

**U.S. Department of Energy- Idaho Operations Office  
National Environmental Policy Act  
Categorical Exclusion Determination**

**Project Title:** Collecting Clay and Sand Samples for an Archaeological Ceramic Provenance Study

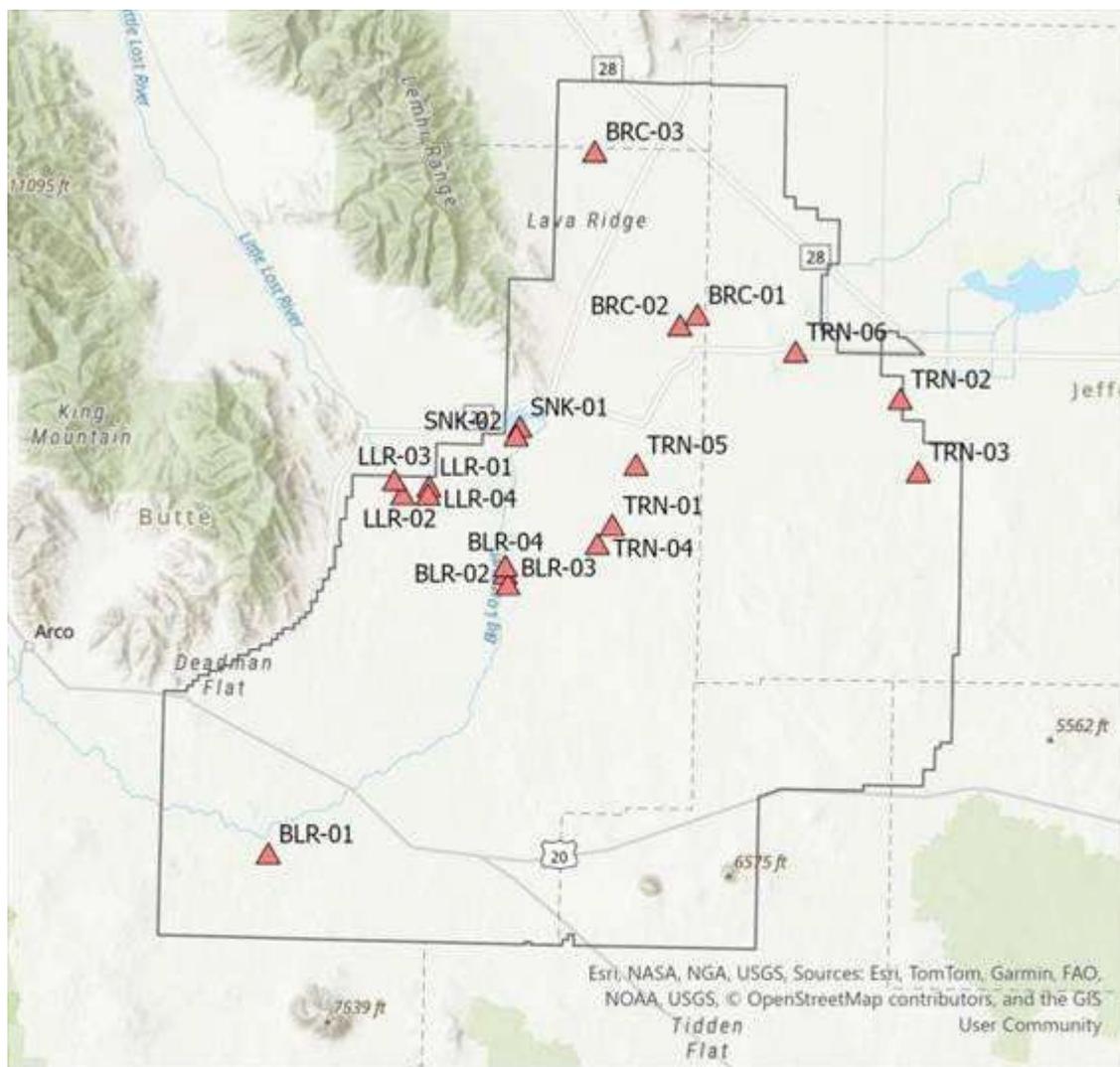
**Project Description and Purpose:**

Collecting Clay and Sand Samples for an Archaeological Ceramic Provenance Study Project Scope:

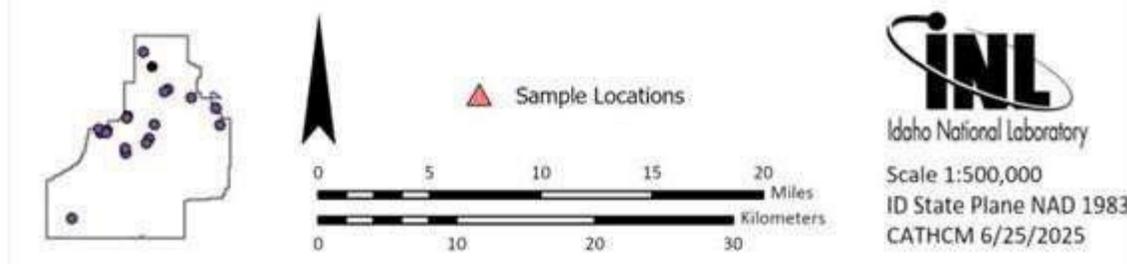
To better contextualize the possible sources of geological clay that may have been used to produce archaeological ceramics, INL CRMO staff will collect clay and sand samples from a series of localities on INL (Table 1; Figure 1). Clay-rich areas have been identified through the Natural Resources Conservation Service (NRCS) and California Soil Resource Labs maps. To minimize ground disturbance, we have pre-selected clay-rich points associated with three rivers. The Big Lost River Floodplain (Big Lost River) and Terreton Lakebeds (in association with the Little Lost River and Birch Creek) will be the focus of the collection efforts. Staff will collect small amounts of clay and sand from areas that have exposed banks and easily accessible soil layers, or clay rich areas as indicated by the NRCS. Samples will be collected using a 3/4 inch bucket auger or tile spade, which does not go beyond a half meter in depth. Excavated soil will be replaced after description and sampling is completed. Every effort will be made to remove the surface of the soil as an intact mat that will be replaced once the hole is filled. Soil layers will be backfilled in the order they were excavated when the auger hole is closed. Sampling will be conducted at up to 19 locations on INL managed land. (Table 1; Figure 1). In addition to clay, a local sand sample will be paired with clay from each collection area. Following collection, the clay and sand will be brought back to the INL CRMO to be molded into reference tiles for comparison with archaeological ceramics. More specifically, these samples will be analyzed using non-destructive X-ray fluorescence (XRF) spectrometry at the INL CRMO XRF Laboratory to determine their elemental composition. To access the proposed locations, all personnel will travel on established roads, park on the road, and then travel on foot to the collection locations. The project is proposed to take place over three to four days in July 2025.

*Table 1. UTM Coordinates of Clay and Sand Collection Sites. Projection: NAD 1983, Datum: 12N*

Site ID	Site Name	Easting	Northing
BLR-01	Big Lost River 01	331906.3	4819098
BLR-02	Big Lost River 02	349147.6	4839481
LLR-01	Little Lost River 01	343601.9	4845834
SNK-01	Sinks 01	350212.7	4850186
SNK-02	Sinks 02	349949.8	4849544
BRC-01	Birch Creek 01	363137.5	4858347
BRC-02	Birch Creek 02	361867	4857570
TRN-01	Terreton 01	356941.6	4843021
TRN-02	Terreton 02	377896	4852204
TRN-03	Terreton 03	379217.9	4846890
LLR-02	Little Lost River 02	341689.2	4845258
LLR-03	Little Lost River 03	341089.7	4846289
LLR-04	Little Lost River 04	343549.7	4845248
BLR-03	Big Lost River 03	349341.3	4838708
BLR-04	Big Lost River 04	349165.4	4840042
TRN-04	Terreton 04	355862.9	4841639
TRN-05	Terreton 05	358682.7	4847412
TRN-06	Terreton 06	370282.8	4855644
BRC-03	Birch Creek 03	355670.2	4870229



Soil Sampling Locations



**Environmental Aspects or Potential Sources of Impact:**

**Air Emissions**

NA

**Discharging to Surface-, Storm-, or Ground Water**

NA

**Disturbing Cultural or Biological Resources**

Disturbance of soil that result from this work will not effect cultural resources.

**U.S. Department of Energy- Idaho Operations Office  
National Environmental Policy Act  
Categorical Exclusion Determination**

Page 3 of 5  
Categorical Exclusion Posting No.: DOE-ID-INL-25-028

**Generating and Managing Waste**

NA

**Releasing Contaminants**

When chemicals are used during the project there is the potential for spills that could impact the environment (air, water, soil).

**Using, Reusing, and Conserving Natural Resources**

NA

<b>Determination</b>
----------------------

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021); (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Appendix B. The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. However, segmentation does not include proposals that are developed and potentially implemented over multiple phases where each phase results in a decision whether to proceed to the subsequent phase. There is no extraordinary circumstance related to the proposal that is likely to cause a reasonably foreseeable significant adverse effect or for which DOE does not know the environmental effect. Extraordinary circumstances are unique situations presented by specific proposals, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternative uses of available resources.

**References:** B3.1 "Site characterization and environmental monitoring"

**Justification:** For the DOE procedures regarding categorical exclusions, including the full text of each categorical exclusion, see 10 CFR 1021.102 and Appendix B to 10 CFR Part 1021, and also Section 5.4 (Applying one or more categorical exclusions to a proposal) and Appendices B and C of DOE's National Environmental Policy Act Implementing Procedures (June 30, 2025). Requirements and guidance in 10 CFR 1021.102 and DOE's NEPA Implementing Procedures: (See full text in regulation and in Implementing Procedures)

The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal. DOE or an applicant may modify the proposal to avoid reasonably foreseeable adverse significant effects such that the categorical exclusion would apply.

The proposal has not been segmented to meet the definition of a categorical exclusion.

[Note: For proposals that fit within the categorical exclusions listed in Appendix C of DOE's NEPA Implementing Procedures, see DOE's notice of adoption for the subject Appendix C categorical exclusion for additional considerations. DOE notices of adoption for other agency categorical exclusions may be found on DOE's Section 109 webpage.]

B3.1 Site characterization and environmental monitoring. Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); Drilling of wells for sampling or monitoring of

**U.S. Department of Energy- Idaho Operations Office  
National Environmental Policy Act  
Categorical Exclusion Determination**

Page 4 of 5

Categorical Exclusion Posting No.: DOE-ID-INL-25-028

groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; Aquifer and underground reservoir response testing; Installation and operation of ambient air monitoring equipment; Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); Sampling and characterization of water effluents, air emissions, or solid waste streams; Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); Sampling of flora or fauna; and Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Approved by Robert Herzog, DOE-ID NEPA Compliance Officer on: 7/21/2025