaches.

## Climate

Referring to Jensen (1972), this is one of the warmer parts of the state with an annual mean temperature of about 42° F. The annual mean precipitation is about 14 inches, mostly falling from April through September (ibid.:40-41). The area gets less snow than most of the rest of the state.

## Landforms and Soils

The YRSU comprises two general physiographic components: (1) badlands terrain, and (2) rolling prairie grasslands. Badlands areas display horizontally bedded clay and silt bedrock exposures which have been sculptured by aeolian and hydrological processes into a variety of heavily dissected landforms such as canyons, ridges, and buttes. There are also large expanses of gently rolling shortgrass prairie. Within the Yellowstone valley, prominent landforms are valley walls, valley wall foot slopes, alluvial fans, river terraces, and floodplain. River bottomland sediments are predominantly Holocene age alluvium and colluvium.

Natural Resources Conservation Service (NRCS) official soil survey resources are available on the internet (NRCS 2007a, b, c). The Web Soil Survey in particular may be useful, as it has replaced the traditional county soil survey books.

Electronic Field Office Technical Guide:

<http://www.nrcs.usda.gov/technical/efotg/>

Soil Data Mart: <http://soildatamart.nrcs.usda.gov>

Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/>

## Flora and Fauna

The Study Unit encompasses portions of two major biotic communities in western North Dakota: mixed grass prairie and floodplain forest. Prominent vegetation in rolling upland grasslands includes grama grass (*Bouteloua* sp.), sage (*Artemisia* sp.), prickly pear (*Opuntia fragilis*), and buckbrush (*Symphoricarpo occidentalis*). In more rugged terrain cut by drainages and draws, Rocky Mountain juniper (*Juniperus* sp.), hawthorne (*Crataegus chrysoarpa*), and buffaloberry (*Hepargyrea argentea*) can be found.

Floodplain forest occurs along stretches of bottomland in the Missouri and Yellowstone valleys. Cottonwood (*Populus deltoides*), box elder (*Acer negundo*), and aspen (*Populus tremuloides*) comprise the dominant species. A variety of other grasses, forbs, and shrubs occur as understory vegetation.



The prairie grassland biome provides habitat for a number of large and small mammals as well as various species of birds and reptiles. Before being extirpated, bison (*Bison bison*) were common in the grasslands of the Northern Plains. Other ungulate species known to frequent the Yellowstone basin include pronghorn antelope (*Antilocapra americana*) and bighorn sheep (*Ovis canadensis*). Smaller mammals include the coyote (*Canis latrans*) and the white-tailed jackrabbit (*Lepus townsendii*). Raptors such as the golden eagle (*Aquila chrysaetos*) and various species of hawks and owls patrol the prairie skies. The prairie rattler and the bullsnake are common in badlands terrain. Forested bottomlands are home to mule deer (*Odocoileus hemionus*) along with several riparian fur bearers such as beaver (*Castor canadensis*) and raccoon (*Procyon lotor*). Various species of fish and freshwater mussels inhabit the Missouri and Yellowstone rivers and their tributaries. Native groups in the basin exploited many of these creatures for food, skins, furs, and feathers.

### Other Natural Resource Potential

The Yellowstone basin holds a wealth of raw materials of importance to traditional technologies practiced by the various Native groups inhabiting the region. Sources of good quality stones for knapping into tool forms are locally available in the river gravels and as glacial drift lag deposits (Toom 1983c). These include fine-grained materials such as Yellowstone agate, porcellanite, chalcedonies, silicified woods, and cherts. Antelope chert was a stone resource exploited by Paleo-Indian and later Archaic groups in the Yellowstone River and adjacent regions in western North Dakota (Ahler 1994:96). Ubiquitous granitic, basaltic and quartzite materials were utilized as (1) stock material from which to fashion ground stone tools and (2) objects of thermal energy transfer.

Hides, furs, and feathers were made into clothing and decorative apparel by Plains Indians (cf. Ewers 1970). Shell and bone were used as stock material for the production of various utilitarian tools and ornaments. Timber resources were exploited for construction materials and for fuel (cf. Loendorf 1978:41).

### Overview of Previous Archeological Work

There has been a large amount of work conducted here in light of the small total area of this Study Unit (765 mi<sup>2</sup>). The vast majority of the work has been the result of oil and gas exploration and development on lands of the Little Missouri National Grasslands managed by the US Forest Service. There have also been numerous archeological investigations in and around Fort Union National Historic Site (NHS).

### Inventory Projects

As of 13 September 2007, there were 322 archeological sites and 290 archeological site leads and isolated finds in the state computerized site data file

for the YRSU. A total of 127 archeological sites have been recorded since the first edition of YRSU in the State Plan was compiled in 1989. With an area of 765 mi<sup>2</sup>, there was one recorded archeological site per 2.4 mi<sup>2</sup>. This density of recorded sites ranks second only to the Knife River Study Unit, and it ranks ahead of the Little Missouri River Study Unit.

As of 5 September 2007, there were 989 inventory reports for this Study Unit in the HPD manuscript collection. Approximately 65,551.81 acres have been inventoried. Therefore, approximately three inventories have been conducted per recorded archeological site in the YRSU. About one site has been identified per 200 acres surveyed.

Looking at data for feature types and landforms from the site data files, there is the usual very high percentage of cultural material scatters, but there also are noticeably high numbers of other rock features (Table 13.2).

Recorded cultural/temporal affiliations for archeological resources are considered in Table 13.3. The majority of the sites are split almost evenly between the Plains Archaic and Plains Woodland periods. There are surprisingly few (n=2) documented Paleo-Indian sites.

Table 13.4 lists the inventory project reports in the HPD manuscript collection. It is evident that many small parcels of land have been inventoried for cultural resources preparatory to energy development in this Study Unit. In fact, over 80% of the inventories listed relate to energy. Fourteen percent of the inventories involve agricultural practices or natural resources. Transportation projects account for 3% and communications only 0.4% of the inventories. The remainder reflects work conducted at Historic Sites. The following summary discusses a number of these projects and highlights some of the pertinent results derived from these investigations.

An inventory project conducted from 1976 to 1978 covered portions of the Little Missouri National Grasslands within the YRSU as well as within other western North Dakota Study Units (Loendorf 1978). Stone circle sites, lithic scatters, buffalo jumps, and the remains of eagle catching pits and conical timber lodges were recorded in the overall surveyed area. Stone circle sites were the most common site type recorded by the survey (*ibid.*:19).

A survey of the Mondak Bridge project area was reported by Schneider and Roberson (1981). Seven archeological and historic sites were found in the project area located along the Montana-North Dakota border near Fort Union NHS and Fort Buford State Historic Site (SHS).

**Table 13.2: Feature Type by Landform for Archeological Sites in the Yellowstone River Study Unit, 13-Sept-2007.**

	Conical Timber Lodge	Cultural Material Scatter	Earthworks	Grave	Hearth	Jump	Other Rock Features	Pit	Quarry or Mine	Rock Shelter	Stone Circle	Misc.	Total
Beach or riverbank		3											3
Draw		2									1		3
Upland plain	1	7	1				1	1					11
Floodplain		2											2
Hill - Knoll - Bluff		58		1			23	1	6		10		99
Ridge		52			3	2	43	3	6	1	32		142
Saddle		7									2		9
Spur		6					1		1		4		12
Terrace		57		1	3		5	1	1		3	1	72
Butte		3							1				4
Foot slope		7					3		2		1		13
Other		9											9
<b>Total</b>	<b>1</b>	<b>213</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>76</b>	<b>6</b>	<b>17</b>	<b>1</b>	<b>53</b>	<b>1</b>	<b>379</b>

Table 13.3: Cultural/Temporal Affiliation of Archeological Resources in the Yellowstone River Study Unit, 13-Sept-2007.

<b>Paleo-Indian</b>	
Plano	1
Post-Plano	1
<b>Total</b>	<b>2</b>
<b>Archaic</b>	
Unspecified	11
Early Large Side-Notched	1
Oxbow	1
McKean/Duncan/Hanna	7
Pelican Lake	8
<b>Total</b>	<b>28</b>
<b>Woodland</b>	
Unspecified	15
Besant/Sonota	5
Late Woodland	1
Avonlea	4
<b>Total</b>	<b>26</b>
<b>Plains Village</b>	
<b>Total</b>	<b>3</b>
<b>Plains Nomadic</b>	
<b>Total</b>	<b>3</b>
<b>Historic</b>	
Unspecified	4
Hidatsa	1
Euro-American	1
<b>Total</b>	<b>6</b>
<b>Unknown</b>	
	<b>551</b>

**Table 13.4: Inventory Projects in the Yellowstone River Study Unit, 5-Sept-2007.**

Year	First Author	Second Author	Title	Ms #
n.d.	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Fed 8-11, Well Location & Access Road Survey, McKenzie Co., ND	333
n.d.	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Fed 8-23 Well Location & Access Road Survey, McKenzie Co., ND	342
n.d.	Metcalf, M.	C. Zier	Shell Oil Company #43-27 Well Pad & Access Route Survey Report, McKenzie Co., ND	829
1973	Anderson, A.		Archaeological Survey Fort Union Trading Post National Historic Site, Williams Co., ND	6428
1975	Adamczyk, T.		Archaeological Inventory Missouri River Reach Between Fort Benton, MT and Sioux City, IA	80
1977	Chatters, J.		Brownlie, Wallace, Armstrong and Bander Oil Well Access Road # 32-21 Marshall-Federal Survey, McKenzie Co., ND	350
1977	Chatters, J.		Brownlie, Wallace, Armstrong, & Bander Oil Well Site # 11-23 Rainbow-Federal Well Site Survey, McKenzie Co., ND	355
1977	Chatters, J.		Brownlie, Wallace, Armstrong, & Bander Oil Well Site # 29-41 & Access Road Survey, McKenzie Co., ND	354
1977	Chatters, J.		Pasture 1, Allotment 3 Pipeline & Tanks Survey, McKenzie Co., ND	177
1977	Chatters, J.		Pasture 2, Allotment 3 Water Pipeline Survey, McKenzie Co., ND	178
1977	Chatters, J.		Pasture 3, Allotment 3, Stockwater Pipeline & Tank Survey, McKenzie Co., ND	182
1977	Chatters, J.		Shell Oil Company Well Site # 12-11 & Access Road Survey, McKenzie Co., ND	353
1977	Chatters, J.		Shell Oil Company Well Site # 13X-2-5 & Access Road Survey, McKenzie Co., ND	351
1977	Chatters, J.		Terra Resources Oil Prospect Road Survey, McKenzie Co., ND	179
1977	Gregg, M.		Brownlie, Wallace, Armstrong & Bander # 24-43 Federal Oil Drill Pad Site Survey, McKenzie Co., ND	204
1977	Lahren, L.		Brownlie, Armstrong, Wallace, Bander # 29-32 Pet. Inc. Federal Well Location Survey, McKenzie Co., ND	195
1977	Lahren, L.		Brownlie, Wallace Armstrong, Bander # 11-24 Rainbow Federal Well Location Survey, McKenzie Co., ND	197
1977	Lahren, L.		Brownlie, Wallace, Armstrong, Bander # 14-44 Muddy Trends Federal Well Location Survey, McKenzie Co., ND	198
1977	Lahren, L.		Brownlie, Wallace, Armstrong, Bander # 24-23 Yates Federal Well Location Survey, McKenzie Co., ND	196
1977	Lahren, L.		Shell Oil Co. # USA 21-8 Well Survey, McKenzie Co., ND	193
1977	Lahren, L.		Shell Oil Co. # USA 34X-6 Well Survey, McKenzie Co., ND	194
1977	Loscheider, M.		Bander Oil Company & Hanson Oil Company Well Sites and Access Routes Survey, McKenzie Co. ND	207
1977	Muceus, C.	R. Lawrence	Shell Oil Company 44-31-31-USA, Well Pad & Access Route Survey, McKenzie Co., ND	323
1977	Ward-Williams, L.		Shell Oil # USA 33X30 7 & # USA 13X32-6 Well Locations Survey, McKenzie Co., ND	199
1978	Fox, R.		Shell Oil Company #23-6 Well Site & Access Road Survey, McKenzie Co., ND	413
1978	Fox, R.		Shell Oil Company #32-12 Well Site Survey, McKenzie Co., ND	414
1978	Fox, R.		Shell Oil Company Right-of-Way Survey in McKenzie Co.,	170

Year	First Author	Second Author	Title	Ms #
1978	Fox, R.		Shell Oil Company Temporary Service Road Survey in McKenzie Co.,	174
1978	Fox, R.		Terra Resource, Inc., 1-29 BNRR Well Site & Access Road and #1-1 Miessersmith Well Site Road Survey, McKenzie Co., ND	175
1978	Greer, J.		Bander Oil Company 2-44 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	415
1978	Greer, J.		Bander Oil Company 3-22 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	396
1978	Greer, J.		Bander Oil Company 35-43 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	397
1978	Greer, J.		Bander Oil Company 8-43 Federal Well Pad & Access Road Survey, McKenzie Co., ND	424
1978	Greer, J.		Brownlie, Wallace, Armstorg, & Bander 3-44 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	455
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander, Inc. 1-12 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	476
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander, Inc. 2-22 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	477
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander, Inc., 8-11 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	487
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander Federal, Well Pad Survey, McKenzie Co., ND	434
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander Inc. #8-23 Federal Well Pad and Access Road Survey, McKenzie Co., ND	497
1978	Greer, J.		Brownlie, Wallace, Armstrong, & Bander, Inc., 1-14 Federal, Well Pad & Access Road Survey, McKenzie Co., ND	465
1978	Greer, J.		Kerr McGee Corporation Federal #2-12 Well Pad & Access Road Survey, McKenzie Co., ND	312
1978	Greer, J.		Kerr-McGee Corporation Federal #1-12, Well Pad & Access Road Survey, McKenzie Co., ND	324
1978	Greer, J.		Shell Oil Company #41-11 USA, Well Pad & Access Survey, McKenzie Co., ND	314
1978	Greer, J.		Shell Oil Company 11-12 USA, Well Pad & Access Road Survey, McKenzie Co., ND	316
1978	Greer, J.		Shell Oil Company 11-13-30 USA, Well Pad & Access Road Survey, McKenzie Co., ND	315
1978	Greer, J.		Shell Oil Company 11-21-35 USA, Well Pad & Access Road Survey, McKenzie Co., ND	382
1978	Greer, J.		Shell Oil Company 12-4-24 USA, Well Pad & Access Road Survey, McKenzie Co., ND	386
1978	Greer, J.		Shell Oil Company 13-29-16 USA and 14-29-16 USA, Well Pads & Access Road Survey, McKenzie Co., ND	372
1978	Greer, J.		Shell Oil Company 14-27-33 USA, Well Pad & Access Road Survey, McKenzie Co., ND	318
1978	Greer, J.		Shell Oil Company 14-35-18 USA, Well Pad Survey, McKenzie Co., ND	402
1978	Greer, J.		Shell Oil Company 23X-20-34 USA, Well Pad & Access Road Survey, McKenzie Co., ND	516
1978	Greer, J.		Shell Oil Company 31-32-19, Well Pad & Two Access Routes Survey, McKenzie Co., ND	319
1978	Greer, J.		Shell Oil Company 32-12-38, Well Pad & Access Road Survey, McKenzie Co., ND	384

Year	First Author	Second Author	Title	Ms #
1978	Greer, J.		Shell Oil Company 32-1-37 USA, Well Pad & Access Road Survey, McKenzie Co., ND	537
1978	Greer, J.		Shell Oil Company 41-15-32 USA, Well Pad & Access Road Survey, McKenzie Co., ND	317
1978	Greer, J.		Shell Oil Company 41-4-29 USA, Well Pad & Access Road Survey, McKenzie Co., ND	401
1978	Greer, J.		Shell Oil Company 42-18-36 USA, Well Pad & Access Road Survey, McKenzie Co., ND	383
1978	Greer, J.		Shell Oil Company 42X-10 USA Monitoring of Construction of Water Well Disposal Unit Pad, McKenzie Co., ND	2043
1978	Greer, J.		Shell Oil Company 44-31-31 USA, Well Pad & Access Road Survey, McKenzie Co., ND	322
1978	Greer, J.		Shell Oil Company Cheney Creek Gas Gathering Pipeline Survey, McKenzie Co., ND	313
1978	Greer, J.		Shell Oil Company Flowline from Battery at Shell USA 13x-32-6, North to Shell USA 33x-30-7, Survey, McKenzie Co., ND	534
1978	Heidenreich, C.	W. Vincent	Cultural Resource Survey of McKenzie Co., ND & Vicinity for Wesco Pipeline Company	937
1978	Keyser, A.		Mon-Dak and Bicentennial Oil Fields Drilling Sites & Access Roads Survey, McKenzie Co., ND	560
1978	Keyser, A.		Mon-Dak Oil Field Survey, McKenzie Co., ND	339
1978	Keyser, A.		Pasture 1, Allotment 3, Survey, McKenzie Co., ND	568
1978	Keyser, A.		Pasture 2, Allotment 2, Survey, McKenzie Co., ND	566
1978	Keyser, A.		Pasture 2, Allotment 3, Survey, McKenzie Co., ND	564
1978	Keyser, A.		Pasture 5, Allotment 4B, Survey, McKenzie Co., ND	567
1978	Keyser, A.		Pasture 5, Allotment 6, Survey, McKenzie Co., ND	563
1978	Keyser, A.		Pasture 6, Allotment 1, Survey, McKenzie Co., ND	565
1978	Lahren, L.		Bander Oil Company 12-21 Allen-Fed Well Site & Access Road Survey, McKenzie Co., ND	391
1978	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Fed #7-11, Well Location and Access Road Survey, McKenzie Co., ND	392
1978	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Fed #7-33, Well Location and Access Road Survey, McKenzie Co., ND	395
1978	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Fed 35-21, Well Location and Access Road Survey, McKenzie Co., ND	394
1978	Lahren, L.		Brownlie, Wallace, Armstrong, Bander Oil #35-43, Well Location and Access Road Survey, McKenzie Co., ND	393
1978	Lahren, L.		Cultural Resource Reconnaissance of a Proposed Crude Oil Pipeline Route in McKenzie and Golden Valley Counties, ND: Planning Options	232
1978	Loendorf, L.		Exeter Exploration Well #15-2-Federal Well Site Survey, McKenzie Co., ND	321
1978	Loendorf, L.		Exeter Exploration, Federal 7-2, Well Site Location Survey, McKenzie Co., ND	329
1978	Loendorf, L.		Pedestrian Survey of the Proposed Weco Pipeline Route in McKenzie Co., ND	1986
1978	Loendorf, L.		Preliminary Report on the Archaeological Investigations of 110 Site Locations, Little Missouri Grasslands, Custer National Forest, Western ND	299
1978	Murray, A.		Cultural Resource Inventories on Proposed Drilling Locations, Pipelines and Access Roads on the Little Missouri National Grasslands, McKenzie Co., ND	558

Year	First Author	Second Author	Title	Ms #
1978	Schreiner, M.		Cultural Resource Inventory of the Proposed Route of a Pipeline Connecting the Existing Wesco Pipeline with the Shell 13-X-32-6 USA Location, McKenzie Co., ND	328
1979	Brechtel, J.	O. Hand	Shell Oil Company USA 11-14-72 Well Pad Survey & Addendum Report, McKenzie Co., ND	388
1979	Brechtel, J.	M. Metcalf	Shell Oil Company USA 13-22-51 Well Pad Survey & Access Route Monitoring Report, McKenzie Co., ND	387
1979	Brechtel, J.	O. Hand	Shell Oil Company USA 14-24-66 Well Pad & Assumed Access Route Addendum Report, McKenzie Co., ND	390
1979	Brechtel, J.		Shell Oil Company USA 21-26-79 Well Pad & Assumed Access Addendum Report, McKenzie Co., ND	400
1979	Brechtel, J.	B. Waitkus	Shell Oil Company USA 41-10-71 Well Pad & Access Route Addendum Report, McKenzie Co., ND	389
1979	Brechtel, J.		Shell Oil Company USA 13-23-77 Well Pad Survey, McKenzie Co., ND	428
1979	Fosberg, S.		Pasture 5, Allotment 3, Pipeline Route & Stock Tanks Survey McKenzie District, McKenzie Co., ND	985
1979	Greer, J.		Patrick Petroleum #2-36 Folkvord State Access Road Survey Report, McKenzie Co., ND	808
1979	Greer, J.		Patrick Petroleum Folkvord State #1-36 Access Road Survey, McKenzie Co., ND	698
1979	Greer, J.		Pennzoil Company Federal #17-33 Access Road Survey, McKenzie Co., ND	481
1979	Greer, J.		Pennzoil Company Federal #33-22 Well Pad & Access Road Survey, McKenzie Co., ND	480
1979	Greer, J.		Pennzoil Company Federal #33-33 Well Pad & Access Road Survey, McKenzie Co., ND	479
1979	Greer, J.		Pennzoil Company Federal 17-33 Well Pad & Access Road Monitor Report, McKenzie Co., ND	417
1979	Greer, J.		Pennzoil Company Survey of Pennzoil-Depco 30-24 Access Road, McKenzie Co., ND	1015
1979	Greer, J.		Pennzoil Company Survey of Pennzoil-Depco Federal 18-44 Access Road and Well Pad, McKenzie Co., ND	1017
1979	Greer, J.		Pennzoil Company Survey of Pennzoil-Depco Federal 30-22 Well Pad & Access Road, McKenzie Co., ND	1014
1979	Greer, J.		Pennzoil Company Survey of Pennzoil-Depco Federal 7-44 Access Road, McKenzie Co., ND	1016
1979	Greer, J.		Pennzoil Federal #28-44 Well Pad & Access Route Survey, McKenzie Co., ND	2033
1979	Greer, J.		Pennzoil Federal #7-12 Block Survey Report, McKenzie Co., ND	828
1979	Greer, J.		Pennzoil Federal #8-14 Well Pad & Access Road Survey Report, McKenzie Co., ND	783
1979	Greer, J.		Pennzoil Federal 17-12 Well Pad & Access Road, McKenzie Co., ND	2770
1979	Greer, J.		Pennzoil-Depco Federal #17-31 Well Pad & Access Route Survey, McKenzie Co., ND	2034
1979	Greer, J.		Pennzoil-Depco Federal 18-14 Well Pad & Access Road Survey, McKenzie Co., ND	447
1979	Greer, J.		Pennzoil-Depco Federal 18-14 Well Pad Survey, McKenzie Co., ND	521
1979	Greer, J.		Pennzoil-Depco Federal 18-44 Well Pad and Access Road Survey, McKenzie Co., ND	453
1979	Greer, J.		Pennzoil-Depco Federal 18-44 Well Pad Survey, McKenzie Co., ND	520
1979	Greer, J.		Pennzoil-Depco Federal 30-24 Well Pad Survey,	524



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1979	Greer, J.		Pennzoil-Depco Federal 30-32 Well Pad Survey, McKenzie Co., ND	522
1979	Greer, J.		Pennzoil-Depco Federal 30-33 Well Pad Survey, McKenzie Co., ND	523
1979	Greer, J.		Pennzoil-Depco Federal 7-21 Well Pad & Access Road Survey, McKenzie Co., ND	454
1979	Greer, J.		Pennzoil-Depco Federal 7-21 Well Pad Survey, McKenzie Co., ND	518
1979	Greer, J.		Pennzoil-Depco Federal 7-44 Well Pad & Access Road Survey, McKenzie Co., ND	452
1979	Greer, J.		Pennzoil-Depco Federal 7-44 Well Pad Survey, McKenzie Co., ND	519
1979	Greer, J.		Shell Oil Company #43-19-15 Flowline Right of Way Survey Report, McKenzie Co., ND	816
1979	Greer, J.		Shell Oil Company 12-35-40 Flowline, Pipeline Right of Way Survey, McKenzie Co., ND	602
1979	Greer, J.		Shell Oil Company 14-1-8 Flowline Right of Way Survey Report, McKenzie Co., ND	799
1979	Greer, J.		Shell Oil Company Alkali Extension Right of Way Survey Report, McKenzie Co., ND	1024
1979	Greer, J.		Shell Oil Company Cheney Creek Extension Survey Report, McKenzie Co., ND	827
1979	Greer, J.		Shell Oil Company USA #11-31-25 Tank Battery Site Survey Report, McKenzie Co., ND	800
1979	Greer, J.		Shell Oil Company USA #14-19-23 Tank Battery Survey Report, McKenzie Co., ND	843
1979	Greer, J.		Shell Oil Company USA #32-23-21 Tank Battery Site Survey Report, McKenzie Co., ND	722
1979	Greer, J.		Shell Oil Company USA #43-15-28 Tank Battery Site Survey Report, McKenzie Co., ND	766
1979	Greer, J.		Shell Oil Company USA #43-19-15 Tank Battery Site Survey Report, McKenzie Co., ND	723
1979	Greer, J.		Shell Oil Company USA 22-24-27 Tank Battery Site Survey, McKenzie Co., ND	2045
1979	Greer, J.		Shell Oil Company Yellowstone Compressor Station Survey Report, McKenzie Co., ND	826
1979	Greer, J.	S. Lau et al.	Shell Oil Company Yellowstone Pipeline: Survey Report, Rerouted Portions of Pipeline Report, & Pipeline Right of Way Report, McKenzie Co., ND	737
1979	Greer, J.		Shell Oil Tiger Lateral Pipeline Right of Way Survey Report, McKenzie Co., ND	825
1979	Greer, J.		Tenneco Oil Vinyard USA #2-34 Survey Report, McKenzie Co., ND	748
1979	Hubbard, R.		Shell Oil Company 2.5 Mile Access Route Survey (Co., Road #845), McKenzie Co., ND	2318
1979	Kuehn, D.		Brownlie, Wallace, Armstrong, & Bander #11-44 Federal Access Road Survey Report, McKenzie Co., ND	798
1979	Kuehn, D.		Cultural Resource Inventory, Shell 34-10-46, McKenzie Co., ND	3330
1979	Kuehn, D.		Cultural Resource Inventory, Shell USA 41-4-29, Access Road, McKenzie Co., ND	3206
1979	Kuehn, D.		Cultural Resource Investigation, Hall Headquarters, ADP #389, 08-09-79, McKenzie Co., ND	2719
1979	Kuehn, D.		Cultural Resource Investigation, Terra Resources Meinhart--Federal 1-12 Lateral Pipeline, McKenzie Co., ND	2723

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1979	Kuehn, D.		Field Inspection of Archeological Site 32MZ450	2734
1979	Kuehn, D.		Getty 14-16 State Access Road Survey, McKenzie Co., ND	529
1979	Kuehn, D.		Hall Headquarters Reseeding Project Survey Report, McKenzie Co., ND	699
1979	Kuehn, D.		Indergard Water Pipeline Survey Report, McKenzie Co., ND	796
1979	Kuehn, D.		Jacobson Headquarters Water Pipeline Survey Report, McKenzie Co., ND	804
1979	Kuehn, D.		Leland Headquarters Water Pipeline Survey Report, McKenzie Co., ND	1033
1979	Kuehn, D.		Marshall and Winston Spring Creek Federal 2, 3, & 4 Access Route Survey Report, McKenzie Co., ND	803
1979	Kuehn, D.		McKenzie Electric Buried Cable From Shell 11-31 to Shell 31-32 Survey Report, McKenzie Co., ND	700
1979	Kuehn, D.		Pasture 2, Allotment 2, Water Pipeline & Tanks McKenzie Dist. Survey, McKenzie Co., ND	716
1979	Kuehn, D.		Pasture 2, Allotment 3, Water Pipeline & Tanks Survey, McKenzie Co., ND	1039
1979	Kuehn, D.		Pasture 2, Allotment 5 Water Pipelines Survey, McKenzie Co., ND	1030
1979	Kuehn, D.		Severson Headquarters' Water Pipeline Extension McKenzie District Survey, McKenzie Co., ND	541
1979	Kuehn, D.		Shell Oil Company #43-27 Tank Battery Survey Addendum Report, McKenzie Co., ND	879
1979	Kuehn, D.		Shell Oil Company USA #11-19-49 Well Pad Survey Report, McKenzie Co., ND	721
1979	Kuehn, D.		Shell Oil Company USA #23-33 Oil Well Survey, McKenzie Co., ND	667
1979	Kuehn, D.	M. Metcalf	Shell Oil Company USA #24-28-42 Well Site & Access Route Survey, McKenzie Co., ND	669
1979	Kuehn, D.		Survey of McKenzie Electric REC Electric Cable on Jacobsen Headquarters, McKenzie Co., ND	1029
1979	Kuehn, D.		USFS Compliance Survey Relative to Shell 43-30 Oil Well, McKenzie Co., ND	1938
1979	Kuehn, D.		USFS Cultural Resource Inventory, Jacobson Headquarter's Artesian Well, CP#08-14-79, McKenzie Co., ND	1928
1979	Lahren, L.		Brownlie, Wallace 25-21 Federal Well Site & Access Road Survey, McKenzie Co., ND	2419
1979	Lahren, L.		Gas Producing Enterprises GPE #1 Well Site an Access Road Survey, McKenzie Co., ND	2025
1979	Lahren, L.		Lower Yellowstone REA, MT 5, Shell-MonDak URD Line Underground Distribution Line Reroutes Survey, McKenzie Co., ND	2021
1979	Lahren, L.		Lower Yellowstone REA, Shell-Mon Dak URD Line Survey Report, McKenzie Co., ND	781
1979	Lahren, L.		Monitoring Activities for Montana 5 Richland, Lower Yellowstone REA Shell-MonDak Distribution Reroutes, McKenzie Co., ND	2022
1979	Lau, S.	K. Miller	An Intensive Cultural Resource Survey of the Pennzoil Federal #8-14 Block Area, McKenzie Co., ND	872
1979	McConnell, K.	K. Miller	An Intensive Cultural Resource Survey at the Pennzoil Federal #7-41, McKenzie Co., ND	873
1979	McConnell, K.	K. Miller	An Intensive Cultural Resource Survey of the Pennzoil 80-Acre Study Area, McKenzie Co., ND	895
1979	McCoy, M.	N. McCullough et al.	Brownlie, Wallace, Armstrong & Bander 25-32 Well Pad & Access Route Surveys, McKenzie Co., ND	437

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1979	McCoy, M.	N. McCullough et al.	Brownlie, Wallace, Armstrong & Bander 25-34 Federal Well Pad & Access Route Survey, McKenzie Co., ND	438
1979	McCoy, M.	N. McCullough et al.	Brownlie, Wallace, Armstrong, & Bander 23-23 Federal Well Pad Survey, McKenzie Co., ND	338
1979	McCoy, M.	N. McCullough et al.	Brownlie, Wallace, Armstrong, & Bander 5-11x Federal Well Pad & Access Route Survey, McKenzie Co., ND	362
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA #41-24, Well Pad Survey, McKenzie Co., ND	593
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 12-23-64 Well Pad Survey, McKenzie Co., ND	381
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 13-14-65 Well Pad & Access Route Addendum Report, McKenzie Co., ND	398
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 14-5-43 Well Pad Survey, McKenzie Co., ND	423
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 24-28-42, Well Pad & Access Road Survey, McKenzie Co., ND	528
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 33-33-75 Well Pad Survey, McKenzie Co., ND	445
1979	McCoy, M.	N. McCullough et al.	Shell Oil Company USA 34-8-52 Well Pad Survey, McKenzie Co., ND	427
1979	McCoy, M.	N. McCullough et al.	Shell Oil USA 12-6-44 Well Pad & Access Road Surveys, McKenzie Co., ND	425
1979	McCoy, M.	N. McCullough et al.	Shell Oil USA 42-28-43 Well Pad & Access Route Survey, McKenzie Co., ND	426
1979	McCoy, M.	N. McCullough et al.	U-V Industries, Inc., #4-4 Federal Well Pad & Access Route Survey, McKenzie Co., ND	697
1979	Metcalfe, M.	C. Zier	Addendum Shell 24-31-81 USA, Re-Survey of 40 Acre Parcel Associated With Well Pad Locale, McKenzie Co., ND	3331
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace #11-44 Federal Resurvey of Well Pad and Access Route Addendum Report, McKenzie Co., ND	751
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace #31-13 Federal Well Pad & Access Surveys, McKenzie Co., ND	622
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace #31-33 Federal Addendum Survey Report, McKenzie Co., ND	815
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace #9-41 Federal Resurvey of Well Pad and Access Route Addendum Report, McKenzie Co., ND	743
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong & Bander #14-24X Federal Well Pad & Access Road Survey Addendum Report, McKenzie Co., ND	646
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong & Bander #23-23 Federal Resurvey of Well Pad & Access Route, McKenzie Co., ND	763
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong & Bander #25-13 Federal Well Pad & Access Route Surveys, McKenzie Co., ND	628
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong & Bander #25-32 Federal Resurvey of Well Pad & Access Route, McKenzie Co., ND	762
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong & Bander #30-34 Federal Unit, Well Pad Survey, McKenzie Co., ND	620
1979	Metcalfe, M.		Brownlie, Wallace, Armstrong, & Bander # 23-31 Federal Well Pad Site Survey, McKenzie Co., ND	205
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander #10-44 Federal Well Pad Survey & Access Route Survey Addendum Report, McKenzie Co., ND	750

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1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander #30-13 Federal Unit, Well Pad Survey, McKenzie Co., ND	621
1979	Metcalfe, M.		Brownlie, Wallace, Armstrong, & Bander #31-11 Federal, Well Pad Survey, McKenzie Co., ND	616
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander #3-13 Federal Well Pad Survey Addendum Report, McKenzie Co., ND	626
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander #31-31 Federal Unit, Well Pad Survey, McKenzie Co., ND	618
1979	Metcalfe, M.		Brownlie, Wallace, Armstrong, & Bander #31-33 Federal Unit, Well Pad Survey, McKenzie Co., ND	617
1979	Metcalfe, M.		Brownlie, Wallace, Armstrong, & Bander 24-23 Federal Well Site Survey, McKenzie Co. ND	320
1979	Metcalfe, M.		Brownlie, Wallace, Armstrong, & Bander 24-31x Federal Well Pad Site Survey, McKenzie Co., ND	332
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander 5-31X Federal Well Pad Survey Report and Addendum, McKenzie Co., ND	352
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander et al, Proposed 15-32 Federal Well Pad Survey Report, McKenzie Co., ND	907
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Armstrong, & Bander, #23-42X Well Pad Survey Report, McKenzie Co., ND	885
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, et al., Proposed 2-41 Federal Well Location & Access Route Survey, McKenzie Co., ND	1442
1979	Metcalfe, M.	C. Zier	Brownlie, Wallace, Federal #2-41, Proposed Well Pad and Access Route Survey Report, McKenzie Co., ND	823
1979	Metcalfe, M.		Re-Survey of Access into Gas Producing Enterprises At Aquitaine 5-146-103 BN Well Pad in McKenzie Co., ND	2299
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #33-22-78 Well Pad & Access Surveys, McKenzie Co., ND	623
1979	Metcalfe, M.	C. Zier	Shell Oil Co., USA 24-26-47, Well Pad & Access Route Survey, McKenzie Co., ND	591
1979	Metcalfe, M.	C. Zier	Shell Oil Company #11-33-88 USA Well Pad & Access Route Survey Report, McKenzie Co., ND	760
1979	Metcalfe, M.	C. Zier	Shell Oil Company #12-31 USA Well Pad & Access Route Survey Report, McKenzie Co., ND	733
1979	Metcalfe, M.	C. Zier	Shell Oil Company #21-23-62 USA Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	729
1979	Metcalfe, M.	C. Zier	Shell Oil Company #21-26-67 Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	884
1979	Metcalfe, M.	C. Zier	Shell Oil Company #23-7-55 Well Pad & Access Route Survey Report, McKenzie Co., ND	731
1979	Metcalfe, M.	C. Zier	Shell Oil Company #31-10-57 USA Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	727
1979	Metcalfe, M.	C. Zier	Shell Oil Company #31-21-91 (90) Well Pad and Access Route Survey Report, McKenzie Co., ND	811
1979	Metcalfe, M.	C. Zier	Shell Oil Company #32-10-69 USA Well Pad Survey Addendum Report, McKenzie Co., ND	724
1979	Metcalfe, M.	C. Zier	Shell Oil Company #33-20 (Wildcat) Well Pad & Access Route Survey Report and Testing & Surface Collection Addendum Report, McKenzie Co., ND	746
1979	Metcalfe, M.	C. Zier	Shell Oil Company #33-20 Wildcat Access Road Survey of Site #1 Addendum Report, McKenzie Co., ND	734
1979	Metcalfe, M.	C. Zier	Shell Oil Company #34-35 USA Well Pad & Access Route Survey Report, McKenzie Co., ND	732

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1979	Metcalfe, M.	C. Zier	Shell Oil Company Access Road McKenzie Co., Survey, McKenzie Co., ND	814
1979	Metcalfe, M.	C. Zier	Shell Oil Company Proposed USA #44-25-48 Well Pad & Access Route Survey, McKenzie Co., ND	654
1979	Metcalfe, M.	C. Zier	Shell Oil Company Survey of Two 40-Acre Parcels, McKenzie Co., ND	906
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #11-1 Well Pad & Access Route Survey Report, McKenzie Co., ND	821
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #11-22-92 Well Pad & Access Route Survey Report, McKenzie Co., ND	810
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #12-13-54 Access Route Survey, McKenzie Co., ND	650
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #12-23-64, Addendum to Well Pad and Access Route Survey, McKenzie Co., ND	610
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #12-27-93 Well Pad & Access Route Survey Report, McKenzie Co., ND	832
1979	Metcalfe, M.		Shell Oil Company USA #12-35-40 Access Route Survey, McKenzie Co., ND	599
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #12-6-44 Access Route Survey, McKenzie Co., ND	651
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #13-13-61, Well Pad & Access Route Surveys, McKenzie Co., ND	613
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #13-22-51 Access Route Survey Addendum Report, McKenzie Co., ND	643
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #13X-32-6 Well Pad & Access Route Survey Report, McKenzie Co., ND	834
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #14-22-56 Well Pad & Access Survey Addendum Report, McKenzie Co., ND	662
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #14-5-53 Well Pad & Access Road Survey Addendum Report, McKenzie Co., ND	663
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #21-12-84 Well Pad & Access Route Survey Report, McKenzie Co., ND	759
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #21-23-62, Well Pad & Access Route Surveys, McKenzie Co., ND	614
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #21-29 Chambers Well Pad & Access Surveys, McKenzie Co., ND	680
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #21-8-58 Tank Battery Survey Report, Well Pad & Access, McKenzie Co., ND	878
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #22-18-89 Well Pad & Access Route Survey Report, McKenzie Co., ND	835
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #23-33-41 Well Pad & Access Route Survey and Addendum Report, McKenzie Co., ND	684
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #23-7-55 Well Pad & Access Route Survey and Addendum Report, McKenzie Co., ND	639
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #24-15-95 Well Pad & Access Route Survey Report, McKenzie Co., ND	836
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #24-28-42 Well Pad & Access Route Survey and Addendum Report, McKenzie Co., ND	660
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #24-32 Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	648
1979	Metcalfe, M.		Shell Oil Company USA #24-32 Well Pad & Access Route Survey, McKenzie Co., ND	658
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #24-35 Well Pad & Access Road Survey, McKenzie Co., ND	656

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1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #31-10-57 Access Route Survey Addendum Report, McKenzie Co., ND	645
1979	Metcalfe, M.		Shell Oil Company USA #31-10-57 Well Pad & Access Route Survey, McKenzie Co., ND	601
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #31-25-60 Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	638
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #31-31-82 Well Pad Survey & Addendum Report, McKenzie Co., ND	740
1979	Metcalfe, M.		Shell Oil Company USA #31-31-82 Well Pad Survey, McKenzie Co., ND	611
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #33-20 Access Route Survey Addendum Report, McKenzie Co., ND	675
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #33-22-87 Well Pad Location and Access Route Survey Report, McKenzie Co., ND	813
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #33-32-87 Access Road Survey Report, McKenzie Co., ND	880
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-10-46 Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	661
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-13-59 Access Route Survey, McKenzie Co., ND	653
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-14-85 Well Pad Location & Access Route Survey Report, McKenzie Co., ND	812
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-21-9 Well Pad & Access Route Survey Report, McKenzie Co., ND	757
1979	Metcalfe, M.		Shell Oil Company USA #34-27-39 Access Route Survey, McKenzie Co., ND	600
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-35-94 Well Pad & Access Route Survey Report, McKenzie Co., ND	809
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #34-8-52 Well Pad & Access Survey Addendum Report, McKenzie Co., ND	659
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #42-24 Well Pad & Access Route Survey Addendum Report, McKenzie Co., ND	676
1979	Metcalfe, M.		Shell Oil Company USA #42-27-80 Well Pad Survey, McKenzie Co., ND	625
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #43-30-45 Well Pad & Access Road Survey Addendum Report, McKenzie Co., ND	649
1979	Metcalfe, M.		Shell Oil Company USA #43-30-45, Well Pad & Access Route Survey, McKenzie Co., ND	598
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #43-35, Well Pad & Access Route Survey Report, McKenzie Co., ND	818
1979	Metcalfe, M.		Shell Oil Company USA #44-23-63, Well Pad Survey, McKenzie Co., ND	612
1979	Metcalfe, M.		Shell Oil Company USA #44-31 Well Pad Survey, McKenzie Co., ND	657
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA #44-8-52 Well Pad & Access Route (formerly USA #34-8-52) Survey Report, McKenzie Co., ND	758
1979	Metcalfe, M.	C. Zier	Shell Oil Company USA 31-13-73 Well Pad & Access Route Survey & Addendum Report, McKenzie Co., ND	624
1979	Metcalfe, M.		Shell Oil Company Well USA #12-35-40 Well Pad Survey, McKenzie Co., ND	576
1979	Metcalfe, M.		Shell Oil Company Well USA #23-33-41 Well Pad Survey, McKenzie Co., ND	577
1979	Metcalfe, M.		Shell Oil Company Well USA #34-27-39 Well Pad Survey, McKenzie Co., ND	575

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1979	Metcalf, M.	D. Kuehn	Shell Oil Company Well USA 34-10-46, Well Pad Survey, McKenzie Co., ND	531
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #12-13-54, Well Pad & Access Surveys, McKenzie Co., ND	603
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #14-11-70 Well Pad & Access Surveys, McKenzie Co., ND	607
1979	Metcalf, M.		Shell Oil Company, USA #14-22-56 Well Pad Survey, McKenzie Co., ND	594
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #14-2-68. Well Pad Survey, McKenzie Co., ND	608
1979	Metcalf, M.		Shell Oil Company, USA #21-26-67, Well Pad Survey, McKenzie Co., ND	609
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #23-7-55, Well Pad & Access Surveys Also Backhoe Testing, McKenzie Co., ND	606
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #31-25-60, Well Pad & Access Surveys, McKenzie Co., ND	605
1979	Metcalf, M.	C. Zier	Shell Oil Company, USA #34-13-59, Well Pad & Access Surveys, McKenzie Co., ND	604
1979	Metcalf, M.	C. Zier	Shell Oil USA #34-27-39 Well Pad and Access Route Survey, McKenzie Co., ND	679
1979	Metcalf, M.	C. Zier	Shell Oil USA #42-24 Addendum Survey Report, McKenzie Co., ND	819
1979	Metcalf, M.		Shell Oil USA 11-19-49, Well Pad & Access Route Survey, McKenzie Co., ND	456
1979	Metcalf, M.	C. Zier	U-V Industries 1-4 Federal Well Pad & Access Road Surveys, McKenzie Co., ND	629
1979	Metcalf, M.	C. Zier	U-V Industries 2-4 Federal Well Pad & Access Route Surveys, McKenzie Co., ND	630
1979	Metcalf, M.	C. Zier	U-V Industries 3-4 Federal Well Pad & Access Route Surveys, McKenzie Co., ND	631
1979	Murray, A.		Cultural Resource Inventory of Conservation Practice #08-01-79, McKenzie Co., ND	3202
1979	Murray, A.		Cultural Resource Inventory of Conservation Practice #08-04-79, McKenzie Co., ND	3216
1979	Murray, A.		Cultural Resource Inventory of Conservation Practice #08-12-79, McKenzie Co., ND	3200
1979	Murray, A.		Cultural Resource Inventory Shell Oil Company 32-2-9 Gas Lateral Line, McKenzie Co., ND	3207
1979	Murray, A.		Cultural Resource Inventory Shell Oil Company Tank Battery 42-13-13, McKenzie Co., ND	3210
1979	Murray, A.		Cultural Resource Inventory; Brownlie, Wallace, Armstrong, & Bander 2-12 Federal, McKenzie Co., ND	3208
1979	Murray, A.		Cultural Resources Inventory of Conservation Practice #08-05-79, McKenzie Co., ND	3204
1979	Murray, A.		USFS Cultural Resource Inventory Shell Oil Company 32-2-9 Gas Lateral Pipeline, McKenzie Co., ND	1936
1979	Murray, A.		USFS Cultural Resource Inventory, Shell Oil Company Tank Battery 42-13-13, McKenzie Co., ND	1929
1979	Powers Elevation		Brownlie, Wallace 23-12 Federal Addendum Survey Report, McKenzie Co., ND	2321
1979	Powers Elevation		Shell Oil Company 24-31-81 USA Addendum Survey Report, McKenzie Co., ND	2322
1979	Powers Elevation		Shell Oil Company 44-23-63 USA Addendum Survey Report, McKenzie Co., ND	2329

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1979	Powers Elevation		Shell Oil Company USA 31-13-73 Addendum Survey Report, McKenzie Co., ND	2324
1979	Powers Elevation		Brownlie, Wallace, Armstrong, & Bander 10-44 Federal Well Site Survey, McKenzie Co., ND	337
1979	Powers Elevation		Shell Oil Company USA #24-35 Well Access Route Survey Report, McKenzie Co., ND	652
1979	Rydalch, B.	K. Miller	An Intensive Cultural Resource Survey at the Shell Tank Battery #12-23-64, McKenzie Co., ND	839
1979	Rydalch, B.	K. McConnell	An Intensive Cultural Resource Survey at the Shell USA 11-31-25 Tank Battery Site, McKenzie Co., ND	557
1979	Rydalch, B.	K. McConnell	An Intensive Cultural Resource Survey of the Shell #11-31-25 Flowline, McKenzie Co., ND	871
1979	Rydalch, B.		An Intensive Cultural Resource Survey of the Shell Oil #42-24 Tank Battery Location, McKenzie Co., ND	990
1979	Savini, J.		Brownlie Wallace #11-44 Federal, Well Pad & Access Route Survey, McKenzie Co., ND	501
1979	Savini, J.		Brownlie Wallace #14-24X Federal Well Pad & Access Route Survey, McKenzie Co., ND	499
1979	Savini, J.		Brownlie Wallace #14-44X Federal, Well Pad & Access Route Survey, McKenzie Co., ND	502
1979	Savini, J.		Brownlie Wallace #15-31 Federal Well Pad & Access Route Survey, McKenzie Co., ND	500
1979	Savini, J.		Brownlie Wallace #23-12 Federal Well Pad & Access Route Survey, McKenzie Co., ND	498
1979	Savini, J.		Report of Archaeological Reconnaissance & Testing at Shell USA Location Number 42-28-43, a Well Pad in McKenzie Co., ND	644
1979	Schreiner, M.		Cultural Resource Inventory of the Proposed Haymaker and Associates Terra #1-1 Federal Well & Access Road, McKenzie Co., ND	544
1979	Senulis, J.		An Intensive Cultural Resource Survey of the Dome 1-7 Pipeline, McKenzie Co., ND	1237
1979	Simon, A.	L. Loendorf	Access Route to Marshall & Winston Spring Creek Federal #2, #3, #4, in Sections 22 & 27, T.147N, R.104W, McKenzie Co., ND	2208
1979	Simon, A.	L. Loendorf	Cultural Resource Survey for the Proposed Buried Cable Route (McKenzie REC), McKenzie Co., ND	1026
1979	Simon, A.	L. Loendorf	Cultural Resource Survey of the Proposed Dome Petroleum Corporation Location in the SE/SW of Section 26, T.149N.R.104W, McKenzie Co., ND	2209
1979	Simon, A.	L. Loendorf	Cultural Resource Survey of the Proposed Dome Petroleum Corporation Well Location, McKenzie Co., ND	1042
1979	Simon, A.	L. Loendorf	Cultural Resource Survey of the REC Buried Cable Route, McKenzie Co., ND	1037
1979	Simon, A.	L. Loendorf	Dome Federal Well #2-34 Survey, McKenzie Co., ND	711
1979	Simon, A.	L. Loendorf	Exeter Exploration Company Federal Well #9-22 Well Pad & Access Route Survey Report, McKenzie Co., ND	795
1979	Simon, A.	L. Loendorf	Farmers Union Federal #12-8 Well Pad & Access Route Survey Report, McKenzie Co., ND	780
1979	Simon, A.	L. Loendorf	Marshall and Winston, Inc., Flow Line From Spring Creek Federal No. 2 to Tank Battery Survey Report, McKenzie Co., ND	771
1979	Simon, A.	L. Loendorf	Marshall-Winston #2 Spring Creek Federal Well Pad Survey Report, McKenzie Co., ND	789
1979	Simon, A.	L. Loendorf	Marshall-Winston #3 Spring Creek Federal Well Pad Survey Report, McKenzie Co., ND	790



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1979	Simon, A.	L. Loendorf	Marshall-Winston #4 Spring Creek Federal Well Pad Survey Report, McKenzie Co., ND	788
1979	Simon, A.	L. Loendorf	McKenzie REC Buried Cable Survey & Addendum Report, McKenzie Co., ND	919
1979	Simon, A.	L. Loendorf	REC Buried Cable - Proposed Route & Reroute Survey, McKenzie Co., ND	2211
1979	Simon, A.	L. Loendorf	The Cultural Resource Survey of the Gas Pipeline Proposed by Matador Pipelines, Incorporated in Golden Valley Co., McKenzie Co., ND & Richland Co., MT	6760
1979	Simon, A.	L. Loendorf	The Cultural Resource Survey of the Proposed Matador Bull Moose Pipeline in Portions of McKenzie Co., ND	2238
1979	Waitkus, B.	D. Ford	Brownlie, Wallace, Armstrong & Bander #Fed-31-11 Well Pad Survey Report, McKenzie Co., ND	822
1980	Ekelund, M.	D. McKay	An Intensive Cultural Resource Survey of a Shell Access Road, McKenzie Co., ND	1293
1980	Floodman, M.	P. Harrell	Pennzoil Oil Company Survey of Access Road for Yellowstone 6-11, McKenzie Co., ND	1308
1980	Floodman, M.	P. Harrell	Shell Oil Company Survey of Flowlines to Shell 109 and 132, McKenzie Co., ND	1372
1980	Greer, J.	S. Lau	An Intensive Cultural Resource Survey of the Shell USA 24-28-42 Tank Battery Extension, McKenzie Co., ND	1018
1980	Kuehn, D.		Shell Oil Company Access Route 13-23-77, McKenzie Co., ND	2305
1980	Lahren, L.		Lower Yellowstone Electric Cooperative Shell Mon-Dak Field Underground Electric Service Survey, McKenzie Co., ND	1735
1980	Lahren, L.		Lower Yellowstone Electric Cooperative Shell-Mon Dak Oil Field Underground Electric Service Survey, McKenzie Co., ND	1196
1980	Lahren, L.		Lower Yellowstone REA, Inc., Survey of Shell Mon-Dak Oil Field Underground Electric Service, McKenzie Co., ND	1361
1980	Lahren, L.		Puma Petroleum 1-21 Shell Fed Well Location & Access Road Survey, McKenzie Co., ND	1590
1980	Lahren, L.		Shell Mon-Dak Oil Field Underground Electrical Power Cables Right of Way Survey, McKenzie Co., ND	1297
1980	Lau, S.		An Intensive Cultural Resource Survey of the Pennzoil 17-11 Depco South Mondak Well Location & Access, McKenzie Co., ND	1079
1980	Lau, S.	K. McConnell	An Intensive Cultural Resource Survey of the Pennzoil FS 819 Road Improvement, McKenzie Co., ND	1021
1980	Lau, S.		An Intensive Cultural Resource Survey of the Puma 1-30 Shell Federal 120-Acre Block Area, McKenzie Co., ND	1500
1980	Lau, S.		An Intensive Cultural Resource Survey of the Shell Oil 12-31 Tank Battery, McKenzie Co., ND	1002
1980	Lau, S.		An Intensive Cultural Resource Survey of the Shell USA 42-10 Saltwater Disposal Access Route, McKenzie Co., ND	1165
1980	Lau, S.		An Intensive Cultural Resource Survey of the Shell USA 23-33 Flowline, McKenzie Co., ND	1005
1980	Lau, S.	J. W. Greer	An Intensive Cultural Resource Survey of the Shell USA 31-32-19 Flowline Reroute, McKenzie Co., ND	1019
1980	Lau, S.	D. McKay	An Intensive Cultural Resource Survey of the Shell USA 44-31-31 Flowline, McKenzie Co., ND	1059
1980	Logan, J.	K. Good	Results of a Class III Cultural Resource Inventory Route & Alternates of the Proposed State Highway 16 Improvement, Golden Valley & McKenzie Counties, ND	1694

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1980	Maul, D.		A Cultural Resource Survey of a Staked Water Well (CP #08-39 80, Madison Headquarters), McKenzie Co., ND	2195
1980	Maul, D.		Cultural Resource Inventory of a Proposed Scoria Pit, McKenzie Co., ND	2067
1980	Maul, D.		Cultural Resource Inventory of Proposed Water Well, McKenzie Co., ND	1566
1980	Maul, D.		Pasture 2, Allotment 2, Water Pipeline Survey, McKenzie Co., ND	1563
1980	Maul, D.		USFS 08-80-34, Drilled Well, Burns Well Survey, McKenzie Co., ND	1891
1980	Maul, D.		USFS Air Monitoring Station Survey, McKenzie Co., ND	1889
1980	Maul, D.		USFS Jacobsen Water Pipeline Reroute (D879191), Conservation Practice #08-14-80, McKenzie Co., ND	1890
1980	Maul, D.		USFS Special Use, 22-70, ND Water Commission Well Survey, McKenzie Co., ND	1892
1980	Maul, D.		USFS Survey of ND Water Commission Well in Section 1-T150N-R103W, McKenzie Co., ND	1894
1980	McConnell, K.	K. Miller	An Intensive Cultural Resource Survey of the Shell #34-14-85 Tank Battery, McKenzie Co., ND	987
1980	McKay, D.		An Intensive Cultural Resource Survey of an 80 Acre Block Area for Pennzoil, McKenzie Co., ND	902
1980	McKay, D.		An Intensive Cultural Resource Survey of the Shell Oil Chambers #21-29 Tank Battery, McKenzie Co., ND	988
1980	McKay, D.		An Intensive Cultural Resource Survey of the Shell Oil USA 24-28-42 Tank Battery Site, McKenzie Co., ND	992
1980	McKay, D.		An Intensive Cultural Resource Survey of the Shell Oil USA 42-12-38 Well Location and Access, McKenzie Co., ND	993
1980	McKay, D.		An Intensive Cultural Resource Survey of the Shell USA 34-14-86 Well Location and Access, McKenzie Co., ND	1234
1980	McKay, D.	M. Ekelund	An Intensive Cultural Resource Survey of the Tiger 25-1 Flowline, McKenzie Co., ND	1164
1980	Metcalfe, M.	C. Zier	Brownlie, Wallace, et al., 25-21 Federal Well Pad & Access Route Survey Report, McKenzie Co., ND	1054
1980	Metcalfe, M.	C. Zier	Brownlie, Wallace, et al, Proposed 5-42 Well Pad Location & Access Route Survey, McKenzie Co., ND	1100
1980	Metcalfe, M.	C. Zier	Dome Petroleum 1-17 Well Location Survey & Testing Report, McKenzie Co., ND	1082
1980	Metcalfe, M.		Dome Petroleum 2-17 Well Pad Survey, McKenzie Co., ND	1071
1980	Metcalfe, M.	C. Zier	Dome Petroleum 3-26 Well Location Survey, McKenzie Co., ND	1081
1980	Metcalfe, M.	C. Zier	Dome Petroleum 3-35 Well Location & Possible Access Route Survey, McKenzie Co., ND	1080
1980	Metcalfe, M.	C. Zier	Shell Oil Company #13-23-77 Access Route Survey Report, McKenzie Co., ND	1055
1980	Metcalfe, M.	C. Zier et al.	Shell Oil Company Proposed #42-12-28 Well Pad & Access Route Survey and Testing Report, McKenzie Co., ND	1020
1980	Metcalfe, M.	C. Zier	Shell Oil Company Proposed #44-4 Well Location & Access Route Survey, McKenzie Co., ND	1106
1980	Metcalfe, M.	C. Zier	Shell Oil Company Proposed 22-28 Well Pad Location, Tank Battery & Access Route Survey, McKenzie Co., ND	1107
1980	Metcalfe, M.	C. Zier	Shell Oil Company Proposed USA #13-4 Well Pad Survey Report, McKenzie Co., ND	910
1980	Metcalfe, M.	C. Zier	Tenneco Oil Co. Proposed Tenneco 1-31-USA Well Pad Location and Access Route Survey, McKenzie Co., ND	1089

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1980	Miller, F.		An Intensive Cultural Resource Survey of the Getty Federal 9-14 Well Location & Access, McKenzie Co., ND	838
1980	Miller, K.	S. Lau	An Intensive Cultural Resource Survey of the Pennzoil Fed. 30-11 Well Pad & Access, McKenzie Co., ND	995
1980	Moore, S.		Shell-Mon Dak URD, MT5, Richland, Lower Yellowstone REA Survey Maps, McKenzie Co., ND	1121
1980	Persinger, P.		An Intensive Cultural Resource Survey of the NE¼ Section 31-T148N-R102W (Fork Lake Prospect) & Access Road, McKenzie Co., ND	2029
1980	Powers Elevation		Addendum to Brownlie, Wallace, Armstrong & Bander 31-11 Federal, A Report on Limited Shovel Testing, McKenzie Co., ND	2420
1980	Powers Elevation		Addendum to Shell 11-27-93: A Re-Survey of the Well Pad and Forty Acres, McKenzie Co., ND	1870
1980	Rippeteau, B.		Brownlie, Wallace, 31-31 Addendum Report, McKenzie Co., ND	2421
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong and Bander 11-41 Access Road Survey, McKenzie Co., ND	527
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., Allen Federal Well Pad & Access Route Survey, McKenzie Co., ND	1481
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., to 11-21-, 11-23, & 11-43 Federal Well Pad Accesses Survey, McKenzie Co., ND	466
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., 6-42 Access Road Survey, McKenzie Co., ND	1449
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., 8-44 Well Pad Survey, McKenzie Co., ND	1443
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., Allen Federal 11-23 Well Pad & Access Route Survey, McKenzie Co., ND	1489
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., Federal 32-14 Well Pad Survey, McKenzie Co., ND	1493
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., Federal 32-34 Well Pad & Access Route Survey, McKenzie Co., ND	1492
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong & Bander, Inc., Survey of Access Road to 32-14 & 32-34 Federal, McKenzie Co., ND	1494
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong, & Bander, Inc., 12-23 Federal Well Pad & Access Route Survey, McKenzie Co., ND	1485
1980	Rippeteau, B.		BWAB Inc. Survey of 11-43-Federal-11-147-105 Well Location and Access Road, McKenzie Co., ND	1409
1980	Rippeteau, B.		Dome 4-17 Well Location & Access Route Survey, McKenzie Co., ND	1467
1980	Rippeteau, B.		Dome Petroleum 200-Acre Block Survey of Section 17, McKenzie Co., ND	1469
1980	Rippeteau, B.		Dome Petroleum Company 240-Acre Block Survey in Section 17, T149N, R104W, McKenzie Co., ND	1604
1980	Rippeteau, B.		Dome Petroleum Survey of Pipeline Between Dome 1-26 and 2-26, McKenzie Co., ND	1593
1980	Rippeteau, B.		Gas Producing Enterprises 5-146-103 Al-Aquitaine Burlington Northern #2 Well Pad Survey, McKenzie Co., ND	1077
1980	Rippeteau, B.		Pennzoil Oil 6-11 Federal Well Pad & Access Route, McKenzie Co., ND	1482
1980	Rippeteau, B.		Pennzoil Oil Company Block Survey of Section 1, McKenzie Co., ND	1454

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1980	Rippeteau, B.		Pennzoil Oil Company Survey of 600-foot Access Road in Section 31, McKenzie Co., ND	1414
1980	Rippeteau, B.		Pennzoil Survey of 600 Foot Access Road in Section 31, McKenzie Co., ND	2398
1980	Rippeteau, B.		Puma Petroleum Access for Puma 1-18 (Keith Winter 1-18) Survey, McKenzie Co., ND	430
1980	Rippeteau, B.		Shell Oil Company #31-4-118 Well Pad & Access Route Survey., McKenzie Co., ND	805
1980	Rippeteau, B.		Shell Oil Company #41-14-131 Well Pad & Access Route Survey, McKenzie Co., ND	1428
1980	Rippeteau, B.		Shell Oil Company 11-20-109 Addendum Survey Report for Relocated Well Location, McKenzie Co., ND,	1876
1980	Rippeteau, B.		Shell Oil Company 11-20-109 Well Pad & Access Route Survey, McKenzie Co., ND	1521
1980	Rippeteau, B.		Shell Oil Company 11-32-127 USA Well Pad & Access Road Survey, McKenzie Co., ND	1429
1980	Rippeteau, B.		Shell Oil Company 11-4-76 Access Road Survey, McKenzie Co., ND	2340
1980	Rippeteau, B.		Shell Oil Company 12-11-105 Access Road Survey, McKenzie Co., ND	1462
1980	Rippeteau, B.		Shell Oil Company 12-11-105 Well Pad Survey, McKenzie Co., ND	517
1980	Rippeteau, B.		Shell Oil Company 12-13-119 Well Pad & Access Route Survey, McKenzie Co., ND	526
1980	Rippeteau, B.		Shell Oil Company 12-31-97 Flowline Survey, McKenzie Co., ND	1437
1980	Rippeteau, B.		Shell Oil Company 13-22-51, Addendum Report, Monitoring of Road Construction, McKenzie Co., ND	2333
1980	Rippeteau, B.		Shell Oil Company 14-25-111 USA Well Pad Location & Access Route Survey, McKenzie Co., ND	1404
1980	Rippeteau, B.		Shell Oil Company 22-27-107 Access & Flowline Survey, McKenzie Co., ND	1322
1980	Rippeteau, B.		Shell Oil Company 22-27-107 Well Pad & Access Route Survey, McKenzie Co., ND	1517
1980	Rippeteau, B.		Shell Oil Company 22-28 Access Road Survey Report, McKenzie Co., ND	2330
1980	Rippeteau, B.		Shell Oil Company 22-6-141 Well Location & Access Route Survey, McKenzie Co., ND	1447
1980	Rippeteau, B.		Shell Oil Company 23-19-140 Addendum Survey Report, McKenzie Co., ND	2323
1980	Rippeteau, B.		Shell Oil Company 23-19-140 Well Location Survey, McKenzie Co., ND	1580
1980	Rippeteau, B.		Shell Oil Company 23-4-129 Well Pad & Access Route, McKenzie Co., ND	1476
1980	Rippeteau, B.		Shell Oil Company 23-6-114 Well Pad & Access Route Survey, McKenzie Co., ND	1463
1980	Rippeteau, B.		Shell Oil Company 240-Acre Block Survey in Section 34, T149N, R103W, McKenzie Co., ND	1603
1980	Rippeteau, B.	M. Tate	Shell Oil Company 24-25-137 USA Well Pad & Access Route Survey, McKenzie Co., ND	1436
1980	Rippeteau, B.		Shell Oil Company 31-11 Salt Walter Disposal System Survey, McKenzie Co., ND	1424
1980	Rippeteau, B.		Shell Oil Company 31-22-115-USA Well Pad & Access Route Survey, McKenzie Co., ND	1488

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1980	Rippeteau, B.		Shell Oil Company 31-35-136 Well Pad & Access Route Survey, McKenzie Co., ND	1478
1980	Rippeteau, B.		Shell Oil Company 32-19-110 Well Pad & Access Route Survey, McKenzie Co., ND	1473
1980	Rippeteau, B.		Shell Oil Company 32-19-132-USA Well Pad & Access Route Survey, McKenzie Co., ND	1461
1980	Rippeteau, B.		Shell Oil Company 32-22-126 Access Road Addendum Survey Report, McKenzie Co., ND	2332
1980	Rippeteau, B.		Shell Oil Company 32-22-126 Well Location & Access Road Survey, McKenzie Co., ND	1364
1980	Rippeteau, B.		Shell Oil Company 32-28-142 Well Pad Survey, McKenzie Co., ND	1434
1980	Rippeteau, B.		Shell Oil Company 33-11-106 Well Pad Survey, McKenzie Co., ND	1466
1980	Rippeteau, B.		Shell Oil Company 33-13-120 Well Location & Access Route Survey, McKenzie Co., ND	1460
1980	Rippeteau, B.		Shell Oil Company 33-18-123 Flowline Survey, McKenzie Co., ND	1480
1980	Rippeteau, B.		Shell Oil Company 33-22-125 Well Pad & Access Road Survey and addendum, McKenzie Co., ND	1487
1980	Rippeteau, B.		Shell Oil Company 33-24-121 Access Route & Flowline Survey, McKenzie Co., ND	1579
1980	Rippeteau, B.		Shell Oil Company 33-24-121 Well Location & Access Route Survey, McKenzie Co., ND, McKenzie Co., ND	1411
1980	Rippeteau, B.		Shell Oil Company 33-33-112 Well Pad & Access Route Survey, McKenzie Co., ND	1472
1980	Rippeteau, B.		Shell Oil Company 34-15-135 USA Well Pad & Access Route Survey, McKenzie Co., ND	1483
1980	Rippeteau, B.		Shell Oil Company 34-20-108 Well Pad & Access Route Survey, McKenzie Co., ND	1518
1980	Rippeteau, B.		Shell Oil Company 34-29-104 Flowline Survey, McKenzie Co., ND	1491
1980	Rippeteau, B.		Shell Oil Company 34-29-104 Well Pad & Access Route Survey, McKenzie Co., ND	1490
1980	Rippeteau, B.		Shell Oil Company 34-5-113 Well Pad & Access Route Survey, McKenzie Co., ND	1471
1980	Rippeteau, B.		Shell Oil Company 43-1-128 Well Location & Access Route Survey, McKenzie Co., ND	1412
1980	Rippeteau, B.		Shell Oil Company 43-3-116 Addendum Report of Access Road Survey, McKenzie Co., ND	1873
1980	Rippeteau, B.		Shell Oil Company 43-3-116 USA Well Pad & Access Route Survey, McKenzie Co., ND	1439
1980	Rippeteau, B.		Shell Oil Company 44-10 Access Road Survey, McKenzie Co., ND	1076
1980	Rippeteau, B.		Shell Oil Company 44-1-128 Well Pad & Access Road Survey, McKenzie Co., ND	1446
1980	Rippeteau, B.		Shell Oil Company 44-12-139 Well Pad & Access Route Survey, McKenzie Co., ND	1484
1980	Rippeteau, B.		Shell Oil Company Access Road to Shell 24-4 Survey, McKenzie Co., ND	1298
1980	Rippeteau, B.		Shell Oil Company BWAB 42-8 Well Location & Access Route Survey, McKenzie Co., ND	1581
1980	Rippeteau, B.		Shell Oil Company Flowline #12-11-105 Survey, McKenzie Co., ND	1464
1980	Rippeteau, B.		Shell Oil Company Flowline #12-13-119 Survey, McKenzie Co., ND	1305
1980	Rippeteau, B.		Shell Oil Company Flowline #21-15-103 Survey, McKenzie Co., ND	1312

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1980	Rippeteau, B.		Shell Oil Company Flowline 33-11-106 Survey, McKenzie Co., ND	1304
1980	Rippeteau, B.		Shell Oil Company Flowline 33-13-120 Survey, McKenzie Co., ND	1303
1980	Rippeteau, B.		Shell Oil Company Flowline 33-32-87 Survey, McKenzie Co., ND	1445
1980	Rippeteau, B.		Shell Oil Company Flowline 34-5-113 Survey, McKenzie Co., ND	1585
1980	Rippeteau, B.		Shell Oil Company Survey of 13-4 USA Well Location & Access Routes, McKenzie Co., ND	1416
1980	Rippeteau, B.		Shell Oil Company Survey of 13-8-138 Well Location & Access Route, McKenzie Co., ND	1413
1980	Rippeteau, B.		Shell Oil Company Survey of 43-14-130 USA Well Location & Access Route, McKenzie Co., ND	1337
1980	Rippeteau, B.		Shell Oil Company Survey of Access Road for 24-4, McKenzie Co., ND	1235
1980	Rippeteau, B.		Shell Oil Company Survey of Access Road to 12-11-105 Well Location, McKenzie Co., ND	1407
1980	Rippeteau, B.		Shell Oil Company Survey of Access Road to 23-19-140, McKenzie Co., ND	1596
1980	Rippeteau, B.		Shell Oil Company Survey of Access Road to Klandl Tank Battery, McKenzie Co., ND	1406
1980	Rippeteau, B.		Shell Oil Company Survey of Flowline From Dome 3-26 to 1-26, McKenzie Co., ND	1415
1980	Rippeteau, B.		Shell Oil Company Survey of Flowline to Shell Well 14-19-23, McKenzie Co., ND	1405
1980	Rippeteau, B.		Shell Oil Company USA 31-21-90 (Flowline) Survey, McKenzie Co., ND	1452
1980	Rippeteau, B.		Shell Oil Company USA 44-8-52 (Flowline) Survey, McKenzie Co., ND	1453
1980	Rippeteau, B.		Shell Oil Company USA 23-4-134 Well Location & Access Route Survey, McKenzie Co., ND	1422
1980	Rippeteau, B.		Shell Oil Company USA 24-4 Well Location & Access Route Survey, McKenzie Co., ND	1145
1980	Rippeteau, B.		Shell Oil Company USA 32-8-133 Well Location & Access Route Survey, McKenzie Co., ND	1459
1980	Rippeteau, B.		Shell Oil Company USA 42-21-124 Well Pad & Access Road Survey, McKenzie Co., ND	506
1980	Rippeteau, B.		Shell Oil Company Well #42-30-83 Survey, McKenzie Co., ND	1270
1980	Rippeteau, B.		Shell Oil Corporation 43-6-117 USA Well Pad & Access Road Survey, McKenzie Co., ND	1474
1980	Rippeteau, B.		Wesco-Mondak Extension Pipeline Survey, McKenzie Co., ND	1524
1980	Rydalch, B.		An Intensive Cultural Resource Survey of the Shell Oil #11-23-20 Flowline, McKenzie Co., ND	898
1980	Rydalch, B.		An Intensive Cultural Resource Survey of the Shell Oil #33-20 Tank Battery Site, McKenzie Co., ND	916
1980	Rydalch, B.	K. McConnell	An Intensive Cultural Resource Survey of the Shell USA 12-6-44 Access Road, McKenzie Co., ND	1004
1980	Rydalch, B.		Construction Monitoring of the Patrick 2-36 Folkvord State Access Route, McKenzie Co., ND	1170
1980	Senuilis, J.		An Intensive Cultural Resource Survey of the Shell Oil Cinnamon Pipeline R/W, McKenzie Co., ND	1503
1980	Senuilis, J.		An Intensive Cultural Resource Survey of the Shell Salt Water Gathering System Pipeline, McKenzie Co., ND	1292

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1980	Senulis, J.		An Intensive Cultural Resource Survey of the Shell USA 23-7-55 Flowline, McKenzie Co., ND	1243
1980	Simon, A.	L. Loendorf	Cultural Resource Survey of Dome Petroleum Federal 2-26, 3-26, & 4-34	1043
1980	Simon, A.	L. Loendorf	McKenzie Electric Cooperative Survey of Buried Cable, McKenzie Co., ND	1360
1980	Simon, A.	L. Loendorf	McKenzie Electric Cooperative, Inc., Buried Cable Survey, McKenzie Co., ND	1214
1980	Simon, A.		McKenzie Electric Cooperative, Inc., Buried Cable U-W#51 Survey, McKenzie Co., ND	596
1980	Simon, A.	L. Loendorf	McKenzie Electric Cooperative, Inc., Survey of Buried Cable Right of Way, McKenzie Co., ND	1225
1980	Simon, A.	L. Loendorf	McKenzie Electric Cooperative, Inc., Survey of Buried Cable Route in T146N & T147N, R104W, McKenzie Co., ND	1218
1980	Simon, A.	L. Loendorf	McKenzie REC Survey of Segment of Line West Then South of Horse Creek School, McKenzie Co., ND	1215
1980	Simon, A.	L. Loendorf	McKenzie Rural Electric Cooperative 115kV Transmission Line Survey, McKenzie Co., ND	1362
1980	Simon, A.	L. Loendorf	McKenzie Rural Electric Cooperative Survey of Buried Cable, McKenzie Co., ND	1315
1980	Simon, A.	L. Loendorf	McKenzie Rural Electric Cooperative Survey of Underground Cable Line Sections 21, 28, McKenzie Co., ND	1232
1980	Simon, A.	L. Loendorf	McKenzie Rural Electric Cooperative Survey of Underground Cable Right of Way, McKenzie Co., ND	1239
1980	Simon, A.	L. Loendorf	MDU Survey of Pipeline Right of Way in Mon-Dak Field, McKenzie Co., ND	1330
1980	Simon, A.	L. Loendorf	Wesco Pipeline from Dome Petroleum Right of Way Survey, McKenzie Co., ND	1324
1980	Tate, M.		Brownlie, Wallace, Armstrong & Bander 2-23 Allen Fed. Access Route Survey, McKenzie Co., ND	1272
1980	Tate, M.		Brownlie, Wallace, Armstrong & Bander 24-23X Federal Well Pad Survey, McKenzie Co., ND	1066
1980	Tate, M.		Brownlie, Wallace, Armstrong & Bander 2-43 Allen Fed., Access Road Survey, McKenzie Co., ND	3109
1980	Tate, M.		Brownlie, Wallace, Armstrong & Bander 2-43 Allen Federal Well Pad & Access Route Survey, McKenzie Co., ND	1069
1980	Tate, M.		Brownlie, Wallace, Armstrong and Bander 5-23 Well Access Route Survey, McKenzie Co., ND	1274
1980	Tate, M.		Brownlie, Wallace, Armstrong and Bander Federal Unit 11-41 Well Pad Survey, McKenzie Co., ND	1242
1980	Tate, M.		Coastal Oil & Gas #1 Al-Aquitaine 11-146-103 BN Well Pad Location Survey, McKenzie Co., ND	1268
1980	Tate, M.		Dome 3-17 Well Pad & Access Route Survey, McKenzie Co., ND	1068
1980	Tate, M.		Dome Petroleum 4-17 Well Pad & Access Route Survey, McKenzie Co., ND	1070
1980	Tate, M.		Dome Petroleum Survey of Well 4-35 & Access Route, McKenzie Co., ND	1236
1980	Tate, M.		Jacobsen Headquarters Water Pipeline C.P. #08-14-80 Survey, McKenzie Co., ND	1086
1980	Tate, M.		Marshall & Winston, Inc., #1 Poison Spring Well Location & Access Route, McKenzie Co., ND	1138
1980	Tate, M.		Marshall & Winston, Inc., #5 Spring Creek Federal Well Location Survey, McKenzie Co., ND	1137

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1980	Tate, M.		Marshall and Winston #3 Spring Creek Well Pad Survey, McKenzie Co., ND	1190
1980	Tate, M.		McKenzie Co., Grazing Association Pasture 5, Allotment 5 Pipeline Survey, McKenzie Co., ND	1217
1980	Tate, M.		Mon-Dak Disposal Co. Pipeline Survey, McKenzie Co., ND	1233
1980	Tate, M.		Pennzoil East Mondak 26-13F Well Pad & Access Route Survey, McKenzie Co., ND	1103
1980	Tate, M.		Shell Oil Company 12-1-100 Well Pad & Access Route Survey, McKenzie Co., ND	1074
1980	Tate, M.		Shell Oil Company 14-30-101 Well Pad & Access Route Survey, McKenzie Co., ND	1073
1980	Tate, M.		Shell Oil Company 21-8-58 Gas Pipeline Survey, McKenzie Co., ND	1288
1980	Tate, M.		Shell Oil Company 22-28 Access Road Survey, McKenzie Co., ND	1166
1980	Tate, M.		Shell Oil Company 24-25-11 Well Location & Access Route Survey, McKenzie Co., ND	1273
1980	Tate, M.		Shell Oil Company 33-18-123 Well Location Survey, McKenzie Co., ND	1267
1980	Tate, M.		Shell Oil Company 34-25-99 Well Pad & Access Route Survey, McKenzie Co., ND	1072
1980	Tate, M.		Shell Oil Company 34-35-98 Survey Report, McKenzie Co., ND	2326
1980	Tate, M.		Shell Oil Company 43-35 Tank Battery Survey Report, McKenzie Co., ND	2328
1980	Tate, M.		Shell Oil Company Survey of 300 ft Access Road, McKenzie Co., ND	1271
1980	Tate, M.		Shell Oil Company Survey of Short Access Road to Private Land, McKenzie Co., ND	1209
1980	Tate, M.		Shell Oil Company USA 11-27-93 Well Pad & Access Route Survey, McKenzie Co., ND	1207
1980	Tate, M.		Shell Oil Company USA 41-18-96 Well Location & Access Route Survey, McKenzie Co., ND	1212
1980	Tate, M.		Wesco Pipeline Company Crude Oil Pipeline Survey Report, McKenzie Co., ND	1151
1980	Tate, M.		Wesco Pipeline, BWAB 24-14 & 24-33, Survey Report, McKenzie Co., ND	1142
1980	Tate, M.		Wesco Survey of Pipeline Connecting Marshal Winston, #1 Spring Creek-Exeter 9-22, McKenzie Co., ND	1734
1980	Tate, M.		Wolf Headquarters Guzzler CP #08-21-80 Survey, McKenzie Co., ND	1087
1980	Zier, C.		Brownlie, Wallace, Armstrong & Bander 2-21 Allen Federal Well Pad & Access Route Survey, McKenzie Co., ND	1113
1980	Zier, C.		Brownlie, Wallace, Armstrong & Bander 2-23 Allen Federal Well Pad Survey, McKenzie Co., ND	1112
1980	Zier, C.		Shell Oil Company #12-24 Tank Battery Survey, McKenzie Co., ND	2319
1980	Zier, C.		Shell Oil Company #14-13-12 Addendum Survey Report, McKenzie Co., ND	2320
1980	Zier, C.		Shell Oil Company #14-13-21 (Addendum) Proposed Tank Battery Enlargement Survey Report, McKenzie Co., ND	1133
1980	Zier, C.	M. Tate	Shell Oil Company #22-24 Well Pad & Access Route Survey and Addendum Report, McKenzie Co., ND	1116
1981	Allen, W.		USFS Dwyer Pipeline Survey, McKenzie Co., ND	1916
1981	Allen, W.		USFS Survey of Dwyer Pipeline, McKenzie Co., ND	1914



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1981	Allen, W.		USFS Survey of Range Water Pipeline in Mon-Dak Area, McKenzie Co., ND	1910
1981	Kuehn, D.		Exeter 1-21 Skogen Fed. Well Pad Survey (UW Project No. 432), McKenzie Co., ND	2284
1981	Kuehn, D.	A. Simon	McKenzie REC Bennie Peer & Cheney Creek Electric Lines Survey, McKenzie Co., ND	2135
1981	Kuehn, D.	A. Simon	McKenzie REC Phillip Spring Electric Lines Survey, McKenzie Co., ND	2129
1981	Kuehn, D.	B. Rippeteau	Monitoring of Buford East/West Highway Project Williams County Highway Department Project Number CRS-5344(51)	5743
1981	Lahren, L.		Puma Petroleum Access Road Construction Survey, McKenzie Co., ND	2017
1981	Lahren, L.		Puma Petroleum Survey of #2-18 Paschke Well Pad & Access Road, McKenzie Co., ND	2019
1981	Lahren, L.		Schmit, Smith & Rush Engineering & Lower Yellowstone REA, Inc., Survey of Shell USA 14-5-53 Electric Service, McKenzie Co., ND	2024
1981	Lahren, L.		Schmit, Smith & Rush Engineering & Lower Yellowstone REA, Inc., Survey of Shell USA 33-22-78 Electric Service, McKenzie Co., ND	2023
1981	Lau, S.		Revised Report on the Intensive Cultural Resource Survey of the Puma 1-30 Shell Federal 120 Block Area, McKenzie Co., ND	2040
1981	Maul, D.		USFS CP #08-08-81 Mel Leland Headquarters Pipeline Survey, McKenzie Co., ND	1903
1981	Maul, D.		USFS CP# 08-01-81, Pasture 2, Allotment 2, Range Water Pipelines and Stock Tanks Survey, McKenzie Co., ND	1901
1981	Maul, D.		USFS CP# 08-03-81, P3-3 Pipeline Survey, McKenzie Co., ND	1900
1981	Maul, D.		USFS CP# 08-10-81 Pasture 5-5 Pipeline Survey, McKenzie Co., ND	1904
1981	Maul, D.		USFS Pasture 5, Allotment 3, Pipeline Survey (CP #08-05-81), McKenzie Co., ND	1905
1981	Maul, D.		USFS Pasture 5, Allotment 4, Pipeline Survey (CP #08-06-81), McKenzie Co., ND	1907
1981	Maul, D.		USFS Wolf Private Allocation, Dam Maintenance (CP #08-20-81), McKenzie Co., ND	1906
1981	Moore, G.		Cultural Resources Inventory, McKenzie Co., ND, Brownlie, Wallace, Armstrong, & Bander Federal 8-21X	2004
1981	Moore, G.		Cultural Resources Inventory, McKenzie Co., ND, Brownlie, Wallace, Armstrong, & Bander Federal 8-32	2005
1981	Moseley, C.	T. Girouard	Archaeological Report on the Getty Federal #9-14 Access Route, McKenzie Co., ND	1634
1981	Peterson, J.		Survey for Cable Plant on Fort Buford, Williams Co., ND	4044
1981	Rippeteau, B.		A Report on Shovel Testing at Three Locations Along the Proposed Shell Cheney Creek Salt Water Disposal Pipeline, McKenzie Co., ND	2347
1981	Rippeteau, B.		Addendum to Shell Oil Cheney Creek Saltwater Disposal Line: Monitoring of Area of Site 32MZ86	2349
1981	Rippeteau, B.		Coastal Oil & Gas COG/AL AQ 21-47-104 BN#2 Access Route Survey, McKenzie Co., ND	1681
1981	Rippeteau, B.		Coastal Oil & Gas #1 COG/A1 Aquitaine 21-147-104 Well Location & Access Route Survey, McKenzie Co., ND	1132
1981	Rippeteau, B.		Coastal Oil & Gas C.O.G. Al Aquitaine BN #1 Survey Report, McKenzie Co., ND	2448

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1981	Rippeteau, B.		Cultural Resource Management Report Shell 42-8, McKenzie Co., ND	1729
1981	Rippeteau, B.		Cultural Resource Management Report, Yellowstone Prospect Survey for Pennzoil Oil Company, McKenzie Co., ND	1839
1981	Rippeteau, B.		Hilliard Oil and Gas #1 Poker Jim BN Access Road Survey, McKenzie Co., ND	1788
1981	Rippeteau, B.		Hilliard Oil and Gas #1 Poker Jim BN Well Location Survey, McKenzie Co., ND	1787
1981	Rippeteau, B.		McKenzie Electric Cooperative Underground Electric Lines-Mondak Field Survey, McKenzie Co., ND	1685
1981	Rippeteau, B.		Mondak Disposal Company Survey of Disposal Pipelines, McKenzie Co., ND	1646
1981	Rippeteau, B.		Mondak Disposal Monitor of Section 5 Disposal Line, McKenzie Co., ND	1776
1981	Rippeteau, B.		Patrick Petroleum Survey of Alternate Access Route to Winter Federal 1-34, McKenzie Co., ND	1648
1981	Rippeteau, B.		Patrick Petroleum Winter Federal 1-34 Well Location & Access Route Survey, McKenzie Co., ND	1633
1981	Rippeteau, B.		Shell Oil Company 12-12-146 USA Well Location Survey, McKenzie Co., ND	1767
1981	Rippeteau, B.		Shell Oil Company 12-20 USA Well Pad Survey, McKenzie Co., ND	1649
1981	Rippeteau, B.		Shell Oil Company 12-21-143 Well Location Survey, McKenzie Co., ND	1708
1981	Rippeteau, B.		Shell Oil Company 12-25-145 USA Location Survey & Access Route, McKenzie Co., ND	1766
1981	Rippeteau, B.		Shell Oil Company 13-14-65 Access Road Survey, McKenzie Co., ND	1652
1981	Rippeteau, B.		Shell Oil Company 13-15-148 USA Block Survey, McKenzie Co., ND	1774
1981	Rippeteau, B.		Shell Oil Company 14-22-56 Flowline Survey, McKenzie Co., ND	1219
1981	Rippeteau, B.		Shell Oil Company 14-25-111 Flowline Survey, McKenzie Co., ND	1613
1981	Rippeteau, B.		Shell Oil Company 14-25-111 Flowline Survey, McKenzie Co., ND	1651
1981	Rippeteau, B.		Shell Oil Company 22-20 USA Well Location & Access Route Survey, McKenzie Co., ND	1120
1981	Rippeteau, B.		Shell Oil Company 22-24 USA Access Route Survey Report, McKenzie Co., ND	2350
1981	Rippeteau, B.		Shell Oil Company 24-9-147 USA Well Location Block Survey, McKenzie Co., ND	1715
1981	Rippeteau, B.		Shell Oil Company 32-8-153 USA Well Location & Access Route Survey, McKenzie Co., ND	1671
1981	Rippeteau, B.		Shell Oil Company 33-22-78 Flowline Survey, McKenzie Co., ND	1790
1981	Rippeteau, B.		Shell Oil Company 33-23-154 USA Survey Report, McKenzie Co., ND	2339
1981	Rippeteau, B.		Shell Oil Company 33-7BN Flowline Survey Report, McKenzie Co., ND	2342
1981	Rippeteau, B.		Shell Oil Company 34-8-152 USA Well Location & Access Route Survey, McKenzie Co., ND	1773
1981	Rippeteau, B.		Shell Oil Company 41-18-96 Flowline Survey, McKenzie Co., ND	1653
1981	Rippeteau, B.		Shell Oil Company 42-27-149 USA Well Location & Access Route Survey, McKenzie Co., ND	1710

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1981	Rippeteau, B.		Shell Oil Company 43-18-151 USA Well Location Survey, McKenzie Co., ND	1765
1981	Rippeteau, B.		Shell Oil Company 43-6-117 Flowline Survey Report, McKenzie Co., ND	2337
1981	Rippeteau, B.		Shell Oil Company 44-32-150 USA Well Location & Access Route Survey, McKenzie Co., ND	1775
1981	Rippeteau, B.		Shell Oil Company BN 33-7 Survey Report, McKenzie Co., ND	2336
1981	Rippeteau, B.		Shell Oil Company Cheney Creek Salt Water Disposal Line Survey Report, McKenzie Co., ND	2346
1981	Rippeteau, B.		Shell Oil Company Survey of 11-4-76 USA Well Location and Three Access Roads, McKenzie Co., ND	1669
1981	Rippeteau, B.		Shell Oil Company Survey of Access Road to Shell Well 22-20, McKenzie Co., ND	1678
1981	Rippeteau, B.		Shell Oil Company USA 34-20 Well Location & Access Route Survey, McKenzie Co., ND	1210
1981	Rippeteau, B.		Shell Oil Company Well Pad 34-20 Access Route Survey Report Addendum, McKenzie Co., ND	1682
1981	Rippeteau, B.		Wesco Pipeline Company Flowline-Spring Creek Survey, McKenzie Co., ND	1714
1981	Root, M.		Archeological Site Survey & Testing Along the Northern Border Pipeline, ND: Annual Progress Report, 1980, McKenzie, Mercer, Dunn, Stark, Morton, Emmons, McIntosh, & Williams Counties	2564
1981	Schneider, F.	W. Roberson	Cultural Resource Inventory of the Mondak Bridge Project, Williams & McKenzie Counties, ND	1760
1981	Sheldon, C.	A. Simon	Milestone Petroleum Federal 13-5BN Location & Access Route Survey, McKenzie Co., ND	2136
1981	Simon, A.	L. Loendorf	McKenzie Electric Cooperative, Inc., REC Line Survey, McKenzie Co., ND	1770
1981	Simon, A.	L. Loendorf	McKenzie Electric Cooperative, Inc., REC URD Lines Survey, McKenzie Co., ND	1743
1981	Stanley, L.	A. Simon	McKenzie REC Cartwright Line Survey, McKenzie Co., ND	2096
1981	Stanley, L.	A. Simon	Skyline Oil Co. Fed. Rivet 1-6 Well Location & Access Route Survey, McKenzie Co., ND	2101
1982	Allen, W.		Sample Survey of Burning Mine Butte Area for Burning Mine Butte Area Plan, McKenzie Ranger District 1982 Field Season, McKenzie Co., ND	2864
1982	Ecology & Environment, Inc.		Cultural Resource Survey of the Proposed Lateral "B" Pipeline for the ND System in McKenzie Co., ND	2532
1982	Keim, K.	V. Gnabasik et al.	The Class III Cultural Resource Inventory for the Proposed MDU Fort Buford Compressor Station, McKenzie Co., ND	2706
1982	Lahren, L.		Cultural Resource Evaluations of the Puma Cenex Federal Well Location Access Road, McKenzie Co., ND	2872
1982	Lahren, L.		Horse Creek 69 kV Transmission Line Survey Report, McKenzie Co., ND	2878
1982	Lahren, L.		Puma Petroleum 1-21 Shell Fed Well Pad & Access Route Survey, McKenzie Co., ND	2020
1982	Lahren, L.		Puma Petroleum Survey of Cenex Fed Well Pad & Access Road, McKenzie Co., ND	2018
1982	Loendorf, L.	J. Brownell et al.	Cultural Resource Survey on the Little Missouri Buttes & Adjacent Areas, Western ND & Appendix I, McKenzie, Stark, Billings & Slope Counties	2462
1982	Metcalf, M.		Coastal Oil and Gas Co., Coastal-Cantera Access Road Survey, McKenzie Co., ND	1944

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1982	Montgomery, S.	A. Simon	Shell Oil Co. Disposal Pipeline Route (PO# AWR 34005), McKenzie Co., ND	2164
1982	Rippeteau, B.		Patrick Petroleum Highland Federal 1-25 Survey Report, McKenzie Co., ND	2355
1982	Rippeteau, B.		Puma Petroleum Paschke 2-18 Survey Report, McKenzie Co., ND	2385
1982	Sheldon, C.	A. Simon	McKenzie Electric Cooperative, Inc., Squaw Gap Substation #4632 Survey, McKenzie Co., ND	2159
1982	Sheldon, C.	A. Simon	Northwestern Bell Buried Cable Line Survey in Section 29-T150N-R102W, McKenzie Co., ND	2152
1982	Simon, A.		Class III Intensive Inventory of the Proposed Shell Sheep Butte USA 31-25-155, McKenzie Co., ND	2698
1983	Floodman, M.		Marshall & Winston Spring Creek Federal 6 Survey Report, McKenzie Co., ND	2824
1983	Floodman, M.		Marshall & Winston, Inc., Spring Creek Federal #6 Survey Report, McKenzie Co., ND	2817
1983	Floodman, M.		Marshall and Winston, Inc. Spring Creek Federal #6, Flowline, McKenzie Co., ND	3046
1983	Floodman, M.		Patrick Petroleum Pluto Federal 1-24 Survey Report, McKenzie Co., ND	2830
1983	Floodman, M.		Reservation Telephone Cooperative Buried Cable Survey Report, McKenzie Co., ND	2821
1983	Floodman, M.		Shell Oil Co. Chambers 29 and 33-23-154 Salt Water Disposal Lines & 33-23-154 Gasline, McKenzie Co., ND	3056
1983	Floodman, M.		Shell Oil Company Puma (Amerada) Gasline to Puma 2-18 Battery, McKenzie Co., ND	3053
1983	Floodman, M.		Tom Brown, Inc. 20-13 Federal McKenzie Co., ND (Well & Access)	3051
1983	Floodman, M.		Tom Brown, Inc., Federal #19-42 Survey Report, McKenzie Co., ND	2825
1983	Friedman, P.		Tom Brown, Inc., Federal #19-41 Survey Report, McKenzie Co., ND	2822
1983	Gear, W.		Diamond Shamrock Holcomb Federal No. 14-17 Well Location & Access (SW/SW Section 17, T150N, R103W, McKenzie Co.,)	3325
1983	Gear, W.		Diamond Shamrock Holcomb Federal No. 23-7 Well Location & Access Road (NE/SW Section 7, T150N, R103W, McKenzie Co.,)	3328
1983	Root, M.	M. Gregg	Archeology of the Northern Border Pipeline, ND: Vol. 2, Pts. 1-3 Survey and Background Information, McIntosh, Emmons, Morton, Stark, Mercer, Dunn, McKenzie, & Williams Counties, ND	3455
1983	Simon, A.		Class III Intensive Inventory of Proposed McKenzie Co. REC Buried Cable Route	2685
1984	Allen, W.		Tom Brown Gas Pipeline, McKenzie Co., ND	3336
1984	Borchert, J.		Cultural Resources Inventory, Pennzoil Charbonn #1, McKenzie Co., ND	3604
1984	Floodman, M.		Sun Exploration & Production Company, Papineau #1, McKenzie Co., ND	3302
1984	Floodman, M.		Tom Brown Inc. Federal #20-12 Alternate, McKenzie Co., ND	3449
1984	Floodman, M.		Tom Brown, Inc. Federal 20-12, McKenzie Co., ND	3443
1984	Floodman, M.		Tom Brown, Inc., Pipeline Between Federal 19-42 & Federal 20-13, McKenzie Co., ND	3308
1984	Greer, J.	M. Greer	An Intensive Cultural Resource Survey of the Depco, Inc. Depco Federal 22-23 Well Pad, Access Road, & Rerouted Oilfield Road, McKenzie Co., ND	3793

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1984	Keim, K.	A. Simon	Class III Intensive Inventory Little Thunder Pipeline (Section 28, T151N, R102W) McKenzie Co., ND	3258
1984	Metcalf, M.		Pipeline Survey for Energy Resource Transportation, Getty Oil Company's WESCO Pipeline, McKenzie Co., ND	3766
1985	Blikre, L.		Cultural Resource Survey, Matador Pipeline Route-Phillips-Koch Gas Pipeline, Section 23, T148N, R103W, McKenzie Co., ND	3660
1985	Christensen, R.	D. Kuehn	A Cultural Resource Inventory of the Proposed Matador Pipeline Route Phillips-Koch Gas Pipeline in Sections 23, 26, 27, 33 & 34, T148N, R103W, McKenzie Co., ND	3866
1985	Dowdy, K.		Cultural Resource Inventory of the Mule Creek Federal 1-18, McKenzie Co., ND & Addendum.	3659
1985	Floodman, M.		Meridian Oil Company 41-12 Federal Pierre, McKenzie Co., ND	3923
1985	Kuehn, D.		A Class II Cultural Resource Reconnaissance Inventory of Turtle Mountain Indian Reservation Trust Lands in Williams & Divide Counties, ND	3903
1986	Floodman, M.		Broschat Engineering & Management Service Louisiana Land and Exploration 1-27 Government (Alternate) McKenzie Co., ND	4038
1986	Floodman, M.		Broschat Engineering & Management Service Louisiana Land & Exploration Company 1-27 Government (re-enter) McKenzie Co., ND	3904
1986	Floodman, M.	M. Tate	ND Game & Fish Department Buford Fishing & Boating Access Facility, Williams Co., ND	3936
1986	Kuehn, D.		A Class III Cultural Resource Inventory of a Road Detour Right-of-Way Near the Fairview Railroad Bridge & Tunnel, McKenzie Co., ND	4102
1986	Kuehn, D.		A Cultural Resource Inventory of A Proposed Coastal Oil & Gas Salt Water Disposal Pipeline, McKenzie Co., ND	4069
1986	Kuehn, D.		A Cultural Resource Inventory of the Charbonneau Road (FS 13) Improvement Project, McKenzie Co., ND	4138
1986	Porsche, A.	D. Kuehn	A Cultural Resource Inventory of a McKenzie Co., Road Improvement Project and Bridge Replacement Detours, McKenzie Co., ND	4089
1987	Allen, W.		Cultural Resource Management Report for Guy Shaide Land Exchange, McKenzie Co., ND	4186
1987	Borchert, J.	T. Shaw et al.	Amended Report on A Cultural Resource Inventory of US Forest Service Land Exchange Coastal Oil Road Project McKenzie Co., ND	4296
1987	Borchert, J.		ANR Access Road Section 10, T148N, R105W McKenzie Co., ND	4397
1987	Borchert, J.	L. Loendorf	Cultural Resource Survey of Proposed Charbonneau Road Improvement Project McKenzie Co., ND	8626
1987	Floodman, M.		McCormick Resources, Inc. 14-14 Federal McKenzie Co., ND	4381
1987	Floodman, M.		Meridian Oil Company 44-13 Federal Access Road Monitor McKenzie Co., ND	4379
1987	Hill, M.		Ducks Unlimited Dogtown Project, McKenzie Co., ND	4361
1987	Hill, M.		Dwyer Pipeline, McKenzie Co., ND	4495
1987	Hill, M.		P2-A1 Spring Development, McKenzie Co., ND	4364
1987	Savini, J.		A Class III Inventory of the Meridian Oil Inc. 44-13 M.O.I. Federal Well Location McKenzie Co., ND	4298
1987	Shaw, T.	L. Loendorf	ANR Mule Creek Federal 3-18 Well Pad & Access Road Class III Cultural Resource Inventory Results, McKenzie Co., ND	4393

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1987	Shaw, T.	L. Loendorf	ANR Production Randolph USA 33-20 Well Pad Class III Cultural Resource Inventory Results, McKenzie Co., ND	4436
1987	Shaw, T.	L. Loendorf	Cultural Resource Survey Coastal Oil & Gas #1 Iszley-USA Section 1, T150N, R104W McKenzie Co., ND	4304
1987	Shaw, T.	L. Loendorf	Results of a Class III Cultural Resource Inventory of the ANR 31X-11 USA Well Pad McKenzie Co., ND	4311
1988	Blikre, L.	J. Borchert et al.	Haydraw Road Improvements McKenzie Co., ND Archaeological Survey	4524
1988	Borchert, J.		Cheney Creek Road Revised Cultural Resource Survey Results McKenzie Co., ND	4437
1988	Borchert, J.	D. Kuehn	Coastal Oil & Gas Iszley #1 to Shaide 32-1 Pipeline Cultural Resource Inventory, McKenzie Co., ND	4617
1988	Borchert, J.	D. Kuehn	Coastal Oil & Gas Saltwater Disposal and Pipeline to the 21-29 USA Cultural Resource Survey, McKenzie Co., ND	4679
1988	Borchert, J.	D. Kuehn	Meridian 43-11 Well Pad & Access Cultural Resource Survey McKenzie Co., ND	4686
1988	Borchert, J.	D. Kuehn	Meridian Access to the 31-35 HMOI Cultural Resource Inventory McKenzie Co., ND	4688
1988	Borchert, J.	K. Johnson	Two Minor Hay Draw Road Reroutes Cultural Resource Inventory McKenzie Co., ND	4573
1988	Floodman, M.		A Cultural Resources Inventory of the Proposed Northern Border Connection Pipeline McKenzie Co., ND, Vols. I & II	4724
1988	Floodman, M.		Koch Hydrocarbon Company Pipeline from the Texaco 3-10X Dore to the Sun Exploration and Production Company, #1 Langwald Wells McKenzie Co., ND	4470
1988	Floodman, M.		Strata Energy Keith Winter 1-18 Access Road McKenzie Co., ND	4696
1988	Hill, M.	H. LaPoint	A Cultural Resources Survey for the Proposed P6-A2 Pipeline Located Near the Western Terminus of Cinnamon Ridge, McKenzie Co., ND	4757
1988	Hill, M.		Horse Creek Powerline Creek Crossing McKenzie District, Little Missouri National Grassland Section 34, T150N R104W McKenzie Co., ND	4769
1988	Hill, M.		Reidle Spring Development, McKenzie Co., ND	4499
1988	Kuehn, D.		Meridian 31-7H MOI Access Road, Cultural Resource Inventory & Testing, McKenzie Co., ND	4782
1988	Moore, L.	D. Kuehn	Iszley-USA#1 Pipeline Cultural Resource Inventory, McKenzie Co., ND	4619
1989	Borchert, J.		ANR 22-34 USA Well Pad & Access Cultural Resource Inventory in McKenzie Co., ND	4806
1989	Borchert, J.		ANR 34-18 Mule Creek Federal Well Pad & Access Road Cultural Resource Inventory, McKenzie Co., ND	4807
1989	Floodman, M.		A Cultural Resources Inventory of the Proposed Northern Border Connection Pipeline, Survey of Re-Routes McKenzie Co., ND	4750
1989	Floodman, M.		Koch Hydrocarbon Company ANR Production 42-24A Gasline McKenzie Co., ND	4853
1989	Floodman, M.		Koch Hydrocarbon Company Meridian Oil Company 31-35 Gasline McKenzie Co., ND	4855
1989	Hill, M.		1-1 Water Well, McKenzie Co., ND	4971
1989	Hill, M.		11-1 Spring, McKenzie Co., ND	4974
1989	Hill, M.		1-3 Pipeline, McKenzie Co., ND	4972
1989	Hill, M.		A Cultural Resources Inventory for the Proposed Lewis Pipeline on the McKenzie Ranger District, McKenzie Co., ND	4752

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1989	Hill, M.		A Cultural Resources Survey for the Proposed Greenwood Stockwater Pipeline, McKenzie Co., ND	4759
1989	Hill, M.		Horse Creek Spring, McKenzie Co., ND	4994
1989	Hill, M.		Mule Creek Well, McKenzie Co., ND	5009
1989	LaPoint, H.		Hallick Diversion, McKenzie Co., ND	4989
1989	LaPoint, H.		Madison Headquarters Well, McKenzie Co., ND	5004
1989	Oliver, T.	J. Borchert	ANR 22-23 USA Well Pad & Access Class III Cultural Resource Inventory McKenzie Co., ND	4805
1989	Rood, R.		Meridian 32-25, McKenzie Co., ND	4919
1989	Wermers, G.	J. Borchert	ANR Production 24-34 USA Well Pad & Access Class III Cultural Resource Inventory McKenzie Co., ND	4808
1990	Borchert, J.		Addendum to Meridian Oil's 11-26H Bicentennial Federal Well Pad & Access McKenzie Co., ND	5262
1990	Burbidge, G.	J. Borchert	McKenzie Co., Road's Charbonneau Improvement McKenzie Co., ND	4958
1990	Burbidge, G.	J. Borchert	Meridian Oil's Federal 41-11H Well Pad & Access Road McKenzie Co., ND	4964
1990	Christensen, R.	K. Schweigert	Archaeological Inventory of McKenzie Electric Cooperative Pole Replacement in Dunn & McKenzie Counties, ND	4846
1990	Floodman, M.		Burns Land Exchange McKenzie District, Little Missouri National Grasslands Section 21 T149N R104W McKenzie Co., ND	5239
1990	Floodman, M.		Dwyer Allotment Improvements McKenzie District, Little Missouri National Grasslands Sections 4 & 5 T147N R104W & Section 33 T148N R104W McKenzie Co., ND	5243
1990	Floodman, M.		Dwyer Pasture 3, Allotment 3 Pipeline & Tank McKenzie District, Little Missouri National Grasslands Section 31 T148N R103W & Section 06 T147N R103W McKenzie Co., ND	5244
1990	Floodman, M.		FDR 847 Road Improvement McKenzie District, Little Missouri National Grasslands Sections 13, 23, & 24 T150N R104W & Section 18 T150N R103W McKenzie Co., ND	5245
1990	Floodman, M.		Jacobsen Headquarters Range Water Pipeline McKenzie District, Little Missouri National Grasslands Sections 13 & 24 T150N R103W McKenzie Co., ND	5172
1990	Floodman, M.		Lewis Headquarters Driveway Access McKenzie District, Little Missouri National Grasslands Section 23 T147N R103W McKenzie Co., ND	5246
1990	Floodman, M.		McKenzie Co., Gravel Stockpile Locations McKenzie District, Little Missouri National Grasslands Section 24, T147N, R105W and Section 11, T145N, R105W McKenzie Co., ND	5366
1990	Floodman, M.		Pasture 11-A1 Range Water Project McKenzie District, Little Missouri National Grasslands Sections 15,19,20,21,22,28,29 T148N R102W and Section 24 T148N R103W McKenzie Co., ND	5030
1990	Floodman, M.		Pasture 2 Allotment 1 Amendment Improvements McKenzie District, Little Missouri National Grasslands Sections 10 & 15 T148N R103W McKenzie Co., ND	5179
1990	Floodman, M.		Pasture 5-5, Range Water Pipeline, CP#08-01-89, McKenzie Co., ND	5013
1990	Floodman, M.		Roedeske Pasture 1-4 Tank Location McKenzie District, Little Missouri National Grasslands Section 15 T149N R104W McKenzie Co., ND	5251
1990	Floodman, M.		Three Small Range Water Projects in Pasture 5. McKenzie District, Little Missouri National Grasslands Section 1 T145N R105W & Sections 5, 6 T145N R104W McKenzie Co., ND	5078

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1990	Klinner, D.	J. Borchert	Koch Hydrocarbons Connecting Pipeline For the Meridian 32-25 HMOI & the Coastal ANR 42-24 Well Pads, McKenzie Co., ND	5349
1990	McCarthy, M.		McKenzie County Land Adjustment Survey A Class III Cultural Resource Inventory of 40.00 Acres of Public Land	5196
1990	McCarthy, M.		McKenzie Co., Land Adjustment Survey: A Class III Cultural Resource Survey on One Isolated Tract of Public Land	5195
1990	McCarthy, M.		Two Lots in McKenzie Co., ND, A Class III Cultural Resource Inventory	5201
1990	Nowak, T.		An Archeological Assessment of Fort Buford, Williams Co., & Fort Seward, Stutsman Co., Historic Sites, ND	5703
1990	Oliver, T.	L. Peterson et al.	Class III Cultural Resource Inventory of the Proposed Meridian Road Construction in McKenzie Co., ND	5352
1990	Olson, B.		Marshall and Winston Federal 13-1 H Well Location & Access Road, McKenzie Co., ND	5092
1990	Olson, B.		Tom Brown, Inc. Federal 19-42 Gathering Line, Cultural Resources Inventory - McKenzie Co., ND	5428
1990	Peterson, L.	J. Borchert	A Class III Cultural Resource Inventory For a Road Improvement Project in Sections 6 & 7 T149N, R104W, McKenzie Co., ND	5266
1990	Peterson, L.	J. Borchert	Meridian Oil's 11-26H Bicentennial Federal Well Pad and Access McKenzie Co., ND	5141
1990	Wenker, C.	J. Borchert	A Class III Cultural Resource Inventory of 3.8 Miles of Proposed Road Improvements Near Cartwright, McKenzie Co., ND	5267
1990	Wermers, G.	J. Borchert	Coastal Oil and Gas Corp. 1X-18 SWD Pipeline Class III Cultural Resource Inventory McKenzie Co., ND & Addendum to Coastal Oil & Gas Corp. 1X-18 SWD Pipeline	5269
1991	Borchert, J.		N. D. Highway Project No. F-5-085( )026( )102 Schriock Construction Cultural Resource Inventory, McKenzie Co., ND	5543
1991	Floodman, M.		Alexander Road Project, McKenzie District, Little Missouri National Grasslands Section 9, T150N, R102W, McKenzie Co., ND	5478
1991	Floodman, M.		Dodge Windmill and Powerline McKenzie District, Little Missouri National Grasslands Section 2, T148N, R105W McKenzie Co., ND	5525
1991	Floodman, M.		Greenwood Pasture 2-3 Tank Location McKenzie District, Little Missouri National Grasslands, Section 23, T148N R103W, McKenzie Co., ND	5528
1991	Floodman, M.		McKenzie Co., Road Project No. CP-8532 McKenzie District, Little Missouri National Grasslands Section 32, T145N R104W McKenzie Co., ND	5531
1991	Floodman, M.		Pasture 1-1 Range Water Project McKenzie District, Little Missouri Grasslands Sections 5, 6, 7, 8 T150N, R103W McKenzie Co., ND	5479
1991	Floodman, M.		Pasture 1-3 Storage Facility McKenzie District, Little Missouri National Grasslands Section 28, T150N, R103W McKenzie Co., ND	5534
1991	Floodman, M.		Pasture 1-4 Temporary Tank Locations Sections 4, 9, 23, T149N, R103W McKenzie District, Little Missouri National Grasslands McKenzie Co., ND	5480
1991	Floodman, M.		Pasture 4-1 Range Water Projects McKenzie District, Little Missouri National Grasslands, Section 1, T147N, R103W & Sections 6, 7, T147N, R102W McKenzie Co., ND	5482



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1991	Floodman, M.		Pasture 5-3 Pipeline Extension McKenzie District, Little Missouri National Grasslands Sections 26 & 35, T146N, R105W, McKenzie Co., ND	5484
1991	Floodman, M.		Pasture 5-6 Range Water Project McKenzie District, Little Missouri National Grasslands Section 31, T147N, R103W, McKenzie Co., ND	5486
1991	Floodman, M.		Pasture 5-A5 Storage Tank McKenzie District, Little Missouri National Grasslands, Section 24, T145N, R104W and Section 19, T145N, R103W McKenzie Co., ND	5485
1991	Floodman, M.		Quinnell Headquarters Pipeline & Tank McKenzie District, Little Missouri National Grasslands Section 20, T146N, R103W McKenzie Co., ND	5491
1991	Floodman, M.		Roedeske Pasture 2-4 Range Improvements McKenzie District, Little Missouri National Grasslands Section 5, T148N, R104W, McKenzie Co., ND	5492
1991	Olson, B.		A Cultural Resource Inventory of the Proposed Section 14 Reroute Northern Border Connection Pipeline McKenzie Co., ND	5557
1991	Olson, B.		Cultural Resource Inventory of the Proposed McKenzie Gas Plant to Fort Buford Compressor Station Northern Border Connection Pipeline McKenzie Co., ND	5556
1991	Olson, B.		Koch Hydrocarbon Company, Northern Border Connection Pipeline (Additional Cultural Resources Inventory) McKenzie Co., ND	5423
1991	Olson, B.		Koch Hydrocarbon Company, Northern Border Connection Pipeline Route through 32MZ938 & Adjacent to 32MZ937, Cultural Resources Inventory - McKenzie Co., ND	5424
1991	Olson, B.		Koch Industries, Inc. AFE 39999 10-inch Natural Gas Pipeline; Northern Border Connection Pipeline Reroute Cultural Resources Inventory McKenzie Co., ND	5628
1991	Olson, B.		McKenzie Electric Cooperative, Inc. Overhead Powerline Cultural Resources Inventory McKenzie Co., ND	5425
1991	Peterson, L.		Addendum to Koch Hydrocarbon Pipeline #368, A Cultural Resource Inventory of the NENWNW of Sec 16 & SESWSW of Sec 9, T150N, R104W, McKenzie Co.,	5617
1991	Peterson, L.	J. Borchert	Koch Hydrocarbon Pipeline 368 a Cultural Resource Inventory of the NENWNW Of Section 16 & SESWSW Of Section 9 T150N R104W McKenzie Co., ND (Bureau of Reclamation #LY-91-51)	6612
1992	Christensen, R.		Yellowstone River Crossing, McKenzie Co.: Class III Cultural Resource Inventory of Areas Adjacent to the Yellowstone River bridge on ND Highway 200 BRF-7-200(002)003	5687
1992	Floodman, M.		Burns Pasture 2-2 Rangewater Pipeline & Tank McKenzie District, Little Missouri national Grasslands Section 2 & 11 T148N, R105W, McKenzie Co., ND	5752
1992	Floodman, M.		Ducks Unlimited Dam Project McKenzie District, Little Missouri National Grasslands Section 23 T146N R104W McKenzie Co., ND	5867
1992	Floodman, M.		Dwyer Allotment Range Water Projects McKenzie District, Little Missouri National Grasslands Section 10 T147N R104W McKenzie Co., ND	5755
1992	Floodman, M.		Folkvord Allotment Pipeline & Tank McKenzie District, Little Missouri National Grasslands Section 5 T145N, R104W McKenzie Co., ND	5756
1992	Floodman, M.		Greenwood Pasture 2-3 Pipeline Projects McKenzie District, Little Missouri National Grasslands Section 7 & 27 T148N, R103W McKenzie Co., ND	5868

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1992	Floodman, M.		Hall Headquarters Pipeline McKenzie District, Little Missouri National Grasslands Section 15, T146N R104W McKenzie Co., ND	5869
1992	Floodman, M.		Horse Creek School Small Tract Sale McKenzie District, Little Missouri National Grasslands Section 31 & 32 T149N R103W McKenzie Co., ND	5890
1992	Floodman, M.		Madison Allotment Pipeline & Tank McKenzie District, Little Missouri National Grasslands Section 33 & 34 T147N, R103W McKenzie Co., ND	5757
1992	Floodman, M.		Madison Allotment Rangelwater Project McKenzie District, Little Missouri National Grasslands Section 7 & 18, T145N R104W McKenzie Co., ND	5758
1992	Floodman, M.		Metcalf Allotment Range Water Pipeline & Tank McKenzie District, Little Missouri National Grasslands Section 15 & 22 T145N R105W McKenzie Co., ND	5760
1992	Floodman, M.		Pasture 4-1 Pipeline and Tank McKenzie District, Little Missouri National Grasslands Section 35 & 36 T148N R102W McKenzie Co., ND	5895
1992	Floodman, M.		Pasture 4-1 Range Water Projects McKenzie District, Little Missouri National Grasslands McKenzie Co., ND	5763
1992	Floodman, M.		Three Co., Road Projects McKenzie District, Little Missouri Grasslands McKenzie Co., ND	5772
1992	Floodman, M.		Wambach Pipeline Project McKenzie District, Little Missouri National Grasslands Section 14 & 23 T148N R104W McKenzie Co., ND	5773
1992	Floodman, M.		Whited Pasture 5-3 Pipeline Extension McKenzie District, Little Missouri National Grasslands Section 26 T145N R105W McKenzie Co., ND	5873
1992	Floodman, M.		Whited Pasture 5-3 Rangelwater Project McKenzie District, Little Missouri National Grasslands Section 25 & 26 T145N R105W & Section 30 T145N R104W McKenzie Co., ND	5774
1992	Foster, J.		Des Lacs Sand & Gravel Pit and Alternate Location, McKenzie Co., Class III Cultural Resource Inventory	5727
1992	Johnson, L.	M. Hufstetler et al.	Historic Bridges in North Dakota	5920
1992	Kinney, J.	T. Larson et al.	Results of the 1991-1992 Class III Cultural Resource Inventory of Selected Bureau of Land Management Tracts, Divide, McHenry, Williams, Pierce, McKenzie, Ward, Benson, Grant, Sheridan, & McLean Counties, ND, Vols. I & II	5904
1992	Loendorf, L.	J. Borchert	Wallace Hall Fenceline Change in Pasture 5, Allotment 4, McKenzie Co., Class III Cultural Resource Inventory	5912
1992	Tate, M.		RTC Koch One-O-One Line McKenzie Co., ND	5862
1992	Wermers, G.	J. Borchert	McKenzie Electric Coop. Inc. Buried Cable Line Class III Cultural Resource Inventory Section 18, 19, 20 T150N, R103W & Section 13, 24 T150N R104W McKenzie Co., ND	5886
1993	Blikre, L.		Conoco Bicentennial 5-145-104 Class III Cultural Resource Inventory McKenzie Co., ND	6021
1993	Blikre, L.		Conoco Bicentennial 6-145-104 Class III Cultural Resource Inventory McKenzie Co., ND	6022
1993	Blikre, L.		Conoco Inc. Mondak 17-147-104 Well Pad & Access, McKenzie Co., Class III Cultural Resource Inventory	6026
1993	Blikre, L.		Conoco Inc. Mondak 21-147-104 Well Pad & Access, McKenzie Co., Class III Cultural Resource Inventory	6027
1993	Blikre, L.		Conoco Inc. Pierre Creek Federal Well Pad, McKenzie Co., Class III Cultural Resource Inventory	6028

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1993	Blikre, L.		Conoco Poker Jim #2 Access Reroute, McKenzie Co., Class III Cultural Resource Inventory	6103
1993	Blikre, L.		Conoco Poker Jim #2 State Land Access, McKenzie Co., Class III Cultural Resource Inventory	6104
1993	Blikre, L.	J. Borchert	Conoco Poker Jim #2, McKenzie Co., Class III Cultural Resource Inventory	6041
1993	Blikre, L.	J. Borchert	Conoco Poker Jim #4, McKenzie Co., Class III Cultural Resource Inventory	6042
1993	Blikre, L.		Reservation Telephone Cooperative Cable Replacement, McKenzie Co., Class III Cultural Resource Inventory	6109
1993	Borchert, J.		Conoco Inc. Poker Jim #5 Well Pad & Access Road, McKenzie Co., Class III Cultural Resource Inventory	6048
1993	Borchert, J.		Meridian #11-5 MOI Poker Jim Well Pad, Access Road & Pipeline, McKenzie Co., Class III Cultural Resource Inventory	6117
1993	Borchert, J.		Meridian #23-2H Bicentennial Federal Well Pad, Access Road, & Pipeline, McKenzie Co., Class III Cultural Resource Inventory	6179
1993	Borchert, J.		Meridian #41-25H MOI Bicentennial Well Pad, Access Road & Pipeline, McKenzie Co., Class III Cultural Resource Inventory	6118
1993	Borchert, J.		Meridian 13-17H MOI Poker Jim Well Pad, Access Road & Pipeline, McKenzie Co., Class III Cultural Resource Inventory	6148
1993	Floodman, M.		Leland Headquarters Pipeline Little Missouri National Grasslands, McKenzie District Section 27, T147N R104W McKenzie Co., ND	6132
1993	Floodman, M.		Madison Headquarters Pipeline Extension McKenzie District, Little Missouri National Grasslands Section 13 & 14 T145N, R105W McKenzie Co., ND	5973
1993	Floodman, M.		Minow Pipeline Little Missouri National Grasslands, McKenzie District Section 3 T146N R104W McKenzie Co., ND	6133
1993	Floodman, M.		Pasture 1-4 Rangewater Improvement Projects Little Missouri National Grasslands, McKenzie District Sections 2, 3, 4, 9, 23, 24, & 36 T149N, R103W McKenzie Co., ND	6134
1993	Floodman, M.		Tasker Pipeline Little Missouri National Grasslands, McKenzie Co., Section 26 & 35 T145N R104W McKenzie Co., ND	6136
1993	Olson, B.		Williams County Highway #5 Reconstruction Cultural Resources Inventory Williams Co., ND	6098
1993	Stine, E.		Finley Engineering/US West Communications East Sidney Exchange #33F7009: A Class III Cultural Resource Inventory McKenzie Co., ND	6094
1993	Wermers, G.	J. Borchert	Revised Meridian #12-12H Bicentennial Federal Well Pad, Access Road, & Pipeline, McKenzie Co., Class III Cultural Resource Inventory	6184
1994	Borchert, J.		Meridian Oil Inc. 14-21H MOI Poker Jim Access Road, McKenzie Co., Class III Cultural Resource Inventory	6264
1994	Floodman, M.		Kykendall Pasture 1-3 Dam Little Missouri National Grasslands, McKenzie District Sections 25 & 26 T150N R103W McKenzie Co., ND	6263
1994	Floodman, M.		Pasture 1-3 Pipeline Little Missouri National Grasslands, McKenzie District Section 13 T150N R104W McKenzie Co., ND	7193
1994	Floodman, M.		Pennington Dam Little Missouri National Grasslands, McKenzie District Section 2 T147N R105W McKenzie Co., ND	6233

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1994	Klinner, D.		Meridian Oil Inc 21-27H Federal Estes Well Pad & Access Route, McKenzie Co., Class III Cultural Resource Inventory	6363
1994	Klinner, D.		Meridian Oil Inc. 11-34H Federal Estes Well Pad & Access Road Class III Cultural Resource Inventory McKenzie Co., ND	6361
1994	Klinner, D.		Meridian Oil Inc. 23-33H Federal Estes Well Pad & Access Road Class III Cultural Resource Inventory McKenzie Co., ND	6365
1994	Klinner, D.		Meridian Oil Inc. 31-34H Federal Estes Well Pad & Access Road Class III Cultural Resource Inventory McKenzie Co., ND	6366
1994	Klinner, D.		Meridian Oil Inc. Proposed Alternate Access Route: A Class III Cultural Resource Inventory McKenzie Co., ND	6372
1994	Kulevsky, A.		Meridian Oil's #33-27H Federal Estes Well Pad & Access Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	6385
1994	Kulevsky, A.		Meridian Oil's Relocated #33-27H Federal Estes Well Pad: A Class III Cultural Resource Inventory in McKenzie Co., ND	6386
1995	Borchert, J.		Hwy 1804 from 4400' E of the Marley Crossing to the Montana Border, Williams Co., Class III Cultural Resource Inventory	6578
1995	Floodman, M.		McKenzie Electric Underground Powerline McKenzie District, Little Missouri National Grasslands McKenzie Co., ND	6555
1995	Floodman, M.		Minow Headquarters Pipeline Little Missouri National Grasslands, McKenzie District, McKenzie Co., ND	6556
1995	Floodman, M.		Pasture 4-1 Range Water Pipeline Projects McKenzie District, Little Missouri National Grasslands McKenzie Co., ND	6558
1995	Klinner, D.		McKenzie Co., Road Improvement, Federal Aid Project Number FHO-8-1(02): Results of the Class III Cultural Resources Inventory, McKenzie Co., ND	6521
1996	Klinner, D.		Surveys of Two Borrow Areas & One Fill Area near Fairview, Montana for the Yellowstone River Bridge Project, McKenzie Co., ND	6802
1996	Newberry, G.		Prairie Petroleum, Inc. Federal 11-1 Well Location & Access Road Cultural Resources Inventory McKenzie Co., ND	6812
1996	Newberry, G.		Prairie Petroleum, Inc. Federal 14-1 Well Location & Access Road Cultural Resources Inventory McKenzie Co., ND	6811
1996	Olson, B.		Intoil Federal 14-9 Cultural Resource Inventory Report, McKenzie Co., ND	6696
1996	Olson, B.		Intoil Federal 31-17 Revised Well Location & Access Road Cultural Resource Inventory Report McKenzie Co., ND	6697
1996	Olson, B.		Prairie Petroleum, Inc. Revised Federal 14-1 Well Location & Access Road Cultural Resources Inventory McKenzie Co., ND	6809
1996	Pool, K.		Meridian Oil's Cinnamon Creek 3D Seismic Project: A Cultural Resource Inventory of Selected Portions, McKenzie and Golden Valley Counties, ND	6858
1996	Scott, J.		Reliable Exploration Inc.'s MONDAK 3D Seismic Project: A Cultural Resource Inventory, McKenzie Co., ND	6866
1997	Floodman, M.		1977 USDA Forest Service, Custer National Forest Negative Survey Reports in Golden Valley, Billings, Slope, & McKenzie Counties, ND	7141
1997	Klinner, D.		Flying J Oil & Gas Inc. Federal 9-5 Adam Prospect Well Pad & Access Road in McKenzie Co., ND	6897

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1997	Klinner, D.		McKenzie County Bridge Replacement Project in Section 31, T151N, R103W: Results of a Class III Cultural Resources Inventory	6884
1997	Klinner, D.		McKenzie County Bridge Replacement Project in Section 32, T151N, R102W: Structure Number 27-114-20.0	7088
1997	Klinner, D.		Westport Oil & Gas Company Inc. Squaw Gap Federal #14-20H Well Pad & Access Road in McKenzie Co., ND	7042
1997	Klinner, D.		Westport Oil & Gas Company Inc. Squaw Gap Federal #14-29H Well Pad in McKenzie Co., ND	7037
1997	Klinner, D.		Westport Oil & Gas Company Inc. Squaw Gap Federal #44-30 Well Pad & Access Road in McKenzie Co., ND	7038
1997	Newberry, G.		Upton Resources, Inc. Tracy Mountain Federal #10-4 Well Location & Access Road, Billings Co., ND: A Cultural Resources Inventory	7075
1997	Newberry, G.		Upton Resources, Inc. Tracy Mountain Federal #3-9 Well Location & Access Road, Billings Co., ND: A Cultural Resources Inventory	7072
1997	Newberry, G.		Upton Resources, Inc. Tracy Mountain Federal #5-2 Well Location & Access Road, Billings Co., ND: A Cultural Resources Inventory	7073
1997	Newberry, G.		Upton Resources, Inc. Tracy Mountain Federal #7-3 Well Location & Access Road, Billings Co., ND: A Cultural Resources Inventory	7074
1997	Wermers, G.		Choctaw II Oil and Gas, LTD. Federal 1-11 Well Pad & Access Road in McKenzie Co., ND	6942
1997	Wermers, G.		McKenzie Co., Bridge Replacement Project in Sections 25 and 26, T145N, R105W: Structure Number 27-103-55.0	7207
1997	Wermers, G.		Reliable Exploration, Inc. Seismic Line Survey in Section 11, T148N, R103W, McKenzie Co., ND	7095
1997	Wermers, G.		Reliable Exploration, Inc. Seismic Line Survey, McKenzie Co., ND: Results of a Class III Cultural Resources Inventory	6982
1998	Klinner, D.		Continental Resources, Inc. Adam 1-26F, Collins 1-27F, and Ben 1-28F Well Pads in Bowman Co., ND	7120
1998	Klinner, D.		Fort Union Trading Post National Historic Site-Survey of 64 Acres in Williams Co., ND	7288
1998	Klinner, D.		McKenzie County Bridge Replacement & Road Improvement, Structure No. 27-101-28.0	7583
1998	Klinner, D.		Reliable Exploration, Inc. Panterra-MonDak 3D Seismic Line in McKenzie Co., ND	7205
1998	Olson, B.		Bear Paw Energy, Flying J Federal 9-5 Pipeline McKenzie Co., ND: A Class III Cultural Resources Inventory	7259
1998	Wermers, G.		Burlington Resources, Inc. Well Pad Access Road in Bowman Co., ND	7118
1998	Wermers, G.		Continental Resources, Inc. Well Pad Access Road in Bowman Co., ND	7119
1999	Floodman, M.		McKenzie District Well Plugging FY 1999 in McKenzie Co, ND	7377
1999	Floodman, M.		USDA Forest Service Dakota Prairie Grasslands Report: Rough Creek Fire Complex in McKenzie Co., ND	7477
2000	Floodman, M.		McKenzie District Well Plugging FY 2000 in McKenzie Co., ND	7566
2000	Kordecki, C.	M. McCormick et al.	Lower Yellowstone Irrigation Project, 1996 & 1997 Cultural Resources Inventory, Dawson & Richland Counties, MT & McKenzie Co., ND	7714

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2000	Wermers, G.		Selected Portions of the Reliable Exploration, Inc. North Cheney 3D Seismic Line in McKenzie Co., ND	7762
2000	Wermers, G.		Trace Ventures Explorations, Inc. State Line 3-D Seismic Line in McKenzie Co., ND	7673
2001	Floodman, M.		Fiscal Year 2001 McKenzie District Abandoned Well Plugging, McKenzie Co., ND	7911
2001	Stadler, S.		Archeological Investigations for the Proposed Bodmer Overlook Parking Lot in the Mondak Townsite, WI Co., ND & MT	7894
2001	Wermers, G.		Nance Petroleum Corp. Federal 13-30 Well Pad in Section 30, T148N, R104W, McKenzie Co., ND	8131
2001	Wermers, G.		Trace Ventures Explorations, Inc. State Line 3-D Extension Seismic Line in McKenzie Co., ND	7944
2002	Floodman, M.		Dakota Prairie Grasslands FY 02 Well Plugging Projects McKenzie, Billings, Ransom and Richland Counties, ND	8210
2002	Floodman, M.		Little Missouri National Grasslands Dam Rehabilitation Projects, Billings and McKenzie Co., ND	8303
2002	Floodman, M.		Pasture 1 Allotment 3 Fence McKenzie Co., ND	8305
2002	Floodman, M.		Pasture 1 Allotment 4 Division Fence McKenzie Co., ND	8306
2002	Floodman, M.		Pasture 5 Allotment 2 East Pipeline Replacement, McKenzie Co., ND	8213
2002	Floodman, M.		Pasture 6-A1 Pipeline Replacement, McKenzie Co., ND	8214
2002	Klinner, D.		Fort Buford State Historic Site-Results of a Survey for the Proposed Confluence Area Interpretive Center, Williams Co., ND	8097
2002	Meidinger, B.	J. Morrison	Sidney-Cartwright Pipeline: A Class III Cultural Resource Inventory, McKenzie Co., ND	8349
2002	Picha, P.		Archeological Monitoring of the Yellowstone-Missouri Confluence Interpretive Center & Parking Lot Near Fort Buford State Historic Site, Williams Co., ND	8252
2002	Schneider, E.		A Class III Cultural Resource Inventory for the Headington Oil Company, L.P. Bennie Peer 3-D Seismic Project, McKenzie Co., ND	8177
2002	Wermers, G.		Fort Union Trading Post National Historic Site, 23 Acre Parcel, McKenzie Co., ND & Richland Co., MT: Class III Inventory Results	8401
2003	Bluemle, W.		Fort Buford and Fort Union Shared Use Bike Paths: An Intensive Cultural Resource in Williams Co., ND	8638
2003	Bluemle, W.		Monitoring on the Multi-Purpose Path at Fort Buford & Fort Union, WI Co., ND	8694
2003	Floodman, M.		Bridge Replacement, McKenzie Co., ND	8613
2003	Floodman, M.		McKenzie District Livestock Dam Rehabilitation McKenzie Co., ND	8484
2003	Floodman, M.		McKenzie Ranger District FY 2003 Well Plugging McKenzie Co., ND	8467
2003	Floodman, M.		Metcalf Pasture 5 Allotment 7 Range Water Pipeline McKenzie Co., ND	8468
2003	Floodman, M.		Pasture 1 Allotment 3 Range Water Pipeline Replacement McKenzie Co., ND	8469
2003	Floodman, M.		Pasture 2 Allotment 4 Range Water Pipeline McKenzie Co., ND	8470
2003	Floodman, M.		Pasture 2 Allotments 2 & 4 Range Water Pipeline McKenzie Co., ND	8471
2003	Scott, D.		Utility Trench Monitoring Along the West & North Walls, Fort Union Trading Post National Historic Site, Williams Co., ND	8651
2003	Wermers, G.		Headington Oil Co. Federal 23X-3 Well Pad & Access Road/Utility Corridor, McKenzie Co., ND	8633

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2004	Floodman, M.		Abandoned Well Plugging in FY 2004, Slope, Golden Valley & McKenzie Counties, ND	8831
2004	Floodman, M.		Chicken Creek Exclosure Project, McKenzie Co., ND	8947
2004	Floodman, M.		Paul Headquarters Tank Project, McKenzie Co., ND	8948
2004	Floodman, M.		Quinnel Pipeline Project, McKenzie Co., ND	8949
2004	Floodman, M.		Tescher Replacement Pipeline Project, McKenzie Co., ND	8832
2004	Floodman, M.		Wambach Replacement Pipeline Project, McKenzie Co., ND	8833
2004	Hertaus, J.	G. Wermers	Zinke & Trumbo, Inc. Robinson #1-17H Mantle #1-21H, and Killebrew #1-28H Well Pads & Access Roads in McKenzie Co., ND	8776
2004	Morrison, J.		Killebrew #1-28H Trunkline: A Class III Cultural Resource Inventory in McKenzie Co., ND	8955
2004	Morrison, J.		McKenzie Electric Cooperative's Banks 1-18H Powerline: A Class III Cultural Resource Inventory, McKenzie Co., ND	8988
2004	Wermers, G.		Addendum to: Zinke & Trumbo, Inc. Robinson #1-17H, Mantle #1-21H, & Killebrew #1-28H Well Pads & Access Roads in McKenzie Co., ND	8828
2004	Wermers, G.		Addendum to: Zinke & Trumbo, Inc. McGuire #1-27H Well Pad & Access Road Project in McKenzie Co., ND	8887
2004	Wermers, G.		Zinke & Trumbo, Inc. Jackson #1-29H & Mays #1-20H Well Pads & Access Roads in McKenzie Co., ND	8885
2004	Wermers, G.	J. Hertaus	Zinke & Trumbo, Inc. McGuire #1-27H Well Pad & Access Road Project in McKenzie Co., ND	8829
2004	Wermers, G.		Zinke & Trumbo, Inc. Ott #1-13H, Gehrig #1-24H, McCovey #1-30H, & Yastrzemski #1-25H Well Pads & Access Roads in McKenzie Co., ND	8886
2004	Wermers, G.		Fort Union Trading Post National Historic Site, 20 Acre Parcel, Williams Co., ND: Class III Inventory Results	8900
2005	Bleier, A.		Federal Debbie 43-20H: A Class III Cultural Resource Inventory in McKenzie Co., ND	9272
2005	Bleier, A.		Summit's SG Federal 1-27H: A Class III Cultural Resource Inventory in McKenzie Co., ND	9369
2005	Bluemle, W.		BR Federal Amy 14-8H: A Class III Pedestrian Survey in McKenzie Co., ND	9118
2005	Bluemle, W.		BR Federal Angie 11-13H: A Class III Pedestrian Survey in McKenzie Co., ND	9145
2005	Boughton, J.		A Class III Inventory of a 13.8 Mile Segment of Highway 200 for Flattening & Ditch Slope Repair, McKenzie Co., ND	9381
2005	Floodman, M.		Chicken Creek Watershed Project Phase II McKenzie Co., ND	9373
2005	Floodman, M.		McKenzie District Well Plugging FY 2005, McKenzie Co., ND	9158
2005	Floodman, M.		Pasture 1 Allotment 3 Replacement Tanks, McKenzie Co., ND	9301
2005	Floodman, M.		Pasture 2 Allotment 5 Division Fence, McKenzie Co., ND	9274
2005	Heiner, P.		Addendum to MonDak Federal 4-1H Well Pad & Access Road: A Class III Cultural Resource Inventory McKenzie Co., ND	9438
2005	Heiner, P.		Bay Creek #11-4H Well Pads & Access Roads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9385
2005	Heiner, P.	J. Morrison	Bench to Ripken Pipeline: A Class III Cultural Resource Inventory, McKenzie Co., ND	9492
2005	Heiner, P.	J. Morrison	Cummings Draw 44-6H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9382

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2005	Heiner, P.		Kodiak Federal 4-11H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9404
2005	Heiner, P.		MonDak Federal #4-1H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9343
2005	Heiner, P.		MonDak Federal 16-12H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9475
2005	Heiner, P.		MonDak Federal 16-7H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9477
2005	Heiner, P.		MonDak Federal 3-13H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9383
2005	Heiner, P.		MonDak Federal 4-17H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9476
2005	Heiner, P.		Reservation Telephone Cooperative Phone Cable Replacement: A Class III Cultural Resource Inventory, McKenzie Co., ND & Addendum	9494
2005	Heiner, P.		Slawson Exploration Company's Federal I-19H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9524
2005	Heiner, P.		Slawson Exploration Company's Maverick Federal I-23H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9525
2005	Hiemstra, D.		Lyc0 Energy's 32-14-H Well Pad & Access Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	9512
2005	Hiemstra, D.		SG Federal 2-34H: A Class III Cultural Resource Pedestrian Inventory in McKenzie Co., ND	9338
2005	Klinner, D.		Bay Creek 11-5H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9384
2005	Klinner, D.		Bench 1-5H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9157
2005	Klinner, D.		Bridge 27-115-27.0 Replacement Project: A Class III Cultural Resource Inventory, McKenzie Co., ND	9285
2005	Klinner, D.	P. Heiner	Cabin Creek to Williston Pipeline Replacement: A Class III Cultural Resource Inventory, McKenzie Co., ND	9466
2005	Klinner, D.		Flat Rock Butte 20-1H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9165
2005	Klinner, D.		Fort Buford Compressor Station & Pipe Storage Area for the Cabin Creek to Williston Pipeline Replacement Project: A Class III Cultural Resource Inventory, McKenzie Co., ND	9286
2005	Klinner, D.		Gonzales 1-8H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9128
2005	Klinner, D.		Hatter 11x-34 Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9505
2005	Klinner, D.		Kingman 1-12H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9139
2005	Klinner, D.		McKenzie Co., Road 13: A Class III Cultural Resource Inventory, McKenzie Co., ND	9344
2005	Klinner, D.		McKenzie Federal 14x-31 Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9287
2005	Klinner, D.		MonDak Federal 4-18H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9403
2005	Klinner, D.		Nettles 1-4H Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9129
2005	Klinner, D.		Petro Hunt USA 6B-2-1H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9258



Year	First Author	Second Author	Title	Ms #
2005	Klinner, D.		Revised Ripken Jr. 1-7H Well Pad & Access Road Location: A Class III Cultural Resource Inventory, McKenzie Co., ND	9288
2005	Klinner, D.		State Federal 44x-16 Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9504
2005	Klinner, D.		Stiletto Federal I-29H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9515
2005	Morrison, J.		Carter 1-9H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9120
2005	Morrison, J.		Charbonneau Creek Projects: Flowlines, Well Pads, & Access Roads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9105
2005	Morrison, J.		Southern Charbonneau Creek Pipeline: A Class III Cultural Resource Inventory, McKenzie Co., ND	9345
2005	Springer, K.		The 05-033-045 Spring Development Project Cultural Resources Inventory, Golden Valley Co., ND	9538
2005	Springer, K.		The 05-053-012 Wetland Restoration Project Cultural Resources Inventory, McKenzie Co., ND	9334
2005	Stine, E.		Burlington's Federal Debbie 44-20H: A Class III Cultural Resource Inventory in McKenzie Co., ND	9269
2005	Stine, E.		Federal Debbie 31-32H: A Class III Cultural Resource Inventory in McKenzie Co., ND	9268
2005	Stine, E.	D. Hiemstra et al.	Plains Pipeline Trenton Loop: A Class III Cultural Resource Inventory in Williams & McKenzie Co., ND and Addendums B and C and D	9237
2005	Stine, E.		Summit's Gap Federal 3-8H Well Pad & Access Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	9463
2005	Stine, E.		Summit's Gap State 4-36H Well Pad & Access Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	9065
2006	Bleier, A.		Safely Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	9717
2006	Floodman, M.		Mule Creek Road Reconstruction, McKenzie Co., ND	9639
2006	Floodman, M.		Pasture 1-4 Distribution Annex Pipeline, McKenzie Co., ND	9731
2006	Harty, J.	S. Heiner	Cash 1-10H Well Pad & Access Road: A Class III Cultural Resource Inventory in McKenzie Co., ND	9880
2006	Harty, J.		Stringray Federal 1-32H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9853
2006	Heiner, P.	S. Heiner	Cepeda 1-11 H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9879
2006	Heiner, S.	P. Heiner	Cameron 1 Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9761
2006	Heiner, S.	B. Nodland et al.	Stargell 1-34H Revised Well Pad & Access Road Reroute: A Class III Cultural Resource Inventory, McKenzie Co., ND	9760
2006	Klinner, D.		44-2H McPeak Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9658
2006	Klinner, D.		BLM Menelaus 34-10H & BLM Menelaus 34-10H Alternate Well Pads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9861
2006	Klinner, D.		Colavito 1-27H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9905
2006	Klinner, D.	P. Heiner	Grizzly Federal 1-27H Well Pad & Access Roads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9728
2006	Klinner, D.		Kalos 1H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9711

Year	First Author	Second Author	Title	Ms #
2006	Klinner, D.		Mule Creek Pipeline: A Class III Cultural Resource Inventory, McKenzie Co., ND	9851
2006	Klinner, D.		Murray 1-26H Alternate Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9924
2006	Klinner, D.		South Yellowstone 5-7H Well Pad & Access Roads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9897
2006	Klinner, D.		Tracy Federal 44x-4 Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9594
2006	Klinner, D.		Zenergy Small Block Area: A Class III Cultural Resource Inventory, McKenzie Co., ND	9627
2006	Morrison, J.		Alternate Hodges 1-1H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9560
2006	Morrison, J.		Catapult Federal 1-19H Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9591
2006	Morrison, J.		Hodges 1-1H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9592
2006	Morrison, J.		Maverick Federal 1-14H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	9590
2006	Morrison, J.		Zenergy Inc., Wells & Access Roads: Murray 1-26H, Gaetti 1-33H, Stargell 1-34H, Fisk 1-35H, & Colavito 1-27H: A Class III Cultural Resource Inventory, McKenzie Co., ND	9629
2007	Burns, C.		Johnson-Pvt. Potts #6-5H Well Pad Survey, McKenzie Co., ND: A Class III Cultural Resource Inventory	10009
2007	Burns, W.		Langwald - Pvt. LePage #30-29H Well Pad Survey, McKenzie Co.: A Class III Cultural Resource Inventory	10010
2007	Floodman, M.		Pasture 1-3 Pipeline Replacement McKenzie Co., ND	10072
2007	Floodman, M.		Pasture 2 Allotment 5 Pipeline Replacement McKenzie Co., ND	10073
2007	Harty, J.		Fisk 1-35H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	10045
2007	Harty, J.	D. Klinner	Ice Box Inventory Blocks: A Class III Cultural Resource Inventory, McKenzie Co., ND	10038
2007	Heiner, P.	J. Harty	Polaris Bicentennial Oilfield Seismic Line: A Class III Cultural Resource Inventory, Golden Valley & McKenzie Co., ND	10032
2007	Hiemstra, D.		Summit's Cinnamon Creek 1-16H: A Class III Cultural Resource Survey for a Proposed Well Pad in McKenzie Co. ND	10136
2007	Hiemstra, D.		Summit's Gap 1-17H: A Class III Cultural Resource Inventory of a Proposed Well Pad in McKenzie Co. ND	10135
2007	Hiemstra, D.		Summit's Gap 1-21H: A Class III Cultural Resource Inventory for a Proposed Well Pad & Access Road in McKenzie Co. ND	10137
2007	Hiemstra, D.		Summit's Gap 1-28H: A Class III Cultural Resource Inventory for a Proposed Well Pad & Access Road in McKenzie Co. ND	10134
2007	Klinner, D.		Catapult Federal 1-30H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	10027
2007	Klinner, D.		Druillard 1-33H Well Pads: A Class III Cultural Resource Inventory, McKenzie Co., ND	9991
2007	Klinner, D.		Frazier 1-34H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	9998
2007	Klinner, D.		Mize 1-28H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	10028
2007	Klinner, D.		Pvt. Shannon 1-4H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	10031

Year	First Author	Second Author	Title	Ms #
2007	Klinner, D.		Pvt. Windsor 1-26H Well Pad & Access Road: A Class III Cultural Resource Inventory, McKenzie Co., ND	10030
2007	Klinner, D.		Pvt. Wiser 1-23H Well Pad: A Class III Cultural Resource Inventory, McKenzie Co., ND	10029
2007	Klinner, D.		September Pipeline 2006 Project: A Class III Cultural Resource Inventory, Billings & McKenzie Counties, ND	10006

### Test Excavation Projects

From the following list of testing reports (Table 13.5), it appears that less than 10% of the total number of recorded sites (n=322) in this Study Unit have been tested. Much of this work was conducted as a result of energy exploration and production developments in McKenzie County. A number of different types of sites have been investigated. Borchert et al. (1982) discuss work conducted at three cultural material scatters including the Abraxis site (32MZ333) which became the focus of further excavations. Another three sites were examined in Williams County in the township containing the Yellowstone-Missouri confluence (McDonald et al. 1982).

Excavations at 32MZ333 and 32MZ334 were carried out in 1981 revealing a Sonota/Besant cultural deposit containing the remains of several hearth features and associated artifacts. Chronometric dates obtained from this deposit cluster around 2000 BP. (Beckes and Keyser 1983:Table 3). Diagnostic artifacts from the excavations include a Besant Side-Notched projectile point (Floodman et al. 1982).

Cultural deposits dating to the Plains Village period were sampled at the Cheney Creek site (32MZ27) (McLean and Newell 1980). This is one of a few campsites of this age that have been investigated along the Upper Missouri River.

Table 13.5: Test Excavation Projects in the Yellowstone River Study Unit, 5-Sept-2007.

Year	First Author	Second Author	Title	Ms #
1980	Rippeteau, B.		Addendum Shell 22-24 Battery, Testing Report, McKenzie Co., ND	1875
1980	Rippeteau, B.		Addendum to Shell 21-15-103: Report on Limited Shovel Testing on the Proposed Well Pad, McKenzie Co., ND	1879
1980	Rippeteau, B.		Addendum to Shell 24-4: A Report on Limited Shovel Testing, McKenzie Co., ND	1871
1980	Rippeteau, B.		Brownlie, Wallace, Armstrong and Bander 12-23 Addendum Report on Limited Shovel Testing on the Proposed Well Pad, McKenzie Co., ND	2422
1980	Rippeteau, B.		Shell Oil Company 24-4 Addendum Report: A Report on Limited Shovel Testing, McKenzie Co., ND	2331
1980	Tate, M.		Addendum to Dome Petroleum Company Access to Dome 3-17: Report on Limited Shovel Testing on the Proposed Well Pad, McKenzie Co., ND	2301
1980	Tate, M.		Report on Limited Shovel Testing on the Proposed Brownlie, Wallace, Armstrong & Bander 9-41 Well Pad, McKenzie Co., ND	1224

Year	First Author	Second Author	Title	Ms #
1981	Johnson, C.	A. Simon	Archaeological Test Excavation at the Ulsaker-Indergard Site (32MZ328), McKenzie Co., ND	2470
1981	Rippeteau, B.		Shell Oil Company 34-20-108, Shovel Testing Addendum Report, McKenzie Co., ND	2338
1981	Roberson, W.		Northern Border Pipeline Historic Sites Testing Data, Morton, Dunn, McKenzie & Williams Counties, ND	2588
1981	Robeson, W.	C. Parish	Northern Border Pipeline, ND: Historic Sites Testing & Evaluation, Morton, Dunn, McKenzie & Williams Counties	2566
1981	Sheldon, C.	A. Simon	McKenzie Rural Electric Cooperative, Surface Collection & Shovel-Probe Testing at 32MZ269 & 32MZ270	1852
1982	Borchert, J.	D. Hungerford et al.	Archaeological Investigations of Sites 32MZ333, 32MZ334, & 32MZ573 McKenzie Co., ND	4507
1982	Floodman, M.	M. Tate et al.	Archaeological Investigations at Prehistoric Sites 32MZ333 & 32MZ334, McKenzie Co., ND	2831
1982	MacDonald, L.	D. Gallacher et al.	Testing and Evaluation of Cultural Resource Sites 32WI31, 32WI32 & 32WI34, Williams Co., ND	2489
1983	East, T.	J. Adovasio et al.	The Identification & Evaluation of Archaeological Resources on Selected State-Owned Properties in Billings, Golden Valley, & McKenzie Counties in the Badlands of the Little Missouri River, ND	4190
1983	Root, M.	M. Gregg	Archeology of the Northern Border Pipeline, ND: Vol. 3, Test Excavations, McIntosh, Emmons, Morton, Stark, Mercer, Dunn, McKenzie, & Williams Co., ND	3456
1984	Floodman, M.		Tom Brown, Inc., Federal 19-42 Access Road Archaeological Testing at Sites 32MZ46 & 32MZ685, McKenzie Co., ND	3181
1985	Kuehn, D.		A Report on Archaeological Testing at Site 32MZ153 for the Proposed Matador Pipeline, McKenzie Co., ND	3575
1985	Kuehn, D.		A Report on Construction Monitoring and Salvage Excavations at Site 32MZ767, McKenzie Co., ND	3885
1988	Kuehn, D.	J. Borchert et al.	McKenzie Co., Cheney Creek Road Project	4622
1989	Borchert, J.		32MZ864 Cheney Creek Road Evaluative Test Excavation Results	4721
1990	Swenson, F.		Letter Report on the 1988 Test Excavations at Fort Buford (32WI25), Williams Co., ND	5234
1998	Floodman, M.		Salvage Excavation at Two Sites on the McKenzie District, Little Missouri National Grasslands, McKenzie Co., ND	7192
1998	Klinner, D.		Fort Union Trading Post National Historic Site-Fur Press Testing Project in Williams Co., ND	7287
1998	Klinner, D.		Fort Union Trading Post National Historic Site and Landmark, Site 32WI17-24RV50, Fur Press Testing Project	7208
2000	Klinner, D.		Site 32MZ1304, Archeological Site Evaluation Testing Project, McKenzie Co., ND	7641
2001	Stadler, S.		Completion of Excavations Related to Waterline Construction, Fort Union Trading Post National Historic Site (FOUS), Williams Co., ND	7895
2003	Hunt Jr., W.		1988 Archeological Investigations at Fort Union Trading Post National Historic Site (32WI17), MT-ND	8566

Twelve sites were recorded along the ca. 25 km (15 mi) segment of the Northern Border Pipeline transecting a portion of the northern edge of the Study Unit (Root 1983:662, The Missouri Plateau and Badlands Region). Not all of the sites were within the pipeline right-of-way; in several cases, landowners made special requests of the site surveyors to record sites that they knew about outside of the right-of-way. Five stone feature sites and seven cultural material scatters were recorded. These were the types of sites identified most commonly by Loendorf (1978) for western North Dakota in general. Each of the five stone feature sites had stone circles (2, 3, 3, 7, and 10 circles apiece), and some had rock piles in addition. All of the cultural material scatters were fairly small and displayed low artifact densities. All but two were simply lithic scatters. Two potsherds were found at one of the cultural material scatters, and several bone fragments were found at another. Diagnostic Archaic projectile points were recovered from several of these sites. Two were tested, but salvage excavations were not conducted.

Two sites were tested in the segment of the Northern Border Pipeline transecting the northern edge of the Study Unit. Low density artifact deposits associated with two cairns and two stone circles were sampled by hand excavation at 32MZ370 (Root 1983j). No temporally/culturally diagnostic artifacts were recovered. The site represents a temporary camp of unknown prehistoric cultural/temporal affiliation. The Highway site (32MZ474), a cultural material scatter in a tilled field just south of Alexander, was also tested (Root 1983q). Several thin potsherds, a Plains Side-Notched arrow point, burned bone, and other debris evidenced a Plains Village field camp occupation.

In 1985, Kuehn reported results of small salvage excavations conducted when a hearth feature was observed during construction monitoring. Remains from bison processing were recovered, and several radiocarbon dates were obtained on samples from the feature. The feature was created late in the Plains Village period.

Site 32MZ864 was tested in 1988 in order to evaluate the impact of a proposed road upgrade. Two components (Plains Village and unidentified) within the right-of-way and three components (Avonlea, Pelican Lake, and Plains Village) outside the right-of-way were identified (Borchert 1989:61). Plains Village pottery was recovered from the east and west ends of the site. The collected tools include projectile points identified as Avonlea and Pelican Lake and a probable lanceolate point midsection. Charcoal samples were collected for radiometric dating but the results were not discussed. Magnetic survey conducted at the site revealed that there are potentially five additional buried hearth features (ibid.). Suggestions for future research include examining 1) the change in resource use and technology and 2) settlement patterns through time in western North Dakota. Site avoidance and eligibility for the NRHP were recommended.

Located in the McKenzie Ranger District of the Little Missouri National Grasslands, salvage excavations were undertaken at the Klandl Spring site (32MZ1303) in 1996-1997 (Floodman 1998). Originally recorded as a dense cultural material scatter comprised of six site localities, it is situated south of Klandl Spring along a terrace and ridge crest. Archeological sites in the surrounding area date from Paleo-Indian through Avonlea periods. The Klandl Spring site consists of chipped stone tools and debitage. Antelope chert outcrops are found on the top of the ridge. Other local raw material types and exposed hearths were present downslope along the draw. Charcoal samples were recovered from two of the hearths. Radiocarbon tests indicate two occupations dating from the Middle Woodland through the Late Woodland period. Further investigations are encouraged because of the comparative information potential of the stratified artifact deposits and little work has been done in the YRSU concerning the Middle Woodland to Late Woodland transition (ibid.).

#### NRHP and NDSHSR

Fifteen archeological sites have been determined eligible for listing in the NRHP. The current list of archeological sites in North Dakota listed on the National Register of Historic Places is available on the National Park Service website. The following internet links are useful (NPS 2008a, b):

General information and links to specific information: <http://www.nps.gov/nr/>  
National Register Information System: <http://www.nr.nps.gov/>

#### Major Excavation Projects

All major excavations in the YRSU, with one exception (McLean and Newell 1980), have occurred at Fort Union (32WI17) or Fort Buford (32WI25). Site 32MZ27 was tested in October of 1979. Previous to test excavations, it was thought that the site, on an alluvial terrace above the Yellowstone River, was a prehistoric village (ibid.:1). Test excavations did not yield enough information to determine the site type or cultural/temporal affiliation. At the time of the investigations, the site had been heavily disturbed by agricultural activities and erosion (ibid.:29). The site was not recommended eligible for listing on the NRHP.

Work at Fort Union involved a multi-year salvage/research project sponsored by the Midwest Archeological Center, National Park Service (MWAC-NPS). Excavations by MWAC-NPS personnel between 1985 and 1988 focused on remains of structural features within the original fort complex. During 1988 and 1989, parts of the fort were reconstructed directly upon the original Fort Union archeological deposit.

The reports on the 1988 investigations at Fort Union were organized by excavation block, including Block 15 (Peterson 2002a), Block 16 (Peterson 2002b), Block 18 (Cabak and Groover 2002), and Block 20 (Thiel 2003). No

evidence of a prehistoric component was found at the north end of the west palisade (Block 15). However, flaking debris amid historic debitage, and possible Native American features were found on either side of the west palisade (Block 16). Peterson (2002) suggests this is the result of a historic Native American occupation within Fort Union. Block 18 consisted of the 1833 south palisade, the southwest corner of the 1828 palisade, and the 1850s blacksmith shop. Artifacts and features indicate production by Euro-Americans and Native Americans. Pits and pit-like features with fire-cracked rock were observed in levels dating before 1828 or the Pre-fort Period (Cabak and Groover 2002). Pits also were present in levels dating to the First Fort Period (1828-1833) (ibid.).

Archeological investigations at Fort Buford are important in reconstructing settlement period interaction on the Northern Plains and because of its prime location (Yellowstone-Missouri confluence). Several excavations have been conducted at Fort Buford. In addition to abundant historic materials, prehistoric artifacts have been found at the site. In 1991 and 1992 field investigation summaries, Kuehn et al. (1992, 1993) noted the recovery of 44 pieces of debitage (KRF, chalcedony, chert, quartzite, obsidian), one scraper, one hammerstone, two projectile points, three body sherds, and one rim sherd. The projectile points are both grey chert Plains Side-Notched points. The body sherds are smoothed with sand temper. The decorative treatment on the rim sherd is cord impressed suggesting a Plains Village affiliation.

McKibbin et al. (1995) reported a similar artifact assemblage in their investigations at Fort Buford. It consisted of 29 pieces of debitage (KRF, chert), one end scraper, one flake tool, a KRF projectile point fragment, and one bodysherd. The projectile point was the shoulder of a side- or corner-notched point. The authors (ibid.) suggest there was a Native American occupation at the site before Fort Buford was built. The evidence given for this is the differing frequency of Native American artifacts in the upper and lower excavation levels; more flakes were found in the level below the Euro-American one (ibid.). If no pre-fort occupation had existed, investigators would expect to find more Native American artifacts in the level of fort occupation.

Archeologists excavated 40.5 m<sup>2</sup> of the West Adobe Barracks at Fort Buford (McKibbin and Carrillo 2005). In addition to numerous historic artifacts, the assemblage included eight pieces of debitage, three flake tools, two scrapers, two retouched flakes, one modified bone, and two bodysherds. The chipped stone raw materials were quartzite, KRF, TRSS, and obsidian. The ceramics were undecorated brown ware. These artifacts were concentrated at the southern end of the barracks and passageway. The distribution of prehistoric artifacts was unlike the historic items. Investigators suggest that 1) the prehistoric artifacts indicate no long-term prehistoric occupation and 2) Fort Buford was constructed atop the earlier cultural materials (ibid.).

**Table 13.6: Major Excavation Projects in the Yellowstone River Study Unit, 5-Sept-2007.**

Year	First Author	Second Author	Title	Ms #
1969	Husted, W.		1969 Excavations at Fort Union Trading Post National Historic Site, ND: A Progress Report, Williams Co., ND	229
1970	Husted, W.		1970 Excavations at Fort Union Trading Post National Historic Site, Williams CO., ND: A Progress Report	6429
1973	Gillio, D.		1972 Excavations at Fort Union Trading Post National Historic Site, Williams Co., ND	6430
1980	McLean, G.	A. Newell	Cheney Creek Erosion Control Demonstration Project Contract No. DACW 45-79-M-3973, McKenzie Co., ND	2585
1986	Scott, D.	J. Bozell	This Flag-Staff is the Glory of the Fort: Archeological Investigations of the Fort Union Flagpole Remains, Williams Co., ND	4039
1988	Hunt, W.	L. Peterson	Fort Union, The 1986 Excavations, Williams Co., ND	4502
1990	Peterson, L.	W. Hunt, Jr.	Fort Union Trading Post, Williams Co.: Archeology & Architecture	5319
1992	Kuehn, D.	B. Howard et al.	Archaeological Excavations at Fort Buford, 32WI25, Williams Co., ND: Summary of the 1991 Field Season	5934
1993	Kuehn, D.	T. Schlinke et al.	Archaeological Excavations at Fort Buford, 32WI25, Williams Co., ND: Summary of the 1991 and 1992 Field Seasons	5948
1995	McKibbin, A.	K. Karsmizki et al.	Fort Buford: Report of 1994 Archaeological Investigations, Williams Co., ND	6433
2002	Cabak, M.	M. Groover	1988 Archeological Investigations at Fort Union Trading Post National Historic Site (32WI17), MT-ND Block 18 Report	8248
2002	Peterson, L.		1988 Archeological Investigations at Fort Union Trading Post National Historic Site (32WI17), MT-ND Block 15 Report	8148
2002	Peterson, L.		1988 Archeological Investigations at Fort Union Trading Post National Historic Site (32WI17), MT-ND Block 16 Report	8149
2002	Wermers, G.	D. Klinner	Fort Buford State Historic Site: Excavations to Identify the Corners of an 1870's Barracks & Associated Kitchen/Mess Hall, Williams Co., ND	8217
2005	McKibbin, A.	R. Carrillo	Fort Buford State Historic Site (32WI25): Archaeological Investigations for an 1870s Infantry Barracks and Kitchen/Mess Hall Reconstruction, Williams Co., ND	10007

## Other Work

The majority of the reports of other work also pertain to the Fort Union Trading Post NHS. These include a site management plan (USDI-NPS 1978), results of a cultural resource inventory (MWAC-NPS 1979), and a proton magnetometry survey (Weymouth 1979 and 1990). Gregory Fox's work (1982) deals with the Garden Coulee site (32WI18), a historic Hidatsa village of the Crow Flies High band within the bounds of the NHS property. Scott et al. (1985) prepared a scope of work for investigations which were subsequently undertaken between 1985 and 1988 at the site. Archeologists with the NPS provide material culture inventories resultant from the 1988 field investigations (De Vore and Hunt 1993, 1994, and 1996; Thiel 1998). Research concerning bone China gorgets found at Fort Union was conducted by Sudderth and Hulvershorn (2000). A geophysical survey was undertaken at the Garden Coulee site in 2002 (Jones and Maki 2003).

Four volumes summarize MWAC-NPS inventories of 1988 at Fort Union. The Native American artifact assemblage includes pipes, metal projectile points,



and modified bone. The distribution of pipe artifacts indicates that the primary use area was the Indians' and Artisans' House (De Vore and Hunt 1993). Identifiable styles include the Plains/Sioux pipes, elbow pipes, Micmac pipes, and a clay pipe (ibid.:21). The brass and iron projectile points include five Plain Stemmed points, one Notched/Serrated Stemmed point, three Unstemmed Triangular points, and 15 stemmed point fragments (ibid.:39-40). Thiel (1998) identifies three alternatives to explain the appearance of modified bone at Fort Union. First, artifacts were manufactured by Euro-American traders and their Native American wives on-site. Second, the goods were imported from the East or Europe. Third, the items resulted from trade with nearby Native American villagers. Thiel (ibid.) offers a couple of conclusions regarding Native American items. One, those items made off-site include an elk antler saddle part, some of the gaming pieces, a bone arrow point, arrow shaft straighteners, and some of the jewelry. This assumption is supported by similar items recovered from Like-A-Fishhook Village and Fort Berthold I and II (ibid.:45). Also, some artifacts are connected to Native American women based on ethnographic information concerning their activities (ibid.:46). Seven burials have been recorded at Fort Union (De Vore and Hunt 1994).

In 1999, archeologists conducted a magnetic gradiometer survey along a Fort Union waterline (Nickel and Hunt 2000). The investigation provided information for future planning at the site. The magnetometer readings revealed 53 anomalies which investigators suggest are archeological features.

Jones and Maki (2003) conducted an electrical resistance survey and a magnetic field gradient survey at the Garden Coulee site. The results of the surveys correlate and suggest that the observed anomalies are cultural.

Table 13.7: Other Work in the Yellowstone River Study Unit, 5-Sept-2007.

Year	First Author	Second Author	Title	Ms #
1951	Mattison, R.		Report on Historical Aspects of the Garrison Reservoir Area, Missouri River	109
1968	Thompson, E.	R. Jantz	Fort Union Trading Post, Historic Structures Report, Pt. II, Historical Data Section/Analysis of Skeletal Material from Fort Union Trading Post, Williams Co., ND	230
1977	Loendorf, L.		Fort Union Backfilling Operation, Williams Co., ND	152
1978	Greer, J.		Shell Oil Company 21X-29 Lateral Pipeline Monitoring, McKenzie Co., ND	478
1978	Loendorf, L.		An Evaluation of 110 Archaeological and Historical Sites, McKenzie, Billings, Golden Valley, Bowman, & Slope Counties in the Little Missouri Grasslands of ND	5466
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Year	First Author	Second Author	Title	Ms #
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1982	Fox, G.		The Garden Coulee Site (32WI18): A Late Nineteenth Century Village of a Band of Dissident Hidatsa	2487
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1985	Scott, D.	T. Thiessen et al.	Scope of Work for 1986 Archeological Investigations at the Fort Union Trading Post National Historic Site in Preparation for Partial Reconstruction, Williams Co., ND	4016
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1991	Scott, D.		Archeological Monitoring of the Old Entrance Road Removal, Fort Union Trading Post National Historic Site, Williams Co., ND	5502
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1992	Good, K.		Lower Yellowstone Irrigation Project, McKenzie Co., ND (Historic Properties Recordation Report)	5969
1993	De Vore, S.	W. Hunt, Jr.	Fort Union Trading Post National Historic Site (32WI17) Material Culture Reports, Pt. IX: Personal, Domestic, & Architectural Artifacts, Williams Co., ND	9024
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2000	Nickel, R.	W. Hunt, Jr.	A Magnetic Gradiometer Survey of the Waterline Corridor at Fort Union Trading Post National Historic Site, Williams Co., ND	7741

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2002	Johnson, C.		Historic Structures Report for Fort Buford's Infantry Barracks 1867-1880, WI Co., ND	8176
2003	Jones, G.	D. Maki	A Geophysical Investigation at the Garden Coulee Site (32WI18) An Historic Native American Village at the Fort Union Trading Post National Historic Site Williams Co., ND	8798
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### Paleo-Indian Period

Finds of a few distinctively styled lanceolate projectile points provide the only evidence of this earliest period of Native settlement in the YRSU. Since the Study Unit was not glaciated during Late Wisconsinan times, most of the Paleo-Indian complexes previously reported for North Dakota ought to be represented here. However, Paleo-Indian sites are few in number (Table 13.3).

### Paleo-Environmental Modeling

The geomorphic modeling of paleo-landscapes within the YRSU during Paleo-Indian times is central to understanding past land use and overall site potential. This is especially apparent for the rolling grasslands physiographic zone which today comprises much of the region. An on-going data gap concerns the lack of reported Paleo-Indian sites in the Study Unit. Beckes and Keyser (1983:173) raised this question: Is the lack of Paleo-Indian sites in the recorded site data base a reflection of a high rate of site destruction through erosion or an actual paucity of past settlement? Results of pedologic and geomorphic studies will provide answers. Cultural deposits of Paleo-Indian age should be expected to occur deeply buried in the alluvial and colluvial fills of the valleys of the Yellowstone and its tributaries. What was the Yellowstone-Missouri like throughout the course of the Paleo-Indian period? When did the confluence locality attain its essentially modern geomorphic form?

### Cultural Chronology

Jerde (1981) reported the occurrence of a possible Clovis or Folsom component along with finds of Agate Basin, Eden, and Scottsbluff points from several locations in nearby Sheridan County, Montana. These artifacts were collected from settings associated with an ancestral Missouri River meltwater channel. One of the rare reports of Paleo-Indian material from the YRSU concerns a Scottsbluff point from 32WI102 very near the North Dakota-Montana state line (Schneider and Roberson 1981:7). What Paleo-Indian complexes are represented by archeological remains in the Yellowstone River Study Unit?

## Settlement Behavior

A variety of landscapes would have been open for Paleo-Indian settlement during early Holocene times. Older terrace surfaces of the Yellowstone valley and the surrounding uplands likely would have provided favorable habitats for animal and plant species and hence attracted human settlement in proximity. Schneider and Roberson (1981:7) mention a possible kill location (32WI102) containing bison remains in association with a Scottsbluff projectile point. These materials were reportedly found in a coulee near Fort Union NHS (ibid). Were residential bases most commonly established in the main river valley during Paleo-Indian times as they were during later prehistoric periods?

## Native Subsistence Practices

The earliest hunter-gatherers likely exploited a broad array of plant and animal resources. The unpublished discovery of mammoth remains in the Powers Lake locality, 60 miles to the northeast, by Dan Aird indicates that remnant Pleistocene megafauna were found in the region. Bison should also have been available. How did the floral and faunal resource potential of the YRSU change during the course of the Paleo-Indian period?

## Technologies

Evidence from other regions of the Northern Plains indicates that stone knapping skills of Paleo-Indian craftsman were among the best developed of any cultural tradition identified in the New World (cf. Hayden 1982). Members of these populations also fashioned exquisite implements from bone, antler, ivory, shell, and wood. The earliest Americans also constructed dwellings at residential bases and formulated multi-group communal hunting plans (cf. Prison 1978:149). In what depositional contexts within the YRSU would perishable bone, antler, ivory, shell, and wood artifacts of Paleo-Indian age most likely be preserved?

## Artifact Styles

Considering the single reported occurrence of a Scottsbluff point from the Study Unit, it is premature to speculate too much concerning dimensions of Paleo-Indian artifact style. The points illustrated by Jerde (1981) and Schneider (1982d) from adjacent regions, however, appear to conform to established regional norms of Paleo-Indian craftsmanship. What changes in geographic orientation are indicated by Paleo-Indian artifact styles of different ages represented at sites within the YRSU?

## Regional Interaction

Lithic use patterns reflected in the small sample of Paleo-Indian artifacts from western North Dakota and eastern Montana point to a significant reliance

on Knife River flint. But locally available stones such as porcellanite were also used to fashion lanceolate projectile points (cf. Jerde 1981; Schneider 1982d). Antelope chert has been identified in Paleo-Indian and Archaic assemblages in western North Dakota (Ahler 1994:96). The availability of good quality local stone resources probably influenced settlement practices (cf. Goodyear 1989). How did the importance of the cobbles of chert, Yellowstone agate, and porcellanite in ancient alluvial gravels adjacent to the Yellowstone River valley vary through the Paleo-Indian period? When during the Holocene were gravel beds with large cobbles of these materials accessible in the Yellowstone River valley?

## Historic Preservation Goals, Priorities, and Strategies

Identification of Paleo-Indian site locations within the Yellowstone and Missouri valleys is crucial to the interpretation of terminal Pleistocene-early Holocene hunter-gatherer land use on a regional scale. These data, coupled with geomorphic information such as the location of river channels and playa lakes during Paleo-Indian times will provide some of the information necessary to begin modeling land use and settlement during this period (cf. Bamforth 1988:163-183). Top priorities are to identify sites and model Paleo-Indian period environmental conditions.

### Plains Archaic Period

Plains Archaic components are among the best represented remains presently known from this Study Unit. Early, Middle and Late Plains Archaic complexes such as Hanna, Duncan, and Pelican Lake are present.

### Paleo-Environmental Modeling

The environmental conditions of the Altithermal are central to modeling Plains Archaic land use during the Atlantic climatic episode in the lower Yellowstone basin. Also, rapid erosion and deposition which characterize arid times can destroy some sites and deeply bury others (cf. Ferring 1986; Jorstad et al. 1986). Discovery of buried Plains Archaic components may be anticipated within floodplain, terrace, and alluvial fan landforms built up during the Altithermal. What are the depths of mid-Holocene aeolian deposits in upland settings within the YRSU?

### Cultural Chronology

Use of the Study Unit by people with Logan Creek-Mummy Cave material culture is indicated by the find of a heavily patinated Simonsen point just outside the eastern margin of the unit near the headwaters of Cherry Creek (Root 1983w:669, 686). A lightly patinated KRF Oxbow point was recovered as an

isolated find near the headwaters of Lonesome Creek (ibid.:668, 682). Which Archaic cultural complexes are represented by sites or isolated finds in the YRSU?

### Settlement Behavior

Plains Archaic settlement in the Yellowstone drainage is presently known predominantly from cultural material scatters on terraces, ridges, or other elevated settings (cf. Beckes and Keyser 1983:178-179). This patterning is likely a function of high archeological site visibility in eroded physiographic settings sampled by survey rather than an accurate reflection of prehistoric land use. Floodplains and terraces along the main river and tributary streams should also have been intensively utilized. A brief encampment of Late Archaic age is indicated at 32MZ473 where a low density lithic scatter was found on a terrace between two intermittent streams draining southward to Lonesome Creek in the northern portion of the unit (Root 1983w:667-673). Hunting and lithic raw material procurement were the activities evinced by the small sample of surface collected artifacts from this site. Which settings within the YRSU were selected by Early, Middle, and Late Archaic peoples for siting their residential bases?

### Native Subsistence Practices

Subsistence strategies of Middle and Late Plains Archaic groups are thought to have involved a mix of hunting and gathering. This generalization is based on recovered stone tool and bone assemblages from sites not far to the south in the Little Missouri River Study Unit along Cinnamon Creek Ridge (cf. Beckes and Keyser 1983) and campsites such as the Mondrian Tree site (32MZ58) near the mouth of a small tributary valley near the Yellowstone-Missouri confluence immediately to the east (Toom and Gregg 1983). Bison, antelope, deer, and canid remains occur in the Middle and Late Plains Archaic faunal assemblages from these sites. The presence of manos and grinding slab fragments indicate that plant resources were exploited as well (Toom 1983e). How did the floral and faunal composition of the YRSU vary through the millennia of the Early, Middle, and Late Archaic periods?

### Technologies

Large quantities of fire-cracked rock are frequently recovered from Plains Archaic components in the region pointing to the importance of stone boiling as a preferred procedure for heat transfer during food preparation and other domestic activities at campsites (cf. Jorstad et al. 1986; Toom and Baumann 1983). Is there anything distinctive about the ways Plains Archaic peoples utilized hot rocks for thermal energy transfer?

## Artifact Styles

Early Plains Archaic materials are not well known in the YRSU. McKean, Yonkee, Hanna, and Duncan point styles are commonly represented in Middle Plains Archaic assemblages and in private collections from sites elsewhere in the basin outside of North Dakota as well as in other nearby regions (cf. Beckes and Keyser 1983:177-178; Toom 1983b). A variety of corner-notched point styles, commonly identified as Pelican Lake, occur in dated Late Plains Archaic components from ridgetop and bottomland settings in the adjacent Little Missouri basin (Beckes and Keyser 1983:188; Jorstad et al. 1986; Toom 1983b). Besides projectile points, what other distinctively styled artifacts might appear in Archaic components in the YRSU?

## Regional Interaction

Diagnostic projectile points styles recognized in the Yellowstone basin suggest interactions primarily within the Northern Plains during the Archaic. Locally available raw materials including Yellowstone agate and porcellanite were heavily utilized. A location such as the Missouri-Yellowstone confluence presents an interesting setting for studying regional interaction because two of the major transportation arteries of the Northern Plains come together here. What sorts of Plains Archaic sites would be most likely to hold nonlocal artifacts indicative of regional interaction, and where would such sites have been situated?

## Historic Preservation Goals, Priorities, and Strategies

The identification of diagnostic Early Plains Archaic materials in the Study Unit remains a high priority. Only through the excavation and careful analysis of dated assemblages from the Archaic periods will the rudiments of the adaptive strategies and material cultures of Archaic groups become known.

## Plains Woodland Period

The Plains Woodland periods are represented principally by components assigned to the Besant/Sonota complex. Late Woodland Avonlea components also are represented and Mortlach components may be anticipated.

## Paleo-Environmental Modeling

Immediately atop the divide between Sheep Creek which drains to the Yellowstone and the North Branch of Bowline Creek which drains to the Little Missouri are 32MZ333 and 32MZ334. These two sites were partially excavated prior to oil well developments by Abraxas Petroleum (Floodman et al. 1982). Pollen analysis of samples from a 2,000 year old Besant deposit in a paleosol suggested to the investigators that “the present environment of hardwood draws and sagebrush/grass covered ridges provides a reasonable model for the general Besant environment” (ibid.:180). However, the landscape is modeled to have had

less relief at the time of occupation than today. The channels of ephemeral streams around the sites have downcut some 6 to 7 m during the past 2,000 years (ibid.). What was the duration of mesic climatic conditions during the Middle Plains Woodland period, and do these represent the most favorable conditions for human occupation in the YRSU during the entire 1,500-year span of the Woodland periods?

### Cultural Chronology

A Sonota/Besant cultural zone at 32MZ333 on the divide between Sheep Creek and the North Branch of Bowline Creek yielded materials radiocarbon dated  $2041 \pm 124$  BP and  $1890 \pm 65$  BP (Floodman et al. 1982:178-179). The Besant cultural affiliation was based on the recovery of a Besant Side-Notched point and a few thick potsherds. Another Besant point was found at 32WI34 (Schneider and Roberson 1981:37-38). Avonlea points have been found at four sparse cultural material scatters in McKenzie County (32MZ864, 32MZ1288, 32MZ1300, and 32MZ1422). What other Plains Woodland complexes are represented by sites in the YRSU?

### Settlement Behavior

The excavated portion of the Sonota/Besant deposit at 32MZ333 yielded stone tools, flaking debris from tool production and tool repair, bone from food processing, and hearths and potsherds indicative of food preparation (Floodman et al. 1982:186). This artifact assemblage in conjunction with the site setting in an elevated unsheltered area gives the impression of a field camp or hunting camp type of settlement rather than a residential base or special purpose location. Did the mesic cycles with the Sub-Atlantic climatic episode prompt or enable more intensive use of the interior portions of the YRSU? Can field camp settlements be taken as evidence for mesic local conditions at the time of settlement?

### Native Subsistence Practices

Remains of bison bone in the ca. 2,000 year old Sonota/Besant artifact deposit at 32MZ333 follows true to form for most Sonota/Besant components: bison were killed and butchered routinely. The cultural florescence of ca. 2,000 years ago appears to have correlated with the most persistently mesic climatic conditions of the entire Holocene epoch. Under such conditions, the grasslands would have flourished and regional biomass would have been high. Most resources would have been relatively abundant under such conditions. Sites occupied under these conditions should contain evidence of diverse subsistence resources. Fine-mesh waterscreen recovery and flotation should be employed routinely to recover traces of small floral and faunal remains representing Woodland subsistence resources in the YRSU.



## Technologies

A small sample of nine body sherds was recovered during excavations at 32MZ333 and probably derives from the ca. 2,000 year-old Sonota/Besant component (Floodman et al. 1982). Temper was crushed granite. Exterior surface treatments were smoothed-over cordmarked. Thicknesses ranged from 7.9-9.7 mm. What other types of Woodland ceramics might be anticipated at sites in the YRSU?

Stoneworking technologies evidenced in the Sonota/Besant component at 32MZ333 include the production of chipped bifacial forms for use as projectile tips and hafted cutting tools. Unpatterned and expedient flake tool forms are also well-represented (Floodman et al. 1982:76). Knife River flint was the stone of preference for making chipped stone tools at the Abraxis site. This pattern of lithic use among Middle Plains Woodland groups has been reported elsewhere on the Northern Plains (cf. Clark 1984; Gregg and Picha 1989). What other chipped stone technologies or lithic raw material utilization patterns are diagnostic of Woodland complexes in the YRSU?

## Artifact Styles

The recovery of a Besant Side-Notched dart point from a cultural horizon dated to about 2,000 years ago at 32MZ333 indicates that this point style was utilized in the YRSU by Middle Plains Woodland groups as it was elsewhere in the Yellowstone basin. What other chipped stone tool styles are indicative of Woodland components in the Study Unit?

## Regional Interaction

Middle Plains Woodland regional interaction is indicated by several lines of evidence. The recovery of obsidian flaking debris (n=45) at 32MZ333, presumably from sources in the northern Rockies, points to direct or indirect contact with people in the Rocky Mountain West (cf. Floodman et al. 1982:Appendix 7.2). Is obsidian more common at sites in the Missouri-Yellowstone confluence locality than elsewhere in North Dakota?

## Historic Preservation Goals, Priorities, and Strategies

An inventory effort to identify earthen mound sites in the YRSU remains to be undertaken. The occurrence of this previously unrecorded site type in the basin would expand its known geographic distribution westward from the Garrison Study Unit (cf. Artz 1985a). A high priority is to identify the variety of Plains Woodland complexes represented by components in the YRSU. Comprehensive inventory of unsurveyed portions of the ridge systems with intact Holocene soils is necessary.

## Plains Village Period

The lower Yellowstone valley appears to have been utilized a few times by Plains Villagers as a core area within which residential base settlements were established. But this form of use does not seem to have been typical in the Garrison region or upstream from it. The Garrison region of the Middle Missouri subarea, the uppermost segment of the Missouri valley identified by Lehmer as having a unique archeological sequence, terminates in the Missouri-Yellowstone confluence locality (Lehmer 1971:29).

## Paleo-Environmental Modeling

Climatic conditions during the Plains Village period in the Yellowstone basin are suspected to have generally paralleled those downriver in the Garrison and Upper Knife-Heart regions. Garden crops should have become better adapted to local climatic conditions through time, although a shortened growing season may have resulted in less predictable crop yields (cf. Schneider 1988). Pollen, phytolith, and pedologic studies should be conducted at Plains Village archeological sites along the lower Yellowstone to refine the paleo-environmental model for this period in the YRSU.

## Cultural Chronology

Because the YRSU is located outside the geographic limits of most prehistoric Plains Village core areas, ideas concerning cultural development in the region are not detailed well (cf. Syms 1977:5-8). Early Plains Village groups may have occupied territories extending upriver to the Missouri-Yellowstone confluence, although no village sites containing the remains of earthlodge architecture are presently known in the confluence locality. A Plains Village cultural chronology for this Study Unit may be initially modeled after that for the upper Knife-Heart region downriver. Excavation findings which deviate from that chronological model can be used to refine the local chronology.

Materials from a hearth feature at 32MZ767 were radiocarbon dated  $240 \pm 60$  and  $260 \pm 60$  RCYBP (Kuehn 1985), but the only artifacts encountered other than bone and charcoal were a few pieces of flaking debris. With such recent radiocarbon dates, it would be necessary to obtain an artifact sample from the deposit to enable identifying the cultural affiliation of the archeological deposit.

## Settlement Behavior

Plains Village settlement behavior is not well known in the YRSU. Components assigned to the Plains Village period include the Scraper site (32WI34) near Fort Union Trading Post NHS (Schneider and Roberson 1981:34), the Cheney Creek site (32MZ27) (McLean and Newell 1980), the Highway site (32MZ484) (Root 1983g), and 32MZ767 (Kuehn 1985, Ms #3885). A short

distance to the east of the northeastern border of the Study Unit is the Mondrian Tree site (32MZ58) (Toom and Gregg 1983). None of these are earthlodge residential base settlements. However, the remains of Plains Village residential sites are known from properties such as the Nollmeyer and Hagen sites upriver in Montana (Ann Johnson 1982; Mulloy 1942).

Ethnohistoric information collected by Wilson (1924) indicates Plains Village groups such as the Hidatsa exploited the Yellowstone basin during seasonal bison hunts. The bison processing feature documented by Kuehn (1985) at 32MZ767 may have been used by Villagers. More evidence documenting long-term Plains Village utilization of the Study Unit is expected as research progresses. We can hypothesize that settlement behavior during times when there were fortified residential bases along the lower Yellowstone would have differed from times when there were not such residential bases. How did Plains Village use of the Study Unit and other portions of the lower Yellowstone basin vary through the years of the Plains Village period?

#### Native Subsistence Practices

The subsistence economies of Villagers in the Yellowstone basin should have been generally similar to hunter-gatherer-gardener strategies practiced by other Plains Village groups in the Middle Missouri subarea. Favorable climatic conditions during the Neo-Atlantic climatic episode probably would have permitted the establishment of semipermanent settlements with adjacent garden plots (cf. Wilson 1917). To date, however, subsistence remains from Plains Village period sites in the YRSU have shed light only on hunting activities and processing of meat and hides. Support for hypotheses concerning subsistence practices can only be addressed with additional data collected from controlled excavations at sites in the Study Unit.

#### Technologies

Ceramic and chipped stone technologies represented by Plains Village sites in hinterland areas should be represented in the village sites along the Missouri River. Small samples of Plains Village pottery have been found at 32WI25, 32WI34, 32MZ27, and 32MZ484, but they are too small to formulate much in the way of substantive inferences or generalizations. One thing that can be expected at Plains Village field camps is that ceramic vessels will be smaller on the average than at village sites (cf. Craig Johnson 1983).

The occurrence of check stamped sherds in ceramic collections attributed to the Mortlach complex may indicate cultural linkages between Mortlach and the Scattered Village complex identified downriver in the upper Knife-Heart region (cf. Lovick and Ahler 1982; Schneider and Kinney 1978). The chipped stone toolmaking practices of people with Scattered Village material culture in the Knife-Heart region involved the use of greater amounts of a clear/gray chalcedony (perhaps Miocene flint from the Little Missouri River Study Unit)

than those of peoples of any other Plains Village culture known from the Middle Missouri subarea (cf. Ahler and Mehrer 1984). What technological attributes can be used to distinguish between Mortlach and Plains Village components, both of which can be expected in the YRSU?

### Artifact Styles

What are some chipped stone artifact styles that can be used to identify Plains Village components at small lithic scatters which might otherwise be classified generically as late prehistoric? Large, thin, bifacially flaked, unilateral cutting tools that were set in bison rib hafts are one possible example. Patterned flake end scrapers with bifacially prepared haft elements may be another. It is possible there may be several types of tools made from bipolar flakes that will be found to characterize some Plains Village assemblages based on the intensity of bipolar core reduction evidenced at some KRF workshop sites in the primary source area. At the Lynch quarry site, there are pitted boulder anvil stones surrounded by bipolar core reduction debris with a density of greater than 10,000 pieces of chipped stone flaking debris per square meter per 10 cm level.

### Regional Interaction

Plains Village groups were active participants in long-distance trade relations prior to Euro-American contact and the inception of the Fur Trade (Wood 1972, 1980). Seasonal bison hunting forays north and west of the Village core areas also would undoubtedly have put Plains Villagers in contact with other Northern Plains groups. Further research is needed to identify the effects of this social interaction on Village and non-Village cultural developments.

The Highway site (32MZ484) just south of Alexander, mostly destroyed in the early 1980s by highway construction and the Northern Border pipeline installation, is a probable Plains Village field camp which yielded a flake of obsidian (Root 1983q). Recovery of this artifact indicates that evidence of regional interaction in the form of exotic nonlocal stones may be expected to occur at temporarily occupied sites in the interiors of North Dakota drainage basins as well as at the villages along the Missouri and Yellowstone rivers. One advantage of discovery of exotic artifacts at small sites is that small sites often afford excellent potential to assign artifacts to a particular component and to precisely identify and date that component. At some of the village sites, multiple components are represented, and it often is difficult to attribute individual artifacts to specific components. Is there more obsidian in Plains Village sites postdating the Crow-Hidatsa split than in sites predating the split?

### Historic Preservation Goals, Priorities, and Strategies

A top priority is to increase knowledge of the different kinds of Plains Village settlements which can be expected to occur in various settings with the YRSU. This problem can be approached by focusing more effort on dating and

more specifically classifying “late prehistoric” components in the process of identifying historic properties.

### Equestrian/Fur Trade Period

The Equestrian period spans a century (ca. 1780 to 1880) which witnessed the advent of the Fur Trade and reliance upon horses for transportation in the Yellowstone region (cf. Secoy 1953; Wisehart 1979; Wood and Thiessen 1985). The smallpox epidemics of 1780-81 and 1834 decimated native Plains Village populations in the Middle Missouri subarea. Neighboring nomadic groups also suffered (cf. Denig 1961:71).

### Paleo-Environmental Modeling

The journals and paintings of early explorers and fur traders (e.g., Lewis and Clark, Maximillian, Catlin, and Denig) are a source of paleo-environmental information concerning the Upper Missouri and Yellowstone basins during the 19th century. Similar information is available for adjacent areas to the north (cf. Ball 1984). Historic records should be used to build an accurate record of environmental conditions in the confluence locality during the Equestrian period.

### Settlement Behavior

Temporary campsites marked by the remains of stone circle features and cultural material scatters are among the best represented site types in the Study Unit. Some of these are bound to date to the Equestrian period. The erection of a fur post in 1828 (later named Fort Union) near the Yellowstone-Missouri confluence provided a local source of Euro-American trade goods to various native groups with extensive territorial connections throughout the Northern Plains and into the Rocky Mountains. Fort Buford, a US military installation constructed a short distance downstream in 1866, took over trading operations until the mid-1880s when the fur and hide trades with the Indians ended.

Temporary camps and more permanent villages of tribal groups such as the Assiniboines and the Hidatsas should be expected in the valley bottomlands and uplands surrounding these major trading centers. Gregory Fox (1982) has reported on the Garden Coulee site (32WI18), a village attributed to a band of Hidatsas led by Crow Flies High. James Howard (1977:22-228) identified a Plains Ojibwa (Bunji) burial location at 32WI101 in the Study Unit. The identification of other tribal affiliations based solely on archeological remains has not met with much success (cf. Johnson 1979; Taylor 1979). However, historic records should be scoured with an eye toward identifying sites attributable to particular tribes. This is a topic well suited to collaborative efforts between tribal historians and archeologists.

## Native Subsistence Practices

Subsistence strategies of Equestrian Nomads and historic Plains Village peoples in the YRSU focused on pursuits of the hunt, foraging, and some gardening (cf. Denig 1961; Fox 1982:64-66). Bison remained the principal meat source until herds were killed off by the Euro-American invaders in the 1880s. Analysis of larger samples of faunal and floral remains from postcontact sites will serve to broaden knowledge concerning native subsistence practices during this period.

## Technologies

Traditional native technologies during the Equestrian period underwent rapid transformations with the arrival of Euro-American trade goods in ever increasing frequencies. The paintings of Bodmer and Catlin depict some of these changes in weaponry, domestic items, and ornamentation. Historic documents could be utilized to create an accurate history of Native American technological change during the Equestrian period in the confluence locality.

## Artifact Styles

Fox (1982) has discussed difficulties in attempting to assign ethnic/tribal affiliation to 19th century artifact assemblages based solely on aspects of material culture. Again, historic drawings and paintings should be studied in an attempt to identify tribally-specific styles which might be represented in archeological deposits.

## Regional Interaction

The erection of Fort Union in 1828 signaled the beginning of the local trade period in the region (cf. Ray 1978; Swagerty 1988; Thiessen 1987). Increased contact between Native Americans and Euro-Americans as well as intertribal aggregations occurred at the fort. The quantity of trade goods available to these groups should have increased dramatically. Groups and tribes that came to Fort Union to trade included the Blackfeet and Assiniboines (Denig 1961). Modified elk and mountain goat faunal remains (e.g., teeth, horn, and antler) are known from the historical period in Montana. What sorts of native-made goods might be anticipated as indicators of regional interaction in archeological deposits of the Equestrian period in the YRSU?

## Historic Preservation Goals, Priorities, and Strategies

The preservation of historically significant cultural properties such as Fort Union Trading Post NHS and Fort Buford State Historic Site are laudable. The historical significance of these sites reaches beyond the national level to a world heritage level. The Yellowstone-Missouri confluence locality had been a key location along a primary travel route between different Native American worlds

for thousands of years. The movement of Euro-American trading post followed by military post settlement into this location marked the beginning of the end of band and tribal level, hunter-gatherer lifeway dominance in the Northwestern Plains. Major archaeological initiative in this locality merit joint planning between tribal historians and archaeologists.

Research of regional interaction during this time will help refine estimations of the age of post-contact components in the Study Unit. For example, intertribal exchange occurred at American Fur Company posts such as Fort Union and Fort Clark and military posts such as Fort Buford (Casler 2007). The YRSU encompassed territory used by the Crow, Hidatsa, and Mandan for pursuits such as eagle trapping (Bowers 1965:Map 1). What other resources in the YRSU were tapped during the Equestrian/Fur Trade period?