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Idaho National Laboratory Cultural Resource Monitoring Report for FY 2010

INL Cultural Resource Management Office

October 2010

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Environmental Stewardship and Water Management
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ABSTRACT

This report describes the cultural resource monitoring activities of the Idaho National Laboratory's (INL) Cultural Resource Management (CRM) Office during fiscal year 2010 (FY 2010). Throughout the year, thirty-three cultural resource localities were revisited, including some that were visited more than once, including: two locations with Native American human remains, one of which is a cave, two additional caves, twenty-six prehistoric archaeological sites, two historic stage stations, and the Experimental Breeder Reactor-I, which is a designated National Historic Landmark. The resources that were monitored included seventeen that are routinely visited and sixteen that are located in INL project areas. Although impacts were documented at a few locations and one trespassing incident (albeit sans formal charges) was discovered, no significant adverse effects that would threaten the National Register eligibility of any resources were observed. Monitoring also demonstrated that several INL projects generally remain in compliance with recommendations to protect cultural resources.

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FIGURES

ACRONYMS

ARPA	Archaeological Resources Protection Act
ATV	all terrain vehicle
BEA	Battelle Energy Alliance
BM	Bingham (county)
BT	Butte (county)
BLM	Bureau of Land Management
CITRC	Critical Infrastructure Test Range Complex
CRM	cultural resource management
CWI	CH2M Hill-Washington Group Idaho, LLC
DOE-ID	Department of Energy, Idaho Operations Office
EBR-I	Experimental Breeder Reactor-I
FY	fiscal year
GPS	global positioning system
HeTO	Heritage Tribal Office
ICP	Idaho Cleanup Project
HTRE	Heat Transfer Reactor Experiment
INL	Idaho National Laboratory
JF	Jefferson (county)
LWP	Laboratory Wide Procedure
MCP	Management Control Procedure
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PBF	Power Burst Facility
SHPO	State Historic Preservation Office
U.S.	United States
UXO	unexploded ordnance
WERF	Waste Experimental Reduction Facility

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1. INTRODUCTION

The Idaho National Laboratory (INL) is an 890 square mile federal reserve covering portions of five counties on the northeastern edge of the Snake River Plain in southeastern Idaho (Irving 1993, DOE-ID 1996). Lands included within the boundaries of the INL are under the jurisdiction of the U.S. Department of Energy, Idaho Operations Office (DOE-ID) and have been set aside since the 1940s to support many kinds of scientific and engineering research. Currently, four main contractors perform work for DOE-ID at INL. Battelle Energy Alliance (BEA) is the primary Management and Operations contractor, where the INL Cultural Resource Management (CRM) Office is based. CH2MHill/Washington Group (CWI) takes the lead on many cleanup operations related to the Idaho Cleanup Project (ICP), and Bechtel-Babcock & Wilcox-XT, Idaho leads many activities for the Advanced Mixed Waste Treatment project located within the Radioactive Waste Management Complex. INL's Naval Reactor Facility is under the jurisdiction of the U.S. DOE's Naval Reactors Office and is currently managed and operated by Bechtel-Bettis.

Public access to INL has been restricted since its inception in the 1940s and an active security force patrols all lands and facilities. When encountered, trespassers are removed immediately and can be served with official citations. Largely as a result of long term access restrictions, many cultural resources on the INL are relatively undisturbed. Vandalism is also reduced due to ongoing security patrols. However, over the past decade, unauthorized access has been noted at some INL cultural resource sites, particularly those within hunting and grazing easements, known caves, or with easy access from the paved roads that bisect or are adjacent to INL boundaries. This may be related to reductions in some INL Security programs (i.e. elimination of daily helicopter patrols); however, increased patrols to sensitive areas have resulted in the identification and arrest of some trespassers.

Access restrictions and security patrols do not prevent all impacts and damage to cultural resources may occur. There are six primary sources of damage:

- Natural processes such as erosion from wind and water or animal burrowing
- Livestock grazing, herding, and associated operations (i.e. watering stations/troughs, feed transport, stock camps)
- Trespassing in highly sensitive areas and unauthorized artifact collection by members of the public and possibly INL employees unaware of or indifferent to penalties associated with these activities
- INL projects that fail to comply with recommendations to protect cultural resources as outlined in Environmental Checklists or other environmental guidance
- Lack of regular maintenance or inappropriate preservation treatments for historic structures
- Emergency response actions (i.e. fire suppression)

In fiscal year (FY) 2010, two wildfires swept through INL lands, including the largest such fire in INL history and another that burned near and over Middle Butte Cave. Driven by extremely high winds, the July 13, 2010 Jefferson Fire burned 79,339 acres on INL and 29,516 acres off INL and the August 27, 2010 Middle Butte Fire burned 13, 008 acres on INL and 1131 acres off INL. Fire suppression activities create potential for impacts to sensitive cultural resources and, although some impact assessments were conducted in FY 2010, this activity is ongoing in FY 2011.

Under DOE-ID's INL Cultural Resource Management Plan (DOE-ID 2009), BEA's INL CRM Office maintains an ongoing program for monitoring, assessing, and developing strategies to mitigate impacts to

cultural resources as a result of these sources of impact. This report provides a summary of the cultural resource monitoring activities completed in fiscal year (FY) 2010.

2. MONITORING PROGRAM DETAILS

A detailed description of the INL CRM Office monitoring program is located in Appendix L of the INL Cultural Resource Management Plan (DOE-ID 2009). Monitoring enables INL CRM staff to determine if the integrity of known resources is being compromised by natural processes and, in the case of wildfires, responses to them, by unauthorized activities, by lack of maintenance or inappropriate preservation measures, or by INL projects. When impacts to cultural resources are identified in this manner, actions to avert further deterioration can be initiated and federal stewardship responsibilities are fulfilled.

2.1 Process of Selection

Specific cultural resources are chosen for monitoring based on INL CRM Office priorities as well as feedback from DOE-ID, the Shoshone-Bannock Tribes Heritage Tribal Office (HeTO), and INL stakeholders. The INL CRM archives, which include documentation of over 2,500 archaeological resources and nearly 300 historic buildings and other structures, are also consulted for appropriate candidates for yearly monitoring. Both DOE-ID and the Shoshone-Bannock Tribes are often directly involved in fieldwork during the monitoring activities and INL project managers and other stakeholders, such as the Idaho State Historic Preservation Office (SHPO), also participate occasionally. Certain resources, like Middle Butte, Prickly, and Aviators Caves, sensitive localities inside the Critical Infrastructure Test Range Complex (CITRC), and the Experimental Breeder Reactor-I (EBR-I) National Historic Landmark, are monitored annually. Others, such as historic homesteads and some prehistoric archaeological sites may also be visited routinely because of their location in highly visible and/or accessible areas where trespassing has been documented in the past. Each year INL CRM staff also conducts surveillance of resources in a wide variety of settings to address ongoing research interests and the overall focus of INL construction and project activities.

Monitoring of INL projects is completed under direct project funding and may be included as part of an INL Environmental Checklist or other environmental guidance. In FY 2010 monitoring was targeted at several different INL activities and involved different INL contractors. Project-specific monitoring is also routinely completed in the sandy aeolian soils inside the boundaries of the CITRC area, where Native American human remains have been discovered in both primary and secondary (i.e. disturbed) contexts. Cultural resource monitoring of projects that involve soil disturbance within this facility complex is routine and required by company procedures (e.g. BEA's LWP-8000 and CWI's MCP-3480). This level of cultural resource oversight ensures that any new discoveries of human remains will be managed appropriately.

Forms developed by INL CRM Office staff are completed for every cultural resource monitoring trip. Hard-copy and electronic versions of these documents are maintained in the INL CRM files and are reproduced for FY 2010 here in Appendix A to this report. INL CRM staff also archive a variety of photographs to document monitoring efforts, but these high quality electronic images are reproduced here only for illustrations purposes in part due to their large size.

2.2 Findings and Documentation

Under the INL CRM monitoring program, there are four possible findings for a given monitoring trip, based on the level of disturbance noted:

- **Type 1**: no visible changes to a cultural resource and/or a project is operating within the limits of cultural resource clearance recommendations

- **Type 2**: impacts are noted but do not threaten the National Register eligibility of a cultural resource and/or a project is operating outside of culturally cleared limitations but no cultural resources have been adversely impacted
- **Type 3**: impacts are noted that threaten the National Register eligibility of a cultural resource and/or a project has been operating outside of culturally cleared limitations and impacts to non-eligible cultural resources have occurred
- **Type 4**: impacts that threaten the National Register eligibility of a cultural resource are occurring during the monitoring visit, justifying the use of the INL Stop Work Authority (LWP-14002, MCP-553)

If Type 2, 3, or 4 impacts are documented during a monitoring trip, notifications are made to project managers, the DOE-ID cultural resources coordinator, and various other parties, as appropriate and according to the nature and severity of the disturbance. Typically, Type 2 impacts can be corrected by CRM staff or with the cooperation of INL project managers, security personnel, and/or landlord organizations. In these instances, the impacts are only reported in summary fashion in year-end reports. Some incidents that are determined to be Type 2 and all Type 3 or 4 impacts prompt formal investigations by the INL CRM Office. INL project managers, security, and/or landlord organizations, DOE-ID, and Shoshone-Bannock tribal representatives may also participate in these investigations.

Results of all monitoring and formal impact investigations are summarized annually in a year-end report to DOE-ID (cf. INL CRM 2009) and also appear in a higher level summary of INL CRM Office yearly activities (cf. INL CRM 2010) that is sent to DOE-ID and other parties such as the Idaho State Historic Preservation Office, the Shoshone-Bannock Tribes, and other stakeholders.

3. RESULTS OF FY 2010 MONITORING

In FY 2010, thirty monitoring forms (Appendix A) were completed throughout the year to document forty-one site visits, to assess impacts from fire suppression activities on highly sensitive resources, project compliance with cultural resource recommendations, to confirm the locations of specific cultural resources in relation to project activities, and to watch for cultural materials during ground disturbing activities in sensitive areas. Representatives from INL projects, DOE-ID, and the Shoshone-Bannock Tribe's HeTO participated in several of the trips (Figure 1). Throughout the year, some Type 2 impacts, including animal burrowing, erosion, and trespassers apprehended by INL security forces near sensitive locations were cited. However, the National Register integrity of all of the resources that were monitored remains intact. No adverse impacts were documented.

Figure 1. FY 2010 Tribal visit with DOE-ID Tribal Liaison, Bob Pence.

In an ongoing effort between the INL CRM staff and INL Security in FY 2010, INL CRM staff took the DOE-ID Physical Security Officer on a tour of select archaeological sites. During that tour steps were discussed to continue to pursue a working relationship with U.S. federal agents experienced in enforcing the Archaeological Resource Protection Act (ARPA) and successfully prosecuting individuals who have violated the law. The potential for providing direct training to new INL Security guards was also recommended and met with a positive response.

It is anticipated that interaction and cooperation between the federal agents, DOE-ID Security, the federal U.S. Fish and Wildlife agents, and the INL CRM Office will be ongoing through FY 2011 and beyond, leading to more effective protections for sensitive INL cultural resources.

3.1 Individual Resources

In FY 2010, INL CRM staff conducted official surveillance of thirty-three individual cultural resources including: two locations with Native American human remains, one of which is a cave, two additional caves, twenty-six prehistoric archaeological sites, two historic stage stations, and the Experimental Breeder Reactor-I National Historic Landmark. As noted in the discussions to follow, five resources were visited more than once. Forms that document individual observations and recommendations are included in Appendix A.

3.1.1 Native American Human Remains

Two INL localities that include sensitive Native American human remains are visited at least once a year for monitoring and stabilization, as necessary. These are the Waste Experimental Reduction Facility (WERF) remains (10-BT-2046), located within the CITRC area, and Prickly Cave (10-BT-2037).

The WERF location (10-BT-2046) consists of sensitive human remains that were found eroding from the floor surface of an artificial drainage basin in FY 1996. Investigations confirmed that these sensitive materials were resting in their original position and, in consultation with the Shoshone-Bannock Tribes, steps were taken to secure them and prevent any future disturbance. Today these remains are secure beneath four truck loads of clean soil and, despite being directly in its path, were untouched by the Jefferson wildfire and fire suppression activities. This area is monitored yearly with the assistance of HeTO tribal representatives. Although directly in the path of the FY 2010 Jefferson Fire, the fenced WERF burial did not burn nor was it impacted by fire suppression activities. No new erosion or other new impacts have ever been discovered.

Prickly Cave (10-BT-2037) is a relatively small lava tube cave with a correspondingly small opening that is flush with the exterior ground surface. Cultural materials located on the cave exterior are characterized by a light and unremarkable scatter of lithic debris along with a few stone tools. The cave interior however, houses extremely sensitive human remains along with various perishable (wood, bone) tools. The remains consist of skeletal elements originally found in the cave as well as some that were repatriated to Prickly Cave from another INL location. Over the years that annual monitoring has been conducted at Prickly Cave no evidence of human disturbance has been found. However, during a FY 2008 monitoring trip a human mandible previously noted inside the cave was found approximately 10 meters from the cave opening. It was concluded that the mandible had most likely been moved by a coyote. The mandible was returned to the cave and secured next to the repatriated human remains. The FY 2010 monitoring visit found no signs of disturbance, either to the human remains in the cave or to artifacts surrounding the cave entrance.

In FY 2010, no new or adverse impacts were observed at either of these locations and measures to stabilize the sensitive remains appear to remain adequate. Although not noted in FY 2010, natural forces such as erosion and burrowing animals remain the primary agents of the Type 2 impacts that have been previously observed in these areas and both warrant continued annual surveillance and intervention, as necessary.

3.1.2 Caves

As of FY 2010, twenty-seven known caves exist within the boundaries of the INL. Geologically, biologically, and culturally, each of these resources is unique. Humans have been drawn to these locations for thousands of years seeking shelter, work areas, and unique opportunities for caching food and valuables. Some caves have also served unique roles in hunting, spirituality, religion, communication, and education. Sensitive archaeological materials (e.g. human remains, perishable artifacts, fragile deposits underfoot) and cultural features (e.g. pictographs, rock features, hearths) remain today as a fragile record of these many uses. These materials exhibit remarkable potential for providing information

of value in understanding the past and as a result, many INL caves are eligible for nomination to the National Register of Historic Places.

Caves retain enduring cultural significance to the Shoshone-Bannock Tribes and HeTO tribal representatives are important partners in INL CRM Office efforts to protect these sensitive resources from impact. DOE-ID supports these efforts and is committed to assuring continued tribal access to these important places.

Public and scientific interests in lava tube caves are also high. Access to INL caves is limited to official tours providing INL employees, school children, and educators with an appreciation for local Native American people and their desert home during occasional tours. New scientific investigations are also routinely conducted at INL caves, with past research focused on the geology of the caves, resident and fossil plant and animal populations, and sensitive archaeological deposits.

Due to their high sensitivity, INL CRM staff monitors a variety of INL caves every year and some locations are visited more than once. Despite an active Security force and official access restrictions, unauthorized visitation has been a problem at some locations. The INL CRM Office continues to seek ways to reduce these impacts and in FY 2010, discussed reducing the number of tours and enlisted the assistance of the DOE-ID Physical Security Officer. With the latter officer's encouragement and involvement, the CRM staff also continues discussion with federal agents from the U. S. Department of the Interior with specific training and interest in violations of the Archaeological Resources Protection Act (ARPA). In FY 2011 additional options for protection will be explored with these federal agents, DOE-ID Security, and the Tribal HeTO representatives.

Monitoring was conducted at three sensitive caves in FY 2010: Prickly Cave, Middle Butte Cave, and Aviators Cave. Monitoring results for Prickly Cave are presented in Section 3.1.1 and discussions for the other two monitored resources are below. Additional detail can also be found in Appendix A.

3.1.2.1 Middle Butte Cave

Middle Butte Cave (10-BM-34) is a large lava tube, with a cavernous opening and a subterranean extent of nearly 0.4 mile. Artifacts and paintings on the walls, both ancient and modern, indicate that the Cave has been a long time and ongoing destination for humans. The Cave is of particular significance to the Shoshone-Bannock Tribes and DOE-ID has recognized their interests in a Memorandum of Agreement that allows for continued cave access for ceremonial, cultural, and educational activities (DOE-ID 1994).

Restrictions on general public access to Middle Butte Cave have been in place for decades but unauthorized visitation continues to be a problem despite efforts by INL Security and the INL CRM Office. Vandals have fired bullets into signs at the area and continue to drive around existing barriers. In FY 2008, teenaged vandals were reprimanded by INL Security for unauthorized visitation and escorted to the cave to remove graffiti that they had left in the furthest reaches of the lava tube interior. In FY 2009, increased vigilance by INL Security resulted in the apprehension of three trespassers who used four-wheelers to access the cave illegally. After additional investigation, these individuals were charged with trespass violations, including jail time (suspended) for one culprit. In FY 2010, an unauthorized hunting camp was established near Middle Butte Cave. Trespassing charges were not filed because there were no "No Trespassing" signs posted on the road they used to access the location.

Multiple monitoring visits were made to Middle Butte Cave throughout FY 2010, both before and after the trespassing violation and Middle Butte Fire. No evidence of unauthorized visitation was noted and no firebreaks impacted the cave or associated archaeological site (Figure 2).

Figure 2. Middle Butte Cave after the 2010 wildfire.

3.1.2.2 Aviators Cave

Aviators Cave (10-BT-1582) is another large INL lava tube with extensive evidence of prehistoric use and contemporary significance to the Shoshone-Bannock Tribes. It is monitored for impacts at least one a year. Tribal participation in annual monitoring has become increasingly important since 2002, because at this time tribal representatives returned an especially sensitive item to an area in the cave that is known only to them. On yearly visits, Tribal HeTO representatives enter the cave usually by themselves to determine if there are footprints or other disturbance. Upon exiting from the cave, they inform INL CRM staff of any changes. At that time, INL CRM staff may enter the cave with tribal representatives to ensure that no evidence of unauthorized visitation has occurred. Although no disturbances to the sensitive item have been officially reported, since FY 2000 when a large range fire burned through the area, unauthorized visitation has been on the increase. Incursions were initially via 4-wheel drive vehicle, but since vegetation has returned, trespassers appear to be arriving on foot and new footprints have been noted over the past several years. In FY 2008, a small pile of artifacts left in a "discard" pile near the cave entrance appeared to represent an escalation in unauthorized activities. Efforts to increase INL employees' awareness of the cave's sensitivity and potential for disciplinary actions were undertaken. Perhaps as a result of these and other efforts, monitoring visits in FY 2009 and FY 2010 revealed no new impacts from unauthorized visits to Aviators Cave. The Jefferson wildfire burned over the cave but no new firebreaks were created near it. However, some aeolian deposits accumulated in a depression near the cave entrance.

3.1.3 Prehistoric Archaeological Resources

- There are thousands of prehistoric archaeological sites within INL boundaries, ranging in age from more than 12,000 to 150 years old. The great antiquity and excellent condition of many of these sites is notable and provides justification for routine visitation and care to prevent adverse impacts. In

FY 2010, INL CRM staff monitored two large and highly visible prehistoric archaeological sites Impacts related to historic railroad construction, vehicular traffic, natural erosion, bioturbation, and probable looting (Type 2 impacts) have been noted in previous years' monitoring visits through the Pioneer Site (10-BT-676); however, except for continuing minor erosion no new impacts were observed.

- No new impacts from the nearby National Security Test Range or any other INL activities (i.e., powerline replacement/repair) were observed at the rock walls and dense artifact scatter at the campsite known as "Hellofasite" (10-JF-88) during two visits there in FY 2010.

Figure 3. FY 2010 monitoring trip to Hellofasite.

Prehistoric archaeological sites were also monitored in FY 2010 to assess impacts in relation to proposed and ongoing INL project activities. Section 3.2 provides additional detail on all project-specific monitoring. National Security Test Range activities and proposed construction of a new road (Haul Road) between the Materials and Fuels Complex (MFC) and CITRC comprised the majority of FY 2010 project monitoring visits.

3.1.4 Historic Archaeological Resources

During the period from 1884 to roughly 1930, many settlers filed homestead claims on lands that would eventually be designated as the INL. Federal laws that encouraged settlement of western deserts were often catalysts for these activities and in the INL region the Desert Land Act of 1877, Carey Land Act of 1894 and the Desert Reclamation Act of 1902 were influential. Many types of historic archaeological sites remain from this time, including homesteads, stage and freighting stations, town sites and railroad sidings, ditches and canals, and the construction camps that were often necessary to build and support them. In FY 2010, two historic stage stations were monitored.

3.1.4.1 Birch Creek Stage Station

In FY 2010 a visit to the Birch Creek Stage Station (BEA-07-32-115) in a remote area near the northernmost boundary of the INL, grazing-related impacts appeared to have continued to decrease. No evidence of unauthorized visitation was observed. However, the relative isolation of this sensitive location makes it vulnerable to unauthorized activities and regular monitoring will continue in FY 2011 in an effort to prevent new impacts and existing impacts from becoming adverse.

3.1.4.2 Powell Stage Station

The Powell Stage Station (10-BT-2194) was visited several times during FY 2010 as part of educational public and employee tours in the area. During these visits bioturbation was noted in the southeast corner of remains of the station's basalt foundation. A monitoring trip confirmed this activity and noted that the disturbance had exposed previously unknown glass and metal fragments. No other impacts were noted and routine monitoring will continue at this location.

3.1.4.3 Nuclear Resources

Experimental Breeder Reactor-I (EBR-I) is INL's single designated National Historic Landmark, recognized as such because of its association with the early development of nuclear power and reactor technology. It is the only INL facility open to the public on a seasonal basis (Memorial Day through Labor Day, annually). In past years, the site has benefited from a "Save America's Treasures" grant, which supported updated exhibits to enhance the Visitors Center and addressed some preservation issues (brick and mortar restoration) (Braun 2006). Nuclear artifacts exhibited at the site include two Heat Transfer Reactor Experiment (HTRE) airplane engines and the specialized locomotive used to position them during experiments in the 1950s. These resources are eligible for nomination to the National Register. A nomination package for the HTRE engines has been submitted to DOE-ID and will be modified to include the locomotive.

In FY 2010, monitoring was completed for the HTRE and locomotive nuclear artifacts as well as the EBR-I reactor building and associated guardhouse. The HTRE engines and locomotive are located outdoors and exposed to the elements, weather (sun, rain, freeze, thaw). As in previous years, nesting birds continue to cause impacts to the HTRE engines and natural elements (i.e., freeze/thaw, water) impact the locomotive and continue to impact the EBR-I reactor building and guardhouse. Continued monitoring will be conducted and significant deterioration noted. The impacts have been, and will continue to be, reported to appropriate facility managers and DOE-ID. No new impacts were observed in FY 2010 but lack of an adequate water drainage system and maintenance of the locomotive and HTRE engines are contributing factors to a potential for adverse impacts.

3.2 Projects

Several types of project-specific cultural resource monitoring were conducted in FY 2010. Twenty-six archaeological sites previously recorded in the vicinity of INL projects were monitored to assess their current condition and develop recommendations for avoiding future impact. Discussions of these reviews were presented in Section 3.1 according to the types of resources investigated. In a second type of project monitoring in FY 2010, INL projects were audited for compliance with cultural resource recommendations made during the INL environmental review process. Finally, in a third type of project monitoring, ground disturbance associated with INL project activities in archaeologically sensitive areas was directly observed by INL CRM staff. In total, five projects were monitored. Results appear in the Sections to follow.

3.2.1 National Security Test Range

The Environmental Assessment (EA) completed for the National Security Test Range (DOE-ID 2007) included minimal requirements for protection of cultural resources such as:

- Limit ATV travel and signage [around the safety fan perimeter] to areas outside the boundaries of any identified cultural resources to prevent disturbance
- Support yearly visits of known archaeological resources in the project area by an INL archaeologist and take additional protective measures as necessary
- Coordinate work with an INL archaeologist to avoid blading and leveling activities inside the boundaries of identified archaeological sites

In response to this guidance, eight sites were monitored in FY 2010 to assess impacts from project activities at the National Security Test Range (10-JF-85, 10-JF-84, 10-JF-83, 10-JF-80, 10-JF-78, 10-JF-77, 10-BM-123, BEA-06-20-07). Project compliance was confirmed and no new impacts or evidence of unauthorized visitation were observed at these eight sites.

3.2.2 Multipurpose Haul Road

Fourteen previously recorded prehistoric lithic scatters located in the vicinity of the T-25 access road were reidentified, reassessed, and monitored in advance of a proposed project to construct a multipurpose haul road between MFC and CITRC (10-BT-1246, 10-BT-1059, 10-BT-1062, 10-BT-1063, 10-BM-109, 10-BT-1049, 10-BT-1053, 10-BT-1247, 10-BT-1052, LMIT-1997-16-22, 10-BM-118, 10-BM-115, 10-BM-112, 10-BM-110) (Pace et al. 2010). INL CRM staff continue to work closely with DOE-ID and construction project personnel to clearly mark the sensitive areas and reinforce the need to avoid blading and leveling activities within them in compliance with the EA (DOE-ID 2010).

Figure 4. Summer intern Cameron Brizzee assisting with monitoring of Site 10-BT-1049.

3.2.3 Naval Reactors Facility

One site (EGG-91-12-01) was reidentified and monitored to facilitate avoidance during exploration for a new gravel source. Artifacts from the site, located along an abandoned, dry channel of the Big Lost River, continue to erode from the bank suggesting subsurface deposits. INL CRM staff will continue to monitor this site as gravel exploration and other development near NRF accelerates over the next few years.

3.2.4 MFC Wastewater System Upgrade

INL CRM staff and a representative from the Tribal HeTO reidentified one prehistoric lithic scatter (10-BM-247) in advance of a proposed project to upgrade the MFC wastewater system. It was noted that a road had been bladed through the site's northern portion; however, most of the artifacts to the south remain undisturbed. One Elko-eared point base identified in the original survey documentation was not found. It was determined that impacts to the site are not significant, undisturbed cultural deposits remain intact (Pace et al. 2010). If and when the proposed project is undertaken, INL CRM staff will conduct monitoring as the work is completed.

Figure 5. Site 10-BM-247 in the MFC Wastewater Upgrade project area.

3.2.5 Power Burst Facility-Critical Infrastructure Test Range Complex

Company environmental procedures require project managers to contact the INL CRM Office in advance of ground disturbance within the fenced boundary of CITRC. This is due to the occurrence of human remains in original as well as secondary (i.e. disturbed) contexts at two separate locations within the facility (10-BT-1991, 10-BT-2046). Accelerated cleanup across the INL and new activities to support National Security have resulted in an increase in the number of projects at this facility. In FY 2010, routine monitoring of ground disturbing activities for the Wireless Test Bed project (new temporary

towers, mowing under powerlines, electrical trenching) revealed no artifacts or human remains. INL CRM staff will continue routine monitoring of excavation projects in this sensitive area and sensitivity training for workers as per the requirements of LWP-8000, MCP-3480 and the wishes of the Shoshone-Bannock Tribes Due to the nature of the resources, monitoring forms are contained in Appendix A under the section titled, "Human Remains."

4. RECOMMENDATIONS

Monitoring is an effective method of documenting impacts to INL cultural resources and is a necessary first step in prevention. Several broad recommendations result from FY 2010 surveillance. First, at a minimum, the condition of the following resources of high sensitivity should be assessed in FY 2011:

- WERF Remains (10-BT-2046)
- Prickly Cave (10-BT-2037)
- Middle Butte Cave (10-BM-34)
- Aviators Cave (10-BT-1582)
- Pioneer Site (10-BT-676)
- Powell Stage Station (10-BT-2194)
- Experimental Breeder Reactor I National Historic Landmark and associated nuclear artifacts
- Birch Creek Stage Station (BEA-07-32-115)

Cultural resource monitoring in FY 2011 should also be focused on several broad classes of other INL cultural resources and projects, as funding allows. Minimally, this might include:

- Any soil disturbance at the CITRC area to monitor for additional occurrences of sensitive human remains, even in disturbed contexts
- Select suppression and revegetation areas related to the FY 2010 wildfires
- Archaeological sites located in high traffic areas such as the INL Boundary and Grazing Boundary or where unauthorized visitation is likely
- Historic homesteads, including those identified during ongoing archival research
- Buttes, craters, and caves
- World War II buildings and features at Central Facilities Area and within the broader Naval Proving Ground
- UXO geophysical surveys and proposed cleanup activities
- Archaeological resources located along the new Multipurpose Haul Road between MFC and CITRC
- Grazing and grazing-related impacts to historic trails

To address ongoing Type 2 impacts, in FY 2011 INL CRM staff will continue to work closely with DOE-ID, HeTO tribal representatives, INL security, landlord organizations and U.S. Fish and Wildlife agents, individual project personnel, and others, as appropriate, to implement more effective protections.

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Appendix A

Monitoring Forms

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Appendix A
Monitoring Forms

Appendix A contains electronic versions of FY 2010 monitoring forms originally completed in the field. In a few cases, multiple sites are documented on a single form. FY 2010 forms are organized according to the following categories:

- Native American Human Remains (includes Prickly Cave)
- Caves
- Prehistoric Archaeological Resources
- Historic Archaeological Resources
- Nuclear Resources
- Projects

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A: Native American Human Remains

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-7
Monitor Name: C.F. Marler, Carolyn Smith
Monitor Date(s): 9/30/10

Project: NA
Site Name/Number: Prickly Cave
Reason for Monitoring: routine

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts
Significance of Impact:

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [ ]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications:
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Thin scatter of lithic debitage and a few diagnostic tools surrounding the cave exterior; Human remains in the cave interior were undisturbed.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

Recommendations: Continue to monitor annually

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [ ] **No** [X]
If yes, describe:

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-02
Monitor Name: C.F. Marler, LaRae Buckskin
Monitor Date(s): 5/26/10

Project: NA
Site Name/Number: WERF burial
Reason for Monitoring: routine

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Erosion, rodent burrowing- neither of which appears recent
Significance of Impact: Not significant

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [ ]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications:
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [ ] **No** [X]
If yes, describe:

Cultural Materials Collected? NA **Yes** [ ] **No** [ ]
If yes, describe:

General Comments: Moderate erosion along the south and west periphery of the soil cap although vegetation has stabilized most of the cap. Minor small rodent burrowing in evidence.

Recommendations: Continue to monitor once per year

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [ ] **No** [X]
If yes, describe:

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-04
Monitor Name: B. R. Pace
Monitor Date(s): 4/9/10, 4/13/10, 7/7/10

Project: Critical Infrastructure Test Range Complex
Site Name/Number: 10-BT-1991, 10-BT-2046
Reason for Monitoring: routine

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts observed
Significance of Impact: N/A

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [ ]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications: None required under Type 1 finding.
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [ ] **No** [X]
If yes, describe:

Cultural Materials Collected? **Yes** [ ] **No** [X]
If yes, describe:

General Comments: No artifacts or human remains observed in project excavations for Wireless Test Bed developments (new temporary towers, mowing under lines, electrical trenching)

Recommendations: Continue routine monitoring of excavations projects in this sensitive area per requirements of LWP-8000, MCP-3480, and the wishes of the Shoshone Bannock Tribes. Provide sensitivity training of project workers.

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [ ] **No** [X]
If yes, describe:

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A: Caves

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-6
Monitor Name: C.F. Marler,
Carolyn Smith
Monitor Date(s): 9/30/10

Project: NA
Site Name/Number: 10BM34 (Middle Butte Cave)
Reason for Monitoring: Routine

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Fire
Significance of Impact: A range fire burned over the Middle Butte Cave site and down into the crater. Vegetation loss/increased visibility indicate that the site is larger than originally thought. Pictographs were unaffected by the fire.

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [X]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications: N/A
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe:
Thin but extensive scatter of lithic debitage and historic trash surrounding the cave exterior; pictographs inside the cave

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

Recommendations: This site should be re-recorded to encompass increased dimensions revealed by the fire. Continue to monitor at least twice annually.

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

[ ] [ ]

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-4
Monitor Name: C.F. Marler, Carolyn Smith, LaRae Buckskin
Monitor Date(s): 6/24/10

Project: NA
Site Name/Number: 10BM34 (Middle Butte Cave)
Reason for Monitoring: Follow-up to reports of trespassers apprehended by INL security

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts
Significance of Impact:

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [X]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications:
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Thin scatter of lithic debitage and historic trash surrounding the cave exterior; pictographs inside the cave.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

Recommendations: Continue to monitor at least twice annually

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-8
Monitor Name: C.F. Marler
Monitor Date(s): 8/3/10

Project: NA
Site Name/Number: 10BM34 (Middle Butte Cave)
Reason for Monitoring: Follow up to discovery of unauthorized hunting camp in the vicinity.

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new evidence of unauthorized visitation noted
Significance of Impact:

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [ ]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications: NA
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [X] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Thin scatter of lithic debitage and historic trash surrounding the cave exterior; pictographs inside the cave.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

No evidence of damage or vandalism was found either outside the cave or in the cave near the front (a complete search of the entire cave was not conducted). Most importantly, there was no impact to the pictographs.

Recommendations:

Continue to monitor at least twice annually.

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-03
Monitor Name: C.F. Marler, Carolyn Smith
Monitor Date(s): 6/24/10

Project: NA
Site Name/Number: Aviator's Cave
Reason for Monitoring: Routine

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts
Significance of Impact:

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [x]
If yes, describe:

Notifications: NA
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Dense lithic scatter and a few diagnostic tools surrounding the cave exterior

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: A number of Shoshone Bannock Tribal members were present on this visit. Unlike FY 2008 and FY 2009, no evidence of unauthorized visitation was observed.

Recommendations: Continue to monitor annually

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [X] **No** [ ]
If yes, describe: Photo of tribal members outside of the cave

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: HKG-10-03
Monitor Name: H. K. Gilbert, J. B. Williams
Monitor Date(s): 9/17/10

Project: NA
Site Name/Number: Aviator's Cave
Reason for Monitoring: Fire

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Erosion
Significance of Impact: Cultural materials may be covered or uncovered

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [x]
If yes, describe:

Notifications: NA
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Dense lithic scatter and a few diagnostic tools surrounding the cave exterior

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: No new fire suppression lines or other impacts noted in the vicinity; however, Aeolian accumulation related to the fire was noted in the depression area outside of the cave entrance.

Recommendations: Continue to monitor annually.

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

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A: Prehistoric Archaeological Sites

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-01
Monitor Name: C.F. Marler
Monitor Date(s): 5/15/10

Project: NA
Site Name/Number: 10BT676 (Pioneer)
Reason for Monitoring: Routine

Findings: **Type 1** [ ] **Type 2** [x] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Site has been extensively impacted in the past by railroad construction, vehicular traffic, natural erosion, bioturbation, probable looting, etc. Other than minor erosion, no new impacts were noted in FY 2010.

Significance of Impact: Despite past impacts much of the site remains relatively undisturbed.

Did disturbance or impact extend into undisturbed areas? NA **Yes** [ ] **No** [ ]
If yes, describe:

Work Halted? NA **Yes** [ ] **No** [ ]
If yes, describe:

Notifications: N/A
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe:

Extensive lithic scatter along with fire-cracked rock, a few potsherds, and a major historic component.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

Recommendations: Continue to monitor annually

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-01
Monitor Name: B. R. Pace and National Security Test Range personnel
Monitor Date(s): October 19, 2009

Project: National Security Test Range T-25 Access Road
Site Name/Number: 10-JF-85, 10-JF-84, 10-JF-83, 10-JF-80, 10-JF-78, 10-JF-77, 10-BM-123, and BEA-06-20-07
Reason for Monitoring: Routine surveillance of previously recorded sites located near and along the edges of the T-25 power line road leading to the National Security Test Range.

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Power pole inspection, maintenance, and repair have caused ground disturbance around power poles and under the lines. Road construction has impacted a linear path through all of the site areas and ongoing maintenance (grading, graveling, snow removal, vehicle turnarounds) continues to cause Impacts in this linear path. Road is heavily used now and additional impacts have halted in the roadside area. Road is graveled routinely and can support speeds in excess of 30 mph.
Significance of Impact: Past impacts during power line and road maintenance have caused impacts to linear paths through portions of the sites. Undisturbed cultural deposits still remain in surrounding areas and care is being taken to preserve these materials.

Did disturbance or impact extend into undisturbed areas? **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications: Consultation continues with project management to keep maintenance activities restricted to existing road, preserve the undisturbed cultural deposits nearby, and prevent escalation to Type II situation.
Date Contacted: In person: October 19, 2010, Follow-up email October 26, 2009
Contact Method: **E-mail** [x] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Lithic flakes observed in all areas. No new artifacts observed.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: Pin flags are placed along sensitive stretches of the road to prevent additional grading or addition of gravel to sensitive undisturbed areas.

Recommendations: Test excavations should be conducted along the edges of the road in all site areas to determine if sensitive artifacts are present. Until this evaluation is complete, road work should be restricted in the sensitive areas.

GPS Coordinates collected? **Yes** [x] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-02
Monitor Name: B. R. Pace and National Security Test Range personnel, Julie Braun, Hollie Gilbert, John Seward (DOE-ID Security)
Monitor Date(s): November 10, 2009, May 4, 2010

Project: National Security Test Range
Site Name/Number: 10-JF-88/Hellofasite
Reason for Monitoring: Routine surveillance of archaeological sites in vicinity of project

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts have occurred.
Significance of Impact:

Did disturbance or impact extend into undisturbed areas? **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications:
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: In 1984 the site was named "Hellofasite" for the dense, diverse scatter of artifacts and unique rock walls recorded there. These artifacts are still present and appear undisturbed.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: Visual inspection of site and rock walls indicates no impact resulting from explosive testing. Surface artifacts appear undisturbed and the site does not appear to be subject to unauthorized visitation. Powerline repair has cause extensive soil disturbance but appears to be restricted to areas previously impacted adjacent to the poles.

Recommendations: Continue monitoring for impacts associated with the nearby Test Range as well as powerline maintenance/repair.

GPS Coordinates collected? **Yes** [ ] **No** [x]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [x] **No** [ ]
If yes, describe: Photo of site area

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A: Historic Archaeological Sites

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: HKG-10-01
Monitor Name: Hollie K. Gilbert and Julie B. Williams
Monitor Date(s): 9/8/10

Project: N/A
Site Name/Number: Birch Creek Stage Station
Reason for Monitoring: Routine (assessment of potential impacts due to proximity to public lands and grazing)

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): None noted
Significance of Impact: N/A

Did disturbance or impact extend into undisturbed areas? **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications: N/A
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Artifacts appear to be undisturbed.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: No disturbance was noted and no new sheepherding or grazing activity was observed in the general vicinity in FY 2010.
Recommendations: Due to the close proximity of this site to the INL boundary, potential grazing impacts, and its isolation, annual monitoring visits will be continued.

GPS Coordinates collected? **Yes** [ ] **No** [x]
If yes, describe (datum, coordinates):

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: HKG-10-02
Monitor Name: Hollie K. Gilbert and Julie Braun
Monitor Date(s): 08/18/10

Project: N/A
Site Name/Number: Powell Stage Station
Reason for Monitoring: Routine (assessment of site due to high visitation and various project activities in adjacent area).

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Rodent burrowing in southeast corner of rock foundation.

Significance of Impact: This disturbance could impact basalt wall stability
.

Did disturbance or impact extend into undisturbed areas? **Yes** [x] **No** [ ]
If yes, describe: See cultural materials observed below.

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications: N/A
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: Glass and metal fragments were noted in disturbed/excavated soils in and around foundation.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments: If rodent activity increases, Stoller Environmental may be contacted for recommendations on how to discourage rodents from impacting this site.

Recommendations: Continue monitoring at least twice annually.

GPS Coordinates collected? **Yes** [ ] **No** [x]
If yes, describe (datum, coordinates):

A: Nuclear Resources

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: CFM-10-5
Monitor Name: C. F. Marler, Carolyn Smith
Monitor Date(s): 9/30/10

Project: NA
Site Name/Number: Experimental Breeder Reactor I Complex and related artifacts
Reason for Monitoring: Routine

Findings: **Type 1** [X] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): Natural elements

Significance of Impact: Failure to provide adequate water drainage away EBR I may create water leakage, effluecence, and eventual erosion of bricks and mortar which will result in an adverse impact. This issue has previously been reported to DOE-ID and BEA.

Did disturbance or impact extend into undisturbed areas? **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications: N/A
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [x] **No** [ ]
If yes, describe: EBR I is listed on the National Register of Historic Places as a National Historic Landmark and the associated guardhouse, HTRE engines and locomotive are potentially eligible for listing.

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe: No collection.

General Comments:

Continued close monitoring to document significant deterioration. Perhaps this might be an opportunity to test the "Change Detection System". It is also recommended that the EBR-I sign attached to the building front be repainted.

Recommendations: Install an adequate water drainage system.

GPS Coordinates collected? **Yes** [ ] **No** [X]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [ ] **No** [X]
If yes, describe: Photos on file.

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A: Projects

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Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-03
Date: May 11 and 17, 2010
Monitor Name(s): B. R. Pace, Dino Lowrey, Caroline Smith
Area(s) monitored: 10-BM-247

Reason for monitoring: Re-identify site area to facilitate avoidance during proposed wastewater system upgrade at the Materials and Fuels Complex (MFC).

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: A road has been graded through the northern portion of the site area, but most of the artifacts remain undisturbed to the south.
Significance of Impact: Impacts are not significant, undisturbed cultural deposits remain. Site appears essentially the same as described in the 1988 report.

Cultural Materials observed? Yes X No ___
If yes, describe: The surface inventory appears similar to that reported in the 1988 survey report. In 2010, approximately 10 flakes were inventoried, including five tiny tertiary obsidian flakes, a few secondary obsidian flakes, and three larger chalcedony flakes (primary and shatter). As was the case in 1988, a few fragments of fire-cracked river rock were also noted. Chalcedony biface fragments observed in 1988 were not relocated, but an Elko Eared point base that was not observed in 1988 was identified in 2010.
Cultural Materials collected? Yes ___ No X
If yes, describe: No collection.

Did the disturbance or impact extend into undisturbed areas? Yes ___ No X
If yes, explain: N/A

Work Halted? Yes ___ No X
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: ___ **E-mail** ___ **Phone** ___ **Official correspondence, CCN:** ___

Recommendations: Artifacts are located on the northernmost boundary of a large 80-acre area where activities associated with MFC's wastewater treatment upgrade will be concentrated. The location of the archaeological materials right on the edge of the MFC Firing Range boundary may make the area unsuitable for development and facilitate avoidance of the sensitive area. However, monitoring should be conducted as work is completed. This is also consistent with tribal concerns raised during a general tour of the area on 5/11/2010.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates):
General Comments: This information is Official Use Only. **Sketch?** X Yes ___ No #of items 1
Photo? X Yes ___ No #of items 8
Description: Photos of site area and point fragment.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-05
Date: June 8, 2010 **Monitor Name(s):** Brenda R. Pace, Cameron Brizzee
Area(s) monitored: 10-BT-1246
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 _____ Type 4____
Impact Agents: No impacts observed.
Significance of Impact: N/A

Cultural Materials observed? Yes X No _____
If yes, describe: Retouched flake originally recorded at this location in 1985 was not collected at that time. In 2010 it was identified again.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: N/A
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** ____ **Phone** ____ **Official correspondence, CCN:** _____

Recommendations: No further work.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.
General Comments: _____

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-06
Date: June 8, 2010 **Monitor Name(s):** Brenda R. Pace, Cameron Brizzee
Area(s) monitored: 10-BT-1059
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site appears undisturbed and has not been burned in historic times.
Significance of Impact: Site appears essentially the same as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: The surface inventory appears similar to that reported in the 1985 survey report, but there is no evidence remaining of 1 x 2 meter test units excavated in 1988. In 2008, a chaining pin and the rebar stake marking the main site datum were re-identified and flakes were observed in the road and on both sides of it. Approximately 20 flakes were noted at this time, including obsidian and a variety of silicates. New tools identified in 2008 included an Elko Corner-notched point made of red chert and a crude chalcedony biface fragment. In 2010, these diagnostic artifacts were not re-identified, but the scatter of debitage adjacent to the road and directly beneath the power line was confirmed.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Aside from impacts associated with the existing road and power line, this site appears to be undisturbed. No fires have burned through this area in historic times.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Majority of artifacts are located to the north of the proposed haul road centerline. Direct adverse impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.
General Comments:

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-07

Date: April 20, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert

Area(s) monitored: 10-BT-1062
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although more artifacts are visible after the burn, the site retains the same basic character as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No ___
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report, although more flakes were visible after a range fire burned through. At this time, approximately 100 flakes of obsidian and various silicates were observed. Nearly all were north of the road, but a few items were observed near the road to the south as well. Chipped stone tools observed in2008 included an Elko Corner-notched point fragment, Humboldt Lanceolate point fragment, a biface fragment, and a quartzite scraper. In 2010, no artifacts were observed in or near the proposed center line for the haul road.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Aside from impacts associated with the existing road and power line, this site appears to be undisturbed. No fires have burned through this area in historic times.
Work Halted? Yes _____ No _____
If yes, explain: Some minor post-fire soil movement has occurred.
Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: All artifacts are located to the north of the proposed haul road centerline. Direct impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.
General Comments:

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-08
Date: April 20, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert
Area(s) monitored: 10-BT-1063
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 _____ Type 3 ____ Type 4
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although more artifacts are visible after the burn, the site retains the same basic character as described in the 1985 site form and survey report.
Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report, although more flakes were visible after the fire had removed all vegetation. In 2008 just after the fire, approximately 30 flakes of obsidian, various silicates, and grey ignimbrite were observed 50 meters south of the power line. Chipped stone tools observed in 2008 included one large notched point fragment. In 2010, no artifacts were observed in or near the proposed haul road center line.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Some minor post-fire soil movement has taken place.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Majority of artifacts are located to the south of the proposed haul road centerline. Direct adverse impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-09
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Clayton Marler
Area(s) monitored: 10-BM-109
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ____ Type 3 ____ Type 4 ____
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although more artifacts are visible after the burn, the site retains the same basic character as described in the 1985 site form and survey report.
Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 site form and survey report. At this time, approximately 60 flakes were observed, including obsidian, fine-grained basalt, quartzite, and grey ignimbrite. Majority of artifacts were concentrated to the north of the road, but two flakes were found a few meters south of the road. Diagnostics noted in 2008 included a knife-like biface fragment of obsidian, biface tip of grey ignimbrite, multicolored chalcedony retouched flake, and caramel chalcedony steep end scraper. In 2010, no artifacts associated with the site were observed in or near the proposed haul road center line.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Some minor post-fire soil movement has taken place.
Work Halted? Yes _____ No _____
If yes, explain: N/A
Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: All artifacts are located to the north of the proposed haul road centerline. Direct impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-10
Date: June 8, 2010 **Monitor Name(s):** Brenda R. Pace, Cameron Brizzee
Area(s) monitored: 10-BT-1049
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although more artifacts are visible after the burn, the site retains the same basic character as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, erosion and soil deposition were noted following a range fire. By 2010, these processes had uncovered additional artifacts south of the road including a concentrated scatter of approximately 50 flakes, fire-cracked basalt cobbles, burned bone, a Bitterroot Side-notched point, long narrow biface, and a biface tip. These artifacts are similar in character to those originally identified in 1985 and they fall within the general site boundaries established then. In spite of changes, the site continues to exhibit the same basic characteristics as originally noted.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Post-fire soil movement has covered some artifacts north of the road and exposed others to the south.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Artifacts are located directly within the proposed haul road center line. Test excavations should be completed in advance of ground disturbance to determine if significant subsurface cultural deposits are present.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-11
Date: April 20, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert
Area(s) monitored: 10-BT-1053
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although more artifacts are visible after the burn, the site retains the same basic character as described in the 1985 site form and survey report.
Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report. Approximately 35 flakes were observed, most at least 80 meters to the south of the road. Fire breaks from the 2008 fire cut through the area and artifacts were exposed within them, including two small pressure flakes about 20 meters from the road and other artifacts including a biface tip, in fire breaks that passed through the main artifact scatter approximately 80 meters from the road. In 2010, no artifacts were observed in or near the proposed haul road center line.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes X No _____
If yes, explain: Some minor post-fire soil movement has taken place and may have covered some artifacts. However, this does not appear to have significantly changed the overall character or visibility of this site. Fire breaks and off-road vehicle use have caused additional impacts in narrow zones passing through the site area.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Majority of artifacts are located to the south of the proposed haul road centerline. Direct adverse impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-12
Date: April 20, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert
Area(s) monitored: 10-BT-1247
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although artifact visibility has changed as a result of the fire, the site retains the same basic character as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report, although there was no evidence of the fire-cracked rock originally reported. A rebar stake marking the site datum for test excavations in 1988 was re-identified and other artifacts that were noted at this time included approximately 25 obsidian flakes and two Elko Corner-notched point fragments. All artifacts were approximately 30 meters south of the road. In 2010, a thin scatter of flakes was confirmed in this area, directly within the proposed center line for the new haul road.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Some minor post-fire soil movement may have taken place but it does not appear to have significantly changed the character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Artifacts are located directly within the proposed haul road center line. 1988 test excavations revealed subsurface cultural deposits at this site, but these test units were not placed in relation to the haul road center line and area of potential effects. Additional test excavations should be completed in advance of ground disturbance to determine if significant subsurface cultural deposits are present in this new project area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-13
Date: April 20, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert
Area(s) monitored: 10-BT-1052
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by a 2008 range fire, erosion, and soil deposition.
Significance of Impact: Not adverse. Although artifact visibility has changed as a result of the fire, the site retains the same basic character as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report but there was no evidence of the test excavations conducted in 1988. Artifacts noted in 2008 included approximately 75 flakes, a stemmed-indented base point fragment, a scraper, a biface fragment, and a utilized flake. Artifacts were scattered on both sides of the road. Several small diagnostic arrow points and a fragment of shell noted in 2005 were not re-identified in 2008. In 2010, the stemmed indented base point and utilized flakes seen in 2008 were re-identified, but none of the artifacts observed in 2005 could be relocated. In addition to the chipped stone items, in 2010 a very thin scatter of debitage was also observed directly within the proposed center line for the new haul road.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Some minor post-fire soil movement may have taken place but it does not appear to have significantly changed the character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Artifacts are located directly within the proposed haul road center line. 1988 test excavations revealed subsurface cultural deposits at this site, but these test units were not placed in relation to the haul road center line and area of potential effects. Additional test excavations should be completed in advance of ground disturbance to determine if significant subsurface cultural deposits are present in this new project area.
GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-14
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Hollie Gilbert
Area(s) monitored: LMIT-1997-16-22
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site appears undisturbed and has not been burned in historic times.
Significance of Impact: Site appears essentially the same as described in the 1997 site recording form.

Cultural Materials observed? Yes X No ___
If yes, describe: Site consists of a dispersed scatter of historic debris (ca. 1920), including domestic trash, cans, broken glass, crockery, china, milled wood, metal, rubber, possible car parts or batteries, In2010 the assemblage appeared to be unchanged from its original recording in 1997.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: No impacts observed
Work Halted? Yes _____ No _____
If yes, explain: _____

Notifications: None required under Type I finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: All artifacts are located to the south of the proposed haul road centerline. Direct impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-15
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Clayton Marler
Area(s) monitored: 10-BM-118
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by periodic range fires over the past decade.
Significance of Impact: Site appears essentially the same as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: The surface inventory appears similar to that reported in the 1985 survey report, but there is no evidence remaining of a 1 x 2 meter test unit excavated in 1988. In 2008, approximately 15 flakes were noted within a few meters of the road. In 2010, no artifacts associated with the site were observed in or near the proposed haul road center line.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes _____ No X
If yes, explain: Some minor post-fire soil movement may have taken place but it does not appear to have significantly changed the character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Majority of artifacts are located to the north of the proposed haul road centerline. Direct adverse impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-16
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Clayton Marler
Area(s) monitored: 10-BM-115
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by periodic range fires over the past decade.
Significance of Impact: Site appears essentially the same as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report. Approximately 11 obsidian flakes were observed, all at least 50 meters to the east of the road. In 2010, no artifacts associated with the site were observed in or near the proposed haul road center line.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes X No _____
If yes, explain: Some minor post-fire soil movement has taken place but this does not appear to have significantly changed the overall character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: All artifacts are located to the east of the proposed haul road centerline. Direct impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Monitor Number: BRP-10-17
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Clayton Marler
Area(s) monitored: 10-BM-112
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by periodic range fires over the past decade.
Significance of Impact: Site appears essentially the same as described in the 1985 site form and survey report.
Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report but no evidence of shovel probes excavated in 1988 was apparent. In 2008, approximately 15 flakes, one crude biface fragment, and a few tiny fragments of burned bone were observed within a few meters of the road. In 2010, these thinly scattered artifacts were confirmed, including a few isolated flakes within the proposed center line for haul road construction.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Did the disturbance or impact extend into undisturbed areas? Yes X No _____
If yes, explain: Some minor post-fire soil movement has taken place but this does not appear to have significantly changed the overall character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: Majority of artifacts are located to the west of the proposed haul road centerline. Given negative results for subsurface cultural deposits during 1988 shovel tests, direct adverse impacts are unlikely in the portion of the site that will be impacted. However, ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-18
Date: April 14, 2010 **Monitor Name(s):** Brenda R. Pace, Julie B. Williams, Clayton Marler
Area(s) monitored: 10-BM-110
Reason for monitoring: Revisits to previously recorded resources during new intensive surveys in the preferred alternative for construction of a new multipurpose haul road south of the power line and T-25.

Findings: Type 1 X Type 2 ___ Type 3 ___ Type 4 ___
Impact Agents: Site has been impacted by periodic range fires over the past decade.
Significance of Impact: Site appears essentially the same as described in the 1985 site form and survey report.

Cultural Materials observed? Yes X No _____
If yes, describe: In 2008, the surface inventory appeared similar to that reported in the 1985 survey report. At this time approximately 50 flakes were observed on the west side of the road and a discrete pile of larger flakes appeared to be the result of an artifact collector. At this time a single flake was also observed adjacent to the road on the east side. In 2010, the site was confirmed to be located to the west of the proposed haul road center line and area of potential effects. No artifacts were observed.
Cultural Materials collected? Yes _____ No X
If yes, describe: _____

Did the disturbance or impact extend into undisturbed areas? Yes X No _____
If yes, explain: Some minor post-fire soil movement has taken place but this does not appear to have significantly changed the overall character or visibility of this site.
Work Halted? Yes _____ No _____
If yes, explain: N/A

Notifications: None required under Type I Finding
Primary contacts: N/A
Date contacted: N/A
Contact Method: _____ **E-mail** _____ **Phone** _____ **Official correspondence, CCN:** _____

Recommendations: All artifacts are located to the west of the proposed haul road centerline. Direct impacts are unlikely but ground disturbing activities should be monitored as they are conducted through the area.

GPS Coordinates collected? **Yes** [X] **No** [ ]
If yes, describe (datum, coordinates): This information is Official Use Only.

Idaho National Laboratory Cultural Resource Management Office
Field Monitoring Form

Monitor Number: BRP-10-19
Monitor Name: B. R. Pace
Monitor Date(s): June 29, 2010

Project: Naval Reactors Facility
Site Name/Number: EGG-91-12-01
Reason for Monitoring: Re-identify site area to facilitate avoidance during exploration for new gravel pit

Findings: **Type 1** [x] **Type 2** [ ] **Type 3** [ ] **Type 4** [ ]

Impact Agent(s): No new impacts observed.
Significance of Impact: N/A

Did disturbance or impact extend into undisturbed areas? **Yes** [ ] **No** [x]
If yes, describe:

Work Halted? **Yes** [ ] **No** [x]
If yes, describe:

Notifications: None required under Type 1 finding.
Date Contacted:
Contact Method: **E-mail** [ ] **Phone** [ ] **Official correspondence, CCN#:** [ ]

Cultural Materials Observed? **Yes** [ ] **No** [x]
If yes, describe:

Cultural Materials Collected? **Yes** [ ] **No** [x]
If yes, describe:

General Comments: The surface inventory appears similar to that originally reported in 1991. Approximately 20 flakes are present, mostly chalcedony and obsidian thinning flakes, along with fragments of fire-cracked rock suggesting the presence of a buried fire hearth. All materials are located along the banks of an abandoned channel and they continue to erode from this bank, indicating possible depth to the cultural deposits.

Recommendations: Continue monitoring as gravel exploration and development near NRF accelerate over the next few years.

GPS Coordinates collected? **Yes** [x] **No** [ ]
If yes, describe (datum, coordinates):

Attach additional documentation, as warranted (photos, profiles, etc.) **Yes** [ ] **No** [x]
If yes, describe: