MCS Support for Clearance of Rocky Flats Environmental Technology Site (RFETS), USA

Scope:
The site closure project involved a range of projects such as:

- **“Trench One” project**
  The trench contained an unknown number of drums containing uranium wastes of different enrichment with some Am/Pu contamination, also some mixed debris.

- **“Am Pad zone” project**
  Drums containing waste solvents and coolants, contaminated with U and Pu/Am, resulted in a land area of approximately 33 acres (13 hectares) which required monitoring.

- **Analysis of packages**
  Containing mixed isotopic samples for transport purposes with a non-destructive method to determine the class, type and category of radioactive material shipments.

- **Characterization of structures**
  To meet criteria for unrestricted release under the Multi-Agency Radiological Site Survey Investigations Manual (MARSSIM).

Key Drivers:
The goal of this project was mainly to support the accelerated closure of Rocky Flats Environmental Technology Site (RFETS) and reduce the overall cost.

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Case Study

**Instruments & Techniques Used:**

1. ISOCS™ in situ gamma object spectroscopy system
2. Mobile “trailer mounted” laboratory gamma spectroscopy systems

**CANBERRA™ Solution:**

- **Fast response:** A team was mobilized within three weeks of the contract award, and deployed a CANBERRA trailer with a full set of analytical equipment, provided procedures for approved operations, training and certifications.
- **Collaboration:** Was formed with Kaiser Hill, LLC Analytical Services and CANBERRA Mobile Characterization Services (MCS), with 24 hour turn-around services for over 350 samples.

**ACHIEVEMENTS**

- Significant cost savings of ~$600,000 were realized for the 1100 measurements avoiding the need for any costly analytical assays.
- Reduced use of strong, tight boxes for asbestos shipment resulted in savings of between $1,000,000 and $2,000,000 per building.
- Contribution to the accelerated site closure.
- Minimizing planned labor, time, disposal and procurement costs.
- Decommissioning project completed ahead of schedule.

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