

Project Completion Report

Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Second Phase of Data Recovery at Precontact Archeological Site 48YE114 in Area of Potential Effect of Road Reconstruction Near Frying Pan Springs, Continuation of UWY-35, J1580040296

Project Code: UWY – 15, J1580040296

Type of Project: Research

Funding Agency: National Park Service

Partner University: The University of Wyoming

NPS Agreements Technical Representative:

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Start Date of Project: June 20, 2005

End Date of Project: June 30, 2007

Funding Amount: \$122,000.00

Number of Students Involved, and Type of Student (Undergraduate, Graduate, Post Doctorate): 2 Undergraduates, 1 Graduate

Project Summary, including descriptions of project deliverables, any changes made during the life of the project, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report.

The second phase, UWY-15 continued the excavation and recovery of cultural materials, completed September 2006. The third phase, UWY-47, the analysis of the excavated archeological data and synthesis of information into the final report (expected September 2010).

When the final report is issued, the information contained in the final report will be restricted from the general public. Copies of that report will be located at the Archeology Laboratory at YNP's Heritage Research Center, at the WYSHPO'S office, and an electronic copy will be sent to the RM-CESU office.

48YE114 is a relatively small precontact site approximately 4 miles (6.5 km) south of the Obsidian Cliff NHL quarries. The site is in a sheltered area near a fresh water lake (Nymph Lake) in the thermally active Norris Geyser Basin of YNP. Bison, elk, deer, bear, wolves, geese, ducks, and fish are currently plentiful. The site is bisected on the north side by the current alignment of the Grand Loop Road, constructed in 1933. Abundant surface lithic debitage and in-tact and dated buried cultural deposits in a thermal area indicate it contains valuable and significant archeological information.

In 2005, block excavations were expanded in the activity areas identified in 2004. All excavated materials were screened through 1/8 inch mesh metal and larger flakes and tools were point plotted. The excavations provided a glimpse of the prehistoric lithic reduction activities associated with Obsidian Cliff National Historic Landmark, located north of 48YE114. The site area is in the thermally active Norris Geyser Basin. Major accomplishments of the 2005 field work was excavation of 51 1-meter by 1-meter units to a 30-50 cm below surface depth where radiocarbon dates identified an intact 2300+ year before present occupation level terminating on thermal soils. Distinct activity areas included concentrations of chipped stone debris, concentrations of fire cracked rock, and a hearth area. Grey obsidian from two YNP sources was recovered from the knapping area. Many obsidian bifaces, scrapers, chopping tools, and used flakes, and a few chert scrapers, chopping tools and used flakes, and a few chert scrapers were recovered by few projectile points were located.

Both obsidian cobbles and quarried chunks of obsidian were being reduced and evidence was recovered suggesting they were teaching their young to make stone tools (implying a family group rather than a specialized group of male hunters.) Diagnostic projectile points dated an upper occupation level to the Late Prehistoric.

Cultural occupations found in in-tact stratigraphic sequence are rare in YNP and of significant importance in developing an understanding of precontact peoples' use of the park. 48YE114 is associated with 10,000+ years of human use of the Obsidian Cliff NHL quarry areas. Lithic material from Obsidian Cliff has been transported and traded extensively throughout the Missouri River corridor, in Hopewellian (and earlier) cultural sites in the Mid-West, along the Western Great Lakes, and into the southern portions of Missouri where one grey obsidian flake was sourced to Obsidian Cliff. 48YE114 excavations revealed the first grey obsidian recovered in YNP. Data recovery at 48YE114 has provided a rare glimpse of day-to-day activities of a small family group, unafraid to camp in an active thermal area while conducting domestic activities such as scraping hides (inferred by the large number and varied size of scrapers) and processing food (inferred by the roasting pit and large quantity of fire cracked rock) over 2000 years ago.

The project objectives of obtaining a representative sample of the cultural materials buried in the sub-surface activity areas were achieved.