February 11, 2025

TP-LIC-LET-0396
Docket Number 50-613

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Document Control Desk

Subject: **Transmittal of Kemmerer Unit 1 Class III Cultural Resource Inventory Report (Public)**

TerraPower, LLC (TerraPower) on behalf of US SFR Owner, LLC (USO), a wholly owned subsidiary of TerraPower, submits this letter to provide the non-SUNSI Kemmerer Unit 1 Class III Cultural Resource Inventory Report. The SUNSI Class III Cultural Resource Inventory Report was submitted in Enclosure 2 of TP-LIC-LET-0366 (ML24352A355)

This letter and enclosure make no new or revised regulatory commitments.

If you have any questions regarding this submittal, please contact Nick Kellenberger at nkellenberger@terrapower.com.

I declare under penalty of perjury that the foregoing is true and accurate.
Executed on February 11, 2025.

Sincerely,

George Wilson

George Wilson
Senior Vice President of Regulatory Affairs
TerraPower, LLC

Enclosures: 1. Kemmerer Unit 1 Class III Cultural Resource Inventory Report (Public)

cc: Mallecia Sutton, NRC
Josh Borromeo, NRC
Patricia Vokoun, NMSS
Daniel Barnhurst, NMSS
Nathan Howard, DOE
Jeff Ciocco, DOE

ENCLOSURE 1

Kemmerer Unit 1 Class III Cultural Resource Inventory Report (Public)

A Class III Cultural Resource Inventory for TerraPower, LLC's Natrium Demonstration Project, Lincoln County, Wyoming

Prepared for:

TerraPower, LLC

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Tetra Tech Project No. 117-0533105
December 2024
For Official Use Only: Disclosure of Site Locations Prohibited (43 CFR 7.18)

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Project Title:	A Class III Cultural Resource Inventory for TerraPower, LLC's Natrium Demonstration Project, Lincoln County, Wyoming		
Authors:	Mark Karpinski	**Report Date:**	December 2024
Agency(-ies):	United States Nuclear Regulatory Commission (NRC) and Wyoming State Historic Preservation Office (SHPO)		
Wyoming SHPO DBI No.:	DBI_WY_2022_280		
Tetra Tech No.:	117-0533105		
Description:	TerraPower, LLC (TerraPower) is proposing the Natrium™ advanced reactor demonstration project (Natrium Demonstration or Project) near the existing Naughton Power Plant south of the community of Kemmerer in Lincoln County, Wyoming. The Project Site is located on privately held lands in Township (T) 20 North (N) Range (R) 116 West (W) Sections 19 and 20. The Project Site consists of the reactor, energy storage system and associated facilities to be constructed within this area, and the full extent of impacts from the construction of these facilities are anticipated to occur within this boundary. A final route for the electric transmission line and water pipeline from the Project Site to the immediate vicinity of the Naughton Power Plant has not been determined. Macro-corridors were defined to capture the potential range of feasible options for the routes. A common macro-corridor, water macro-corridor, and electrical macro-corridor encompass the extent of potential impacts that could occur during construction of the transmission lines and water pipeline. Tetra Tech was contracted by Bechtel, a contractor of TerraPower, to conduct the appropriate inventory and evaluation studies that would allow a proper assessment of potential impacts to cultural resources as required by the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the regulations of the Nuclear Regulatory Commission (NRC) for compliance with Section 106 of the NHPA. The cultural resource Areas of Potential Effects (APEs) (36 CFR §800.16(d)) were defined in collaboration with TerraPower, Bechtel, and Tetra Tech in conformance with Wyoming State Historic Preservation Office (SHPO) guidelines and standards (SHPO 2012, 2022a, 2022b). The direct APE for physical effects was defined as the combined 711-acre area that includes the Project Site and Macro-corridors as outlined in the previous paragraph. The 2022 1,537-acre Study Area Class III cultural resource inventory was conducted prior to the development of the direct APE. However, the Class III cultural resource inventory Study Area encompasses all portions of the direct APE (see **Appendix A and B**). The indirect APE to assess potential to visual, atmospheric, vibrational, and auditory effects to historic properties included the direct APE/Study Area and the 5 miles surrounding the Study Area. The following report is for the Class III cultural resource inventory		

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	completed in 2022 and 2024 for the defined Project cultural resource Study Area encompassing the direct APE along with the indirect APE to support the NRC's regulatory review process as part of their issuance of the construction permit (WyoTrack Investigation Number: DBI_WY_2022_280). The results of the Class III cultural resource inventory have already been utilized as part of the Department of Energy's review and permitting for associated Project activities of the seismic testing (DBI_WY_2022_281), the Test and Fill Facility (DBI_WY_2023_418), and the Kemmerer Unit 1 Preconstruction activities (DBI_WY_2024_515).			
Location:	The Project crosses Section 32 of T21N, R116W; Sections 1, 2, 11, and 12 of T20N, R117W; and Sections 7, 8, 17, 19, and 20 of T20N, R116W, 6th Principal Meridian, [7.5' U.S. Geological Survey (USGS) quadrangles Elkol, Wyoming (1979) and Kemmerer, Wyoming (1985)].			
Survey Methods:	Tetra Tech inventoried a total of 1,537 acres at 30 meter (m) transects within a TerraPower defined Project direct APE. Indirect APE: 5-mile visual indirect APE surrounding the direct APE.			
Landownership:	Privately Held			
File Search Date	Formal: February 28, 2022 (SHPO #3653) Information update: August 27, 2024	**Field Work Date(s)**	April 26 to May 3, 2022; May 10 to May 17, 2022; July 23 and 24, 2022; and October 19, 2022; and September 23, 2024	
Inventory Results Resource Summary	**Identified Cultural Resource Sites/Site Segments**	58	**Isolated Resources (IR)**	136
Determined Eligible Sites and/or Contributing	48LN773 48LN2327_14 48LN4428	48LN740 48LN2739_1	48LN1272 48LN4011	48LN1273 48LN4026
Determined Eligible Sites but Determined Non-contributing	48LN2697_4			
Determined Eligible Site but Recommended Non-contributing	48LN2697_3			

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Recommended Eligible Sites	48LN8940	48LN8979		
Recommended Eligible Site but Non-contributing	48LN8978_1			
Determined Not Eligible Sites	48LN735	48LN2335	48LN2939	48LN8953
	48LN8954	48LN8955	48LN8957	48LN8958
	48LN8959	48LN8966	48LN8968	48LN8971
	48LN8972	48LN8975	48LN8976	
Recommended Not Eligible Sites	48LN798	48LN799	48LN801	48LN802
	48LN8941	48LN8942	48LN8943	48LN8944
	48LN8945	48LN8946	48LN8947	48LN8948
	48LN8949	48LN8950	48LN8951	48LN8952
	48LN8956	48LN8960	48LN8961	48LN8962
	48LN8963	48LN8964	48LN8965	48LN8967
	48LN8969	48LN8970	48LN8973	48LN8974
	48LN8977			
Cultural Resource Landscape; Determined Not Eligible	48LN3203			

Abstract

Tetra Tech's Class III cultural resource inventory of the direct APE study area resulted in the revisit of 14 previously recorded cultural resource sites and site segments, documented 36 new sites, conducted visual assessment on eight sites, and identified 136 IRs (see **Appendix A and Appendix B**). Overall, the inventory conformed to the expectations outlined in **Section 2.3** and Tetra Tech has high confidence in the reported results. Within the direct APE, four cultural resource sites (Site 48LN740, 48LN2697 [Segments 48LN2697_3 and 48LN2697_4], 48LN8940, and 48LN8978 [Segment 48LN8978_1]) are determined/recommended eligible for inclusion on the NRHP. The remaining cultural resource sites within the direct APE are determined/recommended not eligible for inclusion on the NRHP. For the indirect APE, the

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visual effect assessment was completed for eight of the nine previously recorded visually sensitive sites. Tetra Tech was denied landowner permission to access the ninth visually sensitive site to complete an assessment. Tetra Tech completed the assessment using a VCR form and none of the sites that were found to be potentially adversely affected by the project.

Table 44 summarizes Tetra Tech's findings of effect and management recommendations for each site within the direct APE and revisited visually sensitive site within the indirect APE. The project adversely affects sites 48LN740 and 48LN8940. The project will have no adverse effect to Sites 48LN1272, 48LN1273, 48LN2697_1, 48LN2691_3, 48LN2739_1, 48LN4011, 48LN4026, 48LN4428, and 48LN8978_1. The project will have no effect on the remaining sites within the direct APE and visually sensitive sites in the indirect APE. The documented IRs are cultural manifestations of limited information potential and are therefore not eligible for inclusion on the NRHP. IRs do not require further research or management beyond recordation and reporting according to Wyoming SHPO guidelines.

Based on Tetra Tech's evaluations, effects assessment, the project will have an **adverse effect** to historic properties 48LN740 and 48LN8940. Tetra Tech provided management recommendations to mitigate the identified adverse effects to sites 48LN740 and 48LN8940 (see site write ups in **Sections 5.1.1 and 5.1.2**). The remaining sites are not going to be adversely affected by the project and do not require further management or mitigation measures be developed for them. If the NRC determines there is an adverse effect as recommended by Tetra Tech and SHPO concurs, the mitigation measures would be detailed in a Historic Properties Treatment Plan. The plan methodology will be to mitigate the effects to the historic properties for the project in conformation with Section 106 of the NHPA. The plan will be viewed and consulted on by NRC, SHPO, TerraPower, and Tribal nations for comment and approval prior to implementation.

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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TABLE OF CONTENTS

1.0 UNDERTAKING/PROJECT DESCRIPTION 1

1.1 Location 1
1.2 Environmental Setting 1
1.3 Present Built Environmental Setting 2

2.0 BACKGROUND RESEARCH 4

2.1 General Land Office Map Review 17
2.2 Visual Effect Assessment 17
2.3 Inventory Expectations 19

3.0 PROJECT HISTORIC CONTEXT 21

3.1 Prehistoric Era 21
3.1.1 Paleoindian 21
3.1.2 Archaic 23
3.1.3 Late Prehistoric Period 24
3.1.4 Protohistoric 25
3.2 Native American Ethnography 25
3.3 Historic Era 26

4.0 METHODOLOGY 31

4.1 Survey Methodology 31
4.2 Resource Documentation and Evaluation Methodology 31
4.3 Visual Impact Assessment Methodology 32

5.0 INVENTORY RESULTS 34

5.1 Cultural Resource Sites 35
5.1.1 Previously Documented Sites 35
48LN735 – Prehistoric Artifact Scatter with Features, Not Eligible 35
48LN740 – Multicomponent Artifact Scatter with Features, Eligible under Criterion D 36
48LN798 – Prehistoric Artifact Scatter, Not Eligible 46
48LN799 – Historic Artifact Scatter, Not Eligible 47
48LN801 – Historic Artifact Scatter, Not Eligible 48
48LN802 – Historic Artifact Scatter, Not Eligible 52
48LN2335 – Prehistoric Artifact Scatter with Feature, Not Eligible 56
48LN2697 (Segment 48LN2697_3) –Historic Cumberland Branch – Union Pacific Railroad Alignment, Eligible under Criterion A 60
48LN2697 (Segment 48LN2697_4) – Abandoned Historic Grade of the Cumberland Branch of the Union Pacific Railroad, Eligible under Criterion A, Non-contributing segment 63
48LN2939 – Prehistoric Artifact Scatter with Features, Not Eligible 68
48LN8955 (NAT-35)– Prehistoric Artifact Scatter with Feature, Not Eligible 71
48LN8971 (NAT-24)– Prehistoric Artifact Scatter with Feature, Not Eligible 75
48LN8975 (NAT-33)– Prehistoric Feature, Not Eligible 78
48LN8976 (NAT-01)– Multicomponent Artifact Scatter with Feature, Not Eligible 81
5.1.2 Newly Documented Sites 85

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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48LN8940 (NAT-03)– Multicomponent Artifact Scatter with Features, Eligible under Criterion D.... 85
48LN8941 (NAT-04)– Prehistoric Artifact Scatter with Features, Not Eligible 90
48LN8942 (NAT-05)– Prehistoric Artifact Scatter with Feature, Not Eligible 93
48LN8943 (NAT-06)– Prehistoric Artifact Scatter with Feature, Not Eligible 96
48LN8944 (NAT-07)– Prehistoric Artifact Scatter with Features, Not Eligible 99
48LN8945 (NAT-41)– Prehistoric Artifact Scatter with Features, Not Eligible 102
48LN8946 (NAT-40)– Historic Artifact Scatter with Feature, Not Eligible 105
48LN8947 (NAT-08)– Prehistoric Artifact Scatter with Feature and Historic Isolate, Not Eligible .. 108
48LN8948 (NAT-09)– Prehistoric Artifact Scatter with Features and Historic Isolate, Not Eligible 111
48LN8949 (NAT-39)– Multicomponent Artifact Scatter with Feature, Not Eligible 115
48LN8950 (NAT-10)– Prehistoric Artifact Scatter with Features, Not Eligible 119
48LN8951 (NAT-12)– Historic Artifact Scatter, Not Eligible 122
48LN8952 (NAT-13)– Historic Artifact Scatter with Features, Not Eligible 126
48LN8953 (NAT-14)– Historic Artifact Scatter, Not Eligible 130
48LN8954 (NAT-16)– Prehistoric Artifact Scatter with Feature, Not Eligible 134
48LN8956 (NAT-34)– Prehistoric Artifact Scatter with Feature, Not Eligible 137
48LN8957 (NAT-17)– Prehistoric Artifact Scatter with Feature, Not Eligible 140
48LN8958 (NAT-18)– Prehistoric Artifact Scatter, Not Eligible 143
48LN8959 (NAT-32)– Multicomponent Artifact Scatter with Feature, Not Eligible 146
48LN8960 (NAT-31)– Prehistoric Artifact Scatter, Not Eligible 150
48LN8961 (NAT-19)– Prehistoric Artifact Scatter with Features, Not Eligible 153
48LN8962 (NAT-30)– Multicomponent Artifact Scatter with Feature, Not Eligible 156
48LN8963 (NAT-29)– Prehistoric Artifact Scatter, Not Eligible 160
48LN8964 (NAT-20)– Prehistoric Artifact with Features, Not Eligible..... 163
48LN8965 (NAT-28)– Multicomponent Artifact Scatter, Not Eligible 166
48LN8966 (NAT-21)– Prehistoric Artifact Scatter, Not Eligible 170
48LN8967 (NAT-27)– Prehistoric Artifact Scatter with Historic Isolate, Not Eligible..... 173
48LN8968 (NAT-22)– Prehistoric Artifact Scatter, Not Eligible 176
48LN8969 (NAT-26)– Prehistoric Feature, Not Eligible 179
48LN8970 (NAT-25)– Historic Artifact Scatter, Not Eligible 182
48LN8972 (NAT-23)– Multicomponent Artifact Scatter with Features, Not Eligible..... 185
48LN8973 (NAT-38)– Multicomponent Artifact Scatter, Not Eligible 190
48LN8974 (NAT-36)– Prehistoric Artifact Scatter with Feature, Not Eligible 194
48LN8977 (NAT-02)– Historic Artifact Scatter with Prehistoric Isolate, Not Eligible..... 197
48LN8978 (Segment 48LN8978_1) – Glencoe Spur of the Cumberland Branch of the Union Pacific Railroad, Eligible under Criterion A; Non-contributing Segment 201
48LN8979 – Skull Point Spur of the Cumberland Branch of the Union Pacific Railroad, Not Eligible 204
5.2 Isolated Resources.....206
5.3 Visual Effect Assessments 224
48LN773 – Multicomponent Rock Cairns, Eligible under Criterion D 224
48LN1272 – Glencoe Mine, Eligible under Criteria A and D 225
48LN1273 – Lincoln Star Mine, Eligible under Criteria A and D 227
48LN2327_14 – Oregon Shortline Railroad, Eligible under Criteria A and C, Contributing Segment 228

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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48LN2739_1 – Kemmerer to Cumberland Highway, Eligible Under Criterion A, Contributing segment 229
48LN4011 – Multicomponent Artifact Scatter with Features, Eligible Under Criteria A and D 230
48LN4026 – Blazon Railroad Spur, Eligible Under Criteria A and C 232
48LN4428 – Glencoe Townsite, Eligible Under Criterion A 233

6.0 SUMMARY AND MANAGEMENT RECOMMENDATION 234

6.1 Historic Context Summary 234
6.1.1 The Prehistoric-era Landscape 234
6.1.2 The Historic-era Landscape 235
6.2 Management Summary 236

7.0 REFERENCES CITED 238

LIST OF FIGURES

Figure 1. Project Area Overview within the Macro-corridor, facing Southwest toward Proposed Plant. Elizabeth Shikrallah (4/27/2022) Unaltered. 3
Figure 2. Project Area Overview Near Naughton Power Plant, facing Southeast. Elizabeth Shikrallah (5/3/2022), photograph brightened. 3
Figure 3. Site 48LN735, Resource Overview, Facing South. Beth Karpinski (10/19/2022). Unaltered. 36
Figure 4. Site 48LN740, Resource Overview, Facing Southwest. Beth Karpinski (5/14/2022). Unaltered. 43
Figure 5. Site 48LN740, Expanded Area Overview, Facing North. Beth Karpinski (9/23/2024). Unaltered. 44
Figure 6. Site 48LN740, Site Sketch Map. 45
Figure 7. Site 48LN798, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered. 46
Figure 8. Site 48LN799, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered. 48
Figure 9. Site 48LN801, Resource Overview, facing East-Southeast. Beth Karpinski (5/11/2022). Unaltered. 50
Figure 10. Site 48LN801, Site Sketch Map. 51
Figure 11. Site 48LN802, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered. 54
Figure 12. Site 48LN802, Site Sketch Map. 55
Figure 13. Site 48LN2335, Resource Overview, facing Southwest. Beth Karpinski (5/14/2022). Unaltered. 58
Figure 14. Site 48LN2335, Site Sketch Map. 59
Figure 15. Site 48LN2697_3, Resource Overview, facing South. Beth Karpinski (4/29/2022). Unaltered. 61
Figure 16. Sites 48LN2697_3, Site Location. 62
Figure 17. Site 48LN2697_4, Resource Overview, Facing South. Beth Karpinski (4/29/2022). Unaltered. 65
Figure 18. Site 48LN2697_4, Trestle Remains, Facing Northeast. Beth Karpinski (4/29/2022). Unaltered. 66
Figure 19. Sites 48LN2697_4, Site Location. 67
Figure 20. Site 48LN2939, Resource Overview, facing West. Beth Karpinski (5/17/2022). Unaltered. 69

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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Figure 21. Sites 48LN2939, Site Sketch Map. 70
Figure 22. Site 48LN8955, Resource Overview, Facing Southwest. Beth Karpinski (5/14/2022). Unaltered. 73
Figure 23. Site 48LN8955, Site Sketch Map. 74
Figure 24. Site 48LN8971, Resource Overview, Facing East-Southeast. Beth Karpinski (5/1/2022). Unaltered. 76
Figure 25. Site 48LN8971, Site Sketch Map. 77
Figure 26. Site 48LN8975, Resource Overview, Facing West-Northwest. Beth Karpinski (5/13/2022). Unaltered. 79
Figure 27. Site 48LN8975, Site Sketch Map. 80
Figure 28. Site 48LN8976, Resource Overview, Facing Northeast. Beth Karpinski (4/30/2022). Unaltered. 83
Figure 29. Site48LN8976, Site Sketch Map. 84
Figure 30. Site 48LN8940, Resource Overview, facing Southwest. Beth Karpinski (4/27/2022). Unaltered. 88
Figure 31. Site 48LN8940, Site Sketch Map. 89
Figure 32. Site 48LN8941, Resource Overview, facing South-Southwest. Beth Karpinski (4/30/2022). Unaltered. 91
Figure 33. Site 48LN8941, Site Sketch Map. 92
Figure 34. Site 48LN8942, Resource Overview, facing South-Southeast. Beth Karpinski (4/30/2022). Unaltered. 94
Figure 35. Site 48LN8942, Site Sketch Map. 95
Figure 36. Site 48LN8943, Resource Overview, facing East-Northeast. Beth Karpinski (4/28/2022). Unaltered. 97
Figure 37. Site 48LN8943, Site Sketch Map. 98
Figure 38. Site 48LN8944, Resource Overview, facing Southwest. Beth Karpinski (4/28/2022). Unaltered. 100
Figure 39. Site 48LN8944, Site Sketch Map. 101
Figure 40. Site 48LN8945, Resource Overview, facing North. Beth Karpinski (5/16/2022). Unaltered. 103
Figure 41. Site 48LN8945, Site Sketch Map. 104
Figure 42. Site 48LN8946, Resource Overview, facing West. Beth Karpinski (5/16/2022). Unaltered. 106
Figure 43. Site 48LN8946, Site Sketch Map. 107
Figure 44. Site 48LN8947, Resource Overview, facing Northwest. Beth Karpinski (4/28/2022). Unaltered. 109
Figure 45. Site 48LN8947, Site Sketch Map. 110
Figure 46. Site 48LN8948, Resource Overview, facing Northwest. Beth Karpinski (4/28/2022). Unaltered. 113
Figure 47. Site 48LN8948, Site Sketch Map. 114
Figure 48. Site 48LN8949, Resource Overview, facing West-Southwest. Beth Karpinski (5/16/2022). Unaltered. 117
Figure 49. Site 48LN8949, Site Sketch Map. 118
Figure 50. Site 48LN8950, Resource Overview, facing Southwest. Beth Karpinski (4/28/2022). Unaltered. 120
Figure 51. Site 48LN8950, Site Sketch Map. 121
Figure 52. Site 48LN8951, Resource Overview, facing Southeast. Beth Karpinski (4/29/2022). Unaltered. 124
Figure 53. Site 48LN8951, Site Sketch Map. 125
Figure 54. Site 48LN8952, Resource Overview, facing South. Beth Karpinski (4/29/2022). Unaltered. 128

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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Figure 55. Site 48LN8952, Site Sketch Map. 129
Figure 56. Site 48LN8953, Resource Overview, facing Southwest. Beth Karpinski (4/29/2022). Unaltered. 132
Figure 57. Site 48LN8953, Site Sketch Map. 133
Figure 58. Site 48LN8954, Resource Overview, facing North-Northwest. Beth Karpinski (4/30/2022). Unaltered. 135
Figure 59. Site 48LN8954, Site Sketch Map. 136
Figure 60. Site 48LN8956, Resource Overview, facing Northwest. Beth Karpinski (5/2/2022). Unaltered. 138
Figure 61. Site 48LN8956, Site Sketch Map. 139
Figure 62. Site 48LN8957, Resource Overview, facing North. Beth Karpinski (4/30/2022). Unaltered. 141
Figure 63. Site 48LN8957, Site Sketch Map. 142
Figure 64. Site 48LN8958, Resource Overview, facing Southwest. Beth Karpinski (4/30/2022). Unaltered. 144
Figure 65. Site 48LN8958, Site Sketch Map. 145
Figure 66. Site 48LN8959, Resource Overview, facing West. Beth Karpinski (5/13/2022). Unaltered. 148
Figure 67. Site 48LN8959, Site Sketch Map. 149
Figure 68. Site 48LN8960, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered. 151
Figure 69. Site 48LN8960, Site Sketch Map. 152
Figure 70. Site 48LN8961, Resource Overview, facing West-Southwest. Beth Karpinski (5/1/2022). Unaltered. 154
Figure 71. Site 48LN8961, Site Sketch Map. 155
Figure 72. Site 48LN8962, Resource Overview, facing West Northwest. Beth Karpinski (5/2/2022). Unaltered. 158
Figure 73. Site 48LN8962, Site Sketch Map. 159
Figure 74. Site 48LN8963, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered. 161
Figure 75. Site 48LN8963, Site Sketch Map. 162
Figure 76. Site 48LN8964, Resource Overview, facing East. Beth Karpinski (5/1/2022). Unaltered. 164
Figure 77. Site 48LN8964, Site Sketch Map. 165
Figure 78. Site 48LN8965, Resource Overview, facing West Northwest. Beth Karpinski (5/2/2022). Unaltered. 168
Figure 79. Site 48LN8965, Site Sketch Map. 169
Figure 80. Site 48LN8966, Resource Overview, facing North. Beth Karpinski (5/1/2022). Unaltered. 171
Figure 81. Site 48LN8966, Site Sketch Map. 172
Figure 82. Site 48LN8967, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered. 174
Figure 83. Site 48LN8967, Site Sketch Map. 175
Figure 84. Site 48LN8968, Resource Overview, facing Southeast. Beth Karpinski (5/1/2022). Unaltered. 177
Figure 85. Site 48LN8968, Site Sketch Map. 178
Figure 86. Site 48LN8969, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered. 180
Figure 87. Site 48LN8969, Site Sketch Map. 181
Figure 88. Site 48LN8970, Resource Overview, facing Southwest. Beth Karpinski (5/2/2022). Unaltered. 183

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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Figure 89. Site 48LN8970, Site Sketch Map. 184
Figure 90. Site 48LN8972, Resource Overview, facing East. Beth Karpinski (5/1/2022). Unaltered. 188
Figure 91. Site 48LN8972, Site Sketch Map. 189
Figure 92. Site 48LN8973, Resource Overview, facing Northwest. Beth Karpinski (5/30/2022). Unaltered. 192
Figure 93. Site 48LN8973, Site Sketch Map. 193
Figure 94. Site 48LN8974, Resource Overview, facing South-Southeast. Beth Karpinski (5/14/2022). Unaltered. 195
Figure 95. Site 48LN8974, Site Sketch Map. 196
Figure 96. Site 48LN8977, Resource Overview, facing West. Beth Karpinski (4/26/2022). Unaltered. 199
Figure 97. Site 48LN8977, Site Sketch Map. 200
Figure 98. Site 48LN8978_1, Resource Overview, facing Northeast. Elizabeth Shikrallah (4/26/2022). Unaltered. 202
Figure 99. Site 48LN8978_1, Site Location. 203
Figure 100. Site 48LN8979, Resource Overview, facing North. Beth Karpinski (4/28/2022). Unaltered. 204
Figure 101. Site 48LN8979, Site Location. 205
Figure 102. IR_WY_2022_1649, Projectile Point, facing South. Beth Karpinski (5/14/2022) Unaltered. 223
Figure 103. Site 48LN773, KOP-01 Toward Project, Facing South-Southeast. Taken by Beth Karpinski (7/11/2023). Unaltered. 225
Figure 104. Site 48LN1272, KOP-09 Toward Project, Facing West-Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered. 226
Figure 105. Site 48LN1272, KOP-10 Toward Project, Facing Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered. 226
Figure 106. Site 48LN1273, KOP-05 Toward Project, Facing Northwest. Taken by Beth Karpinski (7/10/2023). Unaltered. 227
Figure 107. Site 48LN237_14, KOP-02 Toward Project, Facing South. Taken by Beth Karpinski (7/11/2023). Unaltered. 228
Figure 108. Site 48LN2739_1, KOP-03 Toward Project, Facing North-Northwest. Taken by Beth Karpinski (7/10/2023). Unaltered. 229
Figure 109. Site 48LN4011/48LN4428, KOP-07 Toward Project, Facing West-Northwest. Taken by Beth Karpinski (7/11/2023). Unaltered. 231
Figure 110. Site 48LN4011/48LN4428, KOP-08 Toward Project, Facing West-Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered. 231
Figure 111. Site 48LN4026, KOP-06 Toward Project, Facing North-northwest. Taken by Beth Karpinski (7/10/2023). Unaltered. 232

LIST OF TABLES

Table 1. Previously Recorded Cultural Resources Within Literature Search Area. 4
Table 2. Visually Sensitive Cultural Resources Within the Indirect APE 19
Table 3. Site 48LN740 Lithic Tool Descriptions 38
Table 4. Site 48LN740 Debitage 39
Table 5. Site 48LN740 Feature Descriptions 40
Table 6. Site 48LN740 Historic Artifact Assemblage 41
Table 7. Site 48LN801 Historic Artifact Assemblage 49
Table 8. Site 48LN802 AC-01 Artifact Assemblage 52

SUBJECT TO DOE COOPERATIVE AGREEMENT NO. DE-NE0009054
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Table 9. Site 48LN802 Historic Artifact Assemblage 53
Table 10. Site 48LN2335 Lithic Tool Descriptions 56
Table 11. Site 48LN2335 Debitage 57
Table 12. Site 48LN2697_4 Historic Artifact Assemblage 63
Table 13. Site 48LN8955 Lithic Tool Descriptions 71
Table 14. Site 48LN8955 Debitage 72
Table 15. Site 48LN8976 Historic Artifact Assemblage 82
Table 16. Site 48LN8940 Lithic Tool Descriptions 85
Table 17. Site 48LN8940 Debitage 86
Table 18. Site 48LN8940 Feature Descriptions 86
Table 19. Site 48LN8940 Historic Artifact Assemblage 87
Table 20. Site 48LN8948 Feature Descriptions 111
Table 21. Site 48LN8949 Historic Artifact Assemblage 115
Table 22. Site 48LN8950 Feature Descriptions 119
Table 23. Site 48LN8951 Historic Artifact Assemblage 122
Table 24. Site 48LN8952 Historic Artifact Assemblage 126
Table 25. Site 48LN8952 Feature Descriptions 127
Table 26. Site 48LN8953 Historic Artifact Assemblage 130
Table 27. Site 48LN8958 Lithic Tool Descriptions 143
Table 28. Site 48LN8959 Lithic Tool Descriptions 146
Table 29. Site 48LN8959 Historic Artifact Assemblage 147
Table 30. Site 48LN8960 Debitage 150
Table 31. Site 48LN8962 Historic Artifact Assemblage 156
Table 32. Site 48LN8963 Debitage 160
Table 33. Site 48LN8965 Debitage 166
Table 34. Site 48LN8965 Historic Artifact Assemblage 167
Table 35. Site 48LN8966 Lithic Tool Descriptions 170
Table 36. Site 48LN8968 Debitage 176
Table 37. Site 48LN8970 Historic Artifact Assemblage 182
Table 38. Site 48LN8972 Lithic Tool Descriptions 185
Table 39. Site 48LN8972 Debitage 186
Table 40. Site 48LN8972 Feature Descriptions 186
Table 41. Site 48LN8972 Historic Artifact Assemblage 187
Table 42. Site 48LN8973 Historic Artifact Assemblage 190
Table 43. Site 48LN8977 Historic Artifact Assemblage 197
Table 44. Class III Cultural Resource Inventory Results Summary 233

LIST OF APPENDICES

Appendix A Cultural Inventory Results Map with Direct and Indirect APE (1:24,000 Scale)
Appendix B Cultural Resource Inventory Results: Direct APE Only

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1.0 UNDERTAKING/PROJECT DESCRIPTION

TerraPower, LLC (TerraPower) is proposing the Natrium™ advanced reactor demonstration project (Natrium Demonstration or Project) near the existing Naughton Power Plant south of the community of Kemmerer in Lincoln County, Wyoming. The Project Site is located on privately held lands in Township (T) 20 North (N) Range (R) 116 West (W) Sections 19 and 20. The Project Site consists of the reactor, energy storage system and associated facilities to be constructed within this area, and the full extent of impacts from the construction of these facilities are anticipated to occur within this boundary. A final route for the electric transmission line and water pipeline from the Project Site to the immediate vicinity of the Naughton Power Plant has not been determined. Macro-corridors were defined to capture the potential range of feasible options for the routes. A common macro-corridor, water macro-corridor, and electrical macro-corridor encompass the extent of potential impacts that could occur during construction of the transmission lines and water pipeline.

Tetra Tech was contracted by Bechtel, a contractor of TerraPower, to conduct the appropriate inventory and evaluation studies that would allow a proper assessment of potential impacts to cultural resources as required by the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the regulations of the Nuclear Regulatory Commission (NRC) for compliance with Section 106 of the NHPA. The cultural resource Areas of Potential Effects (APEs) (36 CFR §800.16(d)) were defined in collaboration with TerraPower, Bechtel, and Tetra Tech in conformance with Wyoming State Historic Preservation Office (SHPO) guidelines and standards (SHPO 2012, 2022a, 2022b). The direct APE for physical effects was defined as the combined 711-acre area that includes the Project Site and Macro-corridors as outlined in the previous paragraph. The 2022 1,537-acre Study Area Class III cultural resource inventory was conducted prior to the development of the direct APE. However, the Class III cultural resource inventory Study Area encompasses all portions of the direct APE (see **Appendix A and B**). The indirect APE to assess potential to visual, atmospheric, vibrational, and auditory effects to historic properties included the direct APE/Study Area and the 5 miles surrounding the Study Area.

The following report is for the Class III cultural resource inventory completed in 2022 and 2024 for the defined Project cultural resource Study Area encompassing the direct APE along with the indirect APE to support the NRC's regulatory review process as part of their issuance of the construction permit (WyoTrack Investigation Number: DBI_WY_2022_280). The results of the Class III cultural resource inventory have already been utilized as part of the Department of Energy's review and permitting for associated Project activities of the seismic testing (DBI_WY_2022_281), the Test and Fill Facility (DBI_WY_2023_418), and the Kemmerer Unit 1 Preconstruction activities (DBI_WY_2024_515).

1.1 Location

The Project is situated approximately 5 miles south of the city of Kemmerer in Lincoln County, Wyoming (see **Appendix A**). The Project crosses Section 32 of T21N R116W; Sections 1, 2, 11, and 12 of T20N R117W; and Sections 7, 8, 17, 19, and 20 of T20N R116W, 6th Principal Meridian, [7.5' quadrangle U.S. Geological Survey (USGS) maps Elkol, Wyoming (1979) and Kemmerer, Wyoming (1985)].

1.2 Environmental Setting

The Project is located within the Wyoming Basin geographic landform and in the western portion of the Wyoming Basin ecoregion. The area is surrounded by expansive flat-topped rolling hills and hogbacks. The greater region is a broad arid intermontane basin interrupted by hills and low

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mountains (Chapman et al. 2004). The underlying geologic formation is Upper Cretaceous-aged Hilliard Shale claystone, siltstone, and sandy shale (Love and Christiansen 1985).

The Natural Resources Conservation Service (NRCS) defines most of the soils of the project area as a mix of Cumberhill-Sandbranch-Poposhia complex and Sandbranch-Monte complex. Sediments in the complexes are described as loamy drainageways with sandy loam interdunes on alluvial flats and gravelly sandy loam, sandy clay loam, and clay loam hillslopes. The western slope of Oyster Ridge is mostly defined as Blason-Chaperton-Fola complex. Sediments in this complex are described as clay loam and gravelly loam hills. Small areas of mine dumps, Whitesage loam, and Scully-Landspring complex are noted at the western, northeastern, and southwestern edges of the Project (NRCS 2022).

The Project is located on a rolling alluvial plain within Cumberland Flats between Oyster Ridge to the east and an unnamed uplift to the west. The Project sediments vary from residual sediment with dense subrounded to subangular, pebble- to boulder-sized gravels to alluvial deposits with moderate pebble- to boulder-sized gravels to aeolian dunes and sand shadows with few natural pebble-sized gravels (**Figures 1 and 2**). Most dunes/sand shadows within the Project area are small and low. The aeolian deposits have a moderate to high potential to contain subsurface cultural materials. The residual sediments have little to no potential to contain subsurface cultural materials. Vegetation is a desert-shrubland community of sagebrush, rabbitbrush, greasewood, saltbush, bunchgrasses, and various forbs (Knight 1994). Vegetation coverage averages approximately 25 to 50 percent. The region is climatically a cold desert with warm dry summers and cold wet winters. The area is seasonal habitat for a wide variety of animal species including large- to tertiary mammals, birds, and reptiles. The Project is located within the Greater Green River Drainage Basin and is bound on the east side by the North Fork Little Muddy Creek.

1.3 Present Built Environmental Setting

The direct APE and surrounding vicinity have been subject to relatively varying levels of development with concentrations of visible man-made features. Highway 189 with associated traffic, right-of-way (ROW) fencing, and signage parallels and crosses the direct APE. Additional roads ranging from paved improved roads to two-tracks, public to private, are also present. Active and abandoned portions of railroad lines are also evident within and near the direct APE. Modern-era trash and construction debris are also present throughout the direct APE. At the northern end of the direct APE is PacifiCorp’s Naughton Power Plant and associated facilities. There are several scars from previous and current coal mining on both ridges that flank Cumberland Flats. Recently, DOE reviewed and permitted site characterization activities and construction on the Sodium Test and Fill Facility (TFF) including geotechnical drilling, access road construction, facility construction, and related work within the Study Area. The remaining surrounding area is undeveloped private and public lands.

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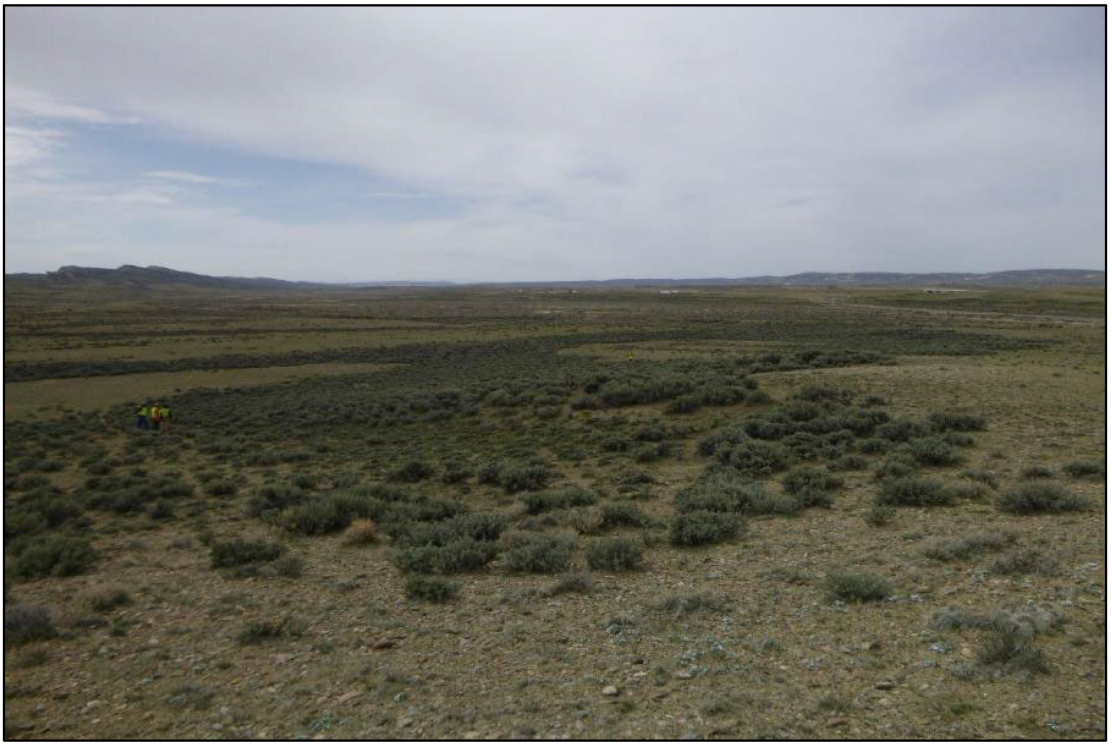


Figure 1. Project Area Overview within the Macro-corridor, facing Southwest toward Proposed Plant. Elizabeth Shikrallah (4/27/2022) Unaltered.



Figure 2. Project Area Overview Near Naughton Power Plant, facing Southeast. Elizabeth Shikrallah (5/3/2022), photograph brightened.

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2.0 BACKGROUND RESEARCH

A literature search was conducted on February 28, 2022, for the Natrium Demonstration Project encompassing the direct APE and the 5-mile indirect APE (literature search area). The cultural literature review encompassed those records available online through the Wyoming SHPO, Wyoming Cultural Records Office WyoTrack Geographic Information System database, and a paid formal file search request through Wyoming SHPO (File Search No. 3653). An informal literature search of the WyoTrack database to update was conducted on August 27, 2024, to determine new cultural resource inventories that have been conducted since the paid formal file search as well as to see if new cultural resources have been recorded or updated.

Sixteen cultural resource inventories have been previously conducted in the direct APE. The previously completed inventories were part of oil and gas pipeline developments, mining developments, road infrastructure, powerlines, and telecommunications. Tetra Tech re-inventoried the entire direct APE in 2022 and 2024 due to the age and/or small area covered by the previously completed inventories within the direct APE. In addition to the 16 previously completed cultural resource surveys, Tetra Tech's 2022 and 2024 Class III cultural resource inventory of the direct APE has been utilized as part of DOE review and permitting for seismic testing (DBI_WY_2022_281), the Test and Fill Facility (DBI_WY_2023_418), and the Kemmerer Unit 1 Preconstruction activities (DBI_WY_2024_515). Each of these inventories are entered as separate investigations in the WyoTrack database.

According to WyoTrack, 340 previously recorded cultural resource sites/site segments and two previously recorded lithic landscapes are located within the literature search area (**Table 1**). Twenty-two previously recorded sites and one of the lithic landscapes occur within the direct APE (see **bolded** in **Table 1**). The lithic landscapes are the Blacks Fork Lithic Landscape (Blacks Fork, 48LN2469) and the Hams Fork Conglomerate Lithic Landscape (Hams Fork, 48LN3203). The landscapes are two of several defined across southern Wyoming where aboriginal people tested and procured naturally occurring tool stone largely exposed on the ground surface in primary and secondary depositional contexts across broad geographic areas. The Blacks Fork is defined by the limits of the Blacks Fork drainage basin and is a result of the exposure and erosion of the Bridger and Green River formations and from surrounding mountain sources (Hoefer 1992). The Hams Fork is the result of the exposure and erosion of the Hams Fork Conglomerate Member of the Evanston Formation occurring as bedrock exposures and eroded pebble- to cobble-sized gravels in Quaternary deposits between the communities of Kemmerer and Evanston, Wyoming (Harrell 1996). Since the creation of the landscapes by Wyoming-based federal agencies, SHPO has required archaeological consultants note in Class III cultural resource inventory technical reports the presence or absence of the landscape and, if present, a general description of the observed evidence for the naturally occurring deposits and any the potential casual secondary lithic procurement activities in the inventoried area. Also, when working in the landscape, prehistoric-era Isolated Resources (IR) are to only be documented when the field director determines they do not reflect casual secondary lithic procurement activities. See **Section 4.1** for further discussion of the sites and the lithic landscape in relation to the direct APE.

Table 1. Previously Recorded Cultural Resources Within Literature Search Area.

Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN23	P – Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN24	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN25	P – Lithic scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN26	P– Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN27	P– Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN28	P– Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN29	P– Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN30	H– Elkol Townsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN132	P – Lithic scatter with possible hearth feature	[[Exempted from disclosure by statute]]	Unevaluated
48LN134	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN147	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN210	H – Building	[[Exempted from disclosure by statute]]	Eligible
48LN244	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN245	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN246	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN295	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN298	H – Cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN299	H – Cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN317	P – Rock art with artifact scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN329	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN331	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN358	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN359	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN388	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN389	M/C –Prehistoric and historic artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN390	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN393	P – Artifact scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN394	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN395	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN396	P – Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN397	H– Cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN398	H – Cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN408	P – Lithic scatter with hearth features	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN409	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN410	P – Lithic scatter with heath features	[[Exempted from disclosure by statute]]	Not eligible
48LN411	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN412	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN413	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN414	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN417	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN418	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN419	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN433	H – Cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN543	P – Artifact scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN544	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN545	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN639	P – Fire-cracked rock concentration	[[Exempted from disclosure by statute]]	Unevaluated
48LN640	M/C – Prehistoric lithic scatter and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN641	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN642	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN643	M/C – Prehistoric lithic scatter and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN644	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN679	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN680	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN688	P – Primary quartzite reduction area and burnt quartzite scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN689	P – Camp and petroglyphs	[[Exempted from disclosure by statute]]	Unevaluated
48LN690	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN691	M/C – Prehistoric lithic scatter with fire-cracked rock and historic artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN692	H – Artifact scatter and cairn	[[Exempted from disclosure by statute]]	Not eligible
48LN693	M/C – Prehistoric lithic source and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN694	P – Artifact scatter with hearth features	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN695	M/C – Prehistoric artifact scatter with hearth features and historic artifact scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN696	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN697	M/C – Prehistoric lithic scatter with rock alignment and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN698	P – Lithic source	[[Exempted from disclosure by statute]]	Not eligible
48LN699	M/C – Prehistoric lithic scatter with fire-cracked rock and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN700	P – Open camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN701	P – Petroglyph	[[Exempted from disclosure by statute]]	Not eligible
48LN721	P – Artifact scatter with hearth features	[[Exempted from disclosure by statute]]	Not eligible
48LN722	M/C – Prehistoric and historic rock shelters	[[Exempted from disclosure by statute]]	Unevaluated
48LN725	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Not eligible
48LN726	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Not eligible
48LN735	**P – Lithic and fire-cracked rock scatter**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN736	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN737	M/C – Prehistoric lithic scatter with hearth features and fire-cracked rock concentrations; and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN738	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN739	P – Lithic scatter with hearth features and fire-cracked rock concentrations	[[Exempted from disclosure by statute]]	Not eligible
48LN740	**M/C – Prehistoric artifact scatter with fire-cracked rock, and historic scatter and sheep camp**	[[Exempted from disclosure by statute]]	**Eligible, Criterion D**
48LN741	M/C – Prehistoric lithic scatter with fire-cracked rock, and historic mine	[[Exempted from disclosure by statute]]	Eligible, Criterion D
42LN773	M/C - Rock Cairns	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN793	H– Artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN794	M/C – Prehistoric lithic scatter, historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN795	P – Artifact scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN796	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN797	P – Artifact scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN798	**P – Lithic scatter**	[[Exempted from disclosure by statute]]	**Unevaluated**
48LN799	**H – Sheepherder camp**	[[Exempted from disclosure by statute]]	**Unevaluated**
48LN800	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN801	**M/C – Historic sheepherder camp and prehistoric isolate**	[[Exempted from disclosure by statute]]	**Unevaluated**
48LN802	**H – Sheepherder camp**	[[Exempted from disclosure by statute]]	**Unevaluated**
48LN803	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN804	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN805	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN809	H – Artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN810	P – Lithic scatter with hearth features	[[Exempted from disclosure by statute]]	Unevaluated
48LN811	M/C – Prehistoric lithic scatter with fire-cracked rock, and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN812	M/C – Prehistoric lithic scatter with fire-cracked rock, and historic artifact scatter and sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN813	P – Lithic source	[[Exempted from disclosure by statute]]	Unevaluated
48LN814	P – Lithic source	[[Exempted from disclosure by statute]]	Unevaluated
48LN821	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN822	P – Lithic scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN823	P – Lithic source and artifact scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN825	P – Lithic scatter with fire-cracked rock concentration	[[Exempted from disclosure by statute]]	Unevaluated
48LN826	P – Artifact scatter with fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN827	P – Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN828	P – Artifact scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN829	P – Artifact scatter with hearth features	[[Exempted from disclosure by statute]]	Unevaluated
48LN947_10	H – Segment of the Hams Fork Cutoff of the Oregon/California trail system	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN947_11	H – Segment of the Hams Fork Cutoff of the Oregon/California trail system	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN954	M/C – Historic Blazon Mine and prehistoric lithic scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion A, C, and D
48LN966	H – Diamondville cemetery	[[Exempted from disclosure by statute]]	Unevaluated

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN967	H – Elkol Mine	[[Exempted from disclosure by statute]]	Unevaluated
48LN977	H – Glencoe Mine and Townsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN993	H – Lincoln Star Mine	[[Exempted from disclosure by statute]]	Unevaluated
48LN1003	H – Oakley Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN1008	H – Radiant Mine	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1168	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1170	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1174	P – Lithic scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN1175	P – Lithic scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Not eligible
48LN1176	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN1203	P – Lithic concentrations	[[Exempted from disclosure by statute]]	Not eligible
48LN1230	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN1231	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN1265	P – Lithic scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN1266	P – Lithic scatter, burned rock, and groundstone	[[Exempted from disclosure by statute]]	Not eligible
48LN1269	H – Brilliant Mine and Cumberland No. 3 Mine	[[Exempted from disclosure by statute]]	Eligible
48LN1272	H – Glencoe Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN1273	H – Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN1470	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1471	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1472	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1473	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1474	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1475	M/C – Prehistoric open campsite and historic sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN1476	M/C – Prehistoric open campsite and historic sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN1477	P – Campsite	[[Exempted from disclosure by statute]]	Not eligible
48LN1478	M/C – Prehistoric open campsite and historic sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN1479	M/C – Prehistoric open campsite and historic sheepherder camp	[[Exempted from disclosure by statute]]	Unevaluated

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN1480	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1481	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1482	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1483	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1484	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1485	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1486	P – Lithic scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN1487	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1488	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1489	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1490	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1491	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1492	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1493	P – Campsite	[[Exempted from disclosure by statute]]	Unevaluated
48LN1563	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN1565	P – Quarry	[[Exempted from disclosure by statute]]	Unevaluated
48LN1585	H – Camp/trash dump	[[Exempted from disclosure by statute]]	Not eligible
48LN1586	M/C – Prehistoric lithic scatter/procurement and historic trash scatter	[[Exempted from disclosure by statute]]	Unevaluated
48LN1587	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN1588	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN1609	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN1610	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN1611	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN1612	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN1613	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN1662	M/C – Prehistoric lithic scatter and historic herder campsite	[[Exempted from disclosure by statute]]	Not eligible
48LN1701	P – Artifact scatter and features	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1702	P – Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN1703	P –Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN1704	P – Artifact scatter and features	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1705	M/C – Prehistoric artifact scatter with features and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN1706	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN1707	P – Artifact scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1708	P – Unknown	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1709/48LN1710	P – Artifact scatter with hearth features and fire–altered rock concentrations	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1711	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Not eligible
48LN1712	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Not eligible
48LN1713	M/C – Prehistoric artifacts and hearth features and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible
48LN1714	P – Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN1715	M/C – Prehistoric artifacts and hearth features and historic artifacts	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1716	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Not eligible
48LN1717	M/C – Prehistoric artifacts and hearth features and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible
48LN1718	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Not eligible
48LN1719	P – Camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1720	M/C – Prehistoric artifacts and hearth features and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible
48LN1833	P – Camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN1868	M/C – Prehistoric open camp and petroglyphs, and historic emigrant rock carvings and historic trash	[[Exempted from disclosure by statute]]	Not eligible
48LN1967	M/C – prehistoric artifact scatter with possible features/campsite and historic artifact/trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2250	H – Road/trail	[[Exempted from disclosure by statute]]	Not eligible
48LN2327_9	H– Oregon Shortline Railroad	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN2327_10	H – Oregon Shortline Railroad (Pacific Coal Mine Segment)	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN2327_11	H – Oregon Shortline Railroad	[[Exempted from disclosure by statute]]	Eligible, contributing status unevaluated
42LN2327_14	H – Oregon Shortline Railroad	[[Exempted from disclosure by statute]]	Eligible, contributing segment

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN2335	**P – Camp**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN2336	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2434	P – Fire-cracked rock scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2469	P – Black Forks Lithic Landscape	[[Exempted from disclosure by statute]]	Not eligible
48LN2484	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2583	P – Open occupation	[[Exempted from disclosure by statute]]	Not eligible
48LN2584	P – Open occupation	[[Exempted from disclosure by statute]]	Not eligible
48LN2632	H – Diamondville #1 Mine	[[Exempted from disclosure by statute]]	Not eligible
48LN2652	M/C – Prehistoric open occupation and lithic scatter, and historic sheep camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2654	P – Open camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN2655	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2656	P – Open camp		Not eligible
48LN2657	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2658	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2667	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2681	H – Trash dumps	[[Exempted from disclosure by statute]]	Not eligible
48LN2682	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2683	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2684	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2685	M/C – Prehistoric open camp and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2686	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2687	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2688	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2689	M/C – Prehistoric open camp and scattered historic trash	[[Exempted from disclosure by statute]]	Not eligible
48LN2690	M/C – Prehistoric open camp and historic trash scatter and cairn	[[Exempted from disclosure by statute]]	Unevaluated
48LN2691	P – Open camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN2692	M/C – Historic coal mine and prehistoric open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2693	H – Telephone line	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN2694	M/C – Prehistoric open camp and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2695	M/C – Historic coal mine and prehistoric open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2696	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2697_1	H – Cumberland Branch of the Oregon Short Line	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN2697_3	**H – Section of Cumberland Branch of the Union Pacific Railroad**	[[Exempted from disclosure by statute]]	**Eligible, contributing segment**
48LN2697_4	**H – Cumberland Branch of the Oregon Short Line**	[[Exempted from disclosure by statute]]	**Eligible, non–contributing segment**
48LN2698	M/C – Prehistoric lithic reduction locality and open camp, and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2699	M/C – Historic depression and trash scatter and prehistoric debris scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2700	H – Kemmerer–Evanston Highway	[[Exempted from disclosure by statute]]	Eligible, Criterion A
48LN2701	H – Road	[[Exempted from disclosure by statute]]	Not eligible
48LN2702	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2731	M/C – Prehistoric camp and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2732	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2733	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2734	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2735	M/C – Prehistoric camp and historic rock foundation	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN2736	M/C – Prehistoric camp and historic cairns	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN2737	M/C – Prehistoric camp and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2697_1	H – Cumberland Branch of the Oregon Short Line	[[Exempted from disclosure by statute]]	Eligible, non–contributing segment
48LN2739_1	H – Kemmerer–Cumberland Highway	[[Exempted from disclosure by statute]]	Eligible, Criterion A, contributing segment
48LN2739_2	H – Kemmerer–Cumberland Highway	[[Exempted from disclosure by statute]]	Eligible, Criterion A non-contributing segment

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN2751	M/C – Prehistoric artifacts and hearth features and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible
48LN2827	M/C – Prehistoric camp and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2828	H – Trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2829	P – Camp		Not eligible
48LN2830	M/C – Prehistoric camp and historic foundation	[[Exempted from disclosure by statute]]	Not eligible
48LN2831	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2832	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2833	P – Camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN2834	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2835	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2836	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2837	H – Section corner marker	[[Exempted from disclosure by statute]]	Not eligible
48LN2864	M/C – Prehistoric open camp and historic artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2931	P – Open camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2932	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2933	M/C – Prehistoric lithic scatter and historic trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2934	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2935	M/C – Historic artifact scatter and prehistoric isolate	[[Exempted from disclosure by statute]]	Not eligible
48LN2936	H – Trash scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN2937	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2938	H – Cairn	[[Exempted from disclosure by statute]]	Not eligible
48LN2939	**P – Camp**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN2940	M/C – Historic hearth and prehistoric isolate	[[Exempted from disclosure by statute]]	Not eligible
48LN2941	M/C – Prehistoric lithic scatter and historic isolated find	[[Exempted from disclosure by statute]]	Not eligible
48LN2942	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN2943	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN3203	**P –Hams Fork Lithic Landscape**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN3292	M/C – Prehistoric lithics, ceramics, and bone, and historic artifacts	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN3293	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN3295	P – Fire-cracked rock scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN3296	H – Trash scatter/stock herding camp	[[Exempted from disclosure by statute]]	Not eligible
48LN3765	P – Lithic scatter	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN3768	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN3769	H – Artifact scatter with feature	[[Exempted from disclosure by statute]]	Not eligible
48LN3833	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN3963	P – Camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN3964	P – Lithics and fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN3965	H – Sheep camp	[[Exempted from disclosure by statute]]	Unevaluated
48LN3966	P – Lithics and fire-cracked rock	[[Exempted from disclosure by statute]]	Unevaluated
48LN4001	H– Structure	[[Exempted from disclosure by statute]]	Unevaluated
48LN4007	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4008	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4009	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN4011	M/C – Prehistoric artifact scatter with features and historic Glencoe Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN4012	M/C – Prehistoric lithic scatter and historic culvert	[[Exempted from disclosure by statute]]	Not eligible
48LN4014	H – Oakley Mine	[[Exempted from disclosure by statute]]	Not eligible
48LN4023	H – Blazon Service Mine	[[Exempted from disclosure by statute]]	Not eligible
48LN4024	H – Coal mine	[[Exempted from disclosure by statute]]	Not eligible
48LN4025	H – Blazon residential area	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN4026	H – Blazon Railroad Spur	[[Exempted from disclosure by statute]]	Eligible, Criteria A and C
48LN4028	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4068	M/C – Historic coal mine and prehistoric lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4069	H – Pacific Coal Mine	[[Exempted from disclosure by statute]]	Unevaluated

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN4070	M/C – Prehistoric and historic artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4071	M/C – Historic mine and prehistoric camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN4072	M/C – Prehistoric lithic scatter and historic Blazon Mine	[[Exempted from disclosure by statute]]	Not eligible
48LN4073	M/C – Prehistoric lithic scatter and historic Blazon Mine	[[Exempted from disclosure by statute]]	Not eligible
48LN4074	M/C – Prehistoric lithic scatter and historic residential	[[Exempted from disclosure by statute]]	Not eligible
48LN4185	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4188	M/C – Historic artifact scatter and prehistoric isolate	[[Exempted from disclosure by statute]]	Not eligible
48LN4244	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4245	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4246	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4334	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4373	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4377	P – Fire–altered rock	[[Exempted from disclosure by statute]]	Not eligible
48LN4428	H – Glencoe townsite	[[Exempted from disclosure by statute]]	Eligible, Criterion A
48LN4429	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4430	H – Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN4431	Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN4459	H – Cairn	[[Exempted from disclosure by statute]]	Not eligible
48LN4460	H – Cairn	[[Exempted from disclosure by statute]]	Not eligible
48LN4522	P – Lithic scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4534	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4579	H – Oakley townsite, Japanese neighborhood	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN4642	H – Structural remains and historic artifacts	[[Exempted from disclosure by statute]]	Not eligible
48LN4643	H – Cumberland Mine No. 3	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D
48LN4689	H – Bridge	[[Exempted from disclosure by statute]]	Not eligible
48LN4735	P – Camp	[[Exempted from disclosure by statute]]	Eligible, Criterion D
48LN4741	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4742	P – Camp	[[Exempted from disclosure by statute]]	Not eligible

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Site Number	Site Type Per WyoTrack[a]	Public Land Survey System Location	Eligibility
48LN4743	P – Camp	[[Exempted from disclosure by statute]]	Not eligible
48LN4758	H – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN4759	Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN4760	Unknown	[[Exempted from disclosure by statute]]	Not eligible
48LN4761	Unknown	[[Exempted from disclosure by statute]]	Recommended Not Eligible
48LN4762	Unknown	[[Exempted from disclosure by statute]]	Unevaluated
48LN4866	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN8898	P – Artifact scatter	[[Exempted from disclosure by statute]]	Not eligible
48LN8955	**P - Artifact Scatter with Feature**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN8971	**P - Artifact Scatter with Feature**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN8975	**P - Feature**	[[Exempted from disclosure by statute]]	**Not eligible**
48LN8976	**M/C – Artifact Scatter with Feature**	[[Exempted from disclosure by statute]]	**Not Eligible**

[a] P = Prehistoric; H = Historic; M/C = Multicomponent; **Bolded** sites are located within the Direct APE.

2.1 General Land Office Map Review

Available historic General Land Office (GLO) maps were reviewed through the BLM GLO records online database (BLM 2022) on February 28, 2022. The maps were reviewed as they can depict unrecorded historic-era features located within or near the direct APE. GLO maps for T20N R116W were not located in the BLM GLO online database.

The reviewed GLO map for T20N R117W, approved on February 2, 1883, depicts no man-made features within the study area. The reviewed GLO map for T20N R117W, approved on March 14, 1911, depicts three unnamed roads trending roughly north to south through Section 2 and continuing into Section 11 where one road connects to the “Road Elko to Kemmerer”. This road corresponds to current County Road 304 (Elkol Road), which has been updated within the last 50 years and is now a paved road. The road was not recorded as a cultural resource in accordance with SHPO guidelines (Wyoming SHPO 2012). The railroad to Elkol is located just to the south, outside of the direct APE.

2.2 Visual Effect Assessment

In conformance with implementing regulations for Section 106 of the NHPA at 36 Code of Federal Regulations (CFR) § 800.5, projects are to assess potential effects on cultural resources. Effects include visual, physical, atmospheric, vibrational, and auditory. For all non-physical effects a sensitive cultural resource is defined as both eligible for inclusion on the NRHP and all or part of the site’s eligibility is based on sufficient integrity of setting to convey its own significance. If a previously recorded site meets the definition of a non-physical effect sensitive cultural resource an assessment must be conducted for the undertaking if it falls into one or more that the defined APEs. A review of the available documentation for each site identified during the background research and their NRHP determinations indicated that the effect sensitive sites are only potentially sensitive to visual effects. None of the previously documented historic properties have

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a potential sensitivity to atmospheric, vibrational, or auditory effects; therefore, those potential effects were not assessed as part of this undertaking.

The project's cultural resource indirect APE was set at a 5-mile radius surrounding the direct APE. To conduct a visual effect assessment, Tetra Tech utilized a Geographic Information Systems (GIS)-based viewshed analysis methodology previously developed by the company for other Wyoming undertakings that conforms to Appendix C of the 2014 Wyoming State Protocol (BLM and SHPO 2014). The protocol does not outline a specific viewshed analysis methodology and instead delegated the responsibility to agency archaeologist and/or archaeological consultant to development and utilize a GIS based viewshed analysis for identifying known historic properties that could potentially face visual effects by the project.

Tetra Tech used the current GIS-based rouse locations obtained as part of the background research for the locations of the 324 known cultural resources that fall within the indirect APE and a 33-ft (10-m) grid resolution digital elevation model (DEM) covering the entire 5-mile indirect APE. The DEM elevations were augmented by a vegetation layer. The local sagebrush steppe vegetation community added around 3.3 ft (1 m) to the DEM's bare earth elevations across the indirect APE to account for the potential effects vegetation coverage can have on viewshed. When the viewshed analysis was completed in 2023, the design and layout of the Project including individual structure heights were not known. Tetra Tech was instructed by TerraPower to assume a structure height of 125 ft above ground surface for the viewshed analysis. The height was applied across all project elements including buildings on the Project Site and the proposed transmission lines within the Macro-corridor. The result was a modeled potential visual footprint for the Project for use identifying visual effect sensitive cultural resources within the indirect APE. Once the model was developed, a line-of-sight analysis utilized the DEM elevations with vegetation added to classify the indirect APE into three categories: Visible (the entire modeled project visual footprint is visible from that area), Partially visible (only part of the modeled project visual footprint is visible from that area), and Not visible (none of the modeled project visual footprint is visible from that area). The known cultural resource point, polygon, and line shapefiles from the WyoTrack database were then overlain over the line-of-sight analysis results. The overlay was used to determine which visual effect sensitive cultural resources fell into the areas designated as Visible or Partially visible. Visual effect sensitive cultural resources that fell into the Visible or Partially visible areas were subject to formal visual impact assessment in 2023 using the process outlined in Appendix C of the 2014 Wyoming State Protocol (BLM and SHPO 2014) based on the visual contract rating system developed by the BLM (BLM 1986).

Of the known visual effect sensitive cultural resources that were identified as visible or partially visible from the modeled potential visual footprint, Tetra Tech identified nine archaeological historic properties that meet definition of a visually sensitive cultural resource (**Table 2**) and were located in the Visible or Partially visible line-of-sight areas. Eight of the nine visually sensitive cultural resources were assessed for potential visual impact for the undertaking (see **Sections 4.3** for methodology and **Sections 5.3** for results). Site 48LN317 is identified as a visually sensitive cultural resource; however, it is located on private land, and no access was granted from the landowner to permit Tetra Tech to conduct an assessment for the undertaking. Tetra Tech revisited each of the remaining identified sites and established one or more arbitrarily numbered Key Observation Points (KOPs). If a site was confirmed to be visible to and from the proposed project structures, Tetra Tech completed the assessment using a Visual Contrast Rating (VCR) form as outlined in Appendix C of the 2014 Wyoming State Protocol (BLM and SHPO 2014) based on the visual contract rating system developed by the BLM (BLM 1986).

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Table 2. Visually Sensitive Cultural Resources Within the Indirect APE

Site Number	Site Type[a]	Public Land Survey System Location within APE	Eligibility	KOP No.
48LN317	P – Rock art with artifact scatter and fire-cracked rock	[[Exempted from disclosure by statute]]	Eligible, Criterion D	(Not analyzed, landowner did not grant access)
48LN773	M/C – Rock Carins	[[Exempted from disclosure by statute]]	Eligible, Criterion D	KOP-01
48LN1272	H – Glencoe Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D	KOP-09 and KOP-10
48LN1273	H – Mine	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D	KOP-05
48LN2327_14	H – Oregon Shortline Railroad	[[Exempted from disclosure by statute]]	Eligible, Criteria A and C	KOP-2
48LN2739_1	H – Kemmerer–Cumberland Highway	[[Exempted from disclosure by statute]]	Eligible, Criterion A, Contributing	KOP-03
48LN4011	M/C – Prehistoric artifact scatter with features and historic Glencoe townsite	[[Exempted from disclosure by statute]]	Eligible, Criteria A and D	KOP-07 and KOP-08
48LN4026	H – Blazon Railroad Spur	[[Exempted from disclosure by statute]]	Eligible, Criteria A and C	KOP-06
48LN4428	H – Glencoe townsite	[[Exempted from disclosure by statute]]	Eligible, Criterion A	KOP-07 and KOP-08

[a] P = Prehistoric; H = Historic; M/C = Multicomponent.

2.3 Inventory Expectations

The direct APE has been subjected to low to moderate amount of previous cultural resource inventories, but numerous inventories have been completed in the literature search area. The cumulative inventories in the vicinity of the project encountered a moderate to high prehistoric-era cultural resource site density. The documented prehistoric sites are artifact scatters of varying density and complexity. Subsurface cultural features and evidence thereof, amorphous staining, heat-altered rock, or both, are also frequently documented. Few relative or exact temporal time frames are reported on the reviewed site forms. Where temporal information is provided, reported sites ages range from the Archaic through the Late Prehistoric.

The previously documented historic-era cultural resource sites within the literature search area are artifact scatters of varying density and content, including sites associated with mining and ranching and linear sites including historic railroads. The sites are reflective of temporary domestic and industrial localities associated with one of several potential activities, such as surveying, recreation, mining, livestock grazing, and transportation. The overall historic-era temporal range is from the late 1800's into the first half of the 1900's and is indicative of Euroamerican activities during that time span. Indigenous groups had been forcibly resettled onto reservations prior to the date ranges reported on available documentation (see **Sections 3.2 and 3.3**).

The prehistoric- and historic-era sites occur among the material signature of the defined boundaries for the Hams Fork Lithic Landscape; however, overall, the documented sites do not warrant evaluation as a district or landscape in and of themselves. Per 36 CFR Part 60 cultural

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resource districts and landscapes are geographically grouped objects, buildings, structures, or sites that together are significant or area that have been shaped by historical and cultural processes of land use and retain visual and cultural characteristics indicative of such processes. The documented site types and density within the Study Area is not the result of a unique cultural phenomena that, when grouped, make the sites significant or reflect a unique, definable, process of land use. The documented cultural resources reflect the expected types, potential functions, associated activities, and relative density of such resources across the Wyoming Basin.

Tetra Tech expected to encounter a high density of new cultural material comparable to the areas that have previously been inventoried. Expected cultural resources in areas which had not previously been inventoried will be prehistoric artifact scatters reflecting a wide range of activities from expedient stone tool reduction events to temporary residential camps. Expected historic sites will be low complexity artifact scatters and sites associated with the historic mining in the area and associated infrastructure. The scatters reflect temporary residential events associated with one or more historical-era Euroamerican activities.

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3.0 PROJECT HISTORIC CONTEXT

The following cultural history is meant as a general review of the major periods and themes of history in the region of Wyoming where the project is located. The context, while not exhaustive, is meant to assist in assessing the encountered cultural resources for their potential to contribute to our current knowledge of these periods and themes. The context was compiled through the review of the current published and literature available for the region with the focus on the Wyoming Basin region of Wyoming. The context is presented chronologically as establishing and refining the cultural resource temporal chronology for sites in a specific area is a critical first step to addressing any further research questions (McGuire et al. 2004). Both relatively dating temporal markers and absolute radiometric dating are applied to the cultural resource record to develop the presented chronologies.

3.1 Prehistoric Era

The general Wyoming SHPO (2016) statewide prehistoric chronology consist of four major periods: Paleoindian, Archaic, Late Prehistoric, and Protohistoric. Their model further subdivides the Archaic period into early, middle, and late subperiods. The subdivision of Wyoming prehistory is based predominantly on the recognition of a sequence one or more diagnostic projectile point types. The types have been found at a site and/or in stratified contexts in multicomponent sites with sufficient frequency to define the type with an associated temporal period. The definition of temporal types has been supported by associated radiocarbon dates taken from associated datable artifacts and features (Kornfeld et al. 2010 67-70; Metcalf 1987: 235-238; Thompson and Pastor 1995). The major periods of Wyoming prehistory are as follows:

- Paleoindian (11,700-8,000 uncalibrated radiocarbon years before present [BP])
- Early Archaic (8,000-5,000 BP)
- Middle Archaic (5,000-2,500 BP)
- Late Archaic (2,500-1,500 BP)
- Late Prehistoric (1,500-200 BP)
- Protohistoric (230-150 BP)

3.1.1 Paleoindian

The earliest defined period of human occupation in Wyoming is the Paleoindian period. Evidence of human occupation in the Americas predating the Paleoindian period, possibly beginning 25,000 years ago or earlier, has been increasingly documented across the western hemisphere but, to date, no such evidence is recorded in Wyoming (Bennett et al. 2021; Grund 2020,46-50; Kornfeld et al. 2010,37, 71, 73; Thompson and Pastor 1995,26). The lack of evidence pre-dating Clovis does not mean humans did not utilize the landscape in Wyoming prior to 11,240 BP, just that to date, the archaeological evidence of humanity predating the Clovis period has yet to be found.

Archaeologists investigating sites have further subdivided the Paleoindian period into early, middle, and late subperiods (Grund 2020,75-76; Kornfeld et al. 2010, 64-66). It is important to note these subdivisions are based on mostly the investigation of a few dozen mass kill sites of extinct species of bison. Few, if any, confirmed residential or other task specific localities have been excavated in Wyoming or the broader region. In stratified contexts, these complexes tend to be discrete and sequential. Most findings in the region are isolated temporally diagnostic projectile points either alone or with small debitage scatters, and/or in caching events. The few radiocarbon dates collected to date appear to overlap, but there has been little stratigraphic evidence to support temporal overlap among the complexes. Each subperiod includes several

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cultural complexes constructed largely from projectile point styles and, in some cases, unique lithic tool manufacturing methods, as follows:

- Early Paleoindian (Kornfeld et al. 2010,73-84)

  Clovis: circa (ca.) 11,240-10,890 BP (Grund 2020, 81-86)
  Goshen, ca. 11,160-9,790 BP (Grund 2020, 89-92)
  Folsom/Midland: ca. 10,930-10,380 BP (Grund 2020, 98-103)

- Middle Paleoindian (Kornfeld et al. 2010, 84-92)

  Agate Basin: ca. 10,690 to 10,060 BP (Grund 2020, 107-109)
  Hell Gap: ca. 10,340 to 9,670 BP (Grund 2020, 112-115)
  Cody Complex (Alberta, Eden, Scottsbluff): ca. 9,750 to 8,570 BP (Grund 2020, 121-130)

- Late Paleoindian (Kornfeld et al. 2010, 92-106)

  James Allen/Frederick: ca. 9,040-8,370 BP (Grund 2020, 135-140)
  Foothill/Mountain Complex, Angostura/Lusk Points: ca. 9,000-8,220 BP (Grund 2020, 146-152)
  Foothill/Mountain Complex, Lovell Constricted Points: ca. 8,570-7,550 BP (Grund 2020, 155-157)
  Pryor Stemmed: ca. 8,450-7,750 BP (Grund 2020, 161-165)

Clovis is the earliest of three Paleoindian cultural complexes that comprise the Early Paleoindian period (Grund 2020, 76-103, 175-176; Kornfeld et al. 2010, 64-66, 73-84). The complexes were originally argued to represent pioneer hunter-gatherer groups occupying terrain empty or largely empty of other humans. The people of these complexes were likely highly mobile; occupied territories larger than modern hunter-gatherer groups; hunted large game including mastodon, mammoth, and pre-modern bison species; apparently made limited use of plant foods; and had superior skill in manufacturing stone tools. In the few stratified contexts found to date, the Clovis complex is overlain by the Goshen complex, which in turn is overlain by the Folsom/Midland complex. Traditionally, the Clovis complex has been characterized as a group subsisting primarily on large game, and in Wyoming appear to have hunted mastodon both systematically and opportunistically. However, the evidence for this is based on a slim, dated, dataset and more recent Clovis-aged findings throughout North American at sites in places outside Wyoming have yielded evidence of a much more diverse subsistence and technological practice during this time. The Goshen and Folsom/Midland complexes have generally been found either as isolated artifacts and/or in stratified contexts only occurring in sites related to bison and possible mastodon or mammoth hunting (Grund 2020, 76-103, 175-176; Kornfeld et al. 2010, 64-66, 73-84).

The Middle Paleoindian period is marked by a technological change in projectile point manufacturing, with fluting abandoned for slender unfluted lanceolate and, later, shouldered or stemmed forms, broadly referred to as “Plano” projectile points (Grund 2020, 30). Middle Paleoindian cultural complexes appear to show evidence of intensification of subsistence practices over time. Archaeologists see suggestions of multi-band bison procurement at certain times of the year, represented by larger kill sites, more intensive processing of bison carcasses, and a broadening of the subsistence base beyond bison to medium and small game and to plant foods. The Middle Paleoindian period sees the first use of stemmed projectile points in the Hell Gap type and the occurrence of multiple stemmed point forms in the Cody Complex (Grund 2020, 30).

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The Late Paleoindian period presents a more diverse picture than the earlier portions of the Paleoindian era (Grund 2020, 131-174, 178-180; Kornfeld et al. 2010, 92-106). The evidence for the period comes primarily from surface contexts rather than stratified sites (Grund 2020, 166; Thompson and Pastor 1995, 21), and the Late Paleoindian period is argued to be more regional in character. Beginning around 10,000 BP, there were two concurrent and separate Paleoindian occupations with different and mutually exclusive subsistence strategies. The Foothill/Mountain complexes favored more hunting and gathering subsistence in foothill and mountain slope areas and were more Archaic in terms of subsistence strategies. The Cody Complex followed a part-time bison hunting way of life on the Plains as well as a forager subsistence in the foothills (Kornfeld et al. 2010, 95).

Region-wide, the archaeological evidence for the boundary between Late Pleistocene/Paleoindian Period and Early Holocene/Archaic period has become increasingly difficult to define. The late Paleoindian period sites of the Wyoming Basin show an Archaic character to them (Thompson and Pastor 1995, 24). Some sites that radiocarbon date to the Late Paleoindian period with diagnostic Paleoindian artifacts have evidence of the practice of Archaic-like subsistence strategies rather than ”orthodox” Paleoindian lifeways as reconstructed from older investigations of stratified large game hunting sites (Grund 2020, 166). Immediately outside Wyoming, the evidence has grown to the point that researchers in the Great Basin, Plateau, and western Colorado advocate for the abandonment of the term Late Paleoindian in favor of the Paleoarchic (Bamforth 1997; Graf and Schmitt 2007). In Wyoming overall, Late Paleoindian period sites show the similar “increased diet breadth, exploitation of relatively greater proportions of smaller faunal species, more intensive processing of faunal resources, increased food processing and possibly storage behaviors,” regional diversity, and probably smaller band territories (Grund 2020, 178).

3.1.2 Archaic

The Archaic period in Wyoming lasts from approximately 8,000 BP to 1,500 BP (SHPO 2016). In Wyoming, the term Archaic is used to refer to migratory hunting and gathering cultures operating in environmental conditions approximating those of the present (i.e., those of the mid- to late Holocene), but generally neither using the bow and arrow nor manufacturing ceramic vessels (Kornfeld et al. 2010, 61, 64, 130; Metcalf 1987, 241-242; Thompson and Pastor 1995, 28). Bison procurement was important throughout the period in the Great Plains regions and probably also, but to a somewhat lesser extent, in the foothills and mountain regions (Kornfeld et al. 2010, 215, 284-289), leading to the widespread use of the appellation Plains Archaic. Pronghorn antelope and bighorn sheep mass kill sites also appear for the first time in the archaeological record during this period. In the Wyoming Basin, the Archaic period is divided in two, rather than three, subperiods, Early and Late, each of which is comprised of two phases: the Great Divide and the Opal (formerly Green River) phases of the Early Archaic and the Pine Spring and Deadman Wash phases for the Late Archaic (Metcalf 1987; Thompson and Pastor 1995).

Certain Archaic traits, such as broad-spectrum food procurement and use of plant foods, emerge in the later part of the Paleoindian period (Grund 2020, 166-170, 175-180). The decisive marker for the Archaic period, however, is the appearance of new styles of projectile points, “The change from the lanceolate and stemmed projectile points of the Late Paleoindian to the side-notched types of the Early Plains Archaic was abrupt and is easily detected in the archaeological record. It also represented the finalization of an Archaic lifeway that probably began in late Paleoindian times” (Kornfeld et al. 2010, 108). More recently, pithouses dating from the Pleistocene-Holocene transition through to the following Late Prehistoric Period have become common archaeological features across the Wyoming Basin (Waitkus and Eckles 1997).

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The projectile points of the Early Archaic are described as “early side-notched,” with ground, straight to slightly concave bases. Corner-notched points, some with basal notches and some without are also found on sites of this period, and toward the end of the period, an even wider range of styles appears. Site types include rockshelters and caves, open-air camps, and bison kill and processing localities (Kornfeld et al. 2010, 108-114). In the Wyoming Basin, early side-notched points are also diagnostic of the Early Archaic; other cultural hallmarks include fire and roasting pits, chipped and groundstone artifacts, and associated medium and small-sized faunal remains (Metcalf 1987, 242-244; Thompson and Pastor 1995, 29, 42). Originally, the Early Archaic was theorized as a time of abandonment of the Wyoming Basin due to adverse weather conditions cause by the Altithermal; however, more recent discoveries of Early Archaic-aged sites across the Wyoming Basin negated those theories (Creasman and Thompson 1997; Larson 1997). The Wyoming Basin appears to be continuously occupied by mobile groups practicing a seasonal broad-based subsistence adaptation utilizing various forms of subsurface basin features for processing and storage. While archaeologists have focused on mass kill sites and their contribution to group subsistence and culture across the region, excavation of residential sites starting in the Early Archaic show day to day animal protein consumption appears to be mostly rabbit, both jackrabbits and cottontails. However, evidence of mass rabbit drives like those documented in the Great Basin has not been discovered in the Wyoming Basin to date.

The McKean technocomplex characterizes the Middle Plains Archaic. It is largely absent from the Wyoming Basin, which is the reason that the regional chronology omits a Middle Archaic period (Thompson and Pastor 1995, 19). The McKean technocomplex is theorized to have originated on the Great Plains, and groups practicing the technology are thought to have migrated into Wyoming during this period. The complex is roughly contemporaneous with the Pine Spring Phase of the Wyoming Basin (Kornfeld et al. 2010, 114-122; Metcalf 1987, 244-246). The technocomplex comprises the McKean Lanceolate, Duncan, Hanna, and Mallory projectile point types, which tend to co-occur over the span of the complex, but with a gradual shift in prominence over time from the early dominance of the McKean Lanceolate to the later dominance of the Duncan, Hanna, and Mallory varieties. The McKean technocomplex is widespread across the northwestern plains and was characterized by proficient bison hunting and extensive use of plant foods. “Grinding stones (manos and grinding slabs) that appeared in terminal Paleoindian and increased during Early Plains times… become even more common” during the Middle Plains Archaic (Kornfeld et al. 2010, 114). The increase in grinding stones and appearance of bell-shaped pits as the period progresses has been argued to show a focus on starchy root-based geophyte exploitation such as biscuitroot (Joyce et al. 2022).

3.1.3 Late Prehistoric Period

There are continuities in subsistence and settlement pattern between the Plains Archaic and the Late Prehistoric period in Wyoming prehistory, but there are also some important differences (Kornfeld et al. 2010, 129-135; Metcalf 1987, 247-250; Thompson and Pastor 1995, 54-55). The transition from the former period to the latter is marked by a reduction in projectile point sizes, thought to signify the widespread adoption of the bow and arrow as the primary hunting weapon. Late Prehistoric projectile points are typically side notched, with a basal notch added later in the period. Another development is the introduction of pottery, which is represented by various traditions including ones with affiliations to the Missouri River Basin, the Great Basin, the Colorado Plateau, and even, occasionally, sherds of pottery originating in the American Southwest. Most striking, however, is an apparent jump in the number of dated components: “toward the end of the Late Plains Archaic the number of radiocarbon dates begins to increase rapidly, reaching a peak in the Late Prehistoric period at about 1200 to 1000 years BP and then falling off rapidly”

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(Kornfeld et al. 2010, 130). This dramatic rise and fall in the number of radiocarbon dates is widely interpreted as indicating a much more extensive presence of human groups in the basins of Wyoming, suggesting several centuries of particularly favorable conditions for bison and other game in the region. In the Wyoming Basin, the Uinta Phase corresponds to the spike in radiocarbon dates seen throughout the state, while the Firehole Phase marks the final episode of prehistory in the region, ending around 1500 to 1700 AD with the Protohistoric period and the beginnings of European influences across the indigenous cultures of North America (Thompson and Pastor 1995, 54-62). In the Wyoming Basin the increase in radiocarbon dates during this time roughly corresponds to the similar appearance and proliferation with the Fremont cultural complex of the Colorado Plateau and Wasatch Front. There is no evidence of agriculture in the Wyoming Basin during the Late Prehistoric period (Metcalf 1987, 247). Environmental research has shown only small areas near the present day Flaming Gorge Reservoir were environmentally suitable for cultivation of the common domesticates associated with groups such as the Fremont. Material evidence of logistical resource procurement by Fremont groups or heavily influenced groups appears throughout southwest Wyoming including sites such as 48SW6965. During the Firehole Phase “earlier and better made pottery types are less frequently found and Intermountain Ware…, a type also referred to as ‘Shoshonean,’ becomes dominant” (Metcalf 1987, 249). The causes and nature of the material change between the Uinta Phase and Firehole Phase is still unknown. Groups of Numic language speakers migrating out of the Mojave Desert into the Great Basin and Rocky Mountains appear to have entered the region; however, how existing groups in the region interacted with them is still unknown.

3.1.4 Protohistoric

The Protohistoric period is the time when the indigenous cultures of Wyoming indirectly experienced the influences of Europeans but were not yet in regular, direct contact. Most importantly, the Protohistoric period marks the time when the indigenous people of Wyoming acquired the horse, with the profound cultural changes in mobility, warfare, trade, subsistence, social organization, technology, and territoriality that flowed from this new form of transportation (Shimkin 1986a, 1986b, 308-310). The Wyoming SHPO (2016) chronology delineates the Protohistoric as a short period, spanning only 80 years from 1720 to 1800 AD and starting around the time when the indigenous people of Wyoming began to acquire horses. However, many researchers take a somewhat broader view of the timespan of the Protohistoric period and assign a beginning date of 1650 AD or earlier. Such dating cites the earliest European influences as metal artifacts and trade goods that preceded horses by many decades. Notably, there is evidence of indigenous cold working of iron and brass scrap to make projectile points and similar tools. The period ends with the beginnings of the fur trade in Wyoming, around 1800 AD (Kornfeld et al. 2010, 135-138; Metcalf 1987, 250; Thompson and Pastor 1995, 62-64).

3.2 Native American Ethnography

The project area falls within the region dominated by the Eastern Shoshone during the early to mid-nineteenth century (Shimkin 1986b). Linguistic and archaeological evidence indicates that Shoshonean people entered western Wyoming by around 1500 AD, having originated in the southern Sierra Nevada Mountains around 1 AD and expanded rapidly across the Great Basin after about 1000 AD (Wright 1978). In the two centuries after their arrival in Wyoming, the Shoshones expanded onto the northwestern Plains, and with their adoption of the horse for transportation, hunting, and warfare, dominated the region through much of the eighteenth century. Toward the end of the century, weakened by the spread of European diseases, defeated by their traditional enemies, the Blackfeet, and under pressure from the Arapaho and Sioux who were themselves being pushed westward by the expansion of Euroamerican populations, the

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Shoshones had withdrawn into Wyoming. In the Wyoming Basin, throughout the early and middle decades of the nineteenth century, though the Shoshone were "the principal group… the Comanche (close relatives of the Shoshone), Flathead, Crow, Arapaho, Gros Ventre, Cheyenne, and the Sioux are known to have encroached on the territory for raiding, hunting, or trade" (Metcalf 1987, 250).

Shimkin presents a detailed discussion of Eastern Shoshone cultural ecology during the period ca. 1825 to 1880 (Shimkin 1947; summarized in Shimkin 1986b, 308-310, 316-320). He interprets Eastern Shoshone land use as comprising three types of regions: foci or population nodes; routes; and hinterlands. Foci were locations where families and bands aggregated during certain periods of the year. Routes were the main travel corridors both between foci and into other sections of the tribal territory. Hinterlands were areas into which families and bands might disperse during certain periods of the seasonal round, and they were also areas that might contain particularly desirable resources, such as fossil shells from the general vicinity of Kemmerer (Shimkin 1947). The nearest node to the APE during the middle nineteenth century was Fort Bridger, about 28 miles to the south. No routes passed through the APE but were situated as near as approximately 20 miles to the east and 10 miles to the southwest (Shimkin 1947).

In Shimkin's view the Eastern Shoshone "were essentially meat and fish eaters," with plant foods playing a subsidiary role (1947, 279). He divides the diet into three categories, according to relative importance:

> *Staples* were the bison, fish (especially trout), elk, beaver, and mule deer. *Major but occasional supplies* were the antelope, jack rabbit, mountain sheep, marmot (woodchuck, rockchuck), and sage hen. *Accessories* were the Virginia deer, moose, bear, duck, goose, cottontail, badger, snowshoe rabbit, ground squirrel, and wood rat. The bobcat or lynx, mink, otter, and weasel had value as fur, but were not eaten. A few persons (in the Green River country particularly) ate lampreys, ants, locusts, crickets, and owls (Shimkin 1947, 265).

The spring and fall saw aggregations as tribal bison hunts took place on the Shoshone River plains, along the Wind River, or elsewhere (Shimkin 1947, 1986b). The periods after the spring and before the fall bison hunts were also a traditional time for raiding and warfare against other tribes. Another tribal aggregation occurred in summer during the trade fair intertribal rendezvous at Fort Bridger. After the rendezvous, the Eastern Shoshone dispersed into family groups to take care of family business, such as visiting western kin, making marriage alliances, or getting salt or fossil shells. Winter would be a period of band-level groupings in wintering places with good potential for game and some protection from the worst of winter weather. The winter diet included occasional bison, elk, beaver, and pemmican of dried bison meat and grease, sometimes mixed with berries. Winter was the time of greatest food insecurity for both the Shoshone and their horses (Shimkin 1947).

These patterns persisted for more than 50 years, gradually coming to an end with the establishment of the Eastern Shoshone on the Wind River Reservation in 1868 and the collapse of buffalo herds by the 1880s. The Arapaho joined the Eastern Shoshone at Wind River in 1876, and the early decades of reservation life were hard on the Shoshone, but in time, they and their culture adapted to their new circumstances (Shimkin 1986b).

3.3 Historic Era

The Wyoming SHPO (SHPO 2016) divides the history of the State into eight periods, as follows:

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- Early Historic (1800-1842)
- Pre-territorial (1842-1868)
- Territorial (1868-1890)
- Expansion (1890-1928)
- Depression (1929-1939)
- WWII-era (1940-1946)
- Post-WWII (1947-1950)
- Modern (1951-present)

The Early Historic period marks the era of early exploration and fur trapping by Euroamericans in the State and the first direct interaction in the State between indigenous peoples and Euroamericans. The Pre-territorial period is the time of the great westward migration of emigrants headed to Oregon, California, and Utah, a period when several hundred thousand people passed through Wyoming on various trails, but few settled in it. The Territorial period opens with the construction of the Union Pacific railroad across the State and the establishment of the Wyoming Territory. The period saw the emergence of ranching and stock-raising, with both cattle and sheep becoming important. This was also an era of conflict between Native Americans and Euroamericans, particularly in the northern portion of the State, but by the end of the period, indigenous people had been forcibly settled on reservations, opening new lands for Euroamerican occupation. During the Territorial period, Wyoming's population increased more than five-fold, from 9,118 in 1870 to 62,555 in 1890. After Statehood in 1890, Wyoming entered the Expansion period, during which the population continued to grow, reaching 225,565 in 1930, an increase of more than two and a half times its level in 1890. The era was marked by conflicts between cattle and sheep operators and between livestock interests and homesteaders. In the second decade of the twentieth century, favorable climate conditions and generous government terms encouraged a wave of homesteading. Many homesteaders moved on when conditions turned drier and more difficult in the 1920s, followed by the economic hardships of the Great Depression. From the 1890s onwards, tourism grew in Wyoming, with Yellowstone National Park, the Grand Tetons, national monuments, and national forests being major draws. During World War II, Wyoming participated in the national war effort in many ways, sending its men and women into the armed services, raising money through bond sales, participating in scrap drives, producing war materiel, and hosting military installations, POW camps, and a Japanese American internment camp. In the Post-War era, Wyoming has continued to grow, rising from 290,529 in 1950 to 576,851 in 2020. Energy production is a leading industry, as it has been for much of the twentieth century, but wind and solar projects are beginning to supplement the historically important coal, oil, and gas industries. Stock raising and tourism remain vital elements of the State's economy (Mast 2020; SHPO 2016, 21-26; Wyoming Economic Analysis Division 2023).

Records of the activities of trappers and explorers in what would become Lincoln County, within which the site is located, are limited Nonetheless, it is known that during the first four decades of the nineteenth century, trappers visited the region, particularly the partly wooded and better watered northern part of the county and took peltry from its streams (Clark 2014). Among those trappers active in the region was Zachariah Ham, who favored the area, and who gave his name to Hams Fork, a major tributary of the Green River (Julian and Fossil 2009).

Wyoming's Early Historic period comes to an end with the collapse of the beaver trade around 1840, but the knowledge of the West gained by the mountain men of the fur trade era and the trails they blazed would soon guide many tens of thousands of emigrants from Independence, Missouri, westward into the Oregon and California country and to the Great Basin of Utah. Although small groups of emigrants had been moving west into Oregon since the early 1840s,

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the year 1846 marked the beginning of the flood tide of westward migrants moving along the Oregon, California, and Mormon trails. In open country, these trails were more travel corridors than a single fixed route. As reconstructed by the National Park Service (NPS) for its National Historic Trails System, both the Oregon Trail and branches of the California Trail passed within a few miles of the APE, but neither crossed the area itself (NPS 2023). After arcing across central Wyoming and crossing the Continental Divide at South Pass in present-day southwestern Fremont County, the Oregon Trail continued across western Sweetwater County as far as Fort Bridger in present-day central Uinta County, approximately 28 miles south of the site. There it turned northwest, entered the present territory of Lincoln County, and passed approximately 8.5 miles southwest of the APE. One branch of the California Trail followed essentially the same route, while several other branches spread out more directly west from South Pass to avoid the long loop south to Fort Bridger. One of these branches crossed Hams Fork approximately 15 miles north of the APE (NPS 2023).

With the westward expansion of Euroamerican settlement during this period, contact with Native Tribes (and hostilities) grew. In a series of treaties, the government tried to restrict the movement of Native Tribes to their allotted territories away from emigration routes (Fowler 2001). The groups were to agree to not raiding settlers and travelers. The Fort Bridger Treaty signed on July 3, 1868, created the Wind River and Fort Hall reservations (Shoshone-Bannock Tribes 2024). The Wind River Reservation initially included the Eastern Shoshone and Bannock tribes. The Bannock tribe was moved to the Fort Hall Reservation in 1873 with the Western Shoshone, and less than a decade later, the Northern Arapaho were moved to the Wind River Reservation. The Uintah Reservation in eastern Utah was created earlier, in 1861, by President Abraham Lincoln for the Ute Tribes (I Love History 2024).

The Pre-Territorial period of Wyoming history comes to an end in 1868 with the completion of the Union Pacific Railroad line across Wyoming's southern tier and the establishment of an independent Wyoming Territory, which was formed from portions of the Dakota, Idaho, and Utah territories. Extending the railroad line across Wyoming in 1868 and linking it in Utah on May 10, 1869, with the Central Pacific Railroad to complete the first transcontinental railroad essentially ended the era of wagon travel from Missouri to the West. Located south of the 42nd parallel of latitude, which is some 14 miles north of Kemmerer, the project Study Area was in Spanish and Mexican territory under the terms of the Adams-Onís Treaty of 1819 and was ceded to the United States in 1848, following the Mexican War. From 1850 to 1868, the area was part of Utah Territory (Long 2010). The somewhat complex territorial history of Wyoming in which portions of the region were claimed by Spain, France, Mexico, Texas, and Britain, and then were allocated at different times to the territories of Oregon, Washington, Idaho, Utah, Nebraska, and Dakota was resolved with the formation of Wyoming Territory on July 25, 1868, followed by organization of a territorial government on April 17, 1869. The Territorial period ends with the admission of Wyoming to Statehood on July 10, 1890.

During the Territorial period, several important developments occurred in the region that was to become Lincoln County. These included the first permanent settlements in the area at Cokeville and in Star Valley in the mid-1870s and the development of the first cattle and sheep ranching operations beginning around the same time. Although the earliest agricultural censuses for the region show that cattle were more numerous than sheep, by sometime in the 1880s, sheep consistently outnumbered beef cattle in the region, reaching a differential of as much as 15 to 1 in 1930. In recent decades, sheep have decreased in importance as economic and ecological factors have caused many sheep operations to cease or convert to beef cattle (Julian and Fossil 2009; U.S. Department of Agriculture 2023).

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Of equal importance to the emergence of stock raising as an economic pursuit was the construction of the Oregon Short Line Railway (reorganized in 1897 as the Oregon Short Line Railroad), a subsidiary of the Union Pacific Railroad. This railroad line ensured that the Union Pacific would continue to have access to a Pacific Ocean port via Portland, Oregon. Construction of the Oregon Short Line began in July 1881 at the Union Pacific mainline in Granger, Wyoming, 32.5 miles southeast of Kemmerer. The new railroad followed Hams Fork as far as the then future site of Kemmerer before continuing directly west. It reached the border of the Idaho Territory by July 1882 and its terminus at Huntington, Oregon, just across the Idaho border, in November 1884 (Strack 2016). From Huntington, trains continued to Portland on track leased from the Oregon Railway and Navigation Company. By the beginning of the twentieth century, the Oregon Short Line would become a major hauler of coal from the rich deposits of southern Lincoln County.

The following period in State history, the Expansion period (1890-1928), saw several important developments in the project vicinity. These included the growth of coal mining, the founding of Kemmerer, and the creation of Lincoln County. The presence of extensive coal deposits in the high desert of southern Lincoln County was recognized as early as 1843, when explorer John C. Frémont noted deposits of coal near Cumberland, some 8 miles south of the project. Later, from the late 1860s onwards, the Union Pacific Railroad began developing coal mines along its line at Carbon, Rock Springs, and Almay, Wyoming, to fuel its locomotives. A subsidiary of the railroad also briefly marketed coal to other customers, but this arrangement was soon determined to be monopolistic and ended by the U.S. Government (Andersen 2014; Smith 1966). With the construction of the Oregon Short Line Railway, prospecting for coal took place along its route, leading to the identification of high-quality sub-bituminous coal in the ridges flanking the project site. Coal mines were opened in the 1890s, and several coal camps or company towns were developed near mines; among these were Frontier and Diamondville. By ca. 1900, coal mines had been opened in the ridges on either side of Cumberland Flats, where the project is located. The town of Kemmerer, currently the seat of Lincoln County and approximately 5 miles north of the project, was founded in 1897 by Mahlon Kemmerer and Patrick Quealy and incorporated in 1899. Mahlon Kemmerer, based in New York and after whom the town was named, was the primary investor in early exploration for and development of coal resources in the area, while his partner, Patrick Quealy, was the local developer. Together, they headed the Kemmerer Coal Company, which was responsible for the great majority of mining in the area. Unlike coal camps or company towns in the area, which were situated close to the mine shafts and were owned and controlled by the mining company, the town of Kemmerer was developed as an independent town, where private individuals could purchase lots and build and own homes (Clark 2014; Smith 1966). Moreover, though Kemmerer and Quealy understood the importance of coal to the local economy, they, and particularly Quealy, saw coal as just part of the economy's mix, with livestock, land, and mercantile enterprises complementing one another. Kemmerer quickly grew into a prosperous town serving mining, ranching, and local business interests, with municipal services (such as a town marshal and a volunteer fire department), several stores, hotels and saloons, a bank, churches, schools, and newspapers. A local hospital and a library, among other organizations, appeared in the 1910s and 1920s (Julian and Fossil 2009).

Lincoln County was established on February 20, 1911, from Uinta County, one of Wyoming's original five counties, with Kemmerer selected as the county seat, and was organized in January 1913. For the first decade, county government was scattered among various offices around Kemmerer, but physically consolidated in 1925 with the construction of the present courthouse (renovated 1981) (Julian and Fossil 2009). In 1921, Lincoln County lost territory with the formation of Teton and Sublette counties, at which time it acquired its current borders, except for a few later minor adjustments (Long 2010).

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After a brief depression following the end of the First World War, the national economy was generally prosperous until the Great Depression of the 1930s. The situation in Wyoming was different, however, and the years 1920 to 1939 are often called the Depression period in the State's history. A major reason for this extended period of lagging economic growth was that while the national economy prospered, neither the coal business nor agriculture were particularly strong economic sectors during the period, and both were essential components of Wyoming's economy (Smith 1966, 50). Employment in the coal fields fell, and wages were tight. Farmers and ranchers faced low prices for their produce. The 1920s were also the period of Prohibition, and in Lincoln County, while local saloons were forced to change their business models or shut down, many people turned their hand to making moonshine. Kemmerer of the 1920s acquired the nickname “Little Chicago,” because it was a center of moonshining during Prohibition. The product was high quality and was widely known as “Kemmerer Moon.” Federal efforts to shut down operations in the region were often frustrated by the lack of cooperation from locals, who recognized the illegal production of spirits as economically important to the community (Julian and Fossil 2009).

The Second World War saw the greatest output of coal from southwestern Wyoming’s coal fields, as producers scrambled to meet wartime demands. Following the war, the coal industry of southwestern Wyoming contracted because of several factors. These included the adoption of diesel locomotives, fueled by diesel oil, by the Union Pacific and other railroads and the consequent abandonment of steam locomotives, fueled by coal. This change was beginning to get underway as the Second World War began, but the demand for diesel plants to power ships and for other war needs delayed the widespread adoption of diesel locomotives. Another factor was the expansion of fuels other than coal for a wide variety of purposes, including power production and industrial processing. The consequence of decreased demand was the contraction of the coal industry and a shift from underground coal extraction to the more economical surface mining (strip mining). By the 1960s, the Kemmerer Coal Company was operating only the single open pit mine complex at Elkol, which from 1963 began to supply the Naughton Power Plant, at the northern end of the project’s direct APE, with coal (Global Energy Monitor 2022; Smith 1966).

Although many outlying coal towns and camps disappeared during the twentieth century as mines played out and economic circumstances changed, the town of Kemmerer survived as a regional node due to its mix of businesses and its role as the county seat of Lincoln County. It continues to thrive today in the Modern period of Wyoming history.

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4.0 METHODOLOGY

4.1 Survey Methodology

Tetra Tech conducted the Class III Cultural Resource Inventory for the direct APE from April 26 to May 3, 2022; May 10 to May 17, 2022; July 23 and 24, 2022; October 19, 2022, and September 23, 2024. The visual impact assessment for the accessible eight sites within the indirect APE was completed on July 10 and 11, 2023. The Class III inventory encompasses 1,537 acres of private land encompassing the direct APE as outlined in Section 1.0. The indirect APE was set at a 5-mile radius around the direct APE for the project.

The inventory was conducted by Tetra Tech personnel who meet and exceed the professional qualifications stipulated in the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (Volume 48 Federal Register [FR] 44716 – 44742 [1983], codified in 36 CFR Part 61). Mark Karpinski, M.A. served as the Principal Investigator and supervised all field work and report production. Beth Karpinski assisted in field work and helped in the recordation and evaluation of all encountered cultural resources. Tessie Burningham, Monica Briseno, and Elizabeth Shikrallah provided technical assistance during the inventory. Tribal cultural specialists (TCSs) from three Tribes (Northern Arapaho Tribe, Comanche Nation, and Arapaho Tribe of Oklahoma) participated in the field work portion of the inventory. The inventory was completed during good weather conditions with no inhibiting factors, and no modifications to the following methodology were required due to conditions.

The inventory was accomplished by Tetra Tech's archaeologists using pedestrian transects spaced no further than 30 meters apart and oriented parallel to one another within the direct APE depending on topography (Wyoming SHPO 2022a). TCSs typically walked between archaeologists when on transect; however, they were also allowed to inspect areas outside the transects as needed or desired. Between each transect, intuitive inventory was completed by Tetra Tech archaeologists to inspect high potential cultural resource locations like cut banks and aeolian deposits. GIS shapefiles of the direct APE and other pertinent project data, including but not limited to land ownership, previously recorded cultural resources, and man-made features noted on historical maps, were loaded onto a Samsung Galaxy tablet in ArcCollector used in conjunction with a Trimble R1 receiver. Cultural resource spatial data was formatted to SHPO's GIS attribute categories and documentation standards (Wyoming SHPO 2022b). A Garmin Global Positioning System (GPS) unit was also utilized to maintain transect spacing and orientation by the Tetra Tech archaeologists within the inventory area. Universal Transverse Mercator coordinates were recorded in NAD83, Zone 12 North. Photographs were taken using a digital camera with a 16-megapixel resolution.

4.2 Resource Documentation and Evaluation Methodology

Cultural resources encountered during the inventory were documented per Wyoming SHPO standards (Wyoming SHPO 2012) and evaluated for the NRHP. No artifact collection was conducted for the inventory. Prehistoric sites were defined as a minimum of 15 or more spatially associated artifacts within an area no greater than 30 meters in diameter or the occurrence of at least a single feature (Wyoming SHPO 2012). Historic sites were defined as a minimum of 50 spatially associated artifacts within a 30-meter diameter area. An exception to the historic site definition is an artifact scatter composed of individual artifacts originating from a single source (i.e., a broken bottle), which would not be categorized as a site. Field recordation includes the completion of appropriate sections of the Wyoming Cultural Properties Form (Wyoming SHPO 2022a). All cultural resources not meeting these definitions are documented as an isolated

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resource (IR). IRs are recorded using a Wyoming Isolated Resource Form, GPS located and photographed.

Each documented site was evaluated for its potential inclusion on the NRHP in accordance with the standards of 36 CFR 60.4. IRs are considered to be cultural manifestations of limited information potential; therefore, IRs are generally not eligible for the NRHP. IRs do not require further research or management beyond recordation. Sites were assessed for the elements of cultural integrity of location, design, setting, materials, workmanship, feeling, and association. In addition to assessing the elements of integrity, each locality was evaluated for eligibility based on one or more of the following criteria:

A) Associated with events that have made a significant contribution to the broad patterns of national, state, or local history;
B) Associated with the lives of persons who have made a significant contribution to national, state, or local history;
C) Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or
D) May be likely to yield information important in the prehistory or history of the nation, state, or region.

Sites either previously determined or recommended not eligible for inclusion on the NRHP under any criteria do not qualify as a historic property as defined under the NHPA (54 U.S.C. § 300308). Cultural resources, including sites, that do not qualify as historic properties do not require an assessment of whether they retain any of the seven aspects of integrity (Hardesty and Little 2000; NPS 1995). Tetra Tech did not evaluate the seven aspects of integrity for any of the documented cultural resource sites, isolates, or landscape either previously determined or recommended not eligible for the NRHP.

To assist in NRHP evaluations of cultural resource sites within the study area, Tetra Tech utilized auger probe testing within site boundaries in areas with a potential to retain intact subsurface cultural resource components. Tetra Tech used a ratcheting bucket hand auger measuring 120 centimeters (cm) in length with a 7-cm diameter bucket. Individual auger probe tests were completed to the full length of the probe unless they encountered an inhibiting factor such as a rock. All excavated material was sifted through a 1/8-inch screen to try and identify cultural resource evidence. Tetra Tech documented each probe on company forms and included versions on each site form. Once completed, all excavated material was returned to the excavated hole.

4.3 Visual Impact Assessment Methodology

Using the GIS-based viewshed analysis outlined in Section 2.2, nine cultural resources documented within the indirect APE have characteristics that make them visually sensitive cultural resource sites with a potential for being visually impacted by the potential addition to the landscape of the proposed project structures (see **Table 2; Appendix A**). Tetra Tech used process outlined in Appendix C of the 2014 Wyoming State Protocol (BLM and SHPO 2014) based on the visual contract rating system developed by the BLM (BLM 1986) as the methodology and guidelines to complete the visual impact assessment for visually sensitive cultural resource sites within the project indirect APE. The methodology is Wyoming SHPO's accepted best practice for completing cultural resource visual impact assessments as part of Class III cultural resource inventories when no other agency guidance or standards exist to direct such assessments otherwise.

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The BLM's Visual Resource Contrast Rating Handbook H-8431 outlines the process in detail (BLM 1986). In summary, the process divides a given viewshed from a visually sensitive cultural resource toward the proposed project into three main characteristics: Land/Water, Vegetation, and Structures. The cultural resource specialist doing the analysis establishes a Key Observation Point (KOP) for the viewshed at the resource that provides the best vantage point for the project. The cultural resource specialist then assesses the existing form, line, color, and texture of each of the three main characteristics from the KOP using verbal descriptives as outlined in the manual (BLM 1986). The analyst then follows the same process from the KOP but the assessment includes the planned changes to the viewshed by the project's modeled potential visual footprint likely visible from the KOP. Finally, the analyst determines the degree of contrast between the current and proposed viewsheds of each main characteristic's form, line, color, and texture. The degrees of contrast ratings can be None, Weak, Moderate, or Strong. The analyst then determines, based on the degree of contrast, if and what level of indirect visual impact the project will have on the site. The mitigation of a finding of a significant indirect impact to a visually sensitive cultural resource is developed by the lead federal agency in consultation with the client and participating stakeholders. The mitigation measures are typically included in a Historic Properties Treatment Plan, a Memorandum of Agreement, or both.

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5.0 INVENTORY RESULTS

Tetra Tech's Class III cultural resource inventory of the direct APE study area resulted in the revisit of 14 previously recorded cultural resource sites and site segments, documented 36 new sites, conducted visual assessment on eight sites, and identified 136 IRs (see **Appendix A and Appendix B**). Previously documented sites 48LN735, 48LN798, and 48LN799 appear to have been destroyed by unrelated past development and no physical evidence was observed at the reported localities. The remaining revisited previously recorded sites were recorded and evaluated as appropriate based on their available documentation. Within the direct APE, four cultural resource sites (Site 48LN740, 48LN2697 (Segments 48LN2697_3 and 48LN2697_4), 48LN8940, and 48LN8978 (Segment 48LN8978_1)) are recommended eligible for inclusion on the NRHP. The remaining cultural resource sites within the direct APE are recommended not eligible for inclusion on the NRHP. Individual cultural resource site NRHP evaluations, impact assessments, and management recommendations are provided for each site in the following section and summarized in **Table 43** in **Section 6.2**.

For the indirect APE, Tetra Tech did visual effect assessments for eight of the previously recorded visually sensitive sites. Tetra Tech did not conduct a visual effect assessment for the identified ninth visually sensitive site 48LN317 since the landowner did not permit access to the site. If one of the eight sites was confirmed to be visible to and from the project as identified in **Section 2.2**, Tetra Tech completed the assessment using a VCR form. Completed VCR forms are included as supporting documents for each site entry submitted in WyoTrack.

One cultural resource landscape (Hams Fork Conglomerate Lithic Landscape, 48LN3203) is located within the direct APE. The landscape has been previously determined not eligible for inclusion on the NRHP by Wyoming SHPO under any potential criteria. Since documentation of the landscape, SHPO has required archaeological consultants to note in Class III cultural resource inventory technical reports the presence/absence of the landscape and, if present, a general description of the observed evidence for casual secondary lithic procurement activities in the inventoried area. Evidence of the Hams Fork Conglomerate Lithic Landscape (48LN3203) manifested itself within the study area as a diffuse and dispersed scatter of secondary lithic raw material deposits of quartzite and various cherts, [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] In these areas, lone primary and secondary fractured cobbles and/or flakes of quartzites and cherts that may or may not be the result of human modification but had a potential to reflect potential casual secondary lithic procurement activities were noted every approximately 2 to 3 m. IRs of lithic debitage were documented within the landscape if the observed artifacts did not reflect potential casual secondary lithic procurement activities. [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] In addition to the information provided in the following report sections, each site and IR were also entered into Wyoming SHPO's WyoTrack electronic database as part of the investigation submission. Appropriate supporting photographs, maps, figures, tables, and GIS shapefiles were submitted for each site and IR entry in the database.

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5.1 Cultural Resource Sites

5.1.1 Previously Documented Sites

48LN735 – Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN735 was first recorded in 1981 by the Office of the Wyoming State Archaeologist (OWSA) for the Highway 189 project (DBI_WY_1999_7130; Latady 1981). The site was documented as a large low density lithic and heat-altered rock (HAR) scatter between deflated hearths. A sample collection was made in 1981 based on the investigator's judgement. No details of what was collected or where it was curated are provided in the site form. Mitigation of project effects [[Exempted from disclosure by statute]] was completed later that year by the same contractor (Birr et al. 1982a). The site was revisited in 2006 by SWCA for the Questar Overthrust Pipeline project (DBI_WY_2006_4848; Stokes and Nelson 2006a). SWCA did not observe any cultural material within the portion of the site they revisited for their project and no further work was completed. The site was revisited in 2009 by EPG for the Ruby Pipeline project (DBI_WY_2009_928; Pahr 2009a). No cultural material was observed within the revisited portions in 2009. EPG reported the site as destroyed by prior development projects and artifact collection.

The site is reported to measure 800 m by 300 m and cover an area of 240,000 square meters (sq m). In 2022, Tetra Tech revisited the southern portion within the direct APE of the reported Archaic-aged artifact scatter with features. No cultural material was observed in the revisited portions of the site. The revisited portion of the site is located on an undulating plain of Cumberland Flats (**Figure 3**). Sediments are alluvial sandy loam with pebble- to cobble-sized gravels. Vegetation is a sparse sagebrush community with ground coverage averaging 10 percent. A powerline trends north to south through the western edge of the reported site boundary; however, it appears to have had little to no impact on the site. Wind erosion is occurring across the site; however, the impacts do not appear to be significant.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN735 was determined eligible for inclusion on the NRHP by SHPO in 1981 prior to the completion of mitigation efforts. Later that same year, the site was then determined not eligible for inclusion on the NRHP. Subsequent revisits and NRHP evaluations in 2006 and 2009 re-affirmed the determination that the site is not eligible for inclusion on the NRHP. The site appeared to have been destroyed by project development work, mitigation, and surface collection.

Tetra Tech revisited the portion of the site within the study area in 2022 and did not encounter any cultural resource material. Tetra Tech agrees that the site is **not eligible** for inclusion on NRHP under any criteria. The prehistoric Archaic-aged site was a sparse debitage and HAR scatter with deflated hearths that cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the Archaic period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments have been significantly disturbed by past projects and previous investigations indicate the cultural component was limited to the surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by prior documentation, collection, and mitigation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible

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under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the sites that do not meet the definition of a historic property.



Figure 3. Site 48LN735, Resource Overview, Facing South. Beth Karpinski (10/19/2022). Unaltered.

48LN740 – Multicomponent Artifact Scatter with Features, Eligible under Criterion D
Project Location: Direct and Indirect APEs

Site 48LN740 was previously recorded in 1982 by the Office of the Wyoming State Archaeologist (OWSA) for the Highway 189 project (DBI_WY_1999_7130; Birr et al. 1982b). The documentation described within the then project APE included a large site of 5,000 lithic artifacts and 6,000 pieces of HAR. The site was tested, and project effects were mitigated in 1982 by completing 16 shovel tests, five 1 by 1 m units, and 30 10-by-10 m collection grids. The site was revisited in 1994, and the site form updated by Mariah Associates, Inc., for the US West Evanston to Kemmerer Fiber Optic Line (DBI_WY_1999_17749 and DBI_WY_1999_17750; McNees 1994). The updated form describes the site as a broad camp consisting of numerous tools, debitage, HAR, and features with a historic trash scatter. The site form stated that a grab sample surface collection of diagnostic projectile points was collected; however, no further information was provided on the form to determine which documented artifacts were collected and the information value of the collected materials could not be evaluated. Seventeen shovel tests were completed within the US

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West project corridor passing through the site [[Exempted from disclosure by statute]] . The tests did not encounter any evidence for subsurface cultural resources.

Tetra Tech revisited the site in 2022 within the overall project study area situated on privately held lands (**Figures 4 through 6**). Large sections [[Exempted from disclosure by statute]] of the site were destroyed [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] and portions [[Exempted from disclosure by statute]] were disturbed by the construction [[Exempted from disclosure by statute]] Tetra Tech conducted an updated artifact assemblage documentation and remapped the site boundary based on the current surface distribution. In 2023, OWSA revisited the site as a part of WYDOT's WL32304, Kemmerer/US 189 Wildlife Crossings Project (DBI_WY_2023_586). They note in their report that no artifacts or features were noted [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] (Page and Kelley 2024, 66). OWSA updated the site boundary using an amalgamation of OWSA's 1984, Mariah Associates 1994, and Tetra Tech's 2022 site boundaries (Page and Kelley 2024, 65). The 2023 OWSA boundary is the current SHPO approved boundary in the WyoTrack database. Tetra Tech has utilized the cumulative site documentations as part of DOE-directed cultural resource consultations for the project components of the seismic testing (DBI_WY_2022_281), the Test and Fill Facility (DBI_WY_2023_418), and the Kemmerer Unit 1 Preconstruction activities (DBI_WY_2024_515). Each time the information was presented to DOE for their review and determinations and SHPO's concurrence.

In 2024, Tetra Tech revisited the site again as part of the TFF Supplemental EA project (DBI_WY_2024_456). The results of the inventory led to the expansion of the site boundary to include newly identified cultural resource material on the ground surface. The material was located [[Exempted from disclosure by statute]] ; therefore, per SHPO guidance, the boundary was extended to encompass the cultural material. Tetra Tech discovered part of the encountered cultural material was previously documented site 48LN2336, which is mis-plotted in the Wyotrack database. Site 48LN2336 was previously recorded in 1991 by the OWSA for a WYDOT snow fence project (DBI_WY_1999_7130; Reiss 1991). The documentation described a small surface scatter of four pieces of quartzite debitage and approximately five to ten scattered pieces of HAR. A single shovel test was completed to a depth of 30 cm below ground surface. No cultural material was encountered within the shovel test.

[[Exempted from disclosure by statute]]
[[Exempted from disclosure by statute]]
[[Exempted from disclosure by statute]]

[[Exempted from disclosure by statute]] In 2024 Tetra Tech found similar cultural material as documented in 1991 [[Exempted from disclosure by statute]] along with an unlabeled site datum. In 1994 Mariah Associates, Inc. documented the cultural material as part of their update of 48LN740 but misidentified the datum as belonging to the 1984 recording of 48LN740 and not the 1991 recording of 48LN2336 as depicted on the form's sketch map. The site does not appear on Mariah Associates file search or maps for the Class III cultural resource report completed for the US West Evanston to Kemmerer Fiber Optic Line (DBI_WY_1999_17749 and DBI_WY_1999_17750; Harding 1994a). Site 48LN2336 appears not to have been reported on available SHPO records at the time the 1994 project was completed.

The site is located on an undulating alluvial plain within Cumberland Flats [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are mostly alluvial and residual silt loams with moderately dense pebble- to boulder-sized gravels. The south-central portion of the site [[Exempted from disclosure by statute]] has an area of low, anchored sand sheet deposits. Tetra Tech completed auger probe testing within the low anchored sand sheet and the results are detailed below. Vegetation is a sagebrush community

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with ground coverage averaging 35 percent. Observed site impacts in 2022 include continued use of the portions [[Exempted from disclosure by statute]] and a snow fence [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. A two-track road passes [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]; however, the road crosses residual sediments and does not appear to be adversely affecting the site.

Based on Tetra Tech's 2024 cultural inventory and revisit, the current site boundary measures 929 by 349 meters and covers an area of 206,805 sq meters. The expanded site boundary on the [[Exempted from disclosure by statute]] encompasses encountered cultural material and material associated with the previously recorded site 48LN2336. The documented cultural material added to the overall site assemblage is one projectile point (PP-07), five bifaces (BI-10 to BI-14), approximately 10 pieces of HAR, and 42 pieces of debitage. Of the newly documented material, one tertiary quartzite flake, one secondary brown chert flake and a HAR concentration are associated with the former site 48LN2336. The projectile point fragment is either an Avonlea or Rosegate type, both of which roughly date from AD 500 to 1300 (Justice 2002; Kornfeld et al. 2010). Morphological variation between to two types overlaps enough to prevent a definitive determination of the PP-07 fragment's temporal type. **Table 3** describes the tools documented in 2022 and additional material found [[Exempted from disclosure by statute]] in 2024. **Table 4** summarizes the debitage by material type and reduction stage documented in 2022 and additional material found [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] in 2024. A generalized scatter of approximately 200 pieces of granite and quartzite HAR occurs across the western portion of the site. The identified features exposed on the ground surface are almost all eroded thermal features along with one bison wallow (**Table 5**). In 2024 a new eroded thermal feature (F-21) was documented .

The observed prehistoric assemblage is speculated to reflect a repeatedly occupied medium to long-term residential camp associated with one or more potential, but currently unknown, tasks by groups of varying size. Potential activities include, but are not limited to resource procurement, resource processing, and consumption along with tool manufacture. The site may have served as a central place for logistical forays by specific task groups into the surrounding area. The temporal diagnostic artifacts documented at the site to date are projectile points dating from the Early Archaic through the Late Prehistoric. The rest of the artifact assemblage and features are of common type and construction for various activities dating across the prehistoric period.

Table 3. Site 48LN740 Lithic Tool Descriptions

Tool Number	Description
PP-01	An obsidian side-notched projectile point proximal fragment measuring 2.2 by 1.3 by 0.3 cm. The point is most typologically similar to Uinta Side Notched type points dating from 1,200 to 800 B.P. (Kornfeld et al. 2010).
PP-02	A red quartzite stemmed projectile point proximal fragment measuring 3.6 by 2.4 by 0.5 cm. The point is too fragmentary to associate with a known temporal type.
PP-03	A brown chert corner-notched projectile point proximal fragment measuring 2.3 by 2.2 by 0.4 cm. The point is most typologically similar to Elko Corner-Notched style points that date from 3,500 to 1,400 B.P. (Holmer 1986).
PP-04	A complete obsidian corner-notched projectile point measuring 1.9 by 1.4 by 0.4 cm. The point is most typologically similar to Elko Corner-Notched style points that date from 3,500 to 1,400 B.P. (Holmer 1986).
PP-05	A gray chert corner-notched projectile point distal and medial fragment measuring 2.3 by 0.9 by 0.4 cm. The projectile points are most similar to Rosegate type which date from AD 500 to 1300 (Justice 2002).

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Tool Number	Description
PP-06	A complete gray and white chert side-notched projectile point proximal fragment measuring 3.9 by 1.8 by 0.5 cm. The point is too fragmentary to associate with a known temporal type.
PP-07	A brown chert corner-notched projectile point proximal fragment missing on corner. The point measures 2.0 by 1.7 by 0.3 cm. The projectile point fragment is either an Avonlea or Rosegate type, both of which roughly date from AD 500 to 1300 (Justice 2002; Kornfeld et al. 2010).
BI-01	A brown and tan chert late-stage biface medial fragment measuring 2.7 by 2.2 by 0.5 cm.
BI-02	A cream chert late-stage biface medial fragment measuring 1.4 by 0.9 by 0.2 cm.
BI-03	An obsidian late-stage biface medial fragment measuring 1.5 by 1.1 by 0.3 cm.
BI-04	A gray and brown chert late-stage biface measuring 1.2 by 0.9 by 0.2 cm.
BI-05	A tan and brown chert late-stage biface proximal fragment measuring 4.3 by 3.1 by 0.5 cm.
BI-06	A tan and brown chert late-stage biface proximal fragment measuring 2.2 by 1.2 by 0.5 cm.
BI-07	A gray and brown chert late-stage biface medial fragment measuring 3.1 by 3.1 by 0.4 cm.
BI-08	A complete brown chert early-stage biface with 20 percent cortex remaining on one side and measuring 3.7 by 2.0 by 0.6 cm.
BI-09	A brown chert late stage proximal/medial fragment measuring 3.9 by 3.5 by 0.8 cm.
BI-10 (1)	A brown chert early stage proximal fragment measuring 6.8 by 5.6 by 1.5 cm.
BI-11 (2)	A brown chert complete early stage biface measuring 4.5 by 4.0 by 1.5 cm.
BI-12 (3)	A yellow mottled chert late stage proximal fragment measuring 2.8 by 1.5 by 0.2 cm.
BI-13 (4)	A white and tan mottled chert late stage medial fragment measuring 4.8 by 3.4 by 1.0 cm.
BI-14 (5)	A gray and white mottled chert complete early stage biface measuring 6.0 by 4.4 by 2.2 cm.
MF-01	A yellow and gray chert primary flake with usewear on both lateral edges measuring 11.0 by 5.4 by 1.0 cm.
MF-02	A yellow and tan chert primary flake with usewear on all edges measuring 4.3 by 3.1 by 0.5 cm.
CH-01	A coarse-grained purple quartzite primary flake with evidence of bashing along one lateral margin measuring 10.0 by 6.0 by 2.7 cm.
HS-01	A quartzite hammerstone with a circular indention and broken end measuring 8.0 by 9.2 by 6.0 cm.
GS-01	A sandstone unknown groundstone fragment with one moderately ground face measuring 8.6 by 6.4 by 2.3 cm.
GS-02	A sandstone mano with one moderately ground face measuring 14.0 by 11.5 by 2.5 cm.
GS-03	A granitic mano fragment with one well-ground face measuring 4.7 by 6.0 by 3.7 cm.

Table 4. Site 48LN740 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	0	3	0
Oolitic Chert	0	0	1
Brown Chert	12	30	38

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Raw Material	Tertiary	Secondary	Primary
White Chert	9	4	1
Red Chert	0	2	0
Variously Colored Chert	7	27	6
Quartzite	0	4	3

Table 5. Site 48LN740 Feature Descriptions

Feature Number	Description
F-01	Bison wallow measuring 2 by 3 m.
F-02	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1 by 1 m area.
F-03	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-04	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-05	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.35 by 0.35 m area.
F-06	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-07	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.25 by 0.25 m area.
F-08	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-09	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-10	The feature is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.25 by 0.25 m area.
F-11	The feature is approximately 100 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.1 by 1.1 m area.
F-12	The feature is approximately 100 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1 by 1 m area.
F-13	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.35 by 0.35 m area.
F-14	The feature is approximately 50 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.5 by 1.5 m area.
F-15	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.
F-16	The feature is approximately 50 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.5 by 1.5 m area.
F-17	The feature is approximately 20 reddened and cracked granite and quartzite cobble-sized gravels in a 0.66 by 0.72 m area.
F-18	The feature is approximately 20 reddened and cracked granite and quartzite cobble-sized gravels in a 0.55 by 0.23 m area.

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Feature Number	Description
F-19	The feature is approximately 15 reddened and cracked granite and quartzite cobble-sized gravels in a 0.49 by 0.46 m area.
F-20	The feature is approximately 15 reddened and cracked granite and quartzite cobble-sized gravels in a 0.82 by 0.53 m area.
F-21 (1)	The feature is a concentration of between 15 to 20 quartzite and granite cobble size reddened and fractured rocks in a 1 by 1.5 m area.

The historic artifact component is scattered across the mapped extent of the site; however, no additional historic-era artifacts were documented [[Exempted from disclosure by statute]] in 2024. The artifact assemblage includes common domestic consumer good types and styles of artifacts (**Table 6**). Based on the temporal range of the artifacts, the site was used from the late 1800's to the late 1900's. Based on the artifacts, the historic component is indicative of the known Euroamerican use of the area. Native American groups had been forced out of this part of Wyoming by the time the site appears to have been used during the historic period. The temporal range and identified types are indicative of multiple activities over a broad temporal period, including but not limited to livestock grazing, land survey, resource prospecting, and/or recreation.

Table 6. Site 48LN740 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-top	6	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	3	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	1	-
Paint Can	1	-
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
Glass		
Amber	20	Various vessel fragments
Amethyst	20	Manufactured 1885 to 1920 (Merritt 2014)
Additional Common Artifacts		
Enamel bowl	2	-
Galvanized tub	1	-
Metal hardware	1	-

In 2022 Tetra Tech completed a grid of 35 auger probes within the anchored sand sheet [[Exempt from disclosure by statute]] [[Exempted from disclosure by statute]] Overall, the probes encountered a single macro stratum of fine silty clay loam with sparse pebble-sized gravels and calcium carbonate flecking. The probes reached a maximum depth ranging from 40 to 90 cm below ground surface. Sixteen of the probes were positive for cultural material including charcoal flecking, debitage, burnt bone, and HAR fragments. The cultural material was encountered between 20 and 50 cm below ground surface. The positive auger probes are trending north to

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south across the sand sheets. Tetra Tech argues that at least the central portion of the aeolian deposits is likely to contain an intact buried cultural resource component of unknown age. The sediments across the rest of the site are eroded alluvial and residual silt loams with moderately dense pebble- to boulder-sized gravels. The sediments beyond the aeolian deposits in the south-central part of the site do not retain a significant potential to contain intact subsurface cultural resource deposits and were not subject to auger probe testing. The sediments within the 2024 expanded boundary areas [[Exempted from disclosure by statute]] are also an eroded alluvial and residual silt loams that do not retain a significant potential to contain intact subsurface cultural resource deposits and were not subject to auger probe testing.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN740 was determined **eligible** for inclusion on NRHP under Criterion D in 1982 and 1994. Tetra Tech agreed with the determination and had no changes based on the 2022 revisit. Based on Tetra Tech's 2022 documentation of the surface scatter, the site retains integrity of location, materials, and association. The site was evaluated for inclusion on the NRHP in 2023 by OWSA as a part of WYDOT's WL32304, Kemmerer/US 189 Wildlife Crossings Project (DBI_WY_2023_586). WYDOT's consultation with SHPO resulted in a SHPO concurrence letter stating that the site is eligible for inclusion on the NRHP but the portion of 48LN740 within [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] is **non-contributing** to the overall eligibility of the site (Currit 2024a; Currit, personal communication February 14, 2024). Tetra Tech again agrees with the prior determinations for the site as part of the Natrium TFF Project (DBI_WY_2023_418) and the Kemmerer Power Station Unit 1 preconstruction activities project (DBI_WY_2024_515). The determination was upheld by DOE and again concurred upon by SHPO. A monitoring plan was developed to protect the site during construction activities for the TFF (Karpinski 2024) and another monitoring plan will be developed prior to construction activities for Kemmer Unit 1. The plan requires a cultural resource monitor for any work within 50-ft of the Tetra Tech 2022 site boundary shown in Figure 6.

The late-1800's to the mid-1900's historic component cannot be attributed to a specific historic event or person. The historic component is most likely associated with Euroamericans as Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape. The historic component is **non-contributing** to the site's NRHP eligibility. The Early Archaic through Late Prehistoric artifact scatter components cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric and historic period across the region. It is not eligible under Criterion C. As already stated, the site has been determined and concurred upon as eligible for inclusion on the NRHP under Criterion D. In 2022, completed auger probe testing proved that a buried cultural resource component is likely present within the aeolian deposits in the south-central portion of the site. This portion of the site retains elements that further study would contribute to research questions regarding prehistoric subsistence and resource processing practices spanning from the Early Archaic (6000 BC) through the Late Prehistoric (AD 1700). The portion of the site is recommended as **contributing** to the site's NRHP eligibility. The remaining portions of the site including the material in the expanded areas [[Exempted from disclosure by statute]] with prehistoric cultural material consists of eroded alluvial and residual silt loams with moderately dense pebble- to boulder-sized gravels. Features in these portions of the site are all eroded HAR scatters lacking physical integrity. These parts of the site do not retain a significant potential to contain intact subsurface cultural resource deposits and are recommended as **non-contributing** to the site's NRHP eligibility. The site does not qualify as a

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visual effect sensitive resource; therefore, the documented portions within the indirect APE do not require visual impact assessment as part of the undertaking.

The site is eligible for inclusion on the NRHP and meets the definition of a historic property. The project plan as currently developed will remove recommended non-contributing and contributing portions of the historic property. The project will have an **adverse effect** to the historic property. Tetra Tech recommends a Historic Properties Treatment Plan be developed to include appropriate measures to mitigate the adverse effects caused by the removal of the contributing portions of the site based on what has been recorded at the site to date. The plan will be reviewed, consulted on, and approved by the NRC, SHPO, TerraPower, and Tribal nations prior to initiation of the mitigation.



Figure 4. Site 48LN740, Resource Overview, Facing Southwest. Beth Karpinski (5/14/2022). Unaltered.

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Figure 5. Site 48LN740, Expanded Area Overview, Facing North. Beth Karpinski (9/23/2024). Unaltered.

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Figure 6. Site 48LN740, Site Sketch Map.

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48LN798 – Prehistoric Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN798 was previously recorded in 1981 by Larson-Tibesar Associates for the South Block 81 project (DBI_WY_1999_89; Sanders 1981a). The site was documented as a small number of flakes on the northern edge of a gentle slope in a 40 m by 42 m area. The debitage was collected during recordation; however, no details of where it was curated are provided in the available forms.

Tetra Tech revisited the portions of the reported unknown prehistoric artifact scatter in 2022 within the direct APE on privately held lands (**Figure 7**). No cultural material was observed in the revisited area. The revisited portion of the site is located at a spoil pile on the undulating plain of Cumberland Flats. Sediments are excavated clay loam with sparse pebble- to cobble-sized gravels. The observed disturbed sediments are evidence that the entire cultural assemblage has been completely removed or destroyed; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 10 percent. The site was located on a proposed spoil pile area that was excavated sometime after the 1981 recording. The entire site was collected in 1981, and Tetra Tech did not identify any additional cultural resource material in 2022.



Figure 7. Site 48LN798, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN798 was determined **not eligible** for inclusion on NRHP under any criteria in 1981. Tetra Tech agrees with the determination and has no change based on the revisit. The unknown prehistoric site was a sparse debitage scatter and cannot be attributed to a specific historic event

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or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments have been significantly disturbed by development of the spoil pile; therefore, Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The surface scatter was completely collected in 1981 and no additional cultural material was observed at the site in 2022. The site's information potential has been exhausted by prior documentation and collection. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, does not meet the definition of a historic property. The project will have **no effect** to the sites that do not meet the definition of a historic property.

48LN799 – Historic Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN799 was previously recorded in 1981 by Larson-Tibesar Associates for the South Block 81 project (DBI_WY_1999_89; Hughes 1981a). The site was documented as a sheepherder camp consisting of various cans, wood chips, sheep bone, and a medicine bottle in a 74 m by 49 m area. The medicine bottle was collected during recordation in 1981; however, no details of where the artifact was curated are provided in the site form.

Tetra Tech revisited the site in 2022 within the direct APE on privately held lands (**Figure 8**). No cultural material was observed in the revisited area. The area has had two powerlines built over it, a water line, and mine spoil pile. The revisited site is located on the undulating plain of Cumberland Flats. Sediments are an introduced spoils of clay loam with sparse pebble- to cobble-sized gravels. The observed sediments have been dumped at the site since 1981 and either removed, destroyed, or buried to an unknown depth the entire cultural assemblage; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 10 percent. The site was located on a proposed spoil pile area that was excavated sometime after the 1981 recording. The entire site was destroyed after the 1981 recording and Tetra Tech identified no additional cultural resource material in 2022.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN799 was determined **not eligible** for inclusion on NRHP under any criteria in 1981. Tetra Tech agrees with the determination and has no change at this time. The 1920's historic artifact scatter appears to have been destroyed and cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments have been significantly disturbed by development of the spoil pile; therefore, Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The spoils pile development removed and/or destroyed the artifacts that weren't collected in 1981. The site's information potential has been exhausted by prior documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

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The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, does not meet the definition of a historic property. The project will have **no effect** to the sites that do not meet the definition of a historic property.



Figure 8. Site 48LN799, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered.

48LN801 – Historic Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN801 was previously recorded in 1981 by Larson-Tibesar Associates for the South Block 81 project (DBI_WY_1999_89; Sanders 1981b). The site was documented as a sheepherder camp consisting of various cans, wood chips, sheep bone, a flake tool, and bottle glass in a 55 m by 28 m area. The site was reported to be a single component dating from 1940 to 1960.

Tetra Tech revisited the reported historic artifact scatter in 2022 within the direct APE on privately held lands (**Figures 9 and 10**). Tetra Tech conducted an updated artifact assemblage documentation and remapped the site boundary based on the current surface artifact distribution. The revisited site is located [[Exempted from disclosure by statute]] Sediments are a residual clay loam with pebble- to cobble-sized gravels. The residual sediments are evidence that the entire cultural assemblage is completely exposed on the surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 10 percent. The artifact scatter is located adjacent to a powerline, water line, and a two-track road; however, the developments have not significantly impacted the site.

The updated site measures 65 by 39 m and covers an area of 2,559 sq m. The documented 2022 artifact assemblage are of common domestic types and styles (**Table 7**). Based on the temporal range of all artifacts, the site was used from the first half of the 1900's. Based on the artifacts, the

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exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of multiple events over a broad temporal period.

Table 7. Site 48LN801 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-top	1	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	6	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	1	-
Tobacco Tin	3	Type dates from 1907 to 1988 (Merritt 2014)
Internal Friction Lid	1	-
Unidentified Can Fragment	3	-
Glass		
Amber	16	Various vessel fragments
Colorless	6	Various vessel fragments
Aqua	2	Various vessel fragments
Amethyst	2	Manufactured 1885 to 1920 (Merritt 2014)
Additional Common Artifacts		
Shoe Sole	1	-
Metal Hardware	1	-
Galvanized tub	1	-

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN801 was determined **not eligible** for inclusion on NRHP under any criteria in 1981. Tetra Tech agrees with the determination. The early 1900's historic artifact scatter cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components; therefore, Tetra Tech did not complete subsurface testing. The site's information potential has been exhausted by prior documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the sites that do not meet the definition of a historic property.

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Figure 9. Site 48LN801, Resource Overview, facing East-Southeast. Beth Karpinski (5/11/2022). Unaltered.

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Figure 10. Site 48LN801, Site Sketch Map.

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48LN802 – Historic Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN802 was previously recorded in 1981 by Larson-Tibesar Associates for the South Block 81 project (DBI_WY_1999_89; Hughes 1981b). The site was documented as a sheepherder camp consisting of various cans, wood chips, sheep bone, and bottle glass in a 48 m by 37 m area. The site was reported to reflect two occupations, with one dating from 1910 to the 1920's and another from the 1940's to the 1960's.

Tetra Tech revisited the historic artifact scatter in 2022 within the direct APE on privately held lands (**Figures 11 and 12**). Tetra Tech conducted an updated artifact assemblage documentation and remapped the site boundary based on the current surface artifact distribution. The site is located [[Exempted from disclosure by statute]] Sediments are a residual clay loam with dense pebble- to cobble-sized gravels. The residual sediments are evidence that the entire cultural assemblage is completely exposed on the surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 25 percent. The artifact scatter is located [[Exempted from disclosure by statute]] Modern-era earth moving has occurred northwest of the site. The developments have not significantly impacted the site.

The updated site measures 166 by 91 m and covers an area of 15,125 sq m. The documented 2022 artifact assemblage are of common domestic types and styles. One artifact concentration (AC-01; **Table 8**) was documented along with a general scatter extending across the site (**Table 9**). AC-01 is a historic artifact scatter measuring approximately 4 m by 4 m. Based on the temporal range of the artifacts, the site was occupied during the 1900's. AC-01 appears to be the component that dates from 1910 to the 1920's, while the general scatter dates from 1940's to the 1960's. Based on the artifacts, the exact theme or activity of the historic component is unknown.

Table 8. Site 48LN802 AC-01 Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	4	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	3	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	6	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	1	-
Meat Tin	5	-
Tobacco Tin	2	Type dates from 1907 to 1988 (Merritt 2014)
Internal Friction Lid	1	-
Unidentified Can Fragment	1	-
Glass		
Amber	2	Various vessel fragments
Amethyst	10	Manufactured 1885 to 1920 (Merritt 2014)
Additional Common Artifacts		
Ceramic Insulator	2	-

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Artifact Type	Quantity	Comments
Broom Handle	1	-
Clothing Pieces	1	-
Electrical Parts	8	-

Table 9. Site 48LN802 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	7	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	1	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	5	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary		
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
Cone-top Beer Can	1	-
Church-key Beverage Cans	7	-
Unidentified Can Fragment	7	-
Glass		
Amber	2	Various vessel fragments
Additional Common Artifacts		
Horseshoe	2	--
Metal Barrel	1	

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN802 was determined **not eligible** for inclusion on NRHP under any criteria in 1981. Tetra Tech agrees with the determination and has no change at this time. The two historic artifact scatter components cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components; therefore, Tetra Tech did not complete subsurface testing. The site's information potential has been exhausted by prior documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, it does not meet the definition of a historic property. The site is also located [[Exempted from disclosure by statute]]

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[[Exempted from disclosure by statute]] The project will have **no effect** to the sites that do not meet the definition of a historic property.

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Figure 11. Site 48LN802, Resource Overview, facing West. Beth Karpinski (5/11/2022). Unaltered.

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Figure 12. Site 48LN802, Site Sketch Map.

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48LN2335 – Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN2335 was previously recorded in 1991 by OWSA for [[Exempted from disclosure by statute]] project (DBI_WY_1999_15622; Reiss 1991). The site was documented as a small camp consisting of chipped stone and scattered HAR. No features were observed in 1991. The site was tested with three shovel tests that did not encounter any subsurface cultural material.

Tetra Tech revisited the unknown prehistoric artifact scatter in 2022 within the study area on privately held lands (**Figures 13 and 14**). Tetra Tech conducted an updated artifact assemblage documentation and remapped the site boundary based on the current larger surface distribution. The site is located [[Exempted from disclosure by statute]] Sediments are an eroded alluvial silt loam mixed with moderately dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated feature are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 35 percent. Observed site impacts [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] The impacts have potentially displaced approximately 30 percent of the cultural material documented on ground surface.

The site measures 200 by 145 m and covers an area of 29,122 sq m. The unknown prehistoric artifact scatter is extensive with numerous tools and 114 pieces of debitage. **Table 10** describes the lithic tools. **Table 11** summarizes the documented debitage by material type and reduction stage. The identified feature (F-01) is an eroded thermal feature. F-01 is approximately 25 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.75 by 0.75 m area.

Table 10. Site 48LN2335 Lithic Tool Descriptions

Tool Number	Description
PP-01	A gray and brown chert corner-notched projectile point proximal fragment measuring 2.2 by 2.3 by 0.3 cm.
BI-01	A brown chert late stage biface proximal fragment measuring 2.4 by 3.3 by 0.5 cm.
BI-02	A brown chert late stage biface medial fragment measuring 2.9 by 1.5 by 0.4 cm.
BI-03	A white chert early stage biface indeterminate fragment measuring 3.0 by 3.1 by 0.9 cm.
BI-04	A complete oolitic chert early stage biface measuring 3.1 by 2.1 by 0.8 cm.
BI-05	An obsidian late stage biface medial fragment measuring 1.2 by 2.0 by 0.3 cm.
BI-06	A gray and brown chert early stage biface proximal fragment measuring 2.5 by 3.3 by 0.5 cm.
BI-07	A brown chert late stage biface proximal fragment measuring 2.6 by 3.1 by 0.7 cm.
BI-08	A gray chert early stage biface medial fragment measuring 1.9 by 2.2 by 0.4 cm.
BI-09	A gray chert early stage biface distal fragment measuring 1.5 by 1.5 by 0.4 cm.
BI-10	A complete gray and white chert early stage biface measuring 2.5 by 1.4 by 0.3 cm.
BI-11	A gray and brown chert early stage biface proximal fragment measuring 2.1 by 1.5 by 0.3 cm.
BI-12	A black chert early stage biface distal fragment measuring 2.5 by 2.3 by 0.3 cm.
BI-13	A gray and brown chert late stage biface distal fragment measuring 2.7 by 1.2 by 0.3 cm.
BI-14	A gray and brown chert late stage biface proximal fragment measuring 2.4 by 2.0 by 0.2 cm.

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Tool Number	Description
BI-15	A complete gray and brown chert early stage biface measuring 4.1 by 1.9 by 0.6 cm.
BI-16	A white mottled chert early stage biface distal fragment measuring 3.3 by 1.8 by 0.5 cm.
BI-17	An obsidian early stage biface lateral fragment measuring 2.5 by 1.0 by 0.4 cm.
BI-18	A gray and brown chert early stage biface indeterminate fragment measuring 2.3 by 2.2 by 0.5 cm.
BI-19	A gray chert late stage biface medial fragment measuring 1.8 by 1.2 by 0.3 cm.
BI-20	An obsidian late stage biface medial fragment measuring 1.3 by 1.5 by 0.4 cm.
BI-21	A brown chert late stage biface distal fragment measuring 2.7 by 1.8 by 0.3 cm.
UN-01	A complete black chert primary flake with one retouch edge measuring 3.8 by 2.9 by 1.0 cm.
SC-01	A brown chert nodule with retouch on one edge measuring 3.0 by 1.8 by 0.5 cm.
GS-01	A granite mano with one lightly ground face measuring 11.7 by 7.4 by 3.2 cm.

Table 11. Site 48LN2335 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	1	2	0
Gray and Brown Chert	6	29	10
Variously colored chert	14	14	22
Quartzite	1	3	12

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN2335 was determined **not eligible** for inclusion on NRHP under any criteria in 1991. Tetra Tech agrees with the determination and has no change at this time. Tetra Tech documented a larger and more diverse surface scatter compared to what was documented in 1991. However, the newly documented cultural material is not a significant change from the 1991 documentation that would recommend a change in site NRHP eligibility. The unknown prehistoric artifact scatter components cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric period across the Wyoming Basin. It is not eligible under Criterion C. Testing in 1991 did not encounter any evidence of a subsurface cultural resource component. Based on the results of the 1991 testing and assessment of the depositional setting in 2022, no additional testing was completed at the site during recordation. The site's information potential has been exhausted by prior documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been determined not eligible for inclusion on the NRHP under any potential criteria; therefore, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the sites that do not meet the definition of a historic property.

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Figure 13. Site 48LN2335, Resource Overview, facing Southwest. Beth Karpinski (5/14/2022). Unaltered.

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Figure 14. Site 48LN2335, Site Sketch Map.

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48LN2697 (Segment 48LN2697_3) –Historic Cumberland Branch – Union Pacific Railroad Alignment, Eligible under Criterion A
Project Location: Direct & Indirect APEs

Site 48LN2697 was originally recorded in 1993 by Mariah Associates for the Northwest Pipeline System Expansion II project (DBI_WY_1999_15822; McNees 1993). The site was documented as the still-in-use grade of the railroad branch. Additional segments across the region have been documented and revisited in 1994 (DBI_WY_1999_15822; Harding 1994a); 2000 (DBI_WY_2002_2676; Martin and Phillips 2000); 2006 (DBI_WY_2006_4848; Stokes and Nelson 2006b); 2009 (DBI_WY_2008_2000 and DBI_WY_2009_928; Crompton 2009, Pahr 2009b); and 2021 (DBI_WY_2021_326; Tucker 2021).

Rail service to the Kemmerer area began in 1882 with the construction of the Oregon Short Line Railroad (originally, Railway) through the area. After 1900, a branch line and several spurs served the multiple coal mines south of Kemmerer. The Cumberland branch line, completed in early 1901, ran from the mainline of the Oregon Short Line Railroad approximately 15 miles south to the coal town or camp of Cumberland established by the Union Pacific Railroad in 1901 to mine coal near Cumberland Gap, where Little Muddy Creek cuts through Oyster Ridge on the east side of Cumberland Flats. According to Smith (1966, 17, 107), Cumberland was “one of the most prosperous coal camps in the intermountain West.” It produced a total of 14.1 million tons of coal from 1901 until it closed in 1930.

The railroad crosses the bottom of Cumberland Flats on privately held lands. Sediments around the grade are a silt loam dense pebble- to cobble-sized gravel. Vegetation is a sagebrush community with ground coverage averaging 15 percent. Segment 48LN2697_3 is a previously recorded segment of the active rail line whose Wyoming SHPO record was most recently updated in 2021 (**Figure 15**). The segment within the direct APE measures 438 by 16 m and covers an area of 7,017 sq m. The segment is located in Section 7 of T20N R116W (**Figure 16**). Based on Tetra Tech’s 2022 revisit within the direct APE, the segment is in the same condition as when revisited in 2021.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN2697 has been determined **eligible** for inclusion on the NRHP under Criterion A. Tetra Tech agrees with the determination and has no change at this time. The historic railroad grade played a significant role during historic coal mining in the region during the late 1800’s and early 1900’s. Therefore, it is eligible under Criterion A. The railroad cannot be associated with a known historic person and therefore, it is not eligible under Criterion B. The documented artifacts are of common type for the period and the railroad design is also standard for the historic period. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components. The railroad grade does not retain characteristics that further study would yield additional information and the site’s information potential has been exhausted by prior documentation. The site is not eligible under Criterion D.

The segment has been modified from its original form by removal of the historic period rails and ties and replacement to permit continued use. Integrity of design, materials, and association have been removed from the site. Setting for the segment has been compromised by modern infrastructure including Highway 189, the existing Naughton Power pPant, and the associated transmission lines. The site does not qualify as a visually sensitive resource; therefore, the previously documented portions within the indirect APE do not require visual impact assessment as part of the undertaking. The segment is still in its original constructed location within an engineered right-of-way; therefore, the segment retains integrity of location and workmanship.

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In 2021, 48LN2697_3 was recommended, and concurred on by Wyoming SHPO, as a **contributing** segment to the overall site eligibility despite the rails being replaced in 1970. No argument as to why the segment is contributing to the overall site eligibility was provided within WyoTrack. Tetra Tech argues that with the lack of integrity beyond location and workmanship the segment is recommended as **non-contributing** to the overall site eligibility.

The site segment within the direct APE is recommended as **non-contributing** for inclusion on the NRHP under any potential criteria. If the NRC determines the segment is non-contributing, and SHPO concurs, then the project will have **no adverse effect** to the historic property. The location of the electric transmission and water pipeline rights-of-way has not yet been determined within the inventoried macro-corridors. If the NRC determines the segment is contributing, the project has a potential to affect the historic property. However, given the segment is an active railroad, any electric transmission and water pipeline rights-of-way will need to avoid the segment by spanning or boring under the railroad grade. The project will have **no effect** to the historic property if physical railroad is avoided by spanning or boring. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.



Figure 15. Site 48LN2697_3, Resource Overview, facing South. Beth Karpinski (4/29/2022). Unaltered.

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Figure 16. Sites 48LN2697_3, Site Location.

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48LN2697 (Segment 48LN2697_4) – Abandoned Historic Grade of the Cumberland Branch of the Union Pacific Railroad, Eligible under Criterion A, Non-contributing segment
Project Location: Direct & Indirect APEs

Site 48LN2697 was originally recorded in 1993 by Mariah Associates for the Northwest Pipeline System Expansion II project (DBI_WY_1999_15822; McNees 1993). The site was documented as the still-in-use grade of the railroad branch. Additional segments have been documented and revisited in 1994 (DBI_WY_1999_15822; Harding 1994b); 2000 (DBI_WY_2002_2676; Martin and Philips 2000); 2006 (DBI_WY_2006_4848; Stokes and Nelson 2006b); 2009 (DBI_WY_2008_2000 and DBI_WY_2009_928; Crompton 2009, Pahr 2009b); and 2021 (DBI_WY_2021_326; Tucker 2021). In 2022 Tetra Tech documented and evaluated a new segment (48LN2697_4) and the segment was reported to DOE for the Natrium TFF Project (DBI_WY_2023_418) in 2023 and the Kemmerer Unit 1 Preconstruction Activities project (DBI_WY_2024_515) in 2024.

Rail service to the Kemmerer area began in 1882 with the construction of the Oregon Short Line Railroad (originally, Railway) through the area. After 1900, a branch line and several spurs served the many coal mines opened south of Kemmerer. The Cumberland branch line, completed in early 1901, ran from the mainline of the Oregon Short Line Railroad approximately 15 miles south to Cumberland, a coal town or camp established by the Union Pacific Railroad in 1901 to mine coal near Cumberland Gap, where Little Muddy Creek cuts through Oyster Ridge on the east side of Cumberland Flats. According to Smith (1966:17, 107), Cumberland was “one of the most prosperous coal camps in the intermountain West.” It produced a total of 14.1 million tons of coal from 1901 until it closed in 1930.

48LN2697_4 is the abandoned segment of the mainline to Cumberland Mine to the south. [[Exempted from disclosure by statute]]
[[Exempted from disclosure by statute]]
[[Exempted from disclosure by statute]] The segment measures 1,981 by 15 meters and covers an area of 31,704 sq meters (**Figures 17 through 19**). The documented abandoned segment is a grade with sparse ties, vertical posts, and a sparse scatter of historic-era artifacts (**Table 12**) along the segment. The artifacts were not far enough apart to define as stand-alone sites. The southern end of the segment has remains of a trestle for spanning North Fork Little Muddy Creek. Several vertical posts and an “H” shaped structure were noted at the location (see **Figure 18**). The segment also had a large brick containing at least three dates inscribed including 12-3-12, 7-14-14, and 5-4-16; the other dates are unreadable.

Table 12. Site 48LN2697_4 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	10	Type dates from 1840’s to 1920’s (Merritt 2014)
Glass		
Amethyst	50	Manufactured 1885 to 1920 (Merritt 2014)
Ceramics		
White earthenware	20	Various vessel fragments
Additional Common Artifacts		
Railroad Spikes	20	-

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN2697 has been determined **eligible** for inclusion on the NRHP under Criterion A. Tetra Tech agrees with the determination and has no change. The historic railroad grade played a significant role during historic coal mining in the region during the early 1900's. Therefore, it is eligible under Criterion A. The railroad cannot be associated with a known historic person and therefore, it is not eligible under Criterion B. The documented artifacts are of common type for the period and the railroad design is also standard for the historic period. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components. The railroad grade does not retain characteristics that further study would yield additional information and the site's information potential has been exhausted by prior documentation. The site is not eligible under Criterion D.

Segment 48LN2697_4 has been modified from its original form by removal of the historic period rails and ties through dismantling and abandonment. The trestle at the southern end of the recorded segment has also been removed. The site has substantially lost integrity of design, materials, and association. Setting for the segment has been compromised by modern infrastructure including Highway 189, the Naughton Power Plant, and the associated transmission lines. The segment is still in its original constructed location within an engineered right-of-way; therefore, the segment retains integrity of location and workmanship. The segment lacks all other aspects of integrity. The railroad segment was previously evaluated for the Natrium TFF Project (DBI_WY_2023_418). The segment has been determined by DOE and concurred on by SHPO (Currit 2024b) as **non-contributing** to the overall site eligibility. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The segment within the direct APE has been determined to be non-contributing to the site NRHP eligibility. The project will have **no adverse effect** to the historic property.

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Figure 17. Site 48LN2697_4, Resource Overview, Facing South. Beth Karpinski (4/29/2022). Unaltered.

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Figure 18. Site 48LN2697_4, Trestle Remains, Facing Northeast. Beth Karpinski (4/29/2022). Unaltered.

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Figure 19. Sites 48LN2697_4, Site Location.

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48LN2939 – Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Direct APE

Site 48LN2939 was previously recorded in 1994 by Mariah Associates for the US West Evanston to Kemmerer Fiber Optic project (DBI_WY_1999_15822; Harding 1994b). The site was documented as an unknown age open camp consisting of flakes, HAR, and a feature. The site was located [[Exempted from disclosure by statute]] in a 40 m by 42 m area.

Tetra Tech revisited the reported unknown prehistoric artifact scatter with feature in 2022 within the study area on privately held lands (**Figure 20 and 21**). Tetra Tech conducted an updated artifact assemblage documentation and remapped the site boundary based on the current surface distribution. The site is located [[Exempted from disclosure by statute]] Sediments are an eroded alluvial silt loam mixed with pebble- to cobble-sized gravels. The observed sediments were evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 25 percent. The only observed site impact is [[Exempted from disclosure by statute]]

The site measures 138 by 21 m and covers an area of 2,952 sq m. The unknown prehistoric artifact scatter is one biface (BI-01), a primary gray chert flake, and a primary brown chert flake. BI-01 is a complete brown chert early stage biface measuring 3.4 by 3.0 by 0.5 cm. Tetra Tech reidentified the original documented feature (F-01) and identified one new feature (F-02). Each feature is potentially an eroded thermal feature. F-01 is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.75 by 0.75 m area. F-02 is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.50 by 0.50 m area.

The observed assemblage is speculated to reflect an unknown age short-term camp associated with one or more potential specific tasks by a small group. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, the specific tasks and the time period it occurred cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN2939 was determined **not eligible** for inclusion on NRHP under any criteria in 1994. Tetra Tech agrees with the determination and has no change at this time. The unknown prehistoric site cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric period across the Wyoming Basin. It is not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The thermal features are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

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The site has been previously determined and concurred on by SHPO as not eligible under any potential criteria, and the project will have **no effect** to the site.

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Figure 20. Site 48LN2939, Resource Overview, facing West. Beth Karpinski (5/17/2022). Unaltered.

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Figure 21. Sites 48LN2939, Site Sketch Map.

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48LN8955 (NAT-35)– Prehistoric Artifact Scatter with Feature, Not Eligible

Project Location: Direct APE Site 48LN8955 was originally documented by Tetra Tech in 2022 and reported for the Natrium TFF Project (DBI_WY_2023_418; Karpinski 2024). The prehistoric artifact scatter with a feature was documented as located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments were determined to be a residual silt loam mixed with moderately dense pebble- to boulder-sized gravels. The observed eroded sediments were evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation at the time of recording was a sagebrush community with ground coverage averaging 15 percent. Observed site impacts were minor eroding sediments and vehicle traffic that have displaced 10 percent of the observed artifact assemblage. [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Artifacts were noted eroding downslope to the northwest into the Highway 189 ROW was documented in the southwestern part of the site.

The site measures 148 by 88 meters and covers an area of 13,101 sq meters (**Figures 22 and 23**). The unknown prehistoric artifact scatter is one uniface (UN-01), four bifaces (BI-01 to BI-04), one indeterminate metate groundstone fragment (GS-01), two tested cobbles (TC-01 and TC-02), and 16 pieces of debitage. **Table 13** describes the tools. **Table 14** summarizes the documented debitage by material type and reduction stage. The identified feature (F-01) is potentially an unknown prehistoric stone alignment. F-01 is four sandstone cobble-sized rocks within an approximately 0.25 by 0.25-meter area. The TCSs from the Northern Arapaho Tribe indicated the feature may be a map marker pointing to Quealy Peak approximately 9 miles to the north. A bison horn shed was also noted in the southeast corner of the site.

The observed assemblage is speculated to reflect a short- to medium-term camp associated with one or more potential specific tasks by a small group. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, a specific tasks and the time period it occurred cannot be defined for the locality. The feature may be a potential map marker according to TCSs; however, stone alignments serving such a function have not been documented in the Mountain West so the age and/or potential affiliation of the feature are unknown.

Table 13. Site 48LN8955 Lithic Tool Descriptions

Tool Number	Description
BI-01	A brown chert early-stage biface measuring 6.4 by 4.6 by 1.3 cm
BI-02	A brown chert late-stage biface indeterminate fragment measuring 2.7 by 1.9 by 0.4 cm
BI-03	A brown chert early-stage biface distal fragment measuring 2.4 by 2.2 by 0.6 cm
BI-04	A black chert early-stage biface indeterminate fragment measuring 1.8 by 1.8 by 0.3 cm
TC-01	A brown and tan chert cobble-sized gravel with two flakes removed.
TC-02	A quartzite cobble-sized gravel with four flakes removed.
UN-01	A brown chert cobble size gravel with one worked edge measuring 5.2 by 3.6 by 1.2 cm.
GS-01	One sandstone metate indeterminate fragment measuring 9.0 by 7.7 by 1.8 cm. One lightly ground surface

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Table 14. Site 48LN8955 Debitage

Raw Material	Tertiary	Secondary	Primary
Brown and Tan Chert	1	0	2
Gray Banded Chert	0	2	1
Orange and Cream Chert	0	0	1
White Chert	0	1	0
Brown Chert	0	6	0
Black Chert	0	0	1
Quartzite	0	0	1

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8955 is determined **not eligible** for inclusion on the NRHP under any criteria by DOE and concurred upon by SHPO (Currit 2024b) as part of the TFF cultural resource inventory (DBI_WY_2023_418). The prehistoric artifact scatter of unknown age cannot be associated with a specific known theme or activity. While the site is speculated to be a short-term camp by a small group, the documented assemblage cannot be related to specific known periods, activities, and/or groups. The unknown prehistoric artifact scatter with feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is not eligible under Criterion C. The site sediments have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Rock alignments in general that reflect a wide variety potential functions or activities are common across all temporal periods in Wyoming. However, rock alignments that served as a prehistoric map marker have not been archaeologically documented to date. The feature does not retain sufficient physical aspects to support further study that could contribute to our understanding of the area prehistory. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been previously determined and concurred on by SHPO as not eligible under any potential criteria, and the project will have **no effect** to the site.

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Figure 22. Site 48LN8955, Resource Overview, Facing Southwest. Beth Karpinski (5/14/2022). Unaltered.

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Figure 23. Site 48LN8955, Site Sketch Map.

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48LN8971 (NAT-24)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8971 was originally documented by Tetra Tech in 2022 and reported for the Natrium TFF Project (DBI_WY_2023_418; Karpinski 2024). The prehistoric artifact scatter with a feature was recorded as located [[Exempted from disclosure by statute]] on privately held lands. Sediments were determined to be alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed sediments and eroded feature were evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation was recorded as a sagebrush community with ground coverage averaging 15 percent. Observed site impact were eroding sediments that have eroded the feature into a deflated concentration.

The site measures 25 by 12 meters and covers an area of 313 sq meters (**Figures 24 and 25**). The unknown prehistoric artifact scatter is one tertiary tan and brown chert flake. One feature (F-01) was documented within the site that is likely a thermal feature that has been significantly eroded into an HAR concentration. F-01 is approximately eight reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.18 by 0.53-meter area.

The observed assemblage is speculated to reflect an unknown age short-term camp associated with one or more potential specific tasks by a small group. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, a specific task and the time period it occurred cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8971 is determined **not eligible** for inclusion on the NRHP under any criteria by DOE and concurred upon by SHPO as part of the TFF cultural resource inventory (DBI_WY_2023_418). The eroded unknown prehistoric artifact scatter with a feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common types and design for the prehistoric era across the Wyoming Basin. It is not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Thermal features, such as F-01, are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been previously determined and concurred on by SHPO (Currit 2204b) as not eligible under any potential criteria, and the project will have **no effect** to the site.

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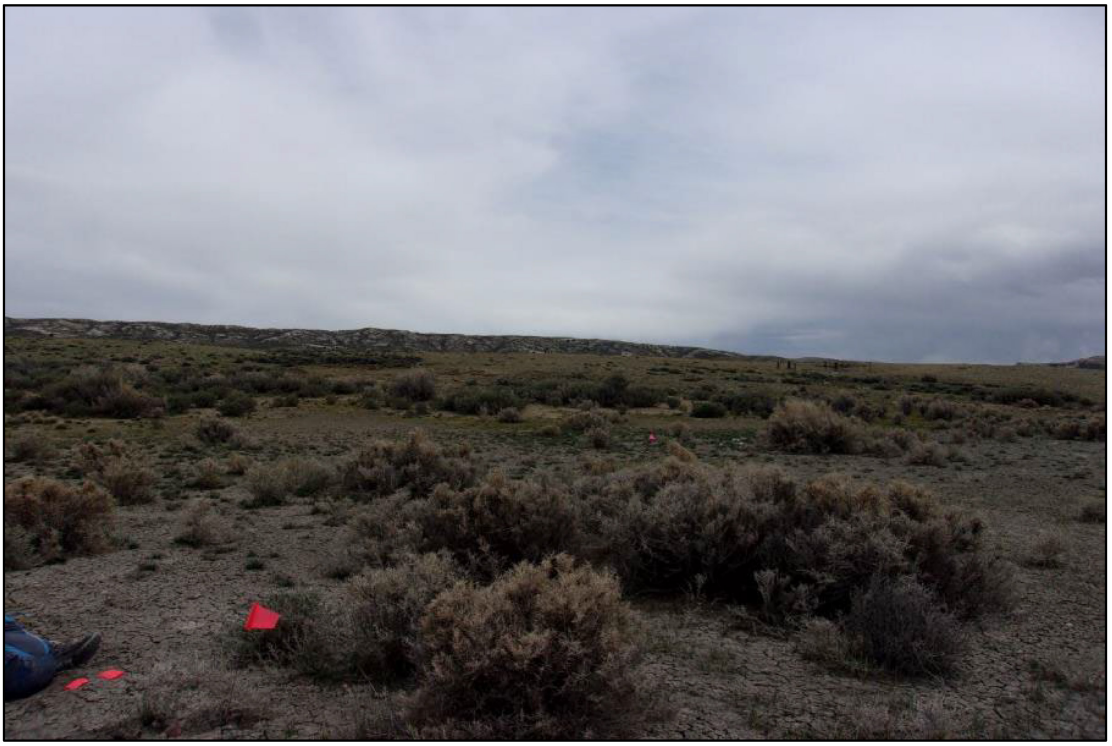


Figure 24. Site 48LN8971, Resource Overview, Facing East-Southeast. Beth Karpinski (5/1/2022). Unaltered.

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Figure 25. Site 48LN8971, Site Sketch Map.

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48LN8975 (NAT-33)– Prehistoric Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8975 was originally documented by Tetra Tech in 2022 and reported for the Natrium TFF Project (DBI_WY_2023_418; Karpinski 2024). The prehistoric feature was documented as located [[Exempted from disclosure by statute]] on privately held lands. Sediments were determined to be alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed sediments and feature were evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation was recorded as a sagebrush community with ground coverage averaging 15 percent. The observed site impact was minor eroding sediments that was impacting less than 5 percent of the site. A [[Exempted from disclosure by statute]] did not appear to be impacting the site.

[[Exempted from disclosure by statute]]

The site area measures 11 by 9 meters and covers an area of 110 sq m (**Figures 26 and 27**). The area reflects the feature and a buffer as no other artifacts were observed at the locality. The identified feature (F-01) is potentially an unknown prehistoric stone alignment. F-01 is seven sandstone cobble-sized gravels in an "X." The alignment is within an approximately 0.5 by 0.5 meter area. The TCSs from the Northern Arapaho Tribe indicated that the feature may be a map marker pointing to Quealy Peak approximately 9 miles to the north.

The observed assemblage is speculated to reflect a potential prehistoric landscape marker reflecting one or more potential tasks or cultural practices. The feature may be a potential map marker according to TCSs; however, stone alignments serving such a function have not been archaeologically documented in the Mountain West so the age and/or potential affiliation of the feature are unknown.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8975 is determined **not eligible** for inclusion on the NRHP under any criteria by DOE and concurred upon by SHPO (Currit 2024b) as part of the TFF cultural resource inventory (DBI_WY_2023_418). The unknown aged prehistoric feature cannot be associated with a specific known theme or activity. Such stone alignments have not been extensively documented in the Mountain West so the age and/or potential affiliation of the feature are unknown. The site cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is not eligible under Criterion C. The site sediments have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Rock alignments in general that reflect a wide variety potential functions or activities are common across all temporal periods in Wyoming. However, alignments that served as prehistoric map markers have not been archaeologically documented to date. The feature does not retain sufficient physical aspects to support further study that could contribute to our understanding of the area prehistory. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been previously determined and concurred on by SHPO (Currit 2204b) as not eligible under any potential criteria. The site is also located outside the direct APE. The project will have **no effect** to the site.

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Figure 26. Site 48LN8975, Resource Overview, Facing West-Northwest. Beth Karpinski (5/13/2022). Unaltered.

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Figure 27. Site 48LN8975, Site Sketch Map.

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48LN8976 (NAT-01)– Multicomponent Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8976 was originally documented by Tetra Tech in 2022 and reported for the Natrium TFF Project (DBI_WY_2023_418; Karpinski 2024). The multicomponent artifact scatter with a feature was documented as located on privately held lands in Cumberland Flats.[[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments were determined to be eroded alluvial silt loam with pebble- to cobble-sized gravels. The observed sediments were evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation was recorded as a sparse sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site included the historic-era artifacts and feature being deteriorated and having been scattered by natural processes. [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Neither of the roads appeared to be significantly impacting the site.

The site measures 332 by 226 meters and covers an area of 75,147 sq meters (**Figures 28 and 29**). The prehistoric component consists of one secondary chert flake, one medium oolitic chert flake, and one metate (GS-01). GS-01 is a large sandstone metate broken into two refitting fragments. When refitted the metate measures 52.0 by 29.5 by 2.0 cm. The metate has one well-ground surface measuring 33 by 18 cm. The prehistoric component can only be dated to the general prehistoric period with no definitive association with a known theme or activity. The small scatter is likely a short-term task-specific locality by a small number of people.

The historic artifact component is highly deteriorated and scattered across the mapped extent of the site. The artifact assemblage contains common domestic types and styles of artifacts (**Table 15**). Temporally diagnostic bottle glass maker's marks include a colorless Ball canning jar base dating from 1895 to present (Lockhart et al. 2021), a colorless ketchup bottle with a Glass Container maker's mark dating 1934 to ca. 1968 (Lockhart et al. 2021), colorless screw top glass jar with an Anchor Hocking maker's mark dating 1987 to present (Lockhart et al. 2021), and a colorless bottle base with Kerr Glass company "AHK" maker's mark dating from 1969 to ca. 1996 (Lockhart et al. 2021). The historic component feature (F-01) is a rectangular pen. The pen is made with four t-posts and wooden planks along the western edge and three wooden posts with hogwire along the eastern edge. The remains of an entrance or chute is present on the southern end of the pen.

Based on the temporal range of all artifacts the site was used from mid-1800's to the late 1900's. Based on the artifacts, the exact theme or activity of the historic component is likely associated with livestock herding and potentially, after 1900, becomes associated with the adjacent railroad. The temporal range and identified types are indicative of multiple events over a broad temporal period. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8976 is determined **not eligible** for inclusion on the NRHP under any criteria by DOE and concurred upon by SHPO (Currit 2024b) as part of the TFF cultural resource inventory (DBI_WY_2023_418). The historic component dates from mid-1800's to the late 1900's but cannot be associated with a specific known theme or activity. The prehistoric component is an

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unknown age small debitage and a groundstone scatter that cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is not eligible under Criteria A or B. The documented artifacts are of common type and design for both the historic and prehistoric eras across the Wyoming Basin. It is not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The prehistoric component could not be associated with a known time period or cultural complex. The historic component is likely a Euroamerican locality associated with the railroad and/or livestock herding. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site has been previously determined and concurred on by SHPO as not eligible under any potential criteria, and the project will have **no effect** to the site.

Table 15. Site 48LN8976 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	1	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	30	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	40	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	1	-
Rectangular Meat Tin	9	-
Paint Can	4	-
Bi-metal Beverage	12	-
Cone Top Beverage	1	-
Aluminum Pull-Top	2	Pull tabs start 1963 (Merritt 2014)
Aluminum	2	Church-key opened
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
Spray Can	2	-
Keywind Lid	1	-
Internal Friction Lid	2	-
External Friction Lid	4	-
Unidentified Can Fragment	50	-
Glass		
Amber	5	Various vessel fragments

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Artifact Type	Quantity	Comments
Colorless	6	Various vessel fragments
Aqua	2	Various vessel fragments
Red	1	Unknown item
Additional Common Artifacts		
Boot Sole	1	-
Jar Lid	3	-
Bottle Cap	2	-
Galvanized tub	1	-
Bed springs	1	-
Lumber	1	-
50-gallon drum	1	-



Figure 28. Site 48LN8976, Resource Overview, Facing Northeast. Beth Karpinski (4/30/2022). Unaltered.

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Figure 29. Site48LN8976, Site Sketch Map.

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5.1.2 Newly Documented Sites

48LN8940 (NAT-03)– Multicomponent Artifact Scatter with Features, Eligible under Criterion D

Project Location: Direct APE

Site 48LN8940 is a multicomponent artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute in Cumberland Flats on privately held lands. Sediments are mostly alluvial silt loam with sparse pebble- to cobble-sized gravels. [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] The aeolian sediments were determined to have a potential to contain one or more intact cultural resource components; therefore, Tetra Tech completed auger probe testing of the deposits during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 25 percent. Observed impacts to the site include the deterioration of historic-era artifacts and the deflation of documented features by natural processes.

The site measures 319 by 190 m and covers an area of 60,974 sq m (**Figures 30 and 31**). The Late Archaic prehistoric component is an extensive scatter of 16 lithic tools (**Table 16**), 76 pieces of debitage (**Table 17**), two debitage concentrations, and 13 eroded HAR features (**Table 18**). PP-01 is most typologically like Besant temporal type points dating approximately from AD 1 to 500 (Kornfeld et al. 2010). PP-02 is too fragmentary to associate with a known temporal type.

Table 16. Site 48LN8940 Lithic Tool Descriptions

Tool Number	Description
PP-01	A brown chert side-notched projectile point measuring 2.3 by 1.5 by 0.5 cm
PP-02	A brown chert corner-notched medial and proximal fragment measuring 2.8 by 2.2 by 0.5 cm
BI-01	A complete brown chert early stage biface measuring 4.6 by 4.1 by 0.5 cm
BI-02	A quartzite late stage biface medial fragment measuring 1.7 by 1.4 by 0.4 cm
BI-03	A complete brown chert late stage measuring 3.1 by 1.5 by 0.12 cm
BI-04	An oolitic chert early stage biface distal fragment measuring 4.0 by 3.6 by 0.9 cm.
BI-05	A complete purple chert early stage biface measuring 6.8 by 3.8 by 1.0 cm.
BI-06	An oolitic chert early stage biface distal fragment measuring 5.0 by 3.2 by 1.1 cm.
BI-07	A complete tan and brown chert early stage biface measuring 6.9 by 5.1 by 2.0 cm.
GS-01	A sandstone metate with one ground surface measuring 33.5 by 21.4 by 3.4 cm. The slightly ground area is 21 by 10.5 cm.
UT-01	A brown chert secondary flake with retouch on one edge measuring 2.7 by 2.1 by 1.0 cm
UT-02	A brown chert primary flake with retouch on one edge measuring 3.6 by 3.0 by 0.8 cm
SC-01	A brown chert primary flake scraper with retouch on the distal margin measuring 4.2 by 2.8 by 0.5 cm.
C-01	A complete gray quartzite core measuring 4.1 by 3.9 by 1.8 cm.
C-02	A complete oolitic chert core measuring 5.4 by 3.7 by 2.0 cm.
C-03	A complete gray quartzite core measuring 9.6 by 8.8 by 4.6 cm.

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Table 17. Site 48LN8940 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	1	1	0
Brown Chert	11	18	24
Chalcedony	1	2	1
Oolitic Chert	0	0	2
Cream, Brown, and Tan Chert	1	7	4
White Chert	0	0	1
Quartzite	0	0	2

Table 18. Site 48LN8940 Feature Descriptions

Feature Number	Description
F-01	The feature is approximately 25 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.63 by 1.6 m area.
F-02	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.15 by 0.84 m area.
F-03	A concentration of approximately 28 pieces of debitage in a 1 m area.
F-04	The feature is approximately 15 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.86 by 0.33 m area.
F-05	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.58 by 0.67 m area.
F-06	The feature is approximately 50 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 2.05 by 1.34 m area.
F-07	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.99 by 0.90 m area.
F-08	A concentration of 19 pieces of debitage in a 0.66 by 0.35 m area.
F-09	The feature is approximately 30 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.84 by 1.75 m area.
F-10	The feature is approximately 25 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.63 by 1.64 m area.
F-11	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.22 by 0.97 m area.
F-12	The feature is approximately 25 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.00 by 0.53 m area.
F-13	The feature is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.39 by 1.66 m area.

The historic artifact component is a small artifact scatter. The artifact assemblage includes common domestic types and styles of artifacts (**Table 19**). Based on the temporal range of all artifacts the site was used from early 1900's to the late 1900's. Based on the artifacts, the exact

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theme or activity of the historic component is unknown. The temporal range and identified types are indicative of one or two activity events.

Table 19. Site 48LN8940 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Round Sanitary	3	Type dates from 1904 to present (Merritt 2014)
Rectangular Meat Tin	1	
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
External Friction Lid	2	
Glass		
Amber	5	Various vessel fragments
Amethyst	11	Various vessel fragments
Additional Common Artifacts		
Wire	1	
Cardboard	1	

Tetra Tech completed a grid of 28 auger probes within the stabilized sand shadows [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Overall, the probes encountered a fine silt clay loam with sparse pebble-sized gravels and calcium carbonate flecking to a maximum depth ranging from 60 to 150 cm below ground surface. Twelve of the probes were positive for cultural material including charcoal flecking, debitage, and HAR fragments between 20 and 50 cm below ground surface. The positive auger probes are mostly across the southern half of the sand shadow deposits with one in the northern portion. Tetra Tech argues the entire aeolian deposit on the site likely contains an intact buried cultural resource component of unknown age.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8940 is recommended **eligible** for inclusion on NRHP under Criterion D. The Late Archaic prehistoric component cannot be associated with a specific known theme or activity; however, the component retains integrity of location, materials, and association. The historic component dates from early- to late-1900's but cannot be associated with a specific known theme or activity and is considered non-contributing to the site's NRHP eligibility. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the historic and prehistoric eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Twelve auger probes completed in the aeolian sediments [[Exempted from disclosure by statute]] yielded evidence of an intact subsurface cultural component [[Exempted from disclosure by statute]] Further investigation of the component could yield additional information about the locality and regional prehistory. The site retains elements that further study would contribute to research questions regarding prehistoric subsistence and resource processing practices at least dating from AD 1 to 500 based on the documented Besant type projectile point. The site is recommended eligible under Criterion D. The additional information potential is contained within the aeolian sediments [[Exempted from disclosure by statute]] The remaining portions of the site with cultural material consists of eroded alluvial and residual silt loams with moderately dense pebble- to boulder-sized gravels

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mixed. Features in these portions of the site are all eroded heat-altered rock scatters lacking physical integrity. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

If the agency determines the site is eligible, and SHPO concurs, it meets the definition of a historic property. The location of the electric transmission and water pipeline rights-of-way has not yet been determined within the inventoried macro-corridors. The developed rights-of-way may or may not be able to avoid the contributing portions of the site; therefore, Tetra Tech recommends the project will have an **adverse effect** to the historic property. Tetra Tech recommends a Historic Properties Treatment Plan be developed to conduct additional evaluative testing along both the electric transmission and water pipeline rights-of-way when finalized within the site boundaries to determine if, and to what extent, the project will adversely affect the historic property. The plan will include measures to mitigate any potential adverse effects based on what has been recorded at the site to date. The plan will be reviewed, consulted, on, and approved by the NRC, SHPO, TerraPower, and Tribal nations prior to initiation of the testing and/or mitigation.

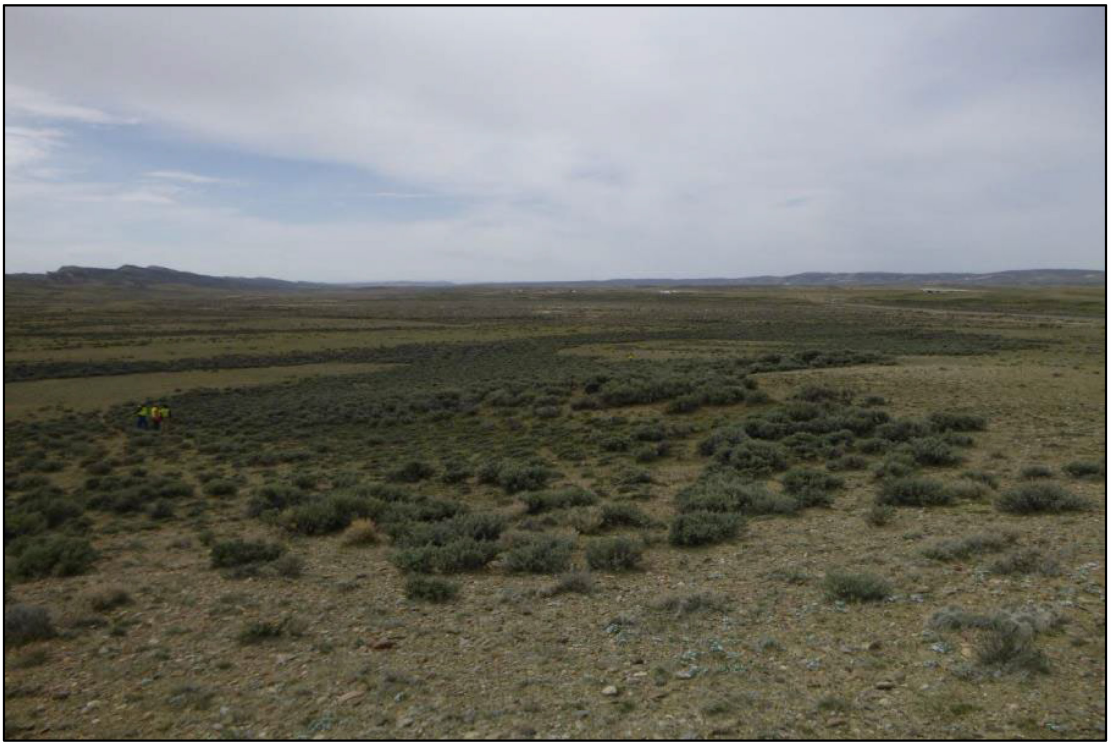


Figure 30. Site 48LN8940, Resource Overview, facing Southwest. Beth Karpinski (4/27/2022). Unaltered.

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Figure 31. Site 48LN8940, Site Sketch Map.

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48LN8941 (NAT-04)– Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Direct APE

Site 48LN8941 is a prehistoric artifact scatter with features located on [[Exempted from disclosure by statute]] Cumberland Flats on privately held lands. Sediments are eroded alluvial silt loam with patches of dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. The observed site impact is erosion of sediments that have completely eroded the features into deflated concentrations of HAR.

The site measures 82 by 43 m and covers an area of 3,563 sq m (**Figures 32 and 33**). The unknown prehistoric artifact scatter includes one biface (BI-01), two utilized flakes (UT-01 and UT-02), and four pieces of debitage. BI-01 is a complete tan chert early stage biface measuring 11.5 by 5.0 by 3.2 cm. UT-01 is a primary brown chert flake with one retouched edge measuring 3.0 by 3.2 by 0.7 cm. UT-02 is a primary brown chert flake with a retouched edge measuring 6.3 by 3.1 by 1.5 cm. The debitage is two secondary and one primary brown chert flakes and one primary tan chert flake. The features (F-01 to F-03) are eroded HAR concentrations that likely represent deflated thermal features. F-01 is approximately 50 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 2.5 m diameter area. F-02 is approximately 30 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.3 by 1.4 m area. F-03 is approximately 30 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.8 by 1.6 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8941 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition

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of a historic property. The project will have **no effect** to the sites that do not meet the definition of a historic property.



Figure 32. Site 48LN8941, Resource Overview, facing South-Southwest. Beth Karpinski (4/30/2022). Unaltered.

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Figure 33. Site 48LN8941, Site Sketch Map.

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48LN8942 (NAT-05)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8942 is a prehistoric artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are eroded alluvial silt loam with dense pebble- to boulder-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 15 percent. The observed site impact is erosion that has eroded the feature into a deflated HAR concentration.

The site measures 27 by 20 m and covers an area of 555 sq m (**Figures 34 and 35**). The unknown prehistoric artifact scatter is one utilized flake (UT-01), one groundstone metate (GR-01), and one secondary brown chert flake. UT-01 is a primary gray chert flake with retouch on the distal edge measuring 3.6 by 3.4 by 2.1 cm. GR-01 is a red granite oval-shaped metate measuring 40 by 20.5 by 5 cm. The metate has one moderately ground surface measuring 25.5 by 16.0 cm. The feature (F-01) is an eroded HAR concentration that likely represents a deflated thermal feature. F-01 is approximately 20 reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 1.32 by 1.19 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8942 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric artifact scatter with a feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such a feature removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 34. Site 48LN8942, Resource Overview, facing South-Southeast. Beth Karpinski (4/30/2022). Unaltered.

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Figure 35. Site 48LN8942, Site Sketch Map.

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48LN8943 (NAT-06)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8943 is a prehistoric artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are alluvial silt loam with sparse pebble- to cobble-sized gravels. Portions of the sediments were determined to have a potential to contain one or more intact cultural resource components; therefore, Tetra Tech completed auger probe testing during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 15 percent. Observed impacts to the site include the documented feature eroding into the wash by natural processes.

The site measures 63 by 13 m and covers an area of 827 sq m (**Figures 36 and 37**). The unknown prehistoric artifact scatter consists of one projectile point (PP-01) and one primary brown flake. The projectile point is a gray quartzite medial fragment measuring 3.6 by 2.1 by 0.4 cm. The point is too fragmentary to associate with a known temporal type. The feature (F-01) appears to be an eroded thermal feature. F-01 is approximately seven reddened, cracked, and crazed sandstone and quartzite cobble-sized gravels in a 0.21 by 0.28 m diameter area. The feature is eroding into the wash.

Tetra Tech completed 14 auger probes laid out as two lines of seven [[Exempted from disclosure by statute]] An additional auger was placed next to the feature to determine its integrity (**see Figure 36**). Overall, the probes encountered a fine clay loam with sparse pebble-sized gravels and some calcium carbonate flecking. The probes reached a maximum depth range of 60 to 170 cm below ground surface. None of the probes encountered cultural material or other evidence of a potential subsurface cultural component. Tetra Tech concludes that any cultural resource component at the site was surficial and/or has eroded away.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8943 is recommended as **not eligible** for inclusion on NRHP under any potential criteria. The eroded unknown prehistoric artifact scatter with feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Auger probing did not encounter any cultural material and/or evidence of a potential subsurface cultural component within the site sediments. The documented thermal feature is common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such a feature removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

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The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

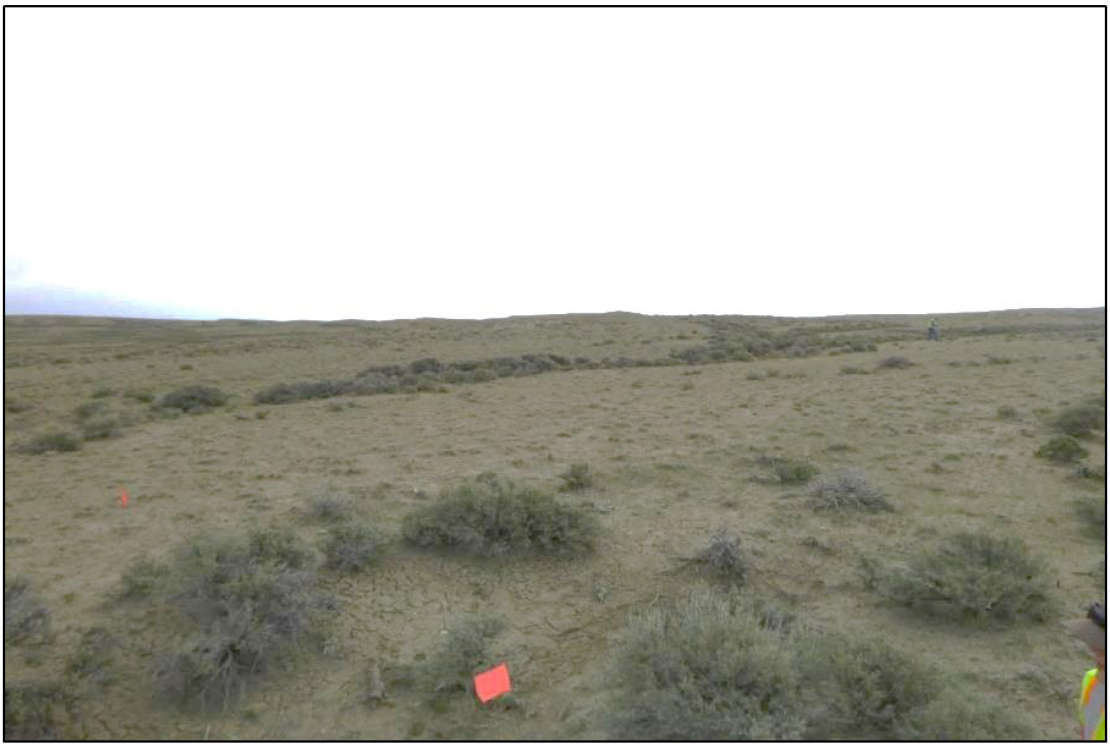


Figure 36. Site 48LN8943, Resource Overview, facing East-Northeast. Beth Karpinski (4/28/2022). Unaltered.

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Figure 37. Site 48LN8943, Site Sketch Map.

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48LN8944 (NAT-07)– Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8944 is a prehistoric artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are alluvial/residual silt loam mixed with sparse pebble- to cobble-sized gravels. Portions of the sediments were determined to have a potential to contain one or more intact cultural resource components; therefore, Tetra Tech completed auger probe testing during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 15 percent. Observed impacts to the site include the erosion of the documented feature and [[Exempted from disclosure by statute]] .

The site measures 49 by 24 m and covers an area of 1,242 sq m (**Figures 38 and 39**). The Middle Archaic prehistoric artifact scatter consists of one projectile point (PP-01) and five pieces of debitage. PP-01 is a complete brown chert corner-notched point measuring 4.6 by 2.7 by 0.5 cm. PP-01 is most typologically like Yonkee temporal type points dating approximately from 3,100 to 2,300 BP. (Kornfeld et al. 2010). The debitage assemblage includes one secondary white chert flake, two secondary and one primary brown chert flake, and one primary gray quartzite flake. The features (F-01 and F-02) appear to be eroded thermal features. F-01 is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.30 by 1.35 m diameter area. F-02 is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.03 by 0.79 m diameter area.

Tetra Tech completed four rows of 6 auger probes each along the west side of the site [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Overall, the probes encountered a fine clay loam with moderate dense pebble-sized gravels and some calcium carbonate flecking. The probes reached a maximum depth range of 30 to 70 cm below ground surface. None of the probes encountered cultural material or other evidence of a potential subsurface cultural component. Tetra Tech argues no intact cultural resource component is present at the site. The cultural component is surficial and has been subjected to significant erosion.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8944 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded Middle Archaic prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Auger probing did not encounter any cultural material and/or evidence of a potential subsurface cultural component. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under

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Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.



Figure 38. Site 48LN8944, Resource Overview, facing Southwest. Beth Karpinski (4/28/2022). Unaltered.

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Figure 39. Site 48LN8944, Site Sketch Map.

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48LN8945 (NAT-41)– Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8945 is a prehistoric artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a silt loam mixed with moderately dense pebble- to cobble-sized gravel. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 35 percent. The only observed site impact is deflation erosion that has displaced some artifacts and deflated the features. Approximately 50 percent has been disturbed by the impacts.

The site measures 27 by 12 m and covers an area of 332 sq m (**Figures 40 and 41**). The unknown prehistoric artifact scatter is three pieces of debitage randomly distributed throughout the site. The debitage consists of one tan and brown tertiary flake and two fine-grained quartzite primary flakes. The features (F-01 through F-03) are likely deflated thermal features. F-01 is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.25 by 1.25 m area. The feature also has a black chert primary chert retouched flake measuring 6.3 by 4.4 by 1.1 cm. F-02 is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 2.5 by 1.0 m area. F-03 is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.25 by 1.25 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8945 is recommended as **not eligible** for inclusion on NRHP under any potential criteria. The eroded unknown prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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Figure 40. Site 48LN8945, Resource Overview, facing North. Beth Karpinski (5/16/2022). Unaltered.

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Figure 41. Site 48LN8945, Site Sketch Map.

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48LN8946 (NAT-40)– Historic Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8946 is a historic artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a silt loam mixed with a moderately dense pebble- to cobble-sized gravel. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 10 percent. The only observed site impact is deflation erosion that has displaced some artifacts and deflated the feature. Approximately 10 percent has been disturbed by the impacts.

The site measures 55 by 21 m and covers an area of 1,172 sq m (**Figures 42 and 43**). The historic artifact scatter is one tobacco tin, one brown bottle base with no maker's mark, and 20 fragments of hand painted porcelain. The bowl has a floral design with a hand painted maker's mark similar to a Four Season rice bowl. Tobacco tins date from 1907 to 1988 (Merritt 2014). The feature (F-01) is likely a deflated thermal feature assumed to be associated with the historic artifacts. F-01 is approximately 50 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.5 by 1.5 m area. Based on the temporal range of one temporally diagnostic artifact the site was used from early 1900's to the late 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of a single event. The documented assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8946 is recommended **not eligible** for inclusion on NRHP under any criteria. The historic component dates from early 1900's to the late 1900's but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the prehistoric and historic eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such a feature removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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Figure 42. Site 48LN8946, Resource Overview, facing West. Beth Karpinski (5/16/2022). Unaltered.

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Figure 43. Site 48LN8946, Site Sketch Map.

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48LN8947 (NAT-08)– Prehistoric Artifact Scatter with Feature and Historic Isolate, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8947 is a prehistoric artifact scatter with feature and historic isolate located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 25 percent. The only observed site impact is erosion that has eroded the feature into a deflated HAR concentration.

The site measures 29 by 16 m and covers an area of 491 sq m (**Figures 44 and 45**). The unknown prehistoric artifact scatter is one secondary and three primary brown chert flakes. The feature (F-01) is an eroded HAR concentration that likely represents a deflated thermal feature. F-01 is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.18 by 0.85 m area.

The historic isolate is one hinge-lidded “Velvet” tobacco tin. This type of tobacco tin dates from 1907 to 1988 (Merritt 2014).

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming’s prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality. The historic isolate cannot be associated with the specific historic-era activity or theme.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8947 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric artifact scatter with feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena’s role and place in human society. The site’s information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The

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project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.



Figure 44. Site 48LN8947, Resource Overview, facing Northwest. Beth Karpinski (4/28/2022). Unaltered.

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Figure 45. Site 48LN8947, Site Sketch Map.

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48LN8948 (NAT-09)– Prehistoric Artifact Scatter with Features and Historic Isolate, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8948 is a prehistoric artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is erosion that has eroded the thermal features into deflated HAR concentrations and artifact collection.

The site measures 123 by 61 m and covers an area of 7,509 sq m (**Figures 46 and 47**). The undated prehistoric artifact scatter includes one core (CR-01) and 35 pieces of debitage. CR-01 is a gray quartzite bifacial core measuring 6.5 by 6.6 by 3.0 cm. The debitage consists of one tertiary black chert flake; one oolitic chert secondary flake; two tan chert primary flakes; one tertiary and primary chalcedony flakes; and four tertiary, 13 secondary, and 12 primary brown chert flakes. Eight features were documented across the site (**Table 20**). Feature F-01 to F-05 are eroded HAR concentrations that likely represent deflated thermal features. Features F-06 through F-08 are small artifact concentrations of various material types and reduction stages of debitage which may be collection piles from artifact collecting.

Table 20. Site 48LN8948 Feature Descriptions

Feature Number	Description
F-01	The feature is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.44 by 1.40 m area.
F-02	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels with one flake in a 1.25 by 0.97 m area.
F-03	The feature is large scatter of approximately 100 g reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 2 by 2 m area.
F-04	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.34 by 0.93 m area.
F-05	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.13 by 0.88 m area.
F-06	A concentration of six flakes in a 20 cm diameter area.
F-07	A concentration of eight flakes in a 30 cm diameter area.
F-08	A concentration of 11 flakes in a 30 cm diameter area.

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality. The historic isolate cannot be associated with the specific historic-era activity or theme.

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The historic isolate is one hinge-lidded tobacco tin and two fragments of a colorless glass “A&W Root Beer” bottle. This type of tobacco tin dates from 1907 to 1988 (Merritt 2014); the bottle is too fragmentary to date.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8948 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena’s role and place in human society. The site’s information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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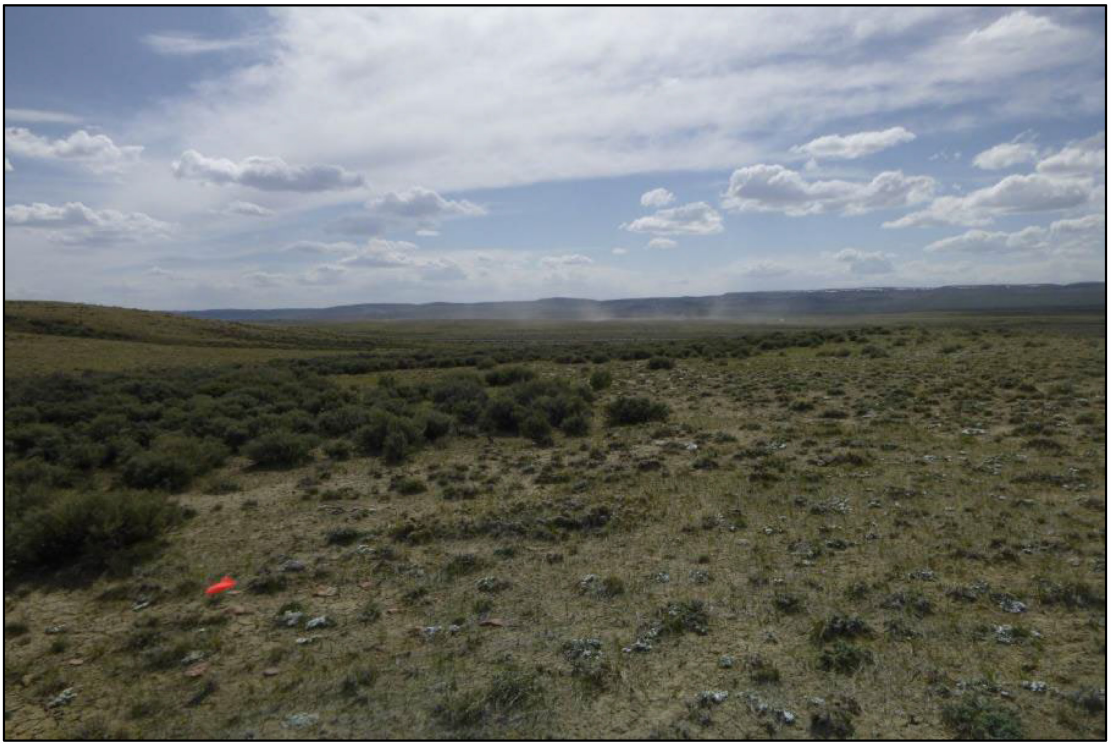


Figure 46. Site 48LN8948, Resource Overview, facing Northwest. Beth Karpinski (4/28/2022). Unaltered.

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Figure 47. Site 48LN8948, Site Sketch Map.

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48LN8949 (NAT-39)– Multicomponent Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8949 is a multicomponent artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a residual/alluvial silt loam with moderately dense pebble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site include the historic-era artifacts and feature have deteriorated and been scattered by natural processes.

The site measures 86 by 44 m and covers an area of 3,826 sq m (**Figures 48 and 49**). The unknown prehistoric component is one projectile point (PP-01), two bifaces (BI-01 and BI-02), one obsidian primary flake, two secondary and three primary brown chert flakes. PP-01 is a quartzite concave projectile point proximal fragment measuring 1.1 by 1.7 by 0.5 cm. The projectile point is too fragmentary to associate with a known temporal type. BI-01 is a complete tan chert early stage biface measuring 8.2 by 5.4 by 2.9 cm. BI-02 is a brown chert early stage distal fragment measuring 4.2 by 3.3 by 0.7 cm.

The historic artifact component is of a common domestic type and style (**Table 21**). Temporally diagnostic bottle glass maker's marks include the Lincoln Glass Bottle Co. mark from 1942 to 1952; Owens-Illinois mark from 1954 to present and 1929 to ca. 1960; and the Glass Container Corp. from 1934 to ca. 1968 (Lockhart et al. 2021). Based on the temporal range of all artifacts, the site was used from mid-1800's to the late 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of multiple events over a broad temporal period. The feature is a rectangular depression of unknown function or association with the prehistoric or historic components of the site.

Table 21. Site 48LN8949 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	4	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	13	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	12	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	1	
Church-key Opened Beverage Can	17	-
Meat Tin	1	-
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
External Friction Lid	1	-
Unidentified Can Fragment	7	-
Glass		
Amber	55	Various vessel fragments

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Artifact Type	Quantity	Comments
Colorless	4	Various vessel fragments
Additional Common Artifacts		
Metal coat hook	1	
Metal Screw Top	3	-
Car Bumper	1	-
White Shirt Button	1	-

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality. The documented historic assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period. The feature function is unknown and cannot be associated with the prehistoric or historic components of the site.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8949 is recommended **not eligible** for inclusion on NRHP under any criteria. The prehistoric component is an unknown age and cannot be associated with a specific known theme or activity. The historic component dates from the mid-1800's to the late 1900's but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the prehistoric and historic eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The feature function is unknown and does not retain characteristics that further study would yield additional information. The feature cannot be specifically associated with either the prehistoric or the historic component of the site. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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Figure 48. Site 48LN8949, Resource Overview, facing West-Southwest. Beth Karpinski (5/16/2022). Unaltered.

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Figure 49. Site 48LN8949, Site Sketch Map.

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48LN8950 (NAT-10)– Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8950 is a prehistoric artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is eroding sediments that appear to have exposed the features and turned them into deflated HAR concentrations.

The site measures 52 by 44 m and covers an area of 2,368 sq m (**Figures 50 and 51**). The unknown prehistoric artifact scatter is one projectile point (PP-01), one biface (BI-01), and 16 pieces of debitage. PP-01 is the basal portion of a brown chert point fragment measuring 1.1 by 3.4 by 0.5 cm. The point is too fragmentary to associate with a known temporal type. BI-01 is a white chert late stage biface medial fragment measuring 1.6 by 1.9 by 0.4 cm. The debitage consists of five tertiary flakes, eight secondary flakes, and two primary flakes of brown chert. One white quartzite secondary flake was also documented. Eight features were documented across the site (**Table 22**). The features are eroded HAR concentrations that likely represent deflated thermal features.

Table 22. Site 48LN8950 Feature Descriptions

Feature Number	Description
F-01	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.35 by 1.40 m area.
F-02	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.06 by 0.55 m area.
F-03	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 72 by 62 cm area.
F-04	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.00 by 1.37 m area.
F-05	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.05 by 1.22 m area.
F-06	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.38 by 1.25 m area.
F-07	The feature is approximately 23 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.39 by 1.23 m area.
F-08	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.02 by 1.10 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8950 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.



Figure 50. Site 48LN8950, Resource Overview, facing Southwest. Beth Karpinski (4/28/2022). Unaltered.

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Figure 51. Site 48LN8950, Site Sketch Map.

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48LN8951 (NAT-12)– Historic Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

[[Exempted from disclosure by statute]] Site 48LN8951 is a historic artifact scatter located [[Exempted from disclosure by statute]] on privately held lands. A two-track road passes through the site. Sediments are an alluvial/residual silt loam mixed with pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. Observed impacts to the site include the deterioration and scattering of the historic-era artifacts by natural processes.

The site measures 111 by 77 m and covers an area of 8,585 sq m (**Figures 52 and 53**). The artifact assemblage includes common domestic types and styles (**Table 23**). One identified temporally diagnostic bottle glass maker's mark is a colorless bottle base with a Hazel Atlas maker's mark dating from 1923 to 1982 (Lockhart et al. 2021). Based on the temporal range of all artifacts the site was used from mid-1800's to the late 1900's, but the exact theme or activity the historic component is unknown. The temporal range and identified types are indicative of multiple events over a broad temporal period. The documented assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

Table 23. Site 48LN8951 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	2	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	20	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	40	Type dates from 1904 to present (Merritt 2014)
Rectangular Sanitary	3	-
Rectangular Meat Tin	8	-
Bi-metal Beverage	2	-
Aluminum Pull-Top	1	Pull tabs start 1963 (Merritt 2014)
Aluminum Punch Top	30	Coors brand
Tobacco Tin	2	Type dates from 1907 to 1988 (Merritt 2014)
Internal Friction Lid	1	-
Unidentified Can Fragment	3	-
Glass		
Colorless	32	Various vessel fragments
Additional Common Artifacts		
Shoe soles	4	-
Boot	1	-
Enamel vessel	2	-
Metal shaker	1	-

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Artifact Type	Quantity	Comments
Railroad spike	1	-
Metal bolts	3	-
Plate glass	1	-
Lumber	4	-
Tire	1	-
Seat cushion (bench)	1	-
Unknown metal fragments	1	-

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8951 is recommended **not eligible** for inclusion on NRHP under any criteria. The site dates from mid-1800's to the late 1900's but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 52. Site 48LN8951, Resource Overview, facing Southeast. Beth Karpinski (4/29/2022). Unaltered.

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Figure 53. Site 48LN8951, Site Sketch Map.

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48LN8952 (NAT-13)– Historic Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8952 is a historic artifact scatter with features located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. North Fork Little Muddy Creek is on the western side of the site and a two-track road crosses the site. Sediments are an eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site include the deterioration of historic-era artifacts and the artifacts have been scattered by natural processes.

The site measures 304 by 176 m and covers an area of 53,708 sq m (**Figures 54 and 55**). The artifact assemblage includes common domestic types and style with structural material (**Table 24**). Based on the temporal range of all artifacts the site was used from mid-1800's to the early 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types surrounding the features are indicative of multiple, but potentially related, events over a short temporal period. The actual events leading to the creation of the site are unknown.

Table 24. Site 48LN8952 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	20	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	1	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	1	Type dates from 1904 to present (Merritt 2014)
External Friction Lid	3	-
Unidentified Can Fragment	13	-
Glass		
Amber	40	-
Milk	1	-
Aqua	55	-
Amethyst	25	Manufactured 1885 to 1920 (Merritt 2014)
Blue	1	-
Ceramics		
White earthenware	100	Most undecorated, one with embossed decoration and one with a transfer leaf print
Stoneware	3	-
Additional Common Artifacts		
Metal plate	1	"NIDERS" embossed on it
Enamel wash basin	2	-

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Artifact Type	Quantity	Comments
Steel plate	1	-
Wire	1	-
Corrugated pipe	1	-
Sheet metal	1	-
Wire nail	2	-
Bricks (non-feature)	24	-
Barrel hoop	3	-
Lumber	8	-

Twelve features were documented within the site (**Table 25**). The features are mostly concentrations of bricks (F-04 to F-12) either mounded or scattered. The brick features may be the remains of structures of unknown function of varying sizes from either this location or another and the bricks were trucked in for disposal. Features F-02 and F-03 are likely associated with the brick piles and the broader historic component. Feature F-01 is on [[Exempted from disclosure by statute]] within the site. The age and associate of the feature is unknown and may not be associated with the documented historic component of the site. The brick piles may be secondary disposal deposits brought from somewhere else due to the lack of foundations or evidence of ground leveling indicating they are collapsed structures.

Table 25. Site 48LN8952 Feature Descriptions

Feature Number	Description
F-01	The feature is approximately 30 granite and quartzite cobble-sized, reddened, cracked, and crazed gravels in a 1.35 by 1.43 m area.
F-02	Historic artifact concentration measuring 12.4 by 9.9 m. The concentration has 50 hole and cap cans, 10 white earthenware fragments, 20 aqua glass fragments, 10 amethyst glass fragments, one olive glass bottle base, and one aqua glass base with partial, unidentifiable, makers mark.
F-03	Rectangular depression with three ramps on eastern edge on east edge and two posts on north portion. The depression measures 31.5 by 13.2 m.
F-04	Brick concentration in degrading laid pattern measuring 6 by 6 m.
F-05	Brick pile of approximately 100 bricks in an 8.7 by 8.1 m area.
F-06	Brick pile of approximately 1,000 bricks in a 19.8 by 18.5 m area.
F-07	Brick pile of approximately 100 bricks in a 16.2 by 13 m area.
F-08	Brick pile of approximately 100 bricks in a 24.9 by 15.6 m area.
F-09	Brick pile of approximately 200 bricks and football in a 11.2 by 9.9 m area.
F-10	Brick scatter of approximately 50 bricks in a 7.3 by 4.2 m area.
F-11	Brick pile of approximately 200 bricks in a 6.4 by 6.8 m area.
F-12	Brick pile of approximately 50 bricks in a 6.6 by 5.8 m area.

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8952 is recommended **not eligible** for inclusion on NRHP under any criteria. The historic component dates from mid-1800's to the early 1900's but cannot be associated with a specific known theme or activity. The component is in poor condition due to artifact deterioration and structure dismantling. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the historic and prehistoric eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

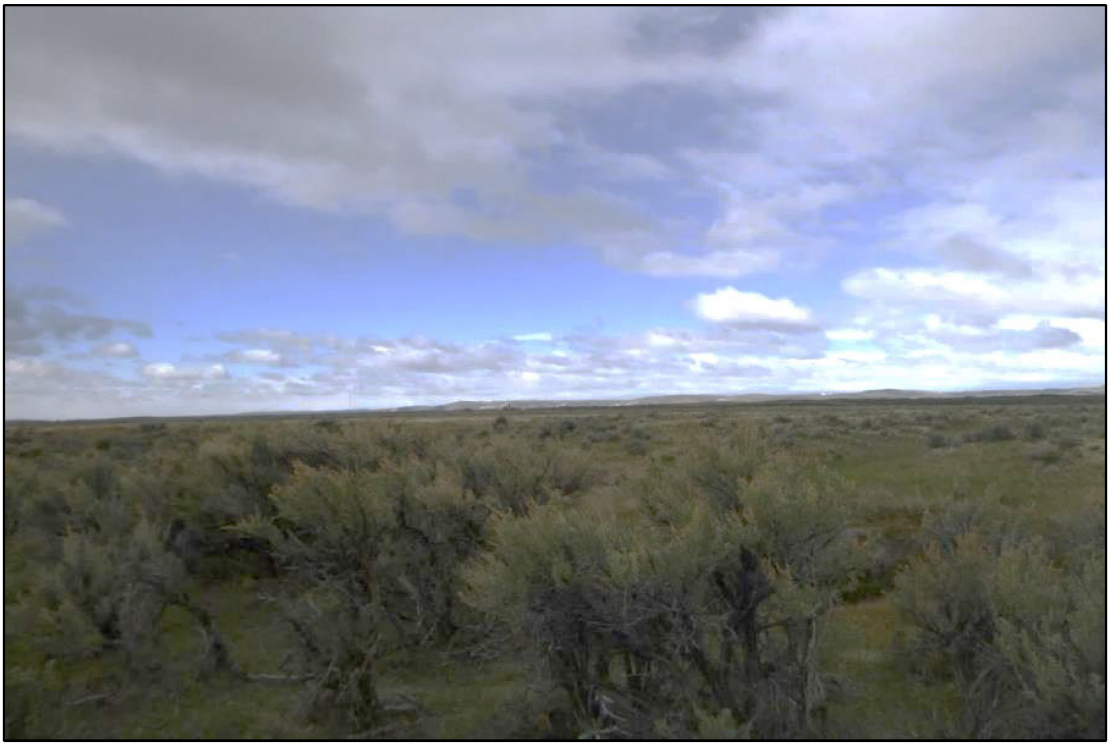


Figure 54. Site 48LN8952, Resource Overview, facing South. Beth Karpinski (4/29/2022). Unaltered.

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Figure 55. Site 48LN8952, Site Sketch Map.

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48LN8953 (NAT-14)– Historic Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN8953 is a historic artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a thin alluvium silt loam with no gravels overlaying residual deposits with dense pebble- to cobble-size gravels. The alluvial sediments are too thin to have any potential to contain intact subsurface cultural components; therefore, no subsurface testing was conducted during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. Observed impacts to the site are limited to the historic-era artifacts being deteriorated and scattered by natural processes.

The site measures 60 by 49 m and covers an area of 2,980 sq m (**Figures 56 and 57**). The artifact assemblage is of common domestic types and styles (**Table 26**). Based on the temporal range of all artifacts the site was used from mid-1800's to the early 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of at least one or two occupation events over a relatively narrow temporal period. The documented assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

Table 26. Site 48LN8953 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	6	Type dates from 1840's to 1920's (Merritt 2014)
Paint Can	1	-
Unidentified Can Fragment	1	-
Glass		
Amber	35	-
Green	11	-
Amethyst	15	Manufactured 1885 to 1920 (Merritt 2014)
Colorless	5	-
Ceramics		
White earthenware	31	26 are undecorated and five are blue transfer print
Additional Common Artifacts		
Wire pan handle	1	-
Railroad spike	1	-
Flat metal piece	2	-
Aqua glass insulator	1	-
Round metal hardware	3	-

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8953 is recommended **not eligible** for inclusion on the NRHP under any criteria. The historic component dates from mid-1800's to the early 1900's but cannot be associated with a specific known theme or activity. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape. While the site is speculated to be a short-term domestic camp by a small group, the documented assemblage cannot be related to specific activity and/or Euroamerican group. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site alluvial sediments are too thin to have any potential to contain intact subsurface cultural components. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 56. Site 48LN8953, Resource Overview, facing Southwest. Beth Karpinski (4/29/2022). Unaltered.

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Figure 57. Site 48LN8953, Site Sketch Map.

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48LN8954 (NAT-16)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8954 is a prehistoric artifact scatter with feature was documented [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are an eroded alluvial silt loam with no gravels. The observed eroded sediments coupled with the deflated feature are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is recorded as a sagebrush community with ground coverage averaging 15 percent. The only observed site impact at the time of recording were eroding sediments that have transformed the feature into a deflated concentration.

The site measures 43 by 13 m and covers an area of 605 sq m (**Figures 58 and 59**). The unknown prehistoric artifact assemblage is one biface (BI-01). BI-01 is a complete early stage brown chert biface measuring 7.1 by 5.9 by 1.1 cm. The feature (F-01) is an eroded HAR concentration that likely represents a deflated thermal feature. F-01 is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.15 by 0.71 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a small group. Unfortunately, the documented assemblage is small and potentially reflective of multiple activities throughout Wyoming prehistoric; therefore, a specific task and the time period it occurred cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8954 is recommended **not eligible** for inclusion on the NRHP under any criteria. The eroded prehistoric artifact scatter with a deflated feature of unknown age cannot be associated with a specific known theme or activity. While the site is speculated to be a short-term camp by a small group, the documented assemblage cannot be related to specific known periods, activities, and/or groups. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifact is of a common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Thermal features, such as F-01, are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 58. Site 48LN8954, Resource Overview, facing North-Northwest. Beth Karpinski (4/30/2022). Unaltered.

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Figure 59. Site 48LN8954, Site Sketch Map.

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48LN8956 (NAT-34)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8956 is a prehistoric artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a clay loam mixed with moderately dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 30 percent. Observed site impact is sheetwash erosion that has displaced some artifacts and a water line was installed to the west. Approximately 40 percent of the observed artifact assemblage has been disturbed.

The site measures 52 by 28 m and covers an area of 1,516 sq m (**Figures 60 and 61**). The Late Prehistoric artifact scatter is one projectile point (PP-01) and two bifaces (BI-01 and BI-02). PP-01 is a gray and brown chert corner-notched projectile point proximal fragment measuring 2.3 by 1.3 by 0.3 cm. The projectile point is most similar to Rosegate type which dates from AD 500 to 1300 (Justice 2002). BI-01 is a complete gray and brown chert early stage biface measuring 3.2 by 1.3 by 0.4 cm. BI-02 is a complete gray and brown chert early stage biface measuring 4.7 by 3.0 by 1.1 cm. The feature (F-01) is likely a deflated thermal feature. F-01 is approximately ten reddened, cracked, and crazed granite and quartzite cobble-sized gravels in an 81 by 62 cm area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility Recommendation

Site 48LN8956 is recommended **not eligible** for inclusion on NRHP under any criteria. The Late Prehistoric artifact scatter cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 60. Site 48LN8956, Resource Overview, facing Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 61. Site 48LN8956, Site Sketch Map.

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48LN8957 (NAT-17)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8957 is a prehistoric artifact scatter with feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are determined to be an eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed sediments coupled with the deflated feature are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is recorded as a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is eroding sediments that have eroded the feature into a deflated HAR concentration.

The site measures 35 by 28 m and covers an area of 1,016 sq m (**Figures 62 and 63**). The unknown prehistoric artifact scatter of 11 pieces of debitage and approximately ten fragments of scattered non-feature HAR. The debitage is one tertiary and five primary oolitic chert flakes, one secondary and three primary brown chert flakes, and one tertiary white chert flake. The feature (F-01) is an eroded HAR concentration that likely represents a deflated thermal feature. F-01 is approximately five reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.07 by 0.96 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a small group. Unfortunately, the documented assemblage is small and potentially reflective of multiple activities throughout Wyoming prehistoric era; therefore, a specific task and the time period it occurred cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8957 is recommended **not eligible** for inclusion on the NRHP under any criteria. The eroded prehistoric artifact scatter with a deflated feature of unknown age cannot be associated with a specific known theme or activity. While the site is speculated to be a short-term camp by a small group, the documented assemblage cannot be related to specific known periods, activities, and/or groups. The eroded unknown prehistoric artifact scatter with feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Thermal features, such as F-01, are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition

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of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.



Figure 62. Site 48LN8957, Resource Overview, facing North. Beth Karpinski (4/30/2022). Unaltered.

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Figure 63. Site 48LN8957, Site Sketch Map.

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48LN8958 (NAT-18)– Prehistoric Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN8958 is a prehistoric artifact scatter was recorded located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are determined to be eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed sediments are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is documented as a sagebrush community with ground coverage averaging 15 percent. Observed site impacts are eroding sediments that appear to have exposed the features and eroded them into deflated HAR concentrations.

The site measures 120 by 98 m and covers an area of 11,874 sq m (**Figures 64 and 65**). The unknown prehistoric artifact scatter is one projectile point (PP-01), two scrapers (SC-01 and SC-02), five bifaces (BI-01 to BI-05), two utilized flakes (UT-01 and UN-01), one tested cobble (TC-01), approximately ten pieces of scattered HAR, and 13 pieces of debitage. **Table 27** describes the lithic tools. The debitage consists of one tertiary flake and three primary flakes of brown chert, one tested cobble, one tertiary flake and three primary flakes of oolitic chert, one secondary chalcedony flake, one secondary white chert flake, and one secondary gray quartzite flake.

The observed assemblage is speculated to reflect a short- to medium-term camp associated with one or more potential specific tasks by a small group. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, the specific tasks and the time period it occurred cannot be defined for the locality.

Table 27. Site 48LN8958 Lithic Tool Descriptions

Tool Number	Description
PP-01	Obsidian corner-notched projectile point fragment measuring 2.3 by 2.1 by 0.3 cm. Point is too fragmented to associate with a known temporal type
SC-01	A primary brown chert flakes with one retouched edge measuring 5.6 by 3.2 by 0.9 cm
SC-02	A primary banded tan chert flake with usewear along a distal margin measuring 5.2 by 6.1 by 1.9 cm
BI-01	A complete white chert early stage biface measuring 3.6 by 2.4 by 0.8 cm
BI-02	An oolitic chert later stage biface proximal fragment measuring 1.8 by 2.2 by 0.6 cm
BI-03	A quartzite late stage biface medial fragment measuring 2.1 by 2.8 by 0.6 cm
BI-04	A brown chert late stage biface distal fragment measuring 2.9 by 1.5 by 0.3 cm.
BI-05	An oolitic chert early stage biface undetermined fragment measuring 4.4 by 3.2 by 0.4 cm.
TC-01	Brown chert tested cobble measuring 6.1 by 4.9 by 5.1 cm.
UT-01	A primary brown chert flake with bifacial working on one lateral margin measuring 3.2 by 1.8 by 0.8 cm.
UN-01	An obsidian unifacially worked primary flake measuring 2.8 by 1.1 by 0.5 cm.

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8958 is recommended **not eligible** for inclusion on the NRHP under any criteria. The eroded prehistoric artifact scatter of unknown age is speculated to be a short- to medium-term camp by a small group, the documented assemblage cannot be related to specific known periods, activities, and/or groups. The unknown prehistoric artifact scatter cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.



Figure 64. Site 48LN8958, Resource Overview, facing Southwest. Beth Karpinski (4/30/2022). Unaltered.

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Figure 65. Site 48LN8958, Site Sketch Map.

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48LN8959 (NAT-32)– Multicomponent Artifact Scatter with Feature, Not Eligible
Project Location: Direct APE

Site 48LN8959 is a multicomponent artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are determined to be a residual silt loam mixed with moderately dense pebble- to cobble-sized gravels. The observed sediments and eroded feature are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is recorded as a sagebrush community with ground coverage averaging 15 percent. The only observed site impact are minor eroding sediments that may have displaced less than 10 percent of the observed artifact assemblage [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]

The site measures 74 by 60 m and covers an area of 4,503 sq m (**Figures 66 and 67**). The Late Prehistoric-aged component is one projectile point (PP-01), five bifaces (BI-01 to BI-05), one knife (KN-01), two pieces of groundstone (GS-01 and GS-02), and seven pieces of debitage. **Table 28** describes the tools. The projectile point is most similar to Rosegate type which dates from AD 500 to 1300 (Justice 2002). The debitage consists of three quartzite primary flakes, one primary gray chert flake, one brown chert secondary flake, one banded chert tertiary flake, and one obsidian secondary flake. The feature (F-01) is likely a deflated thermal feature. F-01 is approximately ten reddened, cracked, and crazed granite and quartzite cobble-sized gravels in an 85 by 80 cm area.

The observed prehistoric assemblage is speculated to reflect a medium- to long-term camp associated with one or more potential specific tasks by a small group dating between AD 500 to 1300. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming during the Late Prehistoric eras. Rosegate type projectile points are typically associated with the Fremont cultural complex of Utah during this time period; however, the point style has appeared in archaeological contexts across the Great Basin and Rocky Mountains independent of any other Fremont cultural complex cultural material and is not a definitive marker for the complex.

Table 28. Site 48LN8959 Lithic Tool Descriptions

Tool Number	Description
PP-01	A white dendritic chert corner-notched projectile point proximal fragment measuring 1.3 by 1.3 by 0.3 cm
BI-01	A brown chert late stage biface proximal fragment measuring 1.8 by 1.5 by 0.3 cm
BI-02	A brown chert late stage biface proximal fragment measuring 1.9 by 1.7 by 0.5 cm
BI-03	A complete brown chert early stage biface measuring 3.7 by 3.0 by 0.8 cm
BI-04	A brown chert early stage biface distal fragment measuring 3.3 by 2.2 by 0.6 cm
BI-05	A white dendritic chert late stage biface medial fragment measuring 1.9 by 1.7 by 0.5 cm
KN-01	A complete brown chert knife measuring 2.9 by 1.8 by 0.4 cm
GS-01	One complete granite mano measuring 23 by 8.9 by 3.3 cm. One entire well ground face
GS-02	One granite metate indeterminate fragment measuring 8.0 by 7.1 by 2.0 cm. One entire lightly ground surface

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The historic artifact component is common domestic types and style dating from the late-1800's to mid-1900's (**Table 29**). Based on the artifacts, the exact theme or activity the historic component is unknown. The temporal range and identified types are indicative of one or two events over a broad temporal period. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape.

Table 29. Site 48LN8959 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-top	3	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Rectangular Sanitary	1	Type dates from 1904 to present (Merritt 2014)
Paint Can	1	-
Glass		
Amber	5	Single vessel

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8959 is recommended **not eligible** for inclusion on the NRHP under any criteria. The Late Prehistoric-aged and late-1800's to mid-1900's artifact scatters cannot be associated with a specific known theme or activity. Rosegate type projectile points are typically associated with the Fremont cultural complex of Utah during this time period; however, the point style has appeared in archaeological contexts across the Great Basin and Rocky Mountains independent of any other Fremont cultural complex cultural material and is not a definitive marker for the complex. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Thermal features, such as F-01, are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

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The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 66. Site 48LN8959, Resource Overview, facing West. Beth Karpinski (5/13/2022). Unaltered.

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Figure 67. Site 48LN8959, Site Sketch Map.

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48LN8960 (NAT-31)– Prehistoric Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 448LN8960 is a prehistoric artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a clay loam mixed with moderately dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 30 percent. Observed site impact is sheetwash erosion that has displaced some artifacts, and [[Exempted from disclosure by statute]] Approximately 40 percent of the observed artifact assemblage has been disturbed.

The site measures 48 by 42 m and covers an area of 2,083 sq m (**Figures 68 and 69**). The unknown prehistoric artifact scatter is 16 pieces of debitage randomly distributed throughout the site. **Table 30** summarizes the documented debitage by material type and reduction stage. The observed assemblage is speculated to reflect an unknown age short-term camp associated with one or more potential specific tasks by a group of unknown size. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, a specific task and the time period it occurred cannot be defined for the locality.

Table 30. Site 48LN8960 Debitage

Raw Material	Tertiary	Secondary	Primary
Brown and Tan Chert	1	0	2
Gray Banded Chert	0	2	1
Orange and Cream Chert	0	0	1
White Chert	0	1	0
Brown Chert	0	6	0
Black Chert	0	0	1
Quartzite	0	0	1

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8960 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition

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of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 68. Site 48LN8960, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 69. Site 48LN8960, Site Sketch Map.

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48LN8961 (NAT-19)– Prehistoric Artifact Scatter with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8961 is a prehistoric artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are an eroded alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is eroding sediments that have eroded the features into deflated HAR concentrations.

The site measures 45 by 14 m and covers an area of 633 sq m (**Figures 70 and 71**). The unknown prehistoric artifact scatter is one secondary brown chert flake and approximately ten scattered fragments HAR. Two features (F-01 and F-02) were documented within the site that are likely thermal features that have been significantly eroded into HAR concentrations as they occur in a shallow wash. F-01 is approximately six granite and quartzite cobble-sized, cracked, reddened, and crazed gravels in a 67 by 22 cm area. F-02 is approximately six reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 96 by 26 cm area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8961 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric artifact scatter with features cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 70. Site 48LN8961, Resource Overview, facing West-Southwest. Beth Karpinski (5/1/2022). Unaltered.

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Figure 71. Site 48LN8961, Site Sketch Map.

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48LN8962 (NAT-30)– Multicomponent Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8962 is a multicomponent artifact scatter with a feature locat [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]on privately held lands. Sediments are eroded alluvial clay loam with sparse pebble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site include the historic-era artifacts have deteriorated by natural processes. Only approximately 10 percent of the site has been impacted.

The site measures 68 by 56 m and covers an area of 3,887 sq m (**Figures 72 and 73**). The unknown prehistoric artifact component artifacts include one projectile point (PP-01), one biface (BI-01), and one primary quartzite flake. PP-01 is an obsidian notched proximal fragment measuring 0.9 by 1.4 by 0.1 cm. The projectile point is too fragmentary to associate with a known temporal type. BI-01 is an obsidian late stage biface distal fragment measuring 2.2 by 1.5 by 0.4 cm. The prehistoric feature likely represents a deflated thermal feature. F-01 is approximately 20 reddened, cracked, and crazed sandstone cobble-sized gravels in a 1.59 by 1.55 m area.

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

The historic artifact component is common domestic types and style dating from the mid-1800's to the 1920's (**Table 31**). Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of one or two events over a broad temporal period. The documented historic assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

Table 31. Site 48LN8962 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	1	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	5	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	12	Type dates from 1904 to present (Merritt 2014)
Tobacco Tin	7	Type dates from 1907 to 1988 (Merritt 2014)
Unidentified Can Fragment	18	-
Glass		
Amber	3	Various vessel fragments
Colorless	4	Various vessel fragments
Aqua	4	Various vessel fragments

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Artifact Type	Quantity	Comments
Amethyst	50	Various vessel fragments; Manufactured 1885 to 1920 (Merritt 2014)
Ceramics		
Earthenware	6	Unknown vessel fragments
Additional Common Artifacts		
Horseshoe	1	-

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8962 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric component cannot be associated with a specific known theme or activity. The historic component dates from the mid-1800's to the 1920's but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the prehistoric and historic eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 72. Site 48LN8962, Resource Overview, facing West Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 73. Site 48LN8962, Site Sketch Map.

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48LN8963 (NAT-29)– Prehistoric Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8963 is a prehistoric artifact scatter located [[Exempted from disclosure by statute]] on privately held lands. Sediments are a clay loam mixed with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent on the knoll and 35 percent within the wash. Observed site impact is minor deflation erosion having displaced approximately 10 percent of the observed artifact assemblage.

The site measures 48 by 22 m and covers an area of 1,097 sq m (**Figures 74 and 75**). The unknown prehistoric artifact scatter is two bifaces (BI-01 and BI-02) and 16 pieces of debitage. BI-01 is a white quartzite late stage biface proximal fragment measuring 3.3 by 3.5 by 0.6 cm. BI-02 is an obsidian late stage biface undetermined fragment measuring 0.7 by 0.9 by 0.2 cm. **Table 32** summarizes the documented debitage by material type and reduction stage. The observed assemblage is speculated to reflect an unknown age short-term camp associated with one or more potential specific tasks by a group of unknown size. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, a specific task and the time period it occurred cannot be defined for the locality.

Table 32. Site 48LN8963 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	0	2	0
Tan and Brown Chert	1	2	1
Brown Chert	2	4	1
White Chert	1	1	0
Quartzite	0	0	1

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8963 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 74. Site 48LN8963, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 75. Site 48LN8963, Site Sketch Map.

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48LN8964 (NAT-20)– Prehistoric Artifact with Features, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8964 is a prehistoric artifact with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are alluvial silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. Observed site impact is eroding sediments that have eroded transformed the feature into deflated HAR concentrations.

The site measures 48 by 28 m and covers an area of 1,407 sq m (**Figures 76 and 77**). The unknown prehistoric artifact is one primary tan chert flake. Three features (F-01 through F-03) were documented within the site that are likely thermal features that have been significantly eroded into HAR concentrations. F-01 is approximately ten reddened, cracked, and crazed granite and quartzite cobble-sized gravels in an 81 by 62 cm area. F-02 is approximately ten reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.18 by 0.45 m area. F-03 is approximately five reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 20.5 by 29.0 cm area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8964 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric artifact scatter with feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 76. Site 48LN8964, Resource Overview, facing East. Beth Karpinski (5/1/2022). Unaltered.

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Figure 77. Site 48LN8964, Site Sketch Map.

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48LN8965 (NAT-28)– Multicomponent Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN8965 is a multicomponent artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are eroded alluvial clay loam with sparse pebble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site include the historic-era artifacts have deteriorated by natural processes. Only approximately 10 percent of the site has been impacted.

The site measures 88 by 58 m and covers an area of 5,127 sq m (**Figures 78 and 79**). The unknown prehistoric component is two projectile points (PP-01 and PP-02), two bifaces (BI-01 and BI-02), and 37 pieces of debitage. PP-01 is an obsidian side-notched proximal fragment measuring 0.8 by 1.7 by 0.4 cm. PP-02 is a brown chert medial portion of an unknown point style measuring 1.1 by 1.6 by 0.3 cm. Both projectile points are too fragmentary to associate with a known temporal type. BI-01 is an oolitic chert early stage biface lateral fragment measuring 7.6 by 3.3 by 1.8 cm. BI-02 is a brown chert early stage biface distal fragment measuring 4.3 by 4.1 by 1.5 cm. **Table 33** summarizes the documented debitage by material type and reduction stage.

Table 33. Site 48LN8965 Debitage

Raw Material	Tertiary	Secondary	Primary
Brown Chert	5	11	14
Tan and Brown Chert	0	2	1
Red, Black, and Brown Chert	0	1	0
White and Orange Chert	0	1	0
White and Pink Chert	0	1	0
Quartzite	1	0	0

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

The historic artifact component is common domestic types and style dating from the mid-1800's to the 1920's (**Table 34**). Temporally diagnostic bottle glass makers marks include a colorless bottle base with the "Kerr Glass MFG" maker's mark dating from 1903 to 1920s (Lockhart et al. 2021). Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of one or two events over a broad temporal period. The documented historic assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

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Table 34. Site 48LN8965 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	3	Type dates from 1840's to 1920's (Merritt 2014)
Round Sanitary	4	Type dates from 1904 to present (Merritt 2014)
Tobacco Tin	1	Type dates from 1907 to 1988 (Merritt 2014)
Unidentified Can Fragment	1	-
Glass		
Colorless	5	Various vessel fragments

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8965 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric component cannot be associated with a specific known theme or activity. The historic component dates from the mid-1800's to the 1920's but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the prehistoric and historic eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 78. Site 48LN8965, Resource Overview, facing West Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 79. Site 48LN8965, Site Sketch Map.

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48LN8966 (NAT-21)– Prehistoric Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN8966 is a prehistoric artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are determined to be a residual silt loam mixed with dense pebble- to cobble-sized gravels. The observed sediments are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is recorded as a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is minor eroding sediments that may have displaced less than 10 percent of the observed artifact assemblage.

The site measures 62 by 44 m and covers an area of 2,763 sq m (**Figures 80 and 81**). The Late Prehistoric-aged artifact scatter is three projectile points (PP-01 to PP-03), one biface (BI-01), one core (C-01), and 17 pieces of debitage. **Table 35** describes the lithic tools. Though fragmentary, the projectile points are most similar to Rosegate type which date from AD 500 to 1300 (Justice 2002). The debitage consists of three secondary flakes and four primary brown chert flakes, three secondary flakes oolitic chert, one tan and brown banded chert primary flake, one secondary white chert flake, and four primary quartzite flakes.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a small group dating between AD 500 to 1300. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming during the Late Prehistoric era. Rosegate type projectile points are typically associated with the Fremont cultural complex of Utah during this time period; however, the point style has appeared in archaeological contexts across the Great Basin and Rocky Mountains independent of any other Fremont cultural complex cultural material and is not a definitive marker for the complex.

Table 35. Site 48LN8966 Lithic Tool Descriptions

Tool Number	Description
PP-01	Obsidian notched projectile point medial and distal fragment measuring 1.9 by 1.2 by 0.3 cm.
PP-02	Obsidian corner-notched projectile point medial fragment measuring 2.1 by 1.5 by 0.2 cm.
PP-03	brown chert corner-notched projectile point proximal fragment measuring 2.2 by 2.0 by 0.4 cm.
BI-01	A brown chert late stage biface distal portion measuring 1.1 by 1.5 by 0.4 cm.
C-01	A complete white quartzite bifacial core measuring 15.0 by 9.9 by 4.4 cm.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8966 is recommended **not eligible** for inclusion on the NRHP under any criteria. The Late Prehistoric-aged artifact scatters cannot be associated with a specific known theme or activity. Rosegate type projectile points are typically associated with the Fremont cultural complex of Utah during this time period; however, the point style has appeared in archaeological contexts across the Great Basin and Rocky Mountains independent of any other Fremont cultural complex cultural material and is not a definitive marker for the complex. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments have been eroded and the entire cultural assemblage has been completely exposed on the ground surface.

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Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

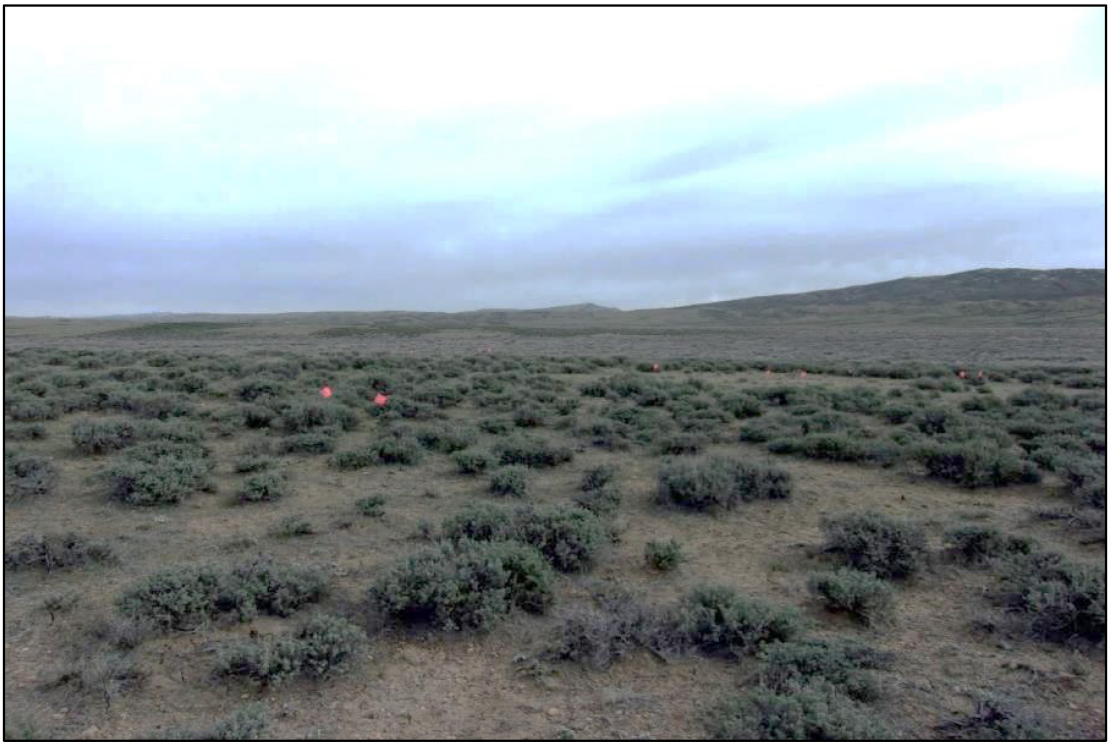


Figure 80. Site 48LN8966, Resource Overview, facing North. Beth Karpinski (5/1/2022). Unaltered.

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Figure 81. Site 48LN8966, Site Sketch Map.

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48LN8967 (NAT-27)– Prehistoric Artifact Scatter with Historic Isolate, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8967 is a prehistoric artifact scatter with historic isolate located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are an eroded alluvial clay loam mixed with varyingly dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 35 percent. The only observed site impact is alluvial erosion having displaced approximately 10 percent of the observed artifact assemblage.

The site measures 57 by 44 m and covers an area of 2,549 sq m (**Figures 82 and 83**). The unknown prehistoric artifact scatter is one core (C-01), two bifaces (BI-01 and BI-02), and 22 pieces of debitage. C-01 is a quartzite multidirectional core with 2.5 by 2.6 by 2.0 cm. BI-01 is a complete early stage brown chert biface measuring 5.1 by 3.2 by 1.5 cm. BI-02 is an early stage white quartzite distal biface fragment measuring 2.7 by 1.6 by 0.6 cm. The debitage is two tan and brown banded chert primary flakes and four tertiary, four secondary, and 12 primary quartzite flakes.

The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

The historic isolate is two crushed hole-in-top cans. The can type dates from 1900 to present (Merritt 2014). The historic isolate cannot be associated with the specific historic-era activity or theme.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8967 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter and historic isolate cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric and historic era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 82. Site 48LN8967, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered.

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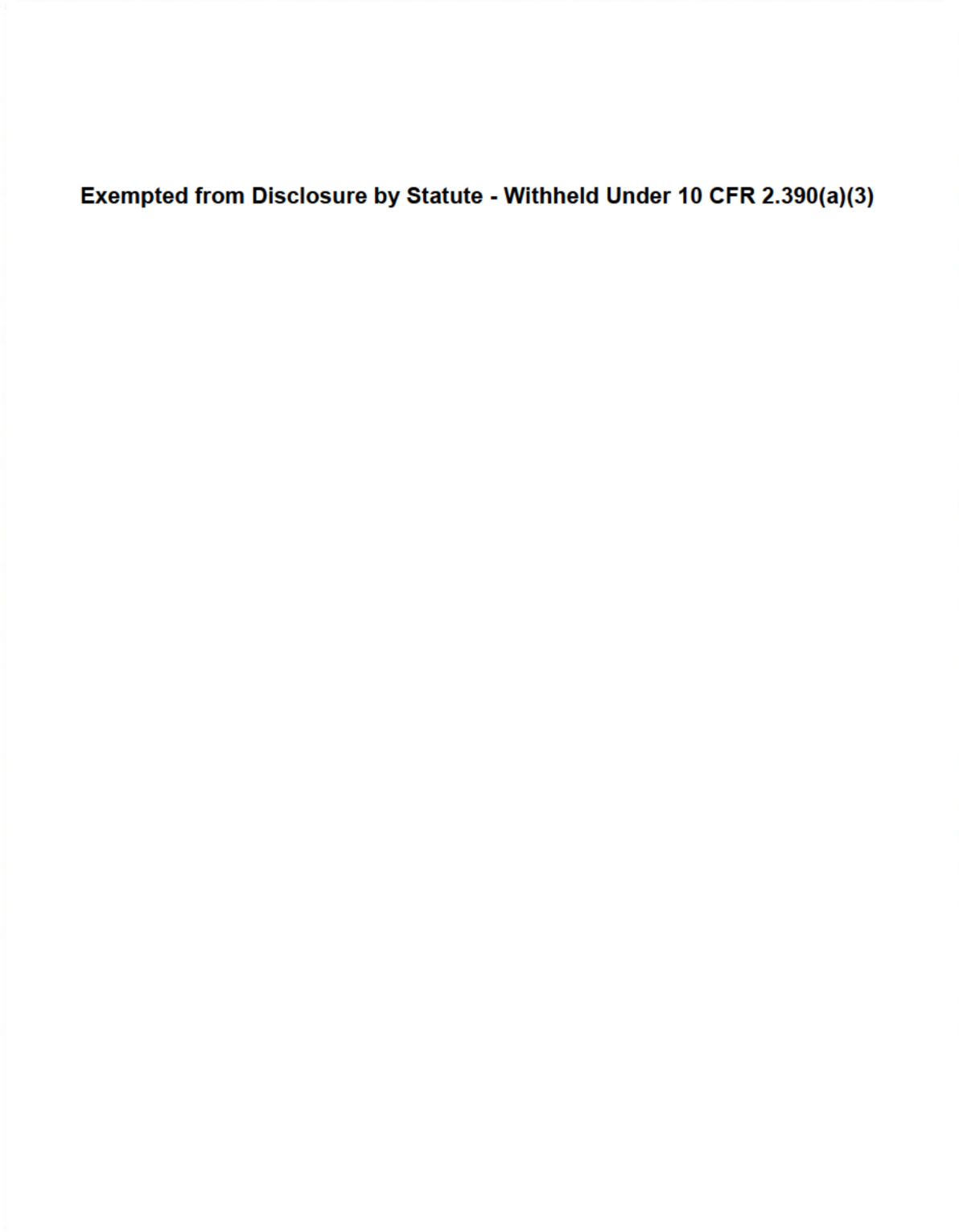


Figure 83. Site 48LN8967, Site Sketch Map.

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48LN8968 (NAT-22)– Prehistoric Artifact Scatter, Not Eligible
Project Location: Direct APE

Site 48LN8968 is a prehistoric artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments on the knoll are determined as residual silt loam mixed with dense pebble- to cobble-sized gravels. The wash sediments are an alluvial silt loam lacking gravels. The observed sediments are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent on the knoll and 35 percent within the wash. The only observed site impact is sheetwash and alluvial erosion having displaced approximately 50 percent of the observed artifact assemblage. Artifact collection is also likely occurring at the site as evidenced by a collector's pile.

The site measures 97 by 61 m and covers an area of 6,032 sq m (**Figures 84 and 85**). The unknown prehistoric artifact scatter is one projectile point (PP-01), two scrapers (SC-01 and SC-02), one groundstone (GS-01), and 11 pieces of debitage. PP-01 is an oolitic chert corner-notched point proximal fragment measuring 4.8 by 4.9 by 0.5 cm. The projectile point is too fragmentary to associate with a known temporal type. SC-01 is a banded chert primary flake with retouch along one lateral edge measuring 5.1 by 3.1 by 0.9 cm. SC-02 is a banded chert primary flake with retouch along the distal end measuring 9.1 by 3.6 by 1.9 cm. GS-01 is a sandstone, shaped metate measuring 46.0 by 25.0 by 6.5 cm. The lightly ground grinding surface measures 28 by 15 cm. **Table 36** breaks down the documented debitage. The collector's pile (F-01) consists of two primary quartzite flakes and three secondary and one primary brown chert flakes in a 10 cm area. The mix of raw material and reduction stages indicate the pile is from unauthorized collection.

Table 36. Site 48LN8968 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	1	0	1
Yellow/Red Chert	0	1	0
Brown Chert	0	1	3
Banded Chert	0	0	1
Oolitic Chert	0	0	1
Quartzite	0	0	2

The observed assemblage is speculated to reflect an unknown age short-term camp associated with one or more potential specific tasks by a small group. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming prehistoric eras; therefore, a specific task and the time period it occurred cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8968 is recommended **not eligible** for inclusion on the NRHP under any criteria. The eroded prehistoric artifact scatter of unknown age is speculated to be a short-term camp by a small group; the documented assemblage cannot be related to specific known periods, activities, and/or groups. The unknown prehistoric artifact scatter cannot be associated with a specific

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known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.



Figure 84. Site 48LN8968, Resource Overview, facing Southeast. Beth Karpinski (5/1/2022). Unaltered.

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Figure 85. Site 48LN8968, Site Sketch Map.

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48LN8969 (NAT-26)– Prehistoric Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8969 is a prehistoric feature located [[Exempted from disclosure by statute]] on privately held lands. Sediments are alluvial/residual mix silt loam with sparse pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 15 percent. The only observed site impact is eroding sediments that have eroded the feature into a deflated HAR concentration.

The site measures 3 by 1 m and covers an area of 5 sq m (**Figures 86 and 87**). The identified feature (F-01) was likely a thermal feature that has been significantly eroded into an HAR concentration. F-01 is approximately five reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 0.5 by 0.5 m area.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8969 is recommended **not eligible** for inclusion on NRHP under any criteria. The eroded unknown prehistoric feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal feature is common across all temporal periods in Wyoming; therefore, such a feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 86. Site 48LN8969, Resource Overview, facing West-Northwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 87. Site 48LN8969, Site Sketch Map.

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48LN8970 (NAT-25)– Historic Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8970 is a historic artifact scatter located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]on privately held lands. [[Exempted from disclosure by statute]] Sediments are an alluvial silt loam with moderately dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sagebrush community with ground coverage averaging 35 percent. The only observed impacts to the site include the deterioration and scattering of historic-era artifacts by natural processes.

The site measures 21 by 15 m and covers an area of 317 sq m (**Figures 88 and 89**). The artifact assemblage are of common domestic types and styles (**Table 37**). Several identified temporally diagnostic bottle glass maker's marks were identified. A green bottle and a colorless bottle base have Owens-Illinois maker's marks dating from 1929 to ca. 1960 (Lockhart et al. 2021). Two colorless bottles have Owens-Illinois maker's marks dating from 1954 to present (Lockhart et al. 2021). A colorless bottle has an Armstrong Cork Co. maker's mark dating from 1939 to 1969 (Lockhart et al. 2021). Based on the temporal range of all artifacts the site was used from the early 1900's to ca. 1960's. Based on the artifacts, the exact theme or activity associated with the historic artifacts are unknown. The temporal range and identified types are indicative of one or two events over a narrow temporal period. The documented assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

Table 37. Site 48LN8970 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-top	2	Type dates from 1885 to 1960's (Merritt 2014)
Round Beverage	2	Church key opened
Round Sanitary	7	Type dates from 1900 to present (Merritt 2014)
Rectangular Sanitary	1	-
Unidentified Can Fragment	1	-
Glass		
Amber	1	-
Green	20	Various vessel fragments with one complete bottle
Colorless	100	Various vessel fragments and complete bottles
Additional Common Artifacts		
Shoe sole	2	-
Screw top jar lid	1	-

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8970 is recommended **not eligible** for inclusion on NRHP under any criteria. The historic component dates from 1929 to ca. 1960 but cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 88. Site 48LN8970, Resource Overview, facing Southwest. Beth Karpinski (5/2/2022). Unaltered.

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Figure 89. Site 48LN8970, Site Sketch Map.

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48LN8972 (NAT-23)– Multicomponent Artifact Scatter with Features, Not Eligible
Project Location: Direct APE

Site 48LN8972 is a multicomponent artifact scatter with features located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]on privately held lands. Sediments on the knoll are a residual silt loam with dense pebble- to cobble-sized gravels. The observed sediments and eroded features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is recorded as a sagebrush community with ground coverage averaging 25 percent. Observed site impacts include minor erosion having displaced approximately 10 percent of the observed artifact assemblage [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] The historic artifacts are deteriorated from natural processes.

The site measures 164 by 118 m and covers an area of 19,519 sq m (**Figures 90 and 91**). The Middle Archaic prehistoric artifact scatter is two projectile points (PP-01 and PP-02), six bifaces (BI-01 to BI-06), two cores (C-01 and C-02), one metate groundstone (GS-01), one retouched flake (UN-01), and 48 pieces of debitage. **Table 38** breaks down the tools. **Table 39** breaks down the documented debitage. Eight features (F-01 through F-08) were documented within the site that are likely thermal features that have been significantly eroded into HAR concentrations. **Table 40** describes the eight features.

The observed prehistoric assemblage is speculated to reflect a medium- to long-term camp associated with one or more potential specific tasks by a small group dating to at least between 5,800 to 5,300 BP. The documented assemblage is reflective of multiple activities that have occurred throughout Wyoming during the Middle Archaic and beyond. Mount Albion type projectile points have not been associated with a known cultural complex.

Table 38. Site 48LN8972 Lithic Tool Descriptions

Tool Number	Description
PP-01	Obsidian notched point medial and distal fragment measuring 1.7 by 1.4 by 0.4 cm. The point is too fragmentary to associate with a known temporal type.
PP-02	Brown chert side-notched projectile point proximal fragment measuring 2.0 by 1.4 by 0.2 cm. The point is most typically similar to Mount Albion type point dating to 5,800 to 5,300 B.P. (Kornfeld et al. 2010).
BI-01	A brown chert late stage biface distal fragment measuring 1.2 by 1.1 by 0.4 cm
BI-02	A brown chert late stage biface distal fragment measuring 2.2 by 1.5 by 0.3 cm
BI-03	A brown chert late stage biface distal fragment measuring 2.5 by 1.2 by 0.4 cm
BI-04	A complete brown chert late stage biface measuring 3.2 by 2.0 by 0.4 cm
BI-05	A brown chert late stage biface medial fragment measuring 1.4 by 1.3 by 0.4 cm
BI-06	An oolitic chert late stage biface proximal/lateral fragment measuring 1.9 by 1.6 by 0.3 cm
GS-01	A sandstone metate with one ground surface measuring 33.5 by 21.4 by 3.4 cm. The slightly ground area is 21 by 10.5 cm.
UN-01	A black, white, and yellow chert primary flake with retouch along the lateral edge measuring 5.5 by 3.7 by 1.6 cm
C-01	A complete gray quartzite bifacial core measuring 8.5 by 6.7 by 3.0 cm.
C-02	A complete gray quartzite bifacial core measuring 7.0 by 5.5 by 3.0 cm.

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Table 39. Site 48LN8972 Debitage

Raw Material	Tertiary	Secondary	Primary
Obsidian	1	0	0
Brown Chert	4	15	4
Banded Chert	0	0	7
Oolitic Chert	0	6	1
Red, Brown, and Tan chert	0	3	2
Dendritic	1	0	0
Quartzite	0	0	4

Table 40. Site 48LN8972 Feature Descriptions

Feature Number	Description
F-01	The feature is approximately six reddened, cracked, and crazed granite and quartzite cobble-sized gravels with four brown secondary flakes in a 59 by 78 cm area.
F-02	The feature is scatter of approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.80 by 1.75 m area.
F-03	The feature is approximately 10 granite and quartzite cobble-sized, reddened, cracked, and crazed gravels in a 1.09 by 0.50 m area.
F-04	The feature is approximately five reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 64 by 39 cm area.
F-05	The feature is approximately 30 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 46 by 38 cm area.
F-06	The feature is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.30 by 1.14 m area.
F-07	The feature is approximately 15 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.26 by 0.95 cm area.
F-08	The feature is approximately 10 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.13 by 1.08 m area.

The historic artifact assemblage is of common domestic types and styles (**Table 41**). Based on the temporal range of all artifacts the site was used from mid-1800's to the early 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of one or two events over a narrow temporal period. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape.

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Table 41. Site 48LN8972 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	1	Type dates from 1840's to 1920's (Merritt 2014)
Round Sanitary	6	Type dates from 1904 to present (Merritt 2014)
Meat Tin	1	-
Unidentified Can Fragment	2	-
Glass		
Amber	1	Complete bottle with no markings

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8972 is recommended **not eligible** for inclusion on the NRHP under any criteria. The Middle Archaic-aged and mid-1800's to the early 1900's. artifact scatters cannot be associated with a specific known theme or activity. Middle Archaic Mount Albion type projectile points have not been associated with any known cultural complex in the Rocky Mountains. The historic component is most likely associated with Euroamericans as all the Native American tribes who utilized the region since contact with Euroamericans had been forcibly removed by the U.S. Government to reservations by 1868. The historical record from the late 1800's onward does not include documentation of continuing Native American utilization of the Cumberland Valley landscape. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. The site sediments and the documented feature have been eroded and the entire cultural assemblage has been completely exposed on the ground surface. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. Thermal features are common across all temporal periods in Wyoming; therefore, the feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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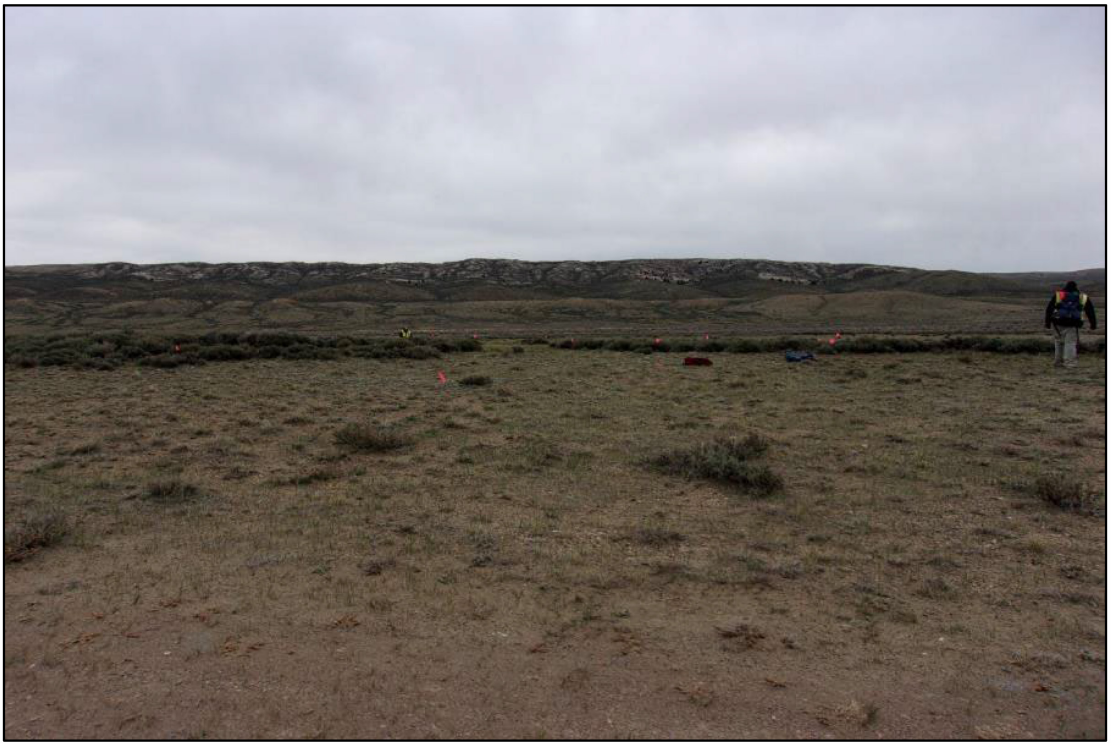


Figure 90. Site 48LN8972, Resource Overview, facing East. Beth Karpinski (5/1/2022). Unaltered.

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Figure 91. Site 48LN8972, Site Sketch Map.

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48LN8973 (NAT-38)– Multicomponent Artifact Scatter, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8973 is a multicomponent artifact scatter located [[Exempted from disclosure by statute]] on privately held lands. Sediments are a residual/alluvial silt loam with moderately dense pebble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. Observed impacts to the site include the historic-era artifacts and feature have deteriorated and been scattered by natural processes.

The site measures 101 by 88 m and covers an area of 8,916 sq m (**Figures 92 and 93**). The unknown prehistoric component is one piece of groundstone (GS-01), one red chert secondary flake, and one gray chert secondary flake. GS-01 is a sandstone metate measuring 9.9 by 9.2 by 2.9 cm. The metate has one lightly ground face. The observed prehistoric assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

The historic artifact component is deteriorated and scattered across the mapped extent of the site. The artifact assemblage are of common domestic types and style (**Table 42**). Temporally diagnostic bottle glass includes a colorless ketchup bottle with a Hazel Atlas maker's mark dating from 1923 to ca. 1982 (Lockhart et al. 2021). Based on the temporal range of all artifacts the site was used from mid-1800's to the late 1900's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The temporal range and identified types are indicative of multiple events over a broad temporal period. The documented historic assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

Table 42. Site 48LN8973 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	6	Type dates from 1840's to 1920's (Merritt 2014)
Hole-in-top	5	Crushed and deteriorated; Type dates from 1885 to 1960's (Merritt 2014)
Round Sanitary	23	Type dates from 1904 to present (Merritt 2014)
Paint Can	2	-
Hexagonal Meat Tin	1	-
Tobacco Tin	6	Type dates from 1907 to 1988 (Merritt 2014)
Internal Friction Lid	4	One with "Hershey's"
Unidentified Can Fragment	1	-
Glass		
Amber	1	A complete bottle with no maker's mark.

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Artifact Type	Quantity	Comments
Colorless	2	Various vessel fragments
Amethyst	9	Unknown item
Additional Common Artifacts		
Metal plate	1	-
Hog fence	1	-
Horseshoe	3	-
Shell Casing	1	-
Aluminum Pie Tin	1	-

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8973 is recommended **not eligible** for inclusion on NRHP under any criteria. The historic component dates from mid-1800's to the late 1900's but cannot be associated with a specific known theme or activity. The prehistoric component is an unknown age small debitage and groundstone scatter that cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for both the historic and prehistoric eras across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory or history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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Figure 92. Site 48LN8973, Resource Overview, facing Northwest. Beth Karpinski (5/30/2022). Unaltered.

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Figure 93. Site 48LN8973, Site Sketch Map.

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48LN8974 (NAT-36)– Prehistoric Artifact Scatter with Feature, Not Eligible
Project Location: Study Area and Indirect APE

Site 48LN8974 is a prehistoric artifact scatter with a feature located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments are a silt loam mixed with few pebble-sized gravel. Vegetation is a sagebrush community with ground coverage averaging 10 percent. Observed site impact is deflation erosion that has displaced some artifacts and deflated the feature. Approximately 40 percent has been disturbed by the impacts.

The site measures 41 by 15 m and covers an area of 656 sq m (**Figures 94 and 95**). The unknown prehistoric artifact scatter is three pieces of debitage randomly distributed throughout the site. The debitage consists of two obsidian flakes (one tertiary and one secondary) and one primary oolitic chert flake. The feature (F-01) is likely a deflated thermal feature. F-01 is approximately 20 reddened, cracked, and crazed granite and quartzite cobble-sized gravels in a 1.30 by 1.00 m area.

The observed assemblage is speculated to reflect a short-term camp associated with one or more potential specific tasks by a group of unknown size. Unfortunately, the documented assemblage is potentially reflective of multiple activities throughout Wyoming's prehistoric era; therefore, a specific task and the time period during which it was created cannot be defined for the locality.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8974 is recommended **not eligible** for inclusion on NRHP under any criteria. The unknown prehistoric artifact scatter with eroded feature cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the prehistoric era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The documented thermal features are common across all temporal periods in Wyoming; therefore, a given feature needs to retain sufficient physical integrity to support further study that could contribute to our understanding of the area prehistory. The deflation of such features removes the physical integrity that holds the potential information that is required for further study that would contribute to our understanding of the cultural phenomena's role and place in human society. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area prehistory. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The site is also located outside the direct APE within the Study Area. The project will have **no effect** to the cultural resource site whether or not it is determined to be a historic property.

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Figure 94. Site 48LN8974, Resource Overview, facing South-Southeast. Beth Karpinski (5/14/2022). Unaltered.

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Figure 95. Site 48LN8974, Site Sketch Map.

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48LN8977 (NAT-02)– Historic Artifact Scatter with Prehistoric Isolate, Not Eligible
Project Location: Direct APE

Site 48LN8977 is a historic artifact scatter with prehistoric isolate located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. The site is situated [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are eroded alluvial silt loam with patches of dense pebble- to cobble-sized gravels. The observed eroded sediments coupled with the deflated features are evidence that the entire cultural assemblage has been completely exposed on the ground surface; therefore, no subsurface testing was completed during recordation. Vegetation is a sparse sagebrush community with ground coverage averaging 35 percent. Site impacts include the erosion of the artifacts downslope.

The site measures 191 by 80 m and covers an area of 15,475 sq m (**Figures 96 and 97**). The historic artifact scatter is eroding down across the slope within mapped extent of the site. The artifact assemblage are of common domestic types and styles of artifacts (**Table 43**). Temporally diagnostic bottle glass maker's marks include a brown "R" maker's mark which may be from F. E. Reed Glass and dating from ca 1924 to 1929 (Lockhart et al. 2021). Based on the temporal range of all artifacts, the site was used during the 1920's. Based on the artifacts, the exact theme or activity of the historic component is unknown. The narrow artifact date range and low type diversity are indicative one or two use events during a tight time period and might be related to the abandoned railroad just to the east of the site. The documented historic assemblage is speculated to reflect a short-term domestic camp associated with one or more potential specific tasks that occurred across the Cumberland Valley during the historic period.

The prehistoric isolate (BI-01) is an early-stage tan and cream striped chert biface measuring 5.7 by 4.6 by 1.5 cm. The prehistoric isolate cannot be associated with the specific prehistoric-era activity or theme.

Table 43. Site 48LN8977 Historic Artifact Assemblage

Artifact Type	Quantity	Comments
Cans		
Hole-in-cap	50	Type dates from 1840's to 1920's (Merritt 2014)
Unidentified Can Fragment	11	
Glass		
Amber	20	
Colorless	3	One is "U.S. Medicine Co. NY" base (HI-06)
Aqua	5	
Amethyst	11	Including HI-02, HI-03, HI-07; Manufactured 1885 to 1920 (Merritt 2014)
Ceramic		
Undecorated Earthenware	6	Various vessel pieces
Additional Common Artifacts		
Metal ring	3	
Cast iron pan	1	

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Artifact Type	Quantity	Comments
Horseshoe nails	4	
Spoon	1	
Stove part	1	Decorated; HI-04

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8977 is recommended **not eligible** for inclusion on NRHP under any criteria. The historic component dates to the 1920's but cannot be associated with a specific known theme or activity. The prehistoric isolate is an unknown age biface that cannot be associated with a specific known theme or activity. The site cannot be attributed to a specific historic event or person. Therefore, it is recommended not eligible under Criteria A or B. The documented artifacts are of common type and design for the historic era across the Wyoming Basin. It is recommended not eligible under Criterion C. Tetra Tech did not complete subsurface testing at the site as the depositional context was determined to have no potential to contain intact subsurface cultural components. The site's information potential has been exhausted by the documentation. It does not retain elements that further study would contribute to our understanding of the area history. The site is recommended not eligible under Criterion D. The site does not qualify as a visual effect sensitive resource; therefore, the does not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

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Figure 96. Site 48LN8977, Resource Overview, facing West. Beth Karpinski (4/26/2022). Unaltered.

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Figure 97. Site 48LN8977, Site Sketch Map.

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48LN8978 (Segment 48LN8978_1) – Glencoe Spur of the Cumberland Branch of the Union Pacific Railroad, Eligible under Criterion A; Non-contributing Segment
Project Location: Direct and Indirect APEs

Site 48LN8978_1 is the abandoned Glencoe spur of the Cumberland Branch of the Union Pacific Railroad. The spur originally serviced the mines at Glencoe to the southeast. [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . The grade was originally part of the 1993 recordation of Site 48LN2697 as the Glencoe spur (McNees 1993) and was noted on the map, but never added to the Wyoming SHPO database. The rails and ties were removed from the documented segment in 1964 with sparse ties found along the grade (McNees 1993). [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]

The Cumberland branch line was completed in early 1901 connecting the Oregon Short Line Railroad with the coal town of Cumberland. Several other mines, operated by the Kemmerer Coal Company, were opened along the Cumberland branch rail line, including the Glencoe, Radiant, Lincoln Star, Blazon, and Brilliant No. 8 mines (Smith 1966:22, 103-104; USGS 1962). The Glencoe Spur was built ca. 1900 to 1901 and abandoned by 1953 (Century Company 1902; Cram 1903; USGS 1958).

The railroad is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] on privately held lands. Sediments around the grade are a silt loam with dense pebble- to cobble-sized gravel. Vegetation is a sagebrush community with ground coverage averaging 15 percent.

NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8978 is recommended **eligible** for inclusion on the NRHP under Criterion A. The historic railroad grade played a significant role during historic coal mining in the region during the late 1800's and early 1900's. Therefore, it is eligible under Criterion A. The railroad cannot be associated with a known historic person and therefore, it is not eligible under Criterion B. The documented artifacts are of common type for the period and the railroad design is also standard for the historic period. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components and the railroad grade does not retain characteristics that further study would yield additional information and the site's information potential has been exhausted by prior documentation. The site is not eligible under Criterion D.

The 48LN8978_1 is a segment that has been modified from its original form by removal of the historic period rails and ties through dismantling and abandonment. The recorded segment lacks integrity of design, materials, feeling, and association. Integrity of setting has been compromised by modern infrastructure including Highway 189, the existing Naughton power plant, and the associated transmission lines. The segment is still in its original constructed location within an engineered right-of-way; therefore, the segment retains integrity of location and workmanship. Tetra Tech argues that with the lack of integrity beyond location and workmanship, the recorded segment is **non-contributing** to the overall site eligibility. The site does not qualify as a visually sensitive resource; therefore, the portions within the indirect APE do not require visual impact assessment as part of the undertaking.

Segment 48LN8978_1 is recommended as non-contributing to the site's eligibility for inclusion on the NRHP. If the agency determines the segment is non-contributing, and SHPO concurs, the project will have **no adverse effect** to the historic property.

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Figure 98. Site 48LN8978_1, Resource Overview, facing Northeast. Elizabeth Shikrallah (4/26/2022). Unaltered.

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Figure 99. Site 48LN8978_1, Site Location.

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48LN8979 – Skull Point Spur of the Cumberland Branch of the Union Pacific Railroad, Not Eligible

Project Location: Study Area and Indirect APE

Site 48LN8979 is the active Skull Point spur of the Cumberland Branch of the Union Pacific Railroad. The recorded segment turns to the southwest in Section 18 of T20N R116W from the Cumberland Branch mainline railroad (48LN2697). The segment measures 387 by 32 m and covers an area of 12,756 sq m (**Figures 100 and 101**). The spur was originally noted in the 1993 site form for Site 48LN2697 by TRC Mariah (McNees 1993) but was not added to the Wyoming SHPO database. It was noted in the site form that the Skull Point spur was added in 1977 when the Skull Point mine on the west side of Cumberland Flats was opened. McNees notes that the line segment between Moyer Junction and Skull Point mine was reconstructed into the modern grade over the original location and no historic portions of the section remain. The entire spur also went under renovation in 1990 to replace ties and track (McNees 1993).

The Cumberland branch line was completed in early 1901 connecting the Oregon Short Line Railroad with the coal town of Cumberland. Several other mines, operated by the Kemmerer Coal Company, were opened along the Cumberland branch rail line, including the Glencoe, Radiant, Lincoln Star, Blazon, and Brilliant No. 8 mines (Smith 1966:22, 103-104; USGS 1962). Much later, probably in the 1960s, another 4-mile spur from the Cumberland branch line was constructed across the flats to the Skull Point Mine (USGS 1979).

The site is located on the alluvial plain of Cumberland Flats. Sediments around the grade are a silt loam dense pebble- to cobble-sized gravel. Vegetation is a sagebrush community with ground coverage averaging 15 percent.



Figure 100. Site 48LN8979, Resource Overview, facing North. Beth Karpinski (4/28/2022). Unaltered.

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Figure 101. Site 48LN8979, Site Location.

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NRHP Eligibility, Effect, and Management Recommendations

Site 48LN8979 is recommended **not eligible** for inclusion on the NRHP under any criteria. The railroad was a late 1970's addition to the overall railroad system that was first constructed within Cumberland Flats within the early 1900's. The site is not associated with the historic coal mining in the region during the late 1800's and early 1900's. The railroad cannot be associated with a known historic person. Therefore, the site is not eligible under Criteria A or B. The documented railroad segment design is also standard for the historic into the modern period. It is not eligible under Criterion C. The site sediments do not have significant potential to contain subsurface cultural resource components. The railroad grade does not retain characteristics that further study would yield additional information and the site's information potential has been exhausted by prior documentation. The site is not eligible under Criterion D. The site does not qualify as a visually sensitive resource; therefore, the portions within the indirect APE do not require visual impact assessment as part of the undertaking.

The site is recommended as not eligible for inclusion on the NRHP under any potential criteria. If the agency determines the site is not eligible, and SHPO concurs, it does not meet the definition of a historic property. The project will have **no effect** to the cultural resource sites that do not meet the definition of a historic property.

5.2 Isolated Resources

One hundred and thirty-six IRs were documented because of the Class III cultural resource inventory. Most of the IRs are associated with historic-era and consist of single or small number of discarded consumer goods and building material that did not qualify as a site under the SHPO definition. The overall historic-era date range of the IRs mirrors the temporally diagnostic material documented on the sites from the mid-1800's through the first half the of 20th century. The exact theme or activity each of the historic-era IRs are associated with is unknown. The historic-era IRs are likely associated with Euroamericans as the date range post-dates the forced removal of Native American tribes from the immediate region. The prehistoric-era IRs are lone artifacts and small scatters that do not qualify as a site under the SHPO definition. Most of the prehistoric IRs are debitage, biface, and other tools commonly found throughout the prehistoric era. Temporally diagnostic prehistoric-era IRs cover the full range of known human occupation in the Wyoming Basin including a Hell Gap type that dates from 10,000 to 9,500 years BP (Kornfeld et al. 2010); Early Plains Archaic side-notched type point which dates from 8500 to approximately 4500 BP (Kornfeld et al. 2010); Elko Eared type that dates from 3,500 to 1,400 BP (Justice 2002); and several Rosegate types which date from AD 500 to 1300 (Justice 2002). The exact theme or activity each of the prehistoric-era IRs are associated with is unknown. The documented IRs are cultural manifestations of limited information potential and are therefore not eligible for inclusion on the NRHP.

IR_WY_2022_1473 – The IR is one hole-in-cap can and one multi-serving sanitary can within a 25 m area. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is greasewood, wild onion, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1474 – The IR is one body fragment of sun-colored amethyst glass. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual/alluvial silty loam with moderate pebble- to cobble-sized gravels with no potential for

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intact buried cultural material. Vegetation is sagebrush, wild onion, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1475 – The IR is one broken brown glass bottle with an Owens-Illinois maker's mark from 1929 to ca. 1960 (Lockhart et al. 2021) and a screw top finish, and a cut-around can lid within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with a few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1476 – The IR is one "PUNCH HERE" hole-in-top can, one hinge-lidded tobacco tin, one church-key opened sanitary can, one metal button, one brown bottle base with an Owens-Illinois Glass Company maker's mark from 1954 to present (Lockhart et al. 2021), a metal "6" stencil, seven fragments of sun-colored amethyst body glass, and one Coors push top aluminum can within a 60 m area. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1477 – The IR is one large crushed indeterminate can. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1478 – The IR is one tobacco tin and one icepick-opened sanitary can within a 30-m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1480 – The IR is four hole-in-cap cans within a 25 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1481 – The IR is 25 hole-in-cap cans of two different sizes within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1482 – The IR is one crushed internal friction can with stamped ends. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-size gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1484 – The IR is approximately ten fragments of aqua body bottle glass and one round base within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

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IR_WY_2022_1512 – The IR is one secondary obsidian flake, one secondary brown chert flake, and one tested brown chert cobble measuring 5.0 by 3.9 by 1.9 cm within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to boulder-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 0 to 10 percent ground coverage.

IR_WY_2022_1513 – The IR is approximately ten fragments of aqua insulator glass and one pole stump within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1514 – The IR is two cut poles within a 45 m area and a paint can. The southern pole is highly degraded, and the stump is located nearby. The northern pole is more intact and has a large bolt through the top and a plate metal “7” nailed to the body. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1516 – The IR is one large white/gray quartzite flake (blade) measuring 11.0 by 4.7 by 1.5 cm that has been pressure flaked on both sides and both lateral margins and distal edge with approximately 30 percent cortex remaining on one side, one hole-in-cap can, and four fragments of an indeterminate can within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1518 – The IR is one large hole-in-cap can with a cut-around opening. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1519 – The IR is one external friction can and one hole-in-cap can within a 5 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1520 – The IR is two small 4-hole plastic buttons and one large blue 4-hole plastic button within a 10 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with numerous pebble- to boulder-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1521 – The IR is four fragments of aqua insulator glass and the pole stump approximately 4 inches above the ground within a 10 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1522 – The IR is one hole-in-cap can and various metal fragments within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried

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cultural material. Vegetation is sagebrush, greasewood, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1523 – The IR is one fragment of hotel ware, two church-key opened cans, one sanitary can-opened lid, and one hole-in-top can within a 60 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1525 – The IR is one brown glass brandy bottle finish, four brown glass bottle body fragments, and approximately ten bricks within a 45 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1526 – The IR is 25 church-key opened beer cans, a log cabin syrup can, and a paint can within a 60 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1528 – The IR is one brown bottle base with William Franzen & Son maker's mark from 1898 to 1921 (Lockhart et al. 2021), one brown crown cap beer bottle finish, and approximately 20 fragments of brown bottle body glass within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1529 – The IR is one cone-top beer can and one crushed hole-in-cap can within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1530 – The IR is one external friction lard bucket with bullet holes. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1532 – The IR is one medial/lateral fragment of a late stage tan/gray banded chert biface measuring 3.8 by 2.9 by 0.5 cm, ten hole-in-cap cans, four fragments of a stove, five fragments of brown bottle body glass and one base, and one fragment of an aqua insulator within a 30 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1534 – The IR is forty hole-in-cap cans, one broken sun-colored amethyst bottle, and one horseshoe within a 65 m area. The bottle base has either an American Glass Works maker's mark from 1908 to 1912 or an Armstrong Cork Company maker's mark from 1939 to 1969 (Lockhart et al. 2021) and an extract tooled finish. One can lid says "Perry & Clark" and "UNIVERSAL". Sun-colored amethyst bottle glass was manufactured between 1885 to 1920

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(Merritt 2014). The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1535 – The IR is one secondary gray/tan banded chert flake and one primary cream chert flake with 50 percent cortex on the exterior within a 5 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1536 – The IR is one piece of sun-colored amethyst body glass. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1537 – The IR is one cone-top beer can and one hole-in-cap can within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1538 – The IR is several fragments of an aqua insulator. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1539 – The IR is several fragments of an aqua insulator. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1540 – The IR is one secondary chalcedony flake, one secondary flake, one primary brown chert flake, and a proximal/medial fragment of a late stage tan chert biface measuring 2.4 by 1.7 by 0.3 cm within a 10 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1541 – The IR is one hole-in-top can, two sanitary cans, and one unidentifiable can within a 60 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial/residual silty loam with dense pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1542 – The IR is one church-key opened steel beer can. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush, saltbush, and various grasses and forbs with 10 to 25 percent ground coverage.

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IR_WY_2022_1543 – The IR is one oil can and one hole-in-cap can within a 60 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1544 – The IR is one fence wire spool. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1545 – The IR is one fence wire spool. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1547 – The IR is one crushed sanitary can. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1548 – The IR is one primary brown chert flake and one cone-top beer can within a 5 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 75 to 100 percent ground coverage.

IR_WY_2022_1549 – The IR is one oil can and one hole-in-top can within a 30 m area. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty clay loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1550 – The IR is three sun-colored amethyst body glass fragments, one brown glass bottle, and three undetermined cans within a 40 m area. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with few natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1552 – The IR includes one colorless glass shoulder with “M” embossed, five crushed sanitary cans, one “Velvet” tobacco tin, five bi-metal beer cans, six icepick-opened hole-in-top cans, one coffee can, and one hole-in-cap can within a 45 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 50 to 75 percent ground coverage.

IR_WY_2022_1553 – The IR is one tobacco tin and one brown bottle body glass fragment within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] Sediments are alluvial silty clay loam with no natural gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush and various grasses and forbs with 50 to 75 percent ground coverage.

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IR_WY_2022_1555 – The IR is approximately 15 fragments of an amber glass bottle with an Obear-Nester Glass Company maker's mark from 1915 to 1978 (Lockhart et al. 2021). The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1557 – The IR is one primary tan banded quartzite flake. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty clay loam with sparse tabular sandstone cobbles and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1558 – The IR is one medial fragment of a late stage brown chert biface measuring 1.9 by 1.1 by 0.2 cm, three fragments of aqua insulator glass, one tobacco tin, one fragment of white improved earthenware, one wire braided handle, one sanitary can, and one crushed can within a 30 m area. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty clay loam with few natural pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1559 – The IR is one fragment of a milk glass cosmetic jar with screw top. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1561 – The IR is one complete brown chert side-notched projectile point measuring 3.7 by 1.7 by 0.3 cm, a primary brown chert flake, and one fragment of sun-colored amethyst glass within a 20 m area. The projectile points are most similar to Early Plains Archaic side-notched type points which date from 8500 to approximately 4500 BP (Kornfeld et al. 2010). Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with no natural gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1562 – The IR is one crushed sanitary can. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sparse sagebrush and disturbed grasses and forbs with 75 to 100 percent ground coverage.

IR_WY_2022_1563 – The IR is one secondary gray chert flake, one primary white quartzite flake, and one primary brown chert flake within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are residual/alluvial silty loam with moderate pebble- to boulder-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1566 – The IR is one brown bottle with a crow cap finish and an Obear-Nester Glass Company maker's mark from 1975 to 1977 (Lockhart et al. 2021) and one brown bottle base with an Owens-Illinois Glass Company maker's mark from 1954 to present (Lockhart et al. 2021) within a 2 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with sparse pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 50 to 75 percent ground coverage.

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IR_WY_2022_1567 – The IR is one secondary white chert flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty clay loam with moderate amounts of pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1568 – The IR is one primary tan/brown banded chert flake. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with sparse pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sparse sagebrush and various grasses and forbs with 0 to 10 percent ground coverage.

IR_WY_2022_1569 – The IR is three hole-in-top cans, one hole-in-cap can measuring 4 4/16 by 3 inches, one crushed sanitary can, and one secondary oolitic chert flake within a 30 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay loam with moderate pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1572 – The IR is one primary brown chert flake and one primary brown chert flake with possible retouch on one margin and measuring 4.9 by 3.7 by 0.4 cm within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual/alluvial silty loam with numerous pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1575 – The IR is one secondary chalcedony flake and one brown/tan banded chert side scraper measuring 3.3 by 2.4 by 0.6 cm within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty loam with dense pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1576 – The IR is three fence wire spools within a 45 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1577 – The IR is one sanitary can, one hole-in-top can, and one crushed hole-in-top or hole-in-cap can within a 30 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1579 – The IR is approximately ten fragments of sun-colored amethyst glass and two fragments of undetermined cans within a 20 m area. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are residual silty loam with numerous pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1580 – The IR is one secondary obsidian flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]].

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Sediments are residual silty loam with dense pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1582 – The IR is one primary gray/red banded chert flake, one primary brown/tan banded chert flake, a colorless medicine bottle with an Owens-Illinois Glass Company maker's mark from 1929 to ca. 1960 (Lockhart et al. 2021), two hole-in-top cans, one power pole stump and cross bar, and one unifacially retouched brown chert flake measuring 2.8 by 1.9 by 0.6 cm within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are colluvial silty loam with numerous pebble- to boulder-sized gravels with no potential for intact buried cultural material. Vegetation is sparse sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1584 – The IR is one primary fine-grained white/brown veined quartzite flake. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1586 – The IR is one brown chert corner-notched projectile point missing the tip and base and measuring 2.2 by 1.3 by 0.3 cm. Though fragmentary, the projectile points are most similar to Rosegate type which date from AD 500 to 1300 (Justice 2002). The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1587 – The IR is one hole-in-top can and one sanitary can lid within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1588 – The IR is one primary brown chert flake. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush, greasewood, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1590 – The IR is approximately ten pieces of colorless body bottle glass and two hole-in-top cans within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1591 – The IR is two fragments of scattered HAR one tertiary obsidian flake, three secondary brown chert flakes, and two primary brown chert flakes within a 10 m area. The IR is located [[Exempted from disclosure by statute]] .
Sediments are alluvial silty loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1597 – The IR is one primary white quartzite flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty

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loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1598 – The IR is one primary brown with white speckles chert flake. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sparse sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1599 – The IR is one hole-in-cap can, one rotary opened sanitary can lid, and one crushed can within a 20 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are residual silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1601 – The IR is one primary white quartzite flake. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are colluvial silty loam with numerous pebble- to boulder-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1602 – The IR is two secondary white chert flakes, one tertiary brown chert flake, one secondary brown chert flake, one primary brown chert flake, and a complete early stage brown chert biface measuring 4.1 by 1.8 by 0.7 cm within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1604 – The IR is one hole-in-cap can and one tobacco tin within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to boulder-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush, prickly pear, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1606 – The IR is one cut power pole and cross beam, four sanitary cans, and one undetermined can within a 30 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1607 – The IR is one secondary brown chert flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1608 – The IR is one internal friction paint can. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 25 to 50 percent ground coverage.

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IR_WY_2022_1609 – The IR is one rectangular gas can and one hole-in-top can within a 20 m area. The IR is located [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with very few cobble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1611 – The IR is three fragments of an enamelware coffee pot, one saddle strap and buckle, one horseshoe, one undetermined can, two crushed sanitary cans, and one hole-in-cap can lid within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1612 – The IR is two secondary gray banded chert flakes, two fragments of a possible metate that refit and measure 10.1 by 8.9 by 1.9 cm, one primary tan/brown chert flake, and one tertiary white chert flake within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1613 – The IR is one red granitic fragment of a mano with one well-ground surface and measuring 8.5 by 8.2 by 3.5 cm. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1614 – The IR is one secondary brown chert flake, fragments of an amber glass bottle, and an enamelware plate within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1615 – The IR is one brown chert corner-notched projectile point missing the tip and haft and measuring 3.2 by 1.8 by 0.4 cm and one fragment of obsidian shatter within a 15 m area. The projectile point is too fragmented to associate with a known temporal type. The IR is located [[Exempted from disclosure by statute]] .Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1617 – The IR includes one proximal fragment of a late stage obsidian biface measuring 1.7 by 1.2 by 0.3 cm, one nearly complete white chert serrated corner-notched projectile point measuring 3.1 by 1.4 by 0.3 cm, one secondary orange/brown chert flake, one tertiary brown chert flake, four secondary brown chert flakes, three primary brown chert flakes, one hole-in-cap can, one metal cooking pot, and one red sandstone metate fragment measuring 15.8 by 6.5 by 1.5 cm with one lightly ground face within a 75 m area. Though fragmentary, the projectile points are most similar to Rosegate type which date from AD 500 to 1300 (Justice 2002). The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush, rabbitbrush, greasewood, and various grasses and forbs with 10 to 25 percent ground coverage.

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IR_WY_2022_1618 – The IR includes one proximal fragment of an early stage white chert biface measuring 1.1 by 1.7 by 0.4 cm, two secondary white chert flakes, four secondary brown chert flakes, and one secondary obsidian flake within a 35 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with numerous pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1619 – The IR is two sanitary cans, one metal bucket lid, and approximately 20 fragments of colorless headlight glass within a 30 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1620 – The IR is a proximal fragment of an early stage gray/brown biface measuring 30 by 1.9 by 0.5 cm, a secondary gray/tan chert flake, and a brown bottle body glass fragment within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1621 – The IR is one sanitary can with compression rings. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is sagebrush, greasewood, and various grasses and forbs with 50 to 75 percent ground coverage.

IR_WY_2022_1622 – The IR is four fragments of sun-colored amethyst bottle glass, one of which has graduated measurements. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are colluvial silty loam with dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1623 – The IR is one primary brown chert flake, one primary white quartzite flake, and one primary orange/brown chert flake with retouch along one lateral margin within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are residual silty loam with dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1624 – The IR is two horseshoes within a 1 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1625 – The IR is one tertiary white chert flake, one secondary brown chert flake, and one primary brown chert flake within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1626 – The IR is two primary brown chert flakes and one secondary white/red mottled chert flake within a 15 m area. The IR is located [[Exempted from disclosure by statute]]

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[[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1630 – The IR is one hole-in-cap can. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no natural gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1631 – The IR is one sanitary can, machinery parts, one rotary opened can lid, and a metal bucket within a 45 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1633 – The IR is one secondary black chert flake. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1634 – The IR is one proximal fragment of a gray/brown late stage biface measuring 1.9 by 1.8 by 0.3 cm. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1635 – The IR is one secondary gray/brown chert flake and one primary brown chert flake within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1637 – The IR is one undetermined crushed can. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 50 to 75 percent ground coverage.

IR_WY_2022_1638 – The IR includes one complete red mottled chert early stage biface measuring 3.7 by 2.2 by 0.6 cm and one modified primary triangular shaped gray mottled chert flake with retouch along all three edges measuring 7.0 by 5.5 by 1.1 cm within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1639 – The IR includes two primary red quartzite flakes, two primary white quartzite flakes, one secondary white quartzite flake, one tertiary white chert flake, two tertiary gray/brown chert flakes, and one secondary brown chert flake within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

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IR_WY_2022_1641 – The IR is approximately five fragments of sun-colored amethyst bottle body glass, two fragments of amber bottle body glass, and a large fragment of metal within a 15 m area. Sun-colored amethyst bottle glass was manufactured between 1885 to 1920 (Merritt 2014). The IR is located on [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with moderate pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sparse sagebrush, rabbitbrush, and various grasses and forbs with 0 to 10 percent ground coverage. The area was disturbed by highway construction.

IR_WY_2022_1642 – The IR includes one colorless "Listerine" bottle with "LAMBERT/PHARMACAL COMPANY" on the heel, one hole-in-top can, one square can, one sanitary can, one aqua bottle finish with a lightning stopper, one piece of milled lumber with wire nails, one tobacco tin, and two hole-in-cap cans within a 25 m area. The IR is located on [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with moderate pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1644 – The IR is one limestone groundstone with one ground face and measuring 8.5 by 7.3 by 2.1 cm, one primary gray/brown chert flake, and one yellow quartzite tested cobble within a 25 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few cobble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1645 – The IR is a complete corner-notched gray/white mottled chert projectile point measuring 4.1 by 2.2 by 0.5 cm. The point is most typologically similar to Elko Corner-Notched style points that date from 3,500 to 1,400 BP (Justice 2002). The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1646 – The IR is one primary cream chert flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1647 – The IR is one hole-in-cap can and one granitic groundstone fragment with one lightly ground surface and measuring 9.9 by 7.8 by 4.4 cm within a 15 m area. The IR is located [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1648 – The IR is one primary tan/gray chert flake. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1649 – The IR includes one tertiary red/orange chert flake, one primary obsidian flake, one large re-worked stemmed oolitic chert projectile point missing part of the stem measuring 4.7 by 2.7 by 0.7 cm (**Figure 102**), and one medial fragment of a late stage orange chert biface measuring 2.7 by 1.7 by 0.5 cm. The projectile point is likely a Hell Gap type stemmed point that dates from 10,000 to 9,500 years BP (Kornfeld et al. 2010). The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble-

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to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1652 – The IR is a pull-tab beer can. The IR is located on[[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1653 – The IR includes one tertiary white chert flake, one primary gray/brown chert flake, one kerosene can, one undetermined can fragment, one sanitary can lid, and one proximal fragment of a corner-notched brown chert projectile point measuring 1.5 by 1.8 by 0.4 cm within a 45 m area. The point is most typologically similar to Elko Eared style points that date from 3,500 to 1,400 BP (Justice 2002). The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1654 – The IR is three primary red quartzite flakes and one red quartzite core within a 5 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1655 – The IR is one secondary gray/brown chert flake and one primary pink quartzite flake within a 30 m area. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with very few pebble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1656 – The IR includes one retouched orange and black rock with retouch along one edge and measuring 4.6 by 4.9 by 1.8 cm, one sanitary can, one tertiary gray chert flake, one brown bottle base with an Obear-Nester Glass Company maker's mark from 1915 to 1978 (Lockhart et al. 2021) and "NO DEPOSIT NO RETURN" on the heel, and milled lumber within a 20 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1657 – The IR is one green glass 10 oz. "7-UP" bottle and a wooden gate within a 15 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are alkaline silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1658 – The IR is one tobacco tin and fragments of an amber glass bottle within a 10 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1659 – The IR includes one tan/brown modified cobble with retouch along the margin and measuring 11.8 by 8.9 by 1.9 cm, one primary gray/brown chert flake, one primary red quartzite flake, four secondary mudstone flakes, and one secondary gray/brown chert flake within a 35 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble- to cobble-sized gravels and no

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potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1660 – The IR is one colorless glass crown cap and bottle base, three church-key opened cans, nine sanitary cans, eight tobacco tins, ten fragments of aqua glass, and a coffee tin lid within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1661 – The IR is one external friction can and approximately 20 fragments of a brown bottle within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1662 – The IR is one primary brown chert flake and one church-key opened can within a 15 m area. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with moderately dense pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1663 – The IR is one primary oolitic chert flake, one white quartzite core, and one primary white quartzite flake within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] Sediments are alluvial silty loam with few pebble- to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood, sagebrush, and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1665 – The IR includes one primary brown/tan chert flake, a distal fragment of a late stage gray/brown chert biface measuring 3.7 by 1.8 by 0.4 cm, and a complete corner-notched obsidian projectile point measuring 2.0 by 1.1 by 0.3 cm within a 15 m area. the projectile points are most similar to Rosegate type which date from AD 500 to 1300 (Justice 2002). The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with numerous pebble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1666 – The IR is two deteriorated screw top metal lids within a 5 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with no gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1667 – The IR is three sanitary cans, one hole-in-top can, and one tertiary white chert flake within a 30 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1668 – The IR is one colorless 10 oz Coca-Cola bottle with an Anchor-Hocking Glass Corporation maker's mark from 1938 to ca. 1980 (Lockhart et al. 2021) with "NOT TO BE REFILLED" on the heel, a bucket, and an external friction lid within a 20 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderately dense pebble- to cobble-sized gravels with no potential for intact buried cultural

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material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1669 – The IR includes multiple fragments of two plates, one white improved earthenware and one cream hotel ware; one colorless shot glass; and one cut around can lid within a 15 m area. The IR is located on [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with few pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1670 – The IR is one tool-finished brown glass bottle with a crown cap finish, one bucket, and one modified gray/white chert cobble with retouch along the margins and measuring 3.0 by 2.6 by 0.6 cm within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with dense pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1671 – The IR is one secondary obsidian flake, one tertiary gray/brown chert flake, and a complete late stage obsidian biface measuring 2.6 by 2.3 by 0.5 cm within a 15 m area. The IR is located [[Exempted from disclosure by statute]] . Sediments are residual silty sand with few pebble-sized gravels with no potential for intact buried cultural material. Vegetation is saltbush, rabbitbrush, and various grasses and forbs with 25 to 50 percent ground coverage.

IR_WY_2022_1672 – The IR is two cone-top beer cans and one medial fragment of a late stage red chert biface measuring 3.8 by 2.3 by 0.5 cm within a 15 m area. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with few pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 10 to 25 percent ground coverage.

IR_WY_2022_1686 – The IR is one primary white chert biface missing the distal portion and base and measuring 4.0 by 2.9 by 0.5 cm. The IR is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . Sediments are residual silty sand with numerous pebble- to boulder-sized gravels with no potential for intact buried cultural material. Vegetation is sagebrush and various grasses and forbs with 50 percent ground coverage.

IR_WY_2022_1702 – The IR is two re-fit fragments of a red quartzite one-handed mano with one face exhibiting light grinding. When refit, it measures 10.6 by 8.0 by 3.5 cm. The IR is located on [[Exempted from disclosure by statute]] . Sediments are a mix of alluvial and residual silty loam with numerous gravels with no potential for intact buried cultural material. Vegetation is sagebrush, sparse greasewood, and various grasses and forbs with 25 percent ground coverage.

IR_WY_2022_1703 – The IR is a nearly complete tan chert tri-notched Rosegate type projectile point made from a flake. The projectile point is missing part of the tip and measures 2.9 by 1.9 by 0.4 cm. Rosegate type points date from AD 500 to 1300 (Justice 2002). The IR is located [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay with few natural gravels with no potential for intact buried cultural material. Vegetation is saltbush and various grasses and forbs with 0 to 25 percent ground coverage.

IR_WY_2022_2648 – The IR is one tertiary white quartzite flake and one brown chert nodule with retouch or usewear along one edge and measuring 3.7 by 2.8 by 1.2 cm. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty clay with moderate pebble-

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to cobble-sized gravels and no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs with 50 to 75 percent ground coverage.

IR_WY_2024_1131 – The IR is one white and orange chert large-size flake. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with subrounded to rounded pebble- to cobble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs. Vegetation ground coverage ranged between 0 to 25 percent.

IR_WY_2024_1132 – The IR is six white porcelain ceramic vessel fragments. Two of the fragments have an unknown design transfer print and one fragment is a handle piece. The IR is located on [[Exempted from disclosure by statute]] . Sediments are alluvial silty loam with moderate rounded pebble-sized gravels with no potential for intact buried cultural material. Vegetation is greasewood and various grasses and forbs. Vegetation ground coverage ranged between 0 to 25 percent.

IR_WY_2024_1133 – The IR is one large-size quartzite flake and four pieces of HAR in a 25 m area. The IR is located on [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]]. Sediments are alluvial silty loam with no potential for intact buried cultural material. vegetation is greasewood and various grasses and forbs. Vegetation ground coverage ranged between 0 to 25 percent.



Figure 102. IR_WY_2022_1649, Projectile Point, facing South. Beth Karpinski (5/14/2022) Unaltered.

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5.3 Visual Effect Assessments

The visual effect assessment was completed for eight of the previously recorded visually sensitive sites within the indirect APE. Tetra Tech did not conduct a visual effect assessment for the ninth identified visually sensitive site, 48LN317, since the landowner did not permit access to the site. Tetra Tech revisited each of the remaining identified visually sensitive cultural resources and if the site was confirmed to be visible to and from the project as identified in Section 2.2, Tetra Tech completed the assessment using a VCR form. Completed VCR forms are included as supporting documents submitted in WyoTrack.

48LN773 – Multicomponent Rock Cairns, Eligible under Criterion D
Project Location: Indirect APE

Site 48LN773 is a multicomponent site consisting of approximately 25 rock cairns[[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] . The site was originally recorded in 1982 for the Kemmerer North Block project (DBI_WY_1999_7130; Kinney 1982) and updated in 2004 for the P&M Coal North Block Update project (DBI_WY_2005_4019; Larson 2004a). The documented cairns are low, cobble-size, well sorted, rounded to subrounded, rock concentrations of varying sizes. In additional to the cairns a sparse scatter of prehistoric and historic artifacts have been documented within the site boundary in 1982 and 2004.

The site is located [[Exempted from disclosure by statute]]; therefore, Tetra Tech revisited the site in 2023 only to conduct a visual assessment (**Figure 103**). Tetra Tech established KOP-01 to conduct a visual impact assessment. The assessment determined the site, and project will be visible from one another. The proposed activity will have no degree of contrast in the viewshed's form, texture, line, and color for Land/Water Body, Vegetation, and Structure. The viewshed has been significantly compromised by a coal mine, Naughton powerplant, and other infrastructure.

NRHP Eligibility and Management Recommendation

Site 48LN773 has been determined eligible for inclusion on the NRHP under Criterion D. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as reported in the 2004 update recording. Tetra Tech recommends no changes to the NRHP.

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Figure 103. Site 48LN773, KOP-01 Toward Project, Facing South-Southeast. Taken by Beth Karpinski (7/11/2023). Unaltered.

48LN1272 – Glencoe Mine, Eligible under Criteria A and D
Project Location: Indirect APE

Site 48LN1272 is the historic Glencoe Mine that was originally recorded in 1983 for the Archaeological and Historical Survey of 26 Mine Reclamation Sites project (DBI_WY_1999_22491; Gardner and Davidson 1983a) and updated in 2006 for the AML 17 H-1 Statewide Coal Reclamation Project (DBI_WY_2008_3826; Larson and Summers 2006a). The site includes all features and artifacts associated with the Glencoe Mine including the main entrance to the No. 4 Mine, company offices, and at least three residential areas.

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 to conduct a visual assessment (**Figures 104 and 105**). Tetra Tech established KOP-09 and KOP-10. The viewshed between the proposed project structures and site is a broad, flat alluvial plain. The project will create a long-term visual impact consisting of several buildings, laydown areas, parking facilities, and roads. Tetra Tech determined the change in the visual setting will be strong with a strong to moderate degree of contrast in viewshed structure form, texture, line, and color. Although the project will have a strong change to the viewshed, Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed. Tetra Tech recommends the project will have no adverse effect to the site.

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Figure 104. Site 48LN1272, KOP-09 Toward Project, Facing West-Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered.



Figure 105. Site 48LN1272, KOP-10 Toward Project, Facing Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered.

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NRHP Eligibility and Management Recommendation

Site 48LN1272 has been determined eligible for inclusion on the NRHP under Criteria A and D. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the update in 2006. Tetra Tech recommends no changes to the NRHP. Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed.

48LN1273 – Lincoln Star Mine, Eligible under Criteria A and D
Project Location: Indirect APE

Site 48LN1273 is the historic Lincoln Star Mine that was originally recorded in 1983 for the Archaeological and Historical Survey of 26 Mine Reclamation Sites project (DBI_WY_1999_22491; Gardner and Davidson 1983b) and updated in 2003 for the AML 17 H-1 Statewide Coal Reclamation Project (DBI_WY_2004_3069; O'Dell 2003a). The site includes all features and artifacts associated with the Lincoln Star Mine.

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 to conduct a visual assessment (**Figure 106**). Tetra Tech established KOP-05. The assessment determined the site and project were not intervisible and no further visual assessment was completed for the site.



Figure 106. Site 48LN1273, KOP-05 Toward Project, Facing Northwest. Taken by Beth Karpinski (7/10/2023). Unaltered.

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NRHP Eligibility and Management Recommendation

Site 48LN1273 has been determined eligible for inclusion on the NRHP under Criteria A and D. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the update in 2006. Tetra Tech recommends no changes to the NRHP.

48LN2327_14 – Oregon Shortline Railroad, Eligible under Criteria A and C, Contributing Segment
Project Location: Indirect APE

Site 48LN2327_14 is a segment of the historic Oregon Shortline Railroad that was originally recorded in 2004 for the P&M Coal North Block Update project (DBI_WY_2005_4019; Larson 2004b) and updated in 2011 for the Northwest Pipeline GP Ignacio-Sumas Pipeline Kemmerer Mine Relocation Project (DBI_WY_2011_1089; McNees et al. 2011). The segment [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] was abandoned in 1943 and only build grade and cuts have been documented in this area.

The site is located [[Exempted from disclosure by statute]]; therefore, Tetra Tech revisited the site in 2023 only to conduct a visual assessment (**Figure 107**). Tetra Tech established KOP-02 on a section of the railroad to conduct a visual impact assessment. The assessment determined the site and project were not actually visible from one another. The proposed activity will have no degree of contrast in the viewshed's form, texture, line, and color for Land/Water Body, Vegetation, and Structure.



Figure 107. Site 48LN237_14, KOP-02 Toward Project, Facing South. Taken by Beth Karpinski (7/11/2023). Unaltered.

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NRHP Eligibility and Management Recommendation

Site 48LN2327 has been determined eligible for inclusion on the NRHP under Criteria A and C. The segment 48LN2327_14 has been determined as contributing to the site's overall NRHP eligibility. Tetra Tech revisited a section of the segment in 2023 and found the segment to be in the same condition as the update in 2011. Tetra Tech recommends no changes to the NRHP. Tetra Tech argues that since the physical site is still contributing to the overall NRHP eligibility.

48LN2739_1 – Kemmerer to Cumberland Highway, Eligible Under Criterion A, Contributing segment
Project Location: Indirect APE

Site 48LN2739_1 is a segment of the Kemmerer to Cumberland Highway that was originally recorded in 2010 for the AML 17G Brilliant Mine No. 8 project (DBI_WY_2011_2110; Larson 2010) The site includes a segment of the highway that is currently used as a two-track road.

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 to conduct a visual assessment (**Figure 108**). Tetra Tech established KOP-03. The viewshed between the project and site is a broad, flat alluvial plain. The project will create a long-term visual impact consisting of several buildings, laydown areas, parking facilities, and roads. Tetra Tech determined the change in the visual contrast will be weak on viewshed structure form, line, color, and texture. Tetra Tech argues that the project will not significantly visually impact the site, and no mitigation measures are recommended for the project.



Figure 108. Site 48LN2739_1, KOP-03 Toward Project, Facing North-Northwest. Taken by Beth Karpinski (7/10/2023). Unaltered.

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NRHP Eligibility and Management Recommendation

Site 48LN2739_1 has been determined **eligible** for inclusion on the NRHP under Criterion A and is considered a **contributing** segment to the overall eligibility. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the 2010 recordation. Tetra Tech recommends no changes to the NRHP.

48LN4011 – Multicomponent Artifact Scatter with Features, Eligible Under Criteria A and D

Project Location: Indirect APE

Site 48LN4011 is a large multicomponent site that includes a prehistoric artifact scatter with features and the historic Glencoe townsite. The site was originally recorded in 2003 for the AML 17 H-1 Statewide Coal Reclamation project (DBI_WY_2004_3069; Stubbs 2003). In 2006, under an agreement with Wyoming SHPO it was decided to give the Glencoe townsite (recorded as Locality D, E, and F in 2003) a separate site number (48LN4428) and Locality A, B, and C were recorded in the northern portion of 48LN4011 as 48LN4429. The site number for 48LN4011 was retained to encompass the larger site area as defined by ACR (Sutter 2006).

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 to conduct a visual assessment (**Figures 109 and 110)**. Although the site boundary located on WyoTrack places a small portion of the site within the eastern-most portion of the direct APE, the 2003 site form indicates the western edge of the site is located [[Exempted from disclosure by statute]] [[Exempted from disclosure by statute]] (Stubbs 2003). Tetra Tech established KOP-07 and KOP-08 to conduct a visual effect assessment. The KOPs are in the same location for 48LN4428, as the historic component of the original recording is considered the contributing portion to the eligibility of the site and the visually sensitive component. The assessment determined the site and project will be intervisible and the proposed activities will have a weak degree of contrast on form, line, color, and texture from KOP-07, but a strong degree of contrast in the viewshed's form, line, color, and texture in structure from KOP-08, which is at a higher elevation. Although the project will have a strong change to the visual setting, Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the sites to convey their own significance through the integrity of setting is weak, if not entirely removed. Tetra Tech recommends the project will have no adverse effect to the site.

NRHP Eligibility and Management Recommendation

Site 48LN4011 has been determined **eligible** for inclusion on the NRHP under Criteria A and D. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the 2003 recordation. Tetra Tech recommends no changes to the NRHP. Tetra Tech argues that since the physical site has been subject to demolition and reclamation, along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed.

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Figure 109. Site 48LN4011/48LN4428, KOP-07 Toward Project, Facing West-Northwest. Taken by Beth Karpinski (7/11/2023). Unaltered.



Figure 110. Site 48LN4011/48LN4428, KOP-08 Toward Project, Facing West-Southwest. Taken by Beth Karpinski (7/11/2023). Unaltered.

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48LN4026 – Blazon Railroad Spur, Eligible Under Criteria A and C
Project Location: Indirect APE

Site 48LN4026 is the Blazon Railroad Spur that was originally recorded in 2003 for the AML 17H Kemmerer Area BLM Sites project (DBI_WY_2008_4034; O'Dell 2003b). The site includes the abandoned railroad spur that extends from the Cumberland Branch of the Union Pacific Railroad to the Blazon Mine.

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 to conduct a visual assessment (**Figure 111**). Tetra Tech established KOP-06. The viewshed between the project and site is a broad, flat alluvial plain. The project will create a long-term visual impact consisting of several buildings, laydown areas, parking facilities, and roads. Tetra Tech determined the change in the visual contrast will be weak in the viewshed's form, line, color, and texture in structure. Tetra Tech argues that the project will not significantly visually impact the site and no mitigation measures are recommended for the project.

NRHP Eligibility and Management Recommendation

Site 48LN4026 has been determined **eligible** for inclusion on the NRHP under Criteria A and C. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the 2010 recordation. Tetra Tech recommends no changes to the NRHP.



Figure 111. Site 48LN4026, KOP-06 Toward Project, Facing North-northwest. Taken by Beth Karpinski (7/10/2023). Unaltered.

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48LN4428 – Glencoe Townsite, Eligible Under Criterion A
Project Location: Indirect APE

Site 48LN4428 is the Glencoe townsite that was originally recorded as a part of 48LN4011 in 2003 for the AML 17 H-1 Statewide Coal Reclamation project (DBI_WY_2004_3069; Stubbs 2003). In 2006, under an agreement with Wyoming SHPO it was decided to give the Glencoe townsite (recorded as Locality D, E, and F in 2003) a separate site number (Sutter 2006) and was updated for the AML 17 H-1 Statewide Coal Reclamation Project (DBI_WY_2008_3826; Larson and Summers 2006b).

The site is located [[Exempted from disclosure by statute]] ; therefore, Tetra Tech revisited the site in 2023 only to conduct a visual assessment (**see Figures 109 and 110**). Tetra Tech established KOP-07 and KOP-08 to conduct a visual effect assessment. The KOPs are in the same location for 48LN4011 as the historic component of the original recording is considered the contributing portion to the eligibility of 48LN4011 and the visually sensitive component. The assessment determined the site and project will be intervisible and the proposed activities will have a weak degree of contrast on form, line, color, and texture from KOP-07, but a strong degree of contrast in the viewshed's form, line, color, and texture in structure from KOP-08, which is at a higher elevation. Although the project will have a strong change to the visual setting, Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the sites to convey their own significance through the integrity of setting is weak, if not entirely removed. Tetra Tech recommends the project will have no adverse effect to the site.

NRHP Eligibility and Management Recommendation

Site 48LN4428 has been determined **eligible** for inclusion on the NRHP under Criterion A. Tetra Tech revisited the site in 2023 and found the site to be in the same condition as the 2010 recordation. Tetra Tech recommends no changes to the NRHP. However, Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed.

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6.0 SUMMARY AND MANAGEMENT RECOMMENDATION

Tetra Tech's Class III cultural resource inventory of the direct APE study area resulted in the revisit of 14 previously recorded cultural resource sites and site segments, documented 36 new sites, conducted visual assessment on eight sites, and identified 136 IRs (see **Appendix A and Appendix B**). Overall, the inventory conformed to the expectations outlined in **Section 2.3** and Tetra Tech has high confidence in the reported results. Within the direct APE, four cultural resource sites (Site 48LN740, 48LN2697 [Segments 48LN2697_3 and 48LN2697_4], 48LN8940, and 48LN8978 [Segment 48LN8978_1]) are determined/recommended eligible for inclusion on the NRHP. The remaining cultural resource sites within the direct APE are determined/recommended not eligible for inclusion on the NRHP. For the indirect APE, the visual effect assessment was completed for eight of the nine previously recorded visually sensitive sites. Tetra Tech was denied landowner permission to access the ninth visually sensitive site to complete an assessment. Tetra Tech completed the assessment using a VCR form and none of the sites that were found to be potentially adversely affected by the project. Individual cultural resource site NRHP evaluations, impact assessments, and management recommendations are summarized in **Table 44**.

6.1 Historic Context Summary

The identified cultural resources within the surveyed direct APE and visually sensitive sites within the indirect APE represent a broad swath of human landscape utilization in the Cumberland Valley of Wyoming through time. The following summary places the document cultural resources in a broader context of the Cumberland Valley specifically, and the Wyoming Basin in general.

6.1.1 The Prehistoric-era Landscape

Most of the documented prehistoric cultural resources within the direct APE are artifact and feature scatters of varying size and complexity lacking any temporally diagnostic artifacts. The archaeological evidence documented in the Wyoming Basin reflects human landscape use as the seasonal movement of relatively small groups. The regional topography facilitated movement along the perennial river valley bottoms that cross the landscape. The Hams Fork River appears to have served as one such corridor. Numerous groups coming together usually occurred during winter months and/or only specific times of year or every few years. Well-watered, low laying areas such as the Hams Fork River bottoms likely served as the preferred area for large, long term prehistoric habitation due to consistent water supply and protection of adverse weather. The North Fork Little Muddy Creek which is along the direct APE also served as a watered overland travel corridor throughout the prehistoric period. However, a potential exists for the creek to have been more ephemeral and that could have affected frequency and intensity of use through prehistory as changes in the broader climate affected water supply throughout the region.

Temporal diagnostics show human occupation of the area ranging from the Paleoindian through the Late Prehistoric. Site 48LN8975 has a temporal diagnostic projectile point dating to the Middle Archaic. Sites 48LN8954 and 48LN8966 have temporal diagnostic projectile points dating to the Late Prehistoric. Site 48LN740 has been the most intensively studied site in the direct APE and has yielded temporal diagnostics ranging in age from the Early Archaic through Late Prehistoric. The sites that are unknown prehistoric short-term camps that could be associated with one or more of the region's temporal periods and existing for one of more tasks or activities. The Early and Middle Archaic are not as well-known as later periods. The Late Prehistoric has the more frequent occurrences of cultural material in the direct APE, like the rest of the Wyoming Basin.

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Researchers have theorized this shows an increase in both population and landscape utilization in the Wyoming Basin during this period.

Beyond temporally diagnostic artifacts, the documented prehistoric artifact assemblages across the sites are similar with stone tools, groundstone, and debitage. The direct APE is subsumed by the Hams Fork Lithic Landscape (landscape 48LN3203) which is a diffuse and dispersed scatter of secondary lithic raw material deposits of quartzite and various cherts. The area has an ample supply of chert and quartzite lithic raw material for groups to manufacture needed stone tools. The small amount of obsidian raw material that occurs in the Wyoming Basin is from pyroclasts ejected from volcanic eruptions in the Yellowstone area. Enough obsidian artifacts were documented in the direct APE and broader area to suggest it is sourced from natural outcrops location outside the immediate region. Groups likely migrated to the sources and/or traded for the material. The nearest outcrops are in northwestern Wyoming and northern Utah. Bifaces are the most common lithic tool and are generally considered the multi-tool of the prehistoric period. Few Wyoming prehistoric archaeological assemblages do not have a least one biface documented at them. Debitage can be a byproduct of formal tool manufacture, but also individual flakes could be used for specific tasks from food resource processing to helping prepare hides or shaping wood. Groundstone artifacts are frequently interpreted as reflecting intensification of resource processing and/or broadening of resource gathering. Groundstone appears in the archaeological record at the end of Pleistocene and continues through to the Protohistoric. The targeted resources are frequently plant based; however, groundstone was also used to process insects and animals and for processing non-food-based materials. Most of the documented features were deflated thermal features usually made up of a concentration of heat-altered rock. Such features are common throughout the prehistoric period across the Mountain West; however, as noted in **Section 3.1** they do occur in a significantly higher number and density during the Late Prehistoric Period.

Unfortunately, the known functions and activities associated with the documented artifacts and features in the direct APE are both numerous and common across the Wyoming prehistoric period. Thermal features provided heat for various direct and indirect cooking techniques, smoke for insect abatement, and ceremonial uses. Archaeologists theorize the general climate of Wyoming with exposure to consistent and frequently high winds made thermal features a necessary construction for regional groups across prehistory. Prehistoric artifacts are known to have served multiple purposes with projectile points mostly, though not always, serving a single special purpose. The two rock alignments are theorized by the TCSs to be potential map markers pointing toward particular Quealy Peak located approximately 9 miles to the north. While rock alignments of varying size and orientation have been documented across Wyoming, such stone alignments serving as map markers have not been archaeologically documented in the Mountain West. The potential age and/or affiliation of the features are unknown.

6.1.2 The Historic-era Landscape

The documented historic-era cultural resources reflect the development of the upper Cumberland Valley region in the period after the completion of the transcontinental railroad. During this period Euroamericans, who used to only pass through the region along the Oregon and California emigration trails that cross the region. Tribal nations that had utilized the area for at least the first half of the 1800's had been forcibly removed to regional reservations by 1868 and were no longer utilizing the area by the time the transcontinental railroad was completed. The town of Kemmerer, Wyoming, would serve as the regional rail hub as Euroamerican development radiated along the area's perennial water sources. The area's numerous coal seams were developed initially for the trains of the Union Pacific Railroad. Hard rock mining for such metals as gold, silver, iron, and

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cooper, also create a need for coal to support smelters in places like the Wasatch Front in Utah. Mines such as the Glencoe Mine (Site 48LN1272) and Lincoln Star Mine (Site 48LN1273) would develop and operate to supply transportation and industrial needs of the region along with smaller operations supplying residential heating coal. The Glencoe Mine has an associated town of the same name (Site 48LN4428). The successful development of coal mining operations along Oyster Ridge would be due to the construction of rail lines to move coal to market. The spur rail lines such as the Blazon Railroad Spur (and Cumberland Branch [Site 48LN2697]) were built and utilized as long as the mines remained economically viable. The mine and town of Cumberland located well to the south of the project would operate long enough to see the arrival of the automobile to the region, and early semi-formal road infrastructure development such as the Kemmer to Cumberland Highway (Site 48LN2739). Technological innovations and the change in coal use from railroads, smelting, and residential use to utility-scale electricity production would change the region significantly by the mid-20th century. Many of the smaller scale coal mines closed and their towns and spur lines were abandoned. The construction of the Naughton Power Plant in the northwest corner of the Cumberland Valley was to operate as a mouth-of-mine power plant to be transmitted across the broader region.

Since the establishment of Kemmerer, Wyoming, Euroamericans would utilize the Cumberland Valley the same way as most of the arid West. Livestock grazing would be the primary economic activity outside mining and railroad work for the region. Both sheep and cattle would be grazed across the valley for shipment on the railroads with the herd sizes dictated by out-of-the-region market demands. The area was also used for hunting and recreation. The cumulative activities leave a material signature of small, short term, localized domestic artifact scatters reflecting short term residential camping. The material is largely consumer goods brought in from out of the region that allowed Euroamericans to subsist for long periods of time on the largely dry sagebrush plains of Wyoming.

6.2 Management Summary

Table 44 summarizes Tetra Tech's findings of effect and management recommendations for each site within the direct APE and revisited visually sensitive site within the indirect APE. The project adversely affects sites 48LN740 and 48LN8940. The project will have no adverse effect to Sites 48LN1272, 48LN1273, 48LN2697_1, 48LN2691_3, 48LN2739_1, 48LN4011, 48LN4026, 48LN4428, and 48LN8978_1. The project will have no effect on the remaining sites within the direct APE and visually sensitive sites in the indirect APE. The documented IRs are cultural manifestations of limited information potential and are therefore not eligible for inclusion on the NRHP. IRs do not require further research or management beyond recordation and reporting according to Wyoming SHPO guidelines.

Based on Tetra Tech's evaluations, effects assessment, the project will have an **adverse effect** to historic properties 48LN740 and 48LN8940. Tetra Tech provided management recommendations to mitigate the identified adverse effects to sites 48LN740 and 48LN8940 (see site write ups in **Sections 5.1.1 and 5.1.2**). The remaining sites are not going to be adversely affected by the project and do not require further management or mitigation measures be developed for them. If the NRC determines there is an adverse effect as recommended by Tetra Tech and SHPO concurs, the mitigation measures would be detailed in a Historic Properties Treatment Plan. The plan methodology will be to mitigate the effects to the historic properties for the project in conformation with Section 106 of the NHPA. The plan will be viewed and consulted on by NRC, SHPO, TerraPower, and Tribal nations for comment and approval prior to implementation.

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Table 44. Class III Cultural Resource Inventory Results Summary

Site Number	Site Type[a]	Public Land Survey System Location within APEs	APE Location	Eligibility	Effect Assessment	Management Recommendation
48LN735	P – Lithic and fire-cracked rock scatter	[[Exempted from disclosure by statute]]	Study Area/Indirect	Determined Not Eligible	No Effect	None
48LN740	M/C – Prehistoric artifact scatter with fire-cracked rock, and historic scatter and sheep camp	[[Exempted from disclosure by statute]]	Direct/Indirect	Determined Eligible, Criterion D	Adverse Effect	Tetra Tech recommends a Historic Properties Treatment Plan be developed to include appropriate measures to mitigate the adverse effects caused by the removal of the contributing portions of the site based on what has been recorded at the site to date. The plan will be reviewed, consulted, on, and approved by the NRC, SHPO, TerraPower, and Tribal nations prior to initiation of the mitigation.
48LN773	M/C – Rock Carins and artifact scatter	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criterion D	No Effect	None
48LN798	P – Lithic scatter	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN799	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN801	M/C – Historic sheepherder camp and prehistoric isolate	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN802	H – Sheepherder camp	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN1272	H – Glencoe Mine	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criteria A and D	No Adverse Effect	Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed. No further work or management is recommended for this site.
48LN1273	H – Mine	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criteria A and D	No Adverse Effect	Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed. No further work or management is recommended for this site.
48LN2335	P – Camp	[[Exempted from disclosure by statute]]	Study Area/Indirect	Determined Not eligible	No Effect	None
48LN2327_14	H – Oregon Shortline Railroad	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criteria A and C, Contributing segment	No Effect	None

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Class III Cultural Resource Inventory for Natrium Demonstration Project

Site Number	Site Type[a]	Public Land Survey System Location within APEs	APE Location	Eligibility	Effect Assessment	Management Recommendation
48LN2697_3	H –Cumberland Branch of the Union Pacific Railroad	[[Exempted from disclosure by statute]]	Direct/Indirect	Determined Eligible; Recommended Non-contributing Segment	No Adverse Effect	If the agency determines the segment is non-contributing, and SHPO concurs, no further work or management of the site is recommended. If the agency keeps segment as contributing, the project has a potential to adversely effect on the historic property. However, given the segment is an active railroad, any electric transmission and water pipeline rights-of-way will need to avoid the segment by spanning or boring under the railroad grade. The project will have **no effect** to the historic property if physical railroad is avoided by spanning and/or boring.
48LN2697_4	H – Cumberland Branch of the Oregon Short Line	[[Exempted from disclosure by statute]]	Direct/Indirect	Determined Eligible, Non–contributing Segment	No Effect	None
48LN2739_1	H – Kemmerer–Cumberland Highway	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criterion A, Contributing Segment	No Adverse Effect	Tetra Tech determined the change in the visual contrast will be weak on viewshed structure form, line, color, and texture. Tetra Tech argues that the project will not significantly visually impact the site. No further work or management is recommended for this site.
48LN2939	P – Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN3203	P –Hams Fork Lithic Landscape	[[Exempted from disclosure by statute]]	Direct/Indirect	Determined Not Eligible	No Effect	None
48LN4011	M/C – Prehistoric artifact scatter with features and historic Glencoe Mine	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criteria A and D	No Adverse Effect	Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the site to convey its own significance through the integrity of setting is weak, if not entirely removed. No further work or management is recommended for this site.

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Site Number	Site Type[a]	Public Land Survey System Location within APEs	APE Location	Eligibility	Effect Assessment	Management Recommendation
48LN4026	H – Blazon Railroad Spur	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criteria A and C	No Adverse Effect	Tetra Tech determined the change in the visual contrast will be weak in the viewshed's form, line, color, and texture in structure. Tetra Tech argues that the project will not significantly visually impact the site. No further work or management is recommended for this site.
48LN4428	H – Glencoe Townsite	[[Exempted from disclosure by statute]]	Indirect	Determined Eligible, Criterion A	No Adverse Effect	Tetra Tech argues that since the physical site has been subject to demolition and reclamation along with associated infrastructure in the immediate area, the ability of the sites to convey their own significance through the integrity of setting is weak, if not entirely removed. No further work or management is recommended for this site.
48LN8940	M/C –Artifact scatter with features	[[Exempted from disclosure by statute]]	Direct	Recommended Eligible, Criterion D	Adverse Effect	Tetra Tech recommends a Historic Properties Treatment Plan be developed to conduct additional evaluative testing along both the electric transmission and water pipeline rights-of-way when finalized within the site boundaries to determine if, and to what extent, the project will adversely affect the historic property. The plan will include measures to mitigate any potential adverse effects based on what has been recorded at the site to date. The plan will be reviewed, consulted, on, and approved by the NRC, SHPO, TerraPower, and Tribal nations prior to initiation of the testing and/or mitigation.
48LN8941	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN8942	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN8943	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8944	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8945	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8946	H – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8947	P – Artifact scatter with features and Historic isolate	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8948	P – Artifact scatter with features and Historic isolate	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8949	M/C – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None

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Class III Cultural Resource Inventory for Natrium Demonstration Project

Site Number	Site Type[a]	Public Land Survey System Location within APEs	APE Location	Eligibility	Effect Assessment	Management Recommendation
48LN8950	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8951	H – Artifact scatter	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8952	H – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8953	H – Artifact Scatter	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8954	P - Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8955	P - Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8956	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8957	P - Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8958	P – Artifact Scatter	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8959	M/C – Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8960	P – Artifact scatter	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN8961	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8962	M/C –Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8963	P – Artifact scatter	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8964	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8965	M/C – Artifact scatter	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN8966	P – Artifact Scatter	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8967	P – Artifact scatter with features and Historic isolate	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8968	P – Artifact Scatter	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8969	P- Feature	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None
48LN8970	H – Artifact scatter	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8971	P - Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8972	M/C – Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8973	M/C – Artifact scatter	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8974	P – Artifact scatter with features	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Not Eligible	No Effect	None
48LN8975	P - Feature	[[Exempted from disclosure by statute]]	Study Area/Indirect	Determined Not Eligible	No Effect	None
48LN8976	M/C – Artifact Scatter with Feature	[[Exempted from disclosure by statute]]	Direct	Determined Not Eligible	No Effect	None
48LN8977	H – Artifact scatter with Prehistoric isolate	[[Exempted from disclosure by statute]]	Direct	Recommended Not Eligible	No Effect	None

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Site Number	Site Type[a]	Public Land Survey System Location within APEs	APE Location	Eligibility	Effect Assessment	Management Recommendation
48LN8978_1	H – Glencoe Spur of the Cumberland Branch of the Union Pacific Railroad	[[Exempted from disclosure by statute]]	Direct/Indirect	Recommended Eligible under Criterion A and Non-contributing Segment	No Adverse Effect	If the agency determines the segment is non-contributing, and SHPO concurs, no further work or management of the site is recommended. If the agency keeps segment as contributing, the project has a potential to adversely effect on the historic property. However, given the segment is an active railroad, any electric transmission and water pipeline rights-of-way will need to avoid the segment by spanning or boring under the railroad grade. The project will have **no effect** to the historic property if physical railroad is avoided by spanning and/or boring.
48LN8979	H – Skull Point Spur of the Cumberland Branch of the Union Pacific Railroad	[[Exempted from disclosure by statute]]	Study Area/Indirect	Recommended Eligible under Criterion A	No Effect	None

[a] P = Prehistoric; H = Historic; M/C = Multicomponent

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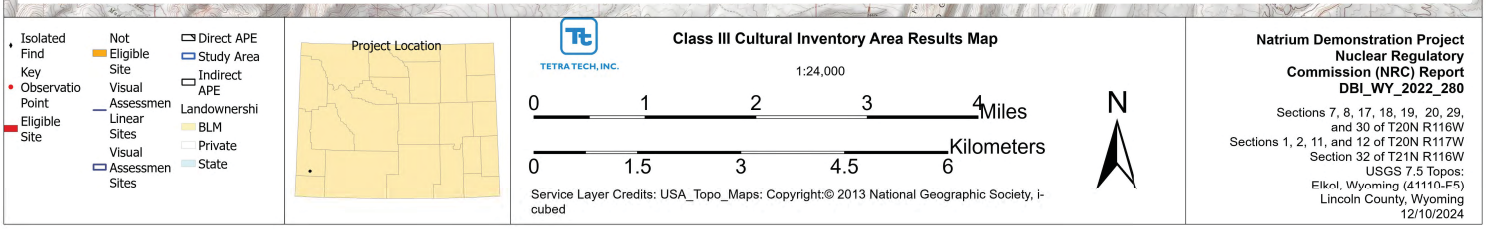
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APPENDIX A
CULTURAL INVENTORY RESULTS MAP WITH DIRECT AND INDIRECT APE (1:24,000 SCALE)

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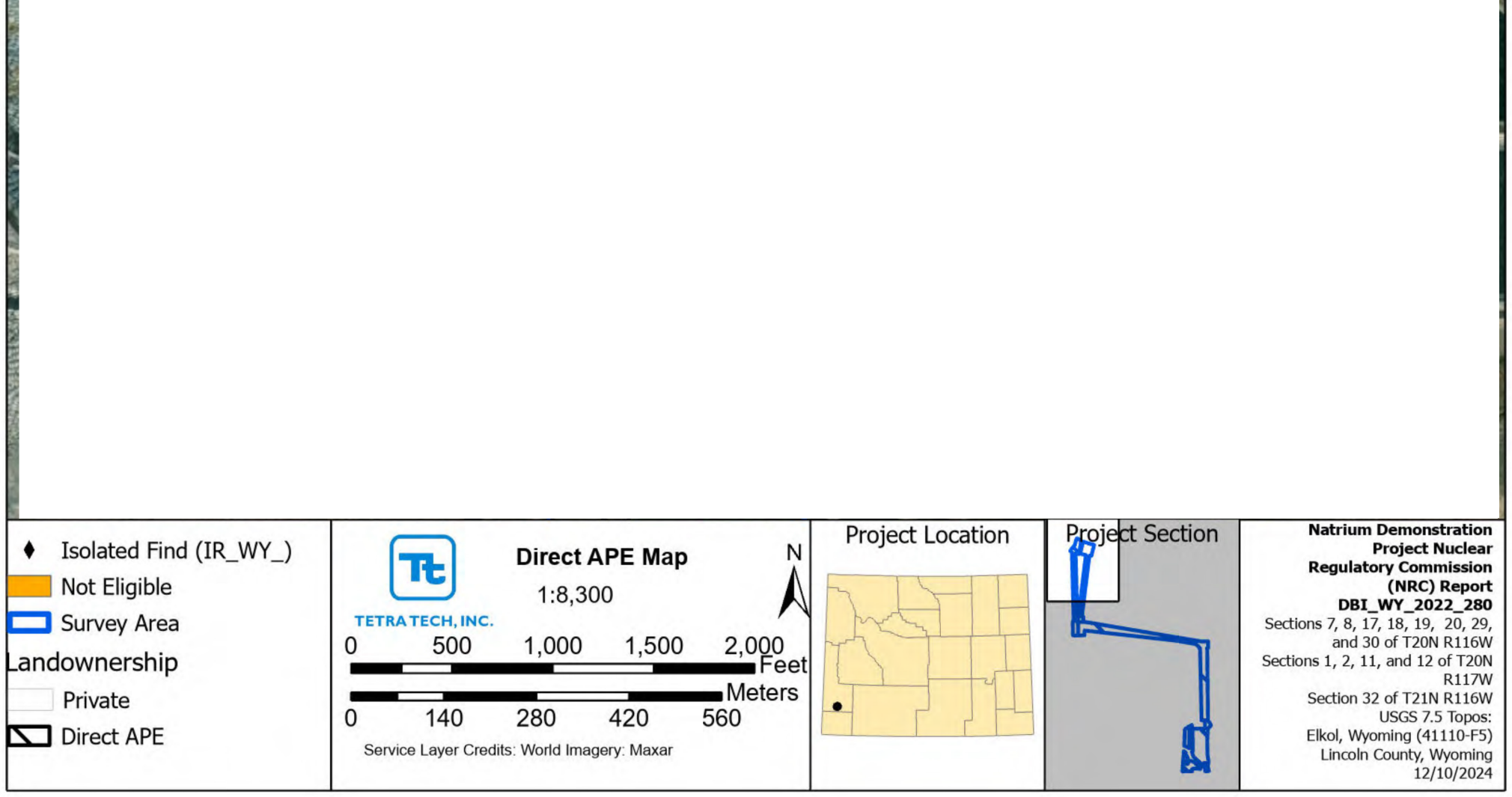


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APPENDIX B
CULTURAL RESOURCE INVENTORY RESULTS: DIRECT APE ONLY

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Isolated Find (IR_WY_)

Not Eligible

Survey Area

Landownership

Private

Direct APE

TETRA TECH, INC.

Direct APE Map

1:8,300

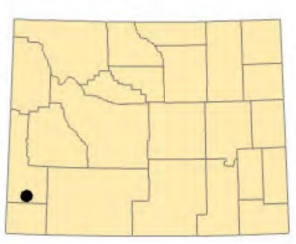
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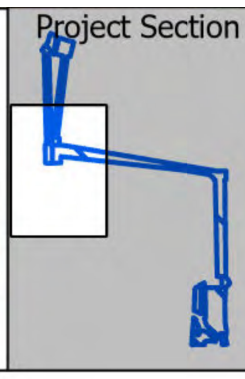
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Service Layer Credits: World Imagery: Maxar

Project Location



Project Section



Natrium Demonstration Project Nuclear Regulatory Commission (NRC) Report DBI_WY_2022_280

Sections 7, 8, 17, 18, 19, 20, 29, and 30 of T20N R116W

Sections 1, 2, 11, and 12 of T20N R117W

Section 32 of T21N R116W

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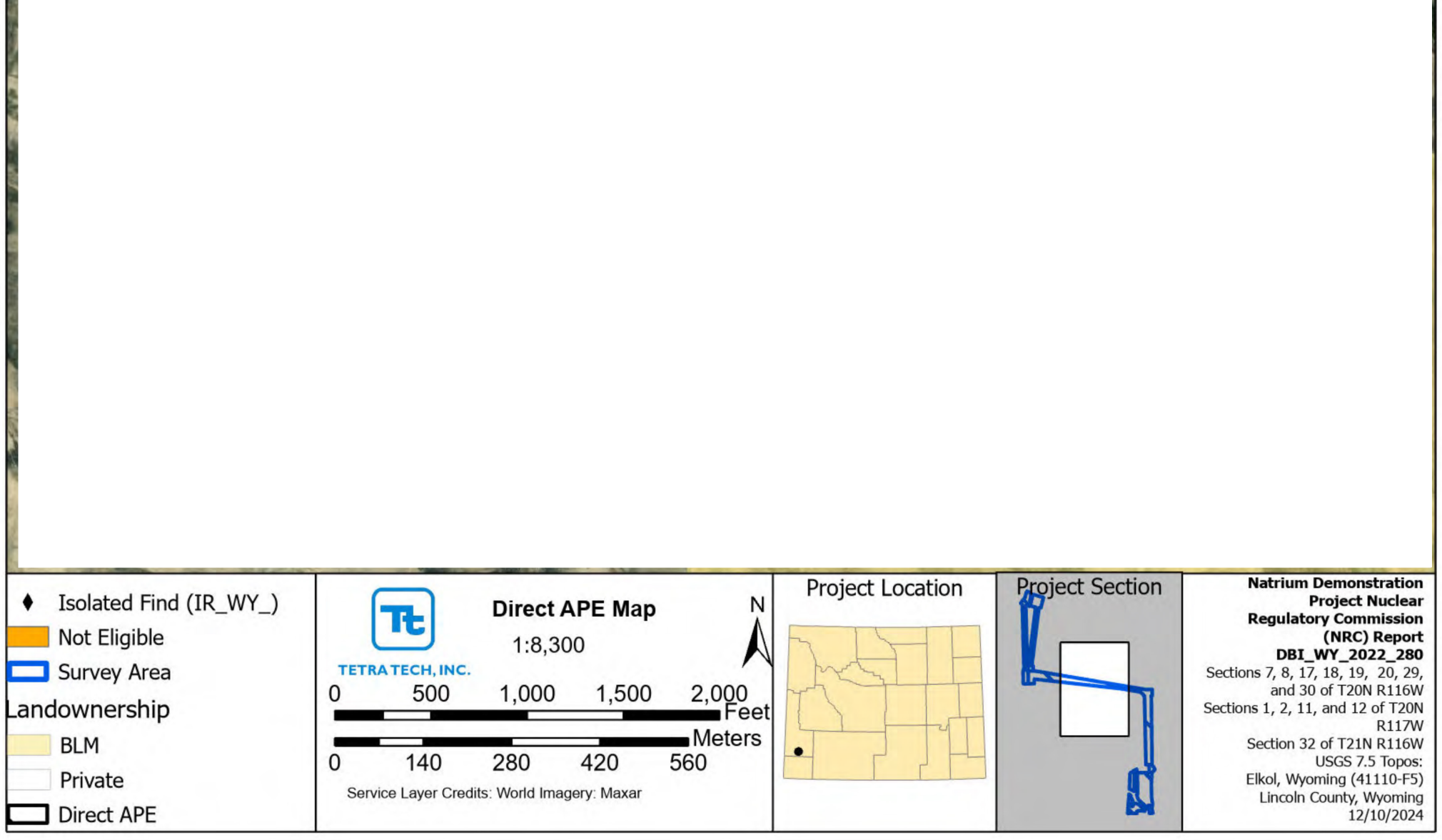
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Lincoln County, Wyoming

12/10/2024

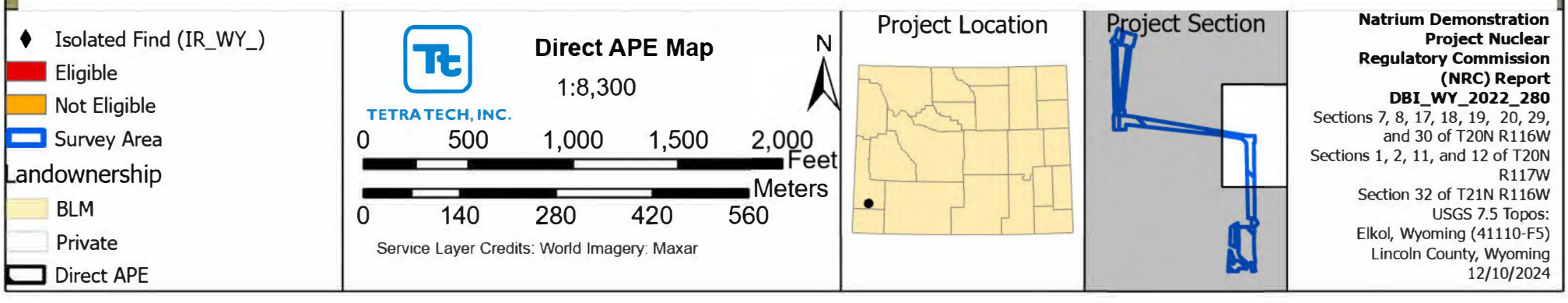
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Isolated Find (IR_WY_)
Eligible
Not Eligible
Survey Area
Landownership
BLM
Private
Direct APE

TETRA TECH, INC.

Direct APE Map

1:8,300

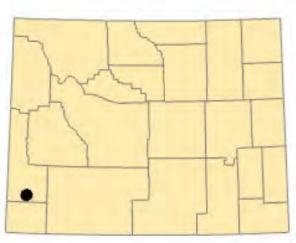
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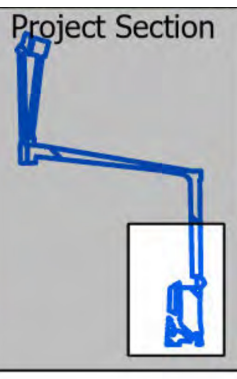
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Project Location



Project Section



Natrium Demonstration Project Nuclear Regulatory Commission (NRC) Report
DBI_WY_2022_280
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Section 32 of T21N R116W
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