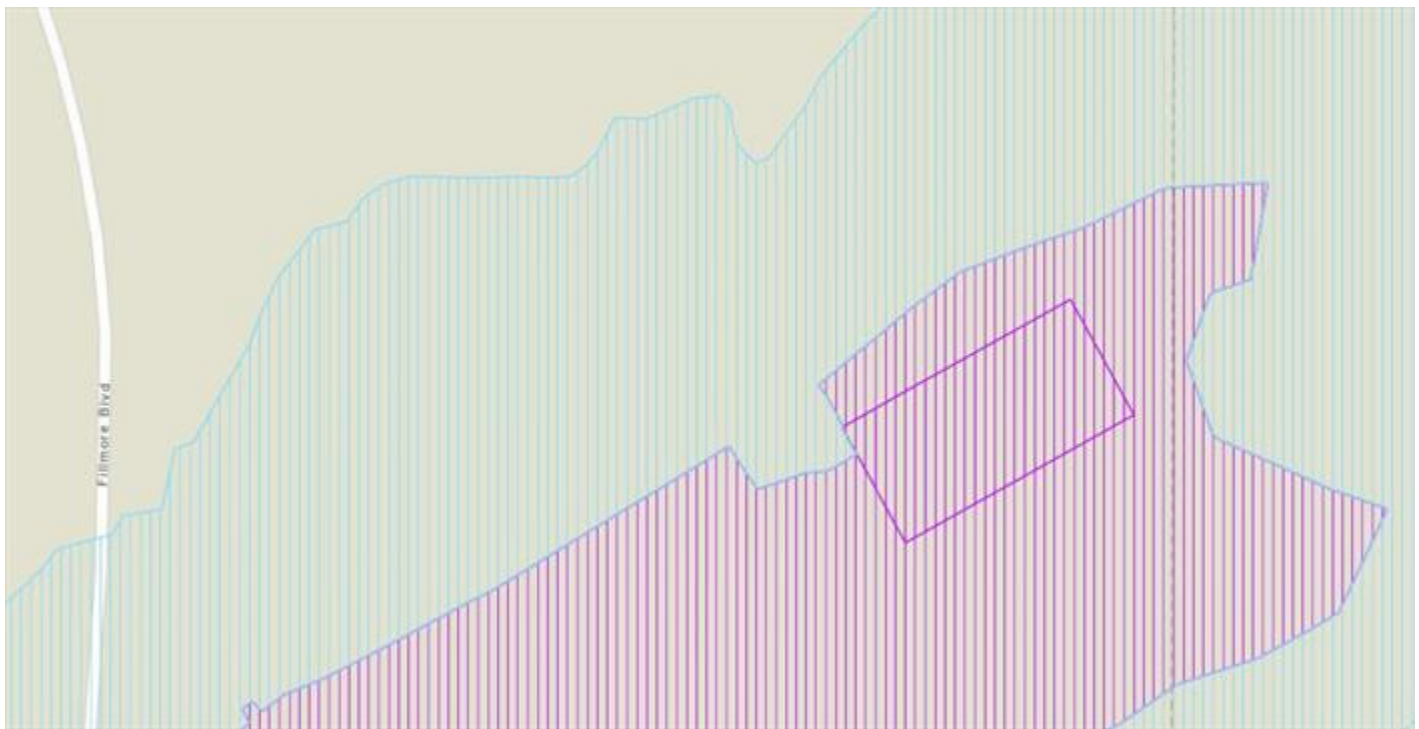


SECTION A. Project Title: SL-1 Sampling

SECTION B. Project Description and Purpose:

This Idaho National Laboratory (INL) project will involve the collection of small, radioactive particles in the SL-1 area (CERCLA: WAG 5 - CITRC/ARA), see Figure 1. These particles will be transported to INL's Central Facilities Area (CFA)-625 and INL Research Center (IRC)-603 for laboratory analyses including microscopy, gamma spectrometry, inductively coupled plasma mass spectrometry, etc. The duration of the project is 2 years.

Figure 1: SL-1 location



Tasks involved in this project include:

- Collect particles using tweezers and small hand tools.
- Transport to CFA-625 for initial nondestructive screening.
- Transport containers that stay sealed to IRC-603 for low-level gamma spectrometry analyses.
- Transport the sealed containers (never opened at IRC) back to CFA-625 for final destructive analyses.

INL is practicing its nuclear forensics capabilities. The INL team are members of the U.S.'s nuclear emergency response capability. This effort will enable INL researchers to practice locating small, low-level radioactive particles, and characterizing them using nuclear forensics analytical techniques. Sampling will take place at the SL-1 location and will involve picking up particles with small hand tools like tweezers. Analyses will include nondestructive assays (placing samples in front of a detector and passive detection), as well as dissolution using acids and

mass spectrometry and other destructive assays. Nondestructive work (samples sealed in vials, never opened) will take place at IRC-603. Destructive assays including acid dissolution will take place at CFA-625.

Waste may include:

- Radioactive: 2 L solid waste
- Low level: 4 L waste

Particle samples will be collected and consumed during the analyses (disposed to waste).

No off-site work or partnerships are involved in this project.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

NA

Discharging to Surface-, Storm-, or Ground Water

NA

Disturbing Cultural or Biological Resources

A cultural review of the proposed actions determined they do not meet the threshold of a federal undertaking as defined in 36 CFR 800.16(y) and will cause no effects to historic properties. The proposed actions involve collecting samples with tweezers and conducting materials analysis using existing laboratory equipment. These actions are not the type of activities that have the potential to cause effects on historic properties (36 CFR 800.3(a)).

Generating and Managing Waste

When wastes are generated, how they are disposed can adversely affect the environment. Managing wastes appropriately and responsibly and implementing recycling or reuse practices, where feasible, during project activities can reduce the potential impact on the environment.

Waste may include:

Radioactive: 2 L solid waste
Low level: 4 L waste

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

Environmental Justice

According to the CEQ Climate and Economic Justice Screening Tool, the INL site as well as the Research and Education Campus in Idaho Falls, ID are located in U.S. Census tracts that are identified as disadvantaged communities. Census tracts identified as disadvantaged meet or exceed socioeconomic, environmental, health, or demographic thresholds identified by CEQ. Given that activities analyzed in this document will happen within the boundaries of existing DOE/INL land and/or facilities where there are no permanent residents, any impacts to Environmental Justice in surrounding communities are anticipated to be negligible.

SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

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). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

References: B1.2 "Training exercises and simulations"

Justification: Based on the purpose and need and description of the proposed action and potential environmental impacts, the proposed action fits within the class of actions that is listed in Appendix B CX B1.2. There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal. The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)) and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Authorizing the proposed action will not (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive orders; (2) require siting of new facilities or expansion of existing facilities; (3) disturb hazardous substances, pollutants, or contaminants; (4) adversely affect environmentally sensitive resources; or (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Robert Douglas Herzog, DOE-ID NEPA Compliance Officer on: 10/15/2024