

Nevada
Environmental
Restoration
Project

DOE/NV--1092



Closure Report for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada

Controlled Copy No.: _____

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December 2005

Environmental Restoration
Division

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office



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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 165:
AREA 25 AND 26 DRY WELL AND WASHDOWN
AREAS, NEVADA TEST SITE, NEVADA**

**U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Las Vegas, Nevada**

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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 165:
AREA 25 AND 26 DRY WELL AND WASHDOWN
AREAS, NEVADA TEST SITE, NEVADA**

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LIBRARY DISTRIBUTION LIST

ACRONYMS AND ABBREVIATIONS

BMP	best management practice
BN	Bechtel Nevada
CADD	Corrective Action Decision Document
CAIP	Corrective Action Investigation Plan
CAP	Corrective Action Plan
CAS(s)	Corrective Action Site(s)
CAU	Corrective Action Unit
COC(s)	contaminant(s) of concern
CR	Closure Report
CSM(s)	conceptual site model(s)
DOE	U.S. Department of Energy
DOE/NV	U.S. Department of Energy, Nevada Operations Office
DRO	diesel range organics
EMAD	Engine Maintenance Assembly and Disassembly
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ETS-1	Engine Test Stand-1
FFACO	Federal Facility Agreement and Consent Order
ft	foot (feet)
GRO	gasoline range organics
ISOCS	In-Situ Object Counting System
LLW	low-level waste
m	meter(s)
m ³	cubic meter(s)
mg/kg	milligram(s) per kilogram
MW	mixed waste
NA	not applicable
ND	not detected
NDEP	Nevada Division of Environmental Protection

ACRONYMS AND ABBREVIATIONS (continued)

NNSA/NSO	U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office
NNSA/NV	U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office
NTS	Nevada Test Site
PAL(s)	preliminary action level(s)
PCBs	polychlorinated biphenyls
pCi/g	picocuries per gram
Pu	plutonium
QA	quality assurance
QAPP	Industrial Sites Quality Assurance Project Plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RWMS	Radioactive Waste Management Site
Sr-90	strontium-90
SVOC(s)	semi-volatile organic compound(s)
TCLP	Toxicity Characterization Leaching Procedure
TPH	total petroleum hydrocarbons
U	uranium
VOC(s)	volatile organic compound(s)
WAC	waste acceptance criteria
WGS	Waste Generator Services
XRF	x-ray fluorescence
yd ³	cubic yard(s)

EXECUTIVE SUMMARY

Corrective Action Unit (CAU) 165, Area 25 and 26 Dry Well and Washdown Areas, is identified in the Federal Facility Agreement and Consent Order (FFACO) of 1996. CAU 165 is located in Areas 25 and 26 of the Nevada Test Site, which is located approximately 105 kilometers (65 miles) northwest of Las Vegas, Nevada. CAU 165 consists of the following eight Corrective Action Sites (CASs):

- CAS 25-07-06, Train Decontamination Area
- CAS 25-07-07, Vehicle Washdown
- CAS 25-20-01, Lab Drain Dry Well
- CAS 25-47-01, Reservoir and French Drain
- CAS 25-51-02, Drywell
- CAS 25-59-01, Septic System
- CAS 26-07-01, Vehicle Washdown Station
- CAS 26-59-01, Septic System

CAU 165 closure activities were conducted from December 2004 to April 2005 according to the FFACO and the Nevada Division of Environmental Protection-approved Corrective Action Plan for CAU 165 (U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office, 2004). All waste generated during the closure of CAU 165 was appropriately managed and disposed.

CAS 25-07-06 (Train Decontamination Area), CAS 25-07-07 (Vehicle Washdown), CAS 25-51-02 (Drywell), CAS 25-59-01 (Septic System), and CAS 26-59-01 (Septic System) were clean closed by removing all soil and materials impacted above action levels. Impacted soil was excavated from CAS 25-07-06 (Train Decontamination Area), CAS 25-07-07 (Vehicle Washdown), and CAS 25-51-02 (Drywell). Verification samples were collected from the excavations to verify that no contaminants of concern (COCs) remained in the soil above action levels, and the excavations were backfilled. Various piping, concrete, and surface features were also removed from these three CASs. The septic systems at CAS 25-59-01 (Septic System) and CAS 26-59-01 (Septic System) were removed. Verification samples were collected from the tank excavations to verify that no COCs above the action levels were present in the soil beneath the septic tanks. CAS 25-20-01 (Lab Drain Dry Well) was closed in place with administrative controls; the dry well was filled with inert material and a use restriction was implemented. No further action was taken at CAS 25-47-01 (Reservoir and French Drain) and CAS 26-07-01 (Vehicle Washdown Station). CAU 165 closure activities are summarized in Table 1.

TABLE 1. SUMMARY OF CAU 165 CLOSURE ACTIVITIES

CAS^a	CAS Name	Approved Closure Method	COC^b	Closure Activities
25-07-06	Train Decontamination Area	Clean Closure	TPH ^c Lead Radionuclides	- Concrete pad, surface attachments, adjacent railroad ties, and underground waste line piping removed - Impacted soil removed - Verification samples collected - Excavations backfilled
25-07-07	Vehicle Washdown	Clean Closure	TPH	- Concrete pad removed - Impacted soil removed - Verification samples collected - Excavation backfilled
25-20-01	Lab Drain Dry Well	Closure in Place with Administrative Controls	TPH VOCs ^d	- Dry well filled with inert material - Use restriction warning signs posted - Use restriction implemented
25-47-01	Reservoir and French Drain	No Further Action	None	None
25-51-02	Drywell	Clean Closure	PCBs ^e TPH	- Collection system pipe and contents removed - Impacted soil removed - Verification samples collected - Excavations backfilled
25-59-01	Septic System	Clean Closure	TPH	- Sludge solidified and removed from septic tank - Septic tank removed - Verification samples collected - Excavation backfilled
26-07-01	Vehicle Washdown Station	No Further Action	None	None
26-59-01	Septic System	Clean Closure	TPH Fecal Coliform Bacteria	- Bacteria neutralized - Sludge solidified and removed from septic tank - Septic tank removed - Verification samples collected - Excavation backfilled

^a CAS = Corrective Action Site

^b COC = contaminant of concern

^c TPH = total petroleum hydrocarbons

^d VOCs = volatile organic compounds

^e PCBs = polychlorinated biphenyls

1.0 INTRODUCTION

This Closure Report (CR) documents the closure activities for Corrective Action Unit (CAU) 165, Area 25 and 26 Dry Well and Washdown Areas, according to the Federal Facility Agreement and Consent Order (FFACO) of 1996. CAU 165 consists of eight Corrective Action Sites (CASs) located in Areas 25 and 26 of the Nevada Test Site (NTS) (Figure 1). The NTS is located approximately 105 kilometers (65 miles) northwest of Las Vegas, Nevada. Site closure activities were performed according to the Nevada Division of Environmental Protection (NDEP)-approved Corrective Action Plan (CAP) for CAU 165 (U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office [NNSA/NSO], 2004b). CAU 165 consists of the following CASs:

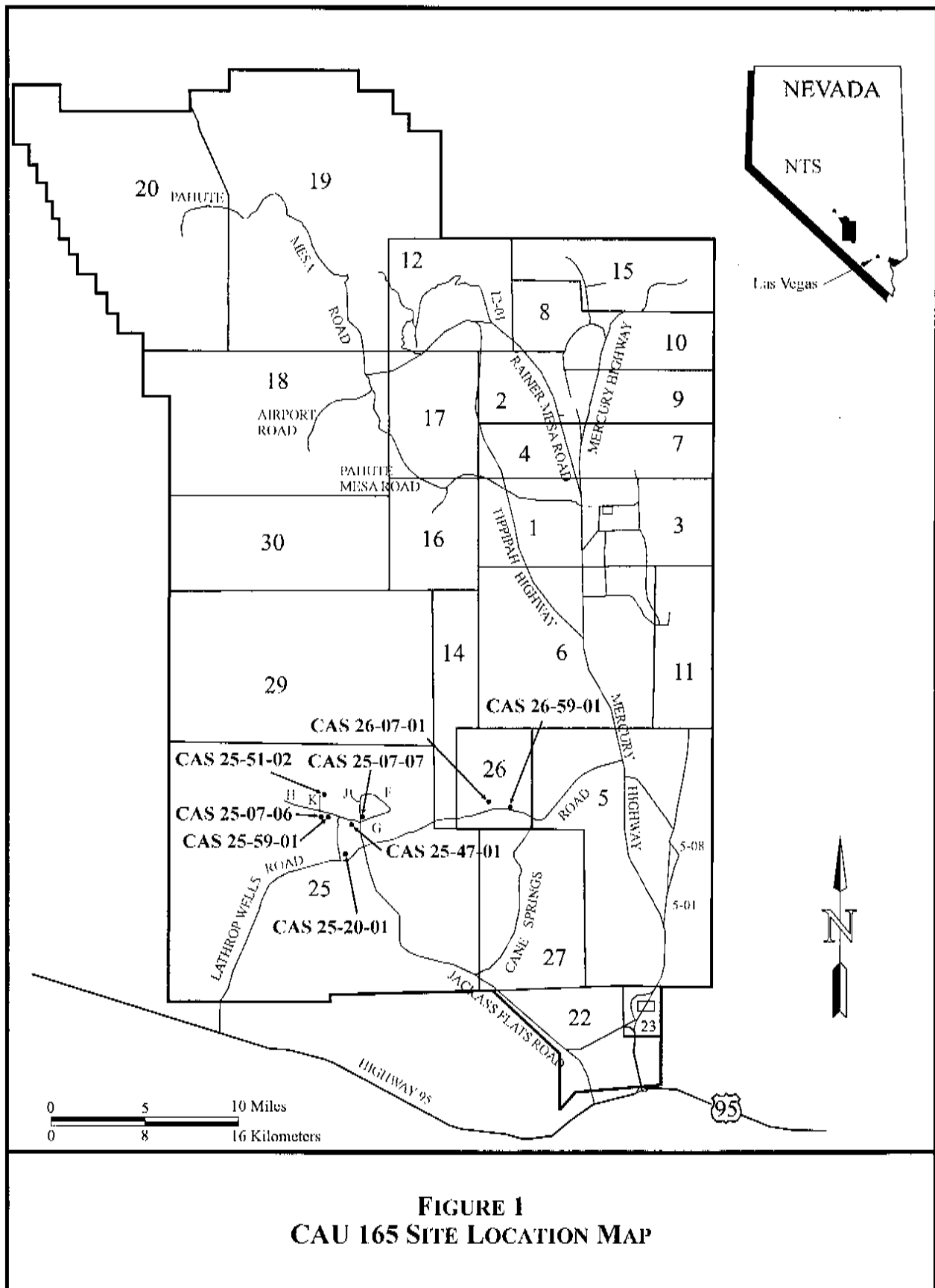
- CAS 25-07-06, Train Decontamination Area
- CAS 25-07-07, Vehicle Washdown
- CAS 25-20-01, Lab Drain Dry Well
- CAS 25-47-01, Reservoir and French Drain
- CAS 25-51-02, Drywell
- CAS 25-59-01, Septic System
- CAS 26-07-01, Vehicle Washdown Station
- CAS 26-59-01, Septic System

1.1 PURPOSE

CAU 165, Area 25 and 26 Dry Well and Washdown Areas, consists of eight CASs located in Areas 25 and 26 of the NTS (Figure 1). The approved closure alternatives included No Further Action, Clean Closure, and Closure in Place with Administrative Controls. The purpose of this CR is to document the CAU 165 closure activities and to provide data confirming that the NDEP-approved corrective actions, as presented in the CAP (NNSA/NSO, 2004b), were met.

1.2 SCOPE

Previous site characterization work done in 2002 found no contaminants of concern (COCs) above action levels at CAS 25-47-01 (Reservoir and French Drain) and CAS 26-07-01 (Vehicle Washdown Station). Total petroleum hydrocarbons (TPH) contamination was found at concentrations greater than the action level at the remaining six CASs. In addition, other COCs found at these CASs included polychlorinated biphenyls (PCBs), fecal coliform bacteria, lead, radionuclides, and volatile organic compounds (VOCs) (NNSA/NSO, 2004a).



The closure strategy for CAU 165, as specified in the NDEP-approved CAP (NNSA/NSO, 2004b), was as follows:

- CAS 25-07-06, Train Decontamination Area - The site was clean closed by removing a concrete pad, surface attachments, railroad ties and rails, and a cast iron underground pipe. The concrete was disposed as low-level waste (LLW); the surface attachments, railroad ties, and rails were disposed as sanitary waste; and the pipe was disposed as mixed waste (MW). Approximately 6 cubic meters (m^3) (8 cubic yards [yd^3]) of soil that was assumed to be lead and radiologically impacted was excavated and disposed as sanitary waste after waste characterization samples confirmed that it met the waste acceptance criteria (WAC) for the Area 9 U10c Landfill. Approximately 84 m^3 (110 yd^3) of radiologically impacted soil was excavated from around the concrete pad and disposed as LLW. Approximately 7.6 m^3 (10 yd^3) of soil impacted with TPH was excavated and disposed as hydrocarbon waste. Verification samples were collected and analyzed, and the excavations were backfilled.
- CAS 25-07-07, Vehicle Washdown - The site was clean closed by removing a concrete washdown pad and TPH-impacted soil, and disposing both as hydrocarbon waste. A total of approximately 28 m^3 (37 yd^3) of TPH-impacted waste was disposed. Verification samples were collected and analyzed, and the excavation was backfilled.
- CAS 25-20-01, Lab Drain Dry Well - The site was closed in place with administrative controls. As a best management practice (BMP), the dry well was backfilled to grade with clean soil. Use restriction warning signs were posted, and a use restriction was implemented.
- CAS 25-47-01, Reservoir and French Drain - No further action was required at this site, and no work was performed.
- CAS 25-51-02, Drywell - The site was clean closed by removing a collection system pipe, which was disposed as sanitary waste. Approximately 27 m^3 (35 yd^3) of TPH-impacted soil was excavated and disposed as hydrocarbon waste. Verification samples were collected and analyzed, and the excavation was backfilled.
- CAS 25-59-01, Septic System - The site was clean closed by solidifying and removing sludge from a septic tank and excavating the tank. The waste was disposed as hydrocarbon waste. Verification samples were collected and analyzed, and the excavation was backfilled.
- CAS 26-07-01, Vehicle Washdown Station - No further action was required at this site, and no work was performed.
- CAS 26-59-01, Septic System - The site was clean closed by neutralizing bacteria in a septic tank, solidifying and removing the sludge from the tank, and excavating the tank. The waste was disposed as hydrocarbon waste. Verification samples were collected and analyzed, and the excavation was backfilled.

1.3 CLOSURE REPORT CONTENTS

This CR includes the following sections:

- Section 1.0 - Introduction
- Section 2.0 - Closure Activities

- Section 3.0 - Waste Disposition
- Section 4.0 - Closure Verification Results
- Section 5.0 - Conclusions and Recommendations
- Section 6.0 - References
- Appendix A - Data Quality Objectives
- Appendix B - Closure Certification
- Appendix C - As-Built Documentation
- Appendix D - Sample Analytical Results
- Appendix E - Waste Disposition Documentation
- Appendix F - Modifications to the Post-Closure Plan
- Appendix G - Use Restriction Documentation
- Appendix H - Site Closure Photographs
- Appendix I - National Environmental Policy Act Checklist
- Library Distribution List

The following Appendices listed in the approved FFACO CR outline do not apply to the closure of CAU 165:

- Appendix B - Closure Certification (not applicable [NA])
- Appendix C - As-Built Documentation (NA, no engineered structures were constructed)
- Appendix F - Modifications to the Post-Closure Plan (NA, no modifications to the plan were required)

This report was developed using information and guidance from the following documents:

- Corrective Action Decision Document (CADD) for CAU 165 (NNSA/NSO, 2004a)
- CAP for CAU 165 (NNSA/NSO, 2004b)
- Industrial Sites Quality Assurance Project Plan (QAPP) (U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office [NNSA/NV], 2002b)

1.3.1 Data Quality Objectives

The data quality objectives used for closure of CAU 165 were presented in Appendix A of the CAU 165 Corrective Action Investigation Plan (CAIP) (NNSA/NV, 2002a) and are included as Appendix A of this report.

Three conceptual site models (CSMs), *Dry Well/Septic System*, *Decontamination Pad*, and *Reservoir*, as presented in the CAIP (NNSA/NV, 2002a), were developed for CAU 165. For CAS 25-51-02 (Dry Well), the CSM was revised due to the absence of a dry well at this CAS. At the other CASs, no variations to the CSM were identified, and the CSMs were confirmed by soil sample results presented in the CADD (NNSA/NSO, 2004a) and verified during closure activities.

2.0 CLOSURE ACTIVITIES

This section details the specific closure activities completed during the closure of CAU 165. Copies of the analytical data reports are included in Appendix D of this report.

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

2.1.1 Preplanning and Site Preparation

Closure activities for CAU 165 were completed using the NDEP-approved CAP (NNSA/NSO, 2004b). Prior to site closure activities, the following pre-field activities were completed:

- Preparation of a National Environmental Policy Act checklist
- Preparation of the Site-Specific Health and Safety Plan
- Preparation of NNSA/NSO Real Estate/Operations Permits
- Preparation of required Bechtel Nevada (BN) work permits
- Preparation of BN work control packages

2.1.2 Closure Activities

Closure activities were conducted from December 2004 through April 2005 by the BN Environmental Restoration (ER) group. The following sections detail the activities completed at each CAS.

2.1.2.1 CAS 25-07-06, Train Decontamination Area

This site consisted of a 20 x 10 meter (m) (65 x 33 foot [ft]) concrete pad, railroad tracks through the pad, hand railings partially surrounding the pad, and 38 m (125 ft) of underground cast iron piping. The surface radiological contamination on the pad, its surface attachments, and adjacent railroad ties exceeded the NTS free release criteria listed in Table 4-2 of the Nevada/Yucca Mountain Project Radiological Control Manual (U.S. Department of Energy, Nevada Operations Office [DOE/NV], 2000). TPH, lead, and radiological isotopes were also found at concentrations above the action levels in surface soil at the site (NNSA/NSO, 2004a).

The site was clean closed. The pipe was exposed and removed. Sludge present in the pipe was surveyed by a radiological control technician (RCT), sampled for In-Situ Object Counting System (ISOCs) analysis, and determined to be radiologically impacted. The sludge was left in the pipe, the pipe was cut into 1.5-m (5-ft) sections, and the ends of the sections were double wrapped with plastic. The pipe sections were then placed in B25 boxes. Because the pipe contained lead parts and the radiologically impacted sludge was left in the pipe, the pipe sections were managed as MW and shipped offsite for treatment and disposal. The trench was then over-excavated to remove any potentially contaminated soil. Soil removed from the trench was loaded into soft-sided containers, managed as LLW, and disposed at the Area 3 Radioactive Waste Management Site (RWMS) Facility. Five soil verification samples (V61-V65) and one blind duplicate soil sample (V66) (Figure 2) were collected from the bottom of the trench for ISOCs analysis and offsite laboratory analysis. Analytical results indicated that the remaining soil did not exceed the action levels for radionuclides, and the trench was backfilled.

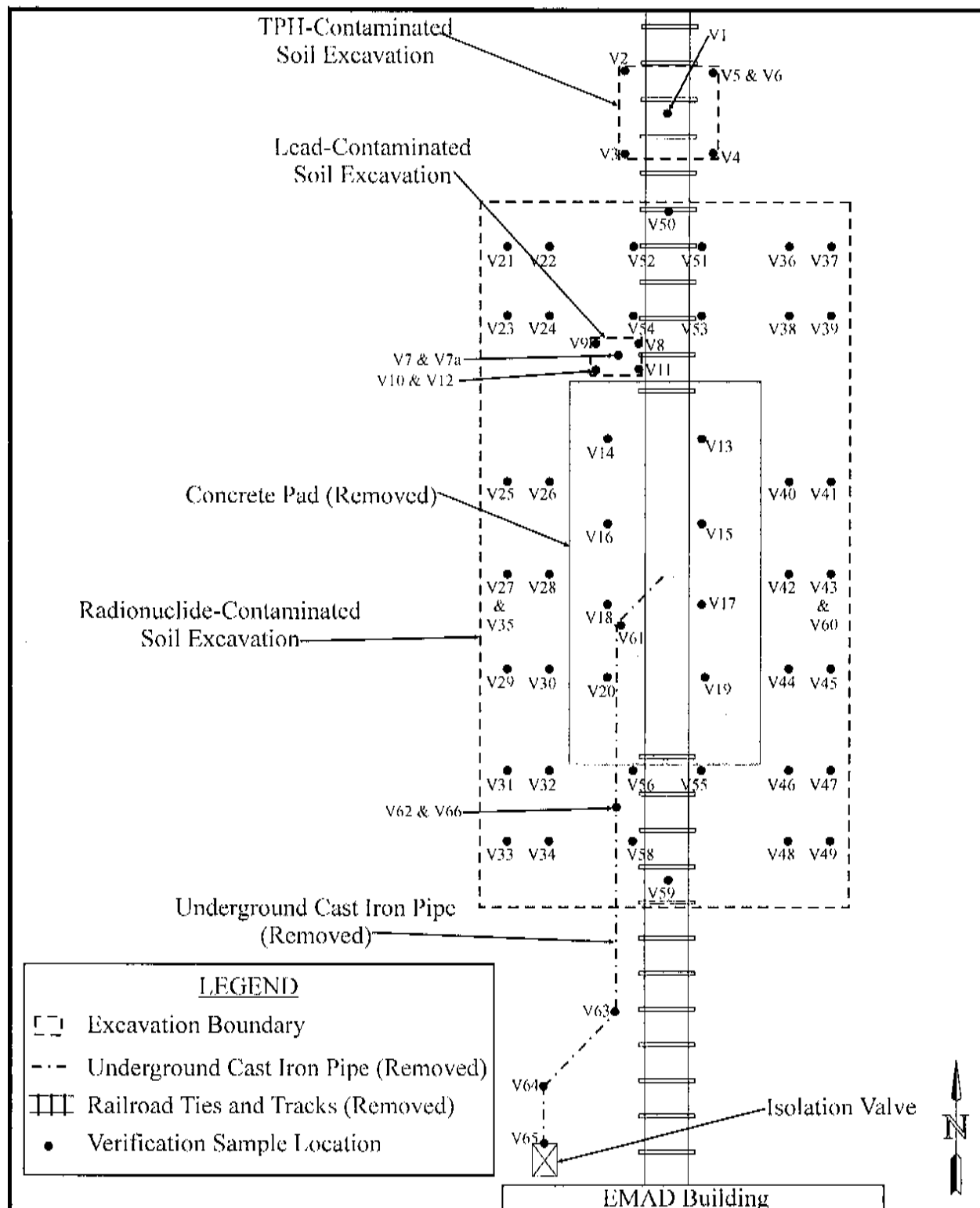


FIGURE 2
CAS 25-07-06, TRAIN DECONTAMINATION AREA,
VERIFICATION SAMPLE LOCATIONS

During remediation, a small amount of asbestos-containing roofing material was discovered that had fallen off the roof of the adjacent building. As a BMP, the material was removed by trained asbestos workers and disposed in the Area 23 Mercury Landfill.

The hand railings attached to the concrete pad were removed. The wood railroad ties and steel rails on and adjacent to the pad were also removed, and the concrete pad was rubblized. Rebar was separated from the concrete rubble. The removed materials were surveyed by a RCT, and ISOCS screening was performed on fiber samples from the wood railroad ties. The concrete rubble was loaded into soft-sided containers, managed as LLW, and disposed at the Area 3 RWMS Facility. The hand railings, wood railroad ties, steel rails, and rebar met the WAC for disposal as sanitary waste and were disposed at the Area 9 U10c Landfill.

Approximately 7.6 m³ (10 yd³) of TPH-impacted soil was excavated and disposed at the Area 6 Hydrocarbon Landfill. To facilitate the excavation of this soil, additional railroad ties and rails were removed from north of the concrete pad and disposed at the Area 9 U10c Landfill. Field screening kits for TPH were used to determine the extent of TPH contamination in the soil. ISOCS screening was performed on soil samples at five locations in the excavation and confirmed that radionuclides were not present in the remaining soil. Five soil verification samples (V1-V5) and one blind duplicate soil sample (V6) (Figure 2) were then collected from the excavation. The sample analytical results indicated that the remaining soil did not exceed the action level of 100 milligrams per kilogram (mg/kg) for TPH.

Approximately 6 m³ (8 yd³) of soil that was assumed to be lead and radiologically impacted was removed from an area just north of the concrete pad. The soil was loaded into B25 boxes and managed as MW; however, waste characterization analysis determined that the soil met the WAC for disposal as sanitary waste and was disposed at the Area 9 U10c Landfill (Section 3.3). A portable x-ray fluorescence (XRF) unit was used to determine the extent of lead contamination in the soil. ISOCS screening was performed on soil samples at five locations in the excavation and confirmed that radionuclides were not present in the remaining soil. Five soil verification samples (V7-V11) and one blind duplicate soil sample (V12) (Figure 2) were then collected from the excavation and analyzed for total lead and gamma-emitting radionuclides. Sample V7 was above the action level for total lead; therefore, additional soil was removed, and sample V7a was collected from the same location. The sample analytical results indicated that the remaining soil did not exceed the action levels.

Approximately 84 m³ (110 yd³) of radiologically impacted soil was removed from the former location of the decontamination pad. The soil was placed in soft-sided containers, characterized as LLW (Section 3.3), and disposed at the Area 3 RWMS Facility. Thirty-five soil verification samples (V13-V34, V36-V56, and V58-V59) and two blind duplicate soil samples (V35 and V60) (Figure 2) were then collected from the excavation and analyzed for gamma-emitting radionuclides and strontium-90. Sample number V57 was not used. The sample analytical results indicated that the remaining soil did not exceed the action levels for radionuclides.

The excavations were backfilled with clean soil to the approximate surrounding grade. Verification sample results are summarized in Section 4.0, and the data reports are included in Appendix D of this report.

2.1.2.2 CAS 25-07-07, Vehicle Washdown

This site consisted of a 10 x 5 m (32 x 16 ft) concrete pad. TPH was the only COC identified above action levels during site characterization. TPH was identified in the surface soil surrounding the pad (NNSA/NSO, 2004a). The site was clean closed. The concrete pad was demolished, and TPH-impacted soil was excavated. The soil and the concrete rubble were disposed at the Area 6 Hydrocarbon Landfill. A total of approximately 28 m³ (37 yd³) of TPH-impacted waste was disposed. Field screening kits for TPH were used to determine the extent of TPH contamination in the soil. Ten soil verification samples (V1-V10) and one blind duplicate soil sample (V11) (Figure 3) were then collected from the excavation. Analytical results indicated that the remaining soil did not exceed the action level of 100 mg/kg for TPH. The excavation was backfilled with clean soil to the approximate surrounding grade.

2.1.2.3 CAS 25-20-01, Lab Drain Dry Well

This site consists of a concrete dry well and two waste pipes. TPH and tetrachloroethene were the only COCs identified above action levels during site characterization. These COCs were identified in the soil beneath the dry well (NNSA/NSO, 2004a). The site was closed in place with administrative controls. As a BMP, the dry well was backfilled to grade with clean soil. Two use restriction warning signs were posted to warn against intrusive activity according to the FFACO Use Restriction Posting Guidance (FFACO, 2003) (Figure 4). The CAU Land-Use Restriction Information form and a figure showing the locations of the surveyed points delineating the use-restricted area are included in Appendix G of this report. Annual site inspections will be conducted to ensure that the signs are in good repair and that the use restriction is maintained. Details on the post-closure requirements are included in Section 5.2.

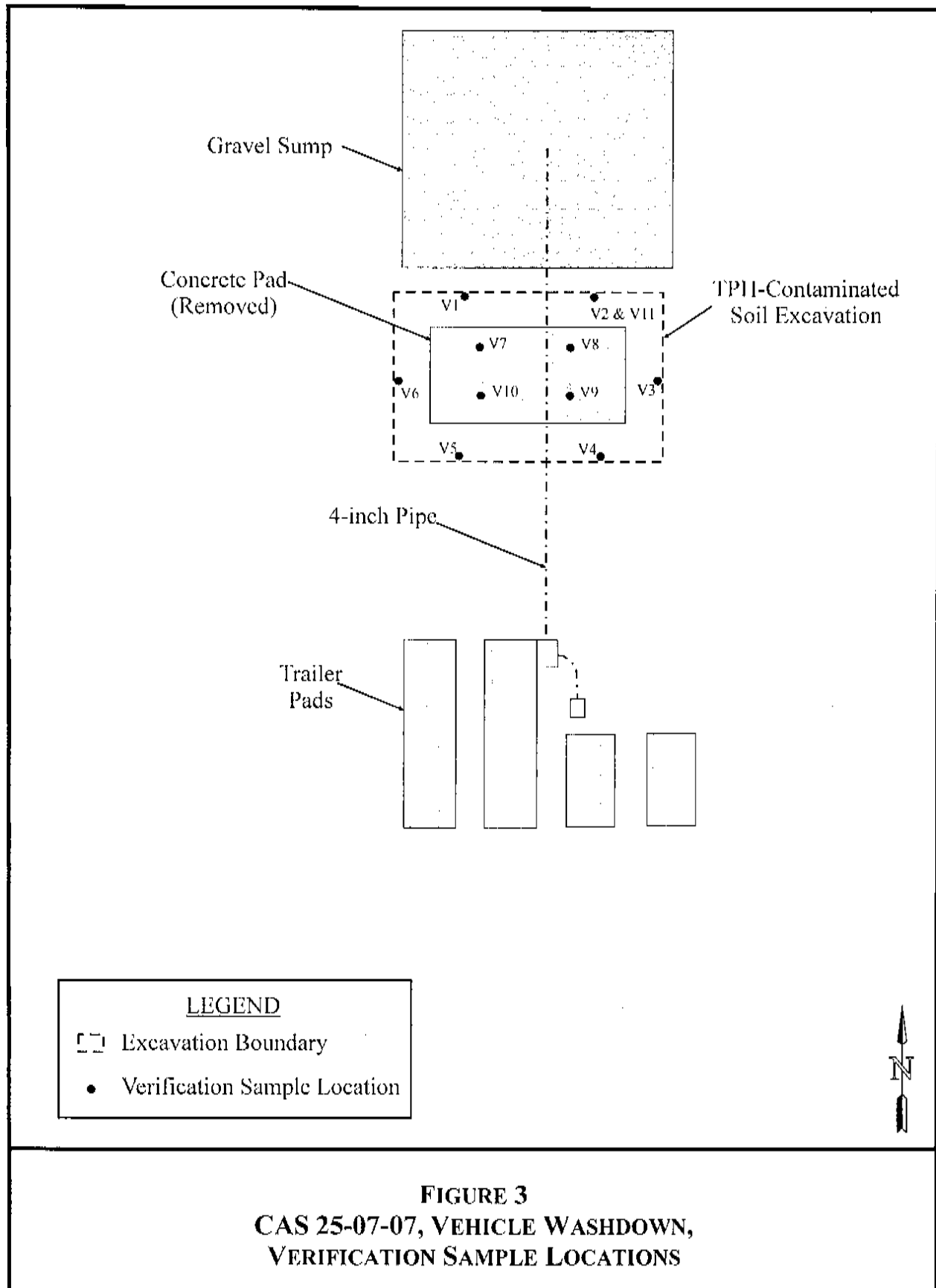
2.1.2.4 CAS 25-47-01, Reservoir and French Drain

This site consists of a backfilled reservoir and a backfilled L-shaped earthen drain overlapping the septic system associated with CAU 271. No COCs were identified during site characterization (NNSA/NSO, 2004a); therefore, the site was closed by taking no further action.

2.1.2.5 CAS 25-51-02, Drywell

This site consisted of a pipe 97 m (320 ft) long that ran from Building 25-3320 and discharged into a drainage ditch. Site characterization identified TPH exceeding the action level in soil near the pipe outfall. PCBs were identified in sediment inside the pipeline; however, the level did not exceed the WAC for sanitary disposal (NNSA/NSO, 2004a).

The site was clean closed. Approximately 27 m³ (35 yd³) of TPH-impacted soil was excavated from the pipe outfall area and disposed at the Area 6 Hydrocarbon Landfill. Field screening kits for TPH were used to determine the extent of TPH contamination in the soil. Five soil verification samples (V1-V5) (Figure 5) were then collected from the excavation, and the analytical results indicated that the remaining soil did not exceed the action level of 100 mg/kg for TPH. The excavation was backfilled with clean soil to the approximate surrounding grade.



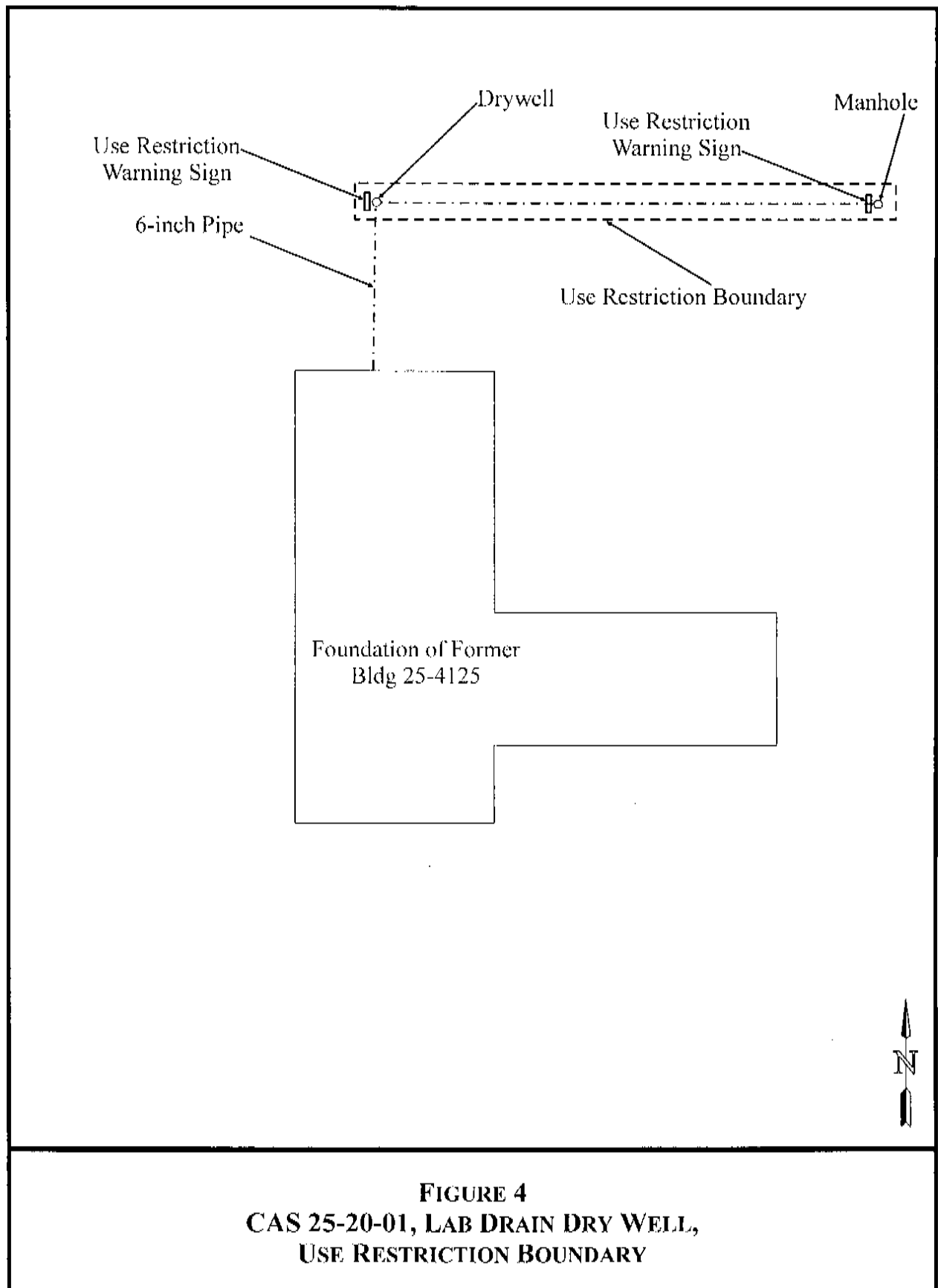
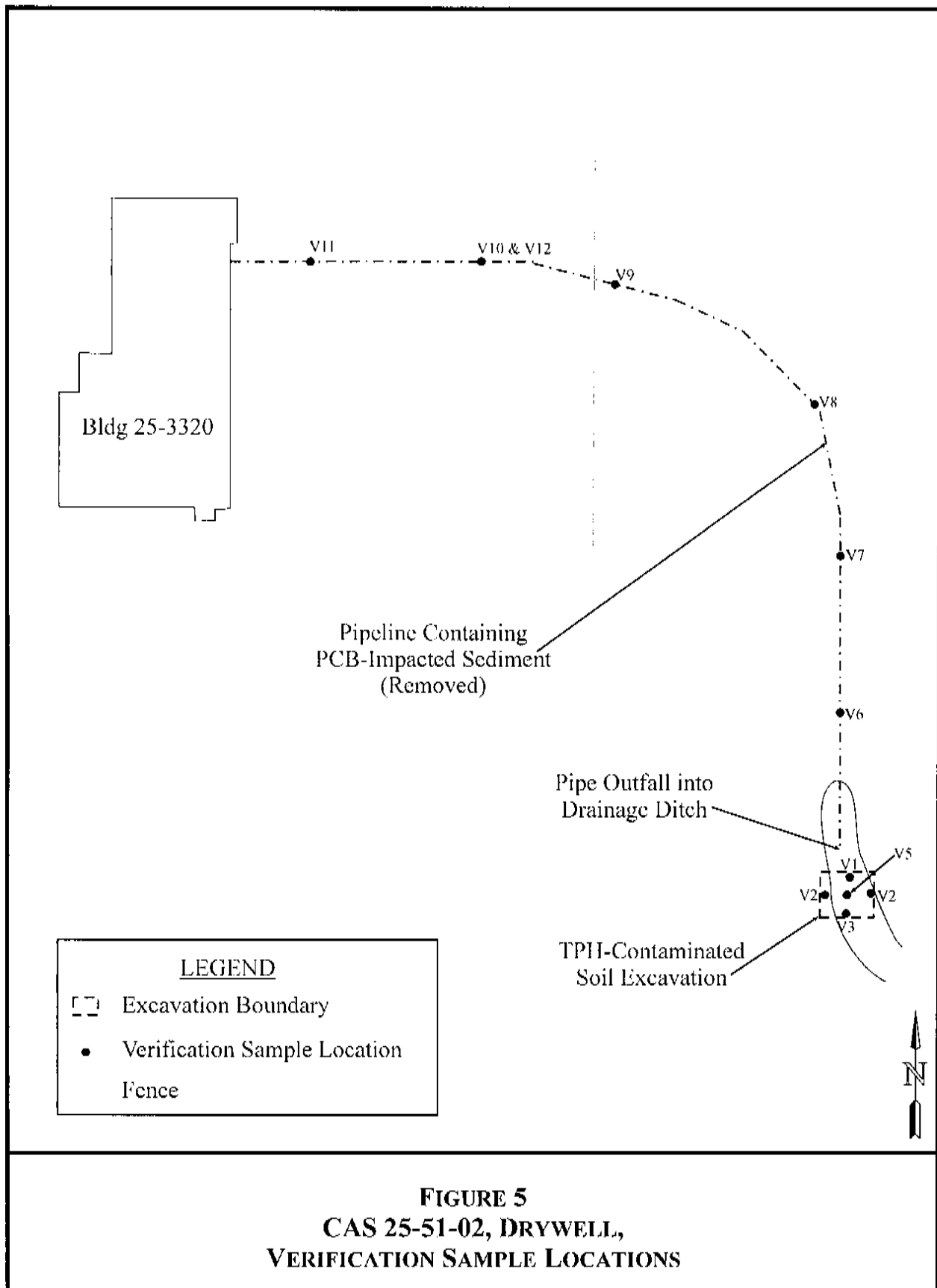


FIGURE 4
CAS 25-20-01, LAB DRAIN DRY WELL,
USE RESTRICTION BOUNDARY



The pipe and its contents were removed and surveyed by a RCT. The pipe was cut into 1.5-m (5-ft) sections, and the ends of the sections were double wrapped with plastic. The waste met the WAC for disposal as sanitary waste and was disposed at the Area 9 U10c Landfill. Six soil verification samples (V6-V11) and one blind duplicate soil sample (V12) (Figure 5) were collected from the pipeline trench, and the analytical results indicated that the remaining soil did not exceed the action level of 1 mg/kg for PCBs. The trench was backfilled with clean soil to the approximate surrounding grade.

2.1.2.6 CAS 25-59-01, Septic System

This site consisted of a septic tank with a leaching cesspool and piping. Site characterization determined that COCs were present above action levels only in the septic tank. Samples collected from the sludge in the tank contained TPH at concentrations exceeding the action level and tested negative for fecal coliform bacteria (NNSA/NSO, 2004a).

The site was clean closed. As a BMP, the septic tank contents were neutralized using chlorine. The contents were then solidified by adding soil to the tank, and the sludge was removed from the tank and disposed at the Area 6 Hydrocarbon Landfill. The septic tank was then demolished and disposed at the Area 6 Hydrocarbon Landfill. Five soil verification samples (V1-V5) and one blind duplicate soil sample (V6) (Figure 6) were collected from the septic tank excavation, and the results indicated that the remaining soil did not exceed the action level of 100 mg/kg for TPH. The excavation and the cesspool were backfilled with clean soil to the approximate surrounding grade. In addition, as a BMP, a distribution box discovered at the site was removed and disposed as sanitary waste at the Area 9 U10c Landfill.

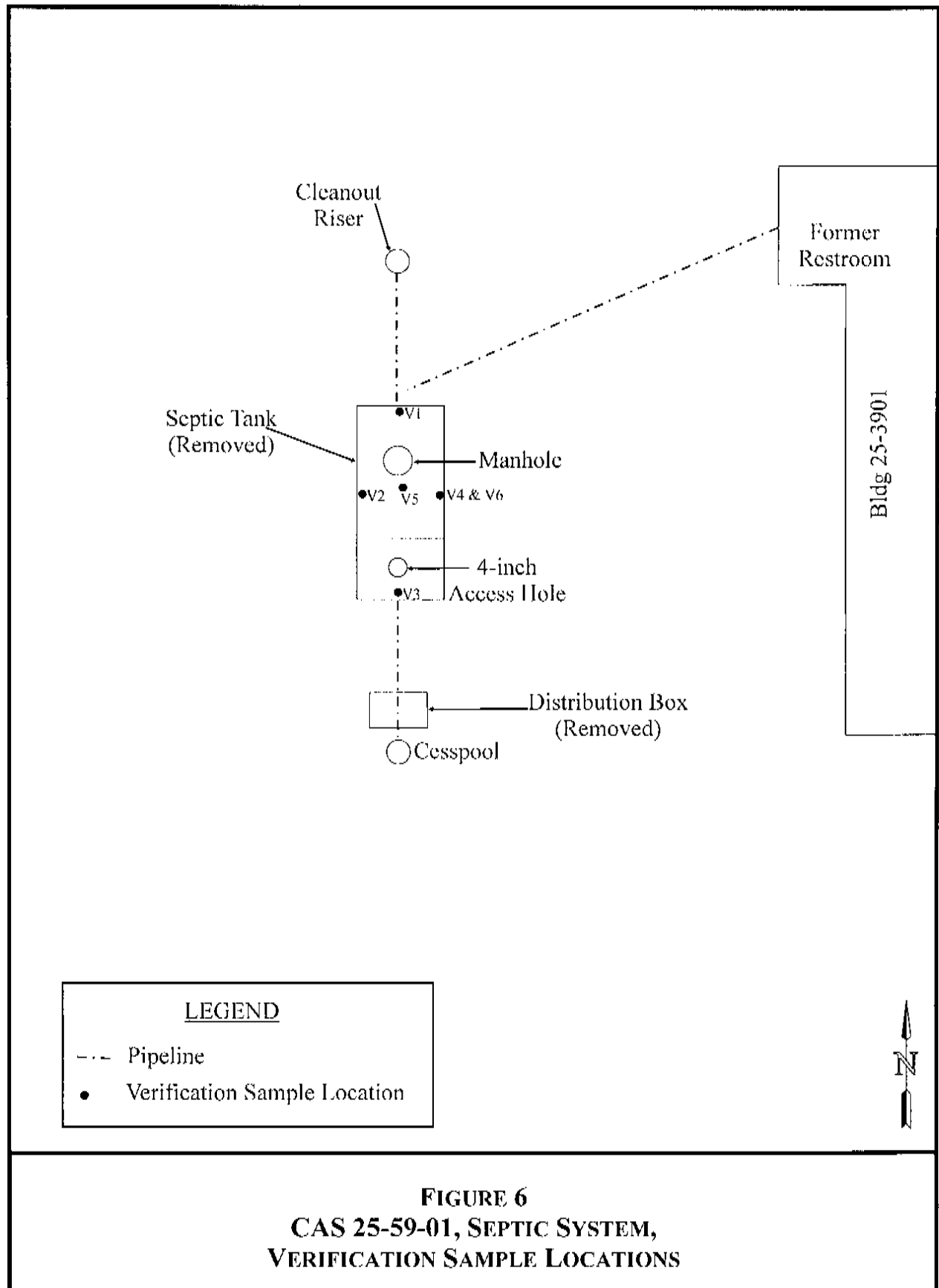
2.1.2.7 CAS 26-07-01, Vehicle Washdown Station

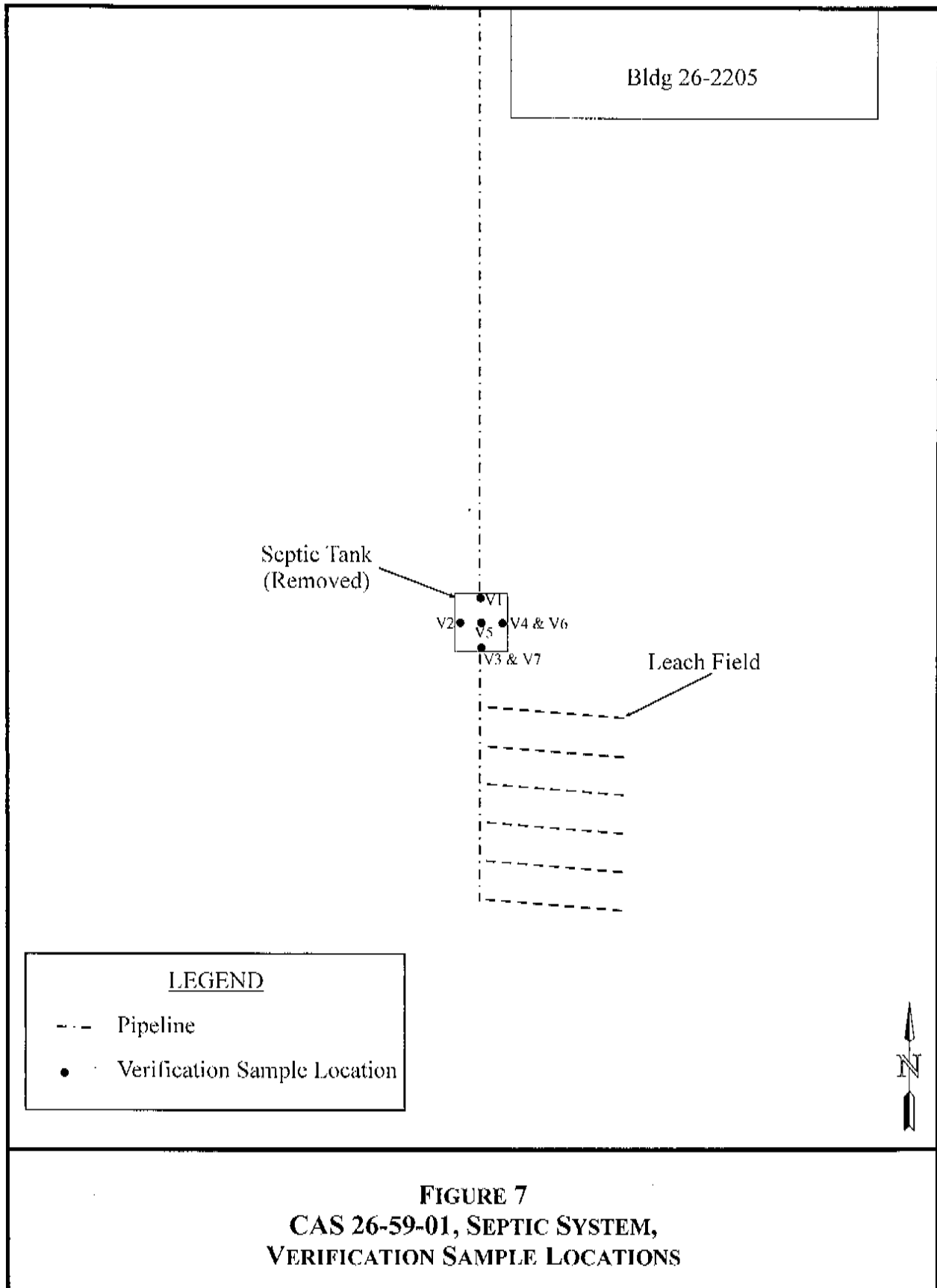
This site contains a bermed concrete pad and a metal support structure with a transite awning containing ten sprayer heads. Site characterization did not identify any COCs exceeding the action levels (NNSA/NSO, 2004a); therefore, the site was closed by taking no further action.

2.1.2.8 CAS 26-59-01, Septic System

This site consisted of a septic tank with a manhole cover, leachfield, and piping. Site characterization samples of the sludge in the tank contained TPH at concentrations exceeding the action level and tested positive for fecal coliform bacteria (NNSA/NSO, 2004a).

The site was clean closed. The fecal coliform bacteria in the sludge were neutralized using chlorine. The remaining liquid in the tank was solidified by adding soil to the tank, and the sludge was removed from the tank and disposed at the Area 6 Hydrocarbon Landfill. The septic tank was then demolished and disposed at the Area 6 Hydrocarbon Landfill. Five soil verification samples (V1-V5) and one blind duplicate soil sample (V6) (Figure 7) were collected from the septic tank excavation. Sample V3 was above the action level for TPH; therefore, additional soil was removed, and sample V7 was collected from the same location. The analytical results indicated that the remaining soil did not exceed the action level of 100 mg/kg for TPH. The excavation was backfilled to the approximate surrounding grade.





2.2 DEVIATIONS FROM CORRECTIVE ACTION PLAN AS APPROVED

No deviations from the NDEP-approved CAP (NNSA/NSO, 2004b) were necessary during field activities.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

The corrective action field activities began in December 2004 and were completed in April 2005. Details of the closure field activities schedule are provided in Table 2.

TABLE 2. CAU 165 FIELD ACTIVITIES SCHEDULE

CAS ^a	CAS Description	CAS Location	Mobilization	Demobilization
25-07-06	Train Decontamination Area	EMAD ^b Facility	11 January 2005	07 April 2005
25-07-07	Vehicle Washdown	Reactor Control Point	13 December 2004	15 December 2005
25-20-01	Lab Drain Dry Well	Building 4215 (east side)	07 February 2005	07 February 2005
25-47-01	Reservoir and French Drain	Reactor Control Point	NA ^c	NA
25-51-02	Drywell	Building 3320 at ETS-1 ^d	03 January 2005	20 January 2005
25-59-01	Septic System	Building 3901 at EMAD	07 February 2005	14 February 2005
26-07-01	Vehicle Washdown Station	Building 2201	NA	NA
26-59-01	Septic System	Building 2205	11 January 2005	14 February 2005

^a CAS = Corrective Action Site

^b EMAD = Engine Maintenance Assembly and Disassembly Facility

^c NA = not applicable. No work was performed at this site

^d ETS-1 = Engine Test Stand-1

2.4 SITE PLAN/SURVEY PLAN

CAS 25-20-01 (Lab Drain Dry Well) was the only site that was closed in place with administrative controls (i.e., Use Restrictions were implemented). A figure showing the locations of the surveyed points delineating the use-restricted area is included in Appendix G of this report.

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3.0 WASTE DISPOSITION

This section describes the waste generated at CAU 165 during closure activities and its final disposition.

3.1 WASTE MINIMIZATION

Industry standard waste minimization practices were applied throughout the course of field activities. These practices included:

- Using a portable XRF unit to field screen for lead contamination. This allowed for a better delineation of the extent of lead-impacted soil.
- Using TPH field test kits to field screen for TPH contamination. This allowed for a better delineation of the extent of hydrocarbon-impacted soil.
- Using laboratory analysis and ISOCs to correctly characterize and classify waste streams.

3.2 CONTAINER MANAGEMENT

All waste was managed according to applicable state and federal regulations, U.S. Department of Energy (DOE) orders, the CAU 165 CAP (NNSA/NSO, 2004b), BN Waste Management procedures, and company directives.

End-dumps were used to transport sanitary waste to the Area 9 U10c Landfill and hydrocarbon waste to the Area 6 Hydrocarbon Landfill. Six B25 boxes were used to store and transport MW at CAS 25-07-06 (Train Decontamination Area). The boxes were inspected prior to use to verify that they were in good condition (i.e., no leaks, rust, or dents). Sixty-nine soft-sided containers were used to store and transport LLW at CAS 25-07-06 (Train Decontamination Area). Waste disposition documentation is included in Appendix E of this report.

All waste containers were inspected and approved by BN Waste Generator Services (WGS) personnel prior to use. Containers were closed while stored unless waste was being added or removed. They were also handled in such a manner that the integrity of the containers was not compromised. Appropriate labels were affixed and relevant information was marked on the containers with an indelible marker. The information was legible and clearly visible.

3.3 WASTE CHARACTERIZATION

Waste streams were characterized according to the CAU 165 CAP (NNSA/NSO, 2004b), BN Solid Waste Operations, and BN WGS procedures. Laboratory samples were collected, sealed with a custody seal, cooled to four degrees Celsius, and logged onto a chain of custody. The waste characterization samples collected during closure activities are listed in Table 3. Waste from CAS 25-07-06 (Train Decontamination Area), including railroad ties and soil, were screened for radiological contamination using ISOCs analysis and found to meet the WAC for disposal as sanitary waste.

TABLE 3. CAU 165 WASTE CHARACTERIZATION SAMPLES COLLECTED

Sample Number	Date Collected	LOCATION	Parameter Analyzed									Landfill Where Waste Was Disposed		
			TCLP Metals ^a	TCLP VOCs ^b	TCLP SVOCs ^c	Beryllium	PCBs ^d	TPH ^e	Gamma Spectroscopy	Strontium	Isotopic Plutonium		Isotopic Uranium	
CAS' 25-07-06, Train Decontamination Area														
WC05000020	03/15/2005	B25 Box - Lead and Radiologically Contaminated Soil	X ^g	-- ^h	--	X	--	--	X	X	X	X	Area 9 U10c Landfill	
WC05000021			--	--	--	X	--	X	X	X	X	X		
WC05000022	03/15/2005	Soft-Sided Container - Radiologically Contaminated Soil and Concrete	--	--	--	X	--	--	X	X	X	X	Area 3 RWMS ⁱ Facility	
WC05000023			--	--	--	X	--	--	X	X	X	X		
WC05000024			--	--	--	X	--	--	X	X	X	X		
WC05000025			--	--	--	X	--	--	X	X	X	X		
WC05000026			--	--	--	X	--	--	X	X	X	X		
WC05000027			--	--	--	X	X	--	X	X	X	X		
WC05000028			--	--	--	X	X	--	X	X	X	X		
WC05000029			--	--	--	X	X	--	X	X	X	X		
WC05000030	03/15/2005	Wood RR Ties	X	--	--	X	--	--	X	X	X	X	Area 9 U10c Landfill	
WC05000033	03/15/2005	Cast Iron Underground Pipe	X	X	X	X	X	X	X	X	X	X	Offsite	

^a TCLP Metals = Toxicity Characterization Leaching Procedure metals - arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver

^b TCLP VOCs = Toxicity Characterization Leaching Procedure volatile organic compounds

^c TCLP SVOCs = Toxicity Characterization Leaching Procedure semi-volatile organic compounds

^d PCBs = polychlorinated biphenyls

^e TPH = total petroleum hydrocarbons

^f CAS = Corrective Action Site

^g X = parameter analyzed for in sample

^h -- = parameter not analyzed for in sample

ⁱ RWMS = Radioactive Waste Management Site

3.4 WASTE STREAMS AND DISPOSAL

Waste streams generated during closure activities at CAU 165 included non-impacted sanitary waste, hydrocarbon waste, MW, and LLW. Waste disposition documentation is included in Appendix E of this report.

3.4.1 Sanitary Waste

Approximately 23 m³ (30 yd³) of sanitary waste was transported to and disposed at the Area 9 U10c Landfill. This waste included hand railings, wood railroad ties, steel railroad rails, rebar, miscellaneous scrap metal, piping, and soil.

3.4.2 Hydrocarbon Waste

A total of approximately 92 m³ (120 yd³) of TPH-impacted waste was transported to and disposed at the Area 6 Hydrocarbon Landfill. This waste included solidified septic tank contents, septic tanks, concrete, and soil.

The following is a list by CAS of the volume of waste disposed at the Area 6 Hydrocarbon Landfill from CAU 165. All waste met the landfill WAC.

- CAS 25-07-06, Train Decontamination Area, approximately 7.6 m³ (10 yd³)
- CAS 25-07-07, Vehicle Washdown, approximately 28 m³ (37 yd³)
- CAS 25-51-02, Drywell, approximately 27 m³ (35 yd³)
- CAS 25-59-01, Septic System, approximately 18 m³ (23 yd³)
- CAS 26-59-01, Septic System, approximately 11 m³, (15 yd³)

3.4.3 Mixed Waste

Two B25 boxes, containing a total of approximately 6 m³ (8 yd³) of MW from CAS 25-07-06 (Train Decontamination Area) were transported offsite to Envirocare of Utah for treatment and disposal.

3.4.4 Low-Level Waste

Sixty-nine soft-sided containers, containing a total of approximately 185 m³ (242 yd³) of LLW, were transported to and disposed at the Area 3 RWMS Facility. This waste included soil and debris from CAS 25-07-06 (Train Decontamination Area).

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4.0 CLOSURE VERIFICATION RESULTS

To verify that CAU 165 closure activities met clean-up criteria, soil verification samples were collected and analyzed at five CASSs. The results showed no COCs remained at the sites above the action levels. Sample results are summarized in Table 4 through Table 9, and the laboratory data reports are included in Appendix D of this report.

4.1 DATA QUALITY ASSESSMENT

Accurate and defensible analytical data were collected to verify that waste and verification samples were properly characterized, managed, and disposed during CAU 165 closure activities. The following sections describe the quality assurance (QA) / quality control (QC) procedures, data validation process, and a reconciliation of the CSM with actual findings during CAU 165 closure activities. More detail on the QA/QC procedures for CAU 165 can be found in the CAU 165 CAP (NNSA/NSO, 2004b).

4.1.1 Quality Assurance/Quality Control Procedures

Verification and waste characterization samples were collected with disposable polyethylene scoops and placed in appropriately labeled sample containers secured with custody seals. All samples were labeled with a unique sample number, placed on ice, and transported under a chain of custody. Standard QA/QC samples were collected (i.e., one blind duplicate per 20 samples). Samples were analyzed by BN contract laboratories. Analytical results were validated at the laboratory using stringent QA/QC procedures, including matrix spike/matrix spike duplicates, spiked surrogate recovery analysis, verification of analytical results, and data quality indicator requirements. Detailed information regarding the QA/QC program can be found in the Industrial Sites QAPP (NNSA/NV, 2002b).

4.1.2 Data Validation

Data validation was performed according to the Industrial Sites QAPP (NNSA/NV, 2002b) which is based on the U.S. Environmental Protection Agency (EPA) functional guidelines for data quality (EPA, 1994 and 1999). Data were reviewed to ensure that samples were appropriately processed and analyzed, and that the results are valid. All sample data were internally validated by qualified BN personnel at the Tier I and Tier II levels. No anomalies were discovered in the data that would discredit any of the waste characterization or verification sample results. While only summary laboratory QC data for verification samples are included in Appendix D of this report, the complete data set, including validation reports for waste characterization and verification samples, is maintained in the BN ER project files and available upon request.

TABLE 4. CAS 25-07-06, TRAIN DECONTAMINATION AREA, VERIFICATION SAMPLE RESULTS

SAMPLE ID	DATE COLLECTED	LOCATION	TPH DRO ^a (mg/kg ^b) PAL ^c = 100	TOTAL LEAD ^c (mg/kg ^b) PAL = 750	GAMMA SPECTROSCOPY ^d VARIOUS PALS	Sr-90 ^e (pCi/g ^f) PAL = 838
250706-V1	03/04/2005	TPH-Contaminated Soil Excavation	ND ^h	-- ⁱ	<PALS	--
250706-V2			ND	--	<PALS	--
250706-V3			ND	--	<PALS	--
250706-V4			ND	--	<PALS	--
250706-V5			ND	--	<PALS	--
250706-V6			ND	--	<PALS	--
250706-V7	03/09/2005	Lead-Contaminated Soil Excavation	--	1290	<PALS	--
250706-V8			--	6.0	<PALS	--
250706-V9			--	4.7	<PALS	--
250706-V10			--	4.7	<PALS	--
250706-V11			--	7.9	<PALS	--
250706-V12			--	5.4	<PALS	--
250706-V7a	03/24/2005		--	4.6	<PALS	--
250706-V13	03/09/2005	Radionuclide-Contaminated Soil Excavation	--	--	<PALS	--
250706-V14			--	--	<PALS	--
250706-V15			--	--	<PALS	--
250706-V16			--	--	<PALS	--
250706-V17			--	--	<PALS	--
250706-V18			--	--	<PALS	--
250706-V19			--	--	<PALS	--
250706-V20			--	--	<PALS	--
250706-V21			--	--	<PALS	ND
250706-V22			--	--	<PALS	ND
250706-V23	03/11/2005	Radionuclide-Contaminated Soil Excavation	--	--	<PALS	ND
250706-V24			--	--	<PALS	ND
250706-V25			--	--	<PALS	ND
250706-V26			--	--	<PALS	ND
250706-V27			--	--	<PALS	ND
250706-V28			--	--	<PALS	ND
250706-V29			--	--	<PALS	ND
250706-V30			--	--	<PALS	ND
250706-V31			--	--	<PALS	ND
250706-V32			--	--	<PALS	ND
250706-V33	03/10/2005		--	--	<PALS	ND

TABLE 4. CAS 25-07-06, TRAIN DECONTAMINATION AREA, VERIFICATION SAMPLE RESULTS (continued)

SAMPLE ID	DATE COLLECTED	LOCATION	TPH DRO ^a (mg/kg) ^b PAL ^f = 100	TOTAL LEAD ^c (mg/kg) ^b PAL = 750	GAMMA SPECTROSCOPY ^d VARIOUS PALS	Sr-90 ^e (pCi/g) ^f PAL = 838	
250706-V34	03/10/2005	Radionuclide-Contaminated Soil Excavation	--	--	<PALS	ND	
250706-V35			--	--	<PALS	ND	
250706-V36			--	--	<PALS	ND	
250706-V37	03/11/2005		--	--	<PALS	ND	
250706-V38			--	--	<PALS	ND	
250706-V39			--	--	<PALS	ND	
250706-V40			--	--	<PALS	ND	
250706-V41			--	--	<PALS	ND	
250706-V42			--	--	<PALS	ND	
250706-V43			--	--	<PALS	ND	
250706-V44	03/14/2005		--	--	<PALS	ND	
250706-V45			--	--	<PALS	ND	
250706-V46			--	--	<PALS	ND	
250706-V47			--	--	<PALS	ND	
250706-V48			--	--	<PALS	ND	
250706-V49			--	--	<PALS	ND	
250706-V50			--	--	<PALS	ND	
250706-V51			--	--	<PALS	ND	
250706-V52			03/11/2005	--	--	<PALS	ND
250706-V53				--	--	<PALS	ND
250706-V54	--			--	<PALS	ND	
250706-V55	--			--	<PALS	ND	
250706-V56 ^g	--			--	<PALS	ND	
250706-V58	--			--	<PALS	ND	
250706-V59	--			--	<PALS	ND	
250706-V60	--			--	<PALS	ND	

^a TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by U.S. Environmental Protection Agency (EPA) method 8015B (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c Total lead analysis by EPA method 6010B (EPA, 1996)

^d Gamma Spectroscopy analysis by EPA method 901.1 (EPA, 1996)

^e Sr-90 = strontium-90 - analysis by U.S. Department of Energy (DOE) method HASL-300 (DOE, 1997)

^f pCi/g = picocuries per gram

^g PAL = preliminary action level

^h ND = not detected in sample

ⁱ -- = parameter not analyzed for in sample

^j Sample ID 250706-V57 was not used

TABLE 5. CAS 25-07-06, TRAIN DECONTAMINATION AREA, VERIFICATION SAMPLE RESULTS

SAMPLE ID	DATE COLLECTED	LOCATION	PCBS ^a (mg/kg) ^b PAL ^m = 1	TPH DRO ^c (mg/kg) PAL = 100	TPH GRO ^d (mg/kg) PAL = 100	TOTAL RCRA ^e METALS VARIOUS PALS	VOCs ^f VARIOUS PALS	SVOCs ^g VARIOUS PALS	Sr-90 ^h (pCi/g) PAL = 838 -- ^o	ISOTOPIC U ⁱ VARIOUS PALS	ISOTOPIC PU ^k VARIOUS PALS	GAMMA SPECTROSCOPY ^l VARIOUS PALS
250706-V61	03/10/2005	Pipeline Trench	ND ⁿ	ND	ND	<PALS	ND	ND	<PALS	<PALS	<PALS	<PALS
250706-V62			.020 (Aroclor-1254)	ND	ND	<PALS	ND	ND	ND	<PALS	<PALS	<PALS
250706-V63			.016 (Aroclor-1254)	ND	ND	<PALS	ND	ND	ND	<PALS	<PALS	<PALS
250706-V64			ND	ND	ND	<PALS	ND	ND	ND	<PALS	<PALS	<PALS
250706-V65			ND	ND	ND	<PALS	ND	ND	ND	<PALS	<PALS	<PALS
250706-V66			ND	ND	ND	<PALS	ND	ND	ND	<PALS	<PALS	<PALS

^a PCBs = polychlorinated biphenyls - analysis by EPA method 8082 (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by U.S. Environmental Protection Agency (EPA) method 8015B (EPA, 1996)

^d TPH GRO = total petroleum hydrocarbons gasoline range organics - analysis by EPA method 8015B (EPA, 1996)

^e RCRA = Resource Conservation and Recovery Act - analysis by EPA method 3010B (EPA, 1996)

^f VOCs = volatile organic compounds - analysis by EPA method 8260B (EPA, 1996)

^g SVOCs = semi-volatile organic compounds - analysis by EPA method 8270C (EPA, 1996)

^h Sr-90 = strontium-90 - analysis by U.S. Department of Energy (DOE) method HASL-300 (DOE, 1997)

ⁱ pCi/g = picocuries per gram

^j U = uranium - analysis by DOE method HASL-300 (DOE, 1997)

^k Pu = plutonium - analysis by DOE method HASL-300 (DOE, 1997)

^l Gamma Spectroscopy analysis by EPA method 901.1 (EPA, 1996)

^m PAL = preliminary action level

ⁿ ND = not detected in sample

^o -- = parameter not analyzed for in sample

TABLE 6. CAS 25-07-07, VEHICLE WASHDOWN, VERIFICATION SAMPLE RESULTS

SAMPLE NUMBER	DATE COLLECTED	TPH DRO ^a (mg/kg ^b)	TPH GRO ^c (mg/kg)
		PAL ^d = 100	PAL = 100
250707-V1	12/15/2004	20	ND ^e
250707-V2		13	ND
250707-V3		ND	ND
250707-V4		ND	ND
250707-V5		ND	ND
250707-V6		ND	ND
250707-V7		14	ND
250707-V8		ND	ND
250707-V9		ND	ND
250707-V10		ND	ND
250707-V11		ND	ND

^a TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by U.S. Environmental Protection Agency (EPA) method 8015B (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c TPH GRO = total petroleum hydrocarbons gasoline range organics - analysis by EPA method 8015B (EPA, 1996)

^d PAL = preliminary action level

^e ND = not detected in sample

TABLE 7. CAS 25-51-02, DRYWELL, VERIFICATION SAMPLE RESULTS

SAMPLE NUMBER	DATE COLLECTED	PCBs ^a (mg/kg ^b)	TPH DRO ^c (mg/kg)	TPH GRO ^d (mg/kg)
		PAL ^e = 1	100	100
255102-V1	01/04/2005	-- ^f	ND ^g	ND
255102-V2		--	ND	ND
255102-V3		--	ND	ND
255102-V4		--	ND	ND
255102-V5		--	ND	ND
255102-V6	01/11/2005	ND	--	--
255102-V7		ND	--	--
255102-V8		ND	--	--
255102-V9		ND	--	--
255102-V10		.074 (Aroclor-1254)	--	--
255102-V11		ND	--	--
255102-V12		.064 (Aroclor-1254)	--	--

^a PCBs = polychlorinated biphenyls - analysis by U.S. Environmental Protection Agency (EPA) method 8082 (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by EPA method 8015B (EPA, 1996)

^d TPH GRO = total petroleum hydrocarbons gasoline range organics - analysis by EPA method 8015B (EPA, 1996)

^e PAL = preliminary action level

^f -- = parameter not analyzed for in sample

^g ND = not detected in sample

TABLE 8. CAS 25-59-01, SEPTIC SYSTEM, VERIFICATION SAMPLE RESULTS

SAMPLE NUMBER	DATE COLLECTED	TPH DRO ^a (mg/kg ^b)	TPH GRO ^c (mg/kg)
		PAL ^d = 100	PAL = 100
255901-V1	02/14/2005	ND ^e	ND
255901-V2		ND	32
255901-V3		ND	ND
255901-V4		ND	ND
255901-V5		ND	ND
255901-V6		ND	ND

^a TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by U.S. Environmental Protection Agency (EPA) method 8015B (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c TPH GRO = total petroleum hydrocarbons gasoline range organics - analysis by EPA method 8015B (EPA, 1996)

^d PAL = preliminary action level

^e ND = not detected in sample

TABLE 9. CAS 26-59-01, SEPTIC SYSTEM, VERIFICATION SAMPLE RESULTS

SAMPLE NUMBER	DATE COLLECTED	TPH DRO ^a (mg/kg ^b)	TPH GRO ^c (mg/kg)
		PAL ^d = 100	PAL = 100
265901-V1	01/24/2005	ND ^e	ND
265901-V2		ND	ND
265901-V3		190	ND
265901-V4		ND	ND
265901-V5		ND	ND
265901-V6		ND	ND
265901-V7		ND	ND

^a TPH DRO = total petroleum hydrocarbons diesel range organics - analysis by U.S. Environmental Protection Agency (EPA) method 8015B (EPA, 1996)

^b mg/kg = milligrams per kilogram

^c TPH GRO = total petroleum hydrocarbons gasoline range organics - analysis by EPA method 8015B (EPA, 1996)

^d PAL = preliminary action level

^e ND = not detected in sample

4.1.3 Conceptual Site Models

Three CAU 165 CSMs were developed and were presented in the approved CAIP (NNSA/NV, 2002a).

The first CSM, *Dry Well/Septic System*, applies to CAS 25-20-01 (Lab Drain Dry Well), CAS 25-51-02 (Dry Well), CAS 25-59-01 (Septic System), and CAS 26-29-01 (Septic System). This CSM assumed that effluent was discharged through piping to percolate into soil. Potentially affected media included system components, contents of septic tanks and pipes, and subsurface soil. No radiological COCs were expected. For CAS 25-51-02 (Dry Well), the CSM was revised due to the absence of a dry well at this CAS. The actual configuration of this site included a pipe leading to a drainage ditch. At the other three CASs, no variations to the CSM were identified, and the CSM was confirmed by soil sample results presented in the CADD (NNSA/NSO, 2004a) and verified during closure activities.

The second CSM, *Decontamination Pad*, applies to CAS 25-07-06 (Train Decontamination Area), CAS 25-07-07 (Vehicle Washdown), and CAS 26-07-01 (Vehicle Washdown Station). This CSM assumed that at each decontamination pad, equipment was washed and effluent was discharged to collection points either by piping to another system or by surface flow to nearby soil. Potentially affected media included concrete decontamination pads, waste lines, residual materials in pipes, and surrounding surface and subsurface soil. No variations to the CSM were identified, and the CSM was confirmed by soil sample results presented in the CADD (NNSA/NSO, 2004a) and verified during closure activities.

The third CSM, *Reservoir*, applies to CAS 25-47-01 (Reservoir and French Drain). It assumed that effluent was discharged to the reservoir via an unlined, earthen drain as an overflow from or during construction of a nearby septic system, and contaminants may have percolated into underlying soil. No variations to the CSM were identified, and the CSM was confirmed by soil sample results presented in the CADD (NNSA/NSO, 2004a) and verified during closure activities.

4.2 USE RESTRICTION

Use restrictions have been implemented for CAS 25-20-01 (Lab Drain Dry Well). The following CASs have been closed by clean closure or no further action, and use of the areas associated with these sites is unrestricted:

- CAS 25-07-06, Train Decontamination Area
- CAS 25-07-07, Vehicle Washdown
- CAS 25-47-01, Reservoir and French Drain
- CAS 25-51-02, Drywell
- CAS 25-59-01, Septic System
- CAS 26-07-01, Vehicle Washdown Station
- CAS 26-59-01, Septic System

4.2.1 CAS 25-20-01, Lab Drain Dry Well

At this site, TPH and tetrachloroethene were identified during site characterization in the soil beneath the dry well (NNSA/NSO, 2004a). The concrete dry well was filled to grade with clean soil, which also plugged the two pipes leading into the well. Two use restriction warning signs (Figure 8) were posted to warn against intrusive activity according to the FFACO Use Restriction Posting Guidance (FFACO, 2003). The CAU Land-Use Restriction Information form and a figure showing the locations of the surveyed points delineating the use-restricted area are included in Appendix G of this report. Annual site inspections will be required to ensure that the signs are in good repair and that the use restriction has been maintained. Details on the post-closure requirements for this CAS are included in Section 5.2.

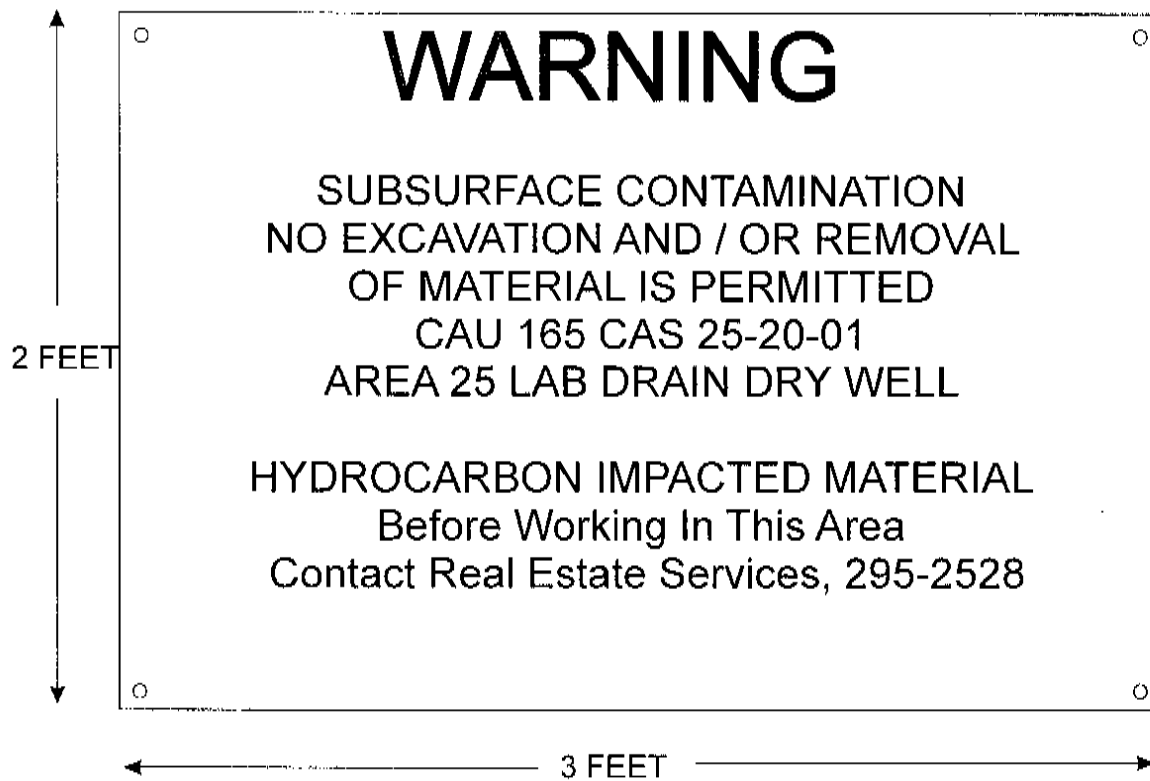


FIGURE 8
CAS 25-20-01, LAB DRAIN DRY WELL, USE RESTRICTION WARNING SIGN

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5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The following site closure activities were performed at CAU 165 and are documented in this CR:

- CAS 25-07-06, Train Decontamination Area - The site was clean closed by removing a concrete pad, surface attachments, railroad ties and rails, and a cast iron underground pipe. The concrete was disposed as LLW, the surface attachments and railroad ties and rails were disposed as sanitary waste, and the pipe was disposed as MW. Approximately 6 m^3 (8 yd^3) of soil that was assumed to be lead and radiologically impacted soil was excavated and disposed as sanitary waste after the waste profile confirmed that it met the WAC for the Area 9 U10c Landfill. Approximately 84 m^3 (110 yd^3) of radionuclide impacted soil was excavated from around the concrete pad and disposed as LLW. Approximately 7.6 m^3 (10 yd^3) of soil impacted with TPH was excavated and disposed as hydrocarbon waste. Verification samples were collected, and the analytical results showed no COCs remained above action levels. The excavations were backfilled.
- CAS 25-07-07, Vehicle Washdown - The site was clean closed by removing a concrete washdown pad and TPH-impacted soil, and disposing both as hydrocarbon waste. A total of approximately 28 m^3 (37 yd^3) of TPH-impacted waste was disposed. Verification samples were collected, and the analytical results showed no COCs remained above action levels. The excavations were backfilled.
- CAS 25-20-01, Lab Drain Dry Well - The site was closed in place with administrative controls. As a BMP, the dry well was filled with inert material. Use restriction warning signs were posted, and a use restriction was implemented.
- CAS 25-47-01, Reservoir and French Drain - No further action was required at this site, and no work was performed.
- CAS 25-51-02, Drywell - The site was clean closed by removing a collection system pipe and disposing it at the Area 9 U10c Landfill. Approximately 27 m^3 (35 yd^3) of TPH-impacted soil was excavated and disposed as hydrocarbon waste. Verification samples were collected, and the analytical results showed no COCs remained above action levels. The excavations were backfilled.
- CAS 25-59-01, Septic System - The site was clean closed by solidifying and removing the sludge from a septic tank and excavating the tank. Verification samples were collected, and the analytical results showed no COCs remained above action levels. The excavations were backfilled.
- CAS 26-07-01, Vehicle Washdown Station - No further action was required at this site, and no work was performed.
- CAS 26-59-01, Septic System - The site was clean closed by neutralizing the bacteria in a septic tank, solidifying and removing the sludge from the tank, and excavating the tank. Verification samples were collected, and the analytical results showed no COCs remained above action levels. The excavations were backfilled.

5.2 POST-CLOSURE REQUIREMENTS

Details of the CAU 165 post-closure monitoring plan are provided below.

5.2.1 Inspections

Inspections will be performed on an annual basis at CAS 25-20-01 (Lab Drain Dry Well) and will consist of visual observations to verify that the signs are in good repair and that the use restriction has been maintained. The results of the inspection will be documented in the annual combined NTS post-closure letter report. The letter report will include a discussion of observations and inspections, copies of the site inspection checklists, and any maintenance records. A copy of the annual letter report will be submitted to the NDEP.

If any maintenance and repair requirements are identified during the annual inspection of CAS 25-20-01 (Lab Drain Dry Well), funding will be requested and the repairs scheduled. Any repair or maintenance performed at this site shall be documented in writing at the time of the repair and included in the annual letter report.

5.3 RECOMMENDATIONS

Since closure activities for CAU 165 have been completed following the NDEP-approved CAP (NNSA/NSO, 2004b) as documented in this report, NNSA/NSO requests the following:

1. A Notice of Completion be provided by the NDEP to the NNSA/NSO for the closure of CAU 165.
2. The transfer of CAU 165 from Appendix III to Appendix IV, *Closed Corrective Action Units*, of the FFACO (FFACO, 1996).

6.0 REFERENCES

DOE, see U.S. Department of Energy.

EPA, see U.S. Environmental Protection Agency.

Federal Facility Agreement and Consent Order. 1996 (as amended). Agreed to by the State of Nevada, the U.S. Department of Energy, and the U.S. Department of Defense.

Federal Facility Agreement and Consent Order. 2003. Use Restriction Posting Guidance.

FFACO, see Federal Facility Agreement and Consent Order.

NNSA/NSO, see U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office

NNSA/NV, see U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office

U.S. Department of Energy. 1997. Environmental Measurements Laboratory Procedure Manual, HASL-300. Washington, D.C.

U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office. 2002a. Corrective Action Investigation Plan for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada. DOE/NV--788, Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office. 2002b. Nevada Environmental Restoration Project Industrial Sites Quality Assurance Project Plan, Nevada Test Site, Nevada. DOE/NV--372, REV. 3, Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004a. Corrective Action Decision Document for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada, Revision 1. DOE/NV--879-REV. 1, Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004b. Corrective Action Plan for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada. DOE/NV--982, Las Vegas, NV.

U.S. Environmental Protection Agency. 1994. Guidance for the Data Quality Objectives Process, EPA QA/G-4. Washington D.C.

REFERENCES (continued)

- U.S. Environmental Protection Agency. 1996. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-0846 CD ROM PB97-501928GEI, which contains updates for 1986, 1992, 1994, and 1996. Washington D.C.
- U.S. Environmental Protection Agency. 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA540/R-99/008. Washington D.C.

APPENDIX A*

DATA QUALITY OBJECTIVES

* As presented and published in the approved Corrective Action Investigation Plan for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada, 2002, DOE/NV--788. Las Vegas, NV.

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A.1.0 Seven-Step DQO Process for Phase I Investigations

The DQO process is a strategic planning approach based on the scientific method that is used to prepare for site characterization data collection. The DQOs are designed to ensure that the data collected will provide sufficient and reliable information to identify, evaluate, and technically defend potentially viable corrective actions (i.e., no further action, close in place, or clean closure). The CAU 165 investigation will be based on DQOs developed by representatives from NDEP and NNSA/NV.

Eight CASs comprise CAU 165. Six of the sites are located within Area 25 and two of the sites are located in Area 26 of the NTS. The eight CASs are:

- CAS 25-20-01, Lab Drain Dry Well
- CAS 25-51-02, Dry Well
- CAS 25-59-01, Septic System
- CAS 26-59-01, Septic System
- CAS 25-07-06, Train Decontamination Area
- CAS 25-07-07, Vehicle Washdown
- CAS 26-07-01, Vehicle Washdown Station
- CAS 25-47-01, Reservoir and French Drain

This section presents the seven-step DQO process for a Phase I investigation. All CASs will begin with a Phase I investigation. If a COPC is detected at concentrations above PALs, the COPC will be identified as a COC. If COCs are identified, the CAS containing that COC will undergo a Phase II investigation as presented in Section A.2.0.

A.1.1 Step 1 - State the Problem

Step 1 defines the problem that has initiated the CAU 165 site investigation. This step identifies the DQO planning team members, describes the problem(s), and develops conceptual site models.

A.1.1.1 Planning Team Members

The DQO planning team consists of representatives from NDEP, NNSA/NV, ITLV, and Bechtel Nevada (BN). The primary decision makers include NNSA/NV and NDEP representatives.

Table A.1-1 lists the representatives from each organization in attendance for the August 22, 2001, DQO Kickoff meeting.

**Table A.1-1
DQO Meeting Participants**

Participant	Affiliation	Meeting Held On
		08/22/2001
Steve Adams	ITLV	X
Stacey Alderson	ITLV	X
Jim Bolden	ITLV	X
Sabine Curtis	NNSA/NV	X
Syl Hersh	ITLV	X
Joe Hutchinson	ITLV	X
Brad Jackson	BN	X
R. Lynn Kidman	ITLV	X
Michael Kruzie	BN	X
Linda Linden	ITLV	X
Bob McCall	ITLV	X
Barbara Quinn	ITLV	X
Greg Raab	NDEP	X
Julie Snelling-Young	ITLV	X
Dustin Wilson	ITLV	X

BN - Bechtel Nevada
NNSA/NV - National Nuclear Security Administration Nevada Operations Office
ITLV - IT Corporation, Las Vegas Office
NDEP - Nevada Division of Environmental Protection
X - Denotes meeting attendance

A.1.1.2 Describe the Problem

Corrective Action Unit 165 is being investigated because hazardous and/or radioactive constituents may be present at concentrations and locations that could potentially pose a threat to human health and the environment.

A.1.1.3 Develop Conceptual Site Models

Conceptual Site Models describe the most probable scenario for current conditions at a site and define the assumptions that are the basis for identifying appropriate sampling strategy and data collection methods. An accurate CSM is important as it serves as the basis for all subsequent inputs and decisions throughout the DQO process.

An important element of a CSM is the expected fate and transport of contaminants which infer how contaminants move through site media and where they can be expected to be found in the environment. The expected fate and transport is based on distinguishing physical characteristics of the contaminants and media. Contaminant characteristics include solubility, density, and particle size. Media characteristics include permeability, saturation, sorting, chemical composition, and adsorption coefficients. In general, contaminants with low solubility and high density can be expected to be found relatively close to release points. Contaminants with high solubility and low density can be expected to be found further from release points or in areas where settling may occur.

Based on the following information, groundwater contamination is not considered a likely scenario at CAU 165. Depth to groundwater at Area 25 is approximately 1,040 ft bgs, as measured in Well #J-11 in 1993 (USGS, 1993). A perched water table occurs throughout most of Area 26 with static water levels ranging from 81 to 167 ft bgs. The regional water table, is assumed to be at 1,700 ft bgs in Area 26 (Johnson and Ege, 1964).

Three CSMs have been developed for CAU 165 using historical background information, knowledge from studies at similar sites, and data from previous sampling efforts. The three CSMs include:

- Dry Well/Septic System
- Decontamination Pad
- Reservoir

Sections A.1.1.3.1 through A.1.1.3.3 develop and discuss these three CSMs.

A.1.1.3.1 Dry Well/Septic System Conceptual Site Model

The following CASs are included in the Dry Well/Septic System CSM:

- CAS 25-20-01, Lab Drain Dry Well (located in the CSA)
- CAS 25-51-02, Dry Well (ETS-1)
- CAS 25-59-01, Septic System (E-MAD)
- CAS 26-59-01, Septic System (Pluto)

At each site, effluent was discharged from source features (e.g., drains, lavatories) and routed through piping to an underground dispersion structure (i.e., dry well, cesspool, or leachfield), which allowed effluent to percolate into underlying soil for disposal. The septic systems are consistent with the general CSM described in the *Work Plan for Leachfield Corrective Action Units: Nevada Test Site and Tonopah Test Range, Nevada* (DOE/NV, 1998). Significant differences include the lack of distribution boxes and the presence of a cesspool instead of a leachfield at CAS 25-59-01.

Figure A.1-1 shows a generalized representation of the Dry Well/Septic System CSM and the following text provides additional detail to supplement the model.

COPCs/Released Material

CAS 25-20-01, Lab Drain Dry Well: Process knowledge indicates that the Dry Well may have received chemical effluent and was not part of a domestic sewage system (Norman Engineering Co., 1967). Specific chemical compounds in the effluent are unknown. According to engineering drawings, sources included three sinks associated with fume hoods and two floor drains. The sinks are located in the Chemical Analysis Room (207) and the Particulate Analysis Room (211). The floor drains are located in the Valve Test and Maintenance Shop Room (217) (Norman Engineering Co., 1967). There is sufficient process knowledge to indicate that radiological COPCs were not introduced into the system (Alderson, 2001).

CAS 25-51-02, Dry Well: Potentially released materials include sulfuric acid and sodium hydroxide (Aetron, 1963). There is sufficient process knowledge to indicate that radiological COPCs were not introduced into the system (Alderson, 2001).

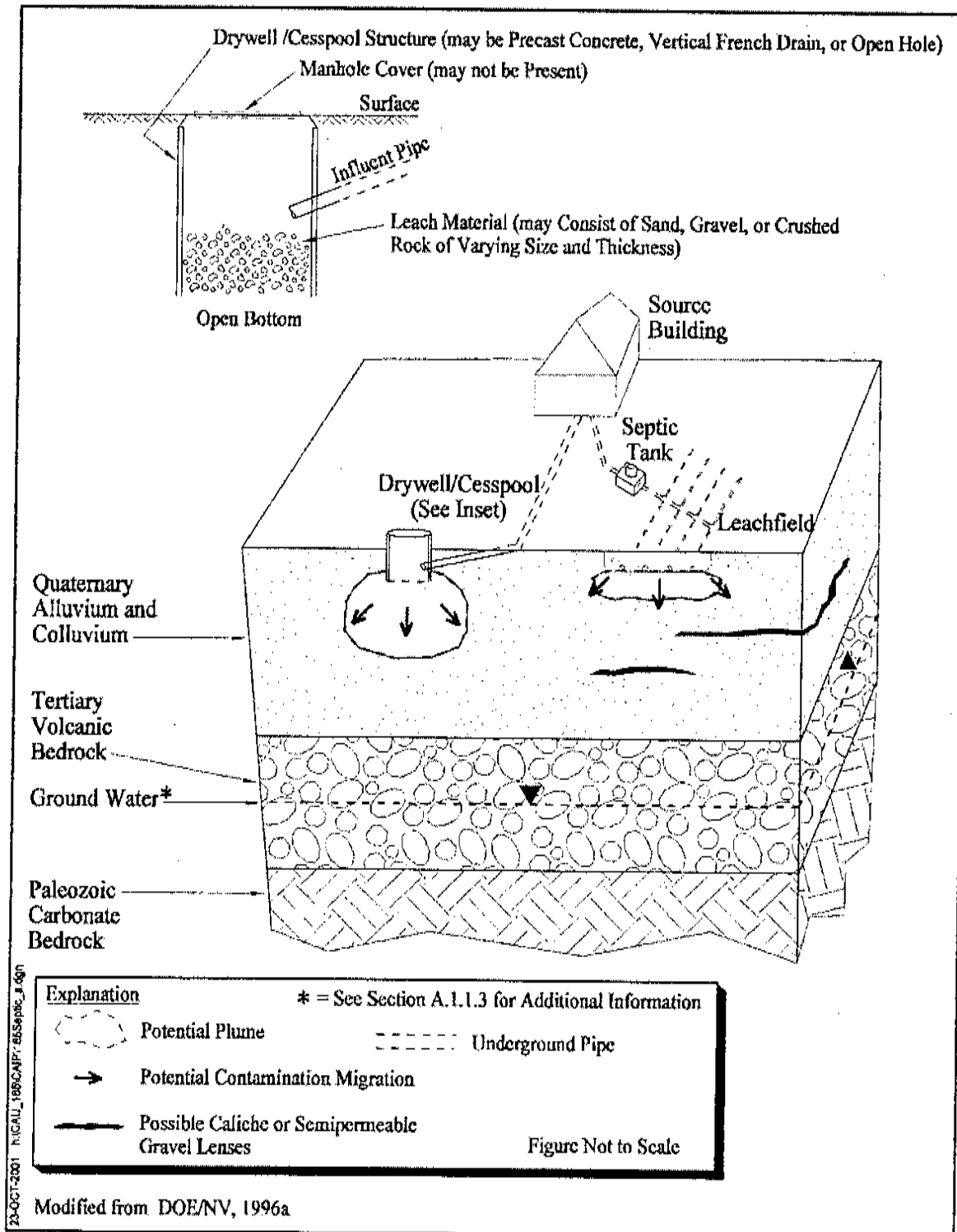


Figure A.1-1
Dry Well/Septic System Conceptual Model

CAS 25-59-01, Septic System: No chemical or radiological COPCs have been confirmed for this CAS. The system was designed to receive domestic sewage only. Although unlikely, there is a potential that some radiological and/or chemical compounds may have been introduced into the system through the sinks in the restroom.

CAS 26-59-01, Septic System: The system was designed to receive domestic sewage only. Although unlikely, there is a potential that unidentified chemical COPCs may have been introduced into the system via the service sink. There is sufficient process knowledge to indicate that radiological COPCs were not introduced into the system (Alderson, 2001).

Affected Media

Affected media includes system components (i.e., dry wells, septic tanks, cesspool, leachfield, leachrock, associated piping), content of septic tanks and residual material in pipes (if present), and subsurface soil surrounding system components.

Location of Contamination/Release

All the CASs in this CSM have a leachrock/native soil interface which is the most likely place to find soil contamination. Both dry wells and the cesspool are single, point-source releases. Any contaminants at these CASs, regardless of physical or chemical characteristics, are expected directly beneath these structures.

The leachfield has multiple distribution lines. If present, soluble contaminants are expected in the distal areas of the leachfield; insoluble and large-particle contaminants are expected in the proximal areas.

All designed releases are subsurface and there is no evidence of surface soil staining at any of the CASs; therefore, surface contamination is not expected.

If contaminants were discharged to these systems, contaminants may be present in the septic tanks of CASs 25-59-01 and 26-59-01. Any residual material remaining in piping may also contain contaminants.

Transport Mechanisms

Contaminants may have been transported by the release of effluent into the systems which served as the driving force for downward migration of contaminants; however, the systems are no longer active. Infiltration from precipitation may be a minor transport mechanism since one of the dry wells and the leachfield are unconfined at the surface.

Preferential Pathways

Preferential pathways at the CASs are expected to be limited to typical vertical migration due to gravity.

Lateral and Vertical Extent of Contamination

Contamination, if present, is expected to be contiguous to the site. Concentrations are expected to decrease with distance and depth from the dry wells, cesspool, and leachfield.

Groundwater contamination is not considered a likely scenario at CAU 165. A perched aquifer is postulated throughout Area 26 from 81 to 167 ft bgs (Johnson and Ege, 1964). Depth to groundwater at Area 25 is approximately 1,040 ft bgs, as measured in Well #J-11 in 1993 (USGS, 1993) and in Area 26, the regional water table is assumed to be at 1,700 ft bgs (Johnson and Ege, 1964).

A.1.1.3.2 Decontamination Pad Conceptual Site Model

The following CASs are included in the Decontamination Pad CSM:

- CAS 25-07-06, Train Decontamination Area (located at E-MAD)
- CAS 25-07-07, Vehicle Washdown (RCP)
- CAS 26-07-01, Vehicle Washdown Station (Pluto)

At each decontamination pad, various equipment was washed and effluent was discharged to collection points via piping or direct surface flow. Unless discharged to another system, effluent would have percolated into nearby soil.

Figure A.1-2 shows a generalized representation of the CSM, and the following text provides additional detail to supplement the model.

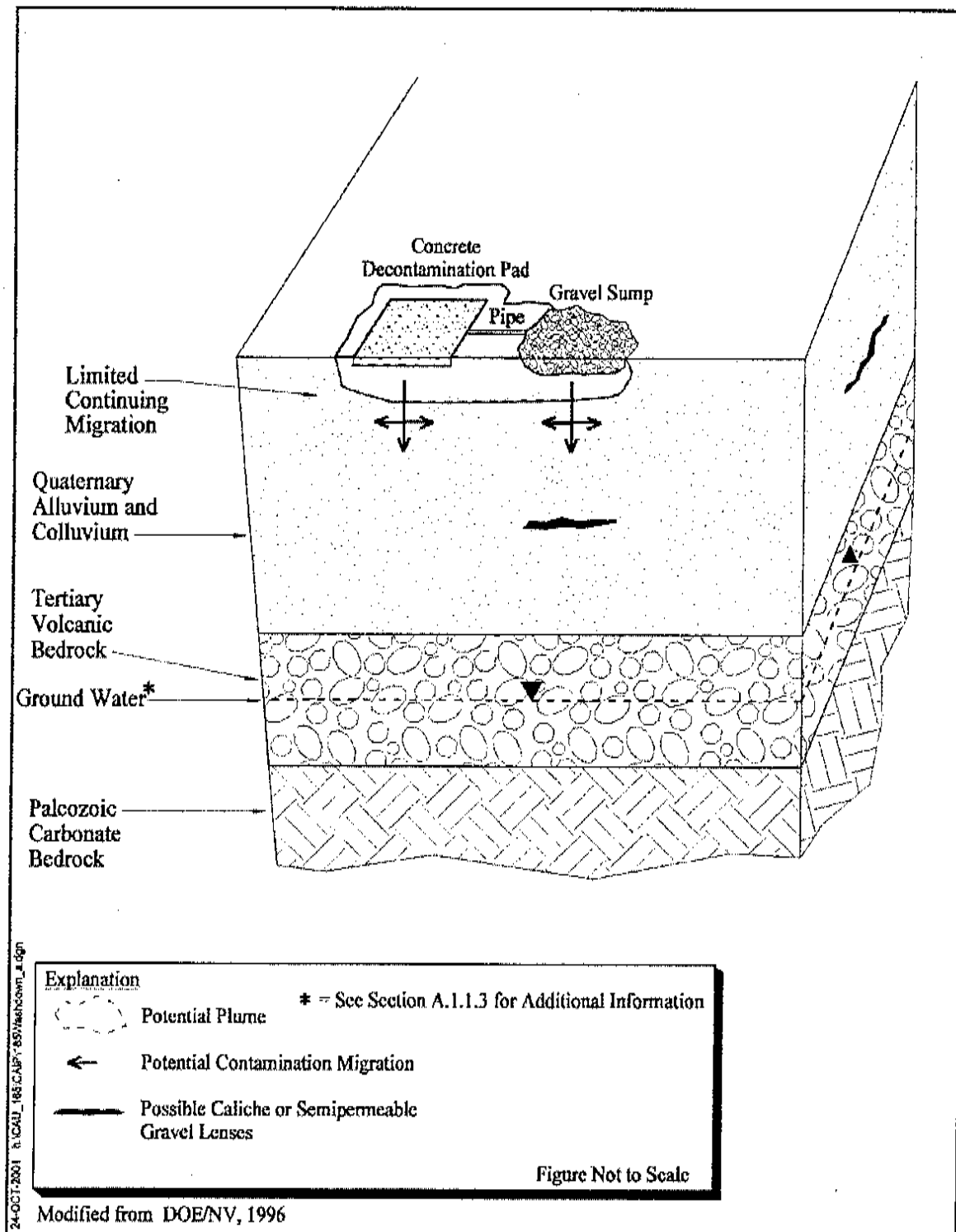


Figure A.1-2
Decontamination Pad Conceptual Model

COPCs/Released Material

CAS 25-07-06, Train Decontamination Area: Chemical COPCs include solvents, degreasers, Freon-10, alcohol, diluted acid, Turco decontamination solvent, unknown chemical cleaners, diesel fuel, PCBs, motor oil, and heavy metals (Garey, 1997 and 1999; LASL, 1970; Penwell, 1999). Radiological COPCs include: Co-60, Sr-90, Y-90, Nb-94, Cs-137, Ba-137m, Eu-152, Eu-154, Eu-155, U-234, U-235, U-238, Pu-238, Pu-239/240, and Am-241 (Alderson, 2001).

CAS 25-07-07, Vehicle Washdown: Chemical COPCs include detergents and Freon-10 (Garey, 2000). Beryllium associated with the TNT excursion may also be present. Radiological COPCs include: Co-60, Sr-90, Y-90, Nb-94, Cs-137, Ba-137m, Eu-152, Eu-154, Eu-155, U-234, U-235, U-238, Pu-238, Pu-239/240, and Am-241 (Alderson, 2001). Due to the presence of the utility drain pad connection near one of the trailer pads, COPCs associated with domestic sewage may also be present.

CAS 26-07-01, Vehicle Washdown Station: Chemical COPCs include unidentified solvents and cleaning chemicals. Beryllium associated with the Tory Reactor may also be present. Radiological COPCs include: Co-60, Sr-90, Y-90, Nb-94, Cs-137, Ba-137m, Eu-152, Eu-154, Eu-155, U-234, U-235, U-238, Pu-238, Pu-239/240, and Am-241 (Alderson, 2001).

Affected Media

Affected media includes concrete decontamination pads, waste lines, residual material in pipes, surrounding surface and subsurface soil, the awning and related hardware at CAS 26-07-01, and sump gravel at CAS 25-07-07.

Location of Contamination/Release

Contamination may be present on the decontamination pads, in surrounding surface and subsurface soil, in and on piping, and in the gravel sump at CAS 25-07-07.

Contamination on the decontamination pads at CAS 25-07-06 and CAS 26-07-01 may be scattered or may be concentrated around the floor drains. The pad at CAS 25-07-07 does not have a floor drain

and appears to be flat (i.e., no grade). Thus contamination, if present, is expected to be scattered and no biasing factors exist to concentrate contamination at any given location.

If present at CAS 25-07-07, insoluble, heavy, and/or large-particle COPCs are expected in the soil between the pad and the gravel sump. Contamination, if present, in the gravel sump is expected at the gravel/native soil interface at the proximal end, closest to the decontamination pad, and under the perforated pipe in the sump.

Transport Mechanisms

The discharge of effluent through the systems was the primary transport mechanism; however, the systems are no longer active. Infiltration from precipitation may be a minor mechanism, either by moving contaminants deeper into surrounding soil or by moving contaminants through open floor drains into associated collection or dispersion points. Runoff may be a minor transport mechanism, moving surface contamination to low-lying areas adjacent to the site.

Preferential Pathways

Preferential pathways at the CASs are expected to be limited to typical vertical migration due to gravity.

Lateral and Vertical Extent of Contamination

Contamination is expected to be mostly confined to the decontamination pads, adjacent soil, or in the case of CAS 25-07-07, to the gravel sump. Any contamination should be contiguous to the site, and concentrations are expected to decrease with distance and depth from the source.

The decontamination pads at CAS 25-07-06 and CAS 26-07-01 were constructed with concrete berms to contain effluent. As a result of these designs, contamination is expected to be minimal in surrounding soils. The decontamination pad at CAS 25-07-07 was constructed to direct effluent from the pad to the sump via surface flow; therefore, soil between the pad and the sump may be contaminated.

Groundwater contamination is not considered a likely scenario at CAU 165. A perched aquifer is postulated throughout Area 26 from 81 to 167 ft bgs (Johnson and Ege, 1964). Depth to groundwater at Area 25 is approximately 1,040 ft bgs, as measured in Well #J-11 in 1993 (USGS, 1993) and in Area 26, the regional water table is assumed to be at 1,700 ft bgs (Johnson and Ege, 1964).

A.1.1.3.3 Reservoir Conceptual Site Model

CAS 25-47-01, Reservoir and French Drain, is included in the Reservoir CSM.

Effluent was apparently discharged to the reservoir via an unlined, earthen drain as overflow from or during construction of a nearby septic system. Contaminants may have percolated into underlying soil.

Figure A.1-3 shows a generalized representation of the CSM and the following text provides additional detail to supplement the model.

COPCs/Released Material

There is uncertainty regarding COPCs due to the limited knowledge of the site. Chemical COPCs inferred from those identified in the nearby septic system septic tank include barium, VOCs, SVOCs, TPH-DRO, and PCBs (Nutley, 2000; REECo, 1995). Radiological COPCs may include Pu-238 and Pu-239/240 (Alderson, 2001).

Affected Media

Affected media include soil within and surrounding the historical boundaries of the reservoir and earthen drain.

Location of Contamination/Release

Contamination, if present, is most likely in soil at the base of the reservoir. It is possible that an organic or sludge layer may be present at or near the base of the reservoir.

Since the reservoir has been backfilled, contamination is unlikely. However, contamination is possible in the soil adjacent to and above the reservoir base. If present, insoluble, heavy, and/or

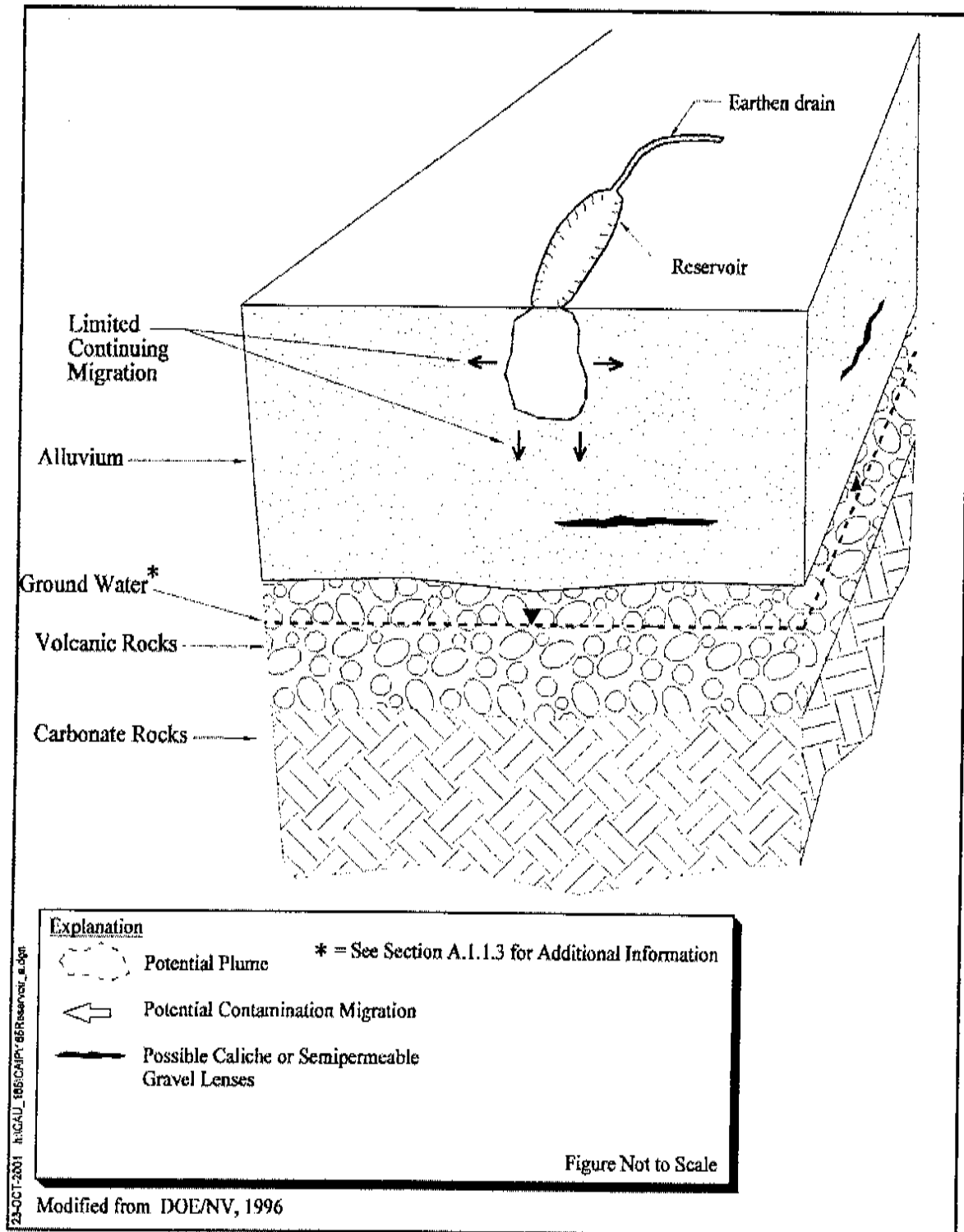


Figure A.1-3
Reservoir Conceptual Model

large-particle COPCs can be expected at the proximal end of the earthen drain. If present, any soluble COPCs can be expected anywhere within the reservoir.

Transport Mechanisms

The discharge of effluent into the reservoir and earthen drain was the primary transport mechanism; however, the reservoir has been backfilled. Infiltration from precipitation may be a minor transport mechanism moving contaminants deeper into surrounding soil.

Preferential Pathways

Preferential pathways at the CASs are expected to be limited to typical vertical migration due to gravity.

Lateral and Vertical Extent of Contamination

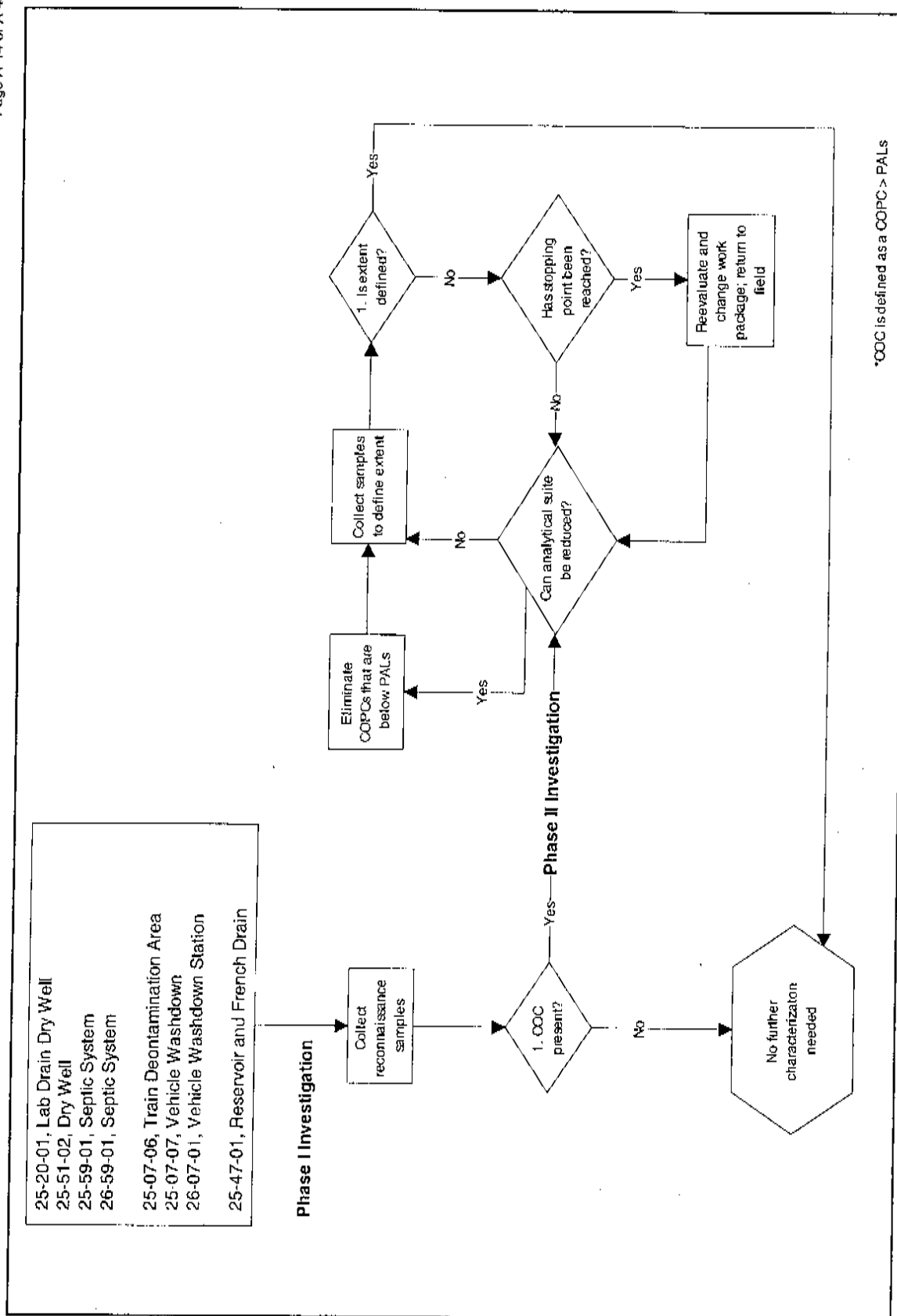
In general, contamination is expected to be contiguous to the historical boundaries of the reservoir and earthen drain. There is no evidence that the reservoir overflowed its banks; therefore, contamination outside the physical boundary along the surface edges of the site is considered unlikely. If present, surface contamination concentrations are expected to decrease outward from the edges of the reservoir. Concentrations of contamination are expected to decrease with depth from the reservoir base/native soil interface.

A.1.2 Step 2 - Identify the Decision

This step develops a decision statement and defines alternative actions. Figure A.1-4 is a flow chart which identifies decisions and alternative actions appropriate for a Phase I investigation.

A.1.2.1 Develop a Decision Statement

The decision statement for a Phase I investigation is "Determine if a COC is present."



*COC is defined as a COPC > PALs

Figure A.1-4
Decision Diagram for Investigation

A.1.2.2 Alternative Actions to the Decision

If a COC is not present, further assessment of the CAS is not required. If a COC is present, initiate a Phase II investigation.

A.1.3 Step 3 - Identify the Inputs to the Decision

This step identifies the information needed, determines sources for information, determines the basis for establishing the action level, and identifies sampling and analysis methods that can meet the data requirements.

A.1.3.1 Information Needs and Information Sources

In order to determine if a COC is present at a particular CAS, sample data must be collected and analyzed following these two criteria: (1) samples must be collected in areas most likely to be contaminated, and (2) the analytical suite selected must be sufficient to detect any contamination present in the samples. Biasing factors to support these criterion include:

- Documented process knowledge on source and location of release
- Field observations
- Radiological surveys
- Historical sample results
- Experience and data from investigations of similar sites
- Professional judgement

Table A.1-2 lists the information needs, the source of information for each need, and the proposed methods to collect the data. The last column addresses the QA/QC data type and associated metric. The data type is determined by the intended use of the resulting data in decision making. Data types are discussed below.

Quantitative Data

Quantitative data measures the quantity or amount of a characteristic or component within the population of interest. These data require the highest level of QA/QC in collection and measurement systems because the intended use of the data is to resolve primary decisions (i.e., rejecting or

Table A.1-2
Information Needs to Resolve the Phase I Decision

Information Need	Information Source	Collection Method	Data Type/Metric
Decision: Determine if a COC is present. Criteria 1: Samples will be collected in areas most likely to be contaminated.			
Source and location of release points	Process knowledge and previous investigations of similar sites	Information documented in CSM and public reports - no additional data needed	Qualitative - CSM has not been shown to be inaccurate
	Site visit and field observations	Conduct site visits and document field observations	Qualitative - CSM has not been shown to be inaccurate
	Radiological surveys	Perform radiological surveys using appropriate methods	Semiquantitative - Sampling based on biasing criteria stipulated in DQO Step 7
Decision: Determine if a COC is present. Criteria 2: Analyses must be sufficient to detect contamination in samples.			
Identification of all potential contaminants	Process knowledge and previous investigations of similar sites; a full suite of analyses will be utilized	Information documented in CSM and public reports - no additional data needed	Qualitative - CSM has not been shown to be inaccurate
Analytical results	Data packages of biased samples	Appropriate sampling techniques and approved analytical methods will be used	Quantitative - Validated analytical results will be compared to PALs

accepting the null hypothesis) and/or verifying closure standards have been met. Laboratory analytical data are generally considered quantitative.

Semiquantitative Data

Semiquantitative data indirectly measures the quantity or amount of a characteristic or component of interest. Inferences are drawn about the quantity or amount of a characteristic or component because a correlation has been shown to exist between the indirect measurement and the results from a quantitative measurement. The QA/QC requirements on semiquantitative collection and measurement systems are high but may not be as rigorous as a quantitative measurement system. Semiquantitative data contribute to decision making but are not used alone to resolve primary decisions. Field-screening data are generally considered semiquantitative.

Qualitative Data

Qualitative data identifies or describes the characteristics or components of the population of interest. The QA/QC requirements are the least rigorous on data collection methods and measurement systems. The intended use of the data is for information purposes, to refine conceptual models, and guide investigations rather than resolve primary decisions. This measurement of quality is typically assigned to historical information and data where QA/QC may be highly variable or not known. Professional judgement is often used to generate qualitative data.

Metrics provide a tool to determine if the collected data support decision making as intended. Metrics tend to be numerical for quantitative and semiquantitative data, and descriptive for qualitative data.

A.1.3.2 Determine the Basis for Preliminary Action Levels

Site workers may be exposed to contaminants through oral ingestion, inhalation, or dermal contact (absorption) of septage and soil during disturbance of these medias.

Laboratory analytical results for septage and soils will be compared to the following PALs to evaluate if COPCs are present at levels that may pose an unacceptable risk to human health and/or the environment:

- *EPA Region 9 Risk-Based Preliminary Remediation Goals for Industrial Soils* (EPA, 2000)
- Background concentrations for RCRA metals when natural background exceeds the PRG, as is often the case with arsenic; background is considered the mean plus two times the standard deviation of the mean for sediment samples collected by the Nevada Bureau of Mines and Geology throughout the Nellis Air Force Range (NBMG, 1998; Moore, 1999)
- The TPH action limit of 100 ppm per the *Nevada Administrative Code* (NAC) 445A.2272 (NAC, 1999)
- The PALs for radionuclides are isotope-specific and defined as the maximum concentration for that isotope found in samples from undisturbed background locations in the vicinity of the NTS (McArthur and Miller, 1989; Atlan-Tech, 1992; Black and Townsend, 1996)

For COPCs without established PRGs, a similar protocol as EPA Region 9 will be used in establishing an action level, if necessary.

Solid media such as concrete and/or structures may only pose a potential radiological exposure risk to site workers. Surface radiological surveys of the solid media will be compared to the free-release criteria, as defined in the *NV/YMP Radiological Control Manual* (DOE/NV, 2000) (i.e., 1,000 dpm/100 cm² for removable surface contamination) to evaluate if COPCs are present at levels that may pose an unacceptable risk to human health and/or the environment.

A.1.3.3 Potential Sampling Techniques and Appropriate Analytical Methods

Excavation, drilling, direct push, scoop and trowel, or other appropriate sampling methods will be used. Sample collection and handling activities will follow standard procedures.

The Industrial Sites QAPP (DOE/NV, 1996), unless otherwise stipulated in the CAIP, provides analytical methods and laboratory requirements (e.g., detection limits, precision and accuracy requirements, minimum sample volume). Specific analyses required for the disposal of IDW are identified in Section 5.0 of this CAIP.

To assure that laboratory analyses are sufficient to detect contamination in soil/septage samples at concentrations exceeding the MRL, Phase I chemical and radiological parameters of interest have been selected for each CAS. Solid media (i.e., concrete) will not be analyzed for chemical or radiological parameters by a laboratory during Phase I. For each CAS, the chemical parameters for soil/septage include:

- Total VOCs
- Total SVOCs
- PCBs
- TPH (DRO and GRO)
- Total RCRA metals
- Beryllium (CAS 26-07-01 and 25-07-07 only)
- pH (CAS 25-51-02 only)

Radiological parameters for each CAS include:

- Isotopic uranium
- Isotopic plutonium
- Strontium-90
- Gamma-emitting radionuclides

A.1.4 Step 4 - Define the Boundaries of the Study

The purpose of this step is to define the target population of interest, specify the spatial and temporal features of that population that are pertinent for decision making, determine practical constraints on data collection, and define the scale of decision making relevant to target populations.

A.1.4.1 Define the Target Population

The Phase I investigation target populations for each CAS are shown in Table A.1-3. These target populations represent locations within the system that will encounter contamination, if present. Media containing rodent excreta will not be collected because it cannot be analyzed by the laboratory due to the potential for Hanta Virus exposure and is not representative of sediment associated with effluent discharge. Additional target populations may also be sampled during a Phase I investigation, at the discretion of the Site Supervisor. While these samples may not directly support Phase I decision making, they will be used if a CAS is elevated to a Phase II investigation.

A.1.4.2 Identify Spatial and Temporal Boundaries

The spatial boundaries that apply to each CAS in a Phase I investigation are the sample locations selected for Phase I sampling.

Temporal boundaries are those time constraints set up by weather conditions and project schedules. Weather conditions in Area 25 and Area 26 are generally tolerable year-round and will not significantly impact investigation activities. There are no time constraints on collecting samples as environmental conditions at all sites will not significantly change in the near future, and conditions would have stabilized over the years since the systems were last used.

A.1.4.3 Identify Practical Constraints

Activities on the NTS which are controlled may affect the ability to characterize this site, especially activities at the Reactor Control Point and Engine Test Stand where the investigation cannot be conducted from February through April. Underground utilities are expected to exist at some of the sites which may limit intrusive sampling locations, and adverse weather conditions may delay the investigation of this CAU. Access to CAS 26-07-01 is limited by lack of roads and may impact

**Table A.1-3
Target Populations for Phase I Investigations**

CAS	Target Population
25-20-01 Lab Drain Dry Well	COC concentrations in soil at leachrock/native soil interface in Dry Well COC concentrations in residual material in collection system pipe, if present
25-51-02 Dry Well	COC concentrations in soil at leachrock/native soil interface in Dry Well COC concentrations in residual material in collection system pipe, if present
25-59-01 Septic System	COC concentrations in soil at leachrock/native soil interface in cesspool COC concentrations in septic tank contents, if present COC concentrations in soil beneath the inlet and outlet pipes at septic tank base COC concentrations in residual material in collection system pipe, if present
26-59-01 Septic System	COC concentrations in soil at leachrock/native soil interface underlying distribution pipes at the proximal and distal ends of leachfield COC concentrations in septic tank contents, if present COC concentrations in soil beneath the inlet and outlet pipes at septic tank base COC concentrations in residual material in collection system pipe, if present
25-07-06 Train Decontamination Area	COC concentrations in surface concrete from decontamination pad COC concentrations in surface soil around the decontamination pad COC concentrations in residual material in pipe, if present
25-07-07 Vehicle Washdown	COC concentrations in surface soil between decontamination pad and sump COC concentrations in surface soil around the decontamination pad COC concentrations in soil at leachrock/native soil interface in sump COC concentrations in surface concrete from decontamination pad COC concentrations in residual material in pipe, if present
26-07-01 Vehicle Washdown Station	COC concentrations in surface concrete from decontamination pad COC concentrations in surface soil around the decontamination pad COC concentrations in interior side walls of transite awning
25-47-01 Reservoir and French Drain	COC concentrations in soil at reservoir and earthen drain base/native soil interface

investigation activities. The presence of the Manned Control Car in CAS 25-07-06 may hinder the investigation of that CAS. At CAS 25-59-01, the effluent chamber of the septic tank may have limited access minimizing the sample collection opportunities.

A.1.4.4 Define the Scale of Decision Making

The scale of decision making in a Phase I investigation is defined as the CAS.

A.1.5 Step 5 - Develop a Decision Rule

This step integrates outputs from previous steps with the inputs developed in this step into a decision rule ("If...then...") statement. This rule describes the conditions under which possible alternative actions would be chosen.

A.1.5.1 Specify the Population Parameter

Because the sampling in Phase I is biased towards worst-case concentrations, the population parameter will be the maximum observed concentration of each COC within the target population(s).

A.1.5.2 Choose an Action Level

Action levels are defined in Section A.1.3.2.

A.1.5.3 Measurement and Analysis Methods

The measurement and analysis methods in the Industrial Sites QAPP are capable of achieving the expected range of values. The detection limit of the measurement method to be used is less than the PAL for each COC unless specified otherwise in the CAIP. See Section A.1.3.3 for additional details.

A.1.5.4 Decision Rule

If the concentration of any COC in a target population exceeds the PAL for that COC, then that COC is identified as a COC and a Phase II investigation will be conducted. If the COC concentration is less than the PAL, then the decision will be no further corrective action.

A.1.6 Step 6 - Specify Tolerable Limits on Decision Errors

The sampling approach for the Phase I investigation relies on biased sampling locations such as knowing the location of contaminant release; therefore, random sample locations are not considered. Only validated analytical results (quantitative data) will be used to determine if COCs are present.

The baseline condition (i.e., null hypothesis) and alternative condition for the Phase I investigation are as follows:

- Baseline condition - A COC is present
- Alternative condition - A COC is not present

A.1.6.1 False Rejection Decision Error

The false rejection (alpha error) would mean deciding that a COC is not present when it really is, increasing risk to human health and the environment.

A false rejection decision error (where consequences are more severe) is controlled by meeting these criterion: (1) having a high degree of confidence that the sample locations selected will identify COCs if present anywhere within the CAS; and (2) having a high degree of confidence that analyses conducted will be sufficient to detect any COCs present in the samples.

To satisfy the first criteria, Phase I samples will be collected in areas most likely to be contaminated. To accomplish this, the following characteristics are considered:

- Source and location of release
- Chemical nature and fate properties
- Physical transport pathways and properties
- Hydrologic drivers

These characteristics were considered during the development of the CSMs. The biasing factors listed in Section A.1.3.1 will be used to further ensure that the first criteria is met.

To satisfy the second criteria, all Phase I samples will be analyzed for the chemical and radiological parameters listed in Section A.1.3.3. Strict adherence to established procedures and QA/QC protocol protects against false negatives.

A.1.6.2 False Acceptance Decision Error

The false acceptance (beta error) would mean accepting that a COC is present when it is not, resulting in increased costs for unnecessary characterization.

The false acceptance decision error is controlled by protecting against false positive analytical results. False positive results are typically attributed to laboratory and/or sampling/handling errors. Quality assurance/quality control samples such as field blanks, trip blanks, laboratory control samples, and method blanks minimize the risk of a false positive analytical result. Other measures include proper decontamination of sampling equipment and using certified clean sample containers to avoid cross contamination.

A.1.6.3 Quality Assurance/Quality Control

Quality control samples will be collected as required by established procedures. The required QC samples include:

- Trip blanks (1 per sample cooler containing VOC environmental samples)
- Equipment blanks (1 per sampling event for each type of decontamination procedure)
- Source blanks (1 per source lot per sampling event)
- Field duplicates (1 per matrix per 20 environmental samples)
- Matrix spike/matrix spike duplicate (1 per matrix per 20 environmental samples)
- Field blanks (1 per 20 environmental samples or 1 per sampling day, whichever best exemplifies field conditions)

Additional QC samples may be submitted based on site conditions.

Data quality indicators of precision, accuracy, comparability, completeness, and representativeness are defined in the Industrial Sites QAPP. In addition, sensitivity has been included as a DQI for laboratory analyses. Site-specific DQIs are discussed in detail in Section 6.0 of the CAIP.

A.1.7 Step 7 - Optimize the Design for Obtaining Data

Biased sampling will be conducted at CAU 165 during Phase I investigations. Biased sampling locations are determined based on biasing factors listed in Section A.1.3.1. The Site Supervisor has the discretion to modify these locations but only if the modified locations meet the decision needs and criteria stipulated in Section A.1.3.

The following sections provide CAS-specific Phase I investigation activities.

A.1.7.1 CAS 25-20-01, Lab Drain Dry Well

Phase I activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is no surface debris.

A soil sample will be collected from the Dry Well at the leachrock/native soil interface and at 2.5 ft below the interface. The contents of the collection system pipe will be sampled if appropriate, accessible, and adequate media is present. Sample locations may include any engineered access points (e.g., manholes) or excavations at the nominal midpoint of the pipe. Excavation is the preferred method of soil sample collection but drilling, direct push, or hand augering may also be used, as appropriate.

A.1.7.2 CAS 25-51-02, Dry Well

Phase I activities at this CAS will consist of confirming the configuration of the Dry Well and associated piping and collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is no surface debris.

A backhoe excavation will be made near the presumed location of the Dry Well based on coordinates from the geophysical survey and field observations. The excavation will attempt to locate the distal end of the collection system pipe and confirm the presence of the Dry Well. If this excavation does not locate the end of the line, additional excavations will be made to locate the Dry Well. Once the Dry Well is located, soil samples will be collected at the leachrock/native soil interface and at 2.5 ft below the interface.

Excavation is the preferred method of soil sample collection but drilling, direct push, or hand augering may also be used, as appropriate.

The contents of the collection system pipes will be sampled if appropriate, accessible, and adequate media is present. Sample locations may include any engineered access points (e.g., manholes) or excavations at the nominal midpoint of the pipe.

If necessary, a backhoe excavation will be made between the charcoal adsorber furnace pad and the main waste line to confirm the presence or absence of a waste line at that location.

A.1.7.3 CAS 25-59-01, Septic System

Phase I activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is no surface debris.

The septic tank manhole cover will be removed. Both chambers of the septic tank will be inspected for any contents. The contents will be sampled if appropriate, accessible, and adequate media is present. Soil samples will be collected beneath the septic tank inlet and outlet pipes at the base of the septic tanks as determined by engineering drawings. The contents of the collection system pipe will be sampled if appropriate, accessible, and adequate media is present. Sample locations may include any engineered access points (e.g., manholes) or excavations at a nominal midpoint of the pipe.

A soil sample will be collected from the cesspool at the interface of the leachrock/native soil interface and at 2.5 ft below the interface. Hand augering is the preferred soil sample collection method but drilling or direct push may be used, as appropriate.

A.1.7.4 CAS 26-59-01, Septic System

Phase I activities at this CAS will consist of locating the leachfield distribution pipes by excavation and collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is minimal surface debris (i.e., wood). Surface debris will be removed for proper disposal by the NTS M&O contractor prior to the investigation.

The septic tank manhole cover will be removed and the septic tank will be inspected for contents. The contents will be sampled if appropriate, accessible, and adequate media is present. Soil samples will be collected beneath the septic tank inlet and outlet pipes at the base of the septic tanks as determined by engineering drawings. The contents of the collection system pipe will be sampled if appropriate, accessible, and adequate media is present. Sample locations may include any engineered access points (e.g., manholes) or excavations at a nominal midpoint of the pipe.

Excavations and visual inspections will be made in the leachfield to locate the distribution pipes.

Soil samples will be collected beneath the proximal end of the first identified designed release point (closest to the septic tank) and the distal end of the last identified distribution pipe (furthest from the septic tank). Samples will be collected at the leachrock/native soil interface and 2.5 ft below the interface at these locations. If a leachrock/native soil interface is not identified, samples will be collected directly beneath the distribution pipes and at 2.5 ft beneath the pipes. Excavation is the preferred soil sample collection method but direct push, drilling, or hand augering may be used, as appropriate.

A.1.7.5 CAS 25-07-06, Train Decontamination Area

The Phase I investigation at this CAS will consist of conducting a surface radiological survey and collecting data and/or biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities will include surface debris removal for proper disposal by the NTS M&O contractor prior to the investigation. The Manned Control Car, currently parked on the pad, is not considered part of this CAS and will be removed by the NTS M&O contractor prior to the investigation.

The design of this site focuses on decontamination of radiological-impacted media; therefore, chemical COPCs are assumed to be incidental and collocated with radiation. As such, radiological surveys that detect radiological contamination are appropriate tools to locate any contaminants that may be present.

A radiological surface survey of the decontamination pad and adjacent surface soil (out to 15 ft laterally) will be conducted to identify radiological hotspots. A hotspot on the decontamination pad will be defined as any reading exceeding 1,000 dpm/100 cm² over background. If hotspots are identified on the pad, samples may be collected at those locations for waste determination purposes. The Site Supervisor has the discretion of selecting sample locations that best represent potential contamination.

If residual material in pipes is observed, it will be sampled if appropriate, accessible, and adequate media is present.

Based on a recent surface radiological survey, a minimum of four surface soil samples will be collected around the decontamination pad at identified hotspots. The Site Supervisor has the discretion of modifying or replacing these locations based on results of the planned radiological walkover survey. The scoop and trowel method will be used to collect soil samples.

A.1.7.6 CAS 25-07-07, Vehicle Washdown

The Phase I investigation at this CAS will consist of conducting a surface radiological survey, and collecting data and/or biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is limited surface debris. Surface debris will be removed for proper disposal by the NTS M&O contractor prior to the investigation.

A recent radiological walkover survey identified potential radiological activity above background in the borrow pit adjacent to the northeast corner of the site. However, the borrow pit is geographically distinct from the site, is not considered part of this CAS, and will not be investigated.

A radiological survey of the decontamination pad and adjacent surface soil (out to 15 ft laterally) will be conducted to identify radiological hotspots. A hotspot on the decontamination pad will be defined as any reading exceeding 1,000 dpm/100 cm² over background. If hotspots are identified on the pad, samples may be collected at those locations for waste determination purposes. The Site Supervisor has the discretion of selecting sample locations that best represent potential contamination.

A minimum of three surface soil samples will be collected adjacent to the edge of the decontamination pad (one from the east, west, and south sides). The Site Supervisor has the discretion of modifying or replacing these locations based on results of the planned radiological survey.

Two surface soil samples will be collected from the north side of the decontamination pad between the pad and the sump at locations selected by the Site Supervisor.

An excavation will be made at the proximal side of the sump nearest the decontamination pad to locate the sewage distribution pipe and identify the base of the leachrock. A minimum of one sample location will be selected in the vicinity of the pipe and two discrete samples will be collected: one

sample at the leachrock/native soil interface and one sample at 2.5 ft below the interface. If residual material is observed in the pipe, it will be sampled if appropriate, accessible, and adequate media is present.

Scoop and trowel and excavation are the preferred soil sample collection methods, but other methods may be used, as appropriate.

A.1.7.7 CAS 26-07-01, Vehicle Washdown Station

The Phase I investigation at this CAS will consist of conducting a surface radiological survey, and collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is limited surface debris. Surface debris will be removed for proper disposal by the NTS M&O contractor prior to the investigation.

The awning over the east side of the decontamination pad will not be removed. There may be limited access to this site; therefore, all investigative activities may be conducted by hand.

A radiological survey of the decontamination pad, interior walls of the transite awning, and adjacent surface soil (out to 15 ft laterally) will be conducted to identify radiological hotspots. A hotspot on the decontamination pad and awning will be defined as any reading exceeding 1,000 dpm/100 cm² over background. If hotspots are identified on the pad or awning, samples may be collected at those locations for waste determination purposes. The Site Supervisor has the discretion of selecting sample locations that best represent potential contamination.

A minimum of four surface soil samples will be collected around the decontamination pad, one sample per side adjacent to the edge of the pad. The Site Supervisor has the discretion of modifying or replacing these locations based on results of the planned radiological walkover survey. The scoop and trowel method will be used to collect soil samples.

A.1.7.8 CAS 25-47-01, Reservoir and French Drain

Phase I activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.1-3. Site preparation activities are minimal at this CAS and there is no surface debris.

Excavation and visual inspection will be used in an attempt to identify the reservoir base/native soil interface at two locations, proximal and distal. If the reservoir base/native soil interface is identified, a sample will be collected directly below the interface and 2.5 ft below the interface. While excavating to the interface, samples will be collected at 2.5-ft intervals starting at 5 ft bgs. Maximum sampling depth will be limited to the capability of the excavator. The base of the reservoir is not expected to exceed 10 ft bgs.

Soil in the earthen drain will be sampled at the proximal end in the same manner beginning at a depth equivalent to the bottom of the neighboring CAS (25-04-11, distribution box). The locations will be sited based on field observations and process knowledge.

Excavation is the preferred sample collection method, but other appropriate methods (e.g., drilling) may be used.

A.2.0 Seven-Step DQO Process for Phase II Investigations

This section discusses the DQO process for a Phase II investigation for any CAS that requires further assessment based on Phase I results. If COCs are identified, the CAS will proceed to a Phase II investigation.

A.2.1 Step 1 - State the Problem

Refer to Section A.1.1 for information regarding Step 1.

A.2.2 Step 2 - Identify the Decision

This step develops a decision statement and defines alternative actions. Figure A.1-4 is a flow chart that identifies decisions and alternative actions appropriate for a Phase II investigation.

A.2.2.1 Develop a Decision Statement

The decision statement for a Phase II investigation is "Determine the extent of a COC."

A.2.2.2 Alternative Actions to the Decision

If extent of a COC is defined, further assessment of the CAS is not required. If extent is not defined, reevaluate site conditions and collect additional samples.

A.2.3 Step 3 - Identify the Inputs to the Decision

This step identifies the information needed, determines sources for information, determines the basis for establishing the action level, and identifies sampling and analysis methods that can meet the data requirements.

A.2.3.1 Information Needs and Information Sources

In order to determine the extent of a COC, samples must be collected at locations to bound lateral and vertical extent of COCs. Samples will only be analyzed for those parameters which exceeded PALs (i.e., COCs) in Phase I samples. Biasing factors to support these information needs may include:

- Documented process knowledge on source and location of release
- Field observations
- Field-screening results
- Radiological surveys
- Historical sample results
- Experience and data from investigations of similar sites
- Professional judgement
- Phase I sample results

Table A.2-1 lists the information inputs, the source of information for each input, and the proposed methods to collect the data. Additional information is provided in Section A.1.3.1.

**Table A.2-1
Information Needs to Resolve the Phase II Decision**

Information Need	Information Source	Collection Method	Data Type/Metric
Decision: Determine the extent of a COC			
Identification of applicable Phase II contaminants	Data packages of Phase I biased samples	Review Phase I analytical results to select Phase II COCs.	Quantitative - Only COCs identified in Phase I will be analyzed for in Phase II.
Extent of contamination	Field observations	Document field observations.	Qualitative - CSM has not been shown to be inaccurate.
	Field-screening results	Conduct field screening with appropriate instrumentation.	Semiquantitative - FSRs will be compared to FSLs.
	Phase II analytical results	Appropriate sampling techniques and approved analytical methods will be used to bound COCs.	Quantitative - Validated analytical results will be compared to PALs to determine COC extent.

A.2.3.2 Determine the Basis for Preliminary Action Levels

Laboratory analytical results will be compared to the PALs presented in Section A.1.3.2 to determine if COPCs are present at levels that may pose an unacceptable risk to human health and/or the environment (i.e., COCs).

A.2.3.3 Potential Sampling Techniques and Appropriate Analytical Methods

Section A.1.3.3 provides details regarding potential sampling techniques. To assure that laboratory analyses are sufficient to detect contamination in samples, chemical and radiological parameters will be selected based on Phase I analytical data. Only those COCs identified during Phase I will be analyzed for during Phase II. This parameter selection process will be applied independently to each CAS and to each media investigated in a CAS, as discussed in Section A.2.4.4, "Scale of Decision Making."

A.2.4 Step 4 - Define the Boundaries of the Study

The purpose of this step is to define the target population of interest, specify the spatial and temporal features of that population that are pertinent for decision making, determine practical constraints on data collection, and define the scale of decision making relevant to target populations.

A.2.4.1 Define the Target Population

The potential Phase II investigation target populations for each CAS are shown in Table A.2-2. Phase II target populations will be limited to those related to distinct Phase I target populations with COCs. For example, step-outs around the leachfield at CAS 26-59-01 will not be required if COCs are not identified in the Phase I leachfield samples; however, if COCs are identified in samples collected from soil underlying the inlet and outlet pipes of the septic tank, samples will be collected from soil around the locations with COCs. These target populations represent locations within the system that, when sampled, will provide sufficient data to address data needs discussed in Section A.2.2.

A.2.4.2 Specify Spatial and Temporal Features

The spatial boundaries that apply to each CAS in a Phase II investigation are shown in Table A.2-3. In general, geographic boundaries are defined by the structures that comprise the system components as well as impacted soil. Intrusive activities are not intended to extend into CASs not in CAU 165. Temporal boundaries are defined in Section A.1.4.2.

Table A.2-2
Potential Target Populations for Phase II Investigations

CAS	Target Population
25-20-01, Lab Drain Dry Well	COC concentrations in soil at step-out locations around the Dry Well
25-51-02, Dry Well	COC concentrations in soil at step-out locations around the Dry Well
25-59-01, Septic System	COC concentrations in soil at step-out locations around the cesspool COC concentrations in soil at step-out locations around septic tank inlet and outlet pipes
26-59-01, Septic System	COC concentrations in soil at step-out locations around septic tank inlet and outlet pipes COC concentrations in soil at step-out locations around the leachfield
25-07-06, Train Decontamination Area	COC concentrations in soil at step-out locations around the decontamination pad
25-07-07, Vehicle Washdown	COC concentrations in soil at step-out locations around the pad and sump
26-07-01, Vehicle Washdown Station	COC concentrations in soil at step-out locations around the decontamination pad
25-47-01, Reservoir and French Drain	COC concentrations in soil outside the reservoir; COC concentrations in soil outside the earthen drain

Table A.2-3
Spatial Boundaries for Phase II Investigation Sites

Corrective Action Site	Spatial Boundary	
	Horizontal	Vertical
25-20-01, Lab Drain Dry Well	Area from Building 4215 foundation to the Dry Well and a 100-ft buffer around Dry Well	50 ft bgs
25-51-02, Dry Well	Area from Building 3320 foundation to the Dry Well berm and a 100-ft buffer around Dry Well	50 ft bgs
25-59-01, Septic System	Area from the ETMS Building foundation to the septic system, the septic system components, and a 100-ft buffer around the septic system components	50 ft bgs
26-59-01, Septic System	Area from the source building foundation to the septic system components and a 100-ft buffer around the leachfield and system components	50 ft bgs
25-07-06, Train Decontamination Area	Area from the decontamination pad to the isolation valve, the system components, and a 100-ft buffer	50 ft bgs
25-07-07, Vehicle Washdown	Area between the decontamination pad and the sump, system components, and a 100-ft buffer	50 ft bgs
26-07-01, Vehicle Washdown Station	Decontamination pad and a 100-ft buffer	50 ft bgs
25-47-01, Reservoir and French Drain	Former location of the reservoir and earthen drain and a 100-ft buffer	50 ft bgs

A.2.4.3 Identify Practical Constraints

Practical constraints are listed in Section A.1.4.3.

A.2.4.4 Define the Scale of Decision Making

The scale of decision making in a Phase II investigation is defined as the extent of contamination in media from which characterization samples were collected.

A.2.5 Step 5 - Develop a Decision Rule

This step integrates outputs from previous steps with the inputs developed in this step into a decision rule ("If...then...") statement. This rule describes the conditions under which possible alternative actions would be chosen.

A.2.5.1 Specify the Population Parameter

The population parameter will be the maximum observed concentration of each COC within the target population(s).

A.2.5.2 Choose an Action Level

Action levels are defined in Section A.1.3.2.

A.2.5.3 Measurement and Analysis Methods

The measurement and analysis methods in the Industrial Sites QAPP are capable of achieving the expected range of values. The detection limit of the measurement method to be used is less than the PAL for each COPC unless specified otherwise in the CAIP. See Section A.1.3.3 for additional details.

A.2.5.4 Decision Rule

If the maximum observed concentration of any COPC of a target population exceeds the PALs, then additional samples will be collected to define extent. If the observed maximum is less than PALs, then the decision will be no further sampling.

If contamination is inconsistent with the CSM or extends beyond the spatial boundaries identified in Table A.2-3, then work will be suspended and the investigation strategy will be reevaluated. If contamination is consistent with the CSM and is within spatial boundaries, then the decision will be to continue sampling to define extent.

A.2.6 Step 6 - Specify Tolerable Limits on Decision Errors

The sampling approach for the Phase II investigation relies upon biased samples; therefore, statistical analysis is not appropriate. Only validated analytical results (quantitative data) will be used to determine COC extent.

The baseline condition (i.e., null hypothesis) and alternative condition for the Phase II investigation are as follows:

- Baseline condition - Extent of a COC has not been defined
- Alternative condition - Extent of a COC has been defined

A.2.6.1 False Rejection Decision Error

The false rejection (alpha error) would mean accepting that the extent of a COC has been defined when it has not, increasing risk to human health and the environment.

A false rejection decision error (where consequences are more severe) is controlled by meeting these criteria: (1) having a high degree of confidence that the sample locations selected will identify the extent of COCs; and (2) having a high degree of confidence that analyses conducted will be sufficient to detect any COCs present in the samples.

To satisfy that the first criteria is met, the Phase II data collection will sample areas that represent vertical and lateral extent of contamination by considering the following characteristics:

- Source and location of release
- Chemical nature and fate properties
- Physical transport pathways and properties
- Hydrologic drivers

These characteristics were considered during the development of the CSMs. The biasing factors listed in Section A.2.3.1 will be used to further ensure that the first criteria is met.

To meet the second criteria, Phase II samples will be analyzed for those chemical and radiological parameters that were identified as COCs in Phase I samples. Strict adherence to established procedures and QA/QC protocol protects against false negatives.

A.2.6.2 False Acceptance Decision Error

The false acceptance (beta error) would mean accepting that the extent of a COC has not been defined when it really has, resulting in increased costs for unnecessary remediation.

The false acceptance decision error is controlled by protecting against false positive analytical results. False positive results are typically attributed to laboratory errors and sampling/handling errors. Quality assurance/quality control samples such as field blanks, trip blanks, laboratory control samples, and method blanks minimize the risk of a false positive analytical result. Other measures include proper decontamination of sampling equipment and using certified clean sample containers to avoid cross contamination.

A.2.6.3 Quality Assurance/Quality Control

Quality assurance/quality control protocols are presented in Section A.1.6.3.

A.2.7 Step 7 - Optimize the Design for Obtaining Data

Biased sampling will be conducted at CAU 165 during Phase II investigations. Biased sampling locations will be determined prior to the investigation based on process knowledge and analytical results from the Phase I investigation. As field data are generated (e.g., radiological surveys, field screening, and Phase I analytical results), the Site Supervisor has the discretion to modify these locations, but only if the modified locations meet the decision needs and criteria stipulated in Section A.2.3.

The following sections provide CAS-specific Phase II investigation activities.

A.2.7.1 CAS 25-20-01, Lab Drain Dry Well

Phase II activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.2-2.

Step-out sample locations will be established in a triangular pattern around the Dry Well. Each step-out will be located approximately 15 ft from the Dry Well. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further stepout may be necessary. At each step-out location, samples will be collected at the depth(s) where COCs were encountered in Phase I samples from the Dry Well, and at 5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected at the Dry Well to define the extent of COCs at that location, if necessary.

Drilling is the preferred method of soil sample collection but excavation, direct push, or hand augering may also be used, as appropriate.

A.2.7.2 CAS 25-51-02, Dry Well

Phase II activities at this CAS will consist of confirming the presence and configuration of ancillary piping and collecting biased samples for laboratory analysis of the target populations noted in Table A.2-2.

Step-out sample locations will be established in a triangular pattern around the Dry Well, each located approximately 15 ft from the Dry Well. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further step-out may be necessary. At each step-out location, samples will be collected at the depth(s) where COCs were encountered in Phase I samples from the Dry Well, and at 5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected at the Dry Well to define extent of COCs at that location, if necessary.

Drilling is the preferred method of soil sample collection but excavation, direct push, or hand augering may also be used, as appropriate.

A.2.7.3 CAS 25-59-01, Septic System

Phase II activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.2-2.

Step-out sample locations will be established in a triangular pattern around the cesspool and/or septic tank, each located approximately 15 ft from the Phase I location. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further stepout may be necessary. At each step-out location, samples will be collected at the depth(s) where COCs were encountered in Phase I samples, and at 5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected to define the extent of COCs at Phase I locations, if necessary.

Drilling is the preferred method of soil sample collection but excavation, direct push, or hand augering may also be used, as appropriate.

A.2.7.4 CAS 26-59-01, Septic System

Phase II activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.2-2.

If COCs are identified in any of the Phase I samples, step-out sample locations will be established. At the septic tank, a triangular pattern will be used, each located approximately 15 ft from the Phase I location. An existing Phase I sample location may be used as a step-out if no COCs were identified. At the leachfield, a minimum of four sampling locations will be established approximately 15 ft outward from the corners of the leachfield. If biasing factors indicate COCs to extend beyond the proposed Phase II sample locations, further step-out may be necessary. At each Phase II location, soil samples will be collected at the depth(s) where COCs were encountered in Phase I samples, and at 5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the

sample with the highest concentration as indicated by biasing factors. Additional samples will be collected to define extent of COCs, if necessary. If contamination is not identified in any of the Phase I samples collected beneath the distribution pipes, the leachfield will be considered uncontaminated and no further samples will be collected.

Drilling is the preferred method of soil sample collection but excavation, direct push, or hand augering may also be used, as appropriate.

A.2.7.5 CAS 25-07-06, Train Decontamination Area

The Phase II investigation at this CAS will consist of collecting biased samples for laboratory analysis of the target population noted in Table A.2-2.

Step outs will be located approximately 15 ft outward (i.e., away from the pad) from Phase I sampling locations where COCs were identified in soil. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further step-out may be necessary. At each step-out location, samples will be collected at the depth(s) where COCs were encountered in Phase I samples, and at 2.5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected to define the extent of COCs, if necessary.

Hand augering is the preferred method of soil sample collection but drilling, direct push, or excavation may also be used, as appropriate.

A.2.7.6 CAS 25-07-07, Vehicle Washdown

The Phase II investigation at this CAS will consist of collecting biased samples for laboratory analysis of the target population noted in Table A.2-2.

Soil surrounding the decontamination pad and sump will be sampled, based on Phase I results. Stepouts will be located approximately 15 ft outward (i.e., away from the pad or sump) from Phase I sampling locations where COCs were identified. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further stepout may be necessary. At each step-out location,

samples will be collected at the depth(s) where COCs were encountered in Phase I samples, and at 2.5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected to define the extent of COCs, if necessary.

Drilling and excavation are appropriate methods for soil sample collection, but direct push or other methods may also be used.

A.2.7.7 CAS 26-07-01, Vehicle Washdown Station

The Phase II investigation at this CAS will consist of collecting biased samples for laboratory analysis of the target population noted in Table A.2-2.

Soil surrounding the decontamination pad will be sampled based on Phase I results. Step-outs will be located approximately 15 ft outward (i.e. away from the pad) from Phase I sampling locations where COCs were identified. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further step out may be necessary. At each stepout location, samples will be collected at the depth(s) where COCs were encountered in Phase I samples, and at 2.5 ft below the lowest depth where COCs were encountered. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors. Additional samples will be collected to define the extent of COCs, if necessary.

Hand augering is the preferred method of soil sample collection but drilling, direct push, or excavation may also be used, as appropriate.

A.2.7.8 CAS 25-47-01, Reservoir and French Drain

Phase II activities at this CAS will consist of collecting biased samples for laboratory analysis of the target populations noted in Table A.2-2.

Soil within the reservoir and earthen drain will be sampled to determine the vertical extent of COCs based on Phase I results. At each location, samples will be collected at the depth(s) where COCs

were encountered in Phase I samples, and at 2.5 ft below the lowest depth where COCs were encountered.

Soil outside the reservoir and earthen drain will be sampled to determine the lateral extent of COCs. Step-outs will include one on each side of the reservoir and earthen drain. They will be located within 15 ft from the reservoir and earthen drain edges. If biasing factors indicate COCs extend beyond the proposed Phase II sample locations, further step-out may be necessary. Samples will be collected at 2.5-ft intervals from the depth commensurate with the depth of COCs identified in Phase I, plus 5 ft. In general, samples submitted for laboratory analysis will be those that define the uppermost and lowermost contamination, and the sample with the highest concentration as indicated by biasing factors.

Drilling is the preferred sample collection method, but other methods may be used, as appropriate.

A.3.0 References

- Actron. 1963. Engineering Drawing As-Built 3320-P.2.2, Test Cell 'D' Complex Test Stand & Process Systems Utility Equipment Building Piping Plan, 19 July. Covina, CA.
- Alderson, S., IT Corporation, Las Vegas. 2001. Memo to J. Davis (IT) entitled, "Preliminary Action Levels (PALs) and Minimum Reporting Limits (MRLs) for the Radiological Contaminants of Potential Concern (COPC) Identified for Corrective Action Unit (CAU) 165," 2 July. Las Vegas, NV.
- Atlan-Tech. 1992. *Environmental Monitoring Report for the Proposed Ward Valley, California, Low Level Radioactive Waste (LLRW) Facility*. Rosewell, GA.
- Black, S.C., and Y.E. Townsend. 1996. *U.S. Department of Energy, Nevada Operations Office, Environmental Data Report for the Nevada Test Site - 1994*. Las Vegas, NV.
- DOE/NV, see U.S. Department of Energy, Nevada Operations Office.
- EPA, see U.S. Environmental Protection Agency.
- Garey, K., Peer Consultants. 1997. Record of telecon with D. Filmeyer (IT) and A. O'Hagen (IT) regarding various E-MAD and R-MAD sites, 24 February. Las Vegas, NV.
- Garey, K., Peer Consultants. 1999. Record of telecon with B. Bailey (IT) regarding CAU 165, CAS 25-07-06, 6 May. Las Vegas, NV.
- Garey, K., Peer Consultants. 2000. Record of telecon with M. Yaun (IT) regarding CAS 25-07-07, 23 August. Las Vegas, NV.
- IT, see IT Corporation.
- Johnson, R.B., and J.R. Ege. 1964. *Geology of the Pluto Site, Area 401, Nevada Test Site, Nevada*, April, Report TEI-84. Washington, DC: U.S. Department of the Interior, U.S. Geological Survey.
- LASL, see Los Alamos Scientific Laboratory.
- Los Alamos Scientific Laboratory. 1970. *PEWEE Reactor, Safety Analysis Report*. Los Alamos, NM.
- McArthur, R.D., and F.L. Miller. 1989. *Off-Site Radiation Exposure Review Project (ORERP), Phase II Soil Program*, DOE/NV/10384-23, Publication No. 45064. Las Vegas, NV: Desert Research Institute.

Moore, J., Science Applications International Corporation. 1999. Memorandum to M. Todd (SAIC) entitled, "Background Concentrations for NTS and TTR Soil Samples," 3 February. Las Vegas, NV: IT Corporation.

NAC, see *Nevada Administrative Code*.

NBMG, see Nevada Bureau of Mines and Geology.

Nevada Administrative Code. 2000. NAC 445A.2272, "Contamination of Soil: Establishment of Action Levels." Carson City, NV: Nevada Division of Environmental Protection.

Nevada Bureau of Mines and Geology. 1998. *Mineral and Energy Resource Assessment of the Nellis Air Force Range*, Open-File Report 98-1. Reno, NV.

Norman Engineering Co. 1967. As-Built Engineering Drawing NRDS-SF-G/P.5, entitled, "Technical Shops Building Plumbing Plan - Area II," 16 February. Mercury, NV: BN Archives and Records Center.

Nutley, R., Space Nuclear Propulsion Office (retired). 2000. Record of telecon with K. Willse (IT) regarding CAS 25-47-01, 18 September. Las Vegas, NV.

Penwell, C., Reynolds Electrical & Engineering Co., Inc. (retired). 1999. Record of telecon with B. Bailey (IT) regarding CAU 165, CAS 25-07-06, 12 April. Las Vegas, NV.

REEC Co, see Reynolds Electrical & Engineering Co., Inc.

Reynolds Electrical & Engineering Co., Inc. 1995. *Preliminary Characterization of Abandoned Septic Tank Systems*, DOE/NV--414. Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office. 1996. *Industrial Sites Quality Assurance Project Plan*, DOE/NV--372. Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office. 1998. *Work Plan for Leachfield Corrective Action Units: Nevada Test Site and Tonopah Test Range, Nevada*, DOE/NV--514. Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office. 2000. *NV/YMP Radiological Control Manual*, DOE/NV/11718-079 UC-702, Rev. 4. Prepared by Bechtel Nevada. Las Vegas, NV.

U.S. Environmental Protection Agency. 2000. Memorandum from S.J. Smucker to PRG table users regarding *Region 9 PRGs*, 1 November. San Francisco, CA.

U.S. Geological Survey. 1993. *Water Levels in Continuously Monitored Wells in the Yucca Mountain Area, Nevada, 1985-88*, USGS-OFR-91-493. Prepared by R.R. Luckey, D.H. Lobmeyer, and D.J. Burkhardt.

APPENDIX B*

CLOSURE CERTIFICATION

*Appendix B, Closure Certification, of the standardized outline for a Federal Facility Agreement and Consent Order Closure Report is not applicable to the closure of CAU 165.

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APPENDIX C*

AS-BUILT DOCUMENTATION

* Appendix C, As-Built Documentation, of the standardized outline for a Federal Facility Agreement and Consent Order Closure Report is not required for CAU 165. No engineered structures were built.

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APPENDIX D

SAMPLE ANALYTICAL RESULTS

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SAMPLE ANALYTICAL RESULTS
CAS 25-07-06, TRAIN DECONTAMINATION AREA

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PROJECT / CLIENT INFORMATION			REPORT & TURNAROUND INFORMATION			SAMPLE INFORMATION	
Project: CAU 165		BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site: CAU 165, CAS 25-07-06		
Charge Number: 5B01AD50		Phone: 5-5419 / 5-5361	Fax: 5-7761		The samples submitted contain (check):		
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days TH, 28 days Non-rad Env, 45 days Rad Env (IH)		M/S: NTS306		() Hazardous - (list)	
Phone: 5-7775	Fax: 5-7761	Preliminary by: <u>7</u> <u>14</u> (non-Rad Env)		(X) Radioactive - (list)		() Unknown contamination. If known, identify	
M/S: NTS306		<u>1</u> <u>7</u> <u>14</u> <u>28</u> (Radiological Env)		contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.			
SAMPLE MANAGEMENT INFORMATION							
SDG: <u>10.21</u> (IH) <u>10.21</u> (Non-Rad Env) (Rad Env)							
Samples submitted are associated with a signed Project SOW. (X) YES () NO							
Analyses entered here agree with the SOW. (X) YES () NO () N/A							
If not, identify the variation:							
Subcontract Lab(s) used for this work: <u>LOWELL</u>							
ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	Est. Vol	QC MS MD	Pres - Analysis HCl - VOCs
25-07-06-01	03-04-2005	16:21	Soil	1	250 ml		None
25-07-06-02	03-04-2005	16:26	Soil	1	250 ml		None
25-07-06-03	03-04-2005	16:36	Soil	1	250 ml		None
25-07-06-04	03-04-2005	16:33	Soil	1	250 ml		None
25-07-06-05	03-04-2005	16:25	Soil	1	250 ml		None
25-07-06-06	03-04-2005	16:37	Soil	1	250 ml		None
LAST ITEM							
CUSTODY TRANSFER							
Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME		
Mike Floyd		03/04/05 17:15	ER Sample Mgt Refrigerator	N/A	03/04/05 17:15		
ER Sample Mgt. Refrig.	N/A	03/08/05 08:20	Kevin B. Campbell	3/8/05	03/08/05 08:20		
Ken Roberts		3/8/05 9:01	CACASTAWADA		3/8/05 09:01		
CACASTAWADA		3/8/05 09:01	Field & #		3/8/05 09:01		
Field Etc		3/8/05 09:01	Vicente Hernandez		3/8/05 09:01		

Report Date: 03/16/05 11:13
001 Page: 1

Cust ID: 25-07-06-1	25-07-06-1	25-07-06-2	25-07-06-3	25-07-06-4
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Sample Information

RFW#:	001
Matrix:	SOIL
D.F.:	1.00
Units:	ug/kg

001 MS
SOIL
1.00
ug/kg

001 MSD
SOIL
1.00
ug/kg

002
SOIL
1.00
lb/kg

003
SOIL
1.00

004	SOIL	1.00
-----	------	------

p-Terphenyl

95	86
13100 U	72
13100 U	NS

82	%	71	%
NS			

77	%
2800	U
2800	U

85	=====f	U
12900		
3000		

78
=====

Cust ID: 25-07-06-5

25-07-06-6

BLK

BLK BS

Sample
Informa

RFW#:	005
Matrix:	SOIL
D.F.:	1.00
Units:	ug/kg

SOIL
900
1.00

172-MB1
SOIL
1.00
mg/kg

172-MBL
SOIL
1.00

p-Terphenyl

77	%	80	%
13000	U	12900	U
12000	J	12900	U

86.	%
2000	U
2000	U

77	%
77	%

	f
--	----------

Index

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 % = Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. * = Outside of EPA CLP QC

15/06/2014

Sanford Cohen & Associates Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V1</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:11:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-01	0.016	0.136	0.136	0.230
EPA 901.1	K-40	NTS05-6049-01	27.0	1.71	3.19	0.228
EPA 901.1	CO-60	NTS05-6049-01	0.004	0.021	0.021	0.029
EPA 901.1	Y-88	NTS05-6049-01	0.000	0.012	0.012	0.021
EPA 901.1	RU-106	NTS05-6049-01	-0.076	0.142	0.142	0.230
EPA 901.1	SB-125	NTS05-6049-01	-0.003	0.043	0.043	0.072
EPA 901.1	CS-134	NTS05-6049-01	0.015	0.017	0.017	0.025
EPA 901.1	CS-137	NTS05-6049-01	0.019	0.023	0.023	0.030
EPA 901.1	CE-144	NTS05-6049-01	-1.44	1.27	1.28	0.191
EPA 901.1	PM-144	NTS05-6049-01	0.002	0.015	0.015	0.023
EPA 901.1	PM-146	NTS05-6049-01	0.011	0.020	0.020	0.035
EPA 901.1	EU-152	NTS05-6049-01	-0.001	0.043	0.043	0.072
EPA 901.1	EU-154	NTS05-6049-01	0.011	0.030	0.030	0.051
EPA 901.1	EU-155	NTS05-6049-01	0.384	0.077	0.086	0.111
EPA 901.1	PB-212	NTS05-6049-01	1.74	0.117	0.210	0.046
EPA 901.1	TH-234	NTS05-6049-01	2.41	0.488	0.544	0.505
EPA 901.1	U-235	NTS05-6049-01	0.167	0.042	0.045	0.037
EPA 901.1	U-238	NTS05-6049-01	1.33	3.04	3.04	5.26
EPA 901.1	AM-241	NTS05-6049-01	0.147	0.127	0.127	0.203

<u>Quality Control Samples</u>			
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1	SCAQC-6049-PB1

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V2</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:16:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-02	-0.068	0.129	0.129	0.211
EPA 901.1	K-40	NTS05-6049-02	29.8	2.03	3.61	0.225
EPA 901.1	CO-60	NTS05-6049-02	0.009	0.022	0.022	0.032
EPA 901.1	Y-88	NTS05-6049-02	-0.005	0.011	0.011	0.018
EPA 901.1	RU-106	NTS05-6049-02	-0.005	0.140	0.140	0.242
EPA 901.1	SB-125	NTS05-6049-02	0.029	0.043	0.043	0.073
EPA 901.1	CS-134	NTS05-6049-02	-0.002	0.016	0.016	0.025
EPA 901.1	CS-137	NTS05-6049-02	0.009	0.017	0.017	0.031
EPA 901.1	CE-144	NTS05-6049-02	-4.17	1.51	1.57	0.191
EPA 901.1	PM-144	NTS05-6049-02	0.009	0.015	0.015	0.024
EPA 901.1	PM-146	NTS05-6049-02	0.010	0.020	0.020	0.034
EPA 901.1	EU-152	NTS05-6049-02	0.017	0.043	0.043	0.071
EPA 901.1	EU-154	NTS05-6049-02	-0.017	0.031	0.031	0.050
EPA 901.1	EU-155	NTS05-6049-02	0.453	0.089	0.100	0.110
EPA 901.1	PB-212	NTS05-6049-02	1.71	0.117	0.207	0.047
EPA 901.1	TH-234	NTS05-6049-02	1.96	0.488	0.526	0.462
EPA 901.1	U-235	NTS05-6049-02	0.155	0.043	0.046	0.036
EPA 901.1	U-238	NTS05-6049-02	3.40	3.08	3.09	5.42
EPA 901.1	AM-241	NTS05-6049-02	0.029	0.126	0.126	0.192

<u>Quality Control Samples</u>				
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Matrix Spike (MS)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1		SCAQC-6049-PB1

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Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V3</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:19:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-03	-0.014	0.144	0.144	0.239
EPA 901.1	K-40	NTS05-6049-03	26.0	1.81	3.17	0.222
EPA 901.1	CO-60	NTS05-6049-03	-0.001	0.022	0.022	0.030
EPA 901.1	Y-88	NTS05-6049-03	0.002	0.012	0.012	0.021
EPA 901.1	RU-106	NTS05-6049-03	-0.005	0.149	0.149	0.258
EPA 901.1	SB-125	NTS05-6049-03	0.004	0.045	0.045	0.076
EPA 901.1	CS-134	NTS05-6049-03	0.007	0.017	0.017	0.027
EPA 901.1	CS-137	NTS05-6049-03	0.002	0.018	0.018	0.032
EPA 901.1	CE-144	NTS05-6049-03	0.609	1.81	1.81	0.203
EPA 901.1	PM-144	NTS05-6049-03	0.002	0.016	0.016	0.024
EPA 901.1	PM-146	NTS05-6049-03	-0.013	0.021	0.021	0.034
EPA 901.1	EU-152	NTS05-6049-03	0.019	0.045	0.045	0.075
EPA 901.1	EU-154	NTS05-6049-03	-0.017	0.032	0.032	0.053
EPA 901.1	EU-155	NTS05-6049-03	0.426	0.084	0.094	0.118
EPA 901.1	PB-212	NTS05-6049-03	1.81	0.124	0.219	0.048
EPA 901.1	TH-234	NTS05-6049-03	1.34	0.381	0.404	0.499
EPA 901.1	U-235	NTS05-6049-03	0.174	0.049	0.052	0.039
EPA 901.1	U-238	NTS05-6049-03	-0.177	3.02	3.02	5.09
EPA 901.1	AM-241	NTS05-6049-03	-0.080	0.118	0.119	0.198

<u>Quality Control Samples</u>				
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Matrix Spike (MS)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1		SCAQC-6049-PB1

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Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V4</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:21:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-04	-0.084	0.144	0.144	0.233
EPA 901.1	K-40	NTS05-6049-04	27.2	1.87	3.30	0.228
EPA 901.1	CO-60	NTS05-6049-04	0.002	0.021	0.021	0.030
EPA 901.1	Y-88	NTS05-6049-04	0.010	0.012	0.012	0.024
EPA 901.1	RU-106	NTS05-6049-04	0.083	0.142	0.142	0.252
EPA 901.1	SB-125	NTS05-6049-04	0.001	0.043	0.043	0.072
EPA 901.1	CS-134	NTS05-6049-04	-0.013	0.017	0.017	0.024
EPA 901.1	CS-137	NTS05-6049-04	0.012	0.018	0.018	0.032
EPA 901.1	CE-144	NTS05-6049-04	-2.96	1.54	1.57	0.199
EPA 901.1	PM-144	NTS05-6049-04	-0.015	0.016	0.016	0.024
EPA 901.1	PM-146	NTS05-6049-04	0.036	0.022	0.022	0.038
EPA 901.1	EU-152	NTS05-6049-04	0.019	0.045	0.045	0.075
EPA 901.1	EU-154	NTS05-6049-04	-0.002	0.032	0.032	0.053
EPA 901.1	EU-155	NTS05-6049-04	0.596	0.100	0.116	0.113
EPA 901.1	PB-212	NTS05-6049-04	1.85	0.126	0.224	0.048
EPA 901.1	TH-234	NTS05-6049-04	2.73	0.542	0.607	0.472
EPA 901.1	U-235	NTS05-6049-04	0.125	0.037	0.039	0.039
EPA 901.1	U-238	NTS05-6049-04	4.35	3.16	3.19	5.63
EPA 901.1	AM-241	NTS05-6049-04	0.099	0.131	0.131	0.202

<u>Quality Control Samples</u>				
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Matrix Spike (MS)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1		SCAQC-6049-PB1

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V5</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:24:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-05	0.023	0.140	0.140	0.236
EPA 901.1	K-40	NTS05-6049-05	26.9	1.70	3.18	0.217
EPA 901.1	CO-60	NTS05-6049-05	-0.004	0.022	0.022	0.027
EPA 901.1	Y-88	NTS05-6049-05	-0.006	0.012	0.012	0.020
EPA 901.1	RU-106	NTS05-6049-05	0.006	0.148	0.149	0.246
EPA 901.1	SB-125	NTS05-6049-05	0.033	0.043	0.043	0.075
EPA 901.1	CS-134	NTS05-6049-05	0.003	0.017	0.017	0.025
EPA 901.1	CS-137	NTS05-6049-05	0.008	0.018	0.018	0.029
EPA 901.1	CE-144	NTS05-6049-05	-0.274	1.75	1.75	0.202
EPA 901.1	PM-144	NTS05-6049-05	0.001	0.016	0.016	0.024
EPA 901.1	PM-146	NTS05-6049-05	0.013	0.020	0.020	0.035
EPA 901.1	EU-152	NTS05-6049-05	0.014	0.044	0.044	0.074
EPA 901.1	EU-154	NTS05-6049-05	-0.009	0.031	0.031	0.052
EPA 901.1	EU-155	NTS05-6049-05	0.516	0.104	0.116	0.116
EPA 901.1	PB-212	NTS05-6049-05	1.89	0.125	0.226	0.048
EPA 901.1	TH-234	NTS05-6049-05	2.24	0.520	0.566	0.486
EPA 901.1	U-235	NTS05-6049-05	0.132	0.037	0.040	0.038
EPA 901.1	U-238	NTS05-6049-05	0.764	2.76	2.76	4.76
EPA 901.1	AM-241	NTS05-6049-05	0.051	0.117	0.117	0.204

<u>Quality Control Samples</u>			
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1	SCAQC-6049-PB1

Sanford Cohen & Associates Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: V2422

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number:	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V6</u>		
Other Sample ID:	Collection Date: <u>3/7/2005 10:26:00 AM</u>	Date Received: <u>3/9/2005 9:30:00 A</u>
	Batch Number: <u>6049</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ TPU (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	BE-7	NTS05-6049-06	-0.040	0.137	0.137	0.225
EPA 901.1	K-40	NTS05-6049-06	26.9	1.84	3.26	0.238
EPA 901.1	CO-60	NTS05-6049-06	-0.005	0.021	0.021	0.029
EPA 901.1	Y-88	NTS05-6049-06	0.015	0.012	0.012	0.024
EPA 901.1	RU-106	NTS05-6049-06	-0.022	0.142	0.142	0.245
EPA 901.1	SB-125	NTS05-6049-06	0.015	0.044	0.044	0.074
EPA 901.1	CS-134	NTS05-6049-06	-0.001	0.017	0.017	0.025
EPA 901.1	CS-137	NTS05-6049-06	-0.007	0.018	0.018	0.030
EPA 901.1	CE-144	NTS05-6049-06	0.750	1.77	1.77	0.194
EPA 901.1	PM-144	NTS05-6049-06	-0.011	0.016	0.016	0.024
EPA 901.1	PM-146	NTS05-6049-06	0.013	0.021	0.021	0.035
EPA 901.1	EU-152	NTS05-6049-06	-0.028	0.045	0.045	0.073
EPA 901.1	EU-154	NTS05-6049-06	0.027	0.031	0.031	0.052
EPA 901.1	EU-155	NTS05-6049-06	0.318	0.088	0.094	0.091
EPA 901.1	PB-212	NTS05-6049-06	1.90	0.128	0.229	0.047
EPA 901.1	TH-234	NTS05-6049-06	2.48	0.502	0.560	0.478
EPA 901.1	U-235	NTS05-6049-06	0.153	0.039	0.042	0.038
EPA 901.1	U-238	NTS05-6049-06	-0.250	2.98	2.98	5.00
EPA 901.1	AM-241	NTS05-6049-06	0.053	0.117	0.117	0.199

<u>Quality Control Samples</u>			
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Matrix Spike (MS)</u>
Gamma	SCAQC-6049-LC1	SCAQC-6049-LD1	SCAQC-6049-PB1

Bechtel Nevada

ANALYTICAL LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION			REPORT & TURNAROUND INFORMATION			SAMPLE INFORMATION																																						
Project: CAV 165	BN Ord # B502	Send Report to: Dy Asuncion	Phone: 5-5419	Fax: 5-7741	M/S: NIS-306	Sampling Site: CAS 25-D7-06																																						
Charge Number: 5502	5503	Turnaround: ☒ Rush Preliminary by:	☐ Standard - 14 days (H), 28 days (Non-rad Env), 45 days (Rad Env), (IH)	☐ 1	☐ 2	☐ 7	☐ 14	☐ 28 (Radiological Env)																																				
Project Manager: Scot Smith	Phone: 5-7775	Fax: 5-7761	M/S: NIS-306	☒ Hazardous (list) - ☒ Radioactive (list) - ☒ Unknown contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.																																								
SAMPLE MANAGEMENT INFORMATION			SAMPLE INFORMATION			Pay Item, Analysis, Method																																						
SDG: (IH) V2431	(Non-Rad Env)		(Rad Env)			9.9																																						
Samples submitted are associated with a signed Project SOW ☒ Yes ☐ No			Analyses entered here agree with the SOW ☒ Yes ☐ No ☐ N/A			Total Lead																																						
If not, identify the variation:			Subcontract Lab(s) used for this work: LIOUVILLE																																									
ID/DESCRIPTION	SAMPLING DATE	MATRIX	CONTAINER #	Est. Vol	MSD	MS	Pres - Analysis eg. HCl - VOCs																																					
250706-V7	3/9 11:04	Soil	1	250ml			4°C																																					
250706-V8	3/9 11:07	Soil	1	250ml			4°C																																					
250706-V9	3/9 11:10	Soil	1	250ml			4°C																																					
250706-V10	3/9 11:13	Soil	1	250ml			4°C																																					
250706-V11	3/9 11:16	Soil	1	250ml			4°C																																					
250706-V12	3/9 11:19	Soil	1	250ml			4°C																																					
<table border="1"> <thead> <tr> <th>CUSTODY TRANSFER</th> <th>Signature</th> <th>Date/Time</th> <th>Received by (print)</th> <th>Signature</th> <th>Date/Time</th> </tr> </thead> <tbody> <tr> <td>By Asuncion</td> <td>[Signature]</td> <td>3/9/05 4:00pm</td> <td>Sample Bridge</td> <td>[Signature]</td> <td>3/2/05 10:00</td> </tr> <tr> <td>EP Sample Refina</td> <td>[Signature]</td> <td>3/9/05 9:00</td> <td>Kevin Campbell</td> <td>[Signature]</td> <td>3/18/05 09:00</td> </tr> <tr> <td>Kevin Campbell</td> <td>[Signature]</td> <td>3/9/05 13:10</td> <td>CAS STANBEN</td> <td>[Signature]</td> <td>3/16/05</td> </tr> <tr> <td>CAS STANBEN</td> <td>[Signature]</td> <td>3/15/05 13:00</td> <td>Feed Ev #</td> <td>[Signature]</td> <td>3/15/05 @ 13:00</td> </tr> <tr> <td>Feed Ev</td> <td>[Signature]</td> <td>3/16/05 @ 09:00</td> <td>VICTOR HERNANDEZ</td> <td>[Signature]</td> <td>3/16/05 @ 09:00</td> </tr> </tbody> </table>									CUSTODY TRANSFER	Signature	Date/Time	Received by (print)	Signature	Date/Time	By Asuncion	[Signature]	3/9/05 4:00pm	Sample Bridge	[Signature]	3/2/05 10:00	EP Sample Refina	[Signature]	3/9/05 9:00	Kevin Campbell	[Signature]	3/18/05 09:00	Kevin Campbell	[Signature]	3/9/05 13:10	CAS STANBEN	[Signature]	3/16/05	CAS STANBEN	[Signature]	3/15/05 13:00	Feed Ev #	[Signature]	3/15/05 @ 13:00	Feed Ev	[Signature]	3/16/05 @ 09:00	VICTOR HERNANDEZ	[Signature]	3/16/05 @ 09:00
CUSTODY TRANSFER	Signature	Date/Time	Received by (print)	Signature	Date/Time																																							
By Asuncion	[Signature]	3/9/05 4:00pm	Sample Bridge	[Signature]	3/2/05 10:00																																							
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CAS STANBEN	[Signature]	3/15/05 13:00	Feed Ev #	[Signature]	3/15/05 @ 13:00																																							
Feed Ev	[Signature]	3/16/05 @ 09:00	VICTOR HERNANDEZ	[Signature]	3/16/05 @ 09:00																																							

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/23/05

CLIENT: BECHTEL NEVADA V2431

LVL LOT #: 0503L009

WORK ORDER: 60052-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
-001	250706-V7	Lead, Total	1290	MG/KG	1.1	6.0
-002	250706-V8	Lead, Total	6.0	MG/KG	1.0	6.0
-003	250706-V9	Lead, Total	4.7	MG/KG	1.1	6.0
-004	250706-V10	Lead, Total	4.7	MG/KG	1.1	6.0

000000019

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/23/05

CLIENT: BECHTEL NEVADA V2431

LVL LOT #: 0503L009

WORK ORDER: 60052-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
-005	250706-V11	Lead, Total	7.9	MG/KG	1.1	6.0
-006	250706-V12	Lead, Total	5.4	MG/KG	1.2	6.0
-007	250706-V64	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.3	MG/KG	0.27	1.0
		Barium, Total	75.9	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	3.6	MG/KG	0.04	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Lead, Total	3.9	MG/KG	0.18	1.0
		Selenium, Total	0.37 u	MG/KG	0.37	1.0
-008	250706-V63	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.4	MG/KG	0.28	1.0
		Barium, Total	68.1	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	3.9	MG/KG	0.04	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Lead, Total	16.1	MG/KG	0.18	1.0
		Selenium, Total	0.39 u	MG/KG	0.39	1.0

000000021

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

Page 1 of 1

<u>PROJECT / CLIENT INFORMATION</u>		<u>REPORT & TURNAROUND INFORMATION</u>		<u>SAMPLE INFORMATION</u>
Project: CAU 165	BN Org#: B502	Send Report to: Reed Podaris / Glenn Richardson		Sampling Site: CAS 25-07-06
Charge Number: 5701 AD50		Phone: 5-0847 / 5-5361	Fax: 5-7761	The samples submitted contain (check):
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days TH, 28 days Non-rad Env, 45 days Rad Env		() Hazardous - (list)
		(X) RUSH Preliminary by: (H)		() Radioactive - (list)
Phone: 5-7775	Fax: 5-7761	M/S: NTS306 --- 1 --- 2 --- 7 --- 14 (non-Rad Env) --- 1 X 7 --- 14 --- 28 (Radiological Env)		(X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

[illegible]

CUSTODY TRANSFER			
Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)
Bo Anderson	[Signature]	3/24/05 - 15:30	Sample Relinquished to -
Sample Relay	[Signature]	3/28/05 - 9:20	Dodley Ennis
Dodley Ennis	[Signature]	3/28/05 - 12:25	Sample Relay
Return Inpector	[Signature]	3/28/05 - 11:30	Boyd & Anderson
Bo Anderson	[Signature]	3/28/05 - 13:18	CACASTANEDA
CACASTANEDA	[Signature]	3/28/05 - 13:18	CACASTANEDA

Retention Code: ENW 5011
 3/28/05 @ 1308
 792882470050
 3/01/05

BN-0732 104/021

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/06/05

CLIENT: BECHTEL NEVADA V2442

LVL LOT #: 0503L108

WORK ORDER: 60052-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-----	-----	-----	-----	-----	-----	-----
-001	250706-V7A	Lead, Total	4.6	MG/KG	1.0	6.0

Sanford Cohen & Associates Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: V2443

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>250706-V7A</u>		
Other Sample ID:	Collection Date: <u>3/24/2005 2:35:00 PM</u>	Date Received: <u>3/30/2005 9:15:00</u>
	Batch Number: <u>6097</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ TPU (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	BE-7	NTS05-6097-01	-0.065	0.138	0.138	0.225
EPA 901.1	K-40	NTS05-6097-01	31.8	2.09	3.80	0.241
EPA 901.1	CO-60	NTS05-6097-01	0.005	0.022	0.022	0.030
EPA 901.1	Y-88	NTS05-6097-01	-0.006	0.012	0.012	0.021
EPA 901.1	RU-106	NTS05-6097-01	0.169	0.149	0.150	0.267
EPA 901.1	SB-125	NTS05-6097-01	0.017	0.044	0.044	0.075
EPA 901.1	CS-134	NTS05-6097-01	0.003	0.017	0.017	0.026
EPA 901.1	CS-137	NTS05-6097-01	-0.012	0.019	0.019	0.032
EPA 901.1	CE-144	NTS05-6097-01	-0.371	1.39	1.39	0.195
EPA 901.1	PM-144	NTS05-6097-01	-0.011	0.016	0.016	0.026
EPA 901.1	PM-146	NTS05-6097-01	0.016	0.021	0.021	0.036
EPA 901.1	EU-152	NTS05-6097-01	-0.020	0.044	0.044	0.072
EPA 901.1	EU-154	NTS05-6097-01	-0.028	0.031	0.031	0.050
EPA 901.1	EU-155	NTS05-6097-01	0.350	0.079	0.087	0.113
EPA 901.1	PB-212	NTS05-6097-01	1.44	0.140	0.201	0.045
EPA 901.1	TH-234	NTS05-6097-01	0.899	0.402	0.412	0.507
EPA 901.1	U-235	NTS05-6097-01	0.111	0.035	0.037	0.037
EPA 901.1	U-238	NTS05-6097-01	2.75	3.20	3.21	5.52
EPA 901.1	AM-241	NTS05-6097-01	0.040	0.099	0.099	0.170

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-6097-LC1	SCAQC-6097-LD1		SCAQC-6097-PB

0503170



ANALYTICAL LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION	
Project: <u>CAN 1105</u>	BN Orig # <u>B502</u>	Send Report to: <u>Reg Asuncion</u>	Phone: <u>5-77419</u>	M/S: <u>WJ-306</u>	Sampling Site: <u>CAS 25-07-06</u>
Charge Number: <u>5801 ADD 5803 EDO</u>		Phone: <u>5-77419</u>	Fax: <u>5-77461</u>		The samples submitted contain (check):
Project Manager: <u>Jeff Smith</u>		Turnaround: ☐ Standard - 14 days (H, 28 days Non-rad Env, 45 Days Rad Env, (H))			☐ Hazardous (list) -
Phone: <u>5-77461</u>	Fax: <u>5-77461</u>	☒ Rush Preliminary by:	☐ 1 ☐ 2 ☐ 7 ☐ 14 ☐ 28 (Radiological Env)		☐ Radioactive (list) -
	M/S: <u>WJ-306</u>				☒ Unknown contamination.
If known, identify contaminants.					
This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.					

SDG: _____ (IH) _____ (Non-Rad Env) V2432 (Rad Env)

Samples submitted are associated with a signed Project SOW ☐ Yes ☐ No

Analyses entered here agree with the SOW ☐ Yes ☐ No ☐ N/A

If not, identify the variation: _____

Subcontract Lab(s) used for this work: SETAF PARAGON

ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	QC			Pres - Analysis eg. HCl - VOCs
					Est. Vol	MSD	MS	
250706-V7	3/9/05	11:04	Soil	1	500ml			40C
250706-V8	3/9/05	11:07	Soil	1	500ml			40C
250706-V9	3/9/05	11:10	Soil	1	500ml			40C
250706-V10	3/9/05	11:13	Soil	1	500ml			40C
250706-V11	3/9/05	11:16	Soil	1	500ml			40C
250706-V12	3/9/05	11:19	Soil	1	500ml			40C
Fast Item								

CUSTODY TRANSFER		Received by (print)		Signature		Date/Time	
Sampled/Relinquished (print)		3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20
Mike Flore	cm. 1.20	3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20
Dickory Emer	Dickory	3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20
ER Sample Refug	W/A	3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20
Kevin Campbell	Kevin Campbell	3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20
CD CASAWEDA	CD CASAWEDA	3/6/05 13:45	3/6/05 13:20	3/6/05 09:25	3/14/05 13:23	3/15/05 13:20	3/16/05 13:20

Fed Ex

Retention Code: EAW 5 (H) 3/16/05 1000

3/16/05 1000

0503170



ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/CLIENT INFORMATION			REPORT & TURNAROUND INFORMATION			SAMPLE INFORMATION		
Project: <u>CAV 1165</u>	BN Org #: <u>BSD</u>	Send Report to: <u>Reg. Agencion</u>	Phone: <u>795-5419</u>	Fax: <u>795-7761</u>	M/S: <u>1173-306</u>	Sampling Site: <u>CAS 25-07-06</u>	The samples submitted contain (check): ☐ Hazardous (list) _____ ☐ Radioactive (list) _____ ☒ Unknown contaminants.	
Charge Number: <u>580706</u>	Phone: <u>580706</u>	Turnaround: ☐ Standard - 14 days (H), 28 days (Non-rad Env), 45 days (Rad Env), (H) ☒ Rush Preliminary by: ☐ 1 ☐ 2 ☐ 7 ☐ 14 ☐ 28 (Radiological Env)				If Known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.		
Project Manager: <u>Jeff Smith</u>	Phone: <u>5-7775</u>	Fax: <u>5-7761</u>	M/S: <u>1173-306</u>					
SAMPLE MANAGEMENT INFORMATION						Pay Item, Analysis, Method		
SDG: _____ (IH)	(Non-Rad Env)		<u>V0432</u>		(Rad Env)			
Samples submitted are associated with a signed Project SOW ☐ Yes ☐ No								
Analyses entered here agree with the SOW ☐ Yes ☐ No ☐ N/A								
If not, identify the variation: _____								
Subcontract Lab(s) used for this work: <u>SENACAR PARAGON</u>								
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol	QC MS MD MSD	Pres - Analysis eg. HCl - VOCs	
25-07-06 - V13	3/9/05	8:11	Soil	1	500ml		4°C	X
250706 - V14	3/9/05	08:14	Soil	1	500ml		4°C	X
250706 - V15	3/9/05	08:17	Soil	1	500ml		4°C	X
250706 - V16	3/9/05	08:20	Soil	1	500ml		4°C	X
250706 - V17	3/9/05	08:23	Soil	1	500ml		4°C	X
250706 - V18	3/9/05	08:26	Soil	1	500ml		4°C	X
250706 - V19	3/9/05	08:29	Soil	1	500ml		4°C	X
250706 - V20	3/9/05	08:32	Soil	1	500ml		4°C	X
CUSTODY TRANSFER								
Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time			
Reddy Enc	<u>[Signature]</u>	3/10/05 9:50a	Kevin Campbell	<u>[Signature]</u>	3/10/05 12:10			
Sample Relinquish	<u>[Signature]</u>	3/10/05 09:53	Kevin Campbell	<u>[Signature]</u>	3/10/05 09:53			
Kevin Campbell	<u>[Signature]</u>	3/14/05 09:13	CNCASAWEDA	<u>[Signature]</u>	3/14/05 09:18			
(NO) SCAWEDA	<u>[Signature]</u>	3/15/05 09:30	Fed Ego	<u>[Signature]</u>	3/15/05 09:00			
Fed Ego	<u>[Signature]</u>	3/16/05 10:05	Matt Minkerman	<u>[Signature]</u>	3/16/05 10:00			

**ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORD**

ANALYTICAL LABORATORY

0213656

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PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site: CAS 25-27-06
Charge Number: 5B01AD50 5B03ED50		Phone: 5-5419 / 5-5361	Fax: 5-7761	The samples submitted contain (check): () Hazardous - (list) _____ () Radioactive - (list) _____
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days FH, 28 days Non-rad Env, 45 days Rad Env (X) RUSH Preliminary by: _____ (H)		(X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.
Phone: 5-7775	Fax: 5-7761	M/S: NTS306		

SAMPLE MANAGEMENT INFORMATION										Pay Item, Analysis, Method			
SDG: _____ (IH) _____ (Non-Rad Env) _____ (Rad Env)		V2432											
Samples submitted are associated with a signed Project SOW. (X) YES () NO													
Analyses entered here agree with the SOW. (X) YES () NO () N/A													
If not, identify the variation: _____													
Subcontract Lab(s) used for this work: <u>PARAGON</u>													
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol	QC MS	MSD	Pres - Analysis eg. HCl - VOC's	NS-A-EPCA-DOD	Gamma	5r-90		
250706-123	3/10/05		Soil	1	300 ml			4°C	X	X	X		
250706-124		1636							X	X	X		
250706-125		1635							X	X	X		
250706-126		1640							X	X	X		
250706-127		1643							X	X	X		
250706-128		1646							X	X	X		
250706-129		1649							X	X	X		
250706-130		1651							X	X	X		
250706-131		1654							X	X	X		

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Mike Elger	Mike Elger	3/10/05 12:15	Sample Refek	[Signature]	3/10/05 1826
Dudley Eric Rober	Dudley Eric Rober	3/11/05 07:25 AM	Dudley Eric Rober	[Signature]	3/11/05 07:25 AM
Dudley Eric	Dudley Eric	3/11/05 09:00 PM	Sample Refek	[Signature]	3/11/05 04:05 PM
Eric Samples Refing	N/A	3/14/05 09:36	Kevin Campbell	Kevin Campbell	3/18/05 0836
Kevin Campbell	[Signature]	3/16/05 1321	OC CASTAVERNA	OC CASTAVERNA	3/16/05 1321

CDC ASTA 50A
CDC ASTA 50A
3/15/05 @ 1300
Retention Code: ENV 5.c(1)
FED. EXP.
79094872 9884
3/15/05 @ 1300
BN-0732 (04/02)

SAMPLE INFORMATION

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

[illegible]

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V7

Lab ID: 0503170-1

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 388 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050678D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.48E+00 +/- 2.71E-01	3.15E-01	G
14596-10-2	Am-241	8.48E-02 +/- 3.42E-01	5.76E-01	U,G
14913-49-6	Bi-212	1.51E+00 +/- 7.12E-01	9.94E-01	G
14733-03-0	Bi-214	8.45E-01 +/- 1.78E-01	1.96E-01	G,J
14762-78-8	Ce-144	3.25E-01 +/- 3.21E-01	5.19E-01	U,G
10198-40-0	Co-60	-3.88E-03 +/- 5.02E-02	9.03E-02	U,G
13967-70-9	Cs-134	5.79E-02 +/- 4.51E-02	6.94E-02	U,G
10045-97-3	Cs-137	8.42E-01 +/- 1.36E-01	8.30E-02	LT,G
14683-23-9	Eu-152	4.66E-02 +/- 2.29E-01	4.03E-01	U,G
15585-10-1	Eu-154	-3.33E-01 +/- 2.71E-01	5.21E-01	U,G
14391-16-3	Eu-155	-1.14E-01 +/- 1.83E-01	3.22E-01	U,G
13966-00-2	K-40	2.69E+01 +/- 3.58E+00	9.05E-01	G
15092-94-1	Pb-212	1.59E+00 +/- 2.39E-01	1.60E-01	G
15067-28-4	Pb-214	9.42E-01 +/- 1.66E-01	1.74E-01	G,J
14834-73-2	Pm-144	-5.46E-02 +/- 4.68E-02	8.78E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

St - Nuclide identification and/or quantitation is tentative.

Tt - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Date Printed: Tuesday, March 22, 2005

Paragon Analytics

LIMS Version: 5.156A

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Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V7

Lab ID: 0503170-1

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 388 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050678D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	8.30E-03 +/- 5.47E-02	9.46E-02	U,G
13967-48-1	Ru-106	-3.38E-03 +/- 4.65E-01	8.11E-01	U,G
14234-35-6	Sb-125	1.62E-02 +/- 1.22E-01	2.24E-01	U,G
15065-10-8	Th-234	4.88E-01 +/- 1.10E+00	1.82E+00	U,G
14913-50-9	Ti-208	5.02E-01 +/- 9.43E-02	8.02E-02	G
15117-96-1	U-235	2.10E-01 +/- 3.16E-01	5.21E-01	U,G
13982-36-0	Y-88	-2.58E-03 +/- 5.24E-02	9.30E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V8

Lab ID: 0503170-2

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 389 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050602D01A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.19E+00 +/- 3.76E-01	7.10E-01	G
14596-10-2	Am-241	1.59E-01 +/- 6.63E-01	1.14E+00	U,G
14913-49-6	Bi-212	2.19E+00 +/- 1.36E+00	1.92E+00	G,TI
14733-03-0	Bi-214	8.06E-01 +/- 2.51E-01	2.74E-01	G,J
14762-78-8	Ce-144	5.98E-02 +/- 4.05E-01	7.00E-01	U,G
10198-40-0	Co-60	-1.46E-02 +/- 8.49E-02	1.68E-01	U,G
13967-70-9	Cs-134	-4.18E-02 +/- 8.27E-02	1.56E-01	U,G
10045-97-3	Cs-137	5.06E-02 +/- 8.64E-02	1.46E-01	U,G
14683-23-9	Eu-152	-1.38E-01 +/- 4.73E-01	9.36E-01	U,G
15585-10-1	Eu-154	-1.53E-01 +/- 4.19E-01	8.36E-01	U,G
14391-16-3	Eu-155	5.53E-02 +/- 2.46E-01	4.23E-01	U,G
13966-00-2	K-40	2.30E+01 +/- 4.18E+00	2.78E+00	G
15092-94-1	Pb-212	1.57E+00 +/- 2.85E-01	2.26E-01	G
15067-28-4	Pb-214	7.82E-01 +/- 1.94E-01	2.40E-01	G,J
14834-73-2	Pm-144	-5.22E-03 +/- 8.62E-02	1.57E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client/Project ID: CAU 165 V2432

Field ID: 250706-V8

Lab ID: 0503170-2

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QC Batch ID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 389 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050602D01A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	-7.20E-02 +/- 7.89E-02	1.59E-01	U,G
13967-48-1	Ru-106	3.35E-01 +/- 7.36E-01	1.26E+00	U,G
14234-35-6	Sb-125	2.32E-01 +/- 2.13E-01	3.34E-01	U,G
15065-10-8	Th-234	1.47E+00 +/- 1.55E+00	2.51E+00	U,G
14913-50-9	Tl-208	5.68E-01 +/- 1.61E-01	1.77E-01	G
15117-96-1	U-235	4.10E-01 +/- 4.25E-01	6.85E-01	U,G
13982-36-0	Y-88	4.34E-02 +/- 9.38E-02	1.62E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V9

Lab ID: 0503170-3

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050406D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.63E+00 +/- 3.72E-01	4.96E-01	G
14596-10-2	Am-241	3.23E-01 +/- 1.07E+00	1.84E+00	U,G
14913-49-6	Bi-212	1.80E+00 +/- 1.22E+00	1.79E+00	G
14733-03-0	Bi-214	7.59E-01 +/- 2.27E-01	2.39E-01	G,J
14762-78-8	Ce-144	-1.76E-01 +/- 4.01E-01	7.20E-01	U,G
10198-40-0	Co-60	-3.89E-02 +/- 5.79E-02	1.31E-01	U,G
13967-70-9	Cs-134	0E+00 +/- 6.15E-02	1.12E-01	U,G
10045-97-3	Cs-137	1.02E+00 +/- 2.01E-01	1.36E-01	G
14683-23-9	Eu-152	-3.79E-02 +/- 3.47E-01	6.88E-01	U,G
15585-10-1	Eu-154	-1.70E-01 +/- 3.79E-01	7.62E-01	U,G
14391-16-3	Eu-155	2.39E-01 +/- 2.90E-01	4.75E-01	U,G
13966-00-2	K-40	2.67E+01 +/- 4.26E+00	1.31E+00	G
15092-94-1	Pb-212	1.31E+00 +/- 2.53E-01	2.25E-01	G
15067-28-4	Pb-214	9.38E-01 +/- 2.08E-01	2.21E-01	G,J
14834-73-2	Pm-144	-5.21E-02 +/- 7.73E-02	1.50E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V9

Lab ID: 0503170-3

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QC Batch ID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050406D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	3.41E-02 +/- 8.36E-02	1.44E-01	U,G
13967-48-1	Ru-106	-3.01E-01 +/- 5.79E-01	1.14E+00	U,G
14234-35-6	Sb-125	-5.67E-02 +/- 1.68E-01	3.16E-01	U,G
15065-10-8	Th-234	6.55E-01 +/- 1.59E+00	2.68E+00	U,G
14913-50-9	Tl-208	4.32E-01 +/- 1.24E-01	1.27E-01	G
15117-96-1	U-235	2.83E-02 +/- 3.94E-01	6.83E-01	U,G
13982-36-0	Y-88	-1.68E-02 +/- 5.96E-02	1.21E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V10

Lab ID: 0503170-4

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 402 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050348D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	9.96E-01 +/- 2.89E-01	4.15E-01	G
14596-10-2	Am-241	-3.11E-02 +/- 1.34E-01	2.37E-01	U,G
14733-03-0	Bi-214	7.26E-01 +/- 2.50E-01	2.93E-01	G,J
14762-78-8	Ce-144	4.19E-02 +/- 3.58E-01	6.22E-01	U,G
10198-40-0	Co-60	1.85E-02 +/- 8.68E-02	1.61E-01	U,G
13967-70-9	Cs-134	3.80E-02 +/- 7.38E-02	1.26E-01	U,G
10045-97-3	Cs-137	3.84E-01 +/- 1.27E-01	1.34E-01	LT,G
14683-23-9	Eu-152	-1.19E-01 +/- 3.36E-01	7.28E-01	U,G
15585-10-1	Eu-154	2.28E-01 +/- 4.78E-01	8.28E-01	U,G
14391-16-3	Eu-155	-4.13E-02 +/- 1.58E-01	2.84E-01	U,G
13966-00-2	K-40	3.00E+01 +/- 4.87E+00	1.37E+00	G
15092-94-1	Pb-212	1.29E+00 +/- 2.40E-01	1.71E-01	G
15067-28-4	Pb-214	6.73E-01 +/- 1.83E-01	2.20E-01	G,J
14834-73-2	Pm-144	-3.36E-02 +/- 6.52E-02	1.30E-01	U,G
14834-74-3	Pm-146	1.66E-02 +/- 8.92E-02	1.58E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide Identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V10
Lab ID: 0503170-4

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1
Run ID: gs050318-2a
Count Time: 30 minutes
Report Basis: Dry Weight

Final Allquot: 402 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050348D07A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	4.29E-02 +/- 6.32E-01	1.16E+00	U,G
14234-35-6	Sb-125	4.72E-02 +/- 1.75E-01	3.08E-01	U,G
15065-10-8	Th-234	1.05E+00 +/- 9.64E-01	1.55E+00	U,G
14913-50-9	Ti-208	2.30E-01 +/- 9.57E-02	1.13E-01	G
15117-96-1	U-235	-2.54E-01 +/- 3.67E-01	6.72E-01	U,G
13982-36-0	Y-88	5.26E-02 +/- 7.84E-02	1.31E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V11

Lab ID: 0503170-5

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: GS050318-2B

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 386 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050382D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.37E+00 +/- 3.38E-01	3.88E-01	G
14596-10-2	Am-241	-6.24E-02 +/- 1.44E-01	2.55E-01	U,G
14733-03-0	Bi-214	1.08E+00 +/- 2.51E-01	2.30E-01	G,J
14762-78-8	Ce-144	8.15E-02 +/- 3.38E-01	5.81E-01	U,G
10198-40-0	Co-60	4.47E-02 +/- 7.01E-02	1.18E-01	U,G
13967-70-9	Cs-134	2.48E-02 +/- 5.75E-02	9.95E-02	U,G
10045-97-3	Cs-137	1.14E-01 +/- 7.31E-02	1.02E-01	LT,G
14683-23-9	Eu-152	-1.85E-01 +/- 3.85E-01	7.88E-01	U,G
15585-10-1	Eu-154	-3.31E-02 +/- 4.03E-01	7.61E-01	U,G
14391-16-3	Eu-155	2.45E-01 +/- 2.38E-01	3.84E-01	U,G
13966-00-2	K-40	2.51E+01 +/- 4.03E+00	1.24E+00	G
15092-94-1	Pb-212	2.01E+00 +/- 3.20E-01	1.79E-01	G
15067-28-4	Pb-214	9.44E-01 +/- 2.03E-01	2.14E-01	G,J
14834-73-2	Pm-144	-5.09E-02 +/- 7.51E-02	1.46E-01	U,G
14834-74-3	Pm-146	-6.79E-03 +/- 7.61E-02	1.40E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Date Printed: Thursday, March 24, 2005

Paragon Analytics

LIMS Version: 5.156A

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Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V11
Lab ID: 0503170-6

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1
Run ID: GS050318-2B
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 386 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050382D08A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	1.28E-01 +/- 5.34E-01	9.58E-01	U,G
14234-35-6	Sb-125	8.61E-03 +/- 1.57E-01	3.07E-01	U,G
15065-10-8	Th-234	1.57E+00 +/- 7.75E-01	1.64E+00	U,G
14913-50-9	Ti-208	4.90E-01 +/- 1.29E-01	1.20E-01	G
15117-96-1	U-235	3.05E-01 +/- 3.25E-01	5.25E-01	U,G
13982-36-0	Y-88	3.83E-02 +/- 7.45E-02	1.28E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 708)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V12

Lab ID: 0503170-6

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 386 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050679D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.10E+00 +/- 2.25E-01	2.84E-01	G
14596-10-2	Am-241	-2.62E-01 +/- 3.20E-01	5.64E-01	U,G
14913-49-6	Bi-212	1.43E+00 +/- 6.81E-01	9.45E-01	G
14733-03-0	Bi-214	6.46E-01 +/- 1.61E-01	2.07E-01	G,J
14762-78-8	Ce-144	-2.96E-01 +/- 3.27E-01	5.78E-01	U,G
10198-40-0	Co-60	-7.16E-03 +/- 4.78E-02	8.70E-02	U,G
13967-70-9	Cs-134	2.42E-01 +/- 3.52E-01	5.77E-01	U,G
10045-97-3	Cs-137	3.09E-01 +/- 7.68E-02	8.18E-02	LT,G
14683-23-9	Eu-152	8.95E-02 +/- 2.31E-01	3.98E-01	U,G
15585-10-1	Eu-154	-7.39E-02 +/- 2.49E-01	4.53E-01	U,G
14391-16-3	Eu-155	1.43E-01 +/- 1.72E-01	2.80E-01	U,G
13966-00-2	K-40	3.10E+01 +/- 4.06E+00	8.65E-01	G
15092-94-1	Pb-212	1.34E+00 +/- 2.10E-01	1.54E-01	G
15067-28-4	Pb-214	7.59E-01 +/- 1.41E-01	1.49E-01	G,J
14834-73-2	Pm-144	-2.01E-02 +/- 4.42E-02	8.02E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

St - Nuclide identification and/or quantitation is tentative.

T1 - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Date Printed: Tuesday, March 22, 2005

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Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V12

Lab ID: 0503170-6

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 386 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050679D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	1.67E-02 +/- 5.25E-02	8.97E-02	U,G
13967-48-1	Ru-106	-1.48E-01 +/- 4.72E-01	8.39E-01	U,G
14234-35-6	Sb-125	2.60E-02 +/- 1.02E-01	2.00E-01	U,G
15065-10-8	Th-234	5.63E-01 +/- 1.08E+00	1.80E+00	U,G
14913-50-9	Ti-208	3.93E-01 +/- 8.32E-02	8.40E-02	G
15117-96-1	U-235	0E+00 +/- 3.16E-01	5.40E-01	U,G
13982-36-0	Y-88	-4.56E-03 +/- 5.16E-02	9.20E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V13

Lab ID: 0503170-7

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Allquot: 394 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050438D04A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.57E+00 +/- 3.61E-01	5.91E-01	G
14596-10-2	Am-241	4.80E-02 +/- 3.40E-01	5.95E-01	U,G
14913-49-6	Bi-212	2.24E+00 +/- 1.15E+00	1.55E+00	G
14733-03-0	Bi-214	7.28E-01 +/- 2.33E-01	2.79E-01	G,J
14762-78-8	Ce-144	3.74E-02 +/- 3.15E-01	5.46E-01	U,G
10198-40-0	Co-60	5.48E-02 +/- 7.64E-02	1.26E-01	U,G
13967-70-9	Cs-134	-1.75E-02 +/- 9.48E-02	1.70E-01	U,G
10045-97-3	Cs-137	-4.60E-02 +/- 7.58E-02	1.45E-01	U,G
14683-23-9	Eu-152	1.74E-01 +/- 3.61E-01	6.27E-01	U,G
15585-10-1	Eu-154	-2.32E-01 +/- 3.53E-01	7.18E-01	U,G
14391-16-3	Eu-155	-5.93E-03 +/- 1.67E-01	2.95E-01	U,G
13966-00-2	K-40	3.06E+01 +/- 4.56E+00	8.28E-01	G
15092-94-1	Pb-212	1.38E+00 +/- 2.53E-01	2.16E-01	G
15067-28-4	Pb-214	6.84E-01 +/- 1.78E-01	2.64E-01	G,J
14834-73-2	Pm-144	2.70E-03 +/- 6.09E-02	1.11E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Date Printed: Tuesday, March 22, 2005

Paragon Analytics

LIMS Version: 5.156A

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Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
Client Project ID: CAU 165 V2432

Field ID: 250706-V13
Lab ID: 0503170-7

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1
Run ID: gs050318-2a
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 394 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050438D04A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	6.07E-03 +/- 5.97E-02	1.09E-01	U,G
13967-48-1	Ru-106	4.08E-01 +/- 5.59E-01	9.22E-01	U,G
14234-35-6	Sb-125	-9.41E-02 +/- 1.33E-01	2.63E-01	U,G
15065-10-8	Th-234	6.47E-01 +/- 8.85E-01	1.46E+00	U,G
14913-50-9	Tl-208	4.62E-01 +/- 1.22E-01	1.20E-01	G
15117-96-1	U-235	1.73E-01 +/- 2.86E-01	4.77E-01	U,G
13982-36-0	Y-88	-3.96E-02 +/- 7.74E-02	1.51E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V14

Lab ID: 0503170-8

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050407D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.32E+00 +/- 3.35E-01	4.74E-01	G
14596-10-2	Am-241	-3.85E-02 +/- 1.05E+00	1.86E+00	U,G
14913-49-6	Bi-212	1.40E+00 +/- 8.95E-01	1.21E+00	G
14733-03-0	Bi-214	4.48E-01 +/- 1.98E-01	2.60E-01	G,J
14762-78-8	Ce-144	3.68E-01 +/- 3.62E-01	5.79E-01	U,G
10198-40-0	Co-60	2.11E-02 +/- 6.61E-02	1.21E-01	U,G
13967-70-9	Cs-134	0E+00 +/- 6.71E-02	1.22E-01	U,G
10045-97-3	Cs-137	-2.05E-02 +/- 6.31E-02	1.23E-01	U,G
14683-23-9	Eu-152	2.66E-01 +/- 2.76E-01	4.09E-01	U,G
15585-10-1	Eu-154	0E+00 +/- 4.41E-01	8.18E-01	U,G
14391-16-3	Eu-155	4.30E-01 +/- 2.75E-01	4.16E-01	G,TI
13966-00-2	K-40	3.06E+01 +/- 4.73E+00	1.40E+00	G
15092-94-1	Pb-212	1.30E+00 +/- 2.54E-01	2.33E-01	G
15067-28-4	Pb-214	8.55E-01 +/- 1.98E-01	2.34E-01	G,J
14834-73-2	Pm-144	2.64E-02 +/- 6.71E-02	1.17E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V14
Lab ID: 0503170-8

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g
Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050407D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	-1.06E-02 +/- 6.94E-02	1.30E-01	U,G
13967-48-1	Ru-106	2.16E-01 +/- 6.17E-01	1.08E+00	U,G
14234-35-6	Sb-125	7.75E-02 +/- 1.51E-01	2.58E-01	U,G
15065-10-8	Th-234	2.40E+00 +/- 1.94E+00	3.07E+00	U,G
14913-50-9	Tl-208	4.61E-01 +/- 1.29E-01	1.31E-01	G
15117-96-1	U-235	1.28E-01 +/- 3.73E-01	6.36E-01	U,G
13982-36-0	Y-88	-6.46E-04 +/- 7.36E-02	1.39E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V15

Lab ID: 0503170-9

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 386 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050349D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.47E+00 +/- 3.77E-01	5.65E-01	G
14596-10-2	Am-241	0E+00 +/- 1.41E-01	2.45E-01	U,G
14733-03-0	Bi-214	5.56E-01 +/- 2.07E-01	2.32E-01	G,J
14762-78-8	Ce-144	3.34E-01 +/- 3.71E-01	6.00E-01	U,G
10198-40-0	Co-60	-7.70E-02 +/- 7.26E-02	1.75E-01	U,G
13967-70-9	Cs-134	-1.98E-02 +/- 5.60E-02	1.11E-01	U,G
10045-97-3	Cs-137	-2.13E-02 +/- 8.09E-02	1.55E-01	U,G
14683-23-9	Eu-152	-6.00E-02 +/- 2.26E-01	5.41E-01	U,G
15585-10-1	Eu-154	1.25E-01 +/- 4.25E-01	7.70E-01	U,G
14391-16-3	Eu-155	1.00E-01 +/- 1.69E-01	2.82E-01	U,G
13966-00-2	K-40	2.80E+01 +/- 4.64E+00	1.08E+00	G
15092-94-1	Pb-212	1.39E+00 +/- 2.69E-01	2.31E-01	G
15067-28-4	Pb-214	6.10E-01 +/- 1.73E-01	2.19E-01	G,J
14834-73-2	Pm-144	2.93E-02 +/- 8.50E-02	1.48E-01	U,G
14834-74-3	Pm-146	-9.79E-02 +/- 8.92E-02	1.81E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Date Printed: Tuesday, March 22, 2005

Paragon Analytics

LIMS Version: 5.156A

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Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V15

Lab ID: 0503170-9

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 386 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050349D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	7.66E-02 +/- 7.17E-01	1.30E+00	U,G
14234-35-6	Sb-125	-2.63E-03 +/- 1.66E-01	3.29E-01	U,G
15065-10-8	Th-234	1.41E+00 +/- 1.02E+00	1.61E+00	U,G
14913-50-9	Tl-208	4.73E-01 +/- 1.37E-01	1.34E-01	G
15117-96-1	U-235	1.55E-02 +/- 3.68E-01	6.44E-01	U,G
13982-36-0	Y-88	3.13E-02 +/- 9.14E-02	1.62E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide Identification and/or quantitation is tentative.

TI - Nuclide Identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client/Project ID: CAU 165 V2432

Field ID: 250706-V16

Lab ID: 0503170-10

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QC Batch ID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 364 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050364D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.42E+00 +/- 3.62E-01	5.03E-01	G
14596-10-2	Am-241	-2.44E-02 +/- 1.38E-01	2.42E-01	U,G
14913-49-6	Bi-212	2.46E+00 +/- 1.59E+00	2.37E+00	G
14733-03-0	Bi-214	8.97E-01 +/- 2.58E-01	2.72E-01	G,J
14762-78-8	Ce-144	2.11E-01 +/- 3.37E-01	5.60E-01	U,G
10198-40-0	Co-60	-6.32E-02 +/- 7.44E-02	1.64E-01	U,G
13967-70-9	Cs-134	3.94E-02 +/- 6.02E-02	1.01E-01	U,G
10045-97-3	Cs-137	5.34E-03 +/- 7.91E-02	1.43E-01	U,G
14683-23-9	Eu-152	2.35E-01 +/- 3.33E-01	5.52E-01	U,G
15585-10-1	Eu-154	-3.51E-02 +/- 3.90E-01	7.47E-01	U,G
14391-16-3	Eu-155	2.19E-01 +/- 1.75E-01	2.74E-01	U,G
13966-00-2	K-40	2.94E+01 +/- 4.63E+00	1.47E+00	G
15092-94-1	Pb-212	1.88E+00 +/- 3.13E-01	2.00E-01	G
15067-28-4	Pb-214	9.38E-01 +/- 2.11E-01	2.66E-01	G,J
14834-73-2	Pm-144	6.10E-03 +/- 7.17E-02	1.30E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V16
Lab ID: 0503170-10

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1
Run ID: gs050318-2a
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 364 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050364D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	0E+00 +/- 7.58E-02	1.39E-01	U,G
13967-48-1	Ru-106	-3.16E-01 +/- 5.50E-01	1.11E+00	U,G
14234-35-6	Sb-125	-3.62E-03 +/- 1.76E-01	3.20E-01	U,G
15065-10-8	Th-234	1.52E+00 +/- 1.22E+00	1.94E+00	U,G
14913-50-9	Tl-208	6.01E-01 +/- 1.47E-01	1.29E-01	G
15117-96-1	U-235	3.80E-01 +/- 3.50E-01	5.56E-01	U,G
13982-36-0	Y-88	-7.34E-02 +/- 7.24E-02	1.57E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V17

Lab ID: 0503170-11

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 365 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050449D10A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.37E+00 +/- 2.52E-01	3.01E-01	G
14596-10-2	Am-241	1.22E-01 +/- 1.87E-01	3.10E-01	U,G
14733-03-0	Bi-214	7.20E-01 +/- 1.65E-01	1.90E-01	G,J
14762-78-8	Ce-144	-4.64E-02 +/- 2.86E-01	4.94E-01	U,G
10198-40-0	Co-60	1.70E-02 +/- 5.11E-02	8.85E-02	U,G
13967-70-9	Cs-134	6.17E-02 +/- 5.13E-02	8.09E-02	U,G
10045-97-3	Cs-137	1.62E-03 +/- 5.25E-02	9.16E-02	U,G
14683-23-9	Eu-152	1.30E-01 +/- 2.21E-01	3.73E-01	U,G
15585-10-1	Eu-154	-2.05E-02 +/- 2.87E-01	5.11E-01	U,G
14391-16-3	Eu-155	1.20E-01 +/- 1.62E-01	2.66E-01	U,G
13966-00-2	K-40	3.19E+01 +/- 4.21E+00	1.10E+00	G
15092-94-1	Pb-212	1.50E+00 +/- 2.26E-01	1.44E-01	G
15067-28-4	Pb-214	7.34E-01 +/- 1.47E-01	1.86E-01	G,J
14834-73-2	Pm-144	-2.33E-02 +/- 4.79E-02	8.66E-02	U,G
14834-74-3	Pm-146	2.43E-02 +/- 4.67E-02	7.86E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V17
Lab ID: 0503170-11

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2
QCBatchID: GS050318-2-1
Run ID: gs050318-2a
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 365 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050449D10A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-1.03E-01 +/- 4.61E-01	8.18E-01	U,G
14234-35-6	Sb-125	1.06E-01 +/- 1.10E-01	1.89E-01	U,G
15065-10-8	Th-234	1.77E+00 +/- 1.05E+00	1.64E+00	G,TI
14913-50-9	Ti-208	4.31E-01 +/- 8.80E-02	8.20E-02	G
15117-96-1	U-235	-5.72E-02 +/- 3.15E-01	5.43E-01	U,G
13982-36-0	Y-88	2.58E-02 +/- 5.74E-02	9.73E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V18
Lab ID: 0503170-12

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: GS050318-2B

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 345 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050365D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.37E+00 +/- 4.19E-01	5.77E-01	G
14596-10-2	Am-241	-3.16E-02 +/- 1.49E-01	2.63E-01	U,G
14733-03-0	Bi-214	6.64E-01 +/- 2.49E-01	2.92E-01	G,J
14762-78-8	Ce-144	2.94E-01 +/- 4.09E-01	6.75E-01	U,G
10198-40-0	Co-60	0E+00 +/- 1.01E-01	1.95E-01	U,G
13967-70-9	Cs-134	-4.99E-02 +/- 7.62E-02	1.61E-01	U,G
10045-97-3	Cs-137	-2.97E-02 +/- 1.05E-01	1.98E-01	U,G
14683-23-9	Eu-152	-8.50E-02 +/- 4.05E-01	8.47E-01	U,G
15585-10-1	Eu-154	-2.37E-01 +/- 6.13E-01	1.19E+00	U,G
14391-16-3	Eu-155	2.25E-01 +/- 1.91E-01	3.00E-01	U,G
13966-00-2	K-40	2.74E+01 +/- 4.75E+00	1.64E+00	G
15092-94-1	Pb-212	1.54E+00 +/- 2.96E-01	2.45E-01	G
15067-28-4	Pb-214	6.52E-01 +/- 2.01E-01	3.16E-01	G,J
14834-73-2	Pm-144	-2.90E-02 +/- 8.47E-02	1.63E-01	U,G
14834-74-3	Pm-146	2.58E-02 +/- 9.98E-02	1.76E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client/Project ID: CAU 165 V2432

Field ID: 250706-V18
Lab ID: 0503170-12

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: GS050318-2B

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 345 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050365D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-3.65E-01 +/- 7.17E-01	1.42E+00	U,G
14234-35-6	Sb-125	-6.17E-02 +/- 1.68E-01	3.28E-01	U,G
15065-10-8	Th-234	2.55E+00 +/- 1.48E+00	2.28E+00	G,TI
14913-50-9	Tl-208	5.65E-01 +/- 1.65E-01	1.74E-01	G
15117-96-1	U-235	-3.44E-01 +/- 4.17E-01	7.70E-01	U,G
13982-36-0	Y-88	3.55E-02 +/- 7.94E-02	1.41E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client/Project ID: CAU 165 V2432

Field ID: 250706-V19

Lab ID: 0503170-13

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 370 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050680D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.52E+00 +/- 2.79E-01	3.15E-01	G
14596-10-2	Am-241	4.20E-01 +/- 3.27E-01	5.19E-01	U,G
14913-49-6	Bi-212	1.15E+00 +/- 6.57E-01	9.53E-01	G
14733-03-0	Bi-214	6.88E-01 +/- 1.57E-01	1.82E-01	G,J
14762-78-8	Ce-144	-1.78E-01 +/- 4.32E-01	7.54E-01	U,G
10198-40-0	Co-60	-6.65E-02 +/- 4.99E-02	9.96E-02	U,G
13967-70-9	Cs-134	5.14E-02 +/- 3.67E-01	6.07E-01	U,G
10045-97-3	Cs-137	1.75E-02 +/- 4.60E-02	7.86E-02	U,G
14683-23-9	Eu-152	-1.78E-02 +/- 2.47E-01	4.45E-01	U,G
15585-10-1	Eu-154	-9.08E-02 +/- 2.61E-01	4.77E-01	U,G
14391-16-3	Eu-155	1.23E-01 +/- 1.79E-01	2.95E-01	U,G
13966-00-2	K-40	3.08E+01 +/- 4.06E+00	9.84E-01	G
15092-94-1	Pb-212	1.60E+00 +/- 2.40E-01	1.54E-01	G
15067-28-4	Pb-214	8.05E-01 +/- 1.53E-01	1.72E-01	G,J
14834-73-2	Pm-144	-2.81E-02 +/- 4.95E-02	8.98E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

T1 - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client Project ID: CAU 165 V2432

Field ID: 250706-V19

Lab ID: 0503170-13

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 370 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050680D03A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	6.09E-02 +/- 5.37E-02	8.49E-02	U,G
13967-48-1	Ru-106	-5.98E-01 +/- 4.64E-01	8.75E-01	U,G
14234-35-6	Sb-125	7.68E-02 +/- 1.15E-01	2.12E-01	U,G
15065-10-8	Th-234	1.00E+00 +/- 1.01E+00	1.64E+00	U,G
14913-50-9	Ti-208	4.69E-01 +/- 9.35E-02	8.10E-02	G
15117-96-1	U-235	-7.87E-02 +/- 3.27E-01	5.66E-01	U,G
13982-36-0	Y-88	-1.27E-03 +/- 5.76E-02	1.02E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V20

Lab ID: 0503170-14

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 316 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050439D04A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.12E+00 +/- 3.41E-01	6.36E-01	G
14596-10-2	Am-241	1.99E-01 +/- 3.92E-01	6.63E-01	U,G
14913-49-6	Bi-212	2.03E+00 +/- 1.37E+00	2.00E+00	G,TI
14733-03-0	Bi-214	8.07E-01 +/- 2.44E-01	2.56E-01	G,J
14762-78-8	Ce-144	-2.43E-01 +/- 3.22E-01	6.07E-01	U,G
10198-40-0	Co-60	-6.81E-03 +/- 8.49E-02	1.64E-01	U,G
13967-70-9	Cs-134	2.47E-02 +/- 6.85E-02	1.19E-01	U,G
10045-97-3	Cs-137	4.19E-02 +/- 8.32E-02	1.42E-01	U,G
14683-23-9	Eu-152	-1.08E-01 +/- 3.85E-01	7.80E-01	U,G
15585-10-1	Eu-154	-1.52E-02 +/- 4.19E-01	7.92E-01	U,G
14391-16-3	Eu-155	6.35E-02 +/- 2.00E-01	3.44E-01	U,G
13966-00-2	K-40	2.80E+01 +/- 4.48E+00	1.33E+00	G
15092-94-1	Pb-212	1.69E+00 +/- 2.90E-01	1.80E-01	G
15067-28-4	Pb-214	7.41E-01 +/- 2.02E-01	2.86E-01	G,J
14834-73-2	Pm-144	3.36E-03 +/- 6.30E-02	1.16E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V20

Lab ID: 0503170-14

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 09-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QC Batch ID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 316 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050439D04A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	2.75E-03 +/- 7.49E-02	1.37E-01	U,G
13967-48-1	Ru-106	7.67E-02 +/- 6.48E-01	1.18E+00	U,G
14234-35-6	Sb-125	-3.29E-02 +/- 1.64E-01	3.08E-01	U,G
15065-10-8	Th-234	-8.33E-01 +/- 1.18E+00	2.13E+00	U,G
14913-50-9	Tl-208	4.83E-01 +/- 1.43E-01	1.57E-01	G
15117-96-1	U-235	1.54E-02 +/- 3.24E-01	5.72E-01	U,G
13982-36-0	Y-88	5.92E-02 +/- 9.81E-02	1.65E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8 Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V23

Lab ID: 0503170-15

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 419 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050408D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.07E+00 +/- 2.89E-01	4.47E-01	G
14596-10-2	Am-241	8.45E-01 +/- 9.79E-01	1.59E+00	U,G
14733-03-0	Bi-214	6.95E-01 +/- 2.17E-01	2.36E-01	G,J
14762-78-8	Ce-144	-1.55E-01 +/- 3.87E-01	6.93E-01	U,G
10198-40-0	Co-60	2.28E-02 +/- 7.52E-02	1.36E-01	U,G
13967-70-9	Cs-134	-8.06E-03 +/- 6.64E-02	1.22E-01	U,G
10045-97-3	Cs-137	-2.46E-02 +/- 6.00E-02	1.18E-01	U,G
14683-23-9	Eu-152	3.66E-02 +/- 2.83E-01	5.49E-01	U,G
15585-10-1	Eu-154	-3.27E-02 +/- 3.87E-01	7.35E-01	U,G
14391-16-3	Eu-155	2.50E-01 +/- 2.61E-01	4.21E-01	U,G
13966-00-2	K-40	2.84E+01 +/- 4.41E+00	1.24E+00	G
15092-94-1	Pb-212	1.40E+00 +/- 2.48E-01	1.78E-01	G
15067-28-4	Pb-214	7.03E-01 +/- 1.85E-01	2.57E-01	G,J
14834-73-2	Pm-144	1.75E-02 +/- 7.19E-02	1.27E-01	U,G
14834-74-3	Pm-146	-2.87E-02 +/- 7.39E-02	1.40E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V23

Lab ID: 0503170-15

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 419 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050408D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	3.32E-01 +/- 5.99E-01	1.02E+00	U,G
14234-35-6	Sb-125	-6.05E-03 +/- 1.64E-01	3.23E-01	U,G
15065-10-8	Th-234	6.32E-01 +/- 1.53E+00	2.58E+00	U,G
14913-50-9	Tl-208	4.02E-01 +/- 1.19E-01	1.26E-01	G
15117-96-1	U-235	-2.73E-02 +/- 3.64E-01	6.39E-01	U,G
13982-36-0	Y-88	-4.08E-02 +/- 7.27E-02	1.47E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V24

Lab ID: 0503170-16

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Allquot: 370 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050350D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.41E+00 +/- 4.10E-01	5.96E-01	G
14596-10-2	Am-241	1.08E-01 +/- 1.43E-01	2.35E-01	U,G
14733-03-0	Bi-214	8.63E-01 +/- 2.78E-01	3.12E-01	G,J
14762-78-8	Ce-144	1.51E-01 +/- 3.92E-01	6.65E-01	U,G
10198-40-0	Co-60	3.01E-02 +/- 9.20E-02	1.67E-01	U,G
13967-70-9	Cs-134	2.06E-02 +/- 7.71E-02	1.36E-01	U,G
10045-97-3	Cs-137	-2.53E-02 +/- 9.25E-02	1.75E-01	U,G
14683-23-9	Eu-152	2.92E-01 +/- 3.24E-01	4.85E-01	U,G
15585-10-1	Eu-154	-1.99E-01 +/- 4.93E-01	9.83E-01	U,G
14391-16-3	Eu-155	1.74E-01 +/- 1.70E-01	2.70E-01	U,G
13966-00-2	K-40	2.55E+01 +/- 4.42E+00	1.52E+00	G
15092-94-1	Pb-212	1.58E+00 +/- 2.92E-01	2.43E-01	G
15067-28-4	Pb-214	8.16E-01 +/- 2.01E-01	2.64E-01	G,J
14834-73-2	Pm-144	2.03E-02 +/- 8.33E-02	1.48E-01	U,G
14834-74-3	Pm-146	1.20E-02 +/- 7.96E-02	1.44E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V24

Lab ID: 0503170-18

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 370 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050350D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-9.29E-02 +/- 7.57E-01	1.41E+00	U,G
14234-35-6	Sb-125	7.29E-02 +/- 1.64E-01	2.84E-01	U,G
15065-10-8	Th-234	1.48E+00 +/- 1.04E+00	1.62E+00	U,G
14913-50-9	Ti-208	5.19E-01 +/- 1.45E-01	1.37E-01	G
15117-96-1	U-235	-4.51E-02 +/- 3.96E-01	6.99E-01	U,G
13982-36-0	Y-88	-4.05E-02 +/- 8.12E-02	1.68E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V25

Lab ID: 0503170-17

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 396 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050365D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.12E+00 +/- 2.86E-01	5.02E-01	G
14596-10-2	Am-241	6.36E-02 +/- 1.30E-01	2.17E-01	U,G
14733-03-0	Bi-214	5.34E-01 +/- 2.06E-01	2.60E-01	G,J
14762-78-8	Ce-144	6.39E-03 +/- 2.85E-01	5.02E-01	U,G
10198-40-0	Co-60	7.25E-03 +/- 6.85E-02	1.26E-01	U,G
13967-70-9	Cs-134	4.83E-02 +/- 6.66E-02	1.10E-01	U,G
10045-97-3	Cs-137	8.18E-01 +/- 1.71E-01	1.21E-01	LT,G
14683-23-9	Eu-152	0E+00 +/- 2.69E-01	5.40E-01	U,G
15585-10-1	Eu-154	-2.58E-01 +/- 4.18E-01	8.36E-01	U,G
14391-16-3	Eu-155	6.22E-02 +/- 1.50E-01	2.54E-01	U,G
13966-00-2	K-40	2.82E+01 +/- 4.38E+00	1.18E+00	G
15092-94-1	Pb-212	1.33E+00 +/- 2.43E-01	1.83E-01	G
15067-28-4	Pb-214	5.87E-01 +/- 1.64E-01	2.29E-01	G,J
14834-73-2	Pm-144	-1.12E-02 +/- 7.19E-02	1.33E-01	U,G
14834-74-3	Pm-146	5.95E-02 +/- 8.06E-02	1.33E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

T1 - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BOL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V25

Lab ID: 0503170-17

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 396 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050365D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-8.27E-02 +/- 5.73E-01	1.07E+00	U,G
14234-35-6	Sb-125	4.23E-02 +/- 1.74E-01	3.27E-01	U,G
15065-10-8	Th-234	1.35E+00 +/- 9.48E-01	1.96E+00	U,G
14913-50-9	Tl-208	4.68E-01 +/- 1.25E-01	1.21E-01	G
15117-96-1	U-235	1.13E-01 +/- 2.66E-01	5.55E-01	U,G
13982-36-0	Y-88	-1.22E-02 +/- 7.52E-02	1.43E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V26

Lab ID: 0503170-18

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QC Batch ID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 380 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050450D10A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.18E+00 +/- 2.32E-01	3.35E-01	G
14596-10-2	Am-241	-1.36E-02 +/- 1.75E-01	3.01E-01	U,G
14913-49-6	Bi-212	1.67E+00 +/- 7.94E-01	1.13E+00	G
14733-03-0	Bi-214	6.01E-01 +/- 1.53E-01	1.93E-01	G,J
14762-78-8	Ce-144	-1.13E-01 +/- 2.85E-01	4.97E-01	U,G
10198-40-0	Co-60	3.00E-02 +/- 5.34E-02	8.98E-02	U,G
13967-70-9	Cs-134	2.89E-02 +/- 4.27E-01	7.07E-01	U,G
10045-97-3	Cs-137	3.85E-02 +/- 5.04E-02	8.28E-02	U,G
14683-23-9	Eu-152	-8.07E-02 +/- 2.52E-01	4.64E-01	U,G
15585-10-1	Eu-154	1.63E-01 +/- 2.73E-01	4.56E-01	U,G
14391-16-3	Eu-155	1.28E-01 +/- 1.59E-01	2.59E-01	U,G
13966-00-2	K-40	3.13E+01 +/- 4.13E+00	1.02E+00	G
15092-94-1	Pb-212	1.51E+00 +/- 2.27E-01	1.46E-01	G
15067-28-4	Pb-214	7.98E-01 +/- 1.53E-01	1.76E-01	G,J
14834-73-2	Pm-144	1.63E-02 +/- 4.53E-02	7.71E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V26

Lab ID: 0503170-18

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 380 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050450D10A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	-4.99E-03 +/- 4.77E-02	8.45E-02	U,G
13967-48-1	Ru-106	-2.52E-01 +/- 4.38E-01	7.94E-01	U,G
14234-35-6	Sb-125	1.42E-01 +/- 1.06E-01	1.80E-01	U,G
15065-10-8	Th-234	2.04E+00 +/- 9.98E-01	1.52E+00	G,TI
14913-50-9	Ti-208	4.48E-01 +/- 8.88E-02	8.07E-02	G
15117-96-1	U-235	-2.61E-02 +/- 2.93E-01	5.04E-01	U,G
13982-36-0	Y-88	4.81E-03 +/- 5.49E-02	9.61E-02	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V27

Lab ID: 0503170-19

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050605D01A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.39E+00 +/- 4.01E-01	5.93E-01	G
14596-10-2	Am-241	1.30E-01 +/- 6.61E-01	1.14E+00	U,G
14733-03-0	Bi-214	6.22E-01 +/- 2.28E-01	2.78E-01	G,J
14762-78-8	Ce-144	2.87E-02 +/- 3.96E-01	6.87E-01	U,G
10198-40-0	Co-60	9.25E-02 +/- 8.67E-02	1.30E-01	U,G
13967-70-9	Cs-134	-4.47E-02 +/- 1.03E-01	1.94E-01	U,G
10045-97-3	Cs-137	6.46E-02 +/- 8.70E-02	1.43E-01	U,G
14683-23-9	Eu-152	2.02E-01 +/- 3.98E-01	6.92E-01	U,G
15585-10-1	Eu-154	1.47E-01 +/- 4.77E-01	8.46E-01	U,G
14391-16-3	Eu-155	1.95E-01 +/- 2.41E-01	3.94E-01	U,G
13966-00-2	K-40	2.68E+01 +/- 4.47E+00	2.17E+00	G
15092-94-1	Pb-212	1.33E+00 +/- 2.62E-01	2.44E-01	G
15067-28-4	Pb-214	7.20E-01 +/- 1.90E-01	2.36E-01	G,J
14834-73-2	Pm-144	9.03E-03 +/- 8.73E-02	1.56E-01	U,G
14834-74-3	Pm-146	1.84E-02 +/- 8.36E-02	1.48E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V27

Lab ID: 0503170-19

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: gs050318-2a

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 404 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050605D01A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-2.30E-01 +/- 7.98E-01	1.48E+00	U,G
14234-35-6	Sb-125	4.21E-02 +/- 1.74E-01	3.06E-01	U,G
15065-10-8	Th-234	1.90E+00 +/- 1.53E+00	2.43E+00	U,G
14913-50-9	Tl-208	4.86E-01 +/- 1.38E-01	1.43E-01	G
15117-96-1	U-235	1.28E-01 +/- 4.17E-01	7.10E-01	U,G
13982-36-0	Y-88	-6.23E-02 +/- 1.03E-01	2.01E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V28
Lab ID: 0503170-20

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: GS050318-2B

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 395 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050383D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.13E+00 +/- 3.31E-01	5.47E-01	G
14596-10-2	Am-241	-1.00E-01 +/- 1.25E-01	2.28E-01	U,G
14733-03-0	Bi-214	6.60E-01 +/- 2.24E-01	2.66E-01	G,J
14762-78-8	Ce-144	-2.36E-02 +/- 2.91E-01	5.17E-01	U,G
10198-40-0	Co-60	7.28E-02 +/- 6.88E-02	1.03E-01	U,G
13967-70-9	Cs-134	8.08E-03 +/- 6.26E-02	1.12E-01	U,G
10045-97-3	Cs-137	7.86E-02 +/- 7.15E-02	1.10E-01	U,G
14683-23-9	Eu-152	0E+00 +/- 2.70E-01	5.42E-01	U,G
15585-10-1	Eu-154	6.46E-02 +/- 3.77E-01	6.88E-01	U,G
14391-16-3	Eu-155	1.91E-01 +/- 1.70E-01	2.70E-01	U,G
13966-00-2	K-40	3.01E+01 +/- 4.62E+00	1.25E+00	G
15092-94-1	Pb-212	1.34E+00 +/- 2.57E-01	2.31E-01	G
15067-28-4	Pb-214	8.73E-01 +/- 1.99E-01	2.33E-01	G,J
14834-73-2	Pm-144	4.00E-02 +/- 7.48E-02	1.27E-01	U,G
14834-74-3	Pm-146	4.82E-03 +/- 7.05E-02	1.28E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID:	250706-V28
Lab ID:	0503170-20

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 23-Mar-05

Prep Batch: GS050318-2

QCBatchID: GS050318-2-1

Run ID: GS050318-2B

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 395 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050383D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	-3.33E-01 +/- 5.66E-01	1.12E+00	U,G
14234-35-6	Sb-125	-7.69E-02 +/- 1.78E-01	3.33E-01	U,G
15065-10-8	Th-234	4.28E-01 +/- 7.00E-01	1.16E+00	U,G
14913-50-9	Tl-208	4.74E-01 +/- 1.22E-01	1.08E-01	G
15117-96-1	U-235	9.83E-02 +/- 3.16E-01	5.41E-01	U,G
13982-36-0	Y-88	1.86E-02 +/- 7.93E-02	1.42E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V29
Lab ID: 0503170-21

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 414 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050360D08A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.21E+00 +/- 3.07E-01	4.35E-01	G
14596-10-2	Am-241	6.42E-02 +/- 1.29E-01	2.16E-01	U,G
14913-49-6	Bi-212	2.02E+00 +/- 1.24E+00	1.79E+00	G
14733-03-0	Bi-214	5.38E-01 +/- 1.81E-01	1.98E-01	G,J
14762-78-8	Ce-144	-1.46E-01 +/- 2.84E-01	5.19E-01	U,G
10198-40-0	Co-60	-6.24E-02 +/- 6.69E-02	1.48E-01	U,G
13967-70-9	Cs-134	-3.46E-02 +/- 5.61E-02	1.10E-01	U,G
10045-97-3	Cs-137	3.28E-02 +/- 5.86E-02	9.98E-02	U,G
14683-23-9	Eu-152	2.06E-01 +/- 2.76E-01	4.51E-01	U,G
15585-10-1	Eu-154	-4.00E-01 +/- 4.15E-01	8.54E-01	U,G
14391-16-3	Eu-155	1.78E-01 +/- 1.47E-01	2.30E-01	U,G
13966-00-2	K-40	2.97E+01 +/- 4.52E+00	1.29E+00	G
15092-94-1	Pb-212	1.42E+00 +/- 2.47E-01	1.75E-01	G
15067-28-4	Pb-214	7.39E-01 +/- 1.77E-01	2.16E-01	G,J
14834-73-2	Pm-144	1.01E-01 +/- 6.16E-02	8.37E-02	G,TI

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V29

Lab ID: 0503170-21

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 414 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050360D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	9.12E-02 +/- 7.05E-02	1.05E-01	U,G
13967-48-1	Ru-106	-7.50E-01 +/- 5.71E-01	1.19E+00	U,G
14234-35-6	Sb-125	7.18E-03 +/- 1.42E-01	2.70E-01	U,G
15065-10-8	Th-234	6.13E-01 +/- 6.70E-01	1.09E+00	U,G
14913-50-9	Tl-208	4.56E-01 +/- 1.22E-01	1.18E-01	G
15117-96-1	U-235	1.81E-01 +/- 2.99E-01	5.00E-01	U,G
13982-36-0	Y-88	4.65E-02 +/- 7.19E-02	1.21E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V30
Lab ID: 0503170-22

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 356 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050600D01C

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.28E+00 +/- 3.79E-01	5.71E-01	G
14596-10-2	Am-241	4.39E-01 +/- 6.94E-01	1.16E+00	U,G
14913-49-6	Bi-212	2.59E+00 +/- 1.47E+00	2.00E+00	G,TI
14733-03-0	Bi-214	8.12E-01 +/- 2.55E-01	2.69E-01	G,J
14762-78-8	Ce-144	-1.63E-02 +/- 3.96E-01	6.97E-01	U,G
10198-40-0	Co-60	1.15E-01 +/- 1.00E-01	1.48E-01	U,G
13967-70-9	Cs-134	1.52E-02 +/- 7.26E-02	1.30E-01	U,G
10045-97-3	Cs-137	-6.22E-04 +/- 1.05E-01	1.90E-01	U,G
14683-23-9	Eu-152	4.67E-01 +/- 5.02E-01	7.86E-01	U,G
15585-10-1	Eu-154	5.44E-01 +/- 5.26E-01	8.15E-01	U,G
14391-16-3	Eu-155	5.05E-02 +/- 2.59E-01	4.47E-01	U,G
13966-00-2	K-40	2.69E+01 +/- 4.71E+00	2.76E+00	G
15092-94-1	Pb-212	1.48E+00 +/- 2.84E-01	2.44E-01	G
15067-28-4	Pb-214	7.59E-01 +/- 2.08E-01	2.99E-01	G,J
14834-73-2	Pm-144	2.79E-02 +/- 9.98E-02	1.74E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client Project ID: CAU 165 V2432

Field ID: 250706-V30
Lab ID: 0503170-22

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A

Final Aliquot: 356 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050600D01C

Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Count Time: 30 minutes
Report Basis: Dry Weight

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	-9.55E-03 +/- 1.02E-01	1.86E-01	U,G
13967-48-1	Ru-106	2.62E-01 +/- 7.18E-01	1.26E+00	U,G
14234-35-6	Sb-125	4.79E-02 +/- 2.25E-01	3.94E-01	U,G
15065-10-8	Th-234	6.03E-01 +/- 1.23E+00	2.06E+00	U,G
14913-50-9	Tl-208	4.44E-01 +/- 1.42E-01	1.58E-01	G
15117-96-1	U-235	-2.65E-01 +/- 4.75E-01	8.53E-01	U,G
13982-36-0	Y-88	-7.86E-03 +/- 1.14E-01	2.11E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V32

Lab ID: 0503170-23

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 342 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050404D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.49E+00 +/- 3.99E-01	5.91E-01	G
14596-10-2	Am-241	4.63E-01 +/- 1.25E+00	2.14E+00	U,G
14913-49-6	Bi-212	2.30E+00 +/- 1.19E+00	1.46E+00	G,TI
14733-03-0	Bi-214	8.64E-01 +/- 2.45E-01	2.23E-01	G,J
14762-78-8	Ce-144	2.25E-01 +/- 4.09E-01	6.86E-01	U,G
10198-40-0	Co-60	5.80E-02 +/- 7.08E-02	1.13E-01	U,G
13967-70-9	Cs-134	-5.92E-02 +/- 6.43E-02	1.33E-01	U,G
10045-97-3	Cs-137	7.41E-01 +/- 1.80E-01	1.53E-01	LT,G
14683-23-9	Eu-152	0E+00 +/- 3.10E-01	6.32E-01	U,G
15585-10-1	Eu-154	-6.02E-01 +/- 5.18E-01	1.10E+00	U,G
14391-16-3	Eu-155	3.53E-02 +/- 2.95E-01	5.13E-01	U,G
13966-00-2	K-40	2.89E+01 +/- 4.73E+00	1.70E+00	G
15092-94-1	Pb-212	1.34E+00 +/- 2.73E-01	2.55E-01	G
15067-28-4	Pb-214	7.14E-01 +/- 2.04E-01	2.51E-01	G,J
14834-73-2	Pm-144	-8.26E-03 +/- 7.51E-02	1.40E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V32

Lab ID: 0503170-23

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 342 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050404D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	1.46E-03 +/- 9.74E-02	1.76E-01	U,G
13967-48-1	Ru-106	-5.08E-02 +/- 7.93E-01	1.45E+00	U,G
14234-35-6	Sb-125	-3.04E-03 +/- 1.92E-01	3.49E-01	U,G
15065-10-8	Th-234	1.20E+00 +/- 1.60E+00	2.63E+00	U,G
14913-50-9	Ti-208	4.54E-01 +/- 1.34E-01	1.35E-01	G
15117-96-1	U-235	1.17E-01 +/- 4.08E-01	7.01E-01	U,G
13982-36-0	Y-88	-3.03E-02 +/- 8.32E-02	1.66E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

Client/Project ID: CAU 165 V2432

Field ID: 250706-V33

Lab ID: 0503170-24

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 371 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050346D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.26E+00 +/- 3.67E-01	5.09E-01	G
14596-10-2	Am-241	-1.39E-01 +/- 1.52E-01	2.77E-01	U,G
14733-03-0	Bi-214	6.31E-01 +/- 2.22E-01	2.42E-01	G,J
14762-78-8	Ce-144	0E+00 +/- 4.30E-01	7.48E-01	U,G
10198-40-0	Co-60	3.00E-02 +/- 8.26E-02	1.50E-01	U,G
13967-70-9	Cs-134	2.06E-02 +/- 6.34E-02	1.12E-01	U,G
10045-97-3	Cs-137	3.61E+00 +/- 5.27E-01	1.64E-01	G
14683-23-9	Eu-152	1.79E-01 +/- 3.85E-01	6.87E-01	U,G
15585-10-1	Eu-154	-1.04E-01 +/- 4.73E-01	9.25E-01	U,G
14391-16-3	Eu-155	1.06E-01 +/- 1.93E-01	3.23E-01	U,G
13966-00-2	K-40	2.70E+01 +/- 4.59E+00	1.43E+00	G
14681-63-1	Nb-94	1.57E-01 +/- 9.36E-02	1.30E-01	G,TI
15092-94-1	Pb-212	1.54E+00 +/- 2.82E-01	2.17E-01	G
15067-28-4	Pb-214	7.14E-01 +/- 1.96E-01	2.65E-01	G,J
14834-73-2	Pm-144	3.26E-02 +/- 8.29E-02	1.44E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V33

Lab ID: 0503170-24

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 371 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050346D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	2.99E-02 +/- 1.26E-01	2.19E-01	U,G
13967-48-1	Ru-106	-2.91E-01 +/- 8.31E-01	1.57E+00	U,G
14234-35-6	Sb-125	-4.64E-02 +/- 2.00E-01	3.71E-01	U,G
15065-10-8	Th-234	9.44E-02 +/- 7.26E-01	1.65E+00	U,G
14913-50-9	Tl-208	4.05E-01 +/- 1.38E-01	1.58E-01	G
15117-96-1	U-235	1.62E-02 +/- 4.18E-01	7.27E-01	U,G
13982-36-0	Y-88	6.46E-02 +/- 7.95E-02	1.28E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide Identification and/or quantitation is tentative.

TI - Nuclide Identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V34
Lab ID: 0503170-25

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 359 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050361D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.02E+00 +/- 2.85E-01	4.29E-01	G
14596-10-2	Am-241	-4.47E-02 +/- 1.35E-01	2.40E-01	U,G
14913-49-6	Bi-212	1.59E+00 +/- 1.07E+00	1.53E+00	G
14733-03-0	Bi-214	5.74E-01 +/- 2.14E-01	2.58E-01	G,J
14762-78-8	Ce-144	-3.15E-01 +/- 3.13E-01	5.94E-01	U,G
10198-40-0	Co-60	8.01E-03 +/- 8.92E-02	1.66E-01	U,G
13967-70-9	Cs-134	-7.10E-02 +/- 6.70E-02	1.36E-01	U,G
10045-97-3	Cs-137	5.41E-03 +/- 7.26E-02	1.33E-01	U,G
14683-23-9	Eu-152	3.97E-02 +/- 2.64E-01	5.21E-01	U,G
15585-10-1	Eu-154	-1.78E-01 +/- 4.33E-01	8.54E-01	U,G
14391-16-3	Eu-155	-9.01E-03 +/- 1.50E-01	2.67E-01	U,G
13966-00-2	K-40	3.00E+01 +/- 4.71E+00	1.48E+00	G
15092-94-1	Pb-212	1.54E+00 +/- 2.72E-01	1.86E-01	G
15067-28-4	Pb-214	7.09E-01 +/- 1.84E-01	2.57E-01	G,J
14834-73-2	Pm-144	2.10E-02 +/- 7.46E-02	1.31E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0503170
Client Name: Bechtel Nevada
ClientProject ID: CAU 165 V2432

Field ID: 250706-V34
Lab ID: 0503170-25

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 359 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050361D08A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	1.46E-02 +/- 7.65E-02	1.37E-01	U,G
13967-48-1	Ru-106	1.83E-01 +/- 5.78E-01	1.02E+00	U,G
14234-35-6	Sb-125	-5.51E-03 +/- 1.60E-01	2.94E-01	U,G
15065-10-8	Th-234	9.26E-01 +/- 9.24E-01	1.49E+00	U,G
14913-50-9	Ti-208	4.95E-01 +/- 1.32E-01	1.22E-01	G
15117-96-1	U-235	-5.18E-02 +/- 3.08E-01	5.54E-01	U,G
13982-36-0	Y-88	-1.34E-02 +/- 9.12E-02	1.71E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V35
Lab ID: 0503170-26

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 10-Mar-05
Date Prepared: 17-Mar-05
Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3
QCBatchID: GS050318-3-1
Run ID: GS050318-3A
Count Time: 30 minutes
Report Basis: Dry Weight

Final Allquot: 412 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050405D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.51E+00 +/- 3.68E-01	5.07E-01	G
14596-10-2	Am-241	5.13E-01 +/- 1.05E+00	1.77E+00	U,G
14733-03-0	Bi-214	6.90E-01 +/- 2.10E-01	2.18E-01	G,J
14762-78-8	Ce-144	0E+00 +/- 3.80E-01	6.63E-01	U,G
10198-40-0	Co-60	8.14E-03 +/- 7.35E-02	1.38E-01	U,G
13967-70-9	Cs-134	-6.56E-02 +/- 6.40E-02	1.29E-01	U,G
10045-97-3	Cs-137	6.49E-01 +/- 1.47E-01	1.03E-01	LT,G
14683-23-9	Eu-152	2.23E-01 +/- 2.80E-01	4.47E-01	U,G
15585-10-1	Eu-154	1.67E-01 +/- 4.38E-01	7.66E-01	U,G
14391-16-3	Eu-155	1.96E-01 +/- 2.69E-01	4.44E-01	U,G
13966-00-2	K-40	2.79E+01 +/- 4.38E+00	1.31E+00	G
13966-31-9	Mn-54	1.00E-01 +/- 6.63E-02	9.03E-02	G,TI
15092-94-1	Pb-212	1.43E+00 +/- 2.68E-01	2.30E-01	G
15067-28-4	Pb-214	7.84E-01 +/- 2.00E-01	2.72E-01	G,J
14834-73-2	Pm-144	-2.41E-02 +/- 6.93E-02	1.31E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 half-lives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8
Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V35

Lab ID: 0503170-26

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 10-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QC Batch ID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 412 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050405D06A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14834-74-3	Pm-146	2.01E-02 +/- 7.44E-02	1.31E-01	U,G
13967-48-1	Ru-106	1.69E-01 +/- 6.54E-01	1.15E+00	U,G
14234-35-6	Sb-125	1.32E-01 +/- 1.64E-01	2.68E-01	U,G
15065-10-8	Th-234	8.06E-01 +/- 1.60E+00	2.67E+00	U,G
14913-50-9	Ti-208	5.20E-01 +/- 1.31E-01	1.17E-01	G
15117-96-1	U-235	-8.34E-02 +/- 3.75E-01	6.65E-01	U,G
13982-36-0	Y-88	7.67E-02 +/- 7.25E-02	1.11E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V44

Lab ID: 0503170-27

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 14-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 375 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050347D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	1.19E+00 +/- 3.52E-01	5.81E-01	G
14596-10-2	Am-241	7.41E-02 +/- 1.37E-01	2.30E-01	U,G
14733-03-0	Bi-214	4.93E-01 +/- 2.21E-01	2.86E-01	G,J
14762-78-8	Ce-144	1.33E-01 +/- 3.77E-01	6.43E-01	U,G
10198-40-0	Co-60	0E+00 +/- 8.85E-02	1.72E-01	U,G
13967-70-9	Cs-134	6.09E-02 +/- 7.62E-02	1.24E-01	U,G
10045-97-3	Cs-137	2.03E-02 +/- 9.35E-02	1.66E-01	U,G
14683-23-9	Eu-152	6.18E-02 +/- 4.59E-01	8.68E-01	U,G
15585-10-1	Eu-154	1.28E-01 +/- 4.37E-01	7.92E-01	U,G
14391-16-3	Eu-155	1.76E-01 +/- 1.78E-01	2.82E-01	U,G
13966-00-2	K-40	2.78E+01 +/- 4.71E+00	1.70E+00	G
15092-94-1	Pb-212	1.28E+00 +/- 2.58E-01	2.30E-01	G
15067-28-4	Pb-214	7.51E-01 +/- 1.94E-01	2.61E-01	G,J
14834-73-2	Pm-144	-9.47E-02 +/- 8.35E-02	1.72E-01	U,G
14834-74-3	Pm-146	-2.37E-02 +/- 8.37E-02	1.59E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0503170

Client Name: Bechtel Nevada

ClientProject ID: CAU 165 V2432

Field ID: 250706-V44

Lab ID: 0503170-27

Sample Matrix: SOIL

Prep SOP: PAI 739 Rev 8

Date Collected: 14-Mar-05

Date Prepared: 17-Mar-05

Date Analyzed: 21-Mar-05

Prep Batch: GS050318-3

QCBatchID: GS050318-3-1

Run ID: GS050318-3A

Count Time: 30 minutes

Report Basis: Dry Weight

Final Aliquot: 375 g

Prep Basis: Dry Weight

Moisture(%): NA

Result Units: pCi/g

File Name: 050347D07A

Library: LNG_GAM-A-00

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13967-48-1	Ru-106	2.60E-02 +/- 7.24E-01	1.32E+00	U,G
14234-35-6	Sb-125	6.88E-02 +/- 1.78E-01	3.10E-01	U,G
15065-10-8	Th-234	1.84E+00 +/- 1.26E+00	1.97E+00	U,G
14913-50-9	Tl-208	3.98E-01 +/- 1.30E-01	1.40E-01	G
15117-96-1	U-235	6.15E-02 +/- 3.90E-01	6.75E-01	U,G
13982-36-0	Y-88	1.17E-01 +/- 1.01E-01	1.52E-01	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

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SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 half-lives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: GSS0503170-1

Strontium-90 Analysis by GFPC Sample Results Summary

Client Name: Bechtel Nevada
 Client Project Name: CAU 165
 Client Project Number: V2432

Laboratory Name: Paragon Analytics
 PAI Work Order: 0503170

Page: 1 of 2
 Reported on: Wednesday, March 23, 2005
 10:11:41 AM

Lab Sample ID	Client Sample ID	Sample Type	Nuclide	Result +/- 2 s TPU	MDC	Units	Matrix	Prep Batch	Date Analyzed	Flags
0503170-15	250706-V23	Sample	Sr-90	5.52E-02 +/- 1.85E-01	4.24E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-16	250706-V24	Sample	Sr-90	1.38E-01 +/- 2.09E-01	4.60E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-17	250706-V25	Sample	Sr-90	2.88E-01 +/- 1.93E-01	3.75E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-18	250706-V26	Sample	Sr-90	-7.99E-02 +/- 1.47E-01	3.69E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-19	250706-V27	Sample	Sr-90	-2.44E-03 +/- 1.34E-01	3.17E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-20	250706-V28	Sample	Sr-90	1.20E-01 +/- 1.52E-01	3.29E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-21	250706-V29	Sample	Sr-90	-3.18E-02 +/- 1.50E-01	3.60E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-22	250706-V30	Sample	Sr-90	-1.13E-01 +/- 1.46E-01	3.62E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-23	250706-V32	Sample	Sr-90	4.67E-01 +/- 2.16E-01	3.57E-01	pCi/g	SOIL	SR050317-1	3/22/2005	LT

Comments:

Data Package ID: SR900503170-1

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- M - The requested MDC was not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

Abbreviations:

- TPU - Total Propagated Uncertainty (see PAI SOP 743)
- MDC - Minimum Detectable Concentration (see PAI SOP 709)
- BDL - Below Detection Limit

Strontium-90 Analysis by GFPC Sample Results Summary

Client Name: Bechtel Nevada
 Client Project Name: CAU 165
 Client Project Number: V2432

Laboratory Name: Paragon Analytics
 PAI Work Order: 0503170

Page: 2 of 2
 Reported on: Wednesday, March 23, 2005
 10:11:41 AM

Lab Sample ID	Client Sample ID	Sample Type	Nuclide	Result +/- 2 s TPU	MDC	Units	Matrix	Prep Batch	Date Analyzed	Flags
0503170-24	250706-V33	Sample	Sr-90	6.53E-01 +/- 2.49E-01	3.48E-01	pCi/g	SOIL	SR050317-1	3/22/2005	LT
0503170-25	250706-V34	Sample	Sr-90	4.37E-02 +/- 1.73E-01	3.97E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-26	250706-V35	Sample	Sr-90	-6.39E-02 +/- 1.57E-01	3.79E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U
0503170-27	250706-V44	Sample	Sr-90	2.22E-01 +/- 1.95E-01	4.06E-01	pCi/g	SOIL	SR050317-1	3/22/2005	U

Comments:

Data Package ID: SR900503170-1

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- M - The requested MDC was not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

Abbreviations:

- TPU - Total Propagated Uncertainty (see PAI SOP 743)
- MDC - Minimum Detectable Concentration (see PAI SOP 709)
- BDL - Below Detection Limit

Date Printed: Wednesday, March 23, 2005

Paragon Analytics
 LIMS Version: 5.156A

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

Page 21 of 41

PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION	
Project: CAU 165	BN Orig#: B502	Send Report to: Reg Asuncion / Glenn Richardson	Phone: 5-5419 / 5-5361	Fax: 5-7761	M/S: NTS306
Charge Number: 5803E850			Sampling Site: The samples submitted contain (check); () Hazardous - (list) () Radioactive - (list) (X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.		
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days RH, 28 days Non-rad Env, 45 days Rad Env (X) RUSH Preliminary by: (RH)			
Phone: 5-7775	Fax: 5-7761	M/S: NTS306			

SAMPLE MANAGEMENT INFORMATION

SDG: 132593% (IH) (Non-Rad Env) V2433 (Rad Env)

Samples submitted are associated with a signed Project SOW. (X) YES () NO

Analyses entered here agree with the SOW. (X) YES () NO () N/A

If not, identify the variation: _____

Subcontract Lab(s) used for this work: PARAGON GEL

ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	EST. VOL		QC	PRES - ANALYSIS	
					MSD	MS		MSD	MS
250706 - V46	3/14/05	1630	50:1	1	50%L				
250706 - V58		1631							
250706 - V59		1636							
250706 - V62		1639							
250706 - V63		1641							
250706 - V65		1644							
250706 - V42		1647							
250706 - V43		1650							
250706 - V60		1653							
250706 - V44	3/14/05	1656							

CUSTODY TRANSFER

Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Reed Polaris	3/11/05 1945	Carved on fridge	NA	3/11/05 1945
Blackling	3/12/05 07:00	Reedley Engr	Reedley Engr	3/12/05 07:00
Reedley Engr	3/12/05 21:10	Leak by Bridge	LA	3/12/05 21:10
ER Sample Refrig	3/14/05 09:20	Kevin Campbell	Kevin Campbell	3/14/05 09:20
Kevin Campbell	3/14/05 1344	CA Costaneda	CA Costaneda	3/14/05 1344
CAOASmith	3/15/05 1300	Retention Code: EJV 5.0(1)	BN-0732 (04/02)	3/15/05 1300

PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION	
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site:	
Charge Number: <u>5803 E090</u>		Phone: 5-5419 / 5-5361	Fax: 5-7761	The samples submitted contain (check):	
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days IH, 28 days Non-rad Env, 45 days Rad Env (IH)		() Hazardous - (list)	
Phone: 5-7775	Fax: 5-7761	Preliminary by: <u>1 2 7</u> <u>X</u> 14 (non-Rad Env)		() Radioactive - (list)	
	M/S: NTS306	<u>1 1 7</u> 28 (Radiological Env)		(X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.	

SAMPLE MANAGEMENT INFORMATION						Pay Item, Analysis, Method					
SDG: <u>132593</u> (IH)		(Non-Rad Env)		(Rad Env)		MS-A - 002	MS-A - 010	MS-A - 002	MS-A - 010	MS-A - 002	MS-A - 010
Samples submitted are associated with a signed Project SOW. (X) YES () NO											
Analyses entered here agree with the SOW. (X) YES () NO () N/A											
If not, identify the variation: _____											
Subcontract Lab(s) used for this work: <u>GBL</u>											
DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est Vol	QC MS	MSD eg. HCl - VOCs	Pres - Analysis			
<u>250706 - V47</u>	<u>3/11/05</u>	<u>1659</u>	<u>50.7</u>	<u>1</u>	<u>500 ml</u>						
<u>250706 - V64</u>	<u>3/11/05</u>	<u>1705</u>									
<u>250706 - V66</u>	<u>3/11/05</u>	<u>1708</u>									
<u>250706 - V56</u>	<u>3/11/05</u>	<u>1711</u>									
<u>250706 - V51</u>	<u>3/11/05</u>	<u>1717</u>									
<u>250706 - V53</u>	<u>3/11/05</u>	<u>1720</u>									
<u>250706 - V54</u>	<u>3/11/05</u>	<u>1723</u>									
<u>250706 - V48</u>	<u>3/11/05</u>	<u>1726</u>									

CUSTODY TRANSFER		DATE / TIME		Received by (print)		Signature		DATE / TIME	
Sampled/Relinquished (print)	Signature								
<u>Reed Pabarin</u>	<u>[Signature]</u>	<u>3/11/05 1945</u>		<u>Glenn Richardson</u>		<u>NA</u>		<u>3/11/05 1945</u>	
<u>Lockley Emu</u>	<u>[Signature]</u>	<u>3/12/05 0710</u>		<u>Lockley Emu</u>		<u>[Signature]</u>		<u>3/12/05 0710</u>	
<u>ER Sample Frig</u>	<u>[Signature]</u>	<u>3/12/05 2110</u>		<u>Lockley Emu</u>		<u>NA</u>		<u>3/12/05 2110</u>	
<u>Kevin Campbell</u>	<u>[Signature]</u>	<u>3/14/05 0920</u>		<u>Kevin Campbell</u>		<u>Kevin Campbell</u>		<u>3/14/05 0920</u>	
<u>CD Castaneda</u>	<u>[Signature]</u>	<u>3/14/05 1344</u>		<u>CD Castaneda</u>		<u>CD Castaneda</u>		<u>3/14/05 1344</u>	

ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION	
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site:	The samples submitted contain (check):
Charge Number: 5803 E050	Phone: 5-5419 / 5-5361	Fax: 5-7761		() Hazardous - (list)	() Radioactive - (list)
Project Manager: Jeff Smith	Turnaround:	() Standard - 14 days IH, 28 days Non-rad Env, 45 days Rad Env (X) RUSH Preliminary by: (IH)		(X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.	
Phone: 5-7775	Fax: 5-7761	M/S: NTS306			

SAMPLE MANAGEMENT INFORMATION				Pay Item, Analysis, Method					
SDG: 132593 (IH)	(Non-Rad Env)	V2433 (Rad Env)		MS-A-002	GPC-A-010				
Samples submitted are associated with a signed Project SOW. (X) YES () NO									
Analyses entered here agree with the SOW. (X) YES () NO () N/A									
If not, identify the variation:									
Subcontract Lab(s) used for this work:									
1325937									
DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol	QC	MSD	MS	Pres - Analysis HCl - VOCs
250706 - V37	3/4/05	1729	Soil	1	500 ml				X
250706 - V38		1731							
250706 - V36		1733							
250706 - V39		1736							
250706 - V40		1739							
250706 - V41		1741							
250706 - V31		1744							
250706 - V55		1747							
250706 - V56		1750							
250706 - V22		1753							

CUSTODY TRANSFER		DATE / TIME		Signature	
Lead Roberts	Lead Roberts	3/11/05	1945	Received by (print)	Signature
Lead Roberts	Lead Roberts	3/12/05	07:00	Lochlan Enrie	Lochlan Enrie
Lead Roberts	Lead Roberts	3/12/05	07:10	Lochlan Enrie	Lochlan Enrie
Lead Roberts	Lead Roberts	3/14/05	07:20	Kevin Campbell	Kevin Campbell
Lead Roberts	Lead Roberts	3/14/05	07:44	CCASmith	CCASmith

DATE / TIME		Signature	
3/11/05	1945	Received by (print)	Signature
3/12/05	07:00	Lochlan Enrie	Lochlan Enrie
3/12/05	07:10	Lochlan Enrie	Lochlan Enrie
3/14/05	07:20	Kevin Campbell	Kevin Campbell
3/14/05	07:44	CCASmith	CCASmith

Retention Code: ENV 5.9(1)

3/14/05 @ 13:00

CCASmith

Retention Code: ENV 5.9(1)

3/14/05 @ 13:00

CCASmith

ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORD[illegible]

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V46
Sample ID: 132593001
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.26	+/-0.244	0.121	+/-0.244		pCi/g						
Americium-241	U	0.0133	+/-0.0885	0.163	+/-0.0885	0.200	pCi/g						
Antimony-125	U	0.00382	+/-0.0529	0.0952	+/-0.0529		pCi/g						
Cerium-144	U	-0.0583	+/-0.126	0.193	+/-0.126		pCi/g						
Cesium-134	X	0.0907	+/-0.0414	0.0541	+/-0.0414	0.100	pCi/g						
Cesium-137		0.654	+/-0.0738	0.0379	+/-0.0738	1.00	pCi/g						
Cobalt-60	U	0.0159	+/-0.0242	0.0455	+/-0.0242		pCi/g						
Europium-152	U	0.0514	+/-0.0518	0.0962	+/-0.0518		pCi/g						
Europium-154	U	0.0103	+/-0.0792	0.125	+/-0.0792		pCi/g						
Europium-155	U	0.0447	+/-0.0806	0.112	+/-0.0806		pCi/g						
Lead-212		1.14	+/-0.117	0.0527	+/-0.117		pCi/g						
Potassium-40		27.3	+/-2.12	0.291	+/-2.12		pCi/g						
Promethium-144	U	0.0196	+/-0.0185	0.0346	+/-0.0185		pCi/g						
Promethium-146	U	0.000444	+/-0.0283	0.0444	+/-0.0283		pCi/g						
Ruthenium-106	U	-0.0565	+/-0.182	0.314	+/-0.182		pCi/g						
Thorium-234	U	0.226	+/-0.967	1.30	+/-0.967		pCi/g						
Uranium-235	X	0.233	+/-0.262	0.213	+/-0.262	0.200	pCi/g						
Uranium-238	U	0.226	+/-0.967	1.30	+/-0.967	2.00	pCi/g						
Yttrium-88	X	0.0302	+/-0.0188	0.0249	+/-0.0188		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	-0.166	+/-0.578	1.42	+/-0.578	1.00	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1507	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V58
Sample ID: 132593002
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.37	+/-0.252	0.139	+/-0.252		pCi/g					
Americium-241	U	-0.0149	+/-0.0818	0.152	+/-0.0818	0.200	pCi/g					
Antimony-125	U	-0.0383	+/-0.051	0.0866	+/-0.051		pCi/g					
Cerium-144	U	-0.0621	+/-0.114	0.198	+/-0.114		pCi/g					
Cesium-134	X	0.0629	+/-0.0387	0.0529	+/-0.0387	0.100	pCi/g					
Cesium-137		0.100	+/-0.0437	0.0379	+/-0.0437	1.00	pCi/g					
Cobalt-60	U	-0.00314	+/-0.0237	0.042	+/-0.0237		pCi/g					
Europium-152	U	-0.0213	+/-0.0524	0.0922	+/-0.0524		pCi/g					
Europium-154	U	0.0598	+/-0.0873	0.142	+/-0.0873		pCi/g					
Europium-155	X	0.130	+/-0.0753	0.105	+/-0.0753		pCi/g					
Lead-212		1.29	+/-0.120	0.0544	+/-0.120		pCi/g					
Potassium-40		31.0	+/-2.38	0.348	+/-2.38		pCi/g					
Promethium-144	U	0.0158	+/-0.0202	0.0375	+/-0.0202		pCi/g					
Promethium-146	U	0.0209	+/-0.0136	0.0461	+/-0.0136		pCi/g					
Ruthenium-106	U	-0.0248	+/-0.171	0.308	+/-0.171		pCi/g					
Thorium-234	U	0.514	+/-0.937	1.27	+/-0.937		pCi/g					
Uranium-235	U	0.108	+/-0.171	0.211	+/-0.171	0.200	pCi/g					
Uranium-238	U	0.514	+/-0.937	1.27	+/-0.937	2.00	pCi/g					
Yttrium-88	U	0.0148	+/-0.0192	0.038	+/-0.0192		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.335	+/-0.585	1.47	+/-0.585	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V59
Sample ID: 132593003
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.35	+/-0.242	0.137	+/-0.242		pCi/g					
Americium-241	U	-0.0216	+/-0.129	0.212	+/-0.129	0.200	pCi/g					
Antimony-125	U	0.0245	+/-0.0455	0.0864	+/-0.0455		pCi/g					
Cerium-144	U	-0.00981	+/-0.112	0.188	+/-0.112		pCi/g					
Cesium-134	X	0.0635	+/-0.0325	0.0452	+/-0.0325	0.100	pCi/g					
Cesium-137	U	0.0123	+/-0.0165	0.0351	+/-0.0165	1.00	pCi/g					
Cobalt-60	U	0.00146	+/-0.0291	0.0449	+/-0.0291		pCi/g					
Europium-152	U	0.0221	+/-0.0498	0.0894	+/-0.0498		pCi/g					
Europium-154	U	-0.0386	+/-0.078	0.133	+/-0.078		pCi/g					
Europium-155	X	0.124	+/-0.0828	0.106	+/-0.0828		pCi/g					
Lead-212		1.23	+/-0.127	0.0507	+/-0.127		pCi/g					
Potassium-40		30.7	+/-2.45	0.322	+/-2.45		pCi/g					
Promethium-144	U	0.0045	+/-0.0183	0.0329	+/-0.0183		pCi/g					
Promethium-146	U	0.0103	+/-0.0227	0.0426	+/-0.0227		pCi/g					
Ruthenium-106	U	-0.0215	+/-0.167	0.298	+/-0.167		pCi/g					
Thorium-234	U	0.857	+/-1.32	1.66	+/-1.32		pCi/g					
Uranium-235	X	0.211	+/-0.171	0.201	+/-0.171	0.200	pCi/g					
Uranium-238	U	0.857	+/-1.32	1.66	+/-1.32	2.00	pCi/g					
Yttrium-88	U	0.00888	+/-0.0218	0.0309	+/-0.0218		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.678	+/-0.483	0.975	+/-0.484	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V42
Sample ID: 132593004
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid</i>												
Actinium-228		1.28	+/-0.240	0.140	+/-0.240		pCi/g					
Americium-241	U	-0.0109	+/-0.119	0.194	+/-0.119	0.200	pCi/g					
Antimony-125	U	-0.00116	+/-0.0579	0.0998	+/-0.0579		pCi/g					
Cerium-144	U	0.0207	+/-0.114	0.213	+/-0.114		pCi/g					
Cesium-134	X	0.0678	+/-0.0434	0.0554	+/-0.0434	0.100	pCi/g					
Cesium-137	U	0.031	+/-0.0277	0.0383	+/-0.0277	1.00	pCi/g					
Cobalt-60	U	-0.00593	+/-0.0248	0.0439	+/-0.0248		pCi/g					
Europium-152	U	-0.0182	+/-0.0568	0.098	+/-0.0568		pCi/g					
Europium-154	U	-0.0174	+/-0.0936	0.143	+/-0.0936		pCi/g					
Europium-155	U	0.103	+/-0.095	0.122	+/-0.095		pCi/g					
Lead-212		1.27	+/-0.119	0.059	+/-0.119		pCi/g					
Potassium-40		30.2	+/-2.18	0.382	+/-2.18		pCi/g					
Promethium-144	U	-0.00458	+/-0.0233	0.0361	+/-0.0233		pCi/g					
Promethium-146	U	0.00503	+/-0.0277	0.0459	+/-0.0277		pCi/g					
Ruthenium-106	U	0.0978	+/-0.192	0.356	+/-0.192		pCi/g					
Thorium-234	U	0.398	+/-1.07	1.49	+/-1.07		pCi/g					
Uranium-235	U	0.124	+/-0.142	0.222	+/-0.142	0.200	pCi/g					
Uranium-238	U	0.398	+/-1.07	1.49	+/-1.07	2.00	pCi/g					
Yttrium-88	U	-0.0191	+/-0.0272	0.0361	+/-0.0272		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.244	+/-0.456	1.00	+/-0.456	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V43
Sample ID: 132593005
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch #
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.31	+/-0.243	0.143	+/-0.243		pCi/g					
Americium-241	U	-0.0615	+/-0.0933	0.157	+/-0.0933	0.200	pCi/g					
Antimony-125	U	0.031	+/-0.0498	0.0914	+/-0.0498		pCi/g					
Cerium-144	U	0.026	+/-0.109	0.198	+/-0.109		pCi/g					
Cesium-134	X	0.0629	+/-0.0373	0.0485	+/-0.0373	0.100	pCi/g					
Cesium-137	U	0.000476	+/-0.0219	0.0396	+/-0.0219	1.00	pCi/g					
Cobalt-60	U	0.00499	+/-0.0255	0.0461	+/-0.0255		pCi/g					
Europium-152	U	-0.00146	+/-0.0533	0.0963	+/-0.0533		pCi/g					
Europium-154	U	0.0411	+/-0.0586	0.138	+/-0.0586		pCi/g					
Europium-155	U	0.074	+/-0.0796	0.104	+/-0.0796		pCi/g					
Lead-212		1.25	+/-0.121	0.0547	+/-0.121		pCi/g					
Potassium-40		28.8	+/-2.17	0.363	+/-2.17		pCi/g					
Promethium-144	U	0.00464	+/-0.0195	0.0355	+/-0.0195		pCi/g					
Promethium-146	U	0.0078	+/-0.0248	0.0445	+/-0.0248		pCi/g					
Ruthenium-106	U	0.0648	+/-0.170	0.316	+/-0.170		pCi/g					
Thorium-234	U	0.718	+/-1.08	1.27	+/-1.08		pCi/g					
Uranium-235	U	0.0724	+/-0.127	0.207	+/-0.127	0.200	pCi/g					
Uranium-238	U	0.718	+/-1.08	1.27	+/-1.08	2.00	pCi/g					
Yttrium-88	U	0.0121	+/-0.0207	0.037	+/-0.0207		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.0253	+/-0.529	1.27	+/-0.529	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
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Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V60
Sample ID: 132593006
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.35	+/-0.242	0.130	+/-0.242		pCi/g						
Americium-241	U	0.0765	+/-0.110	0.162	+/-0.110	0.200	pCi/g						
Antimony-125	U	0.0347	+/-0.0463	0.0883	+/-0.0463		pCi/g						
Cerium-144	U	-0.054	+/-0.102	0.185	+/-0.102		pCi/g						
Cesium-134	X	0.0708	+/-0.0341	0.0497	+/-0.0341	0.100	pCi/g						
Cesium-137	U	0.0219	+/-0.0448	0.0351	+/-0.0448	1.00	pCi/g						
Cobalt-60	U	0.0105	+/-0.0208	0.0391	+/-0.0208		pCi/g						
Europium-152	U	0.0155	+/-0.0519	0.0916	+/-0.0519		pCi/g						
Europium-154	U	0.0328	+/-0.0694	0.128	+/-0.0694		pCi/g						
Europium-155	U	0.00847	+/-0.0522	0.0984	+/-0.0522		pCi/g						
Lead-212		1.33	+/-0.130	0.0503	+/-0.130		pCi/g						
Potassium-40		29.7	+/-2.22	0.267	+/-2.22		pCi/g						
Promethium-144	U	-0.00164	+/-0.0174	0.0307	+/-0.0174		pCi/g						
Promethium-146	U	-0.0041	+/-0.0214	0.0389	+/-0.0214		pCi/g						
Ruthenium-106	U	0.154	+/-0.204	0.295	+/-0.204		pCi/g						
Thorium-234	U	0.923	+/-1.41	1.23	+/-1.41		pCi/g						
Uranium-235	U	0.108	+/-0.153	0.196	+/-0.153	0.200	pCi/g						
Uranium-238	U	0.923	+/-1.41	1.23	+/-1.41	2.00	pCi/g						
Yttrium-88	U	0.0095	+/-0.00962	0.0305	+/-0.00962		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	0.0653	+/-0.564	1.34	+/-0.564	1.00	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company: Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V45
Sample ID: 132593007
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.47	+/-0.269	0.143	+/-0.269		pCi/g					
Americium-241	U	0.0439	+/-0.0518	0.186	+/-0.0518	0.200	pCi/g					
Antimony-125	U	0.0183	+/-0.0596	0.107	+/-0.0596		pCi/g					
Cerium-144	U	0.140	+/-0.166	0.239	+/-0.166		pCi/g					
Cesium-134	X	0.112	+/-0.0556	0.060	+/-0.0556	0.100	pCi/g					
Cesium-137		0.191	+/-0.0429	0.0436	+/-0.0429	1.00	pCi/g					
Cobalt-60	U	0.00905	+/-0.025	0.0462	+/-0.025		pCi/g					
Europium-152	U	0.0142	+/-0.0629	0.113	+/-0.0629		pCi/g					
Europium-154	U	0.0234	+/-0.0856	0.155	+/-0.0856		pCi/g					
Europium-155	X	0.142	+/-0.0945	0.131	+/-0.0945		pCi/g					
Lead-212		1.57	+/-0.150	0.071	+/-0.150		pCi/g					
Potassium-40		33.1	+/-3.40	0.459	+/-3.40		pCi/g					
Promethium-144	U	0.0369	+/-0.0325	0.0408	+/-0.0325		pCi/g					
Promethium-146	U	-0.00265	+/-0.0285	0.0498	+/-0.0285		pCi/g					
Ruthenium-106	U	-0.0192	+/-0.207	0.372	+/-0.207		pCi/g					
Thorium-234	U	1.28	+/-1.21	1.56	+/-1.21		pCi/g					
Uranium-235	U	0.129	+/-0.208	0.251	+/-0.208	0.200	pCi/g					
Uranium-238	U	1.28	+/-1.21	1.56	+/-1.21	2.00	pCi/g					
Yttrium-88	U	0.023	+/-0.0184	0.0392	+/-0.0184		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.0291	+/-0.428	1.04	+/-0.428	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V47
Sample ID: 132593008
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.30	+/-0.251	0.136	+/-0.251		pCi/g					
Americium-241	U	0.0309	+/-0.108	0.209	+/-0.108	0.200	pCi/g					
Antimony-125	U	-0.0292	+/-0.0442	0.0781	+/-0.0442		pCi/g					
Cerium-144	U	-0.0277	+/-0.102	0.184	+/-0.102		pCi/g					
Cesium-134		0.0851	+/-0.0385	0.0469	+/-0.0385	0.100	pCi/g					
Cesium-137	U	0.00653	+/-0.0189	0.0341	+/-0.0189	1.00	pCi/g					
Cobalt-60	U	-0.00627	+/-0.0259	0.0388	+/-0.0259		pCi/g					
Europium-152	U	-0.0373	+/-0.0458	0.0817	+/-0.0458		pCi/g					
Europium-154	U	0.0261	+/-0.0482	0.120	+/-0.0482		pCi/g					
Europium-155	U	-0.024	+/-0.0543	0.0994	+/-0.0543		pCi/g					
Lead-212		1.28	+/-0.133	0.0488	+/-0.133		pCi/g					
Potassium-40		29.7	+/-2.28	0.329	+/-2.28		pCi/g					
Promethium-144	U	0.00473	+/-0.0204	0.032	+/-0.0204		pCi/g					
Promethium-146	U	0.0194	+/-0.0217	0.0409	+/-0.0217		pCi/g					
Ruthenium-106	U	0.019	+/-0.165	0.295	+/-0.165		pCi/g					
Thorium-234	U	1.21	+/-1.45	1.59	+/-1.45		pCi/g					
Uranium-235	U	0.0318	+/-0.117	0.185	+/-0.117	0.200	pCi/g					
Uranium-238	U	1.21	+/-1.45	1.59	+/-1.45	2.00	pCi/g					
Yttrium-88	U	0.00655	+/-0.0141	0.0289	+/-0.0141		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.328	+/-0.481	1.07	+/-0.482	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V50
Sample ID: 132593009
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N.
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.29	+/-0.243	0.154	+/-0.243		pCi/g					
Americium-241	U	0.121	+/-0.109	0.224	+/-0.109	0.200	pCi/g					
Antimony-125	U	0.0271	+/-0.0632	0.115	+/-0.0632		pCi/g					
Cerium-144	U	0.0137	+/-0.151	0.238	+/-0.151		pCi/g					
Cesium-134	X	0.0604	+/-0.0348	0.0572	+/-0.0348	0.100	pCi/g					
Cesium-137	U	-0.012	+/-0.0454	0.0433	+/-0.0454	1.00	pCi/g					
Cobalt-60	U	0.0139	+/-0.0272	0.0497	+/-0.0272		pCi/g					
Europium-152	U	-0.125	+/-0.0677	0.113	+/-0.0677		pCi/g					
Europium-154	U	0.0209	+/-0.109	0.165	+/-0.109		pCi/g					
Europium-155	U	0.0495	+/-0.0665	0.128	+/-0.0665		pCi/g					
Lead-212		1.37	+/-0.155	0.0681	+/-0.155		pCi/g					
Potassium-40		31.4	+/-2.63	0.427	+/-2.63		pCi/g					
Promethium-144	U	0.00859	+/-0.0286	0.0437	+/-0.0286		pCi/g					
Promethium-146	U	0.015	+/-0.0295	0.0524	+/-0.0295		pCi/g					
Ruthenium-106	U	0.152	+/-0.257	0.405	+/-0.257		pCi/g					
Thorium-234	U	0.882	+/-1.13	1.66	+/-1.13		pCi/g					
Uranium-235	U	-0.0152	+/-0.138	0.246	+/-0.138	0.200	pCi/g					
Uranium-238	U	0.882	+/-1.13	1.66	+/-1.13	2.00	pCi/g					
Yttrium-88	U	0.0053	+/-0.0207	0.0351	+/-0.0207		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.159	+/-0.401	0.926	+/-0.401	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V51
Sample ID: 132593010
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid</i>												
Actinium-228		1.34	+/-0.236	0.127	+/-0.236		pCi/g					
Americium-241	U	-0.0269	+/-0.0796	0.148	+/-0.0796	0.200	pCi/g					
Antimony-125	U	0.0104	+/-0.0493	0.0899	+/-0.0493		pCi/g					
Cerium-144	U	0.00147	+/-0.112	0.201	+/-0.112		pCi/g					
Cesium-134	X	0.0703	+/-0.0428	0.0488	+/-0.0428	0.100	pCi/g					
Cesium-137		0.259	+/-0.0418	0.0351	+/-0.0418	1.00	pCi/g					
Cobalt-60	U	0.0158	+/-0.0267	0.0399	+/-0.0267		pCi/g					
Europium-152	U	-0.0112	+/-0.0521	0.0944	+/-0.0521		pCi/g					
Europium-154	U	0.0364	+/-0.0768	0.139	+/-0.0768		pCi/g					
Europium-155	U	0.00596	+/-0.0586	0.107	+/-0.0586		pCi/g					
Lead-212		1.32	+/-0.125	0.0543	+/-0.125		pCi/g					
Potassium-40		27.2	+/-2.24	0.234	+/-2.24		pCi/g					
Promethium-144	U	0.0142	+/-0.0162	0.034	+/-0.0162		pCi/g					
Promethium-146	U	0.0116	+/-0.0362	0.0428	+/-0.0362		pCi/g					
Ruthenium-106	U	-0.0761	+/-0.176	0.302	+/-0.176		pCi/g					
Thorium-234	U	0.891	+/-0.930	1.24	+/-0.930		pCi/g					
Uranium-235	U	0.090	+/-0.113	0.216	+/-0.113	0.200	pCi/g					
Uranium-238	U	0.891	+/-0.930	1.24	+/-0.930	2.00	pCi/g					
Yttrium-88	U	0.00105	+/-0.0139	0.024	+/-0.0139		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.0631	+/-0.424	1.01	+/-0.424	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V21
Sample ID: 132593011
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch #
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.35	+/-0.237	0.138	+/-0.237		pCi/g					
Americium-241	U	0.00855	+/-0.0361	0.059	+/-0.0361	0.200	pCi/g					
Antimony-125	U	0.0248	+/-0.0517	0.0945	+/-0.0517		pCi/g					
Cerium-144	U	-0.0307	+/-0.121	0.188	+/-0.121		pCi/g					
Cesium-134	X	0.070	+/-0.0472	0.0519	+/-0.0472	0.100	pCi/g					
Cesium-137		0.0509	+/-0.0304	0.0413	+/-0.0304	1.00	pCi/g					
Cobalt-60	U	0.00562	+/-0.0199	0.0418	+/-0.0199		pCi/g					
Europium-152	U	-0.0424	+/-0.0527	0.0924	+/-0.0527		pCi/g					
Europium-154	U	0.0471	+/-0.0611	0.131	+/-0.0611		pCi/g					
Europium-155	X	0.110	+/-0.0695	0.0859	+/-0.0695		pCi/g					
Lead-212		1.33	+/-0.146	0.0504	+/-0.146		pCi/g					
Potassium-40		30.8	+/-2.11	0.324	+/-2.11		pCi/g					
Promethium-144	U	-0.0155	+/-0.0215	0.0359	+/-0.0215		pCi/g					
Promethium-146	U	0.00778	+/-0.030	0.0417	+/-0.030		pCi/g					
Ruthenium-106	U	0.123	+/-0.185	0.336	+/-0.185		pCi/g					
Thorium-234		1.08	+/-0.488	0.553	+/-0.488		pCi/g					
Uranium-235	U	0.159	+/-0.171	0.203	+/-0.171	0.200	pCi/g					
Uranium-238		1.08	+/-0.488	0.553	+/-0.488	2.00	pCi/g					
Yttrium-88	U	0.0122	+/-0.0167	0.0315	+/-0.0167		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.00291	+/-0.428	1.04	+/-0.428	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V53
Sample ID: 132593012
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		0.568	+/-0.126	0.0842	+/-0.126		pCi/g					
Americium-241	U	0.0286	+/-0.0847	0.175	+/-0.0847	0.200	pCi/g					
Antimony-125	U	-0.000102	+/-0.0307	0.0588	+/-0.0307		pCi/g					
Cerium-144	U	-0.00491	+/-0.0776	0.134	+/-0.0776		pCi/g					
Cesium-134	U	0.022	+/-0.0237	0.0314	+/-0.0237	0.100	pCi/g					
Cesium-137	U	0.0261	+/-0.0163	0.0324	+/-0.0163	1.00	pCi/g					
Cobalt-60	U	-0.00203	+/-0.0159	0.0254	+/-0.0159		pCi/g					
Europium-152	U	-0.0123	+/-0.0363	0.0641	+/-0.0363		pCi/g					
Europium-154	U	0.0135	+/-0.0474	0.0797	+/-0.0474		pCi/g					
Europium-155	U	0.0549	+/-0.0448	0.0736	+/-0.0448		pCi/g					
Lead-212		0.526	+/-0.065	0.0378	+/-0.065		pCi/g					
Potassium-40		9.11	+/-0.972	0.215	+/-0.972		pCi/g					
Promethium-144	X	0.0299	+/-0.0218	0.0232	+/-0.0218		pCi/g					
Promethium-146	U	0.00418	+/-0.0153	0.0295	+/-0.0153		pCi/g					
Ruthenium-106	U	0.022	+/-0.111	0.209	+/-0.111		pCi/g					
Thorium-234	U	0.429	+/-0.653	1.35	+/-0.653		pCi/g					
Uranium-235	U	0.022	+/-0.0794	0.148	+/-0.0794	0.200	pCi/g					
Uranium-238	U	0.429	+/-0.653	1.35	+/-0.653	2.00	pCi/g					
Yttrium-88	U	0.00743	+/-0.0109	0.0234	+/-0.0109		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.159	+/-0.444	1.03	+/-0.444	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V54
Sample ID: 132593013
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RI	Units	DF	Analyst	Date	Time	Batch	M					
Rad Gamma Spec Analysis																		
GammaSpec, Gamma, Solid																		
Actinium-228		1.47	+/-0.280	0.151	+/-0.280		pCi/g		MJH1 03/21/05 1235 410644 1									
Americium-241	U	0.00601	+/-0.0337	0.0617	+/-0.0337	0.200	pCi/g											
Antimony-125	U	-0.0654	+/-0.0573	0.0942	+/-0.0573		pCi/g											
Cerium-144	U	0.00659	+/-0.106	0.184	+/-0.106		pCi/g											
Cesium-134	X	0.0863	+/-0.0496	0.0509	+/-0.0496	0.100	pCi/g											
Cesium-137		0.133	+/-0.0497	0.0424	+/-0.0497	1.00	pCi/g											
Cobalt-60	U	0.0118	+/-0.0264	0.0504	+/-0.0264		pCi/g											
Europium-152	U	0.0533	+/-0.0613	0.0909	+/-0.0613		pCi/g											
Europium-154	U	0.050	+/-0.0884	0.160	+/-0.0884		pCi/g											
Europium-155	U	0.0757	+/-0.081	0.0919	+/-0.081		pCi/g											
Lead-212		1.36	+/-0.130	0.0522	+/-0.130		pCi/g											
Potassium-40		29.6	+/-2.21	0.378	+/-2.21		pCi/g											
Promethium-144	U	0.0107	+/-0.0236	0.0439	+/-0.0236		pCi/g											
Promethium-146	U	0.0254	+/-0.0279	0.0513	+/-0.0279		pCi/g											
Ruthenium-106	U	0.0983	+/-0.199	0.377	+/-0.199		pCi/g											
Thorium-234		0.647	+/-0.607	0.588	+/-0.607		pCi/g											
Uranium-235	X	0.214	+/-0.152	0.210	+/-0.152	0.200	pCi/g											
Uranium-238		0.647	+/-0.607	0.588	+/-0.607	2.00	pCi/g											
Yttrium-88	U	0.00188	+/-0.0226	0.0426	+/-0.0226		pCi/g											
Rad Gas Flow Proportional Counting																		
GFPC, Total Sr, Solid																		
Sr-89/90	U	0.417	+/-0.483	1.04	+/-0.490	1.00	pCi/g		BXD1 03/30/05 0910 412659 2									

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V48
Sample ID: 132593014
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch #
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.27	+/-0.230	0.103	+/-0.230		pCi/g					
Americium-241	U	0.0325	+/-0.0919	0.168	+/-0.0919	0.200	pCi/g					
Antimony-125	U	0.0331	+/-0.0389	0.071	+/-0.0389		pCi/g					
Cerium-144	U	0.00722	+/-0.0996	0.177	+/-0.0996		pCi/g					
Cesium-134	X	0.0876	+/-0.034	0.0393	+/-0.034	0.100	pCi/g					
Cesium-137	U	0.0148	+/-0.0234	0.0269	+/-0.0234	1.00	pCi/g					
Cobalt-60	U	-0.00367	+/-0.0161	0.0284	+/-0.0161		pCi/g					
Europium-152	U	-0.0415	+/-0.0394	0.0675	+/-0.0394		pCi/g					
Europium-154	U	-0.0465	+/-0.0539	0.091	+/-0.0539		pCi/g					
Europium-155	U	0.0501	+/-0.0716	0.0958	+/-0.0716		pCi/g					
Lead-212		1.32	+/-0.120	0.0431	+/-0.120		pCi/g					
Potassium-40		31.6	+/-2.27	0.214	+/-2.27		pCi/g					
Promethium-144	U	0.005	+/-0.0182	0.026	+/-0.0182		pCi/g					
Promethium-146	U	-0.00718	+/-0.0183	0.0316	+/-0.0183		pCi/g					
Ruthenium-106	U	0.112	+/-0.0992	0.212	+/-0.0992		pCi/g					
Thorium-234	U	0.324	+/-0.953	1.25	+/-0.953		pCi/g					
Uranium-235	U	0.152	+/-0.133	0.181	+/-0.133	0.200	pCi/g					
Uranium-238	U	0.324	+/-0.953	1.25	+/-0.953	2.00	pCi/g					
Yttrium-88	U	0.0168	+/-0.0221	0.0211	+/-0.0221		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.0192	+/-0.479	1.15	+/-0.479	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V37
Sample ID: 132593015
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.41	+/-0.201	0.0904	+/-0.201		pCi/g						
Americium-241	U	0.0151	+/-0.0537	0.105	+/-0.0537	0.200	pCi/g						
Antimony-125	U	-0.0134	+/-0.0441	0.0664	+/-0.0441		pCi/g						
Cerium-144	U	0.00828	+/-0.0894	0.163	+/-0.0894		pCi/g						
Cesium-134	X	0.0743	+/-0.026	0.0368	+/-0.026	0.100	pCi/g						
Cesium-137	U	-0.00174	+/-0.0179	0.0274	+/-0.0179	1.00	pCi/g						
Cobalt-60	U	0.00385	+/-0.0196	0.0295	+/-0.0196		pCi/g						
Europium-152	U	-0.00671	+/-0.0455	0.071	+/-0.0455		pCi/g						
Europium-154	U	0.048	+/-0.0957	0.0956	+/-0.0957		pCi/g						
Europium-155	U	0.0654	+/-0.0662	0.0868	+/-0.0662		pCi/g						
Lead-212		1.31	+/-0.120	0.0426	+/-0.120		pCi/g						
Potassium-40		31.2	+/-2.03	0.229	+/-2.03		pCi/g						
Promethium-144	U	0.00367	+/-0.0167	0.0259	+/-0.0167		pCi/g						
Promethium-146	X	0.0431	+/-0.0316	0.0298	+/-0.0316		pCi/g						
Ruthenium-106	U	-0.0262	+/-0.131	0.232	+/-0.131		pCi/g						
Thorium-234	U	0.605	+/-0.845	0.897	+/-0.845		pCi/g						
Uranium-235	U	0.103	+/-0.153	0.168	+/-0.153	0.200	pCi/g						
Uranium-238	U	0.605	+/-0.845	0.897	+/-0.845	2.00	pCi/g						
Yttrium-88	U	0.0167	+/-0.0165	0.0214	+/-0.0165		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	-0.149	+/-0.488	1.23	+/-0.488	1.00	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V38
Sample ID: 132593016
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.27	+/-0.286	0.196	+/-0.286		pCi/g					
Americium-241	U	0.0407	+/-0.0716	0.120	+/-0.0716	0.200	pCi/g					
Antimony-125	U	0.111	+/-0.121	0.133	+/-0.121		pCi/g					
Cerium-144	U	-0.0593	+/-0.155	0.270	+/-0.155		pCi/g					
Cesium-134	X	0.0871	+/-0.0426	0.0525	+/-0.0426	0.100	pCi/g					
Cesium-137		1.11	+/-0.120	0.0522	+/-0.120	1.00	pCi/g					
Cobalt-60	U	0.000805	+/-0.0311	0.056	+/-0.0311		pCi/g					
Europium-152	U	-0.0918	+/-0.0881	0.131	+/-0.0881		pCi/g					
Europium-154	U	0.109	+/-0.110	0.167	+/-0.110		pCi/g					
Europium-155	X	0.150	+/-0.108	0.136	+/-0.108		pCi/g					
Lead-212		1.15	+/-0.121	0.0717	+/-0.121		pCi/g					
Potassium-40		29.5	+/-2.34	0.438	+/-2.34		pCi/g					
Promethium-144	U	-0.0147	+/-0.0329	0.0478	+/-0.0329		pCi/g					
Promethium-146	U	0.00821	+/-0.037	0.0668	+/-0.037		pCi/g					
Ruthenium-106	U	-0.102	+/-0.273	0.468	+/-0.273		pCi/g					
Thorium-234		1.36	+/-0.893	1.11	+/-0.893		pCi/g					
Uranium-235	U	0.118	+/-0.159	0.285	+/-0.159	0.200	pCi/g					
Uranium-238		1.36	+/-0.893	1.11	+/-0.893	2.00	pCi/g					
Yttrium-88	U	0.0144	+/-0.0261	0.0535	+/-0.0261		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.269	+/-0.465	1.05	+/-0.466	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270
Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V36
Sample ID: 132593017
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
GammaSpec, Gamma, Solid													
Actinium-228		1.26	+/-0.215	0.091	+/-0.215		pCi/g						
Americium-241	U	0.0459	+/-0.0882	0.169	+/-0.0882	0.200	pCi/g			MJH1	03/21/05	1703	410644
Antimony-125	U	0.000445	+/-0.0378	0.0672	+/-0.0378		pCi/g						
Cerium-144	U	0.0443	+/-0.0984	0.179	+/-0.0984		pCi/g						
Cesium-134	X	0.0571	+/-0.026	0.0359	+/-0.026	0.100	pCi/g						
Cesium-137		0.206	+/-0.038	0.0264	+/-0.038	1.00	pCi/g						
Cobalt-60	U	-0.00186	+/-0.0165	0.0292	+/-0.0165		pCi/g						
Europium-152	U	-0.0168	+/-0.0407	0.0725	+/-0.0407		pCi/g						
Europium-154	U	0.034	+/-0.0505	0.093	+/-0.0505		pCi/g						
Europium-155	X	0.116	+/-0.0758	0.0945	+/-0.0758		pCi/g						
Lead-212		1.35	+/-0.121	0.0435	+/-0.121		pCi/g						
Potassium-40		29.5	+/-2.11	0.192	+/-2.11		pCi/g						
Promethium-144	U	0.00138	+/-0.0132	0.024	+/-0.0132		pCi/g						
Promethium-146	U	-0.00342	+/-0.0184	0.0324	+/-0.0184		pCi/g						
Ruthenium-106	U	-0.0075	+/-0.128	0.232	+/-0.128		pCi/g						
Thorium-234	U	1.01	+/-1.04	1.32	+/-1.04		pCi/g						
Uranium-235	U	0.000625	+/-0.103	0.184	+/-0.103	0.200	pCi/g						
Uranium-238	U	1.01	+/-1.04	1.32	+/-1.04	2.00	pCi/g						
Yttrium-88	U	0.0039	+/-0.0118	0.0196	+/-0.0118		pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Total Sr, Solid													
Sr-89/90	U	-0.158	+/-0.551	1.36	+/-0.551	1.00	pCi/g			LCW1	03/30/05	1022	412656

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V39
Sample ID: 132593018
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.39	+/-0.215	0.0969	+/-0.215		pCi/g					
Americium-241	U	0.0435	+/-0.0612	0.108	+/-0.0612	0.200	pCi/g					
Antimony-125	U	0.0223	+/-0.0383	0.0687	+/-0.0383		pCi/g					
Cerium-144	U	-0.0463	+/-0.0894	0.159	+/-0.0894		pCi/g					
Cesium-134	X	0.0564	+/-0.0258	0.0369	+/-0.0258	0.100	pCi/g					
Cesium-137	U	0.0269	+/-0.0292	0.0271	+/-0.0292	1.00	pCi/g					
Cobalt-60	U	0.0168	+/-0.0174	0.0318	+/-0.0174		pCi/g					
Europium-152	U	-0.0466	+/-0.0482	0.0717	+/-0.0482		pCi/g					
Europium-154	U	0.0325	+/-0.0337	0.100	+/-0.0337		pCi/g					
Europium-155	U	0.0158	+/-0.052	0.0849	+/-0.052		pCi/g					
Lead-212		1.31	+/-0.119	0.0414	+/-0.119		pCi/g					
Potassium-40		30.7	+/-2.00	0.220	+/-2.00		pCi/g					
Promethium-144	U	0.00871	+/-0.0149	0.0269	+/-0.0149		pCi/g					
Promethium-146	U	-0.00187	+/-0.0185	0.0321	+/-0.0185		pCi/g					
Ruthenium-106	U	0.100	+/-0.134	0.245	+/-0.134		pCi/g					
Thorium-234	U	0.387	+/-1.02	0.889	+/-1.02		pCi/g					
Uranium-235	U	0.0827	+/-0.152	0.171	+/-0.152	0.200	pCi/g					
Uranium-238	U	0.387	+/-1.02	0.889	+/-1.02	2.00	pCi/g					
Yttrium-88	U	-0.00362	+/-0.0116	0.0202	+/-0.0116		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.148	+/-0.370	0.828	+/-0.370	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company : Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V40
Sample ID: 132593019
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RI	Units	DF	Analyst	Date	Time	Batch N
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.42	+/-0.241	0.150	+/-0.241		pCi/g					
Americium-241	U	0.0455	+/-0.141	0.215	+/-0.141	0.200	pCi/g					
Antimony-125	U	0.0018	+/-0.0795	0.106	+/-0.0795		pCi/g					
Cerium-144	U	0.00602	+/-0.147	0.233	+/-0.147		pCi/g					
Cesium-134	X	0.0791	+/-0.0514	0.0586	+/-0.0514	0.100	pCi/g					
Cesium-137	U	0.00789	+/-0.0341	0.0468	+/-0.0341	1.00	pCi/g					
Cobalt-60	U	0.0303	+/-0.0308	0.0515	+/-0.0308		pCi/g					
Europium-152	U	-0.112	+/-0.0682	0.115	+/-0.0682		pCi/g					
Europium-154	U	0.0452	+/-0.086	0.161	+/-0.086		pCi/g					
Europium-155	U	0.0658	+/-0.0738	0.123	+/-0.0738		pCi/g					
Lead-212		1.28	+/-0.147	0.0686	+/-0.147		pCi/g					
Potassium-40		33.5	+/-2.73	0.409	+/-2.73		pCi/g					
Promethium-144	U	-0.0193	+/-0.0247	0.041	+/-0.0247		pCi/g					
Promethium-146	U	0.0117	+/-0.0286	0.0522	+/-0.0286		pCi/g					
Ruthenium-106	U	0.0628	+/-0.217	0.388	+/-0.217		pCi/g					
Thorium-234	U	0.611	+/-1.21	1.53	+/-1.21		pCi/g					
Uranium-235	U	-0.0181	+/-0.133	0.239	+/-0.133	0.200	pCi/g					
Uranium-238	U	0.611	+/-1.21	1.53	+/-1.21	2.00	pCi/g					
Yttrium-88	U	-0.00958	+/-0.019	0.033	+/-0.019		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.268	+/-0.533	1.37	+/-0.533	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company: Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V41
Sample ID: 132593020
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N.
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.23	+/-0.270	0.188	+/-0.270		pCi/g					
Americium-241	U	-0.0198	+/-0.0645	0.118	+/-0.0645	0.200	pCi/g					
Antimony-125	U	-0.00501	+/-0.071	0.127	+/-0.071		pCi/g					
Cerium-144	U	-0.049	+/-0.148	0.259	+/-0.148		pCi/g					
Cesium-134	U	0.0425	+/-0.0599	0.0693	+/-0.0599	0.100	pCi/g					
Cesium-137	U	0.0243	+/-0.0689	0.058	+/-0.0689	1.00	pCi/g					
Cobalt-60	U	0.00219	+/-0.0304	0.055	+/-0.0304		pCi/g					
Europium-152	U	-0.049	+/-0.0716	0.126	+/-0.0716		pCi/g					
Europium-154	X	0.494	+/-0.324	0.193	+/-0.324		pCi/g					
Europium-155	U	0.0971	+/-0.0936	0.126	+/-0.0936		pCi/g					
Lead-212		1.15	+/-0.120	0.069	+/-0.120		pCi/g					
Potassium-40		28.3	+/-2.34	0.520	+/-2.34		pCi/g					
Promethium-144	U	-0.0118	+/-0.0302	0.0511	+/-0.0302		pCi/g					
Promethium-146	X	0.0531	+/-0.0424	0.052	+/-0.0424		pCi/g					
Ruthenium-106	U	0.0696	+/-0.251	0.450	+/-0.251		pCi/g					
Thorium-234	U	0.495	+/-0.943	1.07	+/-0.943		pCi/g					
Uranium-235	U	0.0548	+/-0.197	0.277	+/-0.197	0.200	pCi/g					
Uranium-238	U	0.495	+/-0.943	1.07	+/-0.943	2.00	pCi/g					
Yttrium-88	U	0.00237	+/-0.026	0.0502	+/-0.026		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.168	+/-0.529	1.31	+/-0.529	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1003	409874
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1508	409873

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Company: Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V31
Sample ID: 132593021
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RI	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.51	+/-0.251	0.136	+/-0.251		pCi/g						
Americium-241	U	-0.0639	+/-0.103	0.167	+/-0.103	0.200	pCi/g						
Antimony-125	U	0.00349	+/-0.0608	0.0873	+/-0.0608		pCi/g						
Cerium-144	U	0.136	+/-0.152	0.203	+/-0.152		pCi/g						
Cesium-134		0.074	+/-0.0312	0.0411	+/-0.0312	0.100	pCi/g						
Cesium-137	U	-0.00023	+/-0.021	0.0371	+/-0.021	1.00	pCi/g						
Cobalt-60	U	0.0211	+/-0.0412	0.0442	+/-0.0412		pCi/g						
Europium-152	U	-0.0447	+/-0.0507	0.0895	+/-0.0507		pCi/g						
Europium-154	U	0.00278	+/-0.0706	0.126	+/-0.0706		pCi/g						
Europium-155	U	0.0466	+/-0.0828	0.113	+/-0.0828		pCi/g						
Lead-212		1.50	+/-0.145	0.0554	+/-0.145		pCi/g						
Potassium-40		30.9	+/-2.29	0.302	+/-2.29		pCi/g						
Promethium-144	U	-0.00144	+/-0.0186	0.0326	+/-0.0186		pCi/g						
Promethium-146	U	0.00743	+/-0.0238	0.0437	+/-0.0238		pCi/g						
Ruthenium-106	U	0.0733	+/-0.165	0.301	+/-0.165		pCi/g						
Thorium-234	U	0.117	+/-0.952	1.41	+/-0.952		pCi/g						
Uranium-235	X	0.269	+/-0.187	0.223	+/-0.187	0.200	pCi/g						
Uranium-238	U	0.117	+/-0.952	1.41	+/-0.952	2.00	pCi/g						
Yttrium-88	U	-0.0193	+/-0.0151	0.0212	+/-0.0151		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	-0.349	+/-0.472	1.26	+/-0.473	1.00	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

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Company : Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V55
Sample ID: 132593022
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.31	+/-0.265	0.134	+/-0.265		pCi/g						
Americium-241	U	-0.104	+/-0.133	0.211	+/-0.133	0.200	pCi/g						
Antimony-125	U	-0.0359	+/-0.0545	0.0849	+/-0.0545		pCi/g						
Cerium-144	U	-0.0664	+/-0.108	0.197	+/-0.108		pCi/g						
Cesium-134	X	0.0546	+/-0.0369	0.0502	+/-0.0369	0.100	pCi/g						
Cesium-137		0.121	+/-0.0439	0.0389	+/-0.0439	1.00	pCi/g						
Cobalt-60	U	0.0196	+/-0.0283	0.0375	+/-0.0283		pCi/g						
Europium-152	U	-0.0182	+/-0.0511	0.0878	+/-0.0511		pCi/g						
Europium-154	U	-0.0142	+/-0.0734	0.128	+/-0.0734		pCi/g						
Europium-155	X	0.158	+/-0.0946	0.108	+/-0.0946		pCi/g						
Lead-212		1.38	+/-0.141	0.0579	+/-0.141		pCi/g						
Potassium-40		28.5	+/-2.30	0.336	+/-2.30		pCi/g						
Promethium-144	U	0.00379	+/-0.0204	0.0365	+/-0.0204		pCi/g						
Promethium-146	U	0.0186	+/-0.022	0.042	+/-0.022		pCi/g						
Ruthenium-106	U	-0.00941	+/-0.164	0.294	+/-0.164		pCi/g						
Thorium-234	U	0.506	+/-1.31	1.73	+/-1.31		pCi/g						
Uranium-235	U	0.172	+/-0.170	0.214	+/-0.170	0.200	pCi/g						
Uranium-238	U	0.506	+/-1.31	1.73	+/-1.31	2.00	pCi/g						
Yttrium-88	U	0.00654	+/-0.0179	0.0352	+/-0.0179		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	0.0313	+/-0.525	1.26	+/-0.525	1.00	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

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Company : Bechtel Nevada
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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V56
Sample ID: 132593023
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N.
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.43	+/-0.241	0.142	+/-0.241		pCi/g					
Americium-241	U	-0.03	+/-0.107	0.186	+/-0.107	0.200	pCi/g					
Antimony-125	U	0.000E-05	+/-0.060	0.103	+/-0.060		pCi/g					
Cerium-144	U	-0.0602	+/-0.121	0.220	+/-0.121		pCi/g					
Cesium-134	X	0.0538	+/-0.0416	0.044	+/-0.0416	0.100	pCi/g					
Cesium-137		0.270	+/-0.0469	0.0445	+/-0.0469	1.00	pCi/g					
Cobalt-60	U	0.00323	+/-0.0257	0.0469	+/-0.0257		pCi/g					
Europium-152	U	0.00422	+/-0.0613	0.107	+/-0.0613		pCi/g					
Europium-154	U	0.0155	+/-0.0859	0.138	+/-0.0859		pCi/g					
Europium-155	U	0.0777	+/-0.0636	0.123	+/-0.0636		pCi/g					
Lead-212		1.45	+/-0.135	0.0631	+/-0.135		pCi/g					
Potassium-40		30.1	+/-2.20	0.387	+/-2.20		pCi/g					
Promethium-144	U	0.0106	+/-0.022	0.0403	+/-0.022		pCi/g					
Promethium-146	X	0.0516	+/-0.0374	0.0501	+/-0.0374		pCi/g					
Ruthenium-106	U	0.066	+/-0.187	0.345	+/-0.187		pCi/g					
Thorium-234	U	0.275	+/-1.43	1.56	+/-1.43		pCi/g					
Uranium-235	U	0.141	+/-0.181	0.232	+/-0.181	0.200	pCi/g					
Uranium-238	U	0.275	+/-1.43	1.56	+/-1.43	2.00	pCi/g					
Yttrium-88	U	0.00717	+/-0.0281	0.0343	+/-0.0281		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.0243	+/-0.408	0.980	+/-0.408	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V22
Sample ID: 132593024
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch #
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.22	+/-0.231	0.166	+/-0.231		pCi/g					
Americium-241	U	0.0302	+/-0.0428	0.0564	+/-0.0428	0.200	pCi/g					
Antimony-125	U	0.0124	+/-0.0486	0.0884	+/-0.0486		pCi/g					
Cerium-144	U	0.0106	+/-0.103	0.182	+/-0.103		pCi/g					
Cesium-134	X	0.0987	+/-0.0448	0.0548	+/-0.0448	0.100	pCi/g					
Cesium-137	U	0.0283	+/-0.0425	0.0481	+/-0.0425	1.00	pCi/g					
Cobalt-60	U	-0.0254	+/-0.0242	0.0406	+/-0.0242		pCi/g					
Europium-152	U	0.00124	+/-0.0557	0.0909	+/-0.0557		pCi/g					
Europium-154	U	0.0517	+/-0.106	0.131	+/-0.106		pCi/g					
Europium-155	U	0.0865	+/-0.0782	0.0869	+/-0.0782		pCi/g					
Lead-212		1.29	+/-0.122	0.0497	+/-0.122		pCi/g					
Potassium-40		28.4	+/-2.07	0.340	+/-2.07		pCi/g					
Promethium-144	U	0.0106	+/-0.0255	0.0388	+/-0.0255		pCi/g					
Promethium-146	U	0.0113	+/-0.0248	0.0453	+/-0.0248		pCi/g					
Ruthenium-106	U	-0.0942	+/-0.182	0.328	+/-0.182		pCi/g					
Thorium-234		0.823	+/-0.470	0.541	+/-0.470		pCi/g					
Uranium-235	U	0.128	+/-0.146	0.202	+/-0.146	0.200	pCi/g					
Uranium-238		0.823	+/-0.470	0.541	+/-0.470	2.00	pCi/g					
Yttrium-88	U	0.00341	+/-0.0153	0.031	+/-0.0153		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.23	+/-0.336	0.899	+/-0.336	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V52
Sample ID: 132593025
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N.
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.82	+/-0.263	0.150	+/-0.263		pCi/g					
Americium-241	U	-0.0556	+/-0.121	0.203	+/-0.121	0.200	pCi/g					
Antimony-125	U	0.0397	+/-0.0584	0.107	+/-0.0584		pCi/g					
Cerium-144	U	0.0333	+/-0.141	0.255	+/-0.141		pCi/g					
Cesium-134	X	0.0942	+/-0.0375	0.0579	+/-0.0375	0.100	pCi/g					
Cesium-137		0.0696	+/-0.0442	0.0416	+/-0.0442	1.00	pCi/g					
Cobalt-60	U	0.013	+/-0.026	0.0428	+/-0.026		pCi/g					
Europium-152	U	0.0245	+/-0.0641	0.117	+/-0.0641		pCi/g					
Europium-154	U	-0.0126	+/-0.080	0.142	+/-0.080		pCi/g					
Europium-155	U	0.0993	+/-0.109	0.140	+/-0.109		pCi/g					
Lead-212		1.97	+/-0.180	0.0671	+/-0.180		pCi/g					
Potassium-40		30.9	+/-3.17	0.388	+/-3.17		pCi/g					
Promethium-144	U	-0.0154	+/-0.0217	0.0377	+/-0.0217		pCi/g					
Promethium-146	U	0.0193	+/-0.0281	0.0512	+/-0.0281		pCi/g					
Ruthenium-106	U	0.0942	+/-0.170	0.351	+/-0.170		pCi/g					
Thorium-234		2.23	+/-1.63	1.70	+/-1.63		pCi/g					
Uranium-235	U	0.168	+/-0.199	0.274	+/-0.199	0.200	pCi/g					
Uranium-238		2.23	+/-1.63	1.70	+/-1.63	2.00	pCi/g					
Yttrium-88	U	-0.00669	+/-0.0186	0.0322	+/-0.0186		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	-0.135	+/-0.346	0.890	+/-0.346	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V49
Sample ID: 132593026
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid</i>												
Actinium-228		1.27	+/-0.246	0.125	+/-0.246		pCi/g					
Americium-241	U	0.0204	+/-0.117	0.203	+/-0.117	0.200	pCi/g					
Antimony-125	U	0.00603	+/-0.0433	0.0797	+/-0.0433		pCi/g					
Cerium-144	U	-6.320E-05	+/-0.113	0.185	+/-0.113		pCi/g					
Cesium-134	X	0.0551	+/-0.0237	0.0458	+/-0.0237	0.100	pCi/g					
Cesium-137	U	0.0318	+/-0.0324	0.0336	+/-0.0324	1.00	pCi/g					
Cobalt-60	U	0.00955	+/-0.0224	0.0412	+/-0.0224		pCi/g					
Europium-152	U	-0.0596	+/-0.0479	0.084	+/-0.0479		pCi/g					
Europium-154	U	-0.0236	+/-0.0692	0.120	+/-0.0692		pCi/g					
Europium-155	U	0.0347	+/-0.0561	0.106	+/-0.0561		pCi/g					
Lead-212		1.52	+/-0.166	0.048	+/-0.166		pCi/g					
Potassium-40		30.2	+/-2.33	0.291	+/-2.33		pCi/g					
Promethium-144	U	0.0171	+/-0.0178	0.0311	+/-0.0178		pCi/g					
Promethium-146	U	0.0041	+/-0.0202	0.0373	+/-0.0202		pCi/g					
Ruthenium-106	U	-0.0189	+/-0.162	0.286	+/-0.162		pCi/g					
Thorium-234	U	0.735	+/-1.64	1.58	+/-1.64		pCi/g					
Uranium-235	U	0.0204	+/-0.132	0.191	+/-0.132	0.200	pCi/g					
Uranium-238	U	0.735	+/-1.64	1.58	+/-1.64	2.00	pCi/g					
Yttrium-88	U	0.00933	+/-0.0142	0.0298	+/-0.0142		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.139	+/-0.387	0.899	+/-0.387	1.00	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLDI	03/17/05	1546	409875

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V62
Sample ID: 132593027
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
<i>Alphaspec Pu, Solid</i>													
Plutonium-238	U	0.000897	+/-0.00454	0.0152	+/-0.00454	0.020	pCi/g		JXG1	03/24/05	1638	409932	1
Plutonium-239/240	U	-1.740E-05	+/-0.00419	0.0134	+/-0.00419	0.020	pCi/g		JXG1	03/24/05	1638	409932	1
<i>Alphaspec U, Solid</i>													
Uranium-233/234		0.722	+/-0.0531	0.0111	+/-0.0867	0.020	pCi/g		JXG1	03/25/05	1641	409933	2
Uranium-235/236		0.0616	+/-0.016	0.00967	+/-0.017	0.020	pCi/g		JXG1	03/25/05	1641	409933	2
Uranium-238		0.728	+/-0.0532	0.00965	+/-0.0873	0.020	pCi/g		JXG1	03/25/05	1641	409933	2
Rad Gamma Spec Analysis													
<i>GammaSpec, Gamma, Solid</i>													
Actinium-228		1.49	+/-0.293	0.163	+/-0.293		pCi/g		MJH1	03/22/05	1301	410645	3
Americium-241	U	0.0579	+/-0.112	0.206	+/-0.112	0.200	pCi/g		MJH1	03/22/05	1301	410645	3
Antimony-125	U	0.00364	+/-0.0655	0.117	+/-0.0655		pCi/g		MJH1	03/22/05	1301	410645	3
Cerium-144	U	0.105	+/-0.202	0.236	+/-0.202		pCi/g		MJH1	03/22/05	1301	410645	3
Cesium-134	U	0.0491	+/-0.0402	0.0583	+/-0.0402	0.100	pCi/g		MJH1	03/22/05	1301	410645	3
Cesium-137		0.136	+/-0.0386	0.0464	+/-0.0386	1.00	pCi/g		MJH1	03/22/05	1301	410645	3
Cobalt-60	U	-0.00895	+/-0.0265	0.0453	+/-0.0265		pCi/g		MJH1	03/22/05	1301	410645	3
Europium-152	U	0.107	+/-0.0714	0.121	+/-0.0714		pCi/g		MJH1	03/22/05	1301	410645	3
Europium-154	U	-0.151	+/-0.115	0.149	+/-0.115		pCi/g		MJH1	03/22/05	1301	410645	3
Europium-155	U	0.0457	+/-0.0723	0.133	+/-0.0723		pCi/g		MJH1	03/22/05	1301	410645	3
Lead-212		1.55	+/-0.173	0.0682	+/-0.173		pCi/g		MJH1	03/22/05	1301	410645	3
Potassium-40		30.9	+/-2.59	0.382	+/-2.59		pCi/g		MJH1	03/22/05	1301	410645	3
Promethium-144	U	0.00277	+/-0.0243	0.0424	+/-0.0243		pCi/g		MJH1	03/22/05	1301	410645	3
Promethium-146	U	0.0293	+/-0.0318	0.0585	+/-0.0318		pCi/g		MJH1	03/22/05	1301	410645	3
Ruthenium-106	U	-0.155	+/-0.232	0.390	+/-0.232		pCi/g		MJH1	03/22/05	1301	410645	3
Thorium-234	U	0.319	+/-1.04	1.70	+/-1.04		pCi/g		MJH1	03/22/05	1301	410645	3
Uranium-235	U	0.0732	+/-0.146	0.262	+/-0.146	0.200	pCi/g		MJH1	03/22/05	1301	410645	3
Uranium-238	U	0.319	+/-1.04	1.70	+/-1.04	2.00	pCi/g		MJH1	03/22/05	1301	410645	3
Yttrium-88	U	0.0131	+/-0.0168	0.0355	+/-0.0168		pCi/g		MJH1	03/22/05	1301	410645	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	0.231	+/-0.417	0.942	+/-0.417	1.00	pCi/g		LCW1	03/30/05	1022	412656	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	03/18/05	1006	409876

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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V63
Sample ID: 132593028
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch #
Rad Alpha Spec Analysis												
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	0.000814	+/-0.00547	0.0146	+/-0.00547	0.020	pCi/g		JXG1	03/24/05	1638	409932 1
Plutonium-239/240	U	0.000831	+/-0.00369	0.0106	+/-0.00369	0.020	pCi/g					
<i>Alphaspec U, Solid</i>												
Uranium-233/234		0.628	+/-0.0495	0.00967	+/-0.0796	0.020	pCi/g		JXG1	03/25/05	1641	409933 2
Uranium-235/236		0.0486	+/-0.0143	0.0097	+/-0.0151	0.020	pCi/g					
Uranium-238		0.650	+/-0.0504	0.0112	+/-0.0819	0.020	pCi/g					
Rad Gamma Spec Analysis												
<i>Gammasespec, Gamma, Solid</i>												
Actinium-228		1.47	+/-0.244	0.129	+/-0.244		pCi/g		MJH1	03/22/05	1301	410645 3
Americium-241	U	0.00495	+/-0.0415	0.0638	+/-0.0415	0.200	pCi/g					
Antimony-125	U	-0.00984	+/-0.0514	0.0914	+/-0.0514		pCi/g					
Cerium-144	U	-0.168	+/-0.115	0.192	+/-0.115		pCi/g					
Cesium-134		0.0609	+/-0.0387	0.0419	+/-0.0387	0.100	pCi/g					
Cesium-137	U	0.00179	+/-0.0262	0.0399	+/-0.0262	1.00	pCi/g					
Cobalt-60	U	-0.00576	+/-0.0283	0.0421	+/-0.0283		pCi/g					
Europium-152	U	-0.0322	+/-0.0524	0.0926	+/-0.0524		pCi/g					
Europium-154	U	-0.0304	+/-0.0955	0.140	+/-0.0955		pCi/g					
Europium-155	U	0.0824	+/-0.0552	0.093	+/-0.0552		pCi/g					
Lead-212		1.46	+/-0.159	0.0541	+/-0.159		pCi/g					
Potassium-40		29.7	+/-2.05	0.312	+/-2.05		pCi/g					
Promethium-144	U	0.0143	+/-0.0243	0.0383	+/-0.0243		pCi/g					
Promethium-146	U	0.0414	+/-0.0258	0.0487	+/-0.0258		pCi/g					
Ruthenium-106	U	-0.0301	+/-0.186	0.324	+/-0.186		pCi/g					
Thorium-234		0.858	+/-0.495	0.618	+/-0.495		pCi/g					
Uranium-235	U	0.0549	+/-0.199	0.206	+/-0.199	0.200	pCi/g					
Uranium-238		0.858	+/-0.495	0.618	+/-0.495	2.00	pCi/g					
Yttrium-88	U	0.00199	+/-0.017	0.0327	+/-0.017		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.000822	+/-0.398	0.974	+/-0.398	1.00	pCi/g		LCW1	03/30/05	1022	412656 4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

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Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V65
Sample ID: 132593029
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Alpha Spec Analysis												
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	-0.00271	+/-0.00466	0.0156	+/-0.00466	0.020	pCi/g		JXG1	03/24/05	1638	409932 1
Plutonium-239/240	U	0.00268	+/-0.00527	0.0113	+/-0.00527	0.020	pCi/g					
<i>Alphaspec U, Solid</i>												
Uranium-233/234		0.683	+/-0.0542	0.0136	+/-0.0876	0.020	pCi/g		JXG1	03/25/05	1641	409933 2
Uranium-235/236		0.0566	+/-0.0161	0.0106	+/-0.0171	0.020	pCi/g					
Uranium-238		0.651	+/-0.0531	0.0148	+/-0.0843	0.020	pCi/g					
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.25	+/-0.252	0.134	+/-0.252		pCi/g		MJH1	03/22/05	1536	410645 3
Americium-241	U	0.00691	+/-0.0915	0.156	+/-0.0915	0.200	pCi/g					
Antimony-125	U	-0.00352	+/-0.0488	0.0864	+/-0.0488		pCi/g					
Cerium-144	U	-0.0475	+/-0.112	0.199	+/-0.112		pCi/g					
Cesium-134	X	0.0478	+/-0.0424	0.0455	+/-0.0424	0.100	pCi/g					
Cesium-137	U	-0.00994	+/-0.0212	0.0375	+/-0.0212	1.00	pCi/g					
Cobalt-60	U	0.0028	+/-0.0229	0.0414	+/-0.0229		pCi/g					
Europium-152	U	-0.0364	+/-0.060	0.0917	+/-0.060		pCi/g					
Europium-154	U	0.0572	+/-0.0744	0.139	+/-0.0744		pCi/g					
Europium-155	U	0.0779	+/-0.0749	0.103	+/-0.0749		pCi/g					
Lead-212		1.41	+/-0.127	0.054	+/-0.127		pCi/g					
Potassium-40		29.8	+/-2.28	0.297	+/-2.28		pCi/g					
Promethium-144	U	0.0102	+/-0.0194	0.0358	+/-0.0194		pCi/g					
Promethium-146	U	0.000902	+/-0.027	0.0419	+/-0.027		pCi/g					
Ruthenium-106	U	-0.0282	+/-0.169	0.305	+/-0.169		pCi/g					
Thorium-234		1.22	+/-1.03	1.15	+/-1.03		pCi/g					
Uranium-235	U	0.064	+/-0.119	0.216	+/-0.119	0.200	pCi/g					
Uranium-238		1.22	+/-1.03	1.15	+/-1.03	2.00	pCi/g					
Yttrium-88	U	0.00799	+/-0.0168	0.0327	+/-0.0168		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.00161	+/-0.415	1.01	+/-0.415	1.00	pCi/g		LCW1	03/30/05	1022	412656 4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/17/05	1546	409875

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V64
Sample ID: 132593030
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
<i>Alphaspec Pu, Solid</i>													
Plutonium-238	U	0.000887	+/-0.00448	0.015	+/-0.00448	0.020	pCi/g		JXG1	03/24/05	1638	409932	1
Plutonium-239/240	U	0.000869	+/-0.00378	0.0109	+/-0.00378	0.020	pCi/g						
<i>Alphaspec U, Solid</i>													
Uranium-233/234		0.706	+/-0.0644	0.0317	+/-0.0967	0.020	pCi/g		JXG1	03/25/05	1641	409933	2
Uranium-235/236		0.0373	+/-0.0159	0.0159	+/-0.0163	0.020	pCi/g						
Uranium-238		0.731	+/-0.064	0.0192	+/-0.0983	0.020	pCi/g						
Rad Gamma Spec Analysis													
<i>Gammasespec, Gamma, Solid</i>													
Actinium-228		1.52	+/-0.259	0.112	+/-0.259		pCi/g		MJH1	03/22/05	1536	410645	3
Americium-241	U	0.0468	+/-0.0886	0.161	+/-0.0886	0.200	pCi/g						
Antimony-125	U	0.0131	+/-0.0455	0.0858	+/-0.0455		pCi/g						
Cerium-144	U	-0.0542	+/-0.101	0.187	+/-0.101		pCi/g						
Cesium-134	X	0.0635	+/-0.0323	0.0455	+/-0.0323	0.100	pCi/g						
Cesium-137	U	-0.00502	+/-0.0203	0.0358	+/-0.0203	1.00	pCi/g						
Cobalt-60	U	0.000727	+/-0.0212	0.0383	+/-0.0212		pCi/g						
Europium-152	U	-0.00164	+/-0.0494	0.0866	+/-0.0494		pCi/g						
Europium-154	U	-0.0029	+/-0.082	0.127	+/-0.082		pCi/g						
Europium-155	U	0.0947	+/-0.063	0.095	+/-0.063		pCi/g						
Lead-212		1.46	+/-0.139	0.0501	+/-0.139		pCi/g						
Potassium-40		29.4	+/-2.20	0.312	+/-2.20		pCi/g						
Promethium-144	U	0.00584	+/-0.0178	0.0324	+/-0.0178		pCi/g						
Promethium-146	U	0.0141	+/-0.016	0.0379	+/-0.016		pCi/g						
Ruthenium-106	U	0.064	+/-0.179	0.292	+/-0.179		pCi/g						
Thorium-234	U	0.678	+/-0.965	1.26	+/-0.965		pCi/g						
Uranium-235	U	0.00161	+/-0.105	0.196	+/-0.105	0.200	pCi/g						
Uranium-238	U	0.678	+/-0.965	1.26	+/-0.965	2.00	pCi/g						
Yttrium-88	U	0.00427	+/-0.0143	0.0287	+/-0.0143		pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Total Sr, Solid</i>													
Sr-89/90	U	-0.0392	+/-0.472	1.15	+/-0.472	1.00	pCi/g		LCW1	03/30/05	1022	412656	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep, GL-RAD-A-021	DLD1	03/17/05	1546	409875

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V66
Sample ID: 132593031
Matrix: Soil
Collect Date: 11-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch
Rad Alpha Spec Analysis												
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	0.000915	+/-0.00406	0.0117	+/-0.00406	0.020	pCi/g		JXG1	03/24/05	1638	409932 1
Plutonium-239/240	U	0.00553	+/-0.00769	0.0142	+/-0.00771	0.020	pCi/g					
<i>Alphaspec U, Solid</i>												
Uranium-233/234		0.784	+/-0.0555	0.00974	+/-0.0826	0.020	pCi/g		JXG1	03/25/05	1641	409933 2
Uranium-235/236		0.0459	+/-0.0143	0.0113	+/-0.0147	0.020	pCi/g					
Uranium-238		0.784	+/-0.0556	0.0112	+/-0.0827	0.020	pCi/g					
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.29	+/-0.260	0.129	+/-0.260		pCi/g		MJH1	03/22/05	1537	410645 3
Americium-241	U	-0.00432	+/-0.0811	0.150	+/-0.0811	0.200	pCi/g					
Antimony-125	U	-0.054	+/-0.0487	0.0825	+/-0.0487		pCi/g					
Cerium-144	U	-0.125	+/-0.112	0.190	+/-0.112		pCi/g					
Cesium-134	X	0.0725	+/-0.0359	0.0499	+/-0.0359	0.100	pCi/g					
Cesium-137		0.081	+/-0.0305	0.0352	+/-0.0305	1.00	pCi/g					
Cobalt-60	U	-0.0138	+/-0.0235	0.0395	+/-0.0235		pCi/g					
Europium-152	U	-0.0472	+/-0.0514	0.0895	+/-0.0514		pCi/g					
Europium-154	U	-0.0245	+/-0.0702	0.121	+/-0.0702		pCi/g					
Europium-155	U	0.0334	+/-0.0599	0.110	+/-0.0599		pCi/g					
Lead-212		1.26	+/-0.123	0.0548	+/-0.123		pCi/g					
Potassium-40		29.8	+/-2.44	0.301	+/-2.44		pCi/g					
Promethium-144	U	-0.00146	+/-0.0199	0.0344	+/-0.0199		pCi/g					
Promethium-146	U	0.018	+/-0.0278	0.0438	+/-0.0278		pCi/g					
Ruthenium-106	U	0.221	+/-0.175	0.327	+/-0.175		pCi/g					
Thorium-234	U	0.472	+/-1.02	1.21	+/-1.02		pCi/g					
Uranium-235	U	0.0694	+/-0.118	0.212	+/-0.118	0.200	pCi/g					
Uranium-238	U	0.472	+/-1.02	1.21	+/-1.02	2.00	pCi/g					
Yttrium-88	U	0.0108	+/-0.0144	0.0287	+/-0.0144		pCi/g					
Rad Gas Flow Proportional Counting												
<i>GFPC, Total Sr, Solid</i>												
Sr-89/90	U	0.394	+/-0.566	1.25	+/-0.566	1.00	pCi/g		LCW1	03/30/05	1015	412656 4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Bechtel Nevada
Address : Warehouse 160, NTS 270

Mercury, Nevada 89023
Contact: Mr. Theodore Redding
Project: Environmental Rad Analysis

Report Date: March 31, 2005

Client Sample ID: 250706-V61
Sample ID: 132593032
Matrix: Soil
Collect Date: 10-MAR-05
Receive Date: 16-MAR-05
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch N.
Rad Alpha Spec Analysis												
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	-0.000924	+/-0.00402	0.0115	+/-0.00402	0.020	pCi/g		JXG1	03/24/05	1638	409932 1
Plutonium-239/240	U	-0.00462	+/-0.0054	0.019	+/-0.00541	0.020	pCi/g					
<i>Alphaspec U, Solid</i>												
Uranium-233/234		0.782	+/-0.0581	0.0137	+/-0.098	0.020	pCi/g		JXG1	03/25/05	1642	409933 2
Uranium-235/236		0.0513	+/-0.0151	0.00853	+/-0.016	0.020	pCi/g					
Uranium-238		0.769	+/-0.0574	0.0085	+/-0.0965	0.020	pCi/g					
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Actinium-228		1.38	+/-0.257	0.137	+/-0.257		pCi/g		MJH1	03/22/05	1537	410645 3
Americium-241	U	-0.0787	+/-0.128	0.245	+/-0.128	0.200	pCi/g					
Antimony-125	U	-0.021	+/-0.0469	0.0851	+/-0.0469		pCi/g					
Cerium-144	U	0.0283	+/-0.107	0.201	+/-0.107		pCi/g					
Cesium-134	X	0.0736	+/-0.0369	0.0514	+/-0.0369	0.100	pCi/g					
Cesium-137	U	0.0182	+/-0.0304	0.0335	+/-0.0304	1.00	pCi/g					
Cobalt-60	U	0.00967	+/-0.0229	0.0381	+/-0.0229		pCi/g					
Europium-152	U	-0.0181	+/-0.0555	0.0955	+/-0.0555		pCi/g					
Europium-154	U	-0.0103	+/-0.0696	0.124	+/-0.0696		pCi/g					
Europium-155	X	0.130	+/-0.0839	0.103	+/-0.0839		pCi/g					
Lead-212		1.36	+/-0.145	0.0542	+/-0.145		pCi/g					
Potassium-40		31.2	+/-2.77	0.340	+/-2.77		pCi/g					
Promethium-144	U	-0.00157	+/-0.0174	0.0309	+/-0.0174		pCi/g					
Promethium-146	U	0.0165	+/-0.0224	0.0426	+/-0.0224		pCi/g					
Ruthenium-106	U	-0.125	+/-0.157	0.270	+/-0.157		pCi/g					
Thorium-234	U	0.664	+/-0.978	1.92	+/-0.978		pCi/g					
Uranium-235	U	0.0958	+/-0.166	0.218	+/-0.166	0.200	pCi/g					
Uranium-238	U	0.664	+/-0.978	1.92	+/-0.978	2.00	pCi/g					
Yttrium-88	U	-0.00184	+/-0.0164	0.0297	+/-0.0164		pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	03/18/05	1006	409876
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	03/18/05	0923	409875

The following Analytical Methods were performed

Method	Description
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SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION		SAMPLE INFORMATION	
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site: _____	
Charge Number: 58035050 58035050		Phone: 5-5419 / 5-5361	Fax: 5-7761	The samples submitted contain (check):	
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days IH, 28 days Non-rad Env, 45 days Rad Env		☐ Hazardous - (list) _____ ☐ Radioactive - (list) _____ ☒ Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.	
Phone: 5-7775	Fax: 5-7761	M/S: NTS306			

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V2431 (Non-Rad Env) _____ (Rad Env)
 Samples submitted are associated with a signed Project SOW. (X) YES () NO
 Analyses entered here agree with the SOW. (X) YES () NO () N/A
 If not, identify the variation: _____

Subcontract Lab(s) used for this work: LIONVILLE

ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est Vol	QC		Pres - Analysis eg. HCL - VOCs	Pay Item, Analysis, Method				
						MSD	MS		10.52	7.2	8.1	6.10	1.28
250706 - V64	3/4/05	1705	soil	6	40.0			4°C	X	X	X	X	
250706 - V63	3/4/05	1641	soil	6				4°C	X	X	X	X	
250706 - V65	3/4/05	1644	soil	6				4°C	X	X	X	X	
250706 - V66	3/4/05	1708	soil	6				4°C	X	X	X	X	
250706 - V62	3/4/05	1639	soil	6				4°C	X	X	X	X	
250706 - TB2	3/4/05	0900	water	1	40ml			4°C HNO3	X	X	X	X	
Last Item													

CUSTODY TRANSFER

Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Reg Asuncion	3/4/05 1945	Lained 6th bridge	na	3/4/05 1945
Sample relay	NH	Kevin Campbell	Kevin Campbell	3/4/05 0910
Kevin Campbell	3/4/05 13:12	CDCASINERDA	CDCASINERDA	3/4/05 01312
CDCASINERDA	3/5/05 01300	For Ex #	79045048201.790450482034	3/5/05 01300
Fed Ex	3/6/05 0920	KEVIN HERNDANVERZ	V. Herndanverz	3/6/05 0920

Page 1 of 1

SAMPLE MANAGEMENT INFORMATION

Subcontract Lab(s) used for this work:

CUSTODY TRANSFER

Retention Code: ENV 5.c(1)

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/23/05

CLIENT: BECHTEL NEVADA V2431

LVL LOT #: 0503L009

WORK ORDER: 60052-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
*****	*****	*****	*****	*****	*****	*****
-005	250706-V11	Lead, Total	7.9	MG/KG	1.1	6.0
-006	250706-V12	Lead, Total	5.4	MG/KG	1.2	6.0
-007	250706-V64	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.3	MG/KG	0.27	1.0
		Barium, Total	75.9	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	3.6	MG/KG	0.04	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Lead, Total	3.9	MG/KG	0.18	1.0
		Selenium, Total	0.37 u	MG/KG	0.37	1.0
-008	250706-V63	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.4	MG/KG	0.28	1.0
		Barium, Total	68.1	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	3.9	MG/KG	0.04	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Lead, Total	16.1	MG/KG	0.18	1.0
		Selenium, Total	0.39 u	MG/KG	0.39	1.0

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Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/23/05

CLIENT: BECHTEL NEVADA V2431

LVL LOT #: 0503L009

WORK ORDER: 60052-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-009	250706-V65	Silver, Total	0.04 u	MG/KG	0.04	1.0
		Arsenic, Total	3.5	MG/KG	0.25	1.0
		Barium, Total	78.8	MG/KG	0.02	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	3.7	MG/KG	0.03	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Lead, Total	5.0	MG/KG	0.16	1.0
		Selenium, Total	0.34 u	MG/KG	0.34	1.0
-010	250706-V66	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.3	MG/KG	0.28	1.0
		Barium, Total	74.5	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	3.4	MG/KG	0.04	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Lead, Total	4.4	MG/KG	0.18	1.0
		Selenium, Total	0.38 u	MG/KG	0.38	1.0
-011	250706-V62	Silver, Total	0.05 u	MG/KG	0.05	1.0
		Arsenic, Total	2.3	MG/KG	0.28	1.0
		Barium, Total	84.3	MG/KG	0.02	1.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Chromium, Total	4.3	MG/KG	0.04	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Lead, Total	6.3	MG/KG	0.18	1.0
		Selenium, Total	0.38 u	MG/KG	0.38	1.0
-016	250706-V61	Silver, Total	0.04 u	MG/KG	0.04	1.0
		Arsenic, Total	1.6	MG/KG	0.24	1.0
		Barium, Total	114	MG/KG	0.02	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	2.2	MG/KG	0.03	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Lead, Total	3.3	MG/KG	0.16	1.0
		Selenium, Total	0.34 u	MG/KG	0.34	1.0

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Lionville Laboratory, Inc.

GAS RANGE ORGANICS

Report Date: 03/22/05 10:08

RPW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001

Page: 1

Cust ID: 250706-V64 250706-V64 250706-V64 250706-V63 250706-V65 250706-V66

Sample Information
 RFW#: 007 007 MS 007 MSD 008 009 010
 Matrix: SOIL SOIL SOIL SOIL SOIL SOIL
 D.F.: 1.00 1.00 1.00 1.00 1.00 1.00
 Units: UG/KG UG/KG UG/KG UG/KG UG/KG UG/KG

Fluorobenzene 101 % 77 % 116 % 98 % 92 % 94 %
 Gasoline Range Organics (GRO) 30 U 113 % 49 % 34 30 U 30 U

Cust ID: 250706-V62 250706-V61 TBLKUG TBLKUG BS

Sample Information
 RFW#: 011 014 05LVJ317-MB1 05LVJ317-MB1
 Matrix: SOIL SOIL SOIL SOIL
 D.F.: 1.00 1.00 1.00 1.00
 Units: UG/KG UG/KG UG/KG UG/KG

Fluorobenzene 88 % 88 % 106 % 104 %
 Gasoline Range Organics (GRO) 30 U 29 U 30 U 117 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

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Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 03/22/05 10:38

RFW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001

Page: 1

Cust ID: 250706-V64 250706-V64 250706-V64 250706-V63 250706-V65 250706-V66

Sample Information
 RFW#: 007
 Matrix: SOIL
 D.F.: 1.00
 Units: ug/kg

p-Terphenyl	76	%	76	%	75	%	68	%	70	%	82	%
Diesel Range Organics	12500	U	68	%	73	%	12700	U	12500	U	12700	U
Motor Oil Range Organics	12500	U	NS		NS		13000		20000		12700	U

Cust ID: 250706-V62 250706-V61 BLK BS

Sample Information
 RFW#: 011
 Matrix: SOIL
 D.F.: 1.00
 Units: ug/kg

p-Terphenyl	73	%	78	%	70	%	78	%				
Diesel Range Organics	12700	U	12300	U	12000	U	79	%				
Motor Oil Range Organics	13000	J	12300	U	12000	U	NS					

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Handwritten signature

Lionville Laboratory, Inc.

Semivolatiles by GC/MS, HSL List

Report Date: 03/30/05 09:36

RFW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001

Page: 1a

Cust ID: 250706-V64 250706-V64 250706-V64 250706-V63 250706-V65 250706-V66

Sample Information	RFW#:	007	007 MS	007 MSD	008	009	010	
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
D.F.:		1.00	1.00	1.00	1.00	1.00	1.00	
Units:		ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	
Nitrobenzene-d5		82	%	%	62	%	78	%
2-Fluorobiphenyl		81	%	%	64	%	67	%
Terphenyl-d14		97	%	%	79	%	85	%
Phenol-d5		82	%	%	62	%	64	%
2-Fluorophenol		83	%	%	60	%	60	%
2,4,6-Tribromophenol		87	%	%	65	%	69	%
Phenol		350	U	%	56	%	350	U
bis(2-Chloroethyl)ether		350	U	%	350	U	350	U
2-Chlorophenol		350	U	%	350	U	350	U
1,3-Dichlorobenzene		350	U	%	58	%	350	U
1,4-Dichlorobenzene		350	U	%	350	U	350	U
1,2-Dichlorobenzene		350	U	%	63	%	350	U
2-Methylphenol		350	U	%	350	U	350	U
2,2'-oxybis(1-Chloropropane)		350	U	%	350	U	350	U
4-Methylphenol		350	U	%	350	U	350	U
N-Nitroso-di-n-propylamine		350	U	%	74	%	350	U
Hexachloroethane		350	U	%	350	U	350	U
Nitrobenzene		350	U	%	350	U	350	U
Isophorone		350	U	%	350	U	350	U
2-Nitrophenol		350	U	%	350	U	350	U
2,4-Dimethylphenol		350	U	%	350	U	350	U
bis(2-Chloroethoxy)methane		350	U	%	350	U	350	U
2,4-Dichlorophenol		350	U	%	350	U	350	U
1,2,4-Trichlorobenzene		350	U	%	65	%	350	U
Naphthalene		350	U	%	350	U	350	U
4-Chloroaniline		350	U	%	350	U	350	U
Hexachlorobutadiene		350	U	%	350	U	350	U
4-Chloro-3-methylphenol		350	U	%	350	U	350	U
2-Methylnaphthalene		350	U	%	55	%	350	U
Hexachlorocyclopentadiene		350	U	%	350	U	350	U
2,4,6-Trichlorophenol		350	U	%	350	U	350	U
2,4,5-Trichlorophenol		350	U	%	350	U	350	U
		870	U	%	870	U	880	U

*= Outside of EPA CLP QC limits.

*= Outside of EPA CLP QC limits.

Cust ID: 250706-V64 250706-V64 250706-V64 250706-V63 250706-V65 250706-V66

RFW#:	007	007 MS	007 MSD	008	009	010
2-Chloronaphthalene	350 U	350 U	350 U	350 U	350 U	350 U
2-Nitroaniline	870 U	870 U	870 U	880 U	870 U	880 U
Dimethylphthalate	350 U	350 U	350 U	350 U	350 U	350 U
Acenaphthylene	350 U	350 U	350 U	350 U	350 U	350 U
2,6-Dinitrotoluene	350 U	18 J	350 U	350 U	350 U	350 U
3-Nitroaniline	870 U	870 U	870 U	880 U	870 U	880 U
Acenaphthene	350 U	79 %	63 %	350 U	350 U	350 U
2,4-Dinitrophenol	870 U	870 U	870 U	880 U	870 U	880 U
4-Nitrophenol	870 U	78 %	41 %	880 U	870 U	880 U
Dibenzofuran	350 U	350 U	350 U	350 U	350 U	350 U
2,4-Dinitrotoluene	350 U	82 %	58 %	350 U	350 U	350 U
Diethylphthalate	350 U	350 U	350 U	350 U	350 U	350 U
4-Chlorophenyl-phenylether	350 U	350 U	350 U	350 U	350 U	350 U
Fluorene	350 U	350 U	350 U	350 U	350 U	350 U
4-Nitroaniline	870 U	870 U	870 U	880 U	870 U	880 U
4,6-Dinitro-2-methylphenol	870 U	870 U	870 U	880 U	870 U	880 U
N-Nitrosodiphenylamine (1)	350 U	350 U	350 U	350 U	350 U	350 U
4-Bromophenyl-phenylether	350 U	350 U	350 U	350 U	350 U	350 U
Hexachlorobenzene	350 U	350 U	350 U	350 U	350 U	350 U
Pentachlorophenol	870 U	52 %	43 %	880 U	870 U	880 U
Phenanthrene	350 U	350 U	350 U	350 U	350 U	350 U
Anthracene	350 U	350 U	350 U	350 U	350 U	350 U
Carbazole	350 U	350 U	350 U	350 U	350 U	350 U
Di-n-butylphthalate	23 JB	33 JB	32 JB	38 JB	64 JB	27 JB
Fluoranthene	350 U	350 U	350 U	350 U	350 U	350 U
Pyrene	350 U	80 %	72 %	350 U	350 U	350 U
Butylbenzylphthalate	350 U	350 U	350 U	350 U	350 U	350 U
3,3'-Dichlorobenzidine	350 U	350 U	350 U	350 U	350 U	350 U
Benzo(a)anthracene	350 U	350 U	350 U	350 U	350 U	350 U
Chrysene	350 U	350 U	350 U	350 U	350 U	350 U
bis(2-Ethylhexyl)phthalate	23 JB	31 JB	32 JB	32 JB	33 JB	21 JB
Di-n-octyl phthalate	350 U	350 U	350 U	350 U	350 U	350 U
Benzo(b)fluoranthene	350 U	350 U	350 U	350 U	350 U	350 U
Benzo(k)fluoranthene	350 U	350 U	350 U	350 U	350 U	350 U
Benzo(a)pyrene	350 U	350 U	350 U	350 U	350 U	350 U
Indeno(1,2,3-cd)pyrene	350 U	350 U	350 U	350 U	350 U	350 U
Dibenz(a,h)anthracene	350 U	350 U	350 U	350 U	350 U	350 U
Benzo(g,h,i)perylene	350 U	350 U	350 U	350 U	350 U	350 U
(1) - Cannot be separated from Diphenylamine. *	350 U	350 U	350 U	350 U	350 U	350 U

* = Outside of EPA CLP QC limits.

8160000000

Lionville Laboratory, Inc.
 Semivolatiles by GC/MS, HSL List
 RFW Batch Number: 0503L009 Client: BECHTEL NEVADA V2431 Work Order: 60052001001 Report Date: 03/30/05 09:36
 Page: 2a

Cust ID: 250706-V62 250706-V61 SBLKGL SBLKGL BS
 Sample Information RFW#: 011 05LE0193-MB1 05LE0193-MB1
 Matrix: SOIL SOIL SOIL
 D.F.: 1.00 1.00 1.00
 Units: ug/Kg ug/Kg ug/Kg

Suprogate	Nitrobenzene-d5	60	%	64	%	64	%	64	%	86	%
Recovery	2-Fluorobiphenyl	61	%	64	%	65	%	86	%	86	%
	Terphenyl-d14	71	%	70	%	89	%	102	%	102	%
	Phenol-d5	58	%	61	%	60	%	85	%	85	%
	2-Fluorophenol	50	%	54	%	56	%	88	%	88	%
	2,4,6-Tribromophenol	63	%	63	%	62	%	87	%	87	%
Phenol		350	U	340	U	330	U	82	%	82	%
bis(2-Chloroethyl) ether		350	U	340	U	330	U	330	U	330	U
2-Chlorophenol		350	U	340	U	330	U	78	%	78	%
1,3-Dichlorobenzene		350	U	340	U	330	U	330	U	330	U
1,4-Dichlorobenzene		350	U	340	U	330	U	78	%	78	%
1,2-Dichlorobenzene		350	U	340	U	330	U	330	U	330	U
2-Methylphenol		350	U	340	U	330	U	330	U	330	U
2,2'-oxybis(1-Chloropropane)		350	U	340	U	330	U	330	U	330	U
4-Methylphenol		350	U	340	U	330	U	330	U	330	U
N-Nitroso-di-n-propylamine		350	U	340	U	330	U	91	%	91	%
Hexachloroethane		350	U	340	U	330	U	330	U	330	U
Nitrobenzene		350	U	340	U	330	U	330	U	330	U
Isophorone		350	U	340	U	330	U	330	U	330	U
2-Nitrophenol		350	U	340	U	330	U	330	U	330	U
2,4-Dimethylphenol		350	U	340	U	330	U	330	U	330	U
bis(2-Chloroethoxy)methane		350	U	340	U	330	U	330	U	330	U
2,4-Dichlorophenol		350	U	340	U	330	U	330	U	330	U
1,2,4-Trichlorobenzene		350	U	340	U	330	U	79	%	79	%
Naphthalene		350	U	340	U	330	U	330	U	330	U
4-Chloroaniline		350	U	340	U	330	U	330	U	330	U
Hexachlorobutadiene		350	U	340	U	330	U	330	U	330	U
4-Chloro-3-methylphenol		350	U	340	U	330	U	330	U	330	U
2-Methylnaphthalene		350	U	340	U	330	U	77	%	77	%
Hexachlorocyclopentadiene		350	U	340	U	330	U	330	U	330	U
2,4,6-Trichlorophenol		350	U	340	U	330	U	330	U	330	U
2,4,5-Trichlorophenol		880	U	860	U	840	U	330	U	330	U
								840	U	840	U

* = Outside of EPA CLP QC limits.

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0503L009 Client: BECHTEL NEVADA V2431 Work Order: 60052001001 Page: 1 Report Date: 03/22/05 09:14

Cust ID: 250706-V64		250706-V64	250706-V64	250706-V63	250706-V65	250706-V66
Sample Information	RFW#:	007	007 MS	007 MSD	008	009
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		75 %	84 %	81 %	81 %	74 %
Decachlorobiphenyl		74 %	78 %	78 %	78 %	74 %
Aroclor-1016		14 U	85 %	85 %	14 U	14 U
Aroclor-1221		14 U	14 U	14 U	14 U	14 U
Aroclor-1232		14 U	14 U	14 U	14 U	14 U
Aroclor-1242		14 U	14 U	14 U	14 U	14 U
Aroclor-1248		14 U	14 U	14 U	14 U	14 U
Aroclor-1254		14 U	14 U	14 U	14 U	14 U
Aroclor-1260		14 U	87 %	88 %	14 U	16
					14 U	14 U

Cust ID: 250706-V62		250706-V61	PBLXHI	PBLXHI BS
Sample Information	RFW#:	011	015	05LE0194-MB1
	Matrix:	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		87 %	77 %	82 %
Decachlorobiphenyl		88 %	80 %	74 %
Aroclor-1016		14 U	14 U	13 U
Aroclor-1221		14 U	14 U	13 U
Aroclor-1232		14 U	14 U	13 U
Aroclor-1242		14 U	14 U	13 U
Aroclor-1248		14 U	14 U	13 U
Aroclor-1254		20	14 U	13 U
Aroclor-1260		14 U	14 U	13 U
				85 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

Volatiles by GC/MS, HSL List

Report Date: 03/22/05 09:24

RFW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001

Page: 1a

Cust ID: 250706-V64 250706-V63 250706-V65 250706-V66 250706-V62 250706-TB2

Sample Information	RFW#:	007	008	009	010	011	012
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER
D.F.:	1.06	0.980	1.09	1.04	0.962	1.00	
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/L	

Toluene-d8	93	%	U	10	99	%	U	11	95	%	U	11	96	%	U	10	100	%	U	98	%	U
Surrogate	91	%	U	10	95	%	U	11	92	%	U	11	94	%	U	10	96	%	U	96	%	U
Bromofluorobenzene	97	%	U	101	%	U	101	101	99	%	U	101	101	%	U	103	103	%	U	101	%	U
Recovery	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
1,2-Dichloroethane-d4	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
Chloromethane	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
Bromomethane	20	B	20	20	20	B	22	22	22	B	20	20	20	B	17	17	17	B	6	6	B	
Vinyl Chloride	11	U	11	8	8	J	11	11	11	U	11	11	11	U	9	9	9	J	10	10	U	
Chloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Methylene Chloride	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Acetone	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Carbon Disulfide	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,1-Dichloroethene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,1-Dichloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,2-Dichloroethene (total)	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Chldroform	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,2-Dichloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
2-Butanone	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
1,1,1-Trichloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Carbon Tetrachloride	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Bromodichloromethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,2-Dichloropropane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
cis-1,3-Dichloropropene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Trichloroethene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Dibromochloromethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,1,1,2-Trichloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Benzene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Trans-1,3-Dichloropropene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Bromoform	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
4-Methyl-2-pentanone	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
2-Hexanone	11	U	11	10	10	U	11	11	11	U	11	11	11	U	10	10	10	U	10	10	U	
Tetrachloroethene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
1,1,2,2-Tetrachloroethane	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	
Toluene	6	U	6	5	5	U	6	6	6	U	6	6	6	U	5	5	5	U	5	5	U	

*= Outside of EPA CLP QC limits.

*= Outside of EPA CLP QC limits.

RFW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001 Page: 1b

Cust ID: 250706-V64

250706-V63

250706-V65

250706-V66

250706-V62

250706-TB2

RFW#:

007

008

009

010

011

012

Chlorobenzene

Ethylbenzene

Styrene

Xylene (total)

*= Outside of EPA CLP QC limits.

6 U

6 U

6 U

6 U

5 U

5 U

5 U

5 U

6 U

6 U

6 U

6 U

6 U

6 U

6 U

6 U

5 U

5 U

5 U

5 U

5 U

5 U

5 U

5 U

Lionville Laboratory, Inc.

Volatiles by GC/MS, HSL List

RFW Batch Number: 0503L009 Client: BECHTEL NEVADA V2431 Work Order: 60052001001 Page: 2a Report Date: 03/22/05 09:24

Cust ID: 250706-V61 250706-V61 250706-V61 250706-TB1 VBLKLY VBLKLY BS

Sample Information	RFW#:	013	013 MS	013 MSD	017	05LVX039-MB1	05LVX039-MB1
Matrix:	SOIL	SOIL	SOIL	SOIL	WATER	SOIL	SOIL
D.F.:	0.980	1.04	1.04	1.04	1.00	1.00	1.00
Units:	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/L	ug/Kg	ug/Kg
Surrogate	96	%	96	%	99	%	98
Bromofluorobenzene	93	%	95	%	96	%	97
Recovery	107	%	106	%	102	%	99
Chloromethane	10	U	11	U	10	U	10
Bromomethane	10	U	11	U	10	U	10
Vinyl Chloride	10	U	11	U	10	U	10
Chloroethane	10	U	11	U	10	U	10
Methylene Chloride	19	B	21	B	4	JB	6
Acetone	8	J	8	J	2	J	6
Carbon Disulfide	5	U	6	U	5	U	5
1,1-Dichloroethene	5	U	81	%	5	U	82
1,1-Dichloroethane	5	U	6	U	5	U	5
1,2-Dichloroethene (total)	5	U	6	U	5	U	5
Chldroform	5	U	6	U	5	U	5
1,2-Dichloroethane	5	U	6	U	5	U	5
2-Butanone	10	U	11	U	10	U	10
1,1,1-Trichloroethane	5	U	6	U	5	U	5
Carbon Tetrachloride	5	U	6	U	5	U	5
Bromodichloromethane	5	U	6	U	5	U	5
1,2-Dichloropropane	5	U	6	U	5	U	5
cis-1,3-Dichloropropene	5	U	6	U	5	U	5
Trichloroethene	5	U	93	%	5	U	92
Dibromochloromethane	5	U	6	U	5	U	5
1,1,2-Trichloroethane	5	U	6	U	5	U	5
Benzene	5	U	92	%	5	U	91
Trans-1,3-Dichloropropene	5	U	6	U	5	U	5
Bromoform	5	U	6	U	5	U	5
4-Methyl-2-pentanone	10	U	11	U	10	U	10
2-Hexanone	10	U	11	U	10	U	10
Tetrachloroethene	5	U	6	U	5	U	5
1,1,2,2-Tetrachloroethane	5	U	6	U	5	U	5
Toluene	5	U	95	%	5	U	95

*= Outside of EPA CLP QC limits.

RFW Batch Number: 0503L009

Client: BECHTEL NEVADA V2431

Work Order: 60052001001

Page: 2b

Cust ID: 250706-V61

250706-V61

250706-V61

250706-TB1

VBLKLY

VBLKLY BS

RFW#:

013

013 MS

013 MSD

017

05LVX039-MB1

05LVX039-MB1

Chlorobenzene	5 U	92	%	91	%	5 U	5 U	93	%
Ethylbenzene	5 U	6 U		6 U		5 U	5 U	5 U	
Styrene	5 U	6 U		6 U		5 U	5 U	5 U	
Xylene (total)	5 U	6 U		6 U		5 U	5 U	5 U	

*= Outside of EPA CLP QC limits.

0503L009

SAMPLE ANALYTICAL RESULTS
CAS 25-07-07, VEHICLE WASHDOWN

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04122495

Bechtel NevadaANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 2

PROJECT/CLIENT INFORMATION			REPORT & TURNAROUND INFORMATION			SAMPLE INFORMATION		
Project: 04122495	BN Org #: B502	Send Report to: Reg Asuncion	Phone: 5-5419	Fax: 295-7761	MIS: NTS306	Sampling Site: CAS 25-07-07	The samples submitted contain (check):	
Charge Number: 04122495	SB01 AD50	Turnaround: Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env, (IH)	Rush Preliminary by: 12-30-04			☐ Hazardous (list) - ☐ Radioactive (list) - ☐ Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.		
Project Manager: Dale Jeff Smith								
Phone: 5-7775	Fax: 5-7751	MIS: NTS306						
SDG: (IH) V2382 (Non-Rad Env) (Rad Env) Samples submitted are associated with a signed Project SOW ☒ Yes ☐ No Analyses entered here agree with the SOW ☒ Yes ☐ No ☐ N/A If not, identify the variation: Subcontract Lab(s) used for this work: LIONVILLE								
SAMPLE MANAGEMENT INFORMATION			CONTAINER			QC		
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	#	Est. Vol	MSD	MSD	Pres - Analysis eg. HCL - VOCs
250707 - V1	12/15/04	13:20	Soil	1	250ml	X	X	none
250707 - V2	12/15/04	13:22	Soil	1				
250707 - V3	12/15/04	13:24	Soil	1				
25-0707 - V4	12/15/04	13:26	Soil	1				
25-0707 - V5	12/15/04	13:28	Soil	1				
250707 - V6	12/15/04	13:38	Soil	1				
250707 - V7	12/15/04	14:05	Soil	1				
250707 - V8	12/15/04	13:34	Soil	1				
250707 - V9	12/15/04	14:08	Soil	1				
250707 - V10	12/15/04	13:38	Soil	1				
CUSTODY TRANSFER			Signature			Date/Time		
Sampled/Relinquished (print):			Signature			Date/Time		
Reg Asuncion			Glenn Richardson			12/20/04 9:00		
Glenn Richardson			Glenn Richardson			12/20/04 16:21		
CA CASTMEXDA for 440			CA Castmexda			12/21/04 13:00		
F-DEP			F-DEP			12/22/04 09:55		

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/CLIENT INFORMATION				REPORT & TURNAROUND INFORMATION				SAMPLE INFORMATION			
Project: CAU165	BN Orig #: B502	Send Report to: <u>Ray Brancich</u>	Phone: <u>255-5419</u>	Fax: <u>255-7761</u>	MIS: <u>NTS306</u>	Sampling Site: <u>CA 85-07-07</u>	The samples submitted contain (check):				
Charge Number: <u>(50003)</u>	<u>5B01</u> AD50	Turnaround: <u>Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env, 12-30-04</u>	<u>1</u> ☐ <u>2</u> ☐ <u>7</u> ☐ <u>14</u> ☐ <u>28</u> ☐ (IH)	<u>1</u> ☐ <u>2</u> ☐ <u>7</u> ☐ <u>14</u> ☐ <u>28</u> ☐ (non-Rad Env)	<u>1</u> ☐ <u>2</u> ☐ <u>7</u> ☐ <u>14</u> ☐ <u>28</u> ☐ (Radiological Env)	☐ Hazardous (list) -					
Project Manager: <u>Glenn Jeff Smith</u>						☐ Radioactive (list) -					
Phone: <u>5-7775</u>	Fax: <u>5-7761</u>	MIS: <u>NTS308</u>				☐ Unknown contamination.					
If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.											
SDG: <u>(IH) V2382</u> (Non-Rad Env) ☐ No Samples submitted are associated with a signed Project SOW ☒ Yes Analyses entered here agree with the SOW ☒ Yes ☐ No ☐ N/A If not, identify the variation:						Pay Item, Analysis, Method <u>1052</u> <u>TPH Full Scan</u> <u>X</u>					
Subcontract Lab(s) used for this work: <u>LIONVILLE</u>											
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol	QC MS	MSD	Pres - Analysis eg. HCl - VOCs			
250707-VII	12/15/04	14:11	soil	1	20 mL			non			
LAST ITEM											
CUSTODY TRANSFER Sampled/Relinquished (print) <u>Glenn Richardson</u> <u>C.D. CASTANEDA for GGP</u> <u>RED E</u>									Signature <u>Glenn Richardson</u> <u>C.D. Castaneda</u>		Date/Time <u>12/20/04 10:35</u> <u>12/16/04 01:30</u> <u>12/21/04 09:55</u>
Received by (print) <u>12/16/04 13:00</u> <u>12/21/04 09:55</u>									Signature <u>792165348209</u>		Date/Time <u>12/20/04 16:35</u>

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 01/03/05 13:27
 RFW Batch Number: 0412L495 Client: BECHTEL NEVADA V2382 Work Order: 60052001001 Page: 1

Sample Information	RFW#:	250707-V1	250707-V1	250707-V1	250707-V1	250707-V2	250707-V3	250707-V4
	001	001 MS	001 MSD	002	003	004		
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl	94 %	122 %	94 %	107 %	101 %	98 %		
Diesel Range Organics	20000	98 %	57 %	13000	12700 U	12700 U		
Motor Oil Range Organics	45000	NS	NS	26000	16000	15000		

Sample Information	RFW#:	250707-V5	250707-V6	250707-V7	250707-V8	250707-V9	250707-V10
	005	006	007	008	009	010	
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl	90 %	107 %	105 %	107 %	106 %	104 %	
Diesel Range Organics	12600 U	12900 U	14000	12600 U	12600 U	12600 U	
Motor Oil Range Organics	12600 U	12900 U	40000	12600 U	12600 U	12600 U	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Handwritten signature and date 1/4/05

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 01/03/05 13:27

RFW Batch Number: 0412L495

Client: BECHTEL NEVADA V2382 Work Order: 60052001001 Page: 2

Cust ID: 250707-V11

BLK

BLK BS

Sample Information

RFW#: 011 04LE1541-MB1 04LE1541-MB1
Matrix: SOIL SOIL SOIL
D.F.: 1.00 1.00 1.00
Units: ug/kg ug/kg ug/kg

p-Terphenyl

	102 %	96 %	90 %
Diesel Range Organics	12800 U	12000 U	84 %
Motor Oil Range Organics	23000	12000 U	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

01/03/05

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

RFW Batch Number: 0412L495 Client: BECHTEL NEVADA V2382 Work Order: 60052001001 Page: 1 Report Date: 01/03/05 12:58

Cust ID: 250707-V1		250707-V2	250707-V3	250707-V4	250707-V5	250707-V6
RFW#: 001		002	003	004	005	006
Matrix: SOIL		SOIL	SOIL	SOIL	SOIL	SOIL
D.F.: 1.00		1.00	1.00	1.00	1.00	1.00
Units: UG/KG		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene 93 %		90 %	89 %	82 %	80 %	90 %
Gasoline Range Organics (GRO) 30 U		33 U	30 U	29 U	30 U	29 U

Cust ID: 250707-V7		250707-V8	250707-V9	250707-V10	250707-V11	TBLKSL
RFW#: 007		008	009	010	011	04LVJC28-MB1
Matrix: SOIL		SOIL	SOIL	SOIL	SOIL	SOIL
D.F.: 1.00		1.00	1.00	1.00	1.00	1.00
Units: UG/KG		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene 90 %		82 %	74 %	80 %	80 %	100 %
Gasoline Range Organics (GRO) 30 U		29 U	30 U	30 U	30 U	30 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

01/04/05

SAMPLE ANALYTICAL RESULTS
CAS 25-51-02, DRYWELL

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NEL Laboratories, Las Vegas

Date: 10-Jan-05

CLIENT: Bechtel Nevada
Project: CAU 165

Lab Order: L0501024

Lab ID: L0501024-001

Collection Date: 1/4/05 2:30:00 PM

Client Sample ID: 255102-V1

Matrix: SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL EXTRACTABLE TPH		SW8015M		Analyst: JRW-L		
Diesel Range Organics (C12-C22)	ND	20		mg/Kg	1	1/7/05
Gasoline Range Organics (C8-C12)	ND	20		mg/Kg	1	1/7/05
Oil Range Organics (C22-C34)	ND	50		mg/Kg	1	1/7/05
Total Petroleum Hydrocarbons	ND	20		mg/Kg	1	1/7/05
Surr: n-Octacosane	59.1	34.8-139		%REC	1	1/7/05

Lab ID: L0501024-002

Collection Date: 1/4/05 2:32:00 PM

Client Sample ID: 255102-V2

Matrix: SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL EXTRACTABLE TPH		SW8015M		Analyst: JRW-L		
Diesel Range Organics (C12-C22)	ND	20		mg/Kg	1	1/7/05
Gasoline Range Organics (C8-C12)	ND	20		mg/Kg	1	1/7/05
Oil Range Organics (C22-C34)	ND	50		mg/Kg	1	1/7/05
Total Petroleum Hydrocarbons	ND	20		mg/Kg	1	1/7/05
Surr: n-Octacosane	78.1	34.8-139		%REC	1	1/7/05

Lab ID: L0501024-003

Collection Date: 1/4/05 2:34:00 PM

Client Sample ID: 255102-V3

Matrix: SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL EXTRACTABLE TPH		SW8015M		Analyst: JRW-L		
Diesel Range Organics (C12-C22)	ND	20		mg/Kg	1	1/7/05
Gasoline Range Organics (C8-C12)	ND	20		mg/Kg	1	1/7/05
Oil Range Organics (C22-C34)	ND	50		mg/Kg	1	1/7/05
Total Petroleum Hydrocarbons	ND	20		mg/Kg	1	1/7/05
Surr: n-Octacosane	73.1	34.8-139		%REC	1	1/7/05

Lab ID: L0501024-004

Collection Date: 1/4/05 2:36:00 PM

Client Sample ID: 255102-V4

Matrix: SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL EXTRACTABLE TPH		SW8015M		Analyst: JRW-L		
Diesel Range Organics (C12-C22)	ND	20		mg/Kg	1	1/7/05
Gasoline Range Organics (C8-C12)	ND	20		mg/Kg	1	1/7/05
Oil Range Organics (C22-C34)	ND	50		mg/Kg	1	1/7/05
Total Petroleum Hydrocarbons	ND	20		mg/Kg	1	1/7/05
Surr: n-Octacosane	70.1	34.8-139		%REC	1	1/7/05

NEL Laboratories, Las Vegas

Date: 10-Jan-05

CLIENT: Bechtel Nevada
Project: CAU 165**Lab Order:** L0501024**Lab ID:** L0501024-005**Collection Date:** 1/4/05 2:38:00 PM**Client Sample ID:** 255102-V5**Matrix:** SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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TOTAL EXTRACTABLE TPH

SW8015M

Analyst: JRW-I

Diesel Range Organics (C12-C22)	ND	20		mg/Kg	1	1/7/05
Gasoline Range Organics (C8-C12)	ND	20		mg/Kg	1	1/7/05
Oil Range Organics (C22-C34)	ND	50		mg/Kg	1	1/7/05
Total Petroleum Hydrocarbons	ND	20		mg/Kg	1	1/7/05
Sum: n-Octacosane	74.1	34.8-139		%REC	1	1/7/05

Lionville Laboratory, Inc.

Report Date: 01/20/05 14:33

PCBs by GC

Work Order: 60052001001 Page: 1

RFW Batch Number: 0501L609

Client: BECHTEL NEVADA V2392

Cust ID: 255102-V6 255102-V6 255102-V6 255102-V7 255102-V8 255102-V9

Sample Information RFW#: 001 MS 001 MSD 002 SOIL 003 SOIL 004 SOIL
Matrix: SOIL SOIL SOIL SOIL SOIL
D.F.: 1.00 1.00 1.00 1.00 1.00
Units: UG/KG UG/KG UG/KG UG/KG UG/KG

Surrogate: Tetrachloro-m-xylene	78	%	72	%	64	%	76	%	76	%
Decachlorobiphenyl	80	%	78	%	70	%	82	%	80	%
Aroclor-1016	14	U	72	%	65	%	14	U	14	U
Aroclor-1221	14	U	14	U	14	U	14	U	14	U
Aroclor-1232	14	U	14	U	14	U	14	U	14	U
Aroclor-1242	14	U	14	U	14	U	14	U	14	U
Aroclor-1248	14	U	14	U	14	U	14	U	14	U
Aroclor-1254	14	U	14	U	14	U	14	U	14	U
Aroclor-1260	14	U	70	%	64	%	14	U	14	U

PBLKEN BS

PBLKEN

Cust ID: 255102-V10 255102-V11 255102-V12

Sample Information RFW#: 005 SOIL 006 SOIL 007 SOIL 05LE0035-MB1 SOIL 05LE0035-MB1 SOIL
Matrix: SOIL SOIL SOIL SOIL SOIL
D.F.: 1.00 1.00 1.00 1.00 1.00
Units: UG/KG UG/KG UG/KG UG/KG UG/KG

Surrogate: Tetrachloro-m-xylene	77	%	72	%	72	%	69	%	74	%
Decachlorobiphenyl	83	%	78	%	78	%	71	%	76	%
Aroclor-1016	15	U	14	U	15	U	13	U	73	%
Aroclor-1221	15	U	14	U	15	U	13	U	13	U
Aroclor-1232	15	U	14	U	15	U	13	U	13	U
Aroclor-1242	15	U	14	U	15	U	13	U	13	U
Aroclor-1248	15	U	14	U	15	U	13	U	13	U
Aroclor-1254	74	U	14	U	15	U	13	U	13	U
Aroclor-1260	15	U	14	U	64	U	13	U	13	U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

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SAMPLE ANALYTICAL RESULTS
CAS 25-59-01, SEPTIC SYSTEM

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ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT / CLIENT INFORMATION		REPORT & TURNAROUND INFORMATION	
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson	
Charge Number: 5801AD50		Phone: 5-5419 / 5-5361	Fax: 5-7761
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days IH, 28 days Non-rad Env, 45 days Rad Env (IH) (X) RUSH Preliminary by: 1 2 X 7 14 (non-Rad Env) 1 7 14 28 (Radiological Env)	M/S: NTS306
Phone: 5-7775	Fax: 5-7761	M/S: NTS306	

SAMPLE MANAGEMENT INFORMATION				SAMPLE INFORMATION					
SDG: V2412 (IH) (Non-Rad Env) (Rad Env)				Sampling Site: The samples submitted contain (check); () Hazardous - (list) (X) Radioactive - (list) contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.					
Samples submitted are associated with a signed Project SOW. (X) YES () NO									
Analyses entered here agree with the SOW. (X) YES () NO () N/A									
If not, identify the variation:									
Subcontract Lab(s) used for this work: L10001111									
SAMPLE MANAGEMENT INFORMATION				Pay Item, Analysis, Method					
ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	Est. Vol	QC MS	MSD eg. HCl - VOCs	Pres - Analysis	TPH (Full Scan)
265901-V1	02-14-2005	09:30	Soil	1	250 ml			None	X
265901-V2	02-14-2005	09:33	Soil	1	250 ml			None	X
265901-V3	02-14-2005	09:36	Soil	1	250 ml			None	X
265901-V4	02-14-2005	09:39	Soil	1	250 ml			None	X
265901-V5	02-14-2005	09:42	Soil	1	250 ml			None	X
265901-V6	02-14-2005	09:45	Soil	1	250 ml			None	X
<i>Left Blank</i>									

CUSTODY TRANSFER		Signature		DATE / TIME		Received by (print)		Signature		DATE / TIME	
Sampled/Relinquished (print)	Kevin B. Campbell	Signature	<i>Kevin Campbell</i>	DATE / TIME	02-14-2005 1300	Received by (print)	CD CASTANEDA	Signature	<i>CD Castaneda</i>	DATE / TIME	2/14/05 @ 1300
	CD CASTANEDA		<i>CD Castaneda</i>		2/14/05 @ 1300		Food Ex #		<i>792847607435</i>		2/15/05 @ 1300
	FEDEX				2/16/05 0955		SPERRY		<i>SPERRY</i>		2/16/05 0955

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 03/02/05 13:37

RFW Batch Number: 0502L820

Client: BECHTEL NEVADA V2412 Work Order: 60052001001 Page: 1

Cust ID: 255901-V1 255901-V2 255901-V3 255901-V4 255901-V5 255901-V6

Sample Information RFW#: 001 SOIL 002 SOIL 003 SOIL 004 SOIL 005 SOIL 006 SOIL
Matrix: 1.00 1.00 1.00 1.00 1.00 1.00
D.F.: ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg
Units: 12700 U 12800 U 12800 U 12800 U 12700 U 12800 U
12700 U 12800 U 12800 U 12800 U 12700 U 12800 U

p-Terphenyl 94 % 90 % 102 % 103 % 95 % 88 %
Diesel Range Organics 12700 U 12800 U 12800 U 12800 U 12700 U 12800 U
Motor Oil Range Organics 12700 U 12800 U 12800 U 12800 U 12700 U 12800 U

Cust ID: 255901-V6 255901-V6 BLK BLK BS

Sample Information RFW#: 006 MS 006 MSD 05LE0124-MB1 05LE0124-MB1
Matrix: SOIL SOIL SOIL SOIL
D.F.: 1.00 1.00 1.00 1.00
Units: ug/kg ug/kg ug/kg ug/kg

p-Terphenyl 97 % 86 % 114 % 98 %
Diesel Range Organics 96 % 79 % 12000 U 84 %
Motor Oil Range Organics NS NS 12000 U NA

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Steph. J.

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

RFW Batch Number: 0502L820 Client: BECHTEL NEVADA V2412 Work Order: 60052001001 Page: 1 Report Date: 02/23/05 09:27

Cust ID: 255901-V1		255901-V2	255901-V3	255901-V4	255901-V5	255901-V6
RFW#: 001		002	003	004	005	006
Matrix: SOIL		SOIL	SOIL	SOIL	SOIL	SOIL
D.F.: 1.00		1.00	1.00	1.00	1.00	1.00
Units: UG/KG		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene		94 %	87 %	90 %	81 %	89 %
Gasoline Range Organics (GRO)		30 U	33 U	30 U	30 U	29 U

Cust ID: 255901-V6		255901-V6	TBLKTE	TBLKTE BS
RFW#: 006 MS		006 MSD	05LVJ222-MB1	05LVJ222-MB1
Matrix: SOIL		SOIL	SOIL	SOIL
D.F.: 1.00		1.00	1.00	1.00
Units: UG/KG		UG/KG	UG/KG	UG/KG
Fluorobenzene		77 %	98 %	100 %
Gasoline Range Organics (GRO)		97 %	30 U	110 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

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SAMPLE ANALYTICAL RESULTS
CAS 26-59-01, SEPTIC SYSTEM

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ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORDPage 1 of 1

<u>PROJECT / CLIENT INFORMATION</u>		<u>REPORT & TURNAROUND INFORMATION</u>		<u>SAMPLE INFORMATION</u>
Project: CAU 165	BN Org#: B502	Send Report to: Reg Asuncion / Glenn Richardson		Sampling Site: CAU 165 CASS 25-51-02, 26-59-01 The samples submitted contain (check):
Charge Number: 5B01AD50		Phone: 5-5419 / 5-5361	Fax: 5-7761	() Hazardous - (list) _____ () Radioactive - (list) _____
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days HI, 28 days Non-rad Env, 45 days Rad Env (X) RUSH Preliminary by: _____ (H)		(X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.
Phone: 5-7775	Fax: 5-7761	M/S: NTS306		

SAMPLE MANAGEMENT INFORMATION										Pay Item, Analysis, Method				
SDG:	(IH)	V2398	(Non-Rad Env)	(Rad Env)										
Samples submitted are associated with a signed Project SOW. (X) YES () NO														
Analyses entered here agree with the SOW. (X) YES () NO () N/A														
If not, identify the variation:														
Subcontract Lab(s) used for this work: <u>LIONVILLE</u>														
See Attached email														
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol.	QC MD	MSD	Pres - Analysis HCl - VOCs	TPH (Full Scan)	PCBs				
255102-WC1	01-24-2005	14:10	Soil	2	250 ml			None	X	X				
265901-V1	01-24-2005	14:51	Soil	1	250 ml			None	X					
265901-V2	01-24-2005	14:54	Soil	1	250 ml			None	X					
265901-V3	01-24-2005	14:57	Soil	1	250 ml			None	X					
265901-V4	01-24-2005	15:00	Soil	1	250 ml			None	X					
265901-V5	01-24-2005	15:03	Soil	1	250 ml			None	X					
265901-V6	01-24-2005	15:06	Soil	1	250 ml			None	X					
CUSTODY TRANSFER														

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Kurt Murdoch	Kurt Murdoch	11/18/05 17:15	BN ER	Sample Refrigerator	11/18/05 17:15
Reg Asuncion	Reg Asuncion	11/24/05 15:45	BN ER	Sample Refrigerator	11/24/05 15:45
Kevin Campbell BNER	Kevin Campbell	11/25/05 08:15	Kevin Campbell	BNER	11/25/05 08:15
CDCASTANEDA	CD Castaneda	11/25/05 09:57	CDCASTANEDA	CD Castaneda	11/25/05 09:57
NEWEX	CD Castaneda	1/25/05 @ 1300	Real Ego	791533185d36	1/25/05 @ 1300

Retention Code: ENV 5.cff

1-26-05/0930

D. Smith

1-26-05/0930

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 02/01/05 13:37

RFW Batch Number: 0501L676

Client: BECHTEL NEVADA V2398

Work Order: 60052001001

Page: 1

Cust ID: 255102-WC1 255102-WC1 255102-WC1 265901-V1 265901-V2 265901-V3

Sample Information
 RFW#: 001 001 MS 001 MSD 002 003 004
 Matrix: SOIL SOIL SOIL SOIL SOIL SOIL
 D.F.: 1.00 1.00 1.00 1.00 1.00 1.00
 Units: ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg

p-Terphenyl 92 % 97 % 117 % 89 % 82 % 94 %
 Diesel Range Organics 130000 62 % 133 * % 12400 U 13000 U 91000
 Motor Oil Range Organics 300000 NS 12400 U 13000 U 190000

Cust ID: 265901-V4 265901-V5 265901-V6 BLK BLK BS

Sample Information
 RFW#: 005 006 007 05LE0067-MB1 05LE0067-MB1
 Matrix: SOIL SOIL SOIL SOIL SOIL
 D.F.: 1.00 1.00 1.00 1.00 1.00
 Units: ug/kg ug/kg ug/kg ug/kg ug/kg

p-Terphenyl 86 % 74 % 83 % 81 % 84 %
 Diesel Range Organics 13600 U 14800 U 13600 U 12000 U 77 %
 Motor Oil Range Organics 13600 U 14800 U 24000 12000 U NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

10/13/04

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

Report Date: 01/31/05 06:31

RFW Batch Number: 0501L676

Client: BECHTEL NEVADA V2398

Work Order: 60052001001 Page: 1

Cust ID: 255102-WC1		255102-WC1		265901-V1		265901-V2		265901-V3	
Sample Information	RFW#:	001	001 MS	002	003	004			
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL			
	D.F.:	1.00	1.00	1.00	1.00	1.00			
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG			
Fluorobenzene		89 %	84 %	78 %	86 %	77 %	71 %		
Gasoline Range Organics (GRO)		33 U	91 %	74 %	33 U	30 U	33 U		

Cust ID: 265901-V4		265901-V5		265901-V6		TBLKST BS	
Sample Information	RFW#:	005	006	007	05LVJ127-MB1	05LVJ127-MB1	
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	D.F.:	1.00	1.00	1.00	1.00	1.00	
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	
Fluorobenzene		80 %	84 %	73 %	99 %	102 %	
Gasoline Range Organics (GRO)		33 U	36 U	33 U	30 U	111 %	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

5/31/05
 [Signature]

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0501L676 Client: BECHTEL NEVADA V2398 Work Order: 60052001001 Page: 1 Report Date: 01/31/05 12:55

0000000012

Cust ID: 255102-WC1 255102-WC1 255102-WC1 PBLKFF BS

Sample Information RFW#: 001 001 MS 001 MSD 051E0066-MB1 051E0066-MB1
Matrix: SOIL SOIL SOIL SOIL
D.F.: 20.0 20.0 20.0 1.00 1.00
Units: UG/KG UG/KG UG/KG UG/KG UG/KG

Surrogate:	Tetrachloro-m-xylene	D	%	D	%	D	%	D	%	D	%
	Decachlorobiphenyl	D	%	D	%	D	%	D	%	D	%
Aroclor-1016		270	U	D	%	D	%	D	%	D	%
Aroclor-1221		270	U	270	U	270	U	270	U	270	U
Aroclor-1232		270	U	270	U	270	U	270	U	270	U
Aroclor-1242		730		610		270	U	270	U	270	U
Aroclor-1248		270	U	270	U	610		270	U	270	U
Aroclor-1254		280		230		190		270	U	270	U
Aroclor-1260		270	U	I	%	I	%	I	%	I	%

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
% = Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

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ANALYTICAL LABORATORY
SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

PROJECT / CLIENT INFORMATION				REPORT & TURNAROUND INFORMATION				SAMPLE INFORMATION			
Project: CAU 165		BN Orig#: B502		Send Report to: Reg Asuncion / Glenn Richardson				Sampling Site: _____ The samples submitted contain (check): () Hazardous - (list) _____ () Radioactive - (list) _____ (X) Unknown contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.			
Charge Number: 5801AD50		Phone: 5-7761		Fax: 5-7761		M/S: NTS306					
Project Manager: Jeff Smith		Turnaround: () Standard - 14 days IH, 28 days Non-rad Env, 45 days Rad Env (X) RUSH Preliminary by: _____ (IH)		M/S: NTS306							
Phone: 5-7775		Fax: 5-7761		M/S: NTS306							
SAMPLE MANAGEMENT INFORMATION											
SDG: _____ (IH) <u>V2406</u> (Non-Rad Env) _____ (Rad Env)				Samples submitted are associated with a signed Project SOW. (X) YES () NO							
Analyses entered here agree with the SOW. (X) YES () NO () N/A											
If not, identify the variation: _____											
Subcontract Lab(s) used for this work: <u>LIONVILLE</u>											
ID/DESCRIPTION	SAMPLING DATE	TIME	MATRIX	CONTAINER #	Est. Vol	QC MS	MSD eg. HCl - VOCs	Pres - Analysis	Pay Item, Analysis, Method		
265901 - V7	02-02-2005	09:15	Soil	1	250 ml		None				
LAST ITEM											
CUSTODY TRANSFER											
Sampled/Retained/Inquired (print)		Signature		DATE/TIME		Received by (print)		Signature		DATE/TIME	
<u>Jeff M. Smith</u>		<u>Glenn Richardson</u>		<u>02-02-2005 @ 0833</u>		<u>CA CASTANEDA</u>		<u>CA Castaneda</u>		<u>2/8/05 @ 0833</u>	
<u>CA Castaneda</u>		<u>CA Castaneda</u>		<u>02/08/05 @ 1300</u>		<u>Food Exp #</u>		<u>7922 01019905</u>		<u>2/8/05 @ 1300</u>	
<u>FedEx</u>				<u>2/9/05 0945</u>		<u>JACKIE PERRY</u>		<u>JK Perry</u>		<u>2/9/05 0945</u>	
Retention Code: ENV 5.c(1)											

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

Report Date: 02/17/05 14:18
 RFW Batch Number: 0502L764 Client: BECHTEL NEVADA V2406 Work Order: 60052001001 Page: 1

Cust ID: 265901-V7		TBLKTC	TBLKTC BS
Sample Information	RFW#: 001	05LVJ216-MB1	05LVJ216-MB1
	Matrix: SOIL	SOIL	SOIL
	D.F.: 1.00	1.00	1.00
	Units: UG/KG	UG/KG	UG/KG
Fluorobenzene			
	91 %	108 %	110 %
Gasoline Range Organics (GRO)			
	33 U	30 U	126 %

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U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Cust ID: 265901-V7 BLK BLK BS BLK BSD

Sample Information	RPW#:	001	05LE0107-MB1	05LE0107-MB1	05LE0107-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl					
		82 %	86 %	80 %	80 %
Diesel Range Organics		12000 U	12000 U	75 %	75 %
Motor Oil Range Organics		12000 U	12000 U	NS	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Sample

APPENDIX E

WASTE DISPOSITION DOCUMENTATION

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SWO USE (Circle One Area) AREA**23****6****(9)****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Log AsuncionPhone Number: 5-5419Location / Origin: CAU 1005 - CAS 25-07-000 Area 25

Waste Category: (check one)

☒ Commercial QYS☒ Industrial QYS 2/22/05Waste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ ContentsProhibited Waste
at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☒ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ Other Asphalt & Soil☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: LA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Log Asuncion

Signature: _____

Date: 2/16/2005

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 32,500Signature of Certifier: Patricia L. Thomas

Radiation Survey Release for Waste Disposal	
RCT Initials: _____	
☒	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and origin.
☐	This container/load is free of radioactive contamination based on radioanalysis.
SIGNATURE: <u>Don Hallen</u>	DATE: <u>2/16/05</u>
Per telecon w/ Rodney S. BN-0848 (09/99)	

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Roy AsuncionPhone Number: 5-5419Location / Origin: CA 1115 CAS 25-07-06 Area 25

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ Other Metal Handcuff Linings☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Other _____☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☐ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials identified as prohibited and allowable waste items.

Print Name: Roy Asuncion

Signature: _____

Date: 2/24/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 2,220Signature of Certifier: Patricia Johnson**Radiation Survey Release for Waste Disposal**

RET-Initials

☐ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: _____

DATE: 2-24-05

BN-0646 (09/95)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Ray Asuncion

Location / Origin: NTS CAU 1105 CAS 25-07-04

Phone Number: 5-5414

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☒ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☒ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☐ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☐ Demolition debris

☒ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☒ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Decanned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Other _____

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Other _____

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ Crushed non-terme plated oil filters

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Ray Asuncion

Signature: [Signature]

Date: 3/1/2007

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This container/load is free of external radioactive contamination.
☐ This container/load is exempt from survey due to process knowledge and origin.
☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: [Signature]

DATE: 2/29/07
BN-0646 (03/03)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 5 #

Signature of Certifier: [Signature]

1724 ✓

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Ray Hunsicker

Phone Number: 5-5919

Location / Origin: CAS 25-07-06 DU 165 (Area 25)

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:
(check one)

☒ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☒ Soil

☐ Rubber (excluding tires)

☐ Demolition debris

☐ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☒ Other Truck frames / railings

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials I have verified through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Ray Hunsicker

Signature: [Signature]

Date: 2/2/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

Radiation Survey Release for Waste Disposal	
RCT Initials: _____	
☐	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and origin.
☒	This container/load is free of radioactive contamination based on radioanalysis.
SIGNATURE: <u>[Signature]</u>	DATE: <u>2-2-05</u> BN-0646 (09/99)

SWO USE ONLY

Load Weight (net from scale or estimate): 10,520

Signature of Certifier: [Signature]

mike✓

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike FLOYDPhone Number: 5-6653Location / Origin: CAL 165 - CAS 25-07-0C

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 8 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☒ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that are prohibited and allowable waste items.

Print Name: Mike FLOYDSignature: [Signature]Date: 3/21/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and therefore require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 30,000Signature of Certifier: [Signature]**Radiation Survey Release for Waste Disposal**

RCT Initials: _____

☐ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: [Signature]DATE: 3/21/05

BN-0646 (09/99)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Floyd

Phone Number: 5-6653

Location / Origin: CAN 165-045 25-07-06

Waste Category: (check one)

☐ Commercial

☒ Industrial CYS 3/23/05

Waste Type:
(check one)

☒ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☒ Demolition debris

☐ Plastic

☒ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Other _____

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those prohibited and allowable waste items.

Print Name: Mike Floyd

Signature: MR. FLOYD

Date: 3/22/05

Radiation Survey Release for Waste Disposal

RCT Initials _____

☐ This container/load is free of external radioactive contamination.

☐ This container/load is exempt from survey due to process knowledge and origin.

☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: MR. FLOYD

DATE: 3/22/05

BN-0646 (09/99)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 12,300

Signature of Certifier: St. Pierre

A9 June 2005

(1)

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 X LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Glenn Richardson

Phone Number: 5-5361

Location / Origin: CAS 25-07-06

CAU-165

outside E-mad

CAS 6/8/05

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS Key 7/1/05☐ Non-Putrescible☐ Putrescible☐ Asbestos Containing Material☒ FFACO-onsite 6/8/05☐ FFACO-offsite☐ WAC Exception☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☒ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos: ☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Other _____☐ Plants☐ Soil☐ Sludge from sand/oil/water separators☐ Crushed non-terne plated oil filters☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: GR

(If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials prohibited and allowable waste items.

Print Name: Glenn Richardson

Signature: Glenn Richardson

Date: 6/1/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

SWO USE ONLYLoad Weight (net from scale or estimate): 8050Signature of Certifier: [Signature]**Radiation Survey Release for Waste Disposal**

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: [Signature]DATE: 6/1/05

BN-0646 (Rev. 99)

19 AUG 2005

1

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

(702)

Waste Generator: BECHTEL NEVADA ENVIRONMENTAL RESTORATION

Phone Number: 295-9328

Location / Origin: AREA 25 E-MAD CAU 165 CAS 25-07-06

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☐ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as:

gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☐ Metal

☐ Wood

☒ Soil

☐ Rubber (excluding tires)

☐ Demolition debris

☒ Plastic

☐ Wire

☐ Cable

☒ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials prohibited and allowable waste items.

Print Name:

SHAUGHN BURNISON

Signature:

Shaughn A. Burnison

Date:

8/23/2005

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This container/load is free of external radioactive contamination.

☐ This container/load is exempt from survey due to process knowledge and origin.

☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE:

R. Paul

DATE: 8-23-05

BN-0646 (09/99)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate):

750

Signature of Certifier:

Robert Q. S.

SWO USE (Circle One Area) AREA**23****(6)****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

775 306

Waste Generator: Reginald AsuncionPhone Number: 5-7819Location / Origin: CAV 1165 CAS 15-07-07

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as:

gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos; ☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials. I have verified this through the waste characterization method identified at prohibited and allowable waste items.

Print Name: Reginald AsuncionSignature: [Signature]Date: 12/14/04**Radiation Survey Release for Waste Disposal****RCT Initials**☒ DSR

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: D. S. BrubakerDATE: 12-14-04

BN-0918 (04/03)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 56,000Signature of Certifier: [Signature]

2

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg Asuncion

Phone Number: 5-5419

Location / Origin: Area 25 CAS 25-07-07 CAU-165 095 12/15/04

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☒ NTS

☐ Putrescible

Kew 4/6/05

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☒ Soil

☐ Rubber (excluding tires)

☐ Demolition debris

☐ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Other _____

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☒ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identifier prohibited and allowable waste items.

Print Name: Reg Asuncion

Signature: [Signature]

Date: 12/14/04

Note: Food waste, office trash and/or animal carcasses are considered not to contain radioactive materials and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 48,795

Signature of Certifier: [Signature]

Radiation Survey Release for Waste Disposal

RCT Initials

☒ DSR

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: D.S. Roadman

DATE: 12-14-04

BN-0918 (04/03)

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Rogio AsuncionPhone Number: 5-5419Location / Origin: Area 25 CAS 25-02-07 090165

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ ContentsProhibited Waste
at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste Sewage Sludge; Animal carcasses, Wet garbage (food waste); and Friable asbestos
at the Area 9 U10c Landfill:**REQUIRED: WASTE CONTENTS ALLOWABLE WASTES**

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials identified as prohibited and allowable waste items.

Print Name: Rogio Asuncion

Signature: _____

Date: 12/15/2004

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: D.S. R...DATE: 12-15-04

BN-0840 (09/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 26,000

Signature of Certifier: _____

SWO USE (Circle One Area) AREA**23****(6)****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Fax 7761

Waste Generator: Big AsuncionPhone Number: 5-5419Location / Origin: Area 25 CAS 25-51-02 CAU-165

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses- Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Other _____☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: JA (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials prohibited and allowable waste items.

Print Name: Big Asuncion

Signature: _____

Date: 1/4/2005

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

Radiation Survey Release for Waste Disposal

RGT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: JADATE: 1/4/05

BN-0646 (09/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 31,050Signature of Certifier: Patricia L. Thomas

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****(6)****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reggie AsuncionPhone Number: 5419Location / Origin: CAU 165 CAS 25-51-02

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Other☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ Crushed non-terne plated oil filters☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA

(If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials identified above. I have verified this through the waste characterization method identified above and to the best of my knowledge, does not contain radiological materials.

Print Name: Reggie AsuncionSignature: [Signature]Date: 1/4/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 30.000Signature of Certifier: [Signature]

Retention Code: ENV 6.6

BN-0918 (04/03)

Radiation Survey Release for Waste Disposal	
RCT Initials	
☐	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and origin.
☐	This container/load is free of radioactive contamination based on radioanalysis.
SIGNATURE: <u>[Signature]</u>	DATE: <u>1-4-05</u>
BN-0646 (09/99)	

SWO USE (Circle One Area) AREA**23****(6)****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Rio AsuncionPhone Number: 5-5419Location / Origin: CAV 1105 CAS 25-51-02

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☐ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☒ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☒ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site, I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: Rio AsuncionSignature: [Signature]Date: 1/5/04**Radiation Survey Release for Waste Disposal**

RCT Initials

☐ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: [Signature]DATE: 1/5/05

BN-0646 (09/99)

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 200Signature of Certifier: [Signature]

FA# To: Reg Asuncion 5-7761

5

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg Asuncion

Phone Number: 5-5419

Location / Origin: CAL 1165 CAS 25-57-02

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☒ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Asphalt

☐ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☐ Demolition debris

☒ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☒ Other Vitrified Clay Piping

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Other

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: R.A. (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identifier prohibited and allowable waste items.

Print Name: Reg Asuncion

Signature: [Signature]

Date: 1/6/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ DSR

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: [Signature]

DATE: 1-6-05

BN-0846 (03/99)

SWO USE ONLY

Load Weight (net from scale or estimate): 3210

Signature of Certifier: [Signature]

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Res AsuncionPhone Number: 5-5919Location / Origin: CAU 165 CAS 25-51-02 (AREA 25)

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

at the Area 9 U10c Landfill:

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ Other VCP: Cast Iron Piping☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☐ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: R.A. (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Res AsuncionSignature: [Signature]Date: 1/20/200

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ RCT

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: [Signature]DATE: 1-20-0

BN-0648 (09/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 5,320Signature of Certifier: [Signature]

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****79****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Big AsuncionPhone Number: 5-5419Location / Origin: CAH 105 GAS 25-51-02 (AREA 25)

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☒ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ Other Cast iron & VCP Pipe☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Other _____☐ Crushed non-terne plated oil filters☐ Plants☐ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: ZA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials prohibited and allowable waste items.

Print Name: Ray AsuncionSignature: [Signature]Date: 1/20/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 9,641Signature of Certifier: [Signature]**Radiation Survey Release for Waste Disposal**

RCT Initials

☒ DSA

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: D.S. [Signature]DATE: 1-11-05

BN-0646 (03/99)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg Asuncion

Phone Number: 5-5419

Location / Origin: CA 105 CAS 25-54-01 Area 25

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:
(check one)

☒ NTS CGS 4/05
☐ Non-Putrescible

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt

☒ Metal

☐ Wood

☒ Soil

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Rubber (excluding tires)

☐ Demolition debris

☐ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Decanned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Other _____

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☒ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: Reg Asuncion

Signature: _____

Date: 2/9/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This container/load is free of external radioactive contamination.

☐ This container/load is exempt from survey due to process knowledge and origin.

☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: Charles L

DATE: 2-9-05

BN-0946 (02/99)

SWO USE ONLY

Load Weight (net from scale or estimate): 32,520

Signature of Certifier: Patricia A Thomas

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: By Asuncion

Phone Number: 5-5419

Location / Origin: CAS 25-59-01 CHU 165 Area 25 (EMAD)

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:
(check one)

☒ NTS

☐ Non-Putrescible

☐ Putrescible

☐ Asbestos Containing Material

☒ FFACO-onsite

☐ FFACO-offsite

☐ WAC Exception

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis

☐ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt

☒ Metal

☐ Wood

☒ Soil

☐ Rocks / unaltered geologic materials

☐ Empty containers

☐ Rubber (excluding tires)

☐ Demolition debris

☐ Plastic

☐ Wire

☐ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Other _____

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Other _____

☒ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Soil

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: LA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: By Asuncion

Signature: _____

Date: 2/10/2005

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This container/load is free of external radioactive contamination.

☐ This container/load is exempt from survey due to process knowledge and origin.

☒ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: _____

DATE: 2/10/05

BN-0546 (02/05)

SWO USE ONLY

Load Weight (net from scale or estimate): 32,650

Signature of Certifier: Patricia L. Thomas

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg. AsuncionPhone Number: 5-5449Location / Origin: AKK - CA2145 - CAS 25-59-01

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Other _____☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Reg. Asuncion

Signature: _____

Date: 2/14/2005

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

Radiation Survey Release for Waste Disposal**RCT Initials**☐ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: Reg. AsuncionDATE: 2-14-05

BN-0643 (03/00)

SWO USE ONLYLoad Weight (net from scale (or estimate)): 3,200Signature of Certifier: Peter J. Thomas

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Ing AsuncionPhone Number: 5-5419Location / Origin: CAV 165 CAS 25-SQ-01 - CHU-165

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☒ Other Concrete Box☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: JA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Ing Asuncion

Signature: _____

Date: 2/14/05**Radiation Survey Release for Waste Disposal**

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: Ing AsuncionDATE: 2/14/05

BN-0545 (03/99)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 1000Signature of Certifier: Peterson Thomas

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****(6)****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg AsuncionPhone Number: 5-5419Location / Origin: CAV 105 CAS (P-57) 26-59-01

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials. I have verified this through the waste characterization method identified above prohibited and allowable waste items.

Print Name: Reg AsuncionSignature: [Signature]Date: 1/20/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain asbestos and require a radiological clearance.

Radiation Survey Release for Waste Disposal**RCT Initials**☒ ASR

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: D.S. [Signature]DATE: 1-20-05

BN-0646 (09/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 9,400Signature of Certifier: [Signature]

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Reg AsuncionPhone Number: 5-5419Location / Origin: CAV 1165 CAS 26-59-01

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as:

gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☒ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: RA (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identify prohibited and allowable waste items.

Print Name: Reg Asuncion

Signature: _____

Date: 1/24/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT initials

☒

This container/load is free of external radioactive contamination.

☐

This container/load is exempt from survey due to process knowledge and origin.

☐

This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: _____

DATE: 1/24/05

BN-0646 (09/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 35,220

Signature of Certifier: _____

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**23****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: MA, K F1040Phone Number: 665Location / Origin: CAL 165 CAS 26-59-01

Waste Category: (check one)

☐ Commercial☒ Industrial Q5 2/3/05

Waste Type:

☒ NTS☐ Putrescible☒ FFACO-onsite Q5☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects☐ YMP

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

at all three NTS landfills:

Additional Prohibited Waste at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☒ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Other _____☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☒ Soil☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: MAK (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that are allowed for disposal at this site. I have verified this through the waste characterization method identified prohibited and allowable waste items.

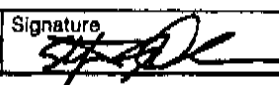
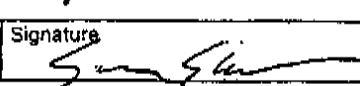
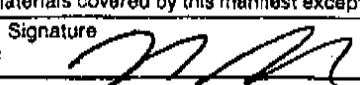
Print Name: Mike DoydSignature: MAK Date: 2/2/05

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials and require a radiological clearance.

Radiation Survey Release for Waste Disposal**RCT Initials**☐ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radioanalysis.SIGNATURE: MAK DATE: 2/2/05

SN-0846 (01/99)

SWO USE ONLYLoad Weight (net from scale or estimate): 100Signature of Certifier: Doyd

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No NY 3890090001		Manifest Document No. 05036		2. Page 1 of 2		Information in the shaded areas is not required by Federal law.									
3. Generator's Name and Mailing Address Bechtel Nevada for US DOE PO Box 98521 M/S NTS110 Las Vegas, NV 89193				A. State Manifest Document Number		B. State Generator's ID											
4. Generator's Phone (702) 295-0311 ATTN: Stefan Duke				6. US EPA ID Number COR000005389		C. State Transporter's ID											
5. Transporter 1 Company Name CAST Transportation				8. US EPA ID Number		D. Transporter's Phone (800) 369-8374											
7. Transporter 2 Company Name				10. US EPA ID Number		E. State Transporter's ID											
9. Designated Facility Name and Site Address Envirocare of Utah, Inc. Clive Disposal Site (Treatment Facility) Interstate 80, Exit 49; Clive, UT, 84029.				10. US EPA ID Number UTD982598898		F. Transporter's Phone											
						G. State Facility's ID											
						H. Facility's Phone (435) 884-0156											
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.					
a. UN3321, Waste Radioactive material, low specific activity (LSA-II). 7, Cs137, Sr90, solid, oxide, 18.5 GBq, fissile excepted, Radioactive Yellow-II, T10.5						002 CM		3502		K		D008					
b.																	
c. Total								3502		K							
d.																	
J. Additional Descriptions for Materials Listed Above Line a: ERG# 162; profile 9316-01; MEF F05014 Utah Permit number: 0310002628 PKG #s, Descriptions, and TID #s as applicable are on page 2.						K. Handling Codes for Wastes Listed Above 9316-01-M08743											
15. Special Handling Instructions and Additional Information 24-hour emergency contact number (702) 295-0311 collect. Shipment ID number: 9316-01-0003 Use proper PPE when handling containers. Certificate of Disposal is required.																	
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.																	
Printed/Typed Name STEFAN DUKE						Signature 				Month Day Year 10/7/1805							
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name SEAN ELIOT				Signature 				Month Day Year 10/7/2005			
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space																	
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Printed/Typed Name Ryan Fothermylius				Signature 				Month Day Year 11/22/05			

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L030, and 05L031 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-15-05

Fred Smith
Received by

BN
Organization

Title

Specialist


Signature

Date

8/15/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L032, and 05L033 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-15-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/15/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L034, and 05L035 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

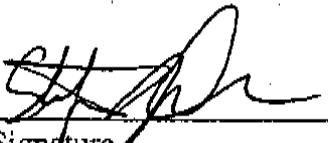
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-15-05

Fred Smith
Received by

BN
Organization

Title

SPECIALIST

Fred Smith
Signature

Date

8/15/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L036, and 05L037 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

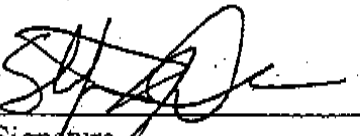
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-15-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/16/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L038, and 05L039 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by.

Organization

Title

Signature _____

Date _____

8-15-05

Received by Fred Smith

BH
Organization

Title

Specialist

Fred Smith
Signature

Date _____

8/16/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L040, and 05L041 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

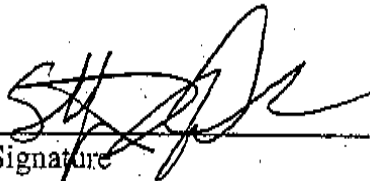
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-16-05

Fred Smith

Received by

BH

Organization

Title

Specialist

Fred Smith

Signature

Date

8/16/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L042 and 05L043 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-18-05

Fred Smith

Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/17/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L045, and 05L046 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-16-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/17/05

fer

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L047, and 05L048 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-16-05

Fred Smith
Received by

BW
Organization

Title

Specialist

Fred Smith
Signature

Date

8/17/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L049, and 05L050 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-17-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/17/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L051, and 05L052 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title

Stefan Duke
Signature

8-17-05
Date

Fred Smith
Received by

BN
Organization

Specialist
Title

Fred Smith
Signature

8/17/05
Date

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L053, and 05L054 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

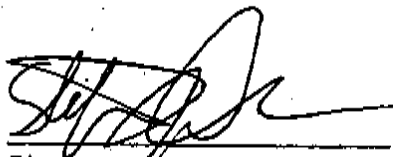
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-17-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L055 and 05L056 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-17-05

Fred Smith
Received by

BH
Organization

Title

Specialist

Fred Smith
Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L057, and 05L058 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-17-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L059, and 05L060 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

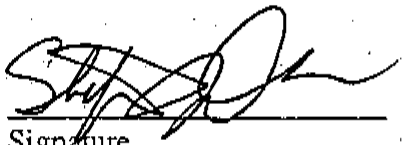
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title



Signature

Date

8-17-05

Fred Smith

Received by

BH

Organization

Title

Specialist

Fred Smith

Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L061, and 05L062 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-18-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L063, and 05L064 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title

Stefan Duke

Signature

Date

8-18-05

Fred Smith

Received by

BN
Organization

Title

Specialist

Fred Smith

Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L065, and 05L066 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title

Stefan Duke
Signature

Date

8-18-05

Fred Smith
Received by

BN
Organization

Title

SPECIALIST

Fred Smith
Signature

Date

8/18/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L067, and 05L068 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

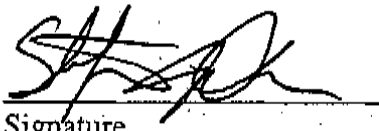
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title



Signature

Date

8-15-05

Fred Smith

Received by

BN
Organization

Title

Specialist

Fred Smith

Signature

Date

8/22/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L069, and 05L070 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

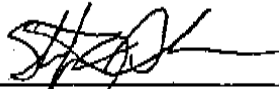
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title



Signature

Date

8-22-05

Fred Smith

Received by

BN

Organization

Title

Specialist

Fred Smith

Signature

Date

8/22/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L071, and 05L072 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/22/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L073, and 05L074 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below:

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/22/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L075, and 05L076 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

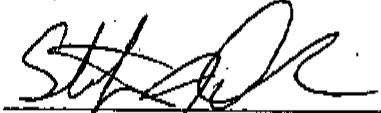
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

8-22-05
Date

Fred Smith
Received by

BM
Organization

Specialist
Title

Fred Smith
Signature

8/22/05
Date

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L077, and 05L078 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

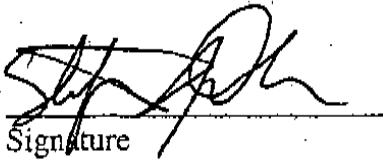
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Fred Smith
Received by

BNI
Organization

Title

Specialist

Fred Smith
Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L079, and 05L080 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

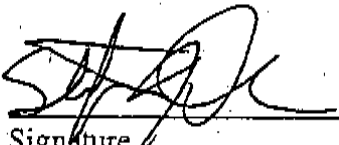
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L081, and 05L082 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

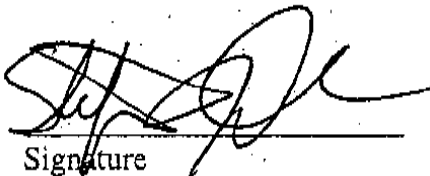
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Fred Smith

Received by

BN

Organization

Title

Specialist

Fred Smith

Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L083, and 05L084 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

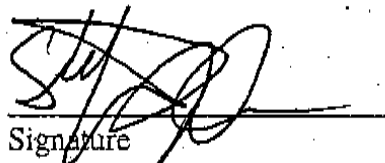
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-22-05

Received by

Organization

Title

Fred Smith

BH

Specialist

Signature

Date

Fred Smith

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L085, and 05L086 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

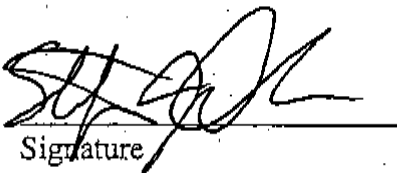
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

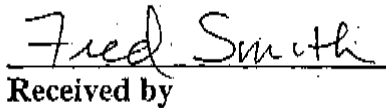
Organization

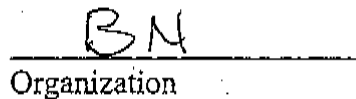
Title


Signature

Date

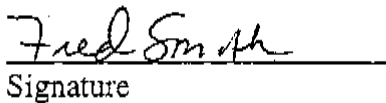
8-23-05


Received by


Organization

Title

Specialist


Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L087, and 05L088 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-23-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L089, and 05L090 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title

Signature

Date

Fred Smith

Received by

BN

Organization

Title

Specialist

Signature

Date

Fred Smith

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L091, and 05L092 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

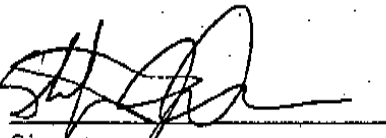
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-23-05

Fred Smith
Received by

BN
Organization

Title

Specialist

Fred Smith
Signature

Date

8/23/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L093, and 05L094 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

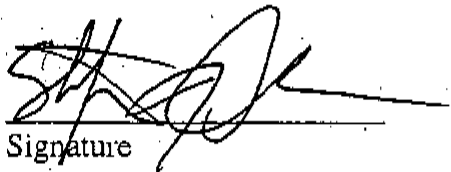
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title



Signature

Date

8-24-05

Fred Smith

Received by

BN

Organization

Title

Specialist

Fred Smith

Signature

Date

8/24/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L095, and 05L096 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

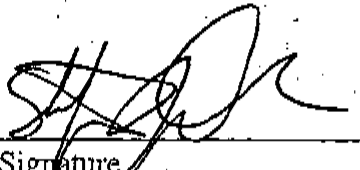
Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

8-24-05
Date

Fred Smith
Received by

BN
Organization

Specialist
Title

Fred Smith
Signature

8/24/05
Date

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package numbers 05L097, and 05L098 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-24-05

Fred Smith
Received by

BNL
Organization

Title

Specialist

Fred Smith
Signature

Date

8/24/05

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5LLFY05003 package number 05L044 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Generator Services

Scientist

Shipped by

Organization

Title


Signature

Date

8-24-05

Fred Smith
Received by

BM
Organization

Title

Specialist

Fred Smith
Signature

Date

8/24/05

APPENDIX F*

MODIFICATIONS TO THE POST-CLOSURE PLAN

*Appendix F, Modifications to the Post-Closure Plan, of the standardized outline for a Federal Facility Agreement and Consent Order Closure Report is not applicable to the closure of CAU 165. No modifications to the plan were required.

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APPENDIX G

USE RESTRICTION DOCUMENTATION

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CAU Land-Use Restriction Information

CAU Number/Description: CAU 165: Area 25 and 26 Dry Well and Washdown Areas

Applicable CAS Numbers/Descriptions: CAS 25-20-01, Lab Drain Dry Well

Contact (organization/project): NNSA/NSO Industrial Sites Project Manager

Surveyed Area (NAD 83 Geodetic, decimals): CAS 25-20-01, Lab Drain Dry Well

Fence Points	Northing (m)	Easting (m)
Use Restriction Warning Sign #1	5,929,369.07	563,505.49
Use Restriction Warning Sign #2	5,929,371.01	563,542.99

Survey Date: 08/30/2005 **Survey Method** GPS

Site Monitoring Requirements: Visual Inspections

Required Frequency (quarterly, annually?): Annually

If Monitoring Has Started, Indicate last Completion Date: N/A

Use Restrictions

The future use of any land related to this Corrective Action Unit (CAU), as described by the above surveyed location, is restricted from any DOE or Air Force activity that may alter or modify the containment control as approved by the state and identified in the CAU Closure Report or other CAU documentation unless appropriate concurrence is obtained in advance.

Comments: See the CAU 165 Closure Report for additional information on the condition of the site and any monitoring and/or inspection requirements. The Use-Restricted area extends 5 feet north and south from the Use Restriction Warning Signs.

Submitted By: Sabine Curtis **Date:** 11-28-05

Attachments: Site figure survey locations and coordinates (CAU 165, CAS 25-20-01 UR)

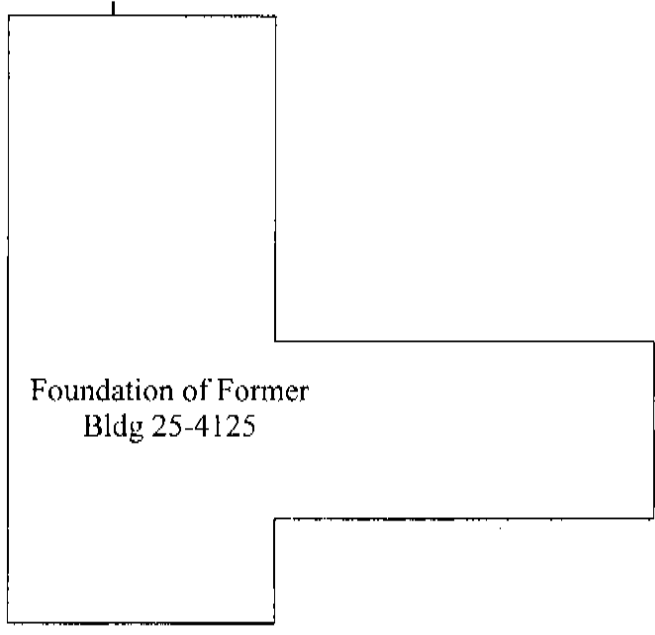
Use Restriction Warning Sign 1
N 5,929,369.07 m
E 563,505.49 m

Use Restriction Warning Sign 2
N 5,929,371.01 m
E 563,542.99 m

Drywell

Manhole

6-inch Pipe



LEGEND

- Use-Restricted Area
- T-post and Use Restriction Warning Sign



CAU 165, CAS 25-20-01 UR

APPENDIX H

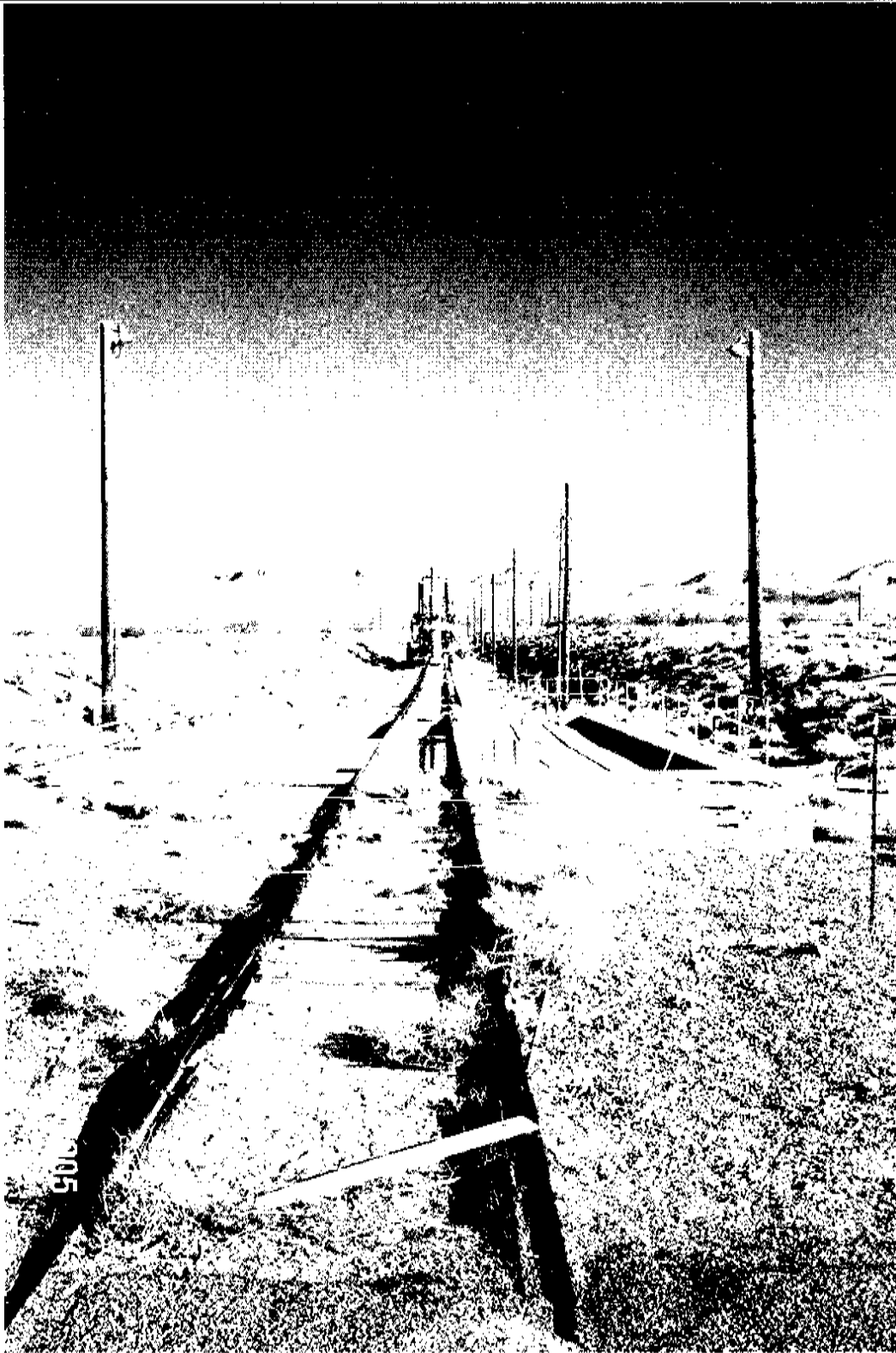
SITE CLOSURE PHOTOGRAPHS

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PHOTOGRAPHIC LOG

PHOTOGRAPH NUMBER	DATE	CORRECTIVE ACTION SITE	PERSPECTIVE	DESCRIPTION
1	02/04/2005	25-07-06	Looking north	Concrete Pad, Before Removal
2	02/04/2005	25-07-06	Inclined downward	Exposed Cast Iron Pipe
3	03/04/2005	25-07-06	Looking south	Rubblization of Concrete Pad
4	03/04/2005	25-07-06	Looking southwest	Removal of Wood Railroad Ties
5	03/04/2005	25-07-06	Looking southeast	Radiological Survey of Wood Railroad Ties
6	03/08/2005	25-07-06	Looking north	Over-excavation of Pipeline Trench
7	03/09/2005	25-07-06	Looking southwest	Removal of Lead- and Radiologically Impacted Soil
8	03/14/2005	25-07-06	Inclined downward	Ends of Pipe Double-Wrapped in Plastic
9	03/15/2005	25-07-06	Looking northwest	Loading of Soft-Sided Container with Low-Level Waste
10	04/07/2005	25-07-06	Looking southwest	Closure Activities Complete, Before Disposal of Low-Level Waste
11	01/03/2005	25-07-07	Looking north	Closure Activities Complete
12	04/07/2005	25-20-01	Looking east	Closure Activities Complete
13	01/24/2005	25-51-02	Looking north	Closure Activities Complete
14	04/07/2005	25-59-01	Looking north	Closure Activities Complete
15	04/07/2005	26-59-01	Looking south	Closure Activities Complete

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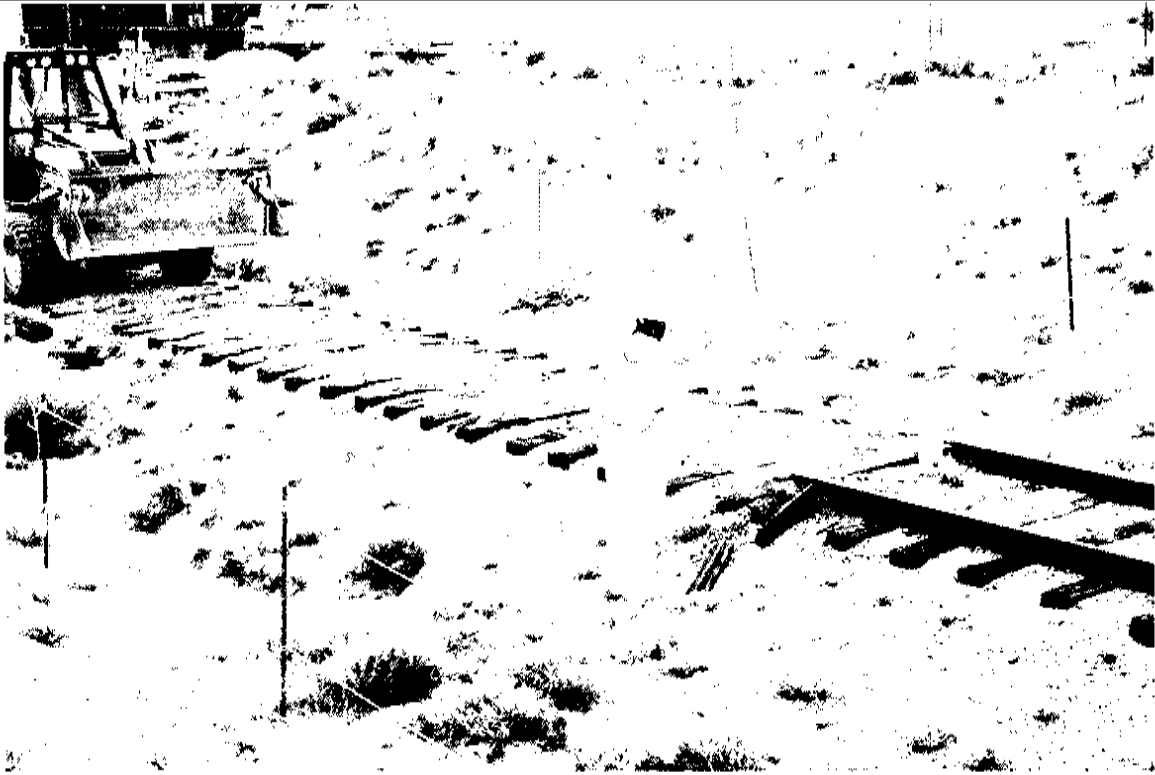
Photograph 1: CAS 25-07-06, Train Decontamination Area,
Concrete Pad, Before Removal, 02/04/2005



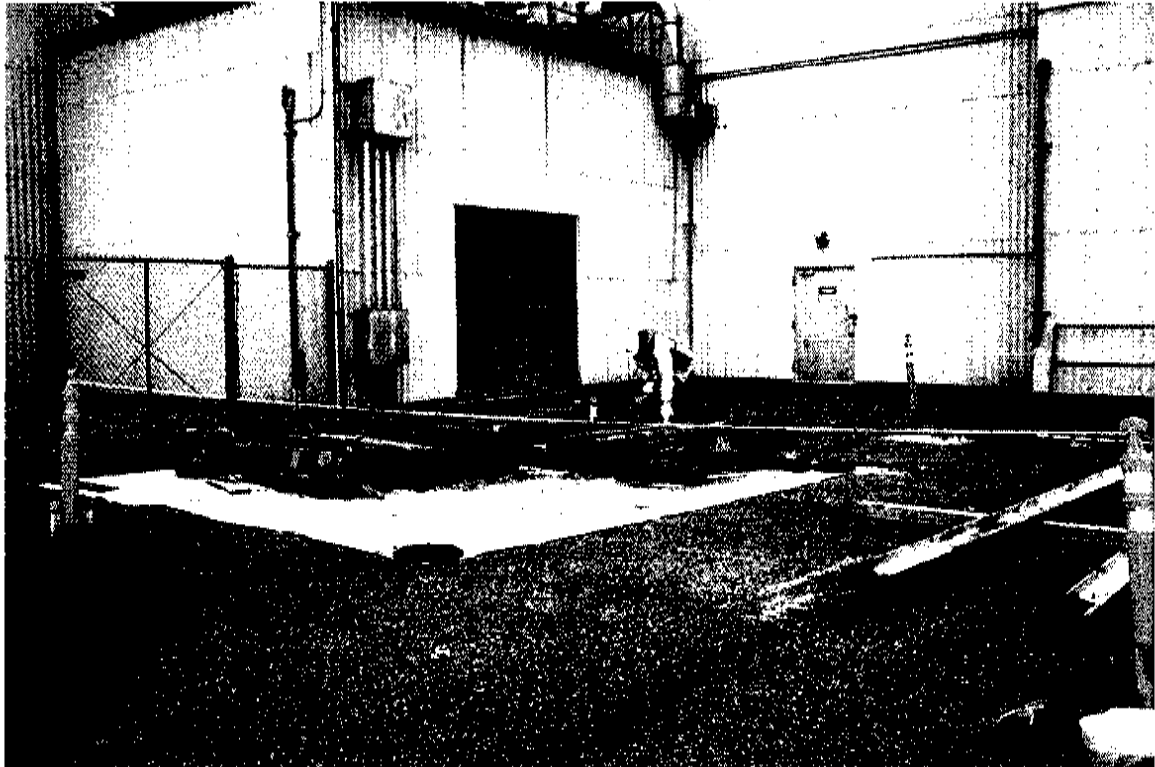
Photograph 2: CAS 25-07-06, Train Decontamination Area,
Exposed Cast Iron Pipe, 02/04/2005



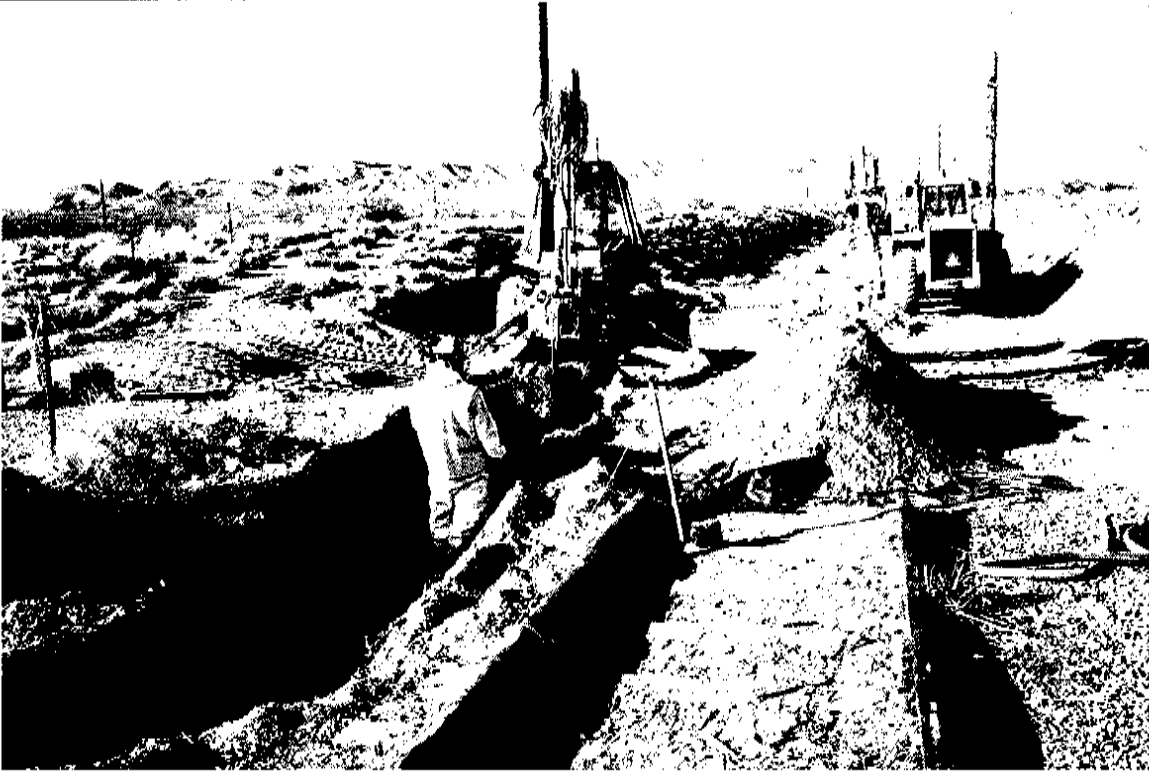
Photograph 3: CAS 25-07-06, Train Decontamination Area,
Rubbilization of Concrete Pad, 03/04/2005



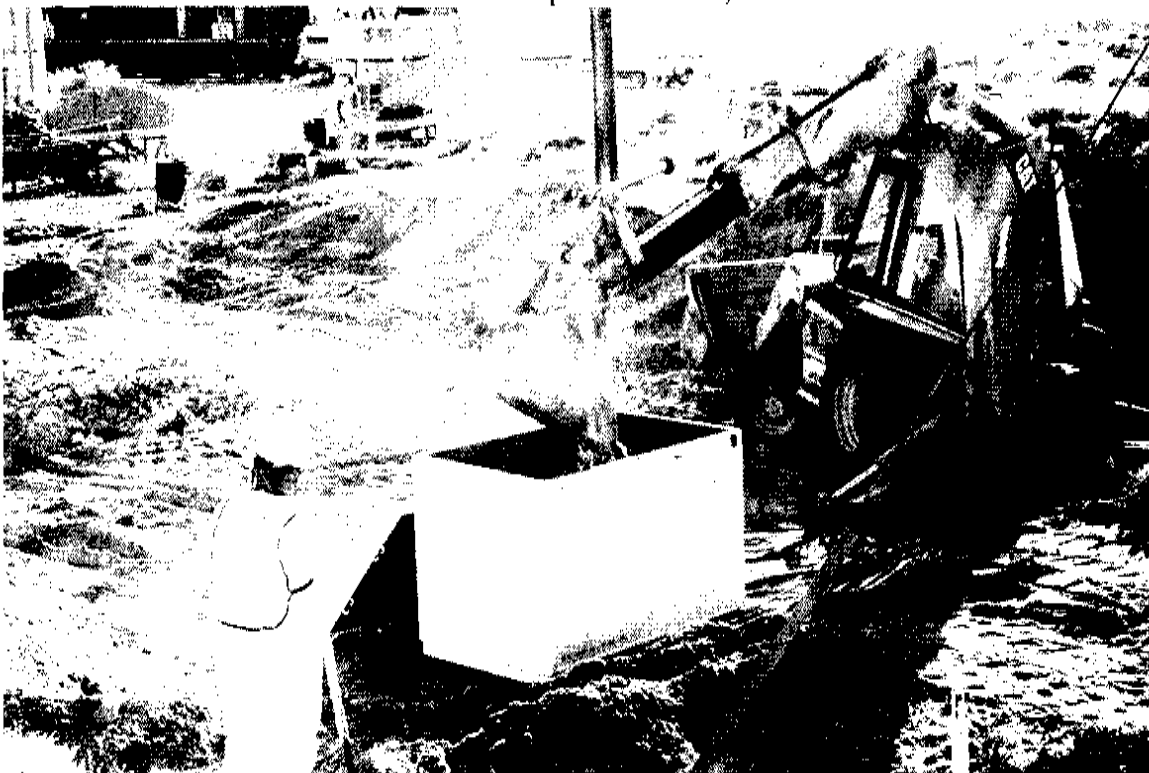
Photograph 4: CAS 25-07-06, Train Decontamination Area,
Removal of Wood Railroad Ties, 03/04/2005



Photograph 5: CAS 25-07-06, Train Decontamination Area,
Radiological Survey of Wood Railroad Ties, 03/04/2005



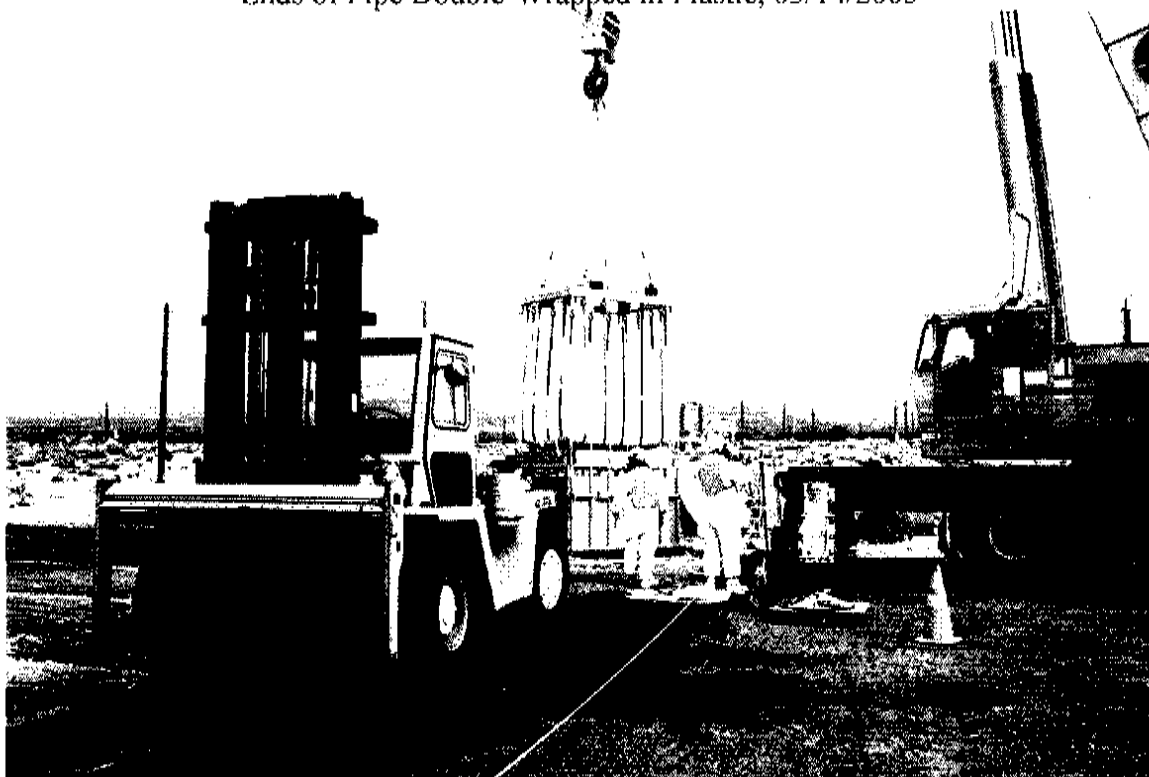
Photograph 6: CAS 25-07-06, Train Decontamination Area,
Over-excavation of Pipeline Trench, 03/08/2005



Photograph 7: CAS 25-07-06, Train Decontamination Area,
Removal of Lead- and Radiologically Impacted Soil, 03/09/2005



Photograph 8: CAS 25-07-06, Train Decontamination Area,
Ends of Pipe Double-Wrapped in Plastic, 03/14/2005



Photograph 9: CAS 25-07-06, Train Decontamination Area,
Loading of Soft-Sided Container with Low-Level Waste, 03/15/2005



Photograph 10: CAS 25-07-06, Train Decontamination Area,
Closure Activities Complete, Before Disposal of Low-Level Waste, 04/07/2005



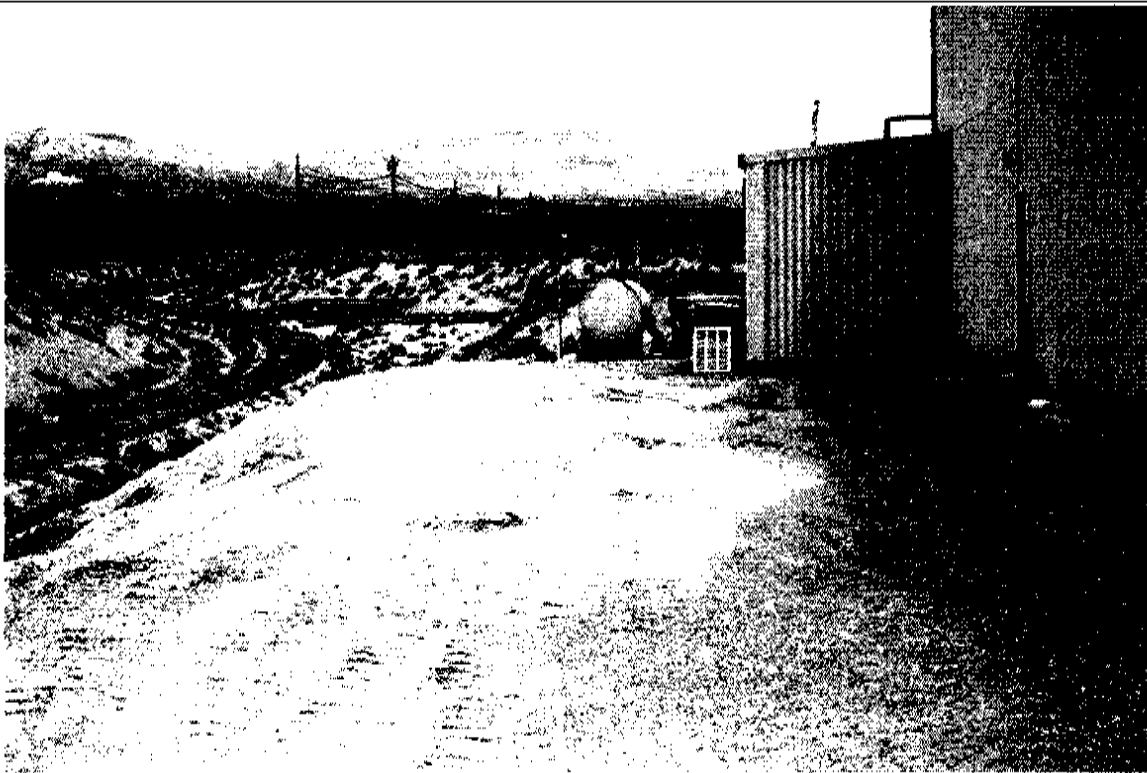
Photograph 11: CAS 25-07-07, Vehicle Washdown,
Closure Activities Complete, 01/03/2005



Photograph 12: CAS 25-20-01, Lab Drain Dry Well,
Closure Activities Complete, 04/07/2005



Photograph 13: CAS 25-51-02, Drywell,
Closure Activities Complete, 01/24/2005



Photograph 14: CAS 25-59-01, Septic System,
Closure Activities Complete, 04/07/2005



Photograph 15: CAS 26-59-01, Septic System,
Closure Activities Complete, 04/07/2005

APPENDIX I

NATIONAL ENVIRONMENTAL POLICY ACT CHECKLIST

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**U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION NEVADA SITE OFFICE
NEPA ENVIRONMENTAL EVALUATION CHECKLIST**

FOLLOW ATTACHED PROCEDURES FOR COMPLETING CHECKLIST				Date November 1, 2004		
A. Project/Activity Title (Attach a brief description of proposed project) CLOSURE OF CAU 165 SITES				Anticipated Start Date November 22, 2004		
Project Location NTS, Areas 25 and 26				Proposed By (if other than NNSA/NSO)		
NNSA/NSO Line Management Organization				NNSA/NSO Project/Program Manager Sabine Curtis		
ENVIRONMENTAL CONSIDERATIONS: If any phase of the project/activity involves any of the following considerations, check yes and explain in project description. See NV-16A for consideration guidelines and examples.						
CONSIDERATION	YES	NO	UNK	CONSIDERATION	YES	NO
WASTE				AIR EMISSIONS		
1 Non-Rad Solid Waste	X			1 Biological Material/Chemical Release		X
2 Hazardous Waste		X		2 Dust/Particulate Matter	X	
3 Low-level Rad Waste	X			3 Explosives		X
4 Mixed Waste	X			4 Diesel Generators		X
5 TRU/Mixed TRU Waste		X		5 Open Burning		X
6 Wastewater (domestic/industrial)		X				
				SITE LOCATION/OTHER		
HAZARDOUS MATERIALS				1 Environmental Restoration Site (CAU)		
1 Petroleum/Fuel (storage/use)		X		2 Excavation/Land Surface Disturbance	X	
2 Underground Storage Tanks		X		3 Off road travel	X	
3 Aboveground Storage Tanks		X		4 Biological/Tortoise Resource Area	X	
4 PCB's/Asbestos	X			5 Cultural/Historic Resource Area		X
5 Pesticides/Herbicides		X		6 Change in Existing Drainage Pattern		X
6 Radioactive Materials	X			7 Impact to Environmental Monitoring System		X
7 Biological Materials/Simulants		X		8 Unexploded Ordnance Area		X
8 Beryllium	X			9 Noise	X	
9 Chemical storage/use		X		10 Radiation controlled area		X
10 Use of explosives/firearms		X		11 Drinking water system involvement		X
DO NOT TYPE OR WRITE BELOW THIS LINE. FOR OFFICE USE ONLY						
B. Is the project/activity included in the final NTS EIS and the ROD or other NEPA document? Yes <u> X </u> (complete Sections C, D, and E) No <u> </u> (complete Sections D, E, and F)						
C. This project/activity is included in the NTS EIS/ROD (or other NEPA document) under the following section and page no.: NTS/EIS Volume 1, Appendix A, A.3.1.3 <i>Environmental Restoration Program – Industrial Sites Project</i>						
D. Does the proposed project/activity require any local, state, or federal permits or notifications? Yes <u> X </u> No <u> </u>						
E. If, based on the project description and the preliminary environmental considerations noted above, the proposed action fits within a class of action listed in Subpart D of 10 CFR 1021, write in the space below, the paragraph number and short title from the appropriate table of contents of Subpart D, Appendix B, C, or D, for a CX, EA, or EIS. If the proposed action does not fit within any class of action, write "Not Listed" below.						
F. NEPA COMPLIANCE OFFICER DETERMINATION OR RECOMMENDATION: I have determined that the proposed activity as described in item A above has been adequately addressed for the purpose of NEPA in the NTS/EIS. No further analysis or documentation is required pursuant to NEPA.						
 NNSA/NSO NEPA Compliance Officer				<u>11/25/04</u> Date		

CLOSURE OF CAU 165 SITES

Project Description:

CAU 165 consists of eight drywell and vehicle washdown sites within Areas 25 and 26 of the Nevada Test Site (NTS). Two of the CAU 165 corrective actions sites (CAS) were found free of contamination. No further action is required at CAS 25-47-01 and 26-07-01. Five sites (CASs 25-51-02, 25-59-01, 26-59-01, 25-07-06, and 25-07-07) will be clean closed by removing identified contaminated materials. At CAS 25-20-01, soil contamination will be closed in place with administrative controls. A summary of the proposed corrective actions follows. Details may be found in *Corrective Action Plan for Corrective Action Unit 165: Area 25 and 26 Dry Well and Washdown Areas, Nevada Test Site, Nevada* (U.S. DOE, NNSA NSO, 2004).

CAS 25-51-02

At CAS 25-51-02, an acid and caustic drain pipe conveyed waste from a floor drain inside Building 25-3320 and discharged it to a drainage ditch. The piping is located approximately 0.6-0.9 m (2-3 ft) below ground surface (bgs). Sediment from the collection system pipe was found to contain up to 1.8 mg/kg of Aroclor-1254, a PCB. This concentration is above the 1.0 mg/kg State of Nevada cleanup level but well below the 50 mg/kg limit for landfill disposal of PCBs. The volume of sediment in the collection system pipe is unknown. Up to 1,800 mg/kg Total Petroleum Hydrocarbons (TPH) was found in soil samples from below the pipe outfall. The soil contamination appears to be localized; only one sample had TPH in excess of the 100 mg/kg State of Nevada clean up action level.

CAS 25-51-02 will be clean closed by removing and disposing of the collection system piping, the PCB-impacted sediment within the piping, and shallow TPH-contaminated soil below the pipe outfall location. Both excavations will be backfilled with clean soil.

CAS 25-59-01

CAS 25-59-01 is a septic system located outside the Engine Maintenance, Assembly, and Disassembly (EMAD) facility in Area 25. The system consists of a cast-iron cleanout riser; a 3,785 liter (L) (1,000 gallon [gal]) capacity concrete septic tank with cast-iron cleanout plugs on top; a perforated wall leaching cesspool with a gravel leach bed; and associated piping. Contamination was only found within the septic tank itself, which contains about 220 gallons of TPH-impacted sludge. Up to 28,000 mg/kg of diesel-range organics and up to 170 mg/kg of gasoline-range organics were detected in the sludge samples. No contamination was found in the soil surrounding the septic tank or under the cess pool. Because no fecal coliform bacteria were found in the septic sludge at this site, disinfection is not necessary. The CAS is within a Beryllium Legacy Site.

The CAS will be clean closed by removing and disposing of the sludge and septic tank at the Area 6 Hydrocarbon Landfill. The pipe will be plugged with grout. The excavation will be backfilled.

CAS 26-59-01

CAS 26-59-01 is a septic system that served Building 26-2205 (Compressor House). The tank is located approximately 43 m (142 ft) south of the building. The system consists of a 3,785 L (1,000 gal) capacity single chamber septic tank with a manhole cover; a leachfield; and pipe. Approximately 541 L (143 gal) of TPH and fecal coliform-contaminated sludge is in the septic tank. Sludge samples contained TPH concentrations up to 240 mg/kg. No contaminants were found in the soil surrounding the septic tank or under the leachfield.

The CAS will be clean closed by removing and disposing of the sludge at the Area 6 Hydrocarbon landfill. The sludge will be disinfected prior to solidification to address the fecal coliform bacteria. The Septic tank is also to be demolished and removed from the site. The pipe will be plugged with grout. The excavation will be backfilled.

CAS 25-07-06

The Train Decontamination Area is located approximately 45 m (150 ft) north of the E-MAD facility in Area 25. The site consists of a 20 x 10 m (65 x 33 ft) concrete decontamination pad with a 30.5-cm (1-ft) concrete berm around its edges, a 15.2-cm (6-in) diameter radioactive floor drain centered in the pad, 38 m (125 ft) of 15.2-cm (6-in) VCP (radioactive waste line) running from the drain to an isolation valve, railroad tracks through the pad, and hand railings partially surrounding the decontamination pad. The drain is sealed with grout. The total

surface radiological contamination on the decontamination pad, its surface attachments, and adjacent railroad ties exceeded the NTS free release criteria as listed in Table 4-2 of the radiological control manual (U.S. Department of Energy, Nevada Operations Office [DOE/NV], 2000) for allowable residual surface contamination values in disintegrations per minute per square centimeter. Contamination was also detected in the surface soil surrounding the concrete pad. Cs-137, lead, and TPH were detected in some soil samples at concentrations above clean-up levels.

The contents of the waste line have not been characterized and may contain contaminants of concern. Potential contaminants of concern based on site history and similar sites may include volatile organic compounds, semi-volatile organic compounds, TPH, metals, PCBs, isotopic uranium and isotopic plutonium. The CAS is within a Beryllium Legacy Site.

This site will be clean-closed by removing the contaminated soil and concrete, the waste system piping, steel hand railings, wood railroad ties, and steel rails from the site. All excavations will be backfilled.

CAS 25-07-07

This former vehicle washdown site is adjacent to the Area 25 Reactor Control Point facility. The site consists of a 10 x 5 m (32 x 16 ft) concrete pad; a gravity-fed, gravel-lined 11 x 10 x 1 m (37 x 32 x 3 ft) sump connected by piping to a utility pad; trailer pads and three box hydrants with hose racks. The VCP pipe connecting the utility pad to the sump runs below the concrete washdown pad but is apparently unconnected to it.

Up to 1200 mg/kg TPH-DRO was detected in samples of stained surface soils collected from 0 - 15.2 cm (0 - 6 in) bgs around the washdown pad. TPH concentrations decreased with depth and were below the action level in samples from 75 cm (2.5 ft) bgs. The lateral extent of TPH-contaminated soil away from the concrete pad is less than 15 feet. The bottom of the concrete pad is assumed to also be impacted by TPH. The VCP line below the washdown pad is thought to be below the TPH-impacted soil. The CAS is within a Beryllium Legacy Site.

For clean closure of the site, the 12.7-cm (5-in) thick concrete wash down pad will be demolished and removed. The concrete and the TPH-impacted soil from the vicinity of the pad will be excavated and transported to the Area 6 Hydrocarbon landfill for disposal. The excavation will be backfilled.

CAS 25-20-01

The Lab Drain Dry Well is located approximately 16.8 m (55 ft) north of Building 25-4215 in the Area 25 Central Support Area. The site includes a concrete dry well and two waste pipes. The dry well is a 1.2 x 2.4-m (4 x 8 ft) precast concrete manhole ring with an open bottom and is filled with gravel to a minimum depth of 1.2 m (4 ft). There is subsurface TPH and tetrachloroethene contamination of the soil from about 9 feet to about 11.5 feet bgs, near the base of the dry well. The highest concentrations were at 9 feet depth. No COCs were found in the collection system pipe. The CAS is within a Beryllium Legacy Site.

The CAS 25-20-01 dry well will be closed in place with administrative controls (i.e., use restrictions). As a best management practice, the concrete dry well will be filled with an inert material. This will plug the pipes leading into the well, as well as minimize movement of contaminants from the bottom of the well. A use restriction warning sign will be posted to discourage intrusive activity that could disturb the buried contamination.

Environmental Considerations:

W-1: Non-Rad Solid Waste As a best management practice, uncontaminated surface debris and obstructions will be removed from CAS 25-07-06 and disposed at the Area 9 U10c Landfill. The waste to be removed includes hand railings and iron rails from the tracks.

Petroleum hydrocarbon impacted waste will be disposed at the Area 6 Hydrocarbon Landfill. Petroleum hydrocarbon impacted waste from CAU 165 corrective actions may include: the sludge and the concrete septic tanks removed from CASs 25-59-01 and 26-59-01, shallow soil and concrete removed from CAS 25-07-07, a vehicle washdown site, and soil removed from the outfall area at CAS 25-51-02.

W-3: Low-Level Radioactive Waste Shallow surface soil and decontamination pad materials impacted by Cs-137 will be removed from the CAS 25-07-06 train decontamination site at E-MAD. The soil will be disposed as low level waste at an appropriate NTS facility, most likely the Area 5 RWMS. An RCT will provide screening and sampling support for profiling this material for disposal and for ensuring employee safety.

W-4: Mixed Waste A small volume of soil impacted by lead and Cs-137 will be excavated from CAS 25-07-06, the former train decontamination area at E-MAD. An RCT will provide screening support for waste profiling and employee safety. The material will be disposed of at an offsite treatment and disposal facility.

H-4: PCBs/Asbestos No asbestos has been identified. PCBs were found at concentrations above the PAL in sediment within the pipeline at the 25-51-02 site. The PCB-impacted material meets landfill acceptance criteria. The sediment and piping will be removed in a way which minimizes potential release of sediment to un-impacted soil. The PCB-impacted pipe and the sediment it contains will be disposed at an NTS landfill, most likely the Area 9 U10c landfill as construction waste.

H-8: Beryllium Five of the six CASs at which corrective actions will be performed are within Beryllium Legacy sites: 25-51-02, 25-59-01, 25-07-06, 25-20-01, and 25-07-07. 26-59-01 is the only CAU 165 CAS which is not within a Beryllium Legacy site; however, traces of Be may be present in site soils from natural sources.

Dust suppression will reduce potential for exposure. Water spray will be used as necessary. Layout of corrective action operations will take into account wind direction. Workers will have had Beryllium awareness training and may voluntarily participate in the Be surveillance program. These work sites will also be monitored for Be levels in air in the work zone in accordance with the Health and Safety Plan.

A-2: Dust Particulate Matter Dust control will be practiced at all sites to minimize worker exposure. Water spray will be used as necessary. Layout of corrective action operations will take into account wind direction.

A-4: Diesel generators (if needed) It is unknown at this time if any diesel generators will be required to complete the project work. Should a generator be required to provide lighting or run equipment, precautions will be taken to minimize potential release of diesel. Containment will be used if the generators need to be refueled on site. Use of the generators would be short term and within the bounds of the NTS air emissions inventory.

S-1: Environmental Restoration Site The project is a corrective action unit within the FFACO Industrial Sites Project. Historic records searches and corrective action investigation sampling and radiological surveys were used to identify the extent of contamination at the eight CASs. See the Project Description section above for details pertaining to each CAS.

S-2: Excavation/Land Surface disturbance Excavation and land surface disturbance will be localized and small scale. Field screening methods, such as PetroFlag™ tests for TPH, will be used to guide excavation of impacted soil and minimize waste generation. After laboratory analytical results from verification sampling confirm that the contamination material has been removed, each excavation will be refilled to grade with clean soil.

Whenever feasible, waste generated by the corrective action activities will be placed directly in transport containers pending completion of profiling for transport and disposal. If impacted soil is stockpiled on site, it will be placed on plastic and covered at the end of the workday or when it is windy. If the weather is rainy, the perimeter of the excavation and excavated soil will be bermed or sandbagged to prevent run on into the excavation and contaminated soil stockpile.

S-3: Off Road Travel Existing roadways, customary routes, and previously disturbed areas will be used as much as possible to achieve project objectives. Removal of the septic tank at 26-59-01 may require travel of a couple hundred feet off road. However the same area was recently disturbed to complete the site characterization activities. All of the sites are disturbed areas and some are at developed active facilities with

very little native natural flora and fauna. Unpaved work sites will be field checked by a Biologist to determine if any threatened or endangered species are present and to identify burrows or other features to avoid.

S-4: Biological Tortoise Resource Area All of the sites are in potential tortoise habitat but in areas rated none to very low abundance. A biologist will determine whether to survey sites prior to commencement of field activities. If a tortoise is subsequently encountered during field work, activities in the vicinity of the tortoise will be suspended until appropriate notifications and mitigations are made. The NTS notification policy will be practiced.

S-9: Noise Implementation of this scope of work will entail use of heavy equipment at some of the sites. Noise levels within the immediate work area, close to the heavy equipment, may exceed recommended worker hearing preservation levels. Ear protection will be used as needed by equipment operators and field staff to protect their hearing. The noise levels are not expected to be an exposure or pollution issue outside of the immediate vicinity of such equipment.

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