UNCONTROLLED

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
RECORD OF TECHNICAL CHANGE (ROTC)

Corrective Action Unit (CAU) Number: 326
CAU Description: Areas 6 and 27 Release Sites
CAU Owner: Industrial Sites - Defense Program (DP)

ROTC No. DOE/NV--859-Rev 1-ROTC 1 **Page** 1 of 3

Document Type Closure Report (CR) **Date** 06/29/2021

The following technical changes (including justification) are requested by:

Tiffany Gamero
Requestor Name

Long-Term Monitoring Activity Lead
Requestor Title

Description of Change:

1. This ROTC replaces the Use Restriction (UR) information listed in the documentation for CAU 326.

   UR forms have been updated to list all UR requirements, including but not limited to: post-closure site controls (signs, fencing, etc.), inspection and maintenance requirements, and Geographic Information Systems (GIS) coordinate information. The UR requirements and form(s) included in this ROTC represent the current corrective action requirements for each Corrective Action Site (CAS) in this CAU and supersede information concerning corrective action and post-closure requirements in existing documentation.

2. Remove UR from CAS 06-25-02.

Justification:

1. Some changes in the UR requirements from those found in closure documents have been subsequently modified in letters, memos, and inspection reports. This has resulted in difficulty in determining current post-closure requirements. A review of the post-closure requirements for this CAU has been conducted to ensure that all requirements have been identified and documented on the new UR form. The new UR form was developed to be inclusive of all requirements for long-term monitoring and standardize information contained in the URs consistent with current protocols.

2. Based on an evaluation that concentrations of hazardous contaminants at CAS 06-25-02 do not exceed action levels, this release site does not warrant either an FFACO or Administrative UR. This was concurred by NDEP in a letter dated 8/31/20.

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
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Document Type Closure Report (CR) **Date** 06/29/2021

Schedule Impacts:

No impacts to schedule.

ROTC applies to the following document(s):

- National Nuclear Security Administration Nevada Operations Office. 2002. Closure Report for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada, Rev. 1, DOE/NV--859-Rev 1. Las Vegas, NV.

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
RECORD OF TECHNICAL CHANGE (ROTC)

Corrective Action Unit (CAU) Number: 326
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CAU Owner: Industrial Sites - Defense Program (DP)

ROTC No. DOE/NV--859-Rev 1-ROTC 1 **Page** 3 of 3

Document Type Closure Report (CR) **Date** 06/29/2021

Approvals:

Tiffany A. Gamero Digitally signed by Tiffany A. Gamero Date: 2021.07.08 14:54:03 -07'00' Date _____

Tiffany Gamero
Activity Lead
Environmental Management (EM) Nevada Program

Bill R. Wilborn Digitally signed by Bill R. Wilborn Date: 2021.07.08 16:18:51 -07'00' Date _____

Bill Wilborn
Deputy Program Manager, Operations
Environmental Management (EM) Nevada Program

Christine Andres Digitally signed by Christine Andres Date: 2021.07.11 11:28:18 -07'00' Date _____

Christine Andres
Chief, Bureau of Federal Facilities
Nevada Division of Environmental Protection (NDEP)

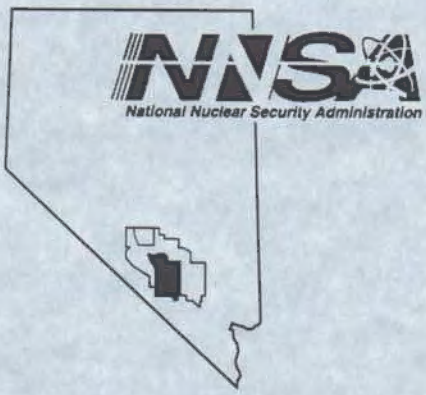
ERRATA SHEET

In the last sentence of Section 2.1.2.1 on Page 7 of the Closure Report for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada, Appendix B was incorrectly referenced. The sentence should state that "The CAU Use Restriction Information form for this area and a figure showing the survey locations and coordinates are provided in Appendix C".

Per NNSA/NSO January 24, 2003 Letter entitled: SUBMITTAL OF ERRATA SHEET FOR THE FINAL CLOSURE REPORT OF CORRECTIVE ACTION UNIT 326: AREAS 6 AND 27 RELEASE SITES, NEVADA TEST SITE, NEVADA, REVISION 1, DECEMBER 2002.

Nevada
Environmental
Restoration
Project

DOE/NV--859-Rev 1



Closure Report for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada

UNCONTROLLED

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Revision: 1

December 2002

Environmental Restoration
Division

National Nuclear Security Administration
Nevada Operations Office

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DOE/NV--859-Rev 1

CLOSURE REPORT FOR CORRECTIVE ACTION UNIT 326: AREAS 6 AND 27 RELEASE SITES, NEVADA TEST SITE, NEVADA

Prepared for:
U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
Work Performed Under Contract No. DE-AC08-96-NV11718

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Revision: 1

December 2002

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CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 326:
AREA 6 AND 27 RELEASE SITES,
NEVADA TEST SITE, NEVADA

Approved by: /s/ Janet Appenzeller-Wing Date: 12/16/02

Janet Appenzeller-Wing, Project Manager
Industrial Sites Project

Approved by: /s/ Runore Wycoff Date: 12/16/02

Runore C. Wycoff, Director
Environmental Restoration Division

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BN	Bechtel Nevada
CAS	Corrective Action Site
CAU	Corrective Action Unit
cm	centimeter(s)
CP	Control Point
CR	Closure Report
DAF	Device Assembly Facility
DOE/NV	U.S. Department of Energy, Nevada Operations Office
DQO	Data Quality Objective
E	east
EPA	U.S. Environmental Protection Agency
ft	foot(feet)
FFACO	Federal Facility Agreement and Consent Order
gal	gallon(s)
in	inch(es)
km	kilometer(s)
L	liter(s)
m	meter(s)
m^3	cubic meter(s)
mi	mile(s)
mg/kg	milligram(s) per kilogram
µg/kg	microgram(s) per kilogram
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
ND	Not detected
N	north
NNSA/NV	U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office
NS	Not sampled
NTS	Nevada Test Site
PCB	Polychlorinated biphenyls
ppm	parts per million
S	south
SDG	Sample Delivery Group

ACRONYMS AND ABBREVIATIONS (continued)

SAFER	Streamlined Approach for Environmental Restoration Plan
SSHASP	Site-Specific Health & Safety Plan
TPH	Total Petroleum Hydrocarbons
UST	underground storage tank
yd^3	cubic yard(s)
W	west

EXECUTIVE SUMMARY

Corrective Action Unit (CAU) 326 consists of four Corrective Action Sites (CAS) located in Areas 6 and 27 of the Nevada Test Site. The Nevada Test Site is located approximately 100 kilometers (62 miles) northwest of Las Vegas, Nevada. CAU 326 is listed in the Federal Facility Agreement and Consent Order (FFACO, 1996) and consists of the following CASs:

- CAS 06-25-01, CP-1 Heating Oil Release
- CAS 06-25-02, UST (Underground Storage Tank) Release
- CAS 06-25-04, Petroleum Release Site
- CAS 27-25-01, Petroleum Release Site Maintenance

CAU 326 was closed in accordance with the FFACO and the Nevada Division of Environmental Protection-approved Streamlined Approach for Environmental Restoration Plan for CAU 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada (U.S. Department of Energy, Nevada Operations Office, 2001). CAU 326 was closed by implementing the following corrective actions:

- CAS 06-25-01 is a fuel oil release caused by a break in a heating oil pipeline. The site was closed in place administratively by determining the extent of the hydrocarbon contamination, evaluating the risk associated with the hydrocarbon contamination, and implementing use restrictions to prevent inadvertent intrusion or exposure to the contaminated soil.
- CAS 06-25-02 is a hydrocarbon release associated with an active underground storage tank (UST) (tank 6-DAF-5) located west of Building 500 at the Device Assembly Facility. This site was closed in place administratively by implementing a use restriction.
- CAS 06-25-04 was clean closed during the closure of the associated UST, tank 6-619-4. This site was closed by taking no further action.
- CAS 27-25-01 was a petroleum release site associated with fuel and oil storage and equipment maintenance activities. In addition, polychlorinated biphenyls (PCBs) at concentrations greater than regulatory limits were found onsite. This site was clean closed by the removal and disposal of PCB-impacted soils.

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1.0 INTRODUCTION

This Closure Report (CR) documents the activities undertaken to close Corrective Action Unit (CAU) 326, Areas 6 and 27 Release Sites, in accordance with the Federal Facility Agreement and Consent Order (FFACO) of 1996. Site closure was performed in accordance with the Nevada Division of Environmental Protection (NDEP)-approved Streamlined Approach for Environmental Restoration Plan (SAFER) Plan for CAU 326 (U.S. Department of Energy, Nevada Operations Office [DOE/NV, 2001]). CAU 326 consists of four Corrective Action Sites (CASs), 06-25-01, 06-25-02, 06-25-04, and 27-25-01 (Figure 1).

CAS 06-25-01 is a release site associated with an underground pipeline that carried heating oil from the heating oil underground storage tank (UST), Tank 6-CP-1, located to the west of Building CP-70 to the boiler in Building CP-1 located in the Area 6 Control Point (CP) compound. This site was closed in place administratively by implementing use restrictions.

CAS 06-25-02 is a hydrocarbon release associated with an active heating oil UST, Tank 6-DAF-5, located west of Building 500 at the Area 6 Device Assembly Facility. This site was closed in place administratively by implementing use restrictions.

CAS 06-25-04 was a hydrocarbon release associated with Tank 6-619-4. This site was successfully remediated when Tank 6-619-4 was removed. No further action was taken at this site.

CAS 27-25-01 is an excavation that was created in an attempt to remove hydrocarbon-impacted soil from the Site Maintenance Yard in Area 27. Approximately 53 cubic meters (m^3) (70 cubic yards [yd^3]) of soil impacted by total petroleum hydrocarbons (TPH) and polychlorinated biphenyls (PCBs) was excavated from the site in August of 1994. Clean closure of this site was completed in 2002 by the excavation and disposal of approximately 160 m^3 (210 yd^3) of PCB-impacted soil.

1.1 PURPOSE

The purpose of this CR is to document that the closure of CAU 326 complied with all of the closure requirements detailed in the NDEP-approved SAFER Plan (DOE/NV, 2001).

1.2 SCOPE

The closure strategy for CAU 326 was specified in the NDEP-approved SAFER Plan for CAU 326 (DOE/NV, 2001). The implemented closure strategy consisted of the following activities.

CAS 06-25-01

- Locate and pressure test the ruptured underground heating oil pipeline.
- Collect soil samples from locations along the pipeline where the pipeline fails pressure testing to identify any additional hydrocarbon release sites.

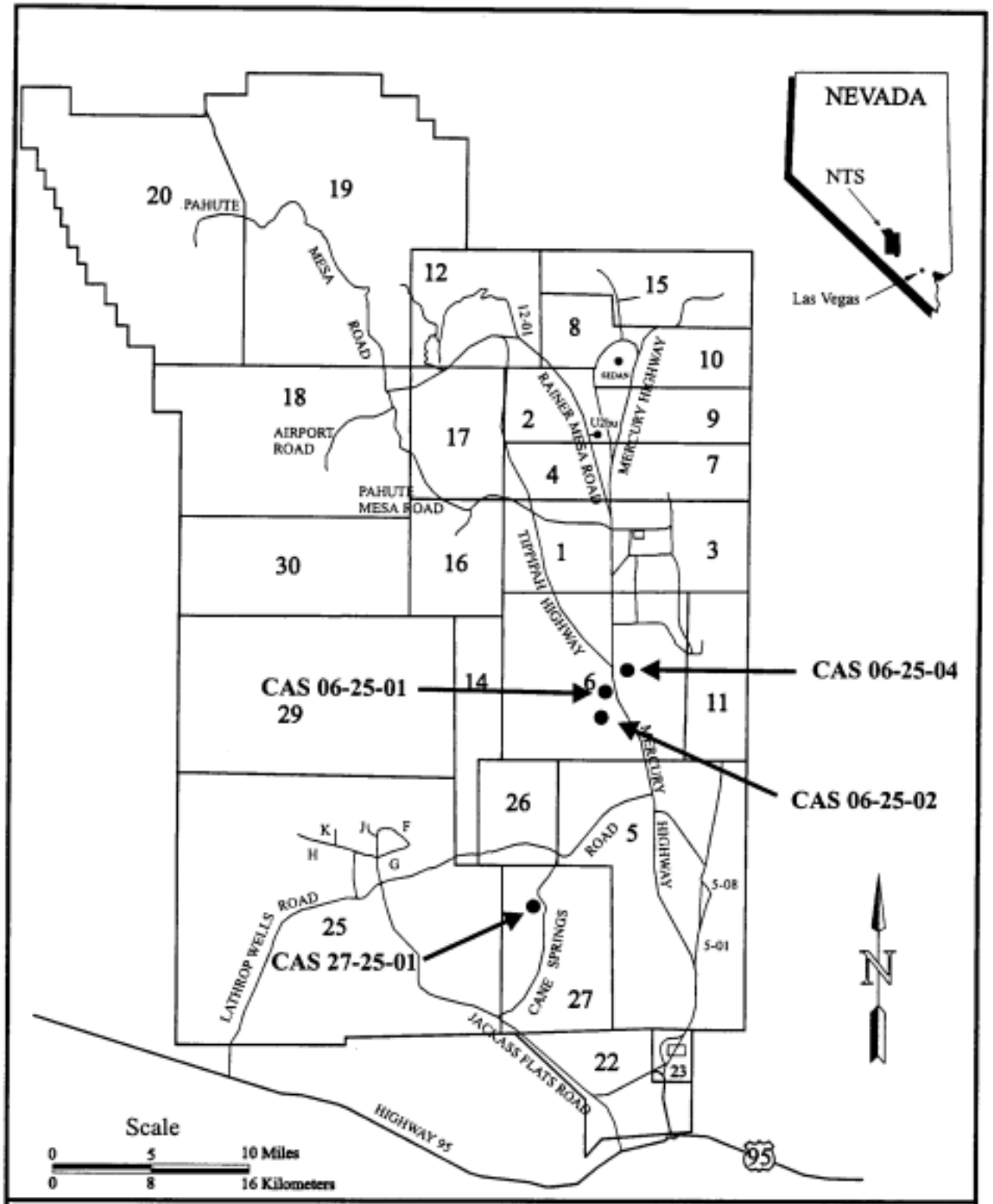

FIGURE 1
CAU 326 CORRECTIVE ACTION SITE LOCATIONS

- Collect soil samples using a drill rig, or equivalent, to identify the lateral and vertical extent of impacted soil at locations where releases were identified along the pipeline.

- Evaluate the site using the "A through K" criteria as stated in Section 445A.227 of the Nevada Administrative Code (NAC, 2002b) and, as warranted, administratively close the site by implementing use restrictions.

CAS 06-25-02

This site will be closed administratively by implementing use restrictions and evaluate the site using an "A through K" criteria (NAC, 2002b).

CAS 06-25-04

This site has been previously closed. No further activities occurred at this site.

CAS 27-25-01

- Collect soil samples from the bottom and sides of the excavation to identify the presence or absence of TPH and PCBs.

- Excavate and dispose of any PCB-impacted soil above the action limit.

- Collect verification soil samples from the bottom and sidewalls of the Area 27 excavation to verify that all PCB soil had been removed.

- Backfill the excavation with clean material.

1.3 CLOSURE REPORT CONTENTS

This CR is divided into 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 - Verification Sample Analytical Results
- Appendix C - Use Restriction Documentation
- Appendix D - Waste Disposition Documentation
- Appendix E - Nevada Division of Environmental Protection Correspondence
- Appendix F - Nevada Division of Environmental Protection Document Review Sheet
- Distribution List

The following standard FFACO CR appendices are not included in this CR because they do not apply to closure of CAU 326.

- Closure Certification - Not applicable.
- As-Built Documentation - Not applicable, no engineered structures were constructed.
- Modifications to the Post-Closure Plan - Not applicable.

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

- Streamlined Approach for Environmental Restoration Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada (DOE/NV, 2001).
- Field Management Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada. (Bechtel Nevada [BN], 2001a).
- Site-Specific Health and Safety Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada (BN, 2001b).
- Nevada Environmental Restoration Project, Industrial Sites Quality Assurance Project Plan, Nevada Test Site, Nevada, Revision 3 (DOE/NV, 2002).

2.0 CLOSURE ACTIVITIES

This section details the specific corrective action activities completed during the closure of CAU 326: Areas 6 and 27 Release Sites. Copies of the analytical data reports for all verification samples are included in Appendix B.

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

2.1.1 Preplanning and Site Preparation

Closure of CAU 326 was completed using the NDEP-approved SAFER Plan (DOE/NV, 2001). Prior to beginning site closure activities, the following pre-field activities were completed:

- Preparation of National Environmental Policy Act documentation (checklist).
- Preparation of the Field Management Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada, (BN, 2001a).
- Preparation of the Site-Specific Health and Safety Plan for Closure Activities at Corrective Action Unit 326: Nevada Test Site, Nevada, (BN, 2001b).
- Preparation of a U.S. Department of Energy, National Nuclear Security Administration Nevada Operation Office (NNSA/NV) Real Estate/Operations Permit.
- Preparation of a BN Excavation and Penetration Permit.

The following is the scope of the closure actions implemented for CAU 326.

2.1.2 CAS 06-25-01: CP-1 Heating Oil Release Closure Activities

Closure activities were performed in two phases. Phase I closure activities were conducted in January and February of 2002 and consisted of pressure testing the pipeline and collecting soil samples for TPH field screening along the pipeline. Phase II closure activities were conducted in June of 2002 and consisted of using a drill rig to collect soil samples to define the lateral and vertical extent of the TPH contamination associated with the original pipeline break.

2.1.2.1 CAS 06-25-01, CP-1 Heating Oil Release Phase I Closure Activities

The underground heating oil pipeline runs from Tank 6-CP-1 located immediately west of the Area 6 CP fire station (Building CP-70), to Building CP-1, located inside the CP security fencing (Figure 2). The approximate location of the original heating oil release was midway between the tank and building in the CP parking lot. To determine if other breaks in the pipeline may have occurred, the pipeline was pressure tested. The area of the original break and the east end of the pipeline were excavated to expose the pipeline. The excavation measured approximately 12 by 6 meters (m) (40 by 20 feet [ft]) and was 1. 4 m (4.5 ft) deep. The excavated soil was disposed

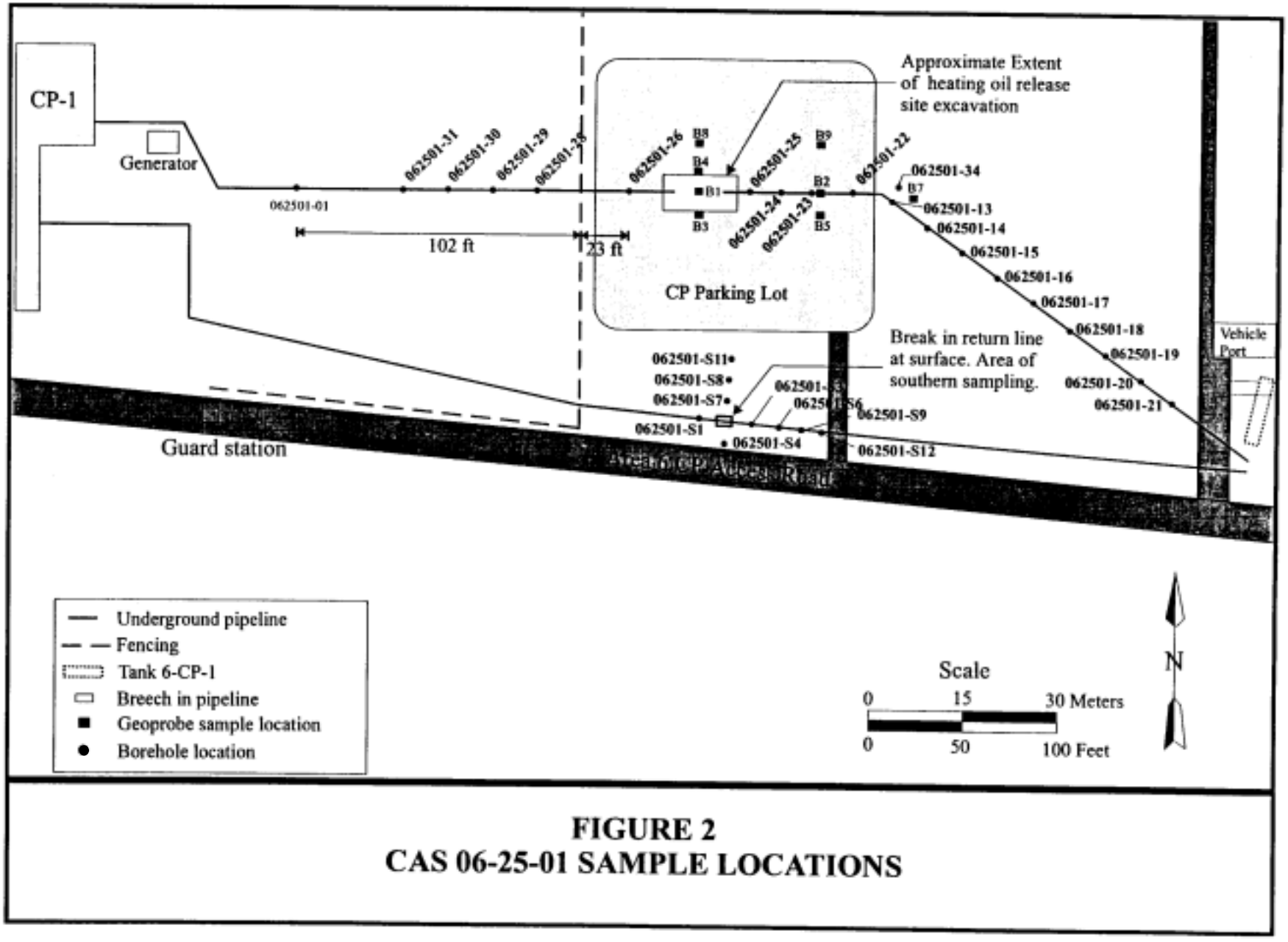

FIGURE 2
CAS 06-25-01 SAMPLE LOCATIONS

of in the Nevada Test Site (NTS) Area 6 Hydrocarbon Landfill (Section 3.0). The ends of the pipeline were cut and fitted for pressure testing. Both the west and east pipeline segments failed pressure testing. Next, the approximate midpoints of the west and the east pipeline segments were excavated, cut, and fitted for pressure testing. All four pipeline segments failed pressure testing. It was concluded that the pipeline was badly deteriorated and that the possibility of other heating oil releases along the pipeline could not be ruled out by the results of the pressure testing.

Due to the inconclusive pressure testing results, soil samples were collected along the pipeline at 6-m (20-ft) intervals using the Geoprobe® (Figure 2). The soil samples were collected at typically 0.6 m (2 ft) and 1.2-m (4-ft) depths at each location and screened for TPH using a PetroFlag® field screening test kit. Results for TPH field screening and select samples submitted for laboratory analysis are given in Table 1 (analytical results are provided in Appendix B). The results presented in Table 1 demonstrate that portions of the east and west pipeline segments are clean. Specifically, the portion of pipeline extending from the location of Borehole 7 (Figure 2) to the Tank 6-CP-1 is clean; TPH levels are less than the Nevada State Action Level of 100 milligrams per kilogram (mg/kg) (NAC, 2002a) for this segment of pipeline. Also, the portion of pipeline extending from the sample 062501-01 location, 30.6 m (102 ft) west of the CP fence, to the sample 062501-26 location, 7 m (23 ft) east of the CP fence, is clean of TPH.

Due to the close proximity of a utility corridor and associated safety concerns, Geoprobe® samples were not collected along the segment of pipeline east from Building CP-1 to the sample 062501-31 location (Figure 2). For this reason and the inconclusive pressure test results, this segment of pipeline was closed in place with administrative controls by implementing use restrictions. The area with active use restrictions is centered about the pipeline and extends 7 m (24 ft) north, and 3 m (10 ft) south of the pipeline. The width of the use restriction area was established by borehole sample results obtained at the original pipeline break (see Phase II Activities below.). The CAU Use Restriction Information form for this area and a figure showing the survey locations and coordinates are provided in Appendix B.

2.1.2.2 CAS 06-25-01, CP-1 Heating Oil Release Phase II Closure Activities

Phase II closure activities consisted of determining the lateral and vertical extent of TPH contamination present at the heating oil pipeline release location. This was accomplished by using a hollow stem auger drill rig and split spoon soil sampler to advance and sample eight boreholes. The locations of the boreholes are shown in Figure 3. Soil samples were collected from each bore hole at 1.5-m (5-ft) intervals and field screened for TPH concentrations using a PetroFlag® test kit. In addition, selected soil samples were collected and submitted to an offsite laboratory for TPH analysis. The field screening and analytical results for all borehole samples are provided in Table 2 and Appendix B.

The vertical extent of the TPH contamination was established by results of samples collected from Boreholes 1 and 2. Borehole 1 was located at the approximate location of the pipeline break 18 m (60 ft) east of the CP fence, and was advanced to a total depth of 21 m (70.25 ft) below ground surface (bgs) where refusal (bedrock) was met. Field screening samples were collected at 1.5-m (5-ft) intervals and showed TPH levels greater than the 75 mg/kg screening limit established in the CAU 326 SAFER Plan (DOE/NV, 2001) along the entire depth of the

TABLE 1 - TPH RESULTS FOR CAS 06-25-01 PIPELINE GEOPROBE LOCATIONS

SAMPLE ID	LOCATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
062501-01	Midpoint of W. segment	V1429	2	87	61
062501-02	E. end of release excva.	V1429	2	1,828	1,800
062501-03	W. end of release excav.	V1429	2	1,893	1,100
062501-04	Center of excavation	V1429	2	191	84
062501-05	N stepout of excavation		2	0	NS[h]
062501-13	E. pipeline segment	V1429	2	> 2,000[i]	1,500
062501-13L	E. pipeline segment	V1429	4	0	38
062501-14	E. pipeline segment		2	57	NS
062501-14L	E. pipeline segment		4	3	NS
062501-15	E. pipeline segment		2	0	NS
062501-15L	E. pipeline segment		4	0	NS
062501-16	E. pipeline segment		2	5	NS
062501-16L	E. pipeline segment		4	7	NS
062501-17	E. pipeline segment		2	31	NS
062501-17L	E. pipeline segment		4	20	NS
062501-18	E. pipeline segment		2	4	NS
062501-18L	E. pipeline segment		4	0	NS
062501-19	E. pipeline segment		2	0	NS
062501-19L	E. pipeline segment		4	5	NS
062501-20	E. pipeline segment		2	6	NS
062501-20L	E. pipeline segment		4	0	NS
062501-21	E. pipeline segment		2	23	NS
062501-21L	E. pipeline segment		4	0	NS
062501-22	E. pipeline segment	V1432	2	> 2,000	3,000
062501-22L	E. pipeline segment		4	1172	NS
062501-23	E. pipeline segment	V1432	2	636	220
062501-23L	E. pipeline segment	V1432	4	66	44
062501-24	E. pipeline segment	V1432	2	> 2,000	1,200
062501-24L	E. pipeline segment		4	> 2,000	NS
062501-25	E. pipeline segment	V1432	2	2,162	9,000
062501-25L	E. pipeline segment		4	1,911	NS
062501-26	W. pipeline segment	V1432	2	797	89
062501-26L	W. pipeline segment		4	98	NS
062501-27	N. stepout of # 25		2	> 2,000	NS

SAMPLE ID	LOCATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
062501-27L	N. stepout of # 25		4	1,860	NS
062501-28	W. pipeline segment		2	5	NS
062501-28L	W. pipeline segment		4	1	NS
062501-29	W. pipeline segment		2	2	NS
062501-29L	W. pipeline segment		4	0	NS
062501-30	W. pipeline segment		2	0	NS
062501-30L	W. pipeline segment		4	0	NS
062501-31	W. pipeline segment		2	0	NS
062501-32	N. stepout of # 24		2	645	NS
062501-32L	N. stepout of # 24		4	> 2,000	NS
062501-32L2	N. stepout of # 24		6	438	NS
062501-32L3	N. stepout of # 24		7	> 2,000	NS
062501-33	S. stepout of # 24		2	0	NS
062501-33L	S. stepout of # 24		4	0	NS
062501-33L2	S. stepout of # 24		6	> 2,000	NS
062501-33L3	S. stepout of # 24		7	> 2,000	NS
062501-34	N. stepout of # 13		2	0	NS
062501-34L	N. stepout of # 13		4	0	NS
062501-35	N. stepout of # 22		2	0	NS
062501-35L	N. stepout of # 22		4	0	NS
062501-36	N. stepout of # 22		2	0	NS
062501-36L	N. stepout of # 22		4	6	NS

[a] SDG - Sample Delivery Group number
[b] bgs - below ground surface
[c] ft - feet
[d] TPH - Total Petroleum Hydrocarbons
[e] ppm - parts per million
[f] TPH Laboratory analysis by Method 8015 Modified; U.S. Environmental Protection Agency (EPA) 1996
[g] mg/kg - milligrams per kilogram
[h] NS - Not Sampled
[i] > 2,000 indicates a TPH concentration out of calibration range, i.e., greater than the high calibration end point.

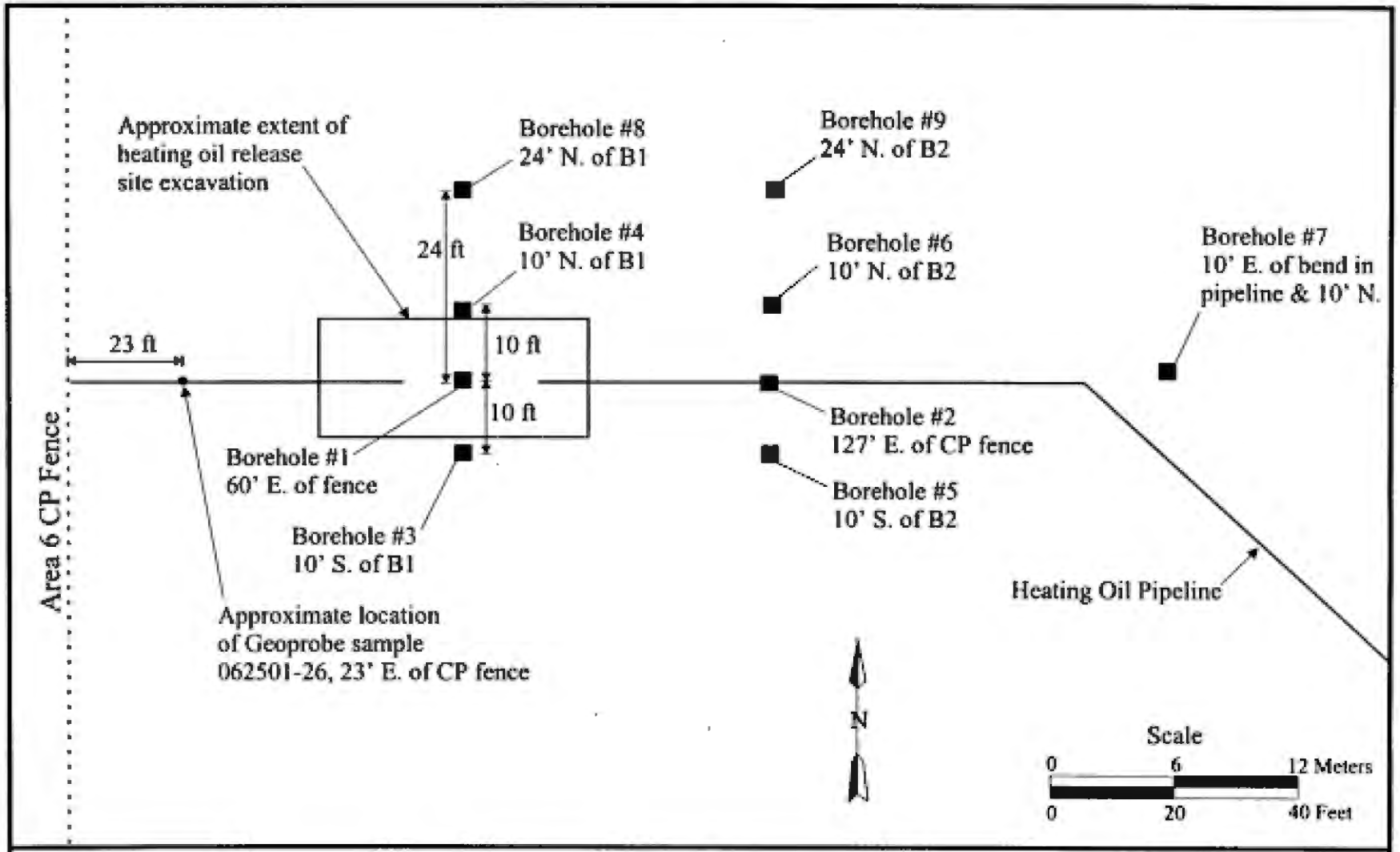

FIGURE 3
CAS 06-25-01 BOREHOLE LOCATIONS

TABLE 2 - TPH RESULTS FOR CAS 06-25-01 BOREHOLE LOCATIONS

SAMPLE IDENTIFICATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
BOREHOLE NUMBER B1				
326-B1-05		5	> 3000[h]	NS[i]
326-B1-10	V1625	10	> 3000	5,700
326-B1-15		15	> 3000	NS
326-B1-20		20	> 3000	NS
326-B1-25		25	> 3000	NS
326-B1-30		30	> 3000	NS
326-B1-35		35	> 3000	NS
326-B1-40		40	> 3000	NS
326-B1-45	V1625	45	> 3000	4,300
326-B1-50		50	> 3000	NS
326-B1-55		55	> 3000	NS
326-B1-60		60	> 3000	NS
326-B1-65		65	> 3000	NS
326-B1-70		70	1024	NS
326-B1-70.25		70.25	555	NS
BOREHOLE NUMBER B2				
326-B2-05	V1622	5	3096	1,300
326-B2-20		20	283	NS
326-B2-25		25	313	NS
326-B2-45	V1622	45	170	ND[j]
326-B2-50	V1622	50	237	ND
326-B2-55		55	258	NS
BOREHOLE NUMBER B3				
326-B3-05		5	72	NS
326-B3-10		10	95	NS
326-B3-15		15	43	NS
326-B3-20		20	26	NS
326-B3-25		25	98	NS
326-B3-30		30	48	NS
326-B3-35		35	73	NS
326-B3-40		40	82	NS
326-B3-45	V1635	45	115	ND
326-B3-50	V1635	50	94	ND

SAMPLE IDENTIFICATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
BOREHOLE NUMBER 4				
326-B4-05		5	309	NS
326-B4-10		10	286	NS
326-B4-15		15	298	NS
326-B4-20		20	496	NS
326-B4-25		25	338	NS
326-B4-30		30	435	NS
326-B4-35		35	369	NS
326-B4-40		40	391	NS
326-B4-45		45	365	NS
BOREHOLE NUMBER B5				
326-B5-05		5	13	NS
326-B5-10		10	26	NS
326-B5-15		15	42	NS
326-B5-20		20	150	NS
326-B5-25		25	188	NS
326-B5-30		30	176	NS
326-B5-35		35	214	NS
326-B5-40		40	211	NS
326-B5-45		45	224	NS
326-B5-50	V1635	50	272	ND
BOREHOLE NUMBER 7[h]				
326-B7-05		5	63	NS
326-B7-10	V1640	10	140	ND
326-B7-15	V1640	15	108	ND
326-B7-20		20	113	NS
326-B7-25		25	73	NS
326-B7-30		30	105	NS
326-B7-35		35	63	NS
326-B7-40		40	91	NS
326-B7-45		45	114	NS
326-B7-50		50	89	NS
326-B7-55		55	54	NS
326-B7-60		60	79	NS
326-B7-65		65	39	NS

SAMPLE IDENTIFICATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
326-B7-70		70	96	NS[i]
326-B7-75	V1640	75	5	ND[j]
326-B7-80		80	13	NS
326-B7-85		85	16	NS
326-B7-90		90	18	NS
326-B7-95		95	20	NS
BOREHOLE NUMBER 8				
326-B8-05		5	13	NS
326-B8-10		10	11	NS
326-B8-15		15	16	NS
326-B8-20	V1640	20	23	ND
326-B8-25		25	10	NS
326-B8-30		30	15	NS
326-B8-35		35	12	NS
326-B8-40		40	22	NS
BOREHOLE NUMBER 9				
326-B9-05		5	16	NS
326-B9-10		10	6	NS
326-B9-15		15	25	NS
326-B9-20		20	15	NS
326-B9-25		25	29	NS
326-B9-30	V1640	30	46	ND
326-B9-35		35	10	NS
326-B9-40		40	10	NS
326-B9-45		45	5	NS
326-B9-50		50	2	NS

[a] SDG - Sample Delivery Group number
[b] bgs - below ground surface
[c] ft - feet
[d] TPH - Total Petroleum Hydrocarbons
[e] ppm - parts per million
[f] TPH Laboratory analysis by Method 8015 Modified, EPA 1996.
[g] mg/kg - milligrams per kilogram
[h] > 3000 indicates a TPH concentration out of calibration range, i.e., greater than high calibration end point.
[i] NS - Not Sampled
[j] ND - Not Detected
[k] Borehole Number 6 was not drilled based on elevated TPH field screening results for Borehole 4.

borehole (Table 2). Two samples were collected from Borehole 1 and submitted for laboratory analysis; both samples showed TPH levels greater than the Nevada State Action Level of 100 mg/kg (NAC, 2002a). Borehole 2 was located 39 m (127 ft) east of the CP fence over the pipeline and was advanced to a total depth of 16.7 m (55 ft) bgs. Screening samples collected at 1.5-m (5-ft) intervals showed TPH present at levels greater than 75 mg/kg the entire depth of the borehole (Table 2). Three samples were collected from the borehole at 1.5 m (5 ft), 13.7 m (45 ft), and 15.2 m (50 ft) bgs and submitted for laboratory analysis. Results showed TPH levels greater than 100 mg/kg action level (NAC, 2002a) present in the sample collected from 1.5 m (5 ft) bgs. No TPH above laboratory detection limits was found in the samples collected at 13.7 m (45 ft), and 15.2 m (50 ft) bgs (Table 2). Also, Borehole 7 which was located 3 m (10 ft) east of the bend in the pipeline showed no TPH contamination at 3 m (10 ft), 4.5 m (15 ft), or 22.5 m (75 ft) bgs.

Lateral extent was established by drilling and sampling stepout boreholes. Boreholes 3 and 5 were located 3 m (10 ft) south of the pipeline (Figure 3). TPH field screening samples were collected at 1.5 m (5 ft) intervals from the boreholes. The highest TPH field screening result from the two boreholes was 272 ppm (Table 2). Samples with the highest TPH field screening results from each borehole were submitted for laboratory analysis. A total of three samples from the two boreholes were submitted for laboratory analysis. Results showed TPH concentrations less than laboratory detection limits. This indicates that TPH contamination does not extend beyond 3 m (10 ft) south of the pipeline.

Borehole 4 was located 3 m (10 ft) north of the pipeline and was advanced to 13.5 m (45 ft) bgs. Screening samples indicated moderate levels of TPH present, and no samples were submitted for laboratory analysis. Borehole 6 was not drilled based on elevated TPH field screening results in Borehole 4. A second set of stepouts, Boreholes 8 and 9, were drilled 7.2 m (24 ft) north of the pipeline (Figure 3). TPH field screening results for samples collected from both these boreholes were low, and laboratory results confirmed that these boreholes were clean of TPH contamination (Table 2). Based on the borehole sampling results, the lateral extent of the TPH contamination was bounded to an area 3 m (10 ft) south and 7.2 m (24 ft) north of the pipeline, and extending from 7 m (23 ft) east of the CP fence (the location of Geoprobe® sample 062501-26) to 50 m (167 ft) east of the CP fence (the location of Borehole 7). See Figure 3 and the CAS 06-25-01 Use Restriction information provided in Appendix C.

2.1.3 CAS 06-25-02, UST Release Closure Activities

CAS 06-25-02, UST Release, is a hydrocarbon release site associated with over filling the underground heating oil tank (Tank 6-DAF-5). The spill was reported to NDEP (Nevada Division of Emergency Management spill number H930319B) and in March of 1993 approximately 1.7 m^3 (2.2 yd^3) of hydrocarbon impacted soil was excavated from around the fill port of the tank (DOE/NV, 2001). In August of 1993, three boreholes were drilled to the west, south, and southeast of the spill site, and soil samples were collected for TPH analysis. Sample results were less than the Nevada State Action Level of 100 mg/kg. In March of 1995, approximately 4.5 m^3 (6 yd^3) of soil was removed from the area of the fill port and spill containment equipment was installed. The three borehole locations effectively bounded any TPH contamination resulting from the spill. On August 15, 2002, the site was surveyed for use restrictions. The use restrictions form for this site is located in Appendix C.

2.1.4 CAS 06-25-04, Petroleum Release Site Closure Activities

This site was closed during the removal of Tank 6-619-4 in 1998 (DOE/NV, 2001). No further action was taken at this site during this field activities. Appendix E contains a copy of the correspondence from the NDEP to DOE/NV confirming the closure of Tank 6-619-4 and that no further action is required at this site.

2.1.5 CAS 27-25-01, Petroleum Release - Site Maintenance Closure Activities

During site characterization activities conducted in 1994, TPH and PCBs were found to be present in soil at levels greater than regulatory limits (DOE/NV, 2001). As a result the site was partially remediated in August 1994 by removing approximately 53.5 m^3 (70 yd^3) of soil and disposing of it in the NTS Area 6 Hydrocarbon Landfill. The excavation was left fenced, but open, following these activities.

In 2002 the site was clean closed by removing and disposing of impacted soil following the NDEP-approved SAFER Plan (DOE/NV, 2001). Three separate activities were undertaken to complete the clean closure of CAS 27-25-01.

In January 2002, approximately 15.3 m^3 (20 yd^3) of soil that had sloughed into the existing excavation was removed from the site and five soil samples were collected from the bottom of the excavation (Figure 4). The samples were field screened for TPH using a PetroFlag® test kit, and submitted to an offsite laboratory for TPH and PCB analyses. The sample results provided in Table 3 show that TPH was not present in the soil at levels greater than the Nevada State Action Level of 100 mg/kg. However, PCBs were present at levels exceeding the action limit of 1 mg/kg. For this reason, excavation activities continued in the southwest corner, where the PCB impacted soil was detected. In March 2002, approximately 23 m^3 (30 yd^3) of soil was removed from the southwest corner of the excavation (Figure 4). Using the PCB sampling grid method (40 Code of Federal Regulations, Part 761, [EPA, 2000]), seven samples were collected and sent to the laboratory for PCB analysis. Two of the seven samples exceeded the PCB action limit (Table 3). In addition, as a best management practice, approximately 11 liters (L) (3 gallons [gal]) of lead shot found at the site was placed into a 19-L (5-gal) bucket and transported to Area 23 for recycling.

Excavation activities resumed in June 2002. A PCB field test kit, with a minimum detection limit of 2 ppm, was used to identify and remove the PCB impacted soil on the western wall and floor of the excavation. Approximately 100 m^3 (110 yd^3) of soil was removed from the western wall and floor of the excavation. After field screening indicated that soil with PCB concentrations greater than 2 ppm had been removed, ten verification samples were collected from the western wall and floor using the PCB sampling grid method (Figure 5). The samples were then analyzed for Aroclor 1248 using an onsite gas chromatograph to assure PCB levels were less than 1 ppm. Once the gas chromatograph indicated that PCB levels for the verification samples were less than 1 ppm, the samples were submitted to an offsite laboratory for PCB analysis. Laboratory results confirmed that all ten verification samples contained PCB concentrations less than the 1 mg/kg action limit (Table 3). All soil excavated from the site during closure had PCB levels less than 50 mg/kg, and was therefore disposed of in the NTS

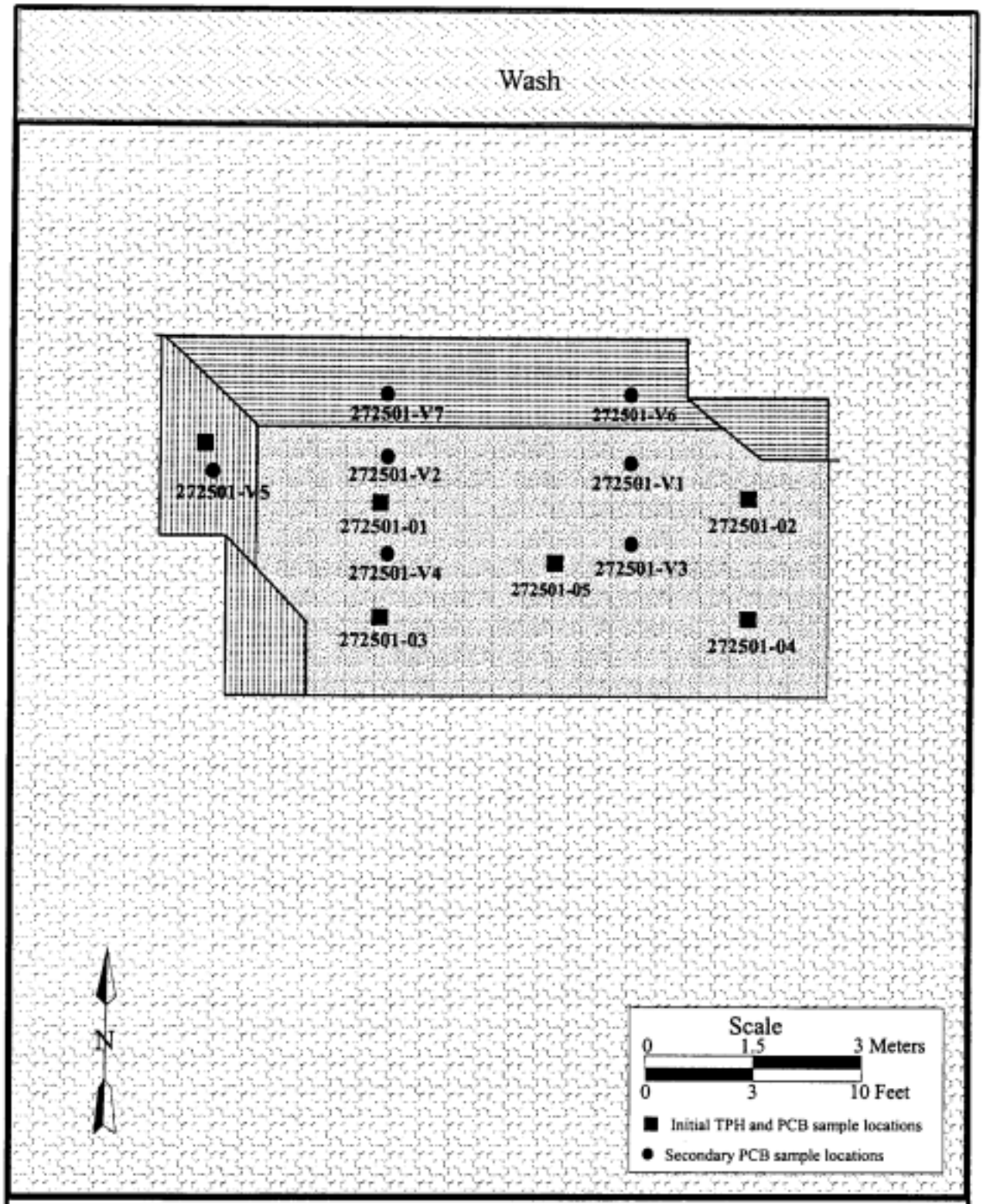

FIGURE 4
CAS 27-25-01 INITIAL AND SECONDARY SOIL SAMPLING LOCATIONS

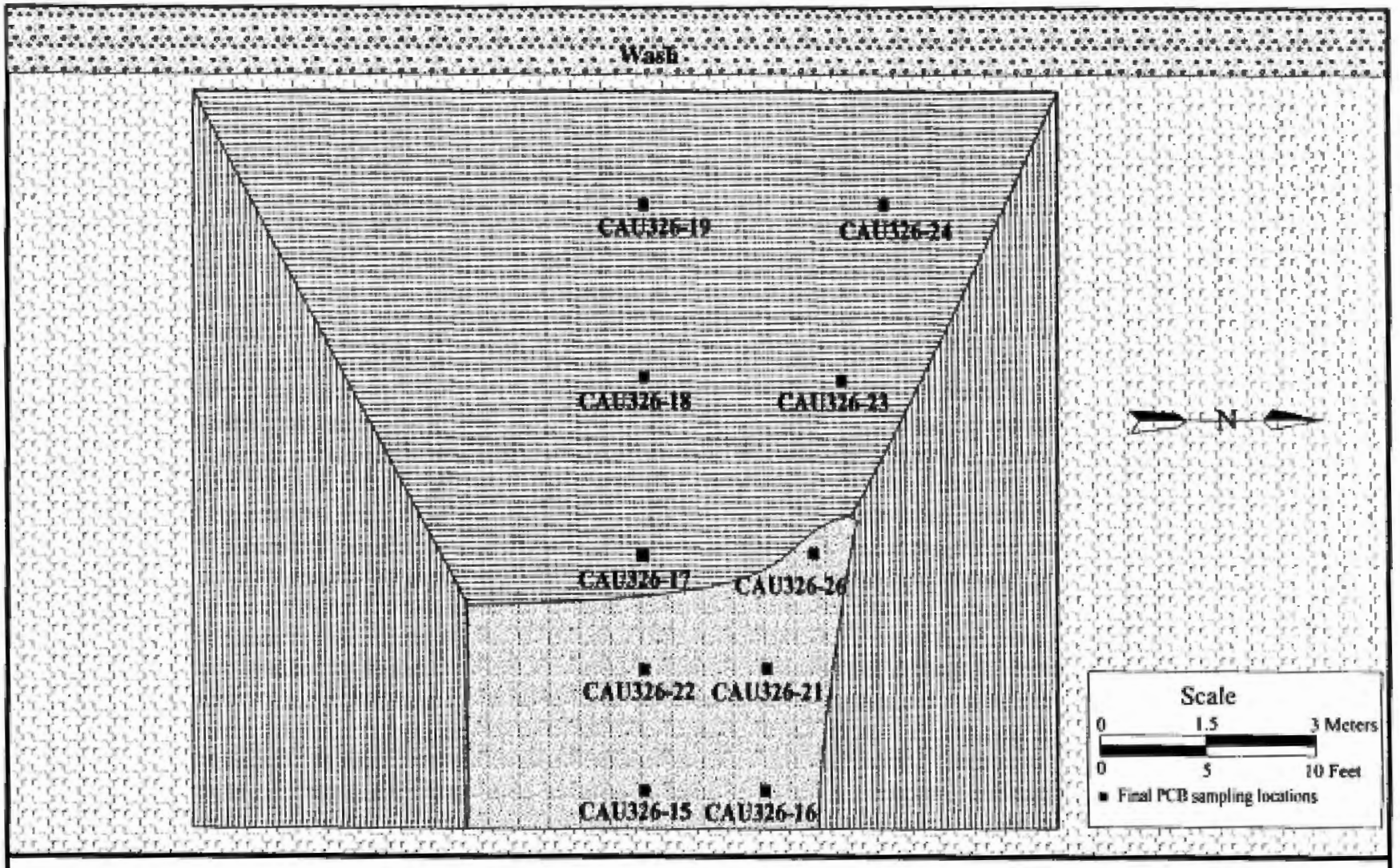

FIGURE 5
CAS 27-25-01 FINAL SOIL VERIFICATION SAMPLING LOCATIONS

TABLE 3 - TPH and PCB RESULTS FOR CAS 27-25-01 VERIFICATION SAMPLES

SAMPLE IDENTIFICATION	SAMPLE DELIVERY GROUP (SDG)	TOTAL PETROLEUM HYDROCARBONS[a] (mg/kg)[b]	POLYCHLORINATED BIPHENYLS[c] (mg/kg)
NDEP[d] Action Level		100	-
TSCA[e] Action Level		-	1.0
First Excavation January 2002			
272501-01	V1408	54	7.90
272501-02	"	ND[f]	0.71
272501-03	"	28	0.04
272501-04	"	ND	0.08
272501-05	"	35	0.54
Second Excavation March 2002			
272501-V01	V1503	NS[g]	0.25
272501-V02	"	NS	0.23
272501-V03	"	NS	33.00
272501-V04	"	NS	0.35
272501-V05	"	NS	ND
272501-V06	"	NS	5.80
272501-V07	"	NS	0.43
272501-V08 (Equip. rinsate)	"	NS	ND
272501-V09 (Dup of V08)	"	NS	18.00
Third Excavation June 2002			
CAU326-V15	V1624	NS	ND
CAU326-V16	"	NS	0.19
CAU326-V17	"	NS	ND
CAU326-V18	"	NS	ND
CAU326-V19	"	NS	ND
CAU326-V21	"	NS	ND
CAU326-V22	"	NS	0.37
CAU326-V23	"	NS	ND
CAU326-V24	"	NS	ND
CAU326-V25 (Dup of V15)	"	NS	0.05
CAU326-V26	"	NS	ND

[a]Total Petroleum Hydrocarbon analysis by Method 8015 Modified (EPA, 1996).
[b]mg/kg - milligrams per kilogram
[c]Polychlorinated biphenyls (PCBs) analysis by Method 8082 (EPA, 1996). For all samples except CAU326-V22 only Aroclor 1248 was detected. Sample CAU326-V22 showed Aroclor 1248 and 1254 (see Appendix B).
[d]NDEP - Nevada Division of Environmental Protection. TPH regulatory limit set in Nevada Administrative Code, 445A.2272 (NAC, 2002a).
[e]PCB regulatory limit of 1 mg/kg is the Toxic Substance Control Act concentration for non-restricted use established by Title 40 Code of Federal Regulations 761.61 (EPA, 2000).
[f]ND - Not detected for the laboratory reporting limits
[g]NS - Not Sampled.

Area 9 10c Landfill. In August 2002, the open excavation was backfilled with clean fill and compacted by wheel rolling. CAS 27-25-01 has been clean closed.

2.2 DEVIATIONS FROM SAFER PLAN AS APPROVED

The following deviation occurred from the approved scope of work as presented in the NDEP-approved SAFER Plan (DOE/NV, 2002).

At the request of NNSA/NV, a second southern pipeline located south of the Area 6 CP parking lot was characterized by TPH field screening and laboratory analysis. The pipeline was broken and exposed at the surface and was found to be the "return" line from Building CP-1 to the heating oil tank (Tank 6-CP-1) (Figure 2). A surface grab sample (Pipeline 2) was collected from the area of the pipeline break and screened for TPH levels using a PetroFlag® test kit. TPH screening results were greater than the Nevada State Action Level of 100 mg/kg. Beginning at the break in the pipeline, stepout locations to north, west, and east on 3-m (10-ft) intervals were sampled using the Geoprobe® (Figure 2). The TPH field screening and laboratory results for the stepout samples are given in Table 4. Based on the sampling results an area measuring 4.5 m by 4.5 m (15 ft by 15 ft) centered about the break in the southern pipeline was closed administratively by implementing use restrictions. The CAU Use Restriction Information form and a figure showing the area closed is provided in Appendix C.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

The corrective action field activities began in January 2002 and were completed in August 2002. Details of the closure field activities schedule are provided below.

CAS 27-25-01 closure activities:

- Mobilize equipment/personnel to site — January 23, 2002
- Complete first excavation and sampling — January 24, 2002
- Complete second excavation and sampling — March 26, 2002
- Complete third excavation and sampling — June 10 - 12, 2002
- Backfill excavation and demobilize site — August 19 - 21, 2002

CAS 06-25-01 closure activities:

- Mobilize equipment and personnel to site — February 4, 2002
- Geoprobe® and pressure testing pipeline — February 4 - 13, 2002
- Drilling and sampling — June 6 - 26, 2002
- Demobilize site — June 26, 2002

2.4 SITE PLAN/SURVEY PLAT

CAS 06-25-01 and 06-25-02 were closed administratively by implementing use restrictions. Figures giving the site coordinates for the Use Restrictions are provided in Appendix C. These are the only sites that required any survey work. Because engineered construction was not part of this closure, as-built drawings are not included in this CR.

TABLE 4 - TPH RESULTS FOR CAS 06-25-01 SOUTHERN PIPELINE GEOPROBE LOCATIONS

SAMPLE ID	LOCATION	SDG[a]	SAMPLE DEPTH bgs[b] (ft[c])	TPH[d] FIELD SCREENING RESULTS (ppm[e])	TPH LABORATORY RESULTS[f] (mg/kg[g])
Pipeline2	Surface grab from break	V1429	0	> 2,000[h]	11,000
062501-S1	10 ft west of break	V1535	2	27	ND[i]
062501-S1L	10 ft west of break		4	0	NS[j]
062501-S2	Equipment Rinsate	V1535	-	-	ND
062501-S3	10 ft east of break		1.5	723	NS
062501-S3L	10 ft east of break		3	224	NS
062501-S4	3 ft south of break	V1535	2	246	4,300
062501-S4L	3 ft south of break		4	> 2,000	NS
062501-S5	10 ft north of break	V1535	2	323	ND
062501-S5L	10 ft north of break		4	0	NS
062501-S6	20 ft east of break	V1535	2	103	ND
062501-S6L	20 ft east of break		4	0	NS
062501-S7	10 ft north of break	V1535	2	NS	ND
062501-S8	20 ft north of break	V1535	2	0	ND
062501-S8L	20 ft north of break		4	348	NS
062501-S9	30 ft east of break		2	324	NS
062501-S9L	30 ft east of break		4	0	NS
062501-S10	3 ft south of break		1.5	206	NS
062501-S10L	3 ft south of break		3	1,624	NS
062501-S11	30 ft north of break	V1535	2	439	ND
062501-S11L	30 ft north of break		4	0	NS
062501-S12	40 ft east of break		2	798	NS
062501-S12	40 ft east of break		4	269	NS

[a] SDG - Sample Delivery Group number
[b] bgs - below ground surface
[c] ft - feet
[d] TPH - Total Petroleum Hydrocarbons
[e] ppm - parts per million
[f] TPH Laboratory analysis by Method 8015 Modified, U.S. Environmental Protection Agency (EPA) 1996.
[g] mg/kg - milligrams per kilogram
[h] > 2,000 indicates a TPH concentration out of calibration range, i.e., greater than high calibration end point.
[i] ND - Not detected at the laboratory reporting limit.
[j] NS - Not Sampled.

3.0 WASTE DISPOSITION

The following types of waste were produced at CAU 326 during closure activities: hydrocarbon-impacted soil, PCB-impacted soil, lead shot, spent methanol solvent, decontamination rinseate, sanitary waste, and some construction debris. All waste was managed in accordance with state and federal regulations, U.S. Department of Energy orders, and BN procedures.

During closure activities at CAS 06-25-01, approximately 34 m^3 (45 yd^3) of TPH-impacted soil was removed from the site. This soil was excavated in order to expose the area of the pipeline that had ruptured. All of the soil removed from the site was transported and disposed of at the NTS Area 6 Hydrocarbon Landfill. In addition, soil/cuttings from the eight drilled boreholes that were suspected to exceed the TPH action level, were placed into six 208-L (55-gal) drums. The six drum were disposed of in the Area 6 Hydrocarbon Landfill. Waste documentation is provided in Appendix D.

During closure of CAS 27-25-01, debris, including old snow fencing, pieces of wood, and miscellaneous types of construction waste, was removed and disposed of as sanitary waste. In addition, approximately 11 L (3 gal) of lead shot was discovered and was placed into a 19-L (5-gal) bucket and sent to Building 160 in Area 23 for recycling. Approximately 160 m^3 (210 yd^3) of PCB-impacted soil was removed from the site and was disposed of at the Area 9 10c Landfill.

Waste methanol that was produced as a result of PetroFlag® field screening test kits was placed into the a BN-approved hazardous waste Satellite Accumulation Area in Area 23.

Waste disposition records are provided in Appendix D.

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4.0 CLOSURE VERIFICATION

CAU 326 closure was verified by:

- CAS 06-25-01: A total of 13 borehole soil samples and 12 Geoprobe® soil samples were collected and analyzed to confirm PetroFlag® results and to determine the lateral and vertical extent of TPH contamination along the underground pipelines at CAS 06-25-01 (Tables 1, 2 and 4). Samples were collected using a hollow stem auger drill rig and a Geoprobe® drill rig. Appendix C provides information on the use restrictions placed upon the area, and a figure showing the extent of TPH contamination at the site.

- CAS 27-25-01: The removal of soil with PCB levels greater than 1 mg/kg was verified by collecting and analyzing ten verification soil samples (Table 3). Figure 5 shows the locations of the verification samples. Verification samples showed that remaining soil was below the regulatory limit for unrestricted use for PCBs. After the verification sample results were obtained, the site was backfilled with approximately 266 m^3 (350 yd^3) of clean fill. The five samples that were initially collected showed that TPH levels were less than the action level.

4.1 DATA QUALITY ASSESSMENT

CAU 326 closure activities were performed to the criteria specified in the Data Quality Objectives (DQOs) presented in the NDEP-approved SAFER Plan (DOE/NV, 2002) (Appendix A). The DQOs primary conceptual site models are considered the probable scenarios for the conditions at the two release sites. The primary conceptual model for CAS 06-25-01 assumed that the observed hydrocarbon release was the only release from the heating oil pipe, and that the preferential pathways for the hydrocarbons would be along the underground pipe and, potentially, along the upper surface of the bedrock. The primary conceptual model for CAS 27-25-01 assumed that only TPH was present at the site, and that due to the low mobility, all PCBs were removed previously.

CAS 06-25-01
Once closure activities were initiated, it was clear that the site more closely resembled the alternative model. The alternate model is considered less likely than the conditions outlined in the primary model. The alternative site model assumed that additional releases of hydrocarbons occurred along the pipeline. The possibility that other hydrocarbon releases had occurred along the pipeline was supported by the failure of the pipeline to hold pressure. Further site characterization of soil samples by TPH field screening and laboratory analysis showed that two segments of the pipeline were clear of TPH contamination. One segment was closed by Use Restriction because characterization samples could not be collected due to safety concerns. The lateral and vertical of TPH contamination at the area of the pipeline break was determined and use restrictions implemented. The alternate site model of CAS 06-25-01 was an accurate representation of the site, and the data collected for the site met all DQOs.

CAS 27-25-01
Once closure activities were initiated, it was clear that the site more closely resembled the alternate model. The alternate model is considered less likely than the conditions outlined in the

primary model. The alternative site model assumed that PCBs were present at the site. Soil sample results from the site showed this to be the case. In fact, TPH was not present at concentration greater than the Nevada State Action Level; the only COCs present at levels greater than action levels were PCBs. Field screening and laboratory results showed that soil with PCB concentrations greater than or equal to 1 mg/kg have been removed from the site. The site was clean closed. The alternate site model of CAS 27-25-01 was an accurate representation of the site, and the data collected for the site met all DQOs.

4.2 USE RESTRICTIONS

Use restrictions have been implemented at two CASs, 06-25-01 and 06-25-02. CAS 06-25-04 and 27-25-01 have been clean closed and use of the areas associated with these sites is unrestricted. Use Restriction information is provided in Appendix C.

4.2.1 CAS 06-25-01, CP-1 Heating Oil Release Use Restrictions

The extent of the TPH plumes at CAS 06-25-01 have been bounded both laterally and vertically by field screening and soil sampling. Use restrictions will be implemented at three locations for this CAS. Use restrictions were implemented at the areas around the original pipeline break located in the Area 6 CP bus parking lot, the segment of pipeline adjacent to the Building CP-1 extending east over a utility corridor, and around the exposed broken southern pipeline located between the Area 6 CP access road and the south edge of the bus parking area. The Use Restriction form and a figure showing the location of the corner points for the areas at CAS 06-25-01 are contained in Appendix C.

4.2.1.1 CAS 06-25-01 A Through K Evaluation

Based on laboratory sample results, soil with a TPH concentration exceeding the State Action Level of 100 mg/kg continues to be present at the CAS 06-25-01 release site. Under these circumstances, the NAC 445A.227 requires an evaluation of the site conditions based on 11 factors that are listed as "A through K" (NAC, 2002b). This section provides the "A through K" criteria evaluation required under NAC 445A.227 for "Contamination of Soil."

Depth to Groundwater (A)

Ground water is approximately 420.5 m (1,380 ft) bgs. The estimated depth is taken from Plate 1 of the Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada Test Site, Nye County, Nevada (Laczniak et. al., 1996). This plate shows the major controls on regional groundwater flow at the NTS.

Distance to Irrigation or Drinking Water Wells (B)

The nearest water supply is Water Well 4, which is approximately 4.8 kilometers (km) (3 miles [mi]) southwest of the site. In 2002, the static water level was measured at 255 m (837 ft) bgs (U.S. Geological Survey, 2002).

Type of Soil that is Contaminated (C)

The site is located at the NTS in Area 6. Soil at the site consists of interbedded sand and gravel. Drilling and Geoprobe® activities showed the soil to be very tight and containing some thin, interbedded caliche layers. The bedrock consists of a very hard, competent dolomite.

Annual Precipitation (D)
The average annual precipitation at the site is approximately 17 centimeters (cm) (6.7 inches [in]). This was obtained by averaging the precipitation records over a 40-year period (1958 to 1997) for the Yucca Monitoring Station, which is located in Area 6 at the NTS.

Type of Waste or Substance Released (E)
The underground pipeline was used to carry heating oil from Tank 6-CP-1, located west of Building CP-70, to a boiler at Building CP-1.

Extent of Contamination (F)
Soil along the northern pipeline was found to be TPH-impacted for a distance of approximately 51 m (167 ft) along the pipeline (i.e., approximately 18.6 m [61 ft] to the west and 32.3 m [106 ft] to the east of the original break in the pipeline.) Samples collected to the north and south of the pipeline, near the original break, showed that impacted soil was limited to less than 3 m (10 ft) laterally to the south of the pipeline and 7.3 m (24 ft) laterally to the north of the pipeline. Samples collected by drilling at the site of the original release showed impacted soil was present to a depth of 21.5 m (70.5 ft) bgs, where refusal was met using a hollow stem auger. Bedrock is expected to be present at that depth at that location. Samples collected at a location that is downslope (for both surface and anticipated subsurface horizons) and just outside of the impacted area showed no indication of impacted soil to a depth of 30 m (95 ft) bgs.

Soil along one other segment of the northern pipeline, to the west of the original release location, is also assumed to be impacted because this segment of pipeline failed a pressure test. Samples were not collected along this segment of pipe because of the presence of numerous underground utilities in this area. The extent of impact is assumed to be similar to that near the original release location. The extent is not expected to be greater than at the original release location to the east because a surface expression of a significant release would be expected based on the pipeline having been pressurized and the soil conditions being similar.

Along the southern pipeline, the extent of TPH impacted soil was found to be less than 3 m (10 ft) laterally in each direction from the surface break in the pipeline. This extent was identified through samples collected on each side of the pipeline. Vertical extent was not identified; however, it is expected to be less than the depth of impact at the northern pipeline based on relative concentrations at the two release sites.

Present and Potential Land Use (G)
The northern and southern pipelines extend between building CP-1, an active facility, and tank 6-CP-1, which has been drained and filled with concrete. The pipeline extends underneath the CP bus parking lot. Future use at this location is expected to remain the same. A land Use Restriction will be implemented for this site upon concurrence with administrative closure for this site.

Preferred Routes of Migration (H)
The pipeline backfill served as a preferential pathway of migration for leaks along the pipeline. Surface migration of the diesel would not likely occur since most of the pipeline is covered by 0.6 m (2 ft) of soil and topped with asphalt. Any subsurface migration would be vertical migration due to gravity. The maximum extent that the diesel would reach is bedrock, as seen in

the samples collected at Borehole 1 (Table 2). The most likely route of migration then becomes subsurface migration laterally, downslope along the top of the bedrock. However, further migration of hydrocarbons in the soil is not expected because the source of hydrocarbons was removed and the pipeline is no longer used.

The site does not have an exposure pathway because almost all of the impacted soil is below the ground surface and paved with asphalt. Physical contact with impacted soil will not occur unless the soil surrounding the pipeline is excavated to a depth greater than 0.6 m (2 ft). Any impacted soil that is not located beneath asphalt has a maximum migration depth of bedrock, approximately 21 m (70 ft), and since, groundwater is located approximately 420.5 m (1,380 ft) (Laczniak et. al., 1996) bgs, there is no threat of exposure. Volatile components of diesel are expected to be minimal because observations indicate that the diesel has been present in the soil for many years. A Land Use Restriction has been completed so that personnel will be aware of the presence of heating oil in the subsurface.

Location of Structures or Impediments (I)
Samples were not collected along the western segment of the pipeline located inside the Area 6 CP fence due to the presence of numerous underground utilities.

Potential for a Hazard Related to Fire, Vapor, or Explosion (J)
The potential for fire, vapor ignition, or explosion as a result of the diesel in the subsurface soil is low. Most of the areas that have been impacted are covered with asphalt, which impedes upward migration of vapors, and the areas that are not covered by asphalt are well ventilated and are not located near any ignition sources.

Other Factors Specific to the Site (K)
The following are additional factors specific to the site which should be considered in the evaluation for closure:

- The underground pipelines are no longer in use.
- Tank 6-CP-1 has been filled with concrete and cannot be used to pump diesel through the breeched pipelines.
- The site is located within the secured boundaries of the NTS. The likelihood that the site will be used for future use is very low.

4.2.2 CAS 06-25-02, UST Release Use Restrictions

Use restrictions have been implemented at this site. The area of the hydrocarbon spill was previously bounded by soil sampling and analysis. Survey located four points bounding the spill. The Use Restriction form and figure showing the location of the corner points for CAS 06-25-02 are contained in Appendix C.

4.2.2.1 CAS 06-25-02, A Through K Evaluation

Based on laboratory sample results, soil with a TPH concentration exceeding the State Action Level of 100 mg/kg continues to be present at the CAS 06-25-02 release site. Under these circumstances, the NAC 445A.227 requires an evaluation of the site conditions based on 11 factors that are listed as "A through K" (NAC, 2002b). This section provides the "A through K" criteria evaluation required under NAC 445A.227 for "Contamination of Soil."

Depth to Groundwater (A)

Ground water is approximately 378 m (1,240 ft) bgs. The estimated depth is taken from Plate 1 of the Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada Test Site, Nye County, Nevada (Laczniak et. al., 1996). This plate shows the major controls on regional groundwater flow at the NTS.

Distance to Irrigation or Drinking Water Wells (B)

The nearest water supply is Water Well 4, which is approximately 1.6 km (1 mi) west of the site. In 2002, the static water level was measured at 255 m (837 ft) bgs (U.S. Geological Survey, 2002).

Type of Soil that is Contaminated (C)

The site is located at the NTS in Area 6. Soil at the site is compacted Type II construction fill, underlain by Quaternary alluvium.

Annual Precipitation (D)

The average annual precipitation at the site is approximately 17 cm (6.7 in). This was obtained by averaging the precipitation records over a 40-year period (1958 to 1997) for the Yucca Monitoring Station, which is located in Area 6 at the NTS.

Type of Waste or Regulated Substance Released (E)

Heating oil used to fill Tank 6-DAF-5.

Extent of Contamination (F)

Contamination is limited to the southern third of the tank backfill material plus approximately 0.6 m (2 ft) of native soil laterally and vertically. This is based on the volume of material that was released (i.e., approximately 113 L (30 gal) of heating oil) and samples collected during previous drilling activities to identify extent of impact (DOE/NV, 2001).

Present and Potential Land Use (G)

This site is located next to the southwest corner of Building 500. Building 500 serves as mechanical/electrical support facility to the Device Assembly Facility (DAF). Future use at the site is expected to remain the same.

Preferred Routes of Migration (H)

Based on the conditions and limited precipitation in the area, continued migration of the heating oil from the site is expected to be minimal. The concrete slab covering the tank will inhibit precipitation from reaching the impacted material. The most likely route of any migration would be vertical, although exposure to groundwater is not a threat since the water table is

approximately 378 m (1,240 ft) bgs. Physical contact with impacted soil should not occur unless the site is excavated.

Location of Structures or Impediments (I)
The tank, which continues to be used to store heating oil for the facility, serves as the primary impediment to cleanup of the site. Building 500 is located approximately 10 m (30 ft) north of the spill location.

Potential for a Hazard Related to Fire, Vapor, or Explosion (J)
The potential for fire, vapor ignition, or explosion as a result of the diesel in the subsurface soil is essentially nonexistent. This is supported by the low concentration of petroleum hydrocarbons detected at the time of previous excavation activities and the limited area of impacted soil.

Other Factors Specific to the Site (K)
The following are additional factors specific to the site which should be considered in the evaluation for closure:

- Impacted soil from above the tank has been removed and disposed of in a landfill for hydrocarbon-containing soil. This removes the petroleum hydrocarbon source that would drive any further migration.

- Spill and overfill protection has been installed on the tank fill port. This reduces the potential for additional releases.

- Observations and analytical results indicate that the diesel detected in the subsurface soil is the result of historic spill or overfill of the tank. The tank was upgraded with spill and overfill protection in 1995. At that time, soil was excavated to the top of the tank and backfilled with clean material. There was no indication that any of the spill or overfill systems have failed since installation.

- The site is located within the secured boundaries of the NTS. In addition, it is located within the DAF security area within the NTS. This is an active site and will continue to be used in the future.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The following site closure activities were performed at CAU 326 and are documented in the report:

CAS 06-25-01
The lateral and vertical extent of the TPH contaminated soil associated with the Area 6 CP fuel pipeline has been established. Use restrictions have been implemented for the area around the break in the pipeline, the area around a segment of pipeline adjacent to Building CP-1, and for the southern pipeline located between the Area 6 CP access road and the southern edge of the Area 6 CP parking lot.

CAS 06-25-02
This site is associated with an active fuel storage tank. A Use Restriction has been implemented for the area of the fuel spill.

CAS 06-25-04
This spill site was clean closed when Tank 6-619-4 was closed. See Appendix E for a copy of the letter from NDEP acknowledging the closure of Tank 6-619-4 with no further action required.

CAS 27-25-01
160 m3 (210 yd3) of PCB-impacted soil was removed from the site and disposed of in the NTS Area 9 10c Landfill. All verification samples collected from the final excavation (samples CAU326-V15 through CAU326-V26) show that no PCBs are present in the soil at concentrations greater than the regulatory limit of 1 mg/kg. The excavation was backfilled with clean fill and graded to the original site contour. CAS 27-25-01 has been clean closed with no restrictions on the use of the site instituted.

5.2 RECOMMENDATIONS

Based on completion of site closure activities as documented by this CR, it is requested that a Notice of Completion be provided by the NDEP for CAU 326. Upon closure approval, CAU 326 will be promoted from Appendix III to Appendix IV of the FFACO (1996), "Closed Corrective Action Units."

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6.0 REFERENCES

BN, see Bechtel Nevada.

Bechtel Nevada, 2001a. Field Management Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada, Las Vegas, NV.

Bechtel Nevada, 2001b. Site-Specific Health and Safety Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada, Las Vegas, NV.

DOE/NV, see U.S. Department of Energy, Nevada Operations Office.

EPA, see U.S. Environmental Protection Agency.

FFACO, see Federal Facility Agreement and Consent Order.

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Laczniak, R. J., Cole, J. C., Sawyer, D. A, and Trudeau, D. A., 1996, Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada Test Site, Nye County, Nevada, U.S. Geological Survey Water-Resources Investigation Report 96-4109. Denver, CO.

NAC, see Nevada Administrative Code.

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U.S. Department of Energy, Nevada Operations Office, 2001. Streamlined Approach for Environmental Restoration Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada; Revision 0, DOE/NV--751, Las Vegas, NV.

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

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U.S. Environmental Protection Agency. 2000. Title 40 Code of Federal Regulation 761.61, PCB Remediation Waste, Washington D.C.

U.S. Geological Survey. 2002. Department of Energy Cooperative Studies in Nevada. Accessed on November 25, 2002. http://nevada.usgs.gov/doe_nv/wateruse/ww-4.asp

APPENDIX A

DATA QUALITY OBJECTIVES

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APPENDIX A
DATA QUALITY OBJECTIVES FOR CORRECTIVE ACTION UNIT 326: AREAS 6 AND 27 RELEASE SITES

The information presented is based on historical data generated from preliminary assessment activities for Corrective Action Unit (CAU) 326, at the Nevada Test Site (NTS). Data quality objective (DQO) information follow the U.S. Environmental Protection Agency (EPA) DQO guidance outline (EPA, 2000). The steps systematically build on the data acquired during preliminary assessment work and background research. Copies of the preliminary assessment work are retained in the project files.

Members of the Scoping Team and Decision Teams are as follows:

1. Scoping Team
   a. U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office (NNSA/NV):
      Janet Appenzeller-Wing
      Sabine Curtis

   b. Nevada Division of Environmental Protection (NDEP):
      Clem Goewert
      Greg Raab

   c. Bechtel Nevada (BN):
      Allison Urbon
      Don Cox
      Kraig Knapp

   d. International Technology Corporation (IT):

2. Core Decision Team
   Janet Appenzeller-Wing
   Sabine Curtis
   Allison Urbon

3. Primary Decision Makers
   Janet Appenzeller-Wing
   Sabine Curtis

1. PROBLEM STATEMENT

1.1 State the problem

Four petroleum hydrocarbon release sites have been identified that need to be properly closed. Some of the sites may have been adequately closed but have not been properly documented for closure of the site. The remaining sites may require the collection of additional data and possibly completion of remedial activities before the sites can be closed.

The following four Corrective Action Sites (CASs) are in this CAU:

- CAS 06-25-01, Control Point (CP)-1 Heating Oil Release
- CAS 06-25-02, Underground Storage Tank (UST) Release
- CAS 06-25-04, Petroleum Release Site
- CAS 27-25-01, Petroleum Release - Site Maintenance

1.2 Summarize the problem - combine the relevant background information into a concise description of the problem to be resolved and known or suspected sources of disposed waste

1.2.1 CAS 06-25-01: CP-1 Heating Oil Release (Nevada Division of Emergency Management [NDEM] #911101B)

This CAS addresses closure of the pipeline as well as any releases from the pipeline located in the Area 6 Control Point (CP) area. A known release of diesel to the surface and subsurface soil occurred from a rupture in the underground, pressurized pipe that carried heating oil (diesel) from an underground heating oil tank (Tank 6-CP-1) near Building 6-CP-70 to Building 6-CP-1, a distance of approximately 122 meters (m) (400 feet [ft]). Tank 6-CP-1 held 30,283 Liters (L) (8,000 gallons [gal]) and was installed in 1970. The tank was pumped clean and grouted closed in 1998. The pipeline is estimated to be approximately 0.6 m (2 ft) below ground surface. The release occurred approximately halfway between the two buildings in a paved parking area. Approximately 38 L (10 gal) of diesel were released to the ground surface; however, an unknown quantity of fuel was released to the subsurface soil. Soil near the rupture was sampled and found to contain 2,490 milligrams per kilogram (mg/kg) total petroleum hydrocarbons (TPH), which exceeds the 100 mg/kg state action level. Additional releases may have occurred from other portions of the piping, as may be indicated by failure of the piping to hold pressure after the known rupture had been repaired. Based on other investigations in the area, bedrock is expected to be a competent dolomite that is approximately 6 to 12 m (20 to 40 ft) below ground surface. Based on process knowledge, the Contaminant of Concern (COC) is diesel.

The lateral and vertical extent of impacted soil and the condition of buried piping that released the fuel are not known. A decision must be made of whether remediation of impacted soil is required or if impacted soil can be closed in place with implementation of a use restriction. The piping needs to be checked for closure and, if it has not been removed or filled with an inert material, the closure requirement for the pipe must be met.

1.2.2 CAS 06-25-02: UST Release (NDEM #H930319B)

Approximately 113.5 L (30 gal) of diesel were released by overfilling a heating oil tank at the Device Assembly Facility (DAF) (tank 6-DAF-5). Approximately 1.7 cubic meters (2.2 cubic yards) of impacted soil were removed at the time of the release. Soil contained 7,160 mg/kg TPH in a sample collected from excavated soil and non-detect to 261 mg/kg TPH in samples collected from the excavation, which exceeds the 100 mg/kg state action

level. Additional samples collected from boreholes that were drilled adjacent to the tank backfill showed no indication of contamination either adjacent to the release site or at depths greater than the base of the tank backfill. Based on process knowledge, the COC is diesel.

Available information is adequate to show that the site can be properly closed through administrative closure; however, this information has not been adequately documented or presented to the State. The area that is subject to Use Restriction must be surveyed to identify the location of the remaining impacted soil.

1.2.3 CAS 06-25-04: Petroleum Release Site (no NDEM #)

This site consists of a release of used oil to the ground surface that occurred when emptying a used oil tank (Tank 6-619-4) at the Area 6 gas station. The asphalt that paved the area above the tank was cracked in numerous places. Documentation was not found that identifies either the date or quantity of the release. The asphalt and the three underground tanks that were present to the northwest of Building 6-619 were removed from the ground in March 1998. Stained soil was observed above and around the used oil tank during the closure of the tank. The stained soil was excavated, tested, and properly disposed of through the UST closure activities.

Closure for this site has already been performed, documented, and approved by the State through documentation of closure activities for UST 6-619-4.

1.2.4 CAS 27-25-01: Petroleum Release - Site Maintenance (NDEM #H940824A)

Stained soil was discovered around the base of a pad that was used by Site Maintenance to store equipment, tools, and supplies. Samples collected of the stained soil contained TPH at concentrations of 31,400 and 27,000 mg/kg as diesel and Polychlorinated Biphenyls (PCBs) at concentrations of <0.167 and 2.37 mg/kg as Aroclor 1248. Other analytical results were either less than detection levels or less than regulatory limits. Approximately 53.5 cubic meters (70 cubic yards) of impacted soil were excavated and disposed of as petroleum hydrocarbon waste. Based on observations at the completion of excavation, all of the impacted soil was not removed. Samples were not collected from the completed excavation. Based on analytical results from the most heavily impacted areas near the source of the release, the Contaminants of Potential Concern (COPCs) for this site are TPH (as diesel) and PCBs.

The concentrations of COPCs remaining in the soil and the lateral and vertical extent of impacted soil are not known. Concentrations of COPCs remaining at the site must be determined to identify if they exceed action levels. If action levels are exceeded, a decision must be made of whether remediation of impacted soil is required or if impacted soil can be closed in place with the implementation of use restrictions.

2. DEVELOP/REFINE THE CONCEPTUAL MODEL

Available information, including site process knowledge and historical background information, is sufficient to support the conceptual site models (CSM) for CAU 326. The CSMs describe the most probable scenarios for current conditions at each site and define the assumptions that are the basis for identifying appropriate sampling strategy and data collection methods.

All of the sites involve releases of petroleum hydrocarbons to surface or near-surface soil. The released substances will typically migrate downward due to gravity and will also flow downslope from the source if the soil conditions do not allow the fuel to seep in as quickly as the release is occurring. Previously disturbed ground, such as occurs along buried piping and utility corridors, will also serve as a preferential pathway. After the initial release has stopped, the fuel typically continues to migrate downward with gravity until equilibrium is reached and thereafter if additional pressure is added to the system, such as what occurs with a new release or as a result of rainfall.

2.1 Primary Models

The primary models are considered the most probable scenarios for current conditions at the CAU 326 sites. The proposed activities are based upon the assumption that only diesel- and oil-range petroleum hydrocarbons remain at the sites. All of the sites are expected to fit the basic conceptual model with minor variations caused by site-specific preferential pathways, as identified below for each individual site:

- CAS 06-25-01, CP-1 Heating Oil Release: The primary model assumes that the observed release of diesel was the only release from the piping. (Note: This model could be supported if the loss in pressure was caused by a valve that was not sealing properly and thus did not release product outside of the system tank system.) Preferential pathways for the released product would be along the underground pipe that is the source of the release and, if released product was substantial, along the upper surface of bedrock (see CSM for 06-25-01).

- CAS 06-25-02, UST Release: The preferential pathway for this site is along the fill pipe and into the tank backfill (see CSM for 06-25-02).

- CAS 06-25-04, Petroleum Release Site: A CSM has not been developed for this site because the release has been remediated. This site has been clean closed.

- CAS 27-25-01, Petroleum Release - Site Maintenance: The primary model for this site assumes that TPH (as diesel/oil) is present but, because of their low mobility, PCBs were removed during previously-conducted excavation activities (see CSM for 27-25-01). There are no identified preferential pathways for this site.

2.2 Alternate Models

The conditions under the alternate model are considered less likely than the conditions outlined in the primary model.

- CAS 06-25-01, CP-1 Heating Oil Release: The alternate model for this site provides for additional releases from the piping. Preferential pathways would be the same as for the primary model.

- CAS 06-25-02, UST Release: An alternate model has not been developed for this site because existing data show the primary model to be an adequate representation of current site conditions.

- CAS 06-25-04, Petroleum Release Site: An alternate model is not necessary for this site. This site has been clean closed.

- CAS 27-25-01, Petroleum Release - Site Maintenance: The alternate model provides for PCBs above detection limits.

3. IDENTIFY THE DECISION (Select the appropriate decision for the current phase of the site assessment process)

A SAFER Plan can be developed based on the currently available sampling data and available waste and site characterization data. The following decisions must be made to direct the planning phases.

3.1 CAS 06-25-01, CP-1 Heating Oil Release

Should the site be administratively closed in place with no remediation activities, closed in place with remediation activities, or clean closed?

3.2 CAS 06-25-02, UST Release

Are existing data sufficient to support administrative closure of the site with no further action other than implementation of a Use Restriction?

3.3 CAS 06-25-04, Petroleum Release Site

Are existing data sufficient to demonstrate clean closure of the site?

3.4 CAS 27-25-01, Petroleum Release - Site Maintenance

If PCBs are present at the site, should remedial actions be taken to satisfy Toxic Substances Control Act (TSCA) clean-up requirements?

If TPH is present in concentrations greater than action levels, should the site be

administratively closed in place with no remediation activities, closed in place with remediation activities, or clean closed?

4. IDENTIFY THE INPUTS TO THE DECISION

4.1 Identify the information inputs needed and resolve the decision.

4.1.1 CAS 06-25-01, CP-1 Heating Oil Release

a. Has the piping been properly closed? Locate both ends of the pipe and check if the pipe has been sealed.

b. Has the piping released product from areas other than the known rupture? Locate the underground piping. Collect samples from along the piping to check for evidence of other releases along the length of the pipe.

c. What is the lateral and vertical extent of the soil impacted by petroleum hydrocarbons in excess of 100 mg/kg? Collect samples to identify the lateral and vertical extent of soil that has been impacted by fuel that has been released from the piping.

d. Should the site be administratively closed in place with no remediation activities, closed in place after conducting some remediation activities, or clean closed? Evaluate the results of sampling against the A through K criteria to identify if implementation of a Use Restriction with no other actions will adequately protect human health and the environment. If results indicate that additional actions are required, then identify the actions that must be taken to adequately protect human health and the environment.

4.1.2 CAS 06-25-02, UST Release

No decision to be made. Facility is active. This site should be closed under a Use Restriction.

4.1.3 CAS 06-25-04, Petroleum Release Site

Existing documentation already describes remediation activities and clean closure of the site.

4.1.4 CAS 27-25-01, Petroleum Release - Site Maintenance

a. Identify the detection limit that should be established for PCBs. The suggested detection limit is 1 mg/kg, which is a conservative limit by the TSCA PCB regulations where the "quantifiable level/level of detection" is defined as 2 mg/kg in 40 Code of Federal Regulations Part 761.3 (EPA, 2000).

b. Are PCBs present at concentrations greater than the established detection limit? Collect samples to verify the presence or absence of PCBs.

c. Do TPH concentrations exceed the state action level of 100 mg/kg? Collect samples to identify if TPH concentrations exceed the action level.

d. What is the lateral and vertical extent of soil containing COPCs greater than the established action levels? Collect samples to identify the lateral and vertical extent of soil that has been impacted by the release.

e. Should the site be administratively closed in place with no remediation activities, closed in place after conducting some remediation activities, or clean closed?

- If PCBs are present at concentrations greater than the established detection limit, should the site be cleaned up to meet TSCA remediation standards? Because the clean-up level for unrestricted use at PCB remediation sites is 1 mg/kg, recommend cleanup to that level.

- For TPH impacted soil, evaluate the results of sampling against the A through K criteria to identify if implementation of a Use Restriction with no other actions will adequately protect human health and the environment. If results indicate that additional actions are required, then identify the actions that must be taken to adequately protect human health and the environment.

4.2 List types of COPCs and affected media.

The types of COPCs are:

- Diesel fuel in soil (CAS 06-25-01, 06-25-02, and 27-25-01) and underground piping (CAS 06-25-01)
- Oil in soil (CAS 27-25-01)
- PCBs in soil (CAS 27-25-01)

4.3 Identify potential sampling approaches and appropriate analytical methods.

Existing documentation, data, and process knowledge are adequate to close two of the sites without collecting additional data: CAS 06-25-02 and 06-25-04. For these two sites, existing data will be referenced in the SAFER Plan and documented in the closure documentation to demonstrate adequate closure of the sites. Potential sampling approaches and analytical methods for the other two sites are as follows:

4.3.1 CAS 06-25-01, CP-1 Heating Oil Release

a. Locate Pipeline: Locate the entire length of underground pipe. This is proposed to be done following standard buried pipeline location (e.g., Goldak equipment or similar).

b. Check Pipeline for Proper Closure: Check both ends of the pipe and verify if the pipe has been sealed at both ends. Some excavation may be necessary to expose the piping. If the ends of the piping are not in accessible locations (e.g., if structures have been constructed over the top of the piping), alternate locations along the pipeline may be exposed to check for grout. If the piping has not been sealed, then take measures to properly close the pipe.

c. Check Soil Along Pipeline for Evidence of Releases: Collect samples from soil adjacent to or beneath the piping to identify if and where releases may have occurred along the piping. Samples will be collected from as close to the piping as is practical, at a depth from 0-0.6 m (0-2 ft) below depth of the pipe. Samples to be collected every 6 m (20 ft) using Geoprobe. Alternative methods, such as excavation using backhoe or sampling using a drill rig, may be implemented as needed, depending on site conditions. Field screen the samples using the PetroFlag (or comparable) field test kit. Samples will be submitted for laboratory analysis if PetroFlag results indicate TPH concentrations greater than 75 parts per million (ppm). Laboratory analytical results will be used to determine if actual concentrations exceed the 100 mg/kg action level.

d. Identify the lateral and vertical extent of TPH exceeding action levels: Either using the Geoprobe or hollow-stem auger drill rig (as site conditions allow), collect samples to identify lateral and vertical extent of TPH greater than 100 mg/kg. Geoprobe/drill at locations where samples exceeded the action level and collect samples at 1.5-m (5-ft) intervals, starting with the interval 1.5 m (5 ft) below the pipeline sample. (Note: If two or more adjacent pipeline samples indicate a large plume, only that location with the highest concentration in that plume will be sampled for vertical definition.) Geoprobe/drill to a maximum depth indicating two intervals with field-screening less than 75 ppm TPH or drilling refusal, whichever occurs first.

The Geoprobe does not have the power that drilling has in penetrating tight soil; therefore, refusal by the Geoprobe will not be the limiting factor for vertical sample collection. If total depth of impacted soil is not determined, but samples at least 1.5 m (5 ft) apart are able to be collected that indicate a significant (at least 20 percent) decrease in TPH concentrations, then the results may be used to extrapolate the extent of impact.

Collect samples from step-out locations using the geoprobe/drill rig. Step-outs will be located 6 m (10 ft) perpendicularly away from the pipeline. Samples will be collected at 1.5-m (5-ft) intervals, starting at 1.5 m (5 ft) below ground surface. Additional step-outs will be drilled and sampled until field screening results indicate that the extent of petroleum hydrocarbons exceeding 100 mg/kg (i.e., 75 ppm with PetroFlag) has been identified.

Samples will be submitted for laboratory analysis using EPA Method 8015, modified for TPH-diesel (EPA, 1996). If field screening indicates the presence of TPH greater than 100 mg/kg (i.e., >75ppm with PetroFlag), then two samples will

be submitted for analysis: the sample with the highest field-screening concentration and the first sample below that indicates concentrations are less than 100 mg/kg. If field screening does not indicate TPH greater than 100 mg/kg, then only one sample will be submitted of the highest field screening result greater than 40 or, if none are greater than 40, of the sample collected from the interval where the highest concentration was detected in adjacent borehole/sampling locations. If the step-out is made to track potential migration along the bedrock, then the deepest sample before refusal is met will be submitted for analysis.

e. Survey for Use Restriction: Survey at least four points that will bound the area impacted with TPH and implement a Use Restriction.

4.3.4 CAS 27-25-01, Petroleum Release - Site Maintenance

a. Verify the presence of TPH Greater than the action level and the absence of PCBs: Using backhoe (or similar), collect samples from the center base and four corners of the existing excavation. Field-test for TPH using PetroFlag (or comparable). Submit for laboratory analysis using EPA Method 8015, modified for TPH-diesel/oil and EPA Method 8082 for PCBs (EPA, 1996).

b. Identify the lateral and vertical extent of TPH exceeding action levels: Drill and collect samples to identify lateral and vertical extent of TPH greater than 100 mg/kg. Drill at locations where samples exceeded the action level and collect samples at 1.5-m (5-ft) intervals, starting with the interval 1.5 m (5 ft) below the backhoe sample. Drill to a maximum depth indicating 2 intervals with field-screening less than 75 ppm TPH or 15 m (50 ft), whichever occurs first.

Collect samples from step-out locations using the drill rig. Step-outs will be spaced 6 m (10 ft) apart. Samples will be collected at 5-foot intervals, starting at 1.5 m (5 ft) below ground surface. Additional step-outs will be drilled and sampled until field screening results indicate that the extent of petroleum hydrocarbons exceeding 100 mg/kg (i.e., 75 ppm with PetroFlag) has been identified.

Samples will be submitted for laboratory analysis using EPA Method 8015, modified for TPH-diesel/oil (EPA, 1996). If field screening indicates the presence of TPH greater than 100 mg/kg (i.e., >75ppm with PetroFlag), then two samples will be submitted for analysis: the sample with the highest field-screening concentration and the first sample below that indicates concentrations are less than 100 mg/kg. If field screening does not indicate TPH greater than 100 mg/kg, then only one sample will be submitted of the highest field screening result greater than 40 or, if none are greater than 40, of the sample collected from the interval where the highest concentration was detected in adjacent borehole/sampling locations.

c. Backfill excavation: Mark excavation location and backfill excavation.

d. Survey for Use Restriction: Survey at least four points that will bound the area impacted with TPH and implement a Use Restriction.

5. DEFINE THE BOUNDARIES OF THE STUDY

5.1 Define the geographic areas of the field investigation.

5.1.1 Define the geographic area within which all decisions must apply (in some cases this may be defined by the Corrective Action Unit)

- CAS 06-25-01, CP-1 Heating Oil Release: The length and location of the underground pipeline from the tank to where it was disconnected near the CP-1 boiler and 9 m (30 ft) laterally in each direction perpendicular to the piping.

- CAS 06-25-02, UST Release: The area identified as diesel-impacted by the conceptual model. Laterally, this consists of the southern third of the underground tank backfilled area plus an additional 0.6 m (2 ft) laterally and vertically.

- CAS 06-25-04, Petroleum Release Site: Not applicable - site has been closed.

- CAS 27-25-01, Petroleum Release - Site Maintenance: The contiguous area impacted by the release for which excavation had previously been started. This is anticipated to be no more than 15 m (50 ft) in diameter and 12 m (40 ft) deep.

5.1.2 Specify the characteristics that define the population of interest.

The population of interest consists of the following:

- Underground piping that has not been properly closed (CAS 06-25-01).
- Soil containing TPH in the diesel/oil range (diesel only for CAS 06-25-01) in concentrations greater than 100 mg/kg (CASs 06-25-01 and 27-25-01).
- Soil containing PCBs in concentrations greater than 1 mg/kg (CAS 27-25-01).

5.2 Define the time frame of the decision.

5.2.1 Determine the time frame to which the study data apply

Study data should be relevant for the length of time allowed for by the Streamlined Approach For Environmental Restoration (SAFER) process through the Federal Facilities Agreement and Consent Order (FFACO) agreement. Because the sites are located in desert areas with minimal surface water infiltration, migration (if occurring) is assumed to be imperceptibly slow. The only exception would be in the case of a new release at the active site (CAS 06-25-02).

5.2.2 Determine when to collect data.

Field activities (data collection) are anticipated to be scheduled for fiscal year 2002. Data will be collected after approval of the SAFER Plan and at times allowable for security and safety reasons, especially since several of the sites are within restricted access areas of the Nevada Test Site (NTS).

5.2.3 Define relevant time constraints.

The FFACO deadline for delivery of the final SAFER Plan is September 28, 2001.

The FFACO deadline for delivery of the final SAFER Closure Report has not been established but will depend on time constraints dictated by site access and receipt of sample analytical results. Field activities will not be performed during electrical storms, heavy winds, or during holidays.

5.3 Identify any practical constraints on data collection.

- Approval of the Data Quality Objectives (DQO) process and the SAFER Plan by the NDEP.
- Scheduled testing activities (NTS security constraints).
- Equipment and personnel access, which may be especially constrained in secure areas of the CP and DAF compounds and Area 27.
- Meteorological.
- Availability of heavy equipment.
- Health and safety of workers, especially around physical hazards such as the excavation at the CAS 27-25-01 site.

6. DEVELOP A DECISION RULE - DEFINE A LOGICAL BASIS FOR CHOOSING AMONG ALTERNATIVE ACTIONS

6.1 Specify the action level or preliminary action level for the decision.

The action level is 100 mg/kg TPH as diesel/oil and, for the Area 27 site, there is an additional action level of 1 mg/kg PCBs.

7. OPTIMIZE THE DESIGN - OUTLINE A SAMPLING DESIGN, SPECIFYING THE OPERATIONAL DETAILS OF THE SAMPLING PLAN WHICH FALLS WITHIN THE PROJECTS CONSTRAINTS

7.1 Develop general sampling and analysis design alternatives.

Refer back to Section 4.3 for sampling and analysis alternatives.

7.2 Select the most resource-effective design that satisfies all of the DQOs.

a. Phase 1 Sampling: Sample at CAS 06-25-01 along the pipeline and at CAS 27-25-01 to verify the presence or absence of COPCs.

b. Phase 2 Sampling: After receipt of analytical results, sample at step-out locations as identified by results of the phase 1 sampling.

c. Survey and implement Use Restrictions after analytical results have been received and the use restricted area has been identified.

7.3 Document the operational details and theoretical assumptions of the selected design in the sampling and analysis plan.

Detailed documentation of sampling and analysis will be discussed in the SAFER Plan.

REFERENCES

U.S. Environmental Protection Agency. 2000. Guidance for the Data Quality Objective Process, EPA QA/G-4, EPA/600/R-96-055. Washington, D.C.

U.S. Environmental Protection Agency. 1996a. Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) Third Edition. Washington, D.C.

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APPENDIX B

VERIFICATION SAMPLE ANALYTICAL RESULTS

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TABLE OF CONTENTS - SAMPLE ANALYTICAL RESULTS BY SAMPLE DELIVERY GROUP

Note: Analytical results are presented in this Appendix in order indicated below.

CAS 27-25-01

CAS 06-25-01

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SAMPLE DELIVERY GROUP

V1408

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LIONVILLE LABORATORY INC.

26 February 2002

Mr. Theodore Redding
Bechtel Nevada Corporation
2621 Losee Road
Mail Stop NTS273
Las Vegas, NV 89030-4134

RE: Subcontract No. 30028, Task Order No. 1
Data Report for LVL Batch 0201L853
SDG#: V1408 Chain of Custody Record: None (Project CAU326)

Dear Mr. Redding:

Enclosed please find the data report for 5 soil samples received 25 January 2002 for analysis for PCBs and TPH GRO, DRO/ORO on a 28 day turnaround time. The invoice and copy of the chain of custody forms are enclosed. The EDD is also enclosed.

These data were faxed earlier and the duplicate sample was analyzed following the fax on sample 01 instead of 05 per your request.

Please do not hesitate to contact me at (610) 280-3029 with any questions or at any time we may be of service.

Very truly yours,

Lionville Laboratory Incorporated

/s/ Judith Stone

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CAU 326 | BN Org#: 2158
Charge No.: 5HVPGZZJ | ASL Prog.:
Project Manager: Wayne Johnson
Phone: | Fax: 7761 | M/S: NTS306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 7796 | Fax: 7761 | M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ______ ( ) Rush Preliminary by: ______ Final by: ______
Final report format: ( ) Standard ( ) NTS-WAC ( ) Other: ______

SAMPLE INFORMATION

Sampling Site: Area 27 Site Maintenance Yard
The samples submitted contain (check): ( ) Hazardous ( ) Radioactive ( ) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: | Non-Rad SDG: V1408
Rad Packet: | Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation ______
CSR initials indicating review and approval: ______ Date: ______

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:
Do the labels agree with this form? (X) Yes ( ) No
Comments:
Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments:

ANALYSES & METHOD

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH total / PAY ITEM: 10.52	PCB PAY ITEM: 3.1	COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0	272501-01	1/23/02	11:01	soil	X	X	1-250mL clear wide-mouth jar
1	272501-02	1/23/02	11:04	soil	X	X	"
2	272501-03	1/23/02	11:07	soil	X	X	"
3	272501-04	1/23/02	11:09	soil	X	X	"
4	272501-05	1/23/02	11:11	soil	X	X	RUN A DUPLICATE ANALYSIS
5	LAST ITEM						FROM SAMPLE 272501-05
6							for both TPH and PCB.
7							per KKK. coc 1/24/02
8							(See Attached email)
9							

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	1/23/02 NOT	/s/ Signature on file
/s/ Signature on file	1/24/02 215	/s/ Signature on file
/s/ Signature on file	1-25-03 0845	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory: LIONVILLE

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	1-24-02 / 1300	FEDEX# 791761866467
Relinquished (Courier & Tracking Info.)	**DATE / TIME**	**Received (1st tier Subcontractor Rep)**
Relinquished (1st tier Subcontractor Rep)	**DATE / TIME**	**Received (2nd tier Subcontractor Rep)**

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (03/98)

CASE NARRATIVE

LIONVILLE LABORATORY INC.

Analytical Report

Client: BECHTEL NEVADA
LVL#: 0201L853

W.O.#: 60052-001-001-0001-00
Date Received: 01-25-02

DIESEL RANGE ORGANICS

The set of samples consisted of five (5) soil samples collected on 01-23-02.

The samples and their associated QC samples were prepared on 01-29-02 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel Range Petroleum Hydrocarbons on 01-31-02.

1. All results presented in this report are derived from samples that met LVLI's sample acceptance policy with the exception of cooler temperature, which has been recorded on the chain of custody.

2. All required holding times for extraction and analysis were met.

3. All initial calibrations associated with this data set were within acceptance criteria.

4. All continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.

5. All surrogate recoveries were within acceptance criteria.

6. All blank spike recoveries were within acceptance criteria.

/s/ Signature on file

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

2/5/02
Date

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GLOSSARY OF ODRO DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF ODRO DATA

P = This flag is used for an OLCSC target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C = This flag applies to a compound that has been confirmed by HPLC.

R:/SHARE/HPLC/OLCSCGLOS

ODRO DATA SUMMARY / SAMPLE QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 02/01/02 10:38

RFW Batch Number: 0201L853 Client: BECHTEL NEVADA V1408 Work Order: 60052001001 Page: 1

	Cust ID:	272501-01	272501-02	272501-03	272501-04	272501-05	BLK
Sample Information	RFW#:	001	002	003	004	005	02LE0091-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
p-Terphenyl		99 %	119 %	114 %	95 %	102 %	115 %
Diesel Range Organics		36	12.4 U	14	12.6 U	17	12.0 U
Motor Oil		18	12.4 U	14	12.6 U	18	12.0 U

	Cust ID:	BLK BS	BLK BSD
Sample Information	RFW#:	02LE0091-MB1	02LE0091-MB1
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	mg/kg	mg/kg
p-Terphenyl		105 %	115 %
Diesel Range Organics		68 %	75 %
Motor Oil		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

JK 2-1-02

/s/ Signature on file 2/1/02

SAMPLE DATA FOR EACH SAMPLE

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-01

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-001

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 6

Date Analyzed: 01/31/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg		
68334-30-5	Diesel Range Organics	36		
00-00-0000	Motor Oil	18		

12/88 Rev.

/s/ Signature on file

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-02

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-002

Sample wt/vol: 25.3 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 5

Date Analyzed: 01/31/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	12.4	U
00-00-0000	Motor Oil	12.4	U

2/1/02

/s/ Signature on file

12/88 Rev.

2-1-02

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-03

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-003

Sample wt/vol: 25.1 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 6

Date Analyzed: 01/31/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	14	
00-00-0000	Motor Oil	14	

12/88 Rev.

/s/ Signature on file

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-04

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-004

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 6

Date Analyzed: 01/31/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	12.6	U
00-00-0000	Motor Oil	12.6	U

12/88 Rev.

/s/ Signature on file

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-05

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-005

Sample wt/vol: 25.5 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 7

Date Analyzed: 01/31/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg		
68334-30-5	Diesel Range Organics	17		
00-00-0000	Motor Oil	18		

/s/ Signature on file

12/88 Rev.

CASE NARRATIVE

LIONVILLE LABORATORY INC.

Analytical Report

Client : BECHTEL NEVADA V1408
LVL# : 0201L853

W.O #: 60052-001-001-0001-00
Date Received: 01-25-02

GASOLINE RANGE ORGANICS

The set of samples consisted of five (5) soil samples collected on 1-23-02

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on Method 8015B for Gasoline Range Organic (GRO) target compounds on 02-06-02.

1. All results presented in this report are derived from samples that met LVLI's sample acceptance policy with the exception of cooler temperature, which has been recorded on the chain of custody.

2. All surrogate recoveries were within acceptance criteria.

3. All blank spike recoveries were within acceptance criteria.

4. All initial calibrations associated with this data set were within acceptance criteria.

5. Due to the sample matrix, a medium level dilution was performed.

/s/ Iain Daniels

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

2/12/02
Date

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208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

GLOSSARY OF OGRO DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF OGRO DATA

P = This flag is used for an OGRO target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C = This flag applies to a compound that has been confirmed by HPLC.

OGRO DATA SUMMARY / SAMPLE QC

Li ill bor ry,

GAS RANGE ORGANICS

Report Date: 02/08/02 14:53

RFW Batch Number: 0201L853 Client: BECHTEL NEVADA V1408 Work Order: 60052001001 Page: 1

	Cust ID:	272501-01	272501-02	272501-03	272501-04	272501-05	272501-05
Sample Information	RFW#:	001	002	003	004	005	005 REP
	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
	Level:	MED	MED	MED	MED	MED	MED
Fluorobenzene		77 %	78 %	80 %	84 %	84 %	78 %
Gasoline Range Organics (GRO)		3200 U	3200 U	3100 U	3000 U	3300 U	3300 U

	Cust ID:	TBLKCI	TBLKCI BS	TBLKCI BSD
Sample Information	RFW#:	02LVJ206-MB1	02LVJ206-MB1	02LVJ206-MB1
	Matrix:	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG
	Level:	MED	MED	MED
Fluorobenzene		89 %	91 %	95 %
Gasoline Range Organics (GRO)		3000 U	94 %	90 %

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

/s/ Signature on file

SAMPLE DATA FOR EACH SAMPLE

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-01

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: RECHTEL NEVADA V1408

Matrix: SOIL Lab Sample ID: 0201L853-001

Sample wt/vol: 9.84 (g/mL) G Lab File ID: BLK00PPB

Level: (low/med) MED Date Received: 01/25/02

% Moisture: not dec. 6 Date Analyzed: 02/06/02

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3200	U

/s/ Signature on file

12/88 Rev.

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-02

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL Lab Sample ID: 0201L853-002

Sample wt/vol: 9.92 (g/mL) G Lab File ID: BLK00PPB

Level: (low/med) MED Date Received: 01/25/02

% Moisture: not dec. 5 Date Analyzed: 02/06/02

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3200	U

/s/ Signature on file

12/88 Rev.

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-03

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-003

Sample wt/vol: 10.4 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) MED

Date Received: 01/25/02

% Moisture: not dec. 6

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3100	U

/s/ Signature on file

12/88 Rev.

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-04

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-004

Sample wt/vol: 10.6 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) MED

Date Received: 01/25/02

% Moisture: not dec. 6

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3000	U

/s/ Signature on file

12/88 Rev.

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-05

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-005

Sample wt/vol: 9.89 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) MED

Date Received: 01/25/02

% Moisture: not dec. 7

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3300	U

/s/ Signature on file

12/88 Rev.

GC VOLATILES SHEET

CLIENT SAMPLE NO.

272501-05REP

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-005 REP

Sample wt/vol: 9.67 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) MED

Date Received: 01/25/02

% Moisture: not dec. 7

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
86290-81-5	Gasoline Range Organics (GRO)	3300	U

12/88 Rev.

/s/ Signature on file

CASE NARRATIVE

LIONVILLE LABORATORY INC.

Analytical Report

Client: BECHTEL NEVADA V1408
LVL#: 0201L853

W.O.#: 60052-001-001-0001-00
Date Received: 01-25-02

PCB

The set of samples consisted of five (5) soil samples collected on 01-23-02.

The samples and their associated QC samples were extracted on 01-29-02, 02-06-02, and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 02-09,10,12-02. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from samples that met LVLI's sample acceptance policy with the exception of cooler temperature, which has been recorded on the chain of custody.

2. All required holding times for extraction and analysis have been met.

3. The samples and their associated QC samples received a sulfuric acid cleanup.

4. All method blanks were below the reporting limits for all target compounds.

5. All obtainable surrogate recoveries were within acceptance criteria.

6. All blank spike recoveries were within acceptance criteria.

7. Most samples required instrument dilutions due to the high concentrations of target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.

9. All initial calibrations associated with this data set were within acceptance criteria.

10. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.

/s/ Signature on file

2/14/02
Date

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

pef:r:\group\data\pest\01L-853.pcb

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF PESTICIDE/PCB DATA

P = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C = This flag applies to a compound that has been confirmed by GC/MS.

DATA SUMMARY / SAMPLE QC

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0201L853 Client: BECHTEL NEVADA V1408 Work Order: 60052001001 Page: 1

Report Date: 02/13/02 15:13

	Cust ID:	272501-01	272501-02	272501-03	272501-04	272501-05	PBLKGH
Sample Information	RFW#:	001	002	003	004	005	02LE0092-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	100	5.00	1.00	1.00	5.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	D %	D %	95 %	98 %	D %	95 %
	Decachlorobiphenyl	D %	D %	97 %	103 %	D %	101 %
		fl	fl	fl	fl	fl	fl
Aroclor-1016		3500 U	170 U	35 U	35 U	180 U	33 U
Aroclor-1221		7000 U	340 U	71 U	71 U	360 U	67 U
Aroclor-1232		3500 U	170 U	35 U	35 U	180 U	33 U
Aroclor-1242		3500 U	170 U	35 U	35 U	180 U	33 U
Aroclor-1248		7900	710	42	78	540	33 U
Aroclor-1254		3500 U	170 U	35 U	35 U	180 U	33 U
Aroclor-1260		3500 U	170 U	35 U	35 U	180 U	33 U

	Cust ID:	PBLKGH BS	PBLKGH BSD	PBLKGO	PBLKGO BS	PBLKGO BSD
Sample Information	RFW#:	02LE0092-MB1	02LE0092-MB1	02LE0136-MB1	02LE0136-MB1	02LE0136-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
Surrogate:	Tetrachloro-m-xylene	100 %	75 %	90 %	90 %	92 %
	Decachlorobiphenyl	104 %	78 %	93 %	92 %	93 %
		fl	fl	fl	fl	fl
Aroclor-1016		33 U	33 U	33 U	33 U	33 U
Aroclor-1221		67 U	67 U	67 U	67 U	67 U
Aroclor-1232		33 U	33 U	33 U	33 U	33 U
Aroclor-1242		33 U	33 U	33 U	33 U	33 U
Aroclor-1248		33 U	33 U	33 U	33 U	33 U
Aroclor-1254		79 %	61 %	33 U	83 %	82 %
Aroclor-1260		33 U	33 U	33 U	33 U	33 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

2/13/02

/s/ Signature on file

SAMPLE DATA FOR EACH SAMPLE

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-01

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-001

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 02110235.15

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 6 dec.

Date Extracted: 01/29/02

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 02/12/02

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		
12674-11-2	Aroclor-1016	3500	U	
11104-28-2	Aroclor-1221	7000	U	
11141-16-5	Aroclor-1232	3500	U	
53469-21-9	Aroclor-1242	3500	U	
12672-29-6	Aroclor-1248	7900		
11097-69-1	Aroclor-1254	3500	U	
11096-82-5	Aroclor-1260	3500	U	

/s/ Signature on file

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-02

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL Lab Sample ID: 0201L853-002

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 02110235.16

Level: (low/med) LOW Date Received: 01/25/02

% Moisture: not dec. 5 dec. Date Extracted: 01/29/02

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 02/12/02

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	340	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	710	
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

/s/ Signature on file

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-03

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 02080235.30

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 6 dec.

Date Extracted: 02/06/02

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 02/09/02

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	42	
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

2/12/02

/s/ Signature on file

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-04

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL Lab Sample ID: 0201L853-004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 02080235.31

Level: (low/med) LOW Date Received: 01/25/02

% Moisture: not dec. 6 dec. Date Extracted: 01/29/02

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 02/09/02

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	78	
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

2/3/7

/s/ Signature on file

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

272501-05

Lab Name: Lionville Labs, Inc. Work Order: 60052001001

Client: BECHTEL NEVADA V1408

Matrix: SOIL

Lab Sample ID: 0201L853-005

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 02110235.17

Level: (low/med) LOW

Date Received: 01/25/02

% Moisture: not dec. 7 dec.

Date Extracted: 01/29/02

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 02/12/02

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		
12674-11-2	Aroclor-1016	180	U	
11104-28-2	Aroclor-1221	360	U	
11141-16-5	Aroclor-1232	180	U	
53469-21-9	Aroclor-1242	180	U	
12672-29-6	Aroclor-1248	540		
11097-69-1	Aroclor-1254	180	U	
11096-82-5	Aroclor-1260	180	U	

4/3/02

/s/ Signature on file

FORM 1 PEST 12/88 Rev.

TIER I REVIEW

GENERAL INFORMATION

1. Project Name and/or Sample Delivery Group (SDG): V1408

2. Date Samples taken: 1/23/02 CAU 326

SAMPLE NUMBER	DATE RECEIVED	DATE ANALYZED
272501-01	1/25/02	TPH 1/25/02 prep 1/31/02 anal / PCB prep 1/25/02; anal 2/12/02
272501-02	↓	TPH 1/25/02 prep 1/31/02 anal / PCB 1/24/02 prep 2/12/02 anal
272501-03	↓	TPH 1/24/02 prep 1/31/02 anal / PCB 2/6/02 prep 2/9/02 anal
272501-04	↓	TPH 1/24/02 prep 1/31/02 anal / PCB 1/25/02 prep 2/9/02 anal
272501-05	↓	TPH 1/25/02 prep 1/31/02 anal / PCB 1/25/02 prep 2/12/02 anal

3. Date of Review: 6/20/02

4. Chain of Custody (COC):
Completed? ☒ Yes ☐ No Legible? ☒ Yes ☐ No

5. Is a cover letter/case narrative attached? ☒ Yes ☐ No
If 'yes,' has it been reviewed for significant problems? ☒ Yes ☐ No ☐ NA

Comments: ~~Cott~~ cooler arrived too warm. No other problems reported.

6. Analyses requested (Attach COC, Sample Request Form, and lab data packet to this review):
☐ Total VOCs ☐ Total BNA ☐ Total Metals ☐ Radionuclides
☐ TCLP VOCs ☐ TCLP BNA ☐ TCLP Metals ☒ TPH ~~ext~~
☒ PCBs ☐ Other:

7. Were all requested analyses performed on all samples? ☒ Yes ☐ No

8. Temperature on cooler: 7.5 °C (parameters: 4°C ±2°) or ☐ NA

10. Refer to Table 1. Was the proper preservation used? ☐ Yes ☐ No ☒ NA
If 'no,' then explain:

POLYCHLORINATED BIPHENYLS (PCB)

PARAMETER	EXTRACTION HOLD TIME	ANALYSIS HOLD TIME	DAYS HELD	PASS Y/N	SAMPLES NOT PASSING
PCB Compounds EPA Method 8082	Liquids - 7 days Soils - 14 days Oil - 14 days	NA	6 to 14	Y	—
PCB Compounds EPA Method 8082	NA	Liquids - 40 days Soils - 40 days Oil - 40 days	3 to 14	Y	—
Comments:					

Were digestions done within the hold time limit? ☒ Yes ☐ No

Were analyses run within the hold time limit? ☒ Yes ☐ No

A. PCB reported as: ☐ mg/L or ☐ ug/L (liquids) ☒ ug/kg (solids) Other:

B. Hits above detection level found in LB, RBS, FB, RB, or other QA samples? ☐ Yes ☒ No
If 'yes,' explain:

C. Did laboratory report indicate any problems? ☐ Yes ☒ No
If 'yes,' explain:

TOTAL PETROLEUM HYDROCARBONS (TPH)

PARAMETER	EXTRACTION HOLD TIME	ANALYSIS HOLD TIME	DAYS HELD	PASS Y/N	SAMPLES NOT PASSING
Total TPH EPA Method 8015M or 8015B	~~Liquids - 14 days~~ Soils - 14 days ~~Oil - 14 days~~	NA	6	Y	—
Total TPH EPA Method 8015M or 8015B	NA	Liquids - 40 days Soils - 40 days Oil - 40 days	2	Y	—
Comments:					

Was TPH digestion done within the hold time limit? ☒ Yes ☐ No

Were analyses run within the hold time limit? ☒ Yes ☐ No

A. TPH reported as: ☒ mg/Kg or ☐ ug/Kg Other:

B. Hits above detection level found in LB, RBS, FB, RB, or other QA samples? ☐ Yes ☒ No
If 'yes,' explain:

C. Did laboratory report indicate any problems? ☐ Yes ☒ No
If 'yes,' explain:

SUMMARY

Laboratory log-in report check for completeness and errors? ☒ Yes ☐ No

Are all field forms are present and complete? ☒ Yes ☐ No

Does the report forms inventory include all CLP or CLP-like forms? ☒ Yes ☐ No

Are the reporting levels at the appropriate level? ☒ Yes ☐ No
If 'no,' list the exceptions below:

SAMPLE ID	PARAMETER/ ANALYSIS	REPORTING LEVELS	ACTUAL LEVEL	COMMENTS

Was the sample count/type consistent with the COC? ☒ Yes ☐ No

Were the results reported for both the field and laboratory QC samples? ☒ Yes ☐ No

Is the analysis count/type consistent with the COC? ☒ Yes ☐ No

Was the correct sample matrix used for each sample? ☒ Yes ☐ No

Certificates of Analysis (COAs) checked for completeness? ☐ Yes ☐ No ☒ N/A

Condition-upon-receipt variance form included? ☐ Yes ☐ No ☒ N/A

Did the deliverable meet the overall objectives of the project? ☒ Yes ☐ No

Are all signatures in place? On COC? ☒ Yes ☐ No On Data pkg.? ☒ Yes ☐ No
Explanation for any problems:

SUMMARY (cont.)

18. Overall Comments:

19. Reviewed by: Kraig Knapp Date: 6/20/02 Signature /s/ Kraig Knapp

20. Task Manager or TPO Date: Signature

SAMPLE DELIVERY GROUP

V1503

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Burbank

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-2957220

RE Project: **V1503** Order No.: **L0203380**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 9 samples on 3/27/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen for SVW
Laboratory Manager

4/5/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified
US Army Corps of Engineers		Certified

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V01**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-001A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**250**	**µg/Kg**	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**79.5**	**%REC**	48-136	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**76.0**	**%REC**	45-149	1	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *05-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V02**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-002A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**230**	**µg/Kg**	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**82.0**	**%REC**	48-136	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**89.0**	**%REC**	45-149	1	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *05-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V03**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-003A
MATRIX:	SOIL		

Parameter	Result	Unit		Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**33000**	**µg/Kg**		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg		400	20	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**150**	**%REC**	S	48-136	20	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**260**	**%REC**	S	45-149	20	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *05-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V04**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-004A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**350**	**µg/Kg**	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**71.5**	**%REC**	48-136	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**75.5**	**%REC**	45-149	1	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V05**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-005A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**80.0**	**%REC**	48-136	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**83.5**	**%REC**	45-149	1	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V06**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-006A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**5800**	**µg/Kg**	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**95.0**	**%REC**	48-136	10	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**105**	**%REC**	45-149	10	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V07**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-007A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**430**	**µg/Kg**	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**86.0**	**%REC**	48-136	1	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**90.5**	**%REC**	45-149	1	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *05-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V09**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-008A
MATRIX:	SOIL		

Parameter	Result	Unit		Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1221	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1232	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1242	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1248	**18000**	**µg/Kg**	E	200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1254	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Aroclor 1260	ND	µg/Kg		200	10	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Tetrachloro-m-xylene	**75.0**	**%REC**		48-136	10	SW8082	03/29/02	04/02/02	JRW-LV
Surr: Decachlorobiphenyl	**120**	**%REC**		45-149	10	SW8082	03/29/02	04/02/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**272501-V08**
PROJECT ID:	V1503	**DATE SAMPLED:**	3/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0203380-009A
MATRIX:	AQUEOUS		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1221	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1232	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1242	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1248	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1254	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1260	ND	µg/L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Surr: Tetrachloro-m-xylene	**121**	**%REC**	45-130	1	SW8082	04/01/02	04/04/02	JRW-LV
Surr: Decachlorobiphenyl	**118**	**%REC**	31-130	1	SW8082	04/01/02	04/04/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

NEL LABORATORIES

CLIENT: Bechtel Nevada
Work Order: L0203380
Project: V1503

ANALYTICAL QC SUMMARY REPORT

8082_s **Test Method: SW8082**

Sample ID: **MB-214**	SampType: **MBLK**	TestCode: **8082_s**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **13780**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	20									
Aroclor 1221	ND	20									
Aroclor 1232	ND	20									
Aroclor 1242	ND	20									
Aroclor 1248	ND	20									
Aroclor 1254	ND	20									
Aroclor 1260	ND	20									
Surr: Tetrachloro-m-xylene	54.28	0.10	66.63	0	81.5	48	136	0	0		
Surr: Decachlorobiphenyl	54.61	0.10	66.63	0	82	45	149	0	0		

Sample ID: **LCS-214**	SampType: **LCS**	TestCode: **8082_s**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **13779**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	280.7	20	333.4	0	84.2	60	140	0	0		
Aroclor 1260	227	20	333.4	0	68.1	60	140	0	0		
Surr: Tetrachloro-m-xylene	59.41	0.10	66.79	0	89	48	136	0	0		
Surr: Decachlorobiphenyl	53.07	0.10	66.79	0	79.5	45	149	0	0		

Sample ID: **LCSD-214**	SampType: **LCSD**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **13781**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	261.9	20	332.9	0	78.7	60	140	280.7	6.93	25	

Qualifiers: ND - Not Detected at the Reporting Limit
J1 - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *05-Apr-02*

CLIENT: Bechtel Nevada
Work Order: L0203380
Project: V1503

ANALYTICAL QC SUMMARY REPORT

8082_s **Test Method:** **SW8082**

Sample ID: **LCSD-214**	SampType: **LCSD**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **13781**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1260	227.9	20	332.9	0	68.5	60	140	227	0.420	28	
Surr: Tetrachloro-m-xylene	57.65	0.10	66.68	0	86.5	48	136	0	0	0	
Surr: Decachlorobiphenyl	52.32	0.10	66.68	0	78.5	45	149	0	0	0	

Sample ID: **L0203380-001AMS**	SampType: **MS**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **14306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	361.4	20	333.3	0	108	60	140	0	0		
Aroclor 1260	314.6	20	333.3	0	94.4	60	140	0	0		
Surr: Tetrachloro-m-xylene	50.72	0.10	66.77	0	76	48	136	0	0		
Surr: Decachlorobiphenyl	56.39	0.10	66.77	0	84.5	45	149	0	0		

Sample ID: **L0203380-001AMSD**	SampType: **MSD**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **3/29/02**	Run ID: **L_ECD-1_020402B**
	Batch ID: **214**	TestNo: **SW8082**		Analysis Date: **4/2/02**	SeqNo: **14307**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	357.1	20	333.1	0	107	60	140	361.4	1.18	25	
Aroclor 1260	286.1	20	333.1	0	85.9	60	140	314.6	9.51	25	
Surr: Tetrachloro-m-xylene	47.68	0.10	66.72	0	71.5	48	136	0	0	0	
Surr: Decachlorobiphenyl	49.02	0.10	66.72	0	73.5	45	149	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J1 - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *05-Apr-02*

CLIENT: Bechtel Nevada
Work Order: L0203380
Project: V1503

ANALYTICAL QC SUMMARY REPORT

8082_w **Test Method:** **SW8082**

Sample ID: **MB-218**	SampType: **MBLK**	TestCode: **8082_w**	Units: **µg/L**	Prep Date: **4/1/02**	Run ID: **L_ECD-1_020404B**
	Batch ID: **218**	TestNo: **SW8082**		Analysis Date: **4/4/02**	SeqNo: **14338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	1.0									
Aroclor 1242	ND	1.0									
Aroclor 1248	ND	1.0									
Aroclor 1254	ND	1.0									
Aroclor 1260	ND	1.0									
Surr: Tetrachloro-m-xylene	1.47	0.010	2	0	73.5	45	130	0	0		
Surr: Decachlorobiphenyl	1.54	0.010	2	0	77	31	130	0	0		

Sample ID: **LCS-218**	SampType: **LCS**	TestCode: **8082_w**	Units: **µg/L**	Prep Date: **4/1/02**	Run ID: **L_ECD-1_020404B**
	Batch ID: **218**	TestNo: **SW8082**		Analysis Date: **4/4/02**	SeqNo: **14337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	9.55	1.0	10	0	95.5	60	140	0	0		
Aroclor 1260	9.54	1.0	10	0	95.4	60	140	0	0		
Surr: Tetrachloro-m-xylene	1.94	0.010	2	0	97	45	130	0	0		
Surr: Decachlorobiphenyl	1.05	0.010	2	0	52.5	31	130	0	0		

Sample ID: **LCSD-218**	SampType: **LCSD**	TestCode: **8082_W**	Units: **µg/L**	Prep Date: **4/1/02**	Run ID: **L_ECD-1_020404B**
	Batch ID: **218**	TestNo: **SW8082**		Analysis Date: **4/4/02**	SeqNo: **14339**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	7.36	1.0	10	0	73.6	60	140	9.55	25.9	25	R
Aroclor 1260	7.5	1.0	10	0	75	60	140	9.54	23.9	25	
Surr: Tetrachloro-m-xylene	1.04	0.010	2	0	52	45	130	0	0	0	
Surr: Decachlorobiphenyl	1.7	0.010	2	0	85	31	130	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J1 - MS or MSD outside acceptance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *05-Apr-02*

7/4 L0L03380

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 2

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: A435
Charge No.: 5HOTB223 ASL Prog.:
Project Manager: Jeff Smith
Phone: 295-7175 Fax: 295-7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 702-295-7396 Fax: 702-295-7761 M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other:
( ) Rush. Preliminary by: ____________ Final by:
Final report format: (✓) Standard ( ) NTS-WAC ( ) Other:

SAMPLE INFORMATION

Sampling Site: CAU 326 Area 27
The samples submitted contain (check):
( ) Hazardous ( ) Radioactive (✓) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1503
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation
CSR Initials indicating review and approval: ____________ Date:

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:

Do the labels agree with this form? (✓) Yes ( ) No
Comments:

Was a Material Clearance Tag submitted? (✓) Yes ( ) No
Comments:

ANALYSES & METHOD

	ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	PCB 8082	AH Item: 8.1										
01	0	272501-V01	3/26/02	13:35	Soil	X											
02	1	272501-V02	3/26/02	13:40	Soil	X											
03	2	272501-V03	3/26/02	13:45	Soil	X											
04	3	272501-V04	3/26/02	13:50	Soil	X											
05	4	272501-V05	3/26/02	13:55	Soil	X											
06	5	272501-V06	3/26/02	14:10	Soil	X											
07	6	272501-V07	3/26/02	14:15	Soil	X											
08	7	272501-V09	3/26/02	13:47	Soil	X											
	8	last item															
	9																

Custody Seal Intact? Y N None Temp 2°
Condition when received good

COMMENTS
(Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)

250ml wide mouth jar

LFEURLY

Samples free of Rad

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	3/27/02 7:47	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	3/27/02/1310	BN COURIER
Relinquished (Courier & Tracking Info.)	**DATE / TIME**	**Received (1st tier Subcontractor Rep)**
/s/ Signature on file	3/27/02 1500	/s/ Signature on file
Relinquished (1st tier Subcontractor Rep)	**DATE / TIME**	**Received (2nd tier Subcontractor Rep)**

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (02/98)

/s/ Signature on file

4.1 [illegible]

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: A435
Charge No.: 5H04 BZ23 ASL Prog.:
Project Manager: Jeff Smith
Phone: 295-7735 Fax: 295-7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 702-295-7396 Fax: 702-295-7761 M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ___ ( ) Rush Preliminary by: ___ Final by: ___
Final report format: (X) Standard ( ) NTS-WAC ( ) Other: ___

SAMPLE INFORMATION

Sampling Site: CAU 326 Area 27
The samples submitted contain (check): ( ) Hazardous ( ) Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1503
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation ___
CSR initials indicating review and approval: ___ Date: ___

ANALYSES & METHOD: PCB 8082; PAH / TPH : 3.1

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:
Do the labels agree with this form? (X) Yes ( ) No
Comments:
Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments:

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	PCB 8082	PAH / TPH : 3.1	COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
09 0	272501-V08	[illegible]	14:	liquid	X		1-L glass bottle
1	~~272501-V08~~	~~[illegible]~~	~~14:~~	~~liquid~~	~~X~~	[illegible]	~~1-125ml glass bottle~~ [illegible]
2							Samples free of Rad
3	last Item						
4							2°C
5							
6							
7							
8							
9							

Custody seal intact? Y N None; Condition when received [illegible]

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	[illegible] 2:47	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	3/27/[illegible]	/s/ Signature on file
Relinquished (Courier & Tracking Info.)	DATE / TIME	Received (1st tier Subcontractor Rep)
Relinquished (1st tier Subcontractor Rep)	DATE / TIME	Received (2nd tier Subcontractor Rep)

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

SAMPLE DELIVERY GROUP

V1624

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NEL LABORATORIES

Corporate Headquarters / Reno Laboratory
4750 Longley Lane, Suite 106
Reno, NV 89502
Phone: 775.348.2522
Fax: 775.348.2546

Las Vegas Laboratory
4208 Arcata Way, Suite A
Las Vegas, NV 89030
Phone: 702.657.1010
Fax: 702.657.1577

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1624** Order No.: **L0206245**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 11 samples on 6/17/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

6/26/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V15
DATE SAMPLED: 6/11/02
NEL SAMPLE ID: L0206245-001A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**67.0**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**71.0**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V16
DATE SAMPLED: 6/11/02
NEL SAMPLE ID: L0206245-002A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	**190**	**µg/Kg**	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**91.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**82.5**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	CAU326-V17
PROJECT ID:	V1624	**DATE SAMPLED:**	6/12/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206245-003A
MATRIX:	SOLID		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**93.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**87.5**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V18
DATE SAMPLED: 6/12/02
NEL SAMPLE ID: L0206245-004A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**99.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**93.0**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V19
DATE SAMPLED: 6/12/02
NEL SAMPLE ID: L0206245-005A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**95.5**	%REC	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**86.5**	%REC	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V25
DATE SAMPLED: 6/12/02
NEL SAMPLE ID: L0206245-006A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	**50**	**µg/Kg**	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**89.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**84.0**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	CAU326-V21
PROJECT ID:	V1624	**DATE SAMPLED:**	6/13/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206245-007A
MATRIX:	SOLID		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**81.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**92.5**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V22
DATE SAMPLED: 6/13/02
NEL SAMPLE ID: L0206245-008A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	**250**	**µg/Kg**	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	**120**	**µg/Kg**	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**91.0**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**83.0**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V23
DATE SAMPLED: 6/13/02
NEL SAMPLE ID: L0206245-009A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**100**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**94.5**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V24
DATE SAMPLED: 6/13/02
NEL SAMPLE ID: L0206245-010A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**94.0**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**88.0**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1624
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: CAU326-V26
DATE SAMPLED: 6/13/02
NEL SAMPLE ID: L0206245-011A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Decachlorobiphenyl	**72.5**	**%REC**	45-149	1	SW8082	06/20/02	06/21/02	JRW-LV
Surr: Tetrachloro-m-xylene	**81.5**	**%REC**	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *26-Jun-02*

NEL Laboratories, Las Vegas

Date: *26-Jun-02*

CLIENT: Bechtel Nevada
Work Order: L0206245
Project: V1624

ANALYTICAL QC SUMMARY REPORT

BatchID: 494

Sample ID: **020620PCBS-MB**	SampType: **MBLK**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **6/20/02**	Run ID: **L_ECD-1_020621A**
	Batch ID: **494**	TestNo: **SW8082**		Analysis Date: **6/21/02**	SeqNo: **40761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	20									
Aroclor 1221	ND	20									
Aroclor 1232	ND	20									
Aroclor 1242	ND	20									
Aroclor 1248	ND	20									
Aroclor 1254	ND	20									
Aroclor 1260	ND	20									
Surr: Tetrachloro-m-xylene	67	0.10	66.74	0	100	48	136	0	0		
Surr: Decachlorobiphenyl	68.67	0.10	66.74	0	103	45	149	0	0		

Sample ID: **020620PCBS-LCS**	SampType: **LCS**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **6/20/02**	Run ID: **L_ECD-1_020621A**
	Batch ID: **494**	TestNo: **SW8082**		Analysis Date: **6/21/02**	SeqNo: **40762**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	370.5	20	333.1	0	111	60	140	0	0		
Aroclor 1260	370.1	20	333.1	0	111	60	140	0	0		
Surr: Tetrachloro-m-xylene	72.36	0.10	66.72	0	108	48	136	0	0		
Surr: Decachlorobiphenyl	77.69	0.10	66.72	0	116	45	149	0	0		

Sample ID: **L0206245-010AMS**	SampType: **MS**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **6/20/02**	Run ID: **L_ECD-1_020621A**
	Batch ID: **494**	TestNo: **SW8082**		Analysis Date: **6/21/02**	SeqNo: **40774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	348.9	20	333.2	0	105	60	140	0	0		
Aroclor 1260	335.2	20	333.2	0	101	60	140	0	0		
Surr: Tetrachloro-m-xylene	68.71	0.10	66.74	0	103	48	136	0	0		
Surr: Decachlorobiphenyl	71.71	0.10	66.74	0	107	45	149	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0206245
Project: V1624

ANALYTICAL QC SUMMARY REPORT

BatchID: 494

Sample ID: **L0206245-010AMSD**	SampType: **MSD**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **6/20/02**	Run ID: **L_ECD-1_020621A**
	Batch ID: **494**	TestNo: **SW8082**		Analysis Date: **6/21/02**	SeqNo: **40775**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	322.9	20	333.2	0	96.9	60	140	348.9	7.75	25	
Aroclor 1260	309.9	20	333.2	0	93	60	140	335.2	7.86	25	
Surr: Tetrachloro-m-xylene	62.04	0.10	66.74	0	93	48	136	0	0	0	
Surr: Decachlorobiphenyl	65.04	0.10	66.74	0	97.5	45	149	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Nevada

ANALYTICAL LABORATORY

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD LC-06-745

PROJECT / CLIENT INFORMATION

Project: CAU 326 | BN Org#: A435

Charge Number: 5 HO9DE23

Project Manager: Jeff Smith

Phone: | Fax: | M/S: NTS 306

REPORT & TURNAROUND INFORMATION

Send Report to: Mike Krzyzanowski

Phone: 295-7396 | Fax: 295-7061 | M/S: NTS 306

Turnaround: (X) Standard – 14 days III, 28 days Non-rad Env, 45 days Rad Env
( ) RUSH Preliminary by: _____ (IH)
__1 __2 __7 __14 (non-Rad Env)
__1 __7 __14 __28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 326 Area 27

The samples submitted contain (check):
(X) **Hazardous** - *(list)* PCB (<1ppm)
( ) **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.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V1624 (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: NEL

6124

	ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres – Analysis eg. HCl - VOCs	8.1 Pay Item, Analysis, Method: PCB 8082
01	CAU 326 - V15	6/11/02	11:50	Soil	1	250mL				NA-PCBs	X
02	CAU 326 - V16	6/11/02	11:52	Soil						NA - PCBs	X
03	CAU 326 - V17	6/12/02	14:40	Soil						NA - PCBs	X
04	CAU 326 - V18	6/12/02	14:47	Soil						NA - PCBs	X
05	CAU 326 - V19	6/12/02	14:53	Soil						NA - PCBs	X
06	CAU 326 - V25	6/12/02	11:55	Soil						NA - PCBs	X
07	CAU 326 - V21	6/13/02	7:31	soil						NA - PCB	X
08	CAU 326 - V22	6/13/02	7:35	soil						NA - PCB	X
09	CAU 326 - V23	6/13/02	7:39	soil						NA - PCB	X
10	CAU 326 - V24	6/13/02	8:05	soil						NA - PCB	X

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Craig Knapp	/s/ Signature on file	6/13/02 - 1424	CA CASTANEDA	/s/ Signature on file	6/13/02 @ 1424
CA CASTANEDA	/s/ Signature on file	6/17-02@1340	BN COURIER		6/17/02 @ 1340
COURIER			Darryl Cockett	/s/ Signature on file	6/17/02 1745

L0204245

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/CLIENT INFORMATION

Project: CAU326 | BN Org #: A435

Charge Number: 5H09BZ23

Project Manager: Jeff Smith

Phone: | Fax: | M/S: NTS 306

REPORT & TURNAROUND INFORMATION

Send Report to: Mike Kruzic

Phone: 7396 | Fax: 7761 | M/S: NTS 306

Turnaround: ☒ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env, ☐ Rush Preliminary by: ____ (IH) ☐1 ☐2 ☐7 ☐14 (non-Rad Env) ☐1 ☐7 ☐14 ☐28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU326 A27

The samples submitted contain (check):
☒ Hazardous (list) - PCB (<1ppm)
☐ 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.

SAMPLE MANAGEMENT INFORMATION

SDG: ____ (IH) V1624 (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: NEL

6/24

Pay Item, Analysis, Method: 8.1 X — PCB 8082

	ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	8.1 PCB 8082
11	CAU326-V26	6/13/02	8:29	soil	1	250ml				NA - PCB	X
	LAST ITEM										

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Kraig Krogg	/s/ Signature on file	6/13/02-1424	CD CASTANEDA	/s/ Signature on file	6/13/02 @ 1424
CD CASTANEDA	/s/ Signature on file	6-17-02 @ 1300	BN COURIER		6/17/02 @ 1300

SAMPLE DELIVERY GROUP

V1429

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Boise

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, Nevada 89030
702-657-1010 • Fax: 702-657-1577
1-888-368-3282

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-2957220

RE Project: **V1429** Order No.: **L0202135**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 8 samples on 2/13/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

2/27/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified
US Army Corps of Engineers		Certified

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	062501-01
PROJECT ID:	V1429	DATE SAMPLED:	2/11/02
PROJECT #:	30033	NEL SAMPLE ID:	L0202135-001A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	10	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	51	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	61	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	72.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1429
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-02
DATE SAMPLED: 2/11/02
NEL SAMPLE ID: L0202135-002A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	1200	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	650	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	1800	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	89.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1429
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-03
DATE SAMPLED: 2/11/02
NEL SAMPLE ID: L0202135-003A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**800**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**280**	**mg/Kg**	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**1100**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**87.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1429
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-04
DATE SAMPLED: 2/11/02
NEL SAMPLE ID: L0202135-004A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	24	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	59	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	84	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	82.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**Pipeline 2**
PROJECT ID:	V1429	**DATE SAMPLED:**	2/11/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0202135-005A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**8900**	**mg/Kg**	100	5	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**2600**	**mg/Kg**	200	5	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**11000**	**mg/Kg**	100	5	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**110**	**%REC**	55-130	5	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT:	Bechtel Nevada	CLIENT ID:	062501-13
PROJECT ID:	V1429	DATE SAMPLED:	2/11/02
PROJECT #:	30033	NEL SAMPLE ID:	L0202135-006A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	1300	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	230	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	1500	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	85.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1429
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-13L
DATE SAMPLED: 2/11/02
NEL SAMPLE ID: L0202135-007A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	11	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	27	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	38	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	95.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1429
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-04 DUP
DATE SAMPLED: 2/11/02
NEL SAMPLE ID: L0202135-008A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**17**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**38**	**mg/Kg**	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**55**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**70.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
Work Order: L0202135
Project: V1429

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015ffp_s

Sample ID: MB-98	SampType: MBLK	TestCode: 8015ffp_s	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	ND	10	0	0	0	0	0	0	0		
Surr: n-Octacosane	2.762	0.010	3.324	0	83.1	55	130	0	0		

Sample ID: LCS-98	SampType: LCS	TestCode: 8015ffp_s	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2249

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	134.1	10	166.4	0	80.6	54	91	0	0		
Surr: n-Octacosane	3.095	0.010	3.324	0	93.1	55	130	0	0		

Sample ID: LCSD-98	SampType: LCSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2269

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	127.2	10	166.4	0	76.4	54	91	134.1	5.27	25	
Surr: n-Octacosane	3.062	0.010	3.324	0	92.1	55	130	0	0	0	

Sample ID: L0202135-001AMS	SampType: MS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: 062501-01	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2267

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	141	10	166.4	0	84.7	54	91	0	0		
Surr: n-Octacosane	3.028	0.010	3.324	0	91.1	55	130	0	0		

Sample ID: L0202135-001AMSD	SampType: MSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: 062501-01	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	132.9	10	167	0	79.6	54	91	141	5.92	25	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0202135
Project: V1429

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015ffp_s

NEL LABORATORIES

Sample ID: **L0202135-001AMSD**	SampType: **MSD**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **2/15/02**			Run ID: **L_FID-1_020220B**		
Client ID: **062501-01**	Batch ID: **98**	TestNo: **SW8015M**		Analysis Date: **2/20/02**			SeqNo: **2268**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: n-Octacosane	2.838	0.010	3.336	0	85.1	55	130	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: 2156
Charge No.: 5H09B223 ASL Prog.:
Project Manager: Wayne Johnson
Phone: 295-0573 Fax: 295-7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 295-5397 Fax: 295-7761 M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ______ ( ) Rush Preliminary by: ______ Final by: ______
Final report format: (X) Standard ( ) NTS-WAC ( ) Other: ______

SAMPLE INFORMATION

Sampling Site: A6 06-25-01
The samples submitted contain (check): ( ) Hazardous ( ) Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1429
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation ______
CSR initials indicating review and approval: ______ Date: ______

ANALYSES & METHOD: TPH total / 8015M; PAH TEH: 10.5 8.2 [illegible]; Run Diesel only per [illegible]

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:
Do the labels agree with this form? (X) Yes ( ) No
Comments:
Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments:

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH total / 8015M	PAH TEH	Run Diesel only	COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0	062501-01	2/11/02	10:16	soil	X			250ml clear wide mouth glass jar
1	062501-02	2/11/02	10:28	soil	X			"
2	062501-03	2/11/02	10:30	soil	X			"
3	062501-04	2/11/02	10:32	soil	X			Run duplicate as well as sample
4	Pipeline 2	2/11/02	12:34	soil	X			"
5	062501-13	2/11/02	13:55	soil	X			250 ml clear wide mouth glass jar
6	062501-13L	2/11/02	13:55	soil	X			"
7	062501-04 Dup				X			Samples are free from RAD. KK
8								
9								

Custody Seal Intact? Y N None; Condition when Received: Good; Temp. 2°C

Split sample 062501-04 for Dup. Per CA Ilderine 2/14/02

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	2/11/02: 14:44	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	2/13/02 / 1300	BN Courier
Relinquished (Courier & Tracking Info.)	DATE / TIME	Received (1st tier Subcontractor Rep)
BN Courier	2/13/02 1500	/s/ Signature on file
Relinquished (1st tier Subcontractor Rep)	DATE / TIME	Received (2nd tier Subcontractor Rep)

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (02/98)

SAMPLE DELIVERY GROUP

V1432

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Boise

Las Vegas Division
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1-888-368-3282

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-2957220

RE Project: **V1432** Order No.: **L0202134**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 12 samples on 2/13/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

2/27/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified
US Army Corps of Engineers		Certified

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	062501-22
PROJECT ID:	V1432	DATE SAMPLED:	2/12/02
PROJECT #:	30033	NEL SAMPLE ID:	L0202134-001A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**3000**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**3000**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**81.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1432
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-23
DATE SAMPLED: 2/12/02
NEL SAMPLE ID: L0202134-003A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**83**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**140**	**mg/Kg**	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**220**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**81.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1432
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-23L
DATE SAMPLED: 2/12/02
NEL SAMPLE ID: L0202134-004A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	11	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	33	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	44	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	90.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1432
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-24
DATE SAMPLED: 2/12/02
NEL SAMPLE ID: L0202134-005A

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	840	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	360	mg/Kg	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	1200	mg/Kg	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	84.1	%REC	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

Date: *27-Feb-02*

CLIENT:	Bechtel Nevada	CLIENT ID:	062501-25
PROJECT ID:	V1432	DATE SAMPLED:	2/12/02
PROJECT #:	30033	NEL SAMPLE ID:	L0202134-007A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**9000**	**mg/Kg**	50	5	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	100	5	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**9000**	**mg/Kg**	50	5	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**105**	**%REC**	55-130	5	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	062501-26
PROJECT ID:	V1432	DATE SAMPLED:	2/12/02
PROJECT #:	30033	NEL SAMPLE ID:	L0202134-010A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**14**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**75**	**mg/Kg**	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**89**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**89.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**062501-24 DUP**
PROJECT ID:	V1432	**DATE SAMPLED:**	2/12/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0202134-012A
MATRIX:	SOIL		

Parameter	Result	Units	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	**560**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Oil Range Organics (C22-C34)	**220**	**mg/Kg**	20	1	SW8015	02/15/02	02/20/02	PXC-LV
Total TPH	**780**	**mg/Kg**	10	1	SW8015	02/15/02	02/20/02	PXC-LV
Surr: n-Octacosane	**77.1**	**%REC**	55-130	1	SW8015	02/15/02	02/20/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

Date: *27-Feb-02*

CLIENT: Bechtel Nevada
Work Order: L0202134
Project: V1432

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015ffp_s

Sample ID: MB-98	SampType: MBLK	TestCode: 8015ffp_s	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	ND	10	0	0	0	0	0	0	0		
Surr: n-Octacosane	2.762	0.010	3.324	0	83.1	55	130	0	0		

Sample ID: LCS-98	SampType: LCS	TestCode: 8015ffp_s	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2249

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	134.1	10	166.4	0	80.6	54	91	0	0		
Surr: n-Octacosane	3.095	0.010	3.324	0	93.1	55	130	0	0		

Sample ID: LCSD-98	SampType: LCSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2269

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	127.2	10	166.4	0	76.4	54	91	134.1	5.27	25	
Surr: n-Octacosane	3.062	0.010	3.324	0	92.1	55	130	0	0	0	

Sample ID: L0202135-001AMS	SampType: MS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2267

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	141	10	166.4	0	84.7	54	91	0	0		
Surr: n-Octacosane	3.028	0.010	3.324	0	91.1	55	130	0	0		

Sample ID: L0202135-001AMSD	SampType: MSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (12-C22)	132.9	10	167	0	79.6	54	91	141	5.92	25	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Bechtel Nevada
Work Order: L0202134
Project: V1432

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015ffp_s

Sample ID: L0202135-001AMSD	SampType: MSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 2/15/02	Run ID: L_FID-1_020220B
Client ID: ZZZZZ	Batch ID: 98	TestNo: SW8015M		Analysis Date: 2/20/02	SeqNo: 2268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDlimit	Qual
Surr: n-Octacosane	2.838	0.010	3.336	0	85.1	55	130	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: 2156
Charge No.: 5H09BZ23 ASL Prog.:
Project Manager: Wayne Johnson
Phone: 295-0573 Fax: 7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 295-7396 Fax: 7761 M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ______
( ) Rush Preliminary by: ______ Final by: ______
Final report format: ( ) Standard ( ) NTS-WAC ( ) Other: ______

SAMPLE INFORMATION

Sampling Site: A6 0625-01
The samples submitted contain (check): ( ) Hazardous ( ) Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1432
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation ______
CSR initials indicating review and approval: ______ Date: ______

ANALYSES & METHOD: TPH Total / 8015A; Req. MCH: 10.5[?] 2/15; Run DRO/Soil Diesel only

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:
Do the labels agree with this form? (X) Yes ( ) No
Comments:
Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments:

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH Total/8015A	COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0	062501-22	2/12/02	10:45	Soil	X	250ml clear jars NoRad
1	062501-22L	2/12/02	10:45	Soil	X Cancelled by Catherine 2/14/02	"
2	062501-23	2/12/02	10:50	Soil	X	"
3	062501-23L	2/12/02	10:50	Soil	X	22 "
4	062501-24	2/12/02	11:05	Soil	X	" Run a duplicate sample
5	062501-24L	2/12/02	11:05	Soil	X CANCELLED	"
6	062501-25	2/12/02	11:50	Soil	X	"
7	062501-25L	2/12/02	11:50	Soil	X CANCELLED	"
8	062501-25L2	2/12/02	11:50	Soil	X CANCELLED	"
9	062501-26	2/12/02	12:15	Soil	X	"

Custody Seal Intact? Y N None
Condition when received: Temp good

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	2/12/02 1438	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory: NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	2/13/02 1310	Fed BN Courier
Relinquished (Courier & Tracking Info.)	**DATE / TIME**	**Received (1st tier Subcontractor Rep)**
/s/ Signature on file	2/14/1500	/s/ Signature on file
Relinquished (1st tier Subcontractor Rep)	**DATE / TIME**	**Received (2nd tier Subcontractor Rep)**

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: 2156
Charge No.: 5H09BZ23 ASL Prog.:
Project Manager: Wayne Johnson
Phone: 295-0573 Fax: 7761 M/S: NTS306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 295-7396 Fax: 7761 M/S: NTS306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ______ ( ) Rush Preliminary by: ______ Final by: ______
Final report format: ( ) Standard ( ) NTS-WAC ( ) Other: ______

SAMPLE INFORMATION

Sampling Site: A6 06-25-01
The samples submitted contain (check): ( ) Hazardous ( ) Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1432
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation ______
CSR initials indicating review and approval: ______ Date: ______

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments:

Do the labels agree with this form? (X) Yes ( ) No
Comments:

Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments:

ANALYSES & METHOD

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH Total 8015M	Req Tbl: 10.0.21											COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0	062501-26L	2/12/02	12:15	soil	X	Cancelled											250ml clear jars - Jo Rad
1	062501-24DUP				X												"
2																	"
3																	
4	Last																Sample 062501-24DUP
5																	was split for Dupper
6	item																Calibration 2/14/02
7																	
8																	
9																	

Custody Seal Intact? Y N None
Condition when received: Good
Temp: 2°

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	2/12/02 14:38	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	2/13/02 1300	BN Couriers
Relinquished (Courier & Tracking Info.)	**DATE / TIME**	**Received (1st tier Subcontractor Rep)**
Via Courier	2/14/02	/s/ Signature on file
Relinquished (1st tier Subcontractor Rep)	**DATE / TIME**	**Received (2nd tier Subcontractor Rep)**

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (02/98)

SAMPLE DELIVERY GROUP

V1535

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Burbank

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-2957220

RE Project: **V1535** Order No.: **L0204298**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 8 samples on 4/18/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file
Stan Van Wagenen
Laboratory Manager

4/29/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified
US Army Corps of Engineers		Certified

NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1535
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-S1
DATE SAMPLED: 4/17/02
NEL SAMPLE ID: L0204298-001A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**85.1**	%REC	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *29-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	062501-S4
PROJECT ID:	V1535	**DATE SAMPLED:**	4/17/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0204298-002A
MATRIX:	SOIL		

Parameter	Result	Unit		Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	**280**	**mg/Kg**		50	5	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	**4000**	**mg/Kg**		50	5	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg		250	5	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	**4300**	**mg/Kg**		50	5	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	0	%REC	D	55-130	5	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *29-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**062501-S6**
PROJECT ID:	V1535	**DATE SAMPLED:**	4/17/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0204298-003A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**77.1**	**%REC**	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *29-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**062501-S5**
PROJECT ID:	V1535	**DATE SAMPLED:**	4/17/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0204298-004A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**84.1**	**%REC**	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *29-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**062501-S8**
PROJECT ID:	V1535	**DATE SAMPLED:**	4/17/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0204298-005A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**79.1**	**%REC**	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *29-Apr-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1535
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 062501-S11
DATE SAMPLED: 4/17/02
NEL SAMPLE ID: L0204298-006A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**68.1**	**%REC**	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *29-Apr-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	062501-S7
PROJECT ID:	V1535	**DATE SAMPLED:**	4/17/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0204298-007A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Total TPH	ND	mg/Kg	10	1	SW8015Ext	04/22/02	04/24/02	PXC-LV
Surr: n-Octacosane	**59.1**	**%REC**	55-130	1	SW8015Ext	04/22/02	04/24/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *29-Apr-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1535
PROJECT #: 30033
MATRIX: AQUEOUS

CLIENT ID: 062501-S2
DATE SAMPLED: 4/17/02
NEL SAMPLE ID: L0204298-008A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/L	0.50	1	SW8015Ext	04/23/02	04/23/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/L	0.50	1	SW8015Ext	04/23/02	04/23/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/L	0.50	1	SW8015Ext	04/23/02	04/23/02	PXC-LV
Total TPH	ND	mg/L	0.50	1	SW8015Ext	04/23/02	04/23/02	PXC-LV
Surr: n-Octacosane	**108**	**%REC**	58-120	1	SW8015Ext	04/23/02	04/23/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *29-Apr-02*

NEL LABORATORIES

CLIENT: Bechtel Nevada
Work Order: L0204298
Project: V1535

ANALYTICAL QC SUMMARY REPORT

8015ffp_s **Test Method: SW8015Ext**

Sample ID: **MB-302**	SampType: **MBLK**	TestCode: **8015ffp_s**	Units: **mg/Kg**	Prep Date: **4/22/02**	Run ID: **L_FID-1_020424B**
	Batch ID: **302**	TestNo: **SW8015M**		Analysis Date: **4/24/02**	SeqNo: **21972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	10									
Diesel Range Organics (C12-C22)	ND	10									
Oil Range Organics (C22-C34)	ND	50									
Total TPH	ND	10									
Surr: n-Octacosane	3.84	0.010	3.336	0	115	55	130	0	0		

Sample ID: **LCS-302**	SampType: **LCS**	TestCode: **8015ffp_s**	Units: **mg/Kg**	Prep Date: **4/22/02**	Run ID: **L_FID-1_020424B**
	Batch ID: **302**	TestNo: **SW8015M**		Analysis Date: **4/24/02**	SeqNo: **21971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	117	10	166.5	0	70.2	54	91	0	0		
Surr: n-Octacosane	2.098	0.010	3.327	0	63.1	55	130	0	0		

Sample ID: **LCSD-302**	SampType: **LCSD**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **4/22/02**	Run ID: **L_FID-1_020424B**
	Batch ID: **302**	TestNo: **SW8015M**		Analysis Date: **4/24/02**	SeqNo: **21976**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	128	10	166.8	0	76.8	54	91	117	9.00	25	
Surr: n-Octacosane	2.534	0.010	3.331	0	76.1	55	130	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
JI - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *29-Apr-02*

CLIENT: Bechtel Nevada
Work Order: L0204298
Project: V1535

ANALYTICAL QC SUMMARY REPORT

8015ffp_w

Test Method: SW8015Ext

Sample ID: MB-303	SampType: MBLK	TestCode: 8015ffp_w	Units: mg/L	Prep Date: 4/23/02	Run ID: L_FID-1_020423C
	Batch ID: 303	TestNo: SW8015M		Analysis Date: 4/23/02	SeqNo: 20677

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	0.50									
Diesel Range Organics (C12-C22)	ND	0.50									
Oil Range Organics (C22-C34)	ND	0.50									
Total TPH	ND	0.50									
Surr: n-Octacosane	0.075	0.010	0.1	0	75	58	120	0	0		

Sample ID: LCS-303	SampType: LCS	TestCode: 8015ffp_w	Units: mg/L	Prep Date: 4/23/02	Run ID: L_FID-1_020423C
	Batch ID: 303	TestNo: SW8015M		Analysis Date: 4/23/02	SeqNo: 20676

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	3.967	0.50	5	0	79.3	53	91	0	0		
Surr: n-Octacosane	0.074	0.010	0.1	0	74	58	120	0	0		

Sample ID: LCSD-303	SampType: LCSD	TestCode: 8015FFP_W	Units: mg/L	Prep Date: 4/23/02	Run ID: L_FID-1_020423C
	Batch ID: 303	TestNo: SW8015M		Analysis Date: 4/23/02	SeqNo: 20678

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	4.154	0.50	5	0	83.1	53	91	3.967	4.61	25	
Surr: n-Octacosane	0.074	0.010	0.1	0	74	58	120	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
JI - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *29-Apr-02*

R 1/25 LRYTUL'I 2020421 8

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY

SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CAU 326 BN Org#: A435

Charge No.: ~~MC 5HCF~~ 5HC9B223 ASL Prog.:

Project Manager: Jeff Smith

Phone: 5-0573 Fax: 5-7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic

Phone: 5-7396 Fax: 5-7761 M/S: NTS 306

Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other: ( ) Rush Preliminary by: ______ Final by:

Final report format: ( ) Standard ( ) NTS-WAC ( ) Other:

SAMPLE INFORMATION

Sampling Site: ______

The samples submitted contain (check): ( ) Hazardous ( ) Radioactive ( ) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1535

Rad Packet: Non-Rad Packet:

Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO

If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A

If not, identify the variation

CSR initials indicating review and approval: ______ Date:

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No

Comments:

Do the labels agree with this form? (X) Yes ( ) No

Comments:

Was a Material Clearance Tag submitted? (X) Yes ( ) No

Comments:

ANALYSES & METHOD

	ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH - Gas/Diesel/Oil - Asphalt	COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
01	0	062501-S1	4/16/02	10:00	Soil	X	250 ml glass jar
02	1	062501 -S4	4/16/02	10:29	Soil	X	Samples Contain No Rad
03	2	062501 -S6	4/16/02	11:10	Soil	X	↓
04	3	062501 -S5	4/16/02	10:55	Soil	X	↓
05	4	062501 -S8	4/16/02	12:50	Soil	X	↓
06	5	062501 -S11	4/16/02	13:55	Soil	X	↓
07	6	062501 -S7	4/16/02	10:59	Soil	X	↓
	7	last item					
	8						
	9						

Custody seal intact? (Y) N None; Condition when received: (good)

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	4/17/02 8:50	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	4-17-02/1300	BN Courier
Relinquished (Courier & Tracking Info.)	**DATE / TIME**	**Received (1st tier Subcontractor Rep)**
Relinquished (1st tier Subcontractor Rep)	**DATE / TIME**	**Received (2nd tier Subcontractor Rep)**

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (02/98)

4/25 LEVEL 4 10104298

Bechtel Nevada

ANALYTICAL SERVICES LABORATORY

SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION

Project: CHU 326 BN Org#: A435
Charge No.: 5H09B223 ASL Prog.:
Project Manager: Jeff Smith
Phone: 5-0573 Fax: 5-7761 M/S: NTS 306

REPORT INFORMATION

Send Report to: Mike Kruzic
Phone: 5-7396 Fax: 5-7761 M/S: NTS 306
Turnaround: (X) Standard - 30 days Non-rad, 60 Days Rad, Other:
( ) Rush Preliminary by: _____ Final by:
Final report format: ( ) Standard ( ) NTS-WAC ( ) Other:

SAMPLE INFORMATION

Sampling Site: _____
The samples submitted contain (check):
( ) Hazardous ( ) Radioactive ( ) Unknown
contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

LAB USE ONLY

Rad SGD: Non-Rad SDG: V1535
Rad Packet: Non-Rad Packet:
Client Services Representative:

Will these analyses be performed under a signed SOW? ( ) YES ( ) NO
If so, do analyses entered here agree with the SOW? ( ) YES ( ) NO ( ) N/A
If not, identify the variation
CSR initials indicating review and approval: _____ Date:

ANALYSES & METHOD

ITEM	ID / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	TPH - Gas/Diesel/Oil - As per MS 4/17/02
08 0	062501-S2	4/16/02	10:00	liquid	X
1					
2					
3					
4					
5					
6					
7					
8					
9					

1 sample per item

SAMPLE RECEIPT INFORMATION

Are all sample containers received intact (X) Yes ( ) No
Comments: _____

Do the labels agree with this form? (X) Yes ( ) No
Comments: _____

Was a Material Clearance Tag submitted? (X) Yes ( ) No
Comments: _____

COMMENTS
(Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)

1 - L glass bottle
Sample free of Rad

2°C

Transfer of samples submitted for analyses

Sampled/Relinquished (Signature/Organization)	DATE / TIME	Received by (Signature/Organization)
/s/ Signature on file	4/17/02/1550	/s/ Signature on file

Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL

Relinquished (BN Representative Signature)	DATE / TIME	Received (Courier & Tracking Info.)
/s/ Signature on file	4-17-02/1700	BN COURIER
Relinquished (Courier & Tracking Info.)	DATE / TIME	Received (1st tier Subcontractor Rep)
Relinquished (1st tier Subcontractor Rep)	DATE / TIME	Received (2nd tier Subcontractor Rep)

Distribution: Original - To be retained by laboratory performing final analysis
Copy 1 - To be retained by laboratory performing intermediate analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by sampler

BN-0732 (02/98)

SAMPLE DELIVERY GROUP

V1625

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NEL LABORATORIES

Corporate Headquarters / Reno Laboratory
4750 Longley Lane, Suite 106
Reno, NV 89502
Phone: 775.348.2522
Fax: 775.348.2546

Las Vegas Laboratory
4208 Arcata Way, Suite A
Las Vegas, NV 89030
Phone: 702.657.1010
Fax: 702.657.1577

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1625** Order No.: **L0206246**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 2 samples on 6/17/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

6/26/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL LABORATORIES

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B1-10**
PROJECT ID:	V1625	**DATE SAMPLED:**	6/13/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206246-001A
MATRIX:	SOLID		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	**4200**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Gasoline Range Organics (C8-C12)	**790**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	**660**	**mg/Kg**	250	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	**5700**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Surr: n-Octacosane	**120**	**%REC**	55-130	5	SW8015Ext	06/18/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *26-Jun-02*

NEL LABORATORIES

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B1-45**
PROJECT ID:	V1625	**DATE SAMPLED:**	6/13/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206246-002A
MATRIX:	SOLID		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	**3600**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Gasoline Range Organics (C8-C12)	**390**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	**330**	**mg/Kg**	250	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	**4300**	**mg/Kg**	50	5	SW8015Ext	06/18/02	06/19/02	PXC-LV
Surr: n-Octacosane	**105**	**%REC**	55-130	5	SW8015Ext	06/18/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *26-Jun-02*

LI12002410

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION

Project: CAU 326 | BN Org #: A455
Charge Number: 5H09BZ23
Project Manager: Jeffrey L. Smith
Phone: 702-295-7775 | Fax: 702-295-7961 | M/S: NTS306

REPORT & TURNAROUND INFORMATION

Send Report to: M. Ke Kruzic
Phone: 702-295-7596 | Fax: 702-295-7761 | M/S: NTS306
Turnaround: ☒ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env,
☐ Rush Preliminary by: _____ (IH)
☐ 1 ☐ 2 ☐ 7 ☐ 14 (non-Rad Env)
☐ 1 ☐ 7 ☐ 14 ☐ 28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 326 CP Bus 1 or
The samples submitted contain (check);
☐ **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.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V1625 (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: NEL

6/24

Pay Item, Analysis, Method

ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	1021 TPH-Diesel/Oil
326-B1-10	6-13-02	10:50	Soil	1	250					X
326-B1-45	6-13-02	14:03	Soil	1	250					X
LAST ITEM										

CUSTODY TRANSFER Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Michael Kruzic	/s/ Signature on file	6-17-02/0855	CASTANEDA	6-17-02@0832	/s/ Signature on file
J CASTANEDA	/s/ Signature on file	6-17-02@1300	BN COURIER		6/17/02@1300
COURIER			Danya Crockett	left /s/ Signature on file	6/17/02 1745

Retention Code: ENV 5.c(1)

BN-0732 (04/02)

SAMPLE DELIVERY GROUP

V1622

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NEL LABORATORIES

Corpo[illegible] Headquarters /
Reno Laboratory
4750 Longley Lane, Suite 106
Reno, NV 89502
Phone: 775.348.2522
Fax: 775.348.2546

Las Vegas Laboratory
4208 Arcata Way, Suite A
Las Vegas, NV 89030
Phone: 702.657.1010
Fax: 702.657.1577

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1622** Order No.: **L0206211**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 5 samples on 6/13/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

6/24/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1622
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 326-B2-5
DATE SAMPLED: 6/11/02
NEL SAMPLE ID: L0206211-001A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	34	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Diesel Range Organics (C12-C22)	980	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	280	mg/Kg	50	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	1300	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Surr: n-Octacosane	67.1	%REC	55-130	1	SW8015Ext	06/17/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *24-Jun-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-OB2-5**
PROJECT ID:	V1622	**DATE SAMPLED:**	6/12/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206211-002A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	**40**	**mg/Kg**	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Diesel Range Organics (C12-C22)	**1300**	**mg/Kg**	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	**410**	**mg/Kg**	50	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	**1800**	**mg/Kg**	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Surr: n-Octacosane	**90.1**	**%REC**	55-130	1	SW8015Ext	06/17/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *24-Jun-02*

NEL LABORATORIES

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B2-45**
PROJECT ID:	V1622	**DATE SAMPLED:**	6/12/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206211-003A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Surr: n-Octacosane	86.1	%REC	55-130	1	SW8015Ext	06/17/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *24-Jun-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-OB2-45**
PROJECT ID:	V1622	**DATE SAMPLED:**	6/12/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206211-004A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Surr: n-Octacosane	81.1	%REC	55-130	1	SW8015Ext	06/17/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	326-B2-50
PROJECT ID:	V1622	DATE SAMPLED:	6/12/02
PROJECT #:	30033	NEL SAMPLE ID:	L0206211-005A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	06/17/02	06/19/02	PXC-LV
Surr: n-Octacosane	**78.1**	**%REC**	55-130	1	SW8015Ext	06/17/02	06/19/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *24-Jun-02*

CLIENT: Bechtel Nevada
Work Order: L0206211
Project: V1622

ANALYTICAL QC SUMMARY REPORT

BatchID: 488

Sample ID: 020617TPHS-MB	SampType: MBLK	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 6/17/02	Run ID: L_FID-1_020617B
	Batch ID: 488	TestNo: SW8015M		Analysis Date: 6/17/02	SeqNo: 38533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	10									
Diesel Range Organics (C12-C22)	ND	10									
Oil Range Organics (C22-C34)	ND	50									
Total Petroleum Hydrocarbons	ND	10									
Surr: n-Octacosane	3.3	0.010	3.33	0	99.1	55	130	0	0		

Sample ID: 020617TPHS-LCS	SampType: LCS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 6/17/02	Run ID: L_FID-1_020617B
	Batch ID: 488	TestNo: SW8015M		Analysis Date: 6/17/02	SeqNo: 38531

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	98.47	10	166.4	0	59.2	54	91	0	0		
Surr: n-Octacosane	2.795	0.010	3.324	0	84.1	55	130	0	0		

Sample ID: 020617TPHS-LCSD	SampType: LCSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 6/17/02	Run ID: L_FID-1_020617B
	Batch ID: 488	TestNo: SW8015M		Analysis Date: 6/17/02	SeqNo: 38532

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	111.6	10	166.7	0	67	54	91	98.47	12.5	25	
Surr: n-Octacosane	2.933	0.010	3.33	0	88.1	55	130	0	0	0	

Sample ID: L0206211-005A	SampType: MS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 6/17/02	Run ID: L_FID-1_020617B
	Batch ID: 488	TestNo: SW8015M		Analysis Date: 6/19/02	SeqNo: 39932

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	130.5	10	166.8	0	78.3	54	91	0	0		
Surr: n-Octacosane	3.134	0.010	3.331	0	94.1	55	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0206211
Project: V1622

ANALYTICAL QC SUMMARY REPORT

BatchID: 488

Sample ID: L0206211-005A	SampType: MSD	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 6/17/02	Run ID: L_FID-1_020617B
	Batch ID: 488	TestNo: SW8015M		Analysis Date: 6/19/02	SeqNo: 39933

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	130.1	10	166.8	0	78	54	91	130.5	0.333	25	
Surr: n-Octacosane	2.834	0.010	3.331	0	85.1	55	130	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

LE4FCL 4 L0205214 6/21

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/CLIENT INFORMATION

Project: CAU 326 | BN Org #: A435
Charge Number: 5H09BZ23
Project Manager: Jeffrey L. Smith
Phone: 702-295-7775 | Fax: 702-295-7761 | M/S: NTS306

REPORT & TURNAROUND INFORMATION

Send Report to: Michael Krucic
Phone: 702-295-7346 | Fax: 702-295-7761 | M/S: NTS306
Turnaround: ☒ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env. ☐ Rush Preliminary by: ______ (IH)
☐ 1 ☐ 2 ☐ 7 ☐ 14 (non-Rad Env)
☐ 1 ☐ ? ☐ 14 ☐ 28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 326
The samples submitted contain (check):
☐ 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.

SAMPLE MANAGEMENT INFORMATION

SDG: ______ (IH) V1622 (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: NEL

	ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10.21 TPH - Diesel/Oil							
01	326-B2-5	6/11/02	13:00	Soil	1	250mL	N/A	N/A	N/A	N/A	X							
02	326-OB2-5	6/11/02	13:00	Soil	1	↓			↓		X							
03	326-B2-45	6/12/02	9:39	Soil	1						X							
04	326-OB2-45	6/12/02	9:39	Soil	1						X							
05	326-B2-50	6/12/02	10:05	Soil	1						X							
	LAST ITEM																	

Custody Seal Intact? (Y) N None Temp 4°C
Condition when received (good)

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Marcus Dixon	/s/ Signature on file	6/13/02 9:26	CA CASTANEDA	/s/ Signature on file	6 13 02 @ 0926
CA CASTANEDA	/s/ Signature on file	6-13-02 @ 1300	BN COURIER		6 13 02 @ 1300
Via Courier			T-Sandige	/s/ Signature on file	6-13-02/1700

SAMPLE DELIVERY GROUP

V1635

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Boise

Corporate Division
4750 Longley Lane, Suite 106 • Reno, Nevada 89502
775-348-2522 • Fax: 775-788-7650
775-788-7648 • 1-800-368-5221

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1635** Order No.: **L0206374**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 3 samples on 6/24/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

7/15/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1635
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: 326-B3-45
DATE SAMPLED: 6/18/02
NEL SAMPLE ID: L0206374-001A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Surr: n-Octacosane	**92.1**	**%REC**	55-130	1	SW8015Ext	06/26/02	06/28/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *15-Jul-02*

CLIENT: Bechtel Nevada
PROJECT ID: V1635
PROJECT #: 30033
MATRIX: SOLID

CLIENT ID: 326-B3-50
DATE SAMPLED: 6/18/02
NEL SAMPLE ID: L0206374-002A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	20	1	SW8015Ext	06/26/02	06/28/02	PXC-LV
Surr: n-Octacosane	**66.1**	**%REC**	55-130	1	SW8015Ext	06/26/02	06/28/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *15-Jul-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B5-50**
PROJECT ID:	V1635	**DATE SAMPLED:**	6/19/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0206374-003A
MATRIX:	SOLID		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	20	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	20	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	20	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Surr: n-Octacosane	**93.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/06/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *15-Jul-02*

LS:::: 4 C0206357 / 8/1

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION

Project: CAU 326 | BN Org #: A435
Charge Number: 5H09B233
Project Manager: Jeffrey L. Smith
Phone: 702-295-7775 | Fax: 702-295-7761 | M/S: NTS 306

REPORT & TURNAROUND INFORMATION

Send Report to: Mike Kurtz
Phone: 702-295-7899 | Fax: 702-295-7761 | M/S: NTS 306
Turnaround: ☒ Standard - 14 days IH, 28 days Non-Rad Env, 45 Days Rad Env, ☐ Rush Preliminary by: ______ (IH)
☐1 ☐2 ☐7 ☐14 (non-Rad Env)
☐1 ☐7 ☐14 ☐28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 326 CP Bay 101
The samples submitted contain (check):
☐ 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.

SAMPLE MANAGEMENT INFORMATION

SDG: ______ (IH) V1635 (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: NEL

Pay Item, Analysis, Method

	ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	10.21 TPH-Diesel/8015							
01	326-B3-45	6/18/02	16:15	Soil	1	125					X							
02	326-B3-50	6/18/02	16:30	Soil	1	125					X							
03	326-B5-50	6/19/02	10:27	Soil	1	250					X							
	LAST ITEM											CORRECTED FROM KURTZ						
												NON-RAD AGED						
												MB7						

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Michael Kurtz	/s/ Signature on file	6/20/02 8:30	MICHAEL S FLOYD	/s/ Signature on file	6/20/02 / 830
MICHAEL S FLOYD	/s/ Signature on file	6/20/02 1253	C A CASTANEDA	/s/ Signature on file	6/20/02 1253
C A CASTANEDA	/s/ Signature on file	6/24/02 1300	BAI COURIER		6/24/02 1300

Retention Code: ENV 3.c(1)

BN-0732 (04/02)

NEL LABORATORIES

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Reno, NV 89502
Phone: 775.348.2522
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Fax: 702.657.1577

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1635** Order No.: **L0206374**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 3 samples on 6/24/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

7/17/02
Date QC Issued

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL Laboratories, Las Vegas

Date: *17-Jul-02*

CLIENT: Bechtel Nevada
Work Order: L0206374
Project: V1635

ANALYTICAL QC SUMMARY REPORT

BatchID: 521

Sample ID: **020626TPHS-MB**	SampType: **MBLK**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **6/28/02**	Run ID: **L_FID-1_020627B**
	Batch ID: **521**	TestNo: **SW8015M**		Analysis Date: **6/27/02**	SeqNo: **41785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	10									
Diesel Range Organics (C12-C22)	ND	10									
Oil Range Organics (C22-C34)	ND	50									
Total Petroleum Hydrocarbons	ND	10									
Surr: n-Octacosane	3.333	0.010	3.33	0	100	55	130	0	0		

Sample ID: **020626TPHS-LCS**	SampType: **LCS**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **6/28/02**	Run ID: **L_FID-1_020627B**
	Batch ID: **521**	TestNo: **SW8015M**		Analysis Date: **6/27/02**	SeqNo: **41783**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	148	10	166.8	0	88.7	54	91	0	0		
Surr: n-Octacosane	3.069	0.010	3.332	0	92.1	55	130	0	0		

Sample ID: **020626TPHS-LCSD**	SampType: **LCSD**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **6/28/02**	Run ID: **L_FID-1_020627B**
	Batch ID: **521**	TestNo: **SW8015M**		Analysis Date: **6/27/02**	SeqNo: **41784**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	129.8	10	166.9	0	77.8	54	91	148	13.1	25	
Surr: n-Octacosane	3.17	0.010	3.333	0	95.1	55	130	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0206374
Project: V1635

ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: 020701TPHS-MB	SampType: MBLK	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/2/02	SeqNo: 44124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	10									
Diesel Range Organics (C12-C22)	ND	10									
Oil Range Organics (C22-C34)	ND	50									
Total Petroleum Hydrocarbons	ND	10									
Surr: n-Octacosane	3.097	0.010	3.327	0	93.1	55	130	0	0		

Sample ID: 020701TPHS-LCS	SampType: LCS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/5/02	SeqNo: 44122

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	126.4	10	166.4	0	76	54	91	0	0		
Surr: n-Octacosane	3.295	0.010	3.324	0	99.1	55	130	0	0		

Sample ID: 020701TPHS-LCSD	SampType: LCS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/5/02	SeqNo: 44123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	121.1	10	166.5	0	72.7	54	91	0	0		
Surr: n-Octacosane	3.164	0.010	3.327	0	95.1	55	130	0	0		

Sample ID: L0206374-003A	SampType: MS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/6/02	SeqNo: 47298

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	144.7	20	166.5	0	86.9	54	91	0	0		
Surr: n-Octacosane	3.262	0.010	3.326	0	98.1	55	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0206374
Project: V1635

ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: **L0206374-003A**	SampType: **MSD**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **7/1/02**	Run ID: **I_FID-1_020702A**
	Batch ID: **549**	TestNo: **SW8015M**		Analysis Date: **7/6/02**	SeqNo: **47297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	67.08	20	166.5	0	40.3	54	91	144.7	73.3	25	SR
Surr: n-Octacosane	1.365	0.010	3.326	0	41	55	130	0	0	0	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

SAMPLE DELIVERY GROUP

V1640

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NEL LABORATORIES
Reno • Las Vegas
Phoenix • Burbank

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1640** Order No.: **L0207008**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 5 samples on 7/1/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

7/10/02
Date

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1640
PROJECT #: 30033
MATRIX: SOIL

CLIENT ID: 326-B7-10
DATE SAMPLED: 6/20/02
NEL SAMPLE ID: L0207008-001A

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/05/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/05/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	07/01/02	07/05/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/05/02	PXC-LV
Surr: n-Octacosane	**80.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/05/02	PXC-LV

ND - Not Detected at the Reporting Limit
DF - Dilution Factor

B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
E - Value above quantitation range

Date: *10-Jul-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	326-B7-12
PROJECT ID:	V1640	**DATE SAMPLED:**	6/20/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0207008-002A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Surr: n-Octacosane	**85.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/06/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *10-Jul-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B7-75**
PROJECT ID:	V1640	**DATE SAMPLED:**	6/20/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0207008-003A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	15	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	15	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	75	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	15	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Surr: n-Octacosane	**70.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/06/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *10-Jul-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B8-20**
PROJECT ID:	V1640	**DATE SAMPLED:**	6/25/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0207008-004A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Surr: n-Octacosane	**92.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/06/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *10-Jul-02*

CLIENT:	Bechtel Nevada	**CLIENT ID:**	**326-B9-30**
PROJECT ID:	V1640	**DATE SAMPLED:**	6/26/02
PROJECT #:	30033	**NEL SAMPLE ID:**	L0207008-005A
MATRIX:	SOIL		

Parameter	Result	Unit	Reporting Limit	DF	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Gasoline Range Organics (C8-C12)	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Total Petroleum Hydrocarbons	ND	mg/Kg	10	1	SW8015Ext	07/01/02	07/06/02	PXC-LV
Surr: n-Octacosane	**95.1**	**%REC**	55-130	1	SW8015Ext	07/01/02	07/06/02	PXC-LV

ND - Not Detected at the Reporting Limit

DF - Dilution Factor

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

Date: *10-Jul-02*

JEFF L 7 7/7 Quote 200 (BCA)

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION
Project: CAU 326 | BN Org #: A435
Charge Number: 5HC98223
Project Manager: Jeff Smith
Phone: 702-295-7375 | Fax: 702-295-7261 | M/S:

REPORT & TURNAROUND INFORMATION
Send Report to: Michael Krizic
Phone: 702-295-7396 | Fax: 702-295-7261 | M/S: NTS 306
Turnaround: ☒ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env, ☐ Rush Preliminary by: _____ (IH)
☐1 ☐2 ☐7 ☐14 (non-Rad Env)
☐1 ☐7 ☐14 ☐28 (Radiological Env)

SAMPLE INFORMATION
Sampling Site: CAU 326
The samples submitted contain (check):
☐ 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.

SAMPLE MANAGEMENT INFORMATION
SDG: _____ (IH) V1640 (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: NEL

Pay Item, Analysis, Method

	ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	10.21 TPH-Diesel/Oil
01	326-B7-10	6-20-02	0745	Soil	1	250 g	N/A	N/A	N/A		X
02	326-B7-12	6-20-02	0950	Soil	1						X
03	326-B7-15	6-20-02	15:31	Soil	1						X
04	326-B8-20	6-25-02	15:35	Soil	1						X
05	326-B9-30	6-26-02	11:40	Soil	1						X

Less than

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Michael Krizic	/s/ Signature on file	6-27-02/0931	CA CASTANEDA	/s/ Signature on file	6/27/02 0931
CA CASTANEDA	/s/ Signature on file	7/01/02 1300	BN COURIER		7/01/02 1300
ML PERKES	/s/ Signature on file	7/01/02 1545	Spencer Price	/s/ Signature on file	7/1/02 1545

Retention Code: ENV 5.c(1)

BN-0732 (04/02)

NEL LABORATORIES

Corporate Headquarters / Reno Laboratory
4750 Longley Lane, Suite 106
Reno, NV 89502
Phone: 775.348.2522
Fax: 775.348.2546

Las Vegas Laboratory
4208 Arcata Way, Suite A
Las Vegas, NV 89030
Phone: 702.657.1010
Fax: 702.657.1577

Ted Redding
Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521

TEL: 702-295-7220

RE Project: **V1640** Order No.: **L0207008**

Dear Ted Redding:

NEL Laboratories, Las Vegas received 5 samples on 7/1/02 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications unless noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

/s/ Signature on file

Stan VanWagenen
Laboratory Manager

7/17/02
Date Issued QC

Certifications:	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
New Mexico	Certified	Certified

NEL Laboratories, Las Vegas

Date: *17-Jul-02*

CLIENT: Bechtel Nevada
Work Order: L0207008
Project: V1640

ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: 020701TPHS-MB	SampType: MBLK	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/2/02	SeqNo: 44124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (C8-C12)	ND	10									
Diesel Range Organics (C12-C22)	ND	10									
Oil Range Organics (C22-C34)	ND	50									
Total Petroleum Hydrocarbons	ND	10									
Surr: n-Octacosane	3.097	0.010	3.327	0	93.1	55	130	0	0		

Sample ID: 020701TPHS-LCS	SampType: LCS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/5/02	SeqNo: 44122

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	126.4	10	166.4	0	76	54	91	0	0		
Surr: n-Octacosane	3.295	0.010	3.324	0	99.1	55	130	0	0		

Sample ID: 020701TPHS-LCSD	SampType: LCS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/5/02	SeqNo: 44123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	121.1	10	166.5	0	72.7	54	91	0	0		
Surr: n-Octacosane	3.164	0.010	3.327	0	95.1	55	130	0	0		

Sample ID: L0206374-003A	SampType: MS	TestCode: 8015FFP_S	Units: mg/Kg	Prep Date: 7/1/02	Run ID: L_FID-1_020702A
	Batch ID: 549	TestNo: SW8015M		Analysis Date: 7/6/02	SeqNo: 47298

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	144.7	20	166.5	0	86.9	54	91	0	0		
Surr: n-Octacosane	3.262	0.010	3.326	0	98.1	55	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Bechtel Nevada
Work Order: L0207008
Project: V1640

ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: **L0206374-003A**	SampType: **MSD**	TestCode: **8015FFP_S**	Units: **mg/Kg**	Prep Date: **7/1/02**	Run ID: **L_FID-1_020702A**
	Batch ID: **549**	TestNo: **SW8015M**		Analysis Date: **7/6/02**	SeqNo: **47297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (C12-C22)	67.08	20	166.5	0	40.3	54	91	144.7	73.3	25	SR
Surr: n-Octacosane	1.365	0.010	3.326	0	41	55	130	0	0	0	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

APPENDIX C

USE RESTRICTION DOCUMENTATION

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CAU Use Restriction Information

CAU Number/Description: CAU 326: Area 6 and 27 Release Sites, Nevada Test Site, Nevada

Applicable CAS Numbers/Descriptions: CAS 06-25-01: CP-1 Heating Oil Release / Heating Oil release associated with broken feed and return pipelines running from Tank 6-CP-1 to Building CP-1 in Area 6 CP.

Contact (organization/project): NNSA/NV Industrial Sites Project Manager

Surveyed Area (UTM coordinates, Zone 11, NAD 27): Three areas around the feeder and return pipelines were surveyed for use restriction.

Area Inside CP fenced compound from the north west corner and moving clockwise:

NW corner:	4,087,847.009 m N, 584,310.243 m E
N. Point 1:	4,087,847.188 m N, 584,324.116 m E
N. Point 2:	4,087,838.228 m N, 584,334.606 m E
NE corner:	4,087,837.982 m N, 584,368.923 m E
SE corner:	4,087,827.594 m N, 584,369.000 m E
S. Point 1:	4,087,827.955 m N, 584,334.497 m E
S. Point 2:	4,087,837.182 m N, 584,324.988 m E
SW corner:	4,087,836.648 m N, 584,309.977 m E

Area in parking lot west of Building CP-70, site of original pipeline break

NW corner:	4,087,836.511 m N, 584,399.978 m E
NE corner:	4,087,835.570 m N, 584,444.461 m E
SE corner:	4,087,825.222 m N, 584,445.108 m E
SW corner:	4,087,826.235 m N, 584,400.331 m E

Area covering break in southern pipeline, south of the parking lot, north of the CP access road.

NW corner:	4,087,791.385 m N, 584,414.991 m E
NE corner:	4,087,790.554 m N, 584,420.998 m E
SE corner:	4,087,781.988 m N, 584,419.358 m E
SW corner:	4,087,783.001 m N, 584,413.405 m E

Survey Date 08/14/2002 **Survey Method (GPS, etc.)** Transit Survey **Datum** NAD 1927
Site Monitoring Requirements: NONE
Monitoring Frequency (quarterly, annually?): N/A

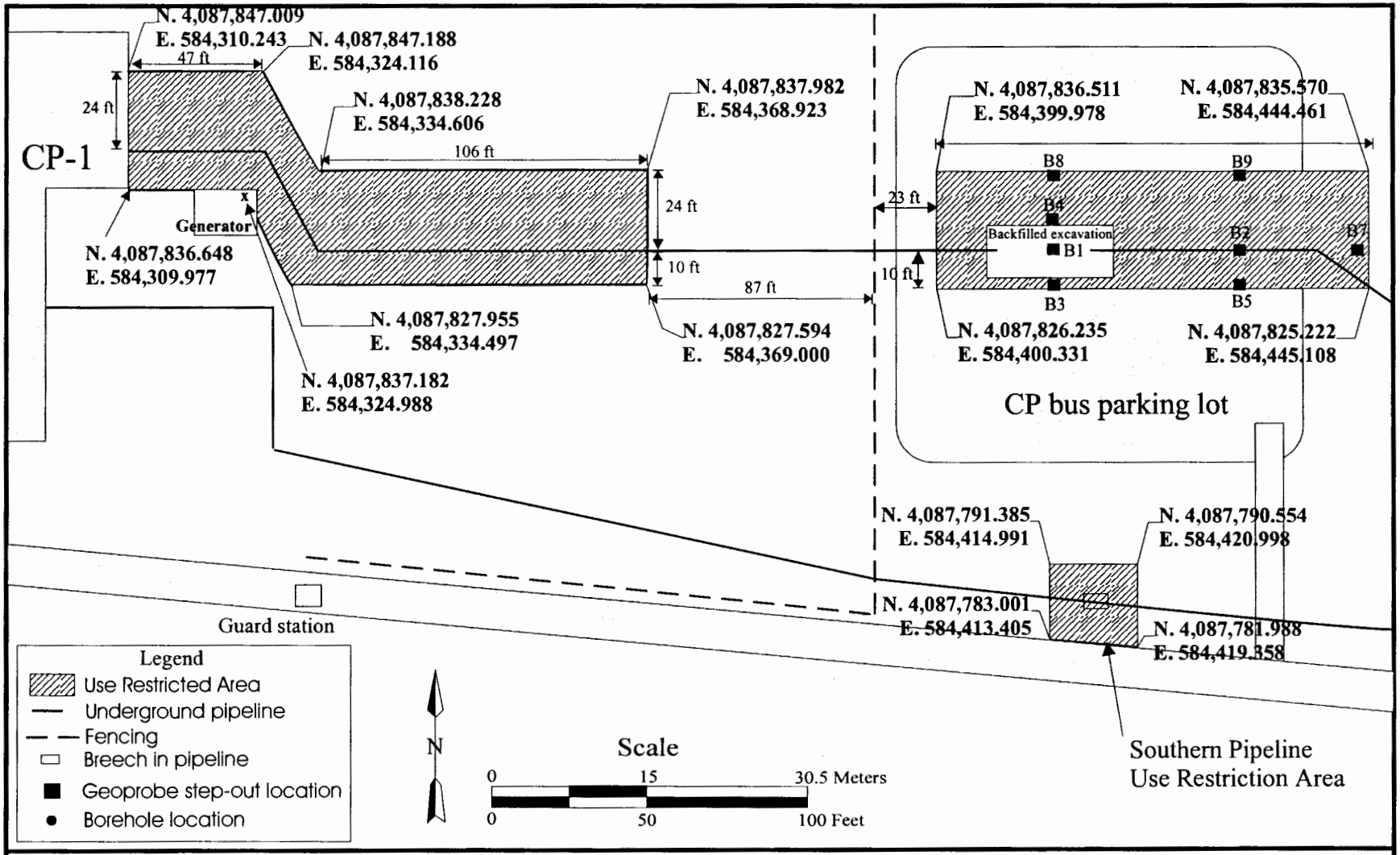
Use Restrictions

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: Petroleum hydrocarbons (heating oil) are present in the soil at the locations in the above surveyed locations and where identified in the associated drawing. Advance approval must be obtained from NNSA/NV Industrial Sites group (phone number 295-0461) prior to any subsurface activities at these locations, including routine maintenance, repair, or other activities. Emergencies are the only exception to obtaining advance approval, and notification should be provided to NNSA/NV Industrial Sites group when emergency activities are required. Refer to the *Closure Report for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada*, DOE/NV--859, October 2002, for additional information on conditions at the site.

Submitted By: /s/ Signature on file **Date:** 12/19/02

Attachments: Site diagram showing survey locations and coordinates.



USE RESTRICTION INFORMATION
CAU 326: Area 6 and 27 Release Sites
CAS 06-25-01: CP-1 Heating Oil Release

CAU Use Restriction Information

CAU Number/Description: CAU 326: Area 6 and 27 Release Sites, Nevada Test Site, Nevada

Applicable CAS Numbers/Descriptions: CAS 06-25-02: UST Release / Fuel spill associated with filling underground storage tank, Tank 6-DAF-5 located west of Building 500 at the Area 6 DAF facility.

Contact (organization/project): NNSA/NV Industrial Sites Project Manager

Surveyed Area (UTM coordinates, Zone 11, NAD 27):

Area of fuel release located about Tank 6-DAF-5 fill port

NW corner: 4,083,700.850 m N, 584,977.075 m E
NE corner: 4,083,697.961 m N, 584,982.613 m E
SE corner: 4,083,692.489 m N, 584,979.897 m E
SW corner: 4,083,695.340 m N, 584,974.165 m E

Survey Date 08/15/2002 **Survey Method (GPS, etc.)** Transit Survey **Datum** NAD 1927
Site Monitoring Requirements: NONE
Monitoring Frequency (quarterly, annually?): N/A

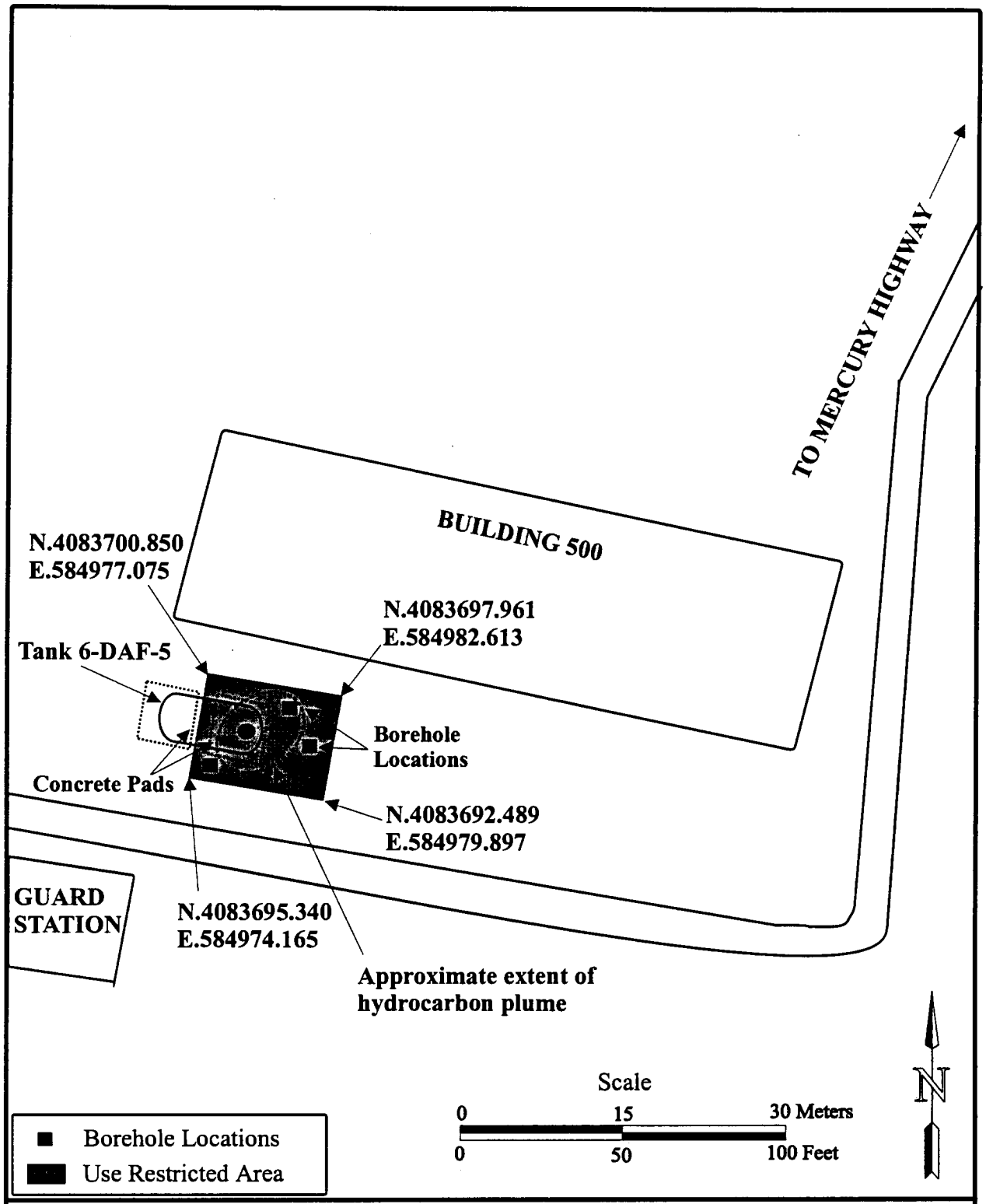
Use Restrictions

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.

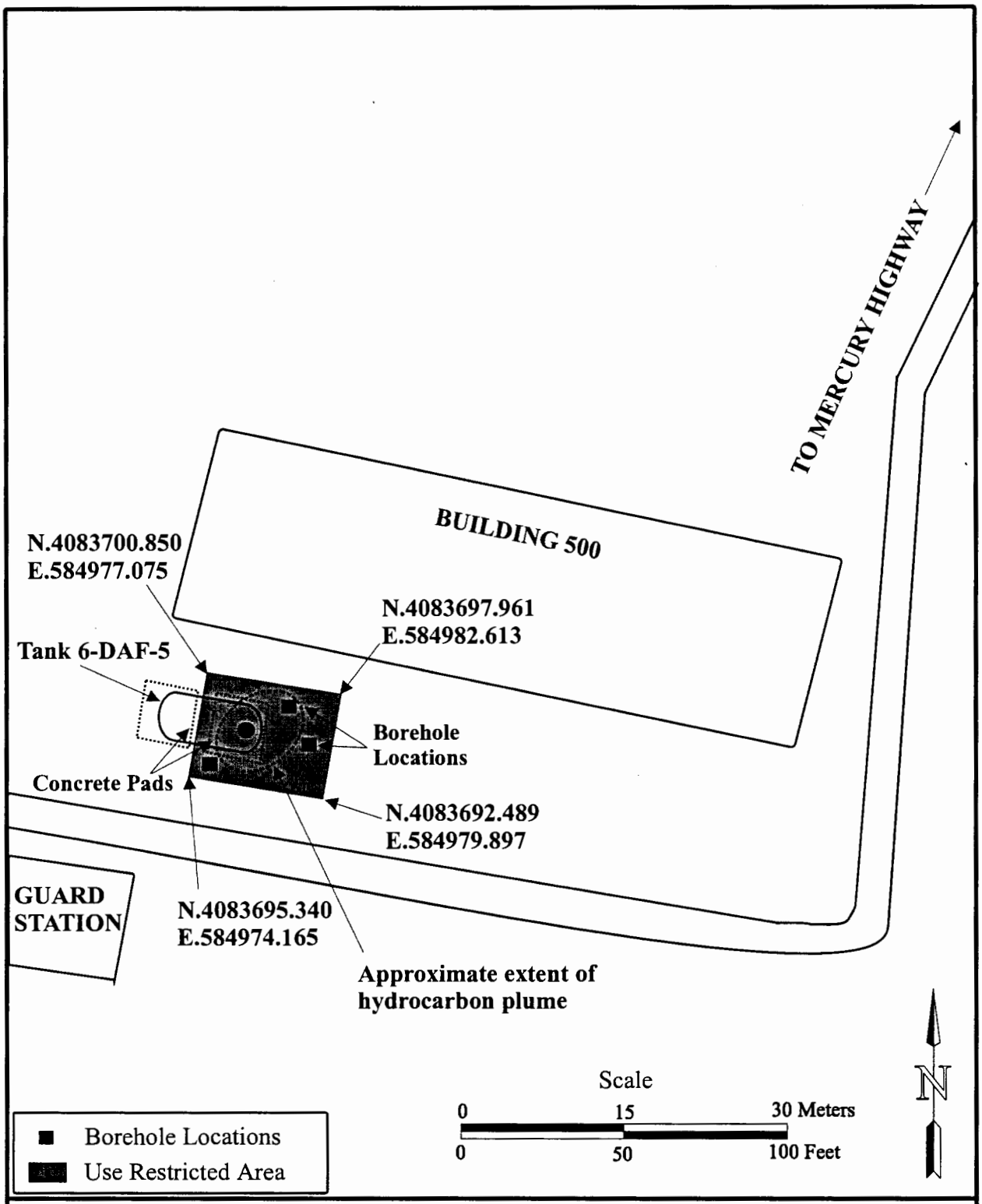
Comments: Petroleum hydrocarbons (heating oil) are present in the soil at the locations in the above surveyed locations and where identified in the associated drawing. Advance approval must be obtained from NNSA/NV Industrial Sites group (phone number 295-0461) prior to any subsurface activities at these locations, including routine maintenance, repair, or other activities. Emergencies are the only exception to obtaining advance approval, and notification should be provided to NNSA/NV Industrial Sites group when emergency activities are required. Refer to the *Closure Report for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada*, DOE/NV--859, October 2002, for additional information on conditions at the site.

Submitted By: /s/ Signature on file **Date:** 12/19/02

Attachments: Site diagram showing survey locations and coordinates.



USE RESTRICTION INFORMATION
CAU 326: Area 6 and 27 Release Sites
CAS 06-25-02: UST Release



USE RESTRICTION INFORMATION
CAU 326: Area 6 and 27 Release Sites
CAS 06-25-02: UST Release

APPENDIX D

WASTE DISPOSITION DOCUMENTATION

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Waste Management System - [Sanitation Module]

Action Edit Block Field Record Query Window Help

SOLID WASTE TRACKING SYSTEM

Landfill ID	Date Of Receipt	Waste Category	Type Of Waste	EM or DP	Routine or Clean-up	Weight Pounds	Origin Of Waste: Area No.	Origin Of Waste: Building No.	
AREA 6	14-AUG-2002	I	FFACO-ONSITE	EM	CLEAN-UP	20000	06	CAU 326	Comments
AREA 9	27-MAR-2002	I	NTS	EM	CLEAN-UP	27000	27	CAU 326	Comments
AREA 9	27-MAR-2002	I	NTS	EM	CLEAN-UP	30000	27	CAU 326	Comments
									Comments
									Comments
									Comments
									Comments
									Comments
									Comments
									Comments

If you Save data, a report on records that have been changed today will be printed to your default printer when you Exit.

Bechtel Nevada | << | < | > | >> | Query | Save | Exit | Bechtel Nevada

Count: 3

Waste Management System - [Sanitation Module]

Action Edit Block Field Record Query Window Help

SOLID WASTE TRACKING SYSTEM

Landfill ID	Date Of Receipt	Waste Category	Type Of Waste	EM or DP	Routine or Clean-up	Weight Pounds	Origin Of Waste Area No.	Origin Of Waste Building No.	
AREA 6	02-JUL-2002	I	FFACO-ONSITE	EM	CLEAN-UP	4500	06	CAU326	Comments
AREA 9	17-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	43000	27	CAU326	Comments
AREA 9	17-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	45000	27	CAU326	Comments
AREA 9	17-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	44000	27	CAU326	Comments
AREA 9	17-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	44000	27	CAU326	Comments
AREA 9	14-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	25000	27	CAU326	Comments
AREA 9	13-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	42000	27	CAU326	Comments
AREA 9	13-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	39000	27	CAU326	Comments
AREA 9	13-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	38000	27	CAU326	Comments
AREA 9	13-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	41000	27	CAU326	Comments

If you Save data, a report on records that have been changed today will be printed to your default printer when you Exit.

Bechtel Nevada << < > >> Query Save Exit Bechtel Nevada

2

Count: 10

Waste Management System - [Sanitation Module]

Action Edit Block Field Record Query Window Help

SOLID WASTE TRACKING SYSTEM

Landfill ID	Date Of Receipt	Waste Category	Type Of Waste	EM or DP	Routine or Clean-up	Weight Pounds	Origin Of Waste: Area No.	Origin Of Waste: Building No.	
~~AREA 9~~	~~13-JUN-2002~~	~~I~~	~~FFACO-ONSITE~~	~~EM~~	~~CLEAN-UP~~	~~38000~~	~~27~~	~~CAU326~~	Comments
~~AREA 9~~	~~13-JUN-2002~~	~~I~~	~~FFACO-ONSITE~~	~~EM~~	~~CLEAN-UP~~	~~41000~~	~~27~~	~~CAU326~~	Comments
AREA 9	12-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	32000	27	CAU326	Comments
AREA 9	12-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	39000	27	CAU326	Comments
AREA 9	12-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	36000	27	CAU326	Comments
AREA 9	12-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	38000	27	CAU326	Comments
AREA 9	12-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	34000	27	CAU326	Comments
AREA 9	26-MAR-2002	I	FFACO-ONSITE	EM	CLEAN-UP	32000	27	CAU326	Comments
AREA 9	26-MAR-2002	I	FFACO-ONSITE	EM	CLEAN-UP	29000	27	CAU326	Comments
AREA 23	07-FEB-2002	I	NTS	EM	CLEAN-UP	9500	27	CAU326	Comments

see previous page

If you Save data, a report on records that have been changed today will be printed to your default printer when you Exit.

Bechtel Nevada << < > >> Query Save Exit Bechtel Nevada

Count *18

Nevada Test Site

LANDFILL DAILY ACCESS REGISTER

(4) 2/11/02 QC KW 3/5/02

DATE: 2-7-02 (check one) ☐ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ ~~Area 23~~ Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N C	A-27	C	I	19,500	9:30	9:45	Ey: D
~~BN~~ KW	~~A-35 NLV~~ RV						
BN A24	~~A35~~ RSL	NP	2	500	930	945	MC M/
BN 2/11/02	A-23	NP	11738	25820	15:30	16:15	Bickham, D
BN	A-24-PATROL	C	est	1400	3:45	4:00	Smith B
BN	A-6 & A-23	P	11739	12.00	15:30	16:05	Jones, J.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☑ No ☐ Yes

Does cover need repair / evidence of settling? ☑ No ☐ Yes

Does fence need repair? ☑ No ☐ Yes

Does road(s) need repair? ☑ No ☐ Yes

Has litter accumulated? ☑ No ☐ Yes

Has water accumulated? ☑ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time): /s/ Signature on file 2-7-02 7250

Random Load Inspection: Ticket Number: 2

☑ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time): /s/ Signature on file 2/7/02 1110

BN-0917 (12/99)

I W/O 4350

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration, Don Cox Phone Number: 5-5576

Location / Origin: Area 27, Site Maintenance Yard, CAU 326

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	
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	☐ Rubber (excluding tires)	☐ Empty containers
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Demolition debris
		☒ Paper		☐ Rocks / unaltered geologic materials	☐ 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 Tanks
☐ Hydrocarbons (contact SWO)		

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 knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only th site. I have verified this through the waste characterization method identi prohibited and allowable waste items.

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 [illegible] analysis.

SIGNATURE /s/ Signature on file DATE: 2-5-02

BN-0646 (08/99)

Print Name: Donald H. Cox

Signature: /s/ Donald Cox Date: 18 JAN. 02

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): 19,520 Signature of Certifier: /s/ Signature on file

BN-0818 (08/99)

LANDFILL DAILY ACCESS REGISTER

3-26-02 (check one) [x] Area 9 - U10c [ ] Area 6 Hydrocarbon [ ] Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials	
BN	23	C	10	22,000	11:45	12:55	[illegible]	✓
A-23 BN	23	C	11	12000	1:30	1:45	TOLLADAY, C	✓
ER Don Cox	A27 SMY CAU 326	C	12	32,000	1:40	2:10	KACZAY K.	✓
BN	A-23	C	13	15,500	1:45	2:00	HULL R	✓
B/N	A.3	C	14	22,000	145	200	V.C.	✓
B.N	A-23	C	15	35,200	2:15	2:30	HARRIS L	✓
B/N	A.3	C	16	27,500	230	240	V.C.	✓
B/N	A.3	C	17	15,000	320	335	V.C.	✓
ER Don Cox	A27 SMY CAU 326	C	18	29,000	3:35	3:55	KACZAY K	✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? [ ] No [ ] Yes

Does cover need repair / evidence of settling? [ ] No [ ] Yes

Does fence need repair? [ ] No [ ] Yes

Does road(s) need repair? [ ] No [ ] Yes

Has litter accumulated? [ ] No [ ] Yes

Has water accumulated? [ ] No [ ] Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** ____________

[ ] No prohibited waste was found

[ ] Yes, the prohibited waste(s) identified below were found.

- [ ] Putrescible waste (prohibited in U10c and Area 6 Landfills).
- [ ] Hazardous waste per NAC 444.580
- [ ] PCB waste regulated by TSCA
- [ ] Waste containing free liquids
- [ ] TSCA-regulated
- [ ] Waste failing the "no added radioactivity" per the POC requirement.
- [ ] Friable asbestos (prohibited in U10c and Area 6 Landfills)
- [ ] Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

NN 0517 (12/99)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration, Don Cox Phone Number: 5-5576

Location / Origin: Area 27, Site Maintenance Yard, CAU 326

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	
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	☐ Rubber (excluding tires)	☐ Paper	☐ Rocks / unaltered geologic materials
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Empty containers	☐ Demolition debris
☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)					☐ Cement & concrete	

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 Wasi knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only t site. I have verified this through the waste characterization method ident prohibited and allowable waste items.

Print Name: Donald H. Cox

Signature: /s/ Donald Cox Date: 26 MAR 02

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This containerload is free of external radioactive contamination.

☒ This containerload is exempt from survey due to process knowledge and origin.

☐ This containerload is free of radioactive contamination based on radioanalysis.

SIGNATURE: /s/ Signature on file DATE: 3-26-02

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): 29,000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 (9 circled) LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration, Don Cox Phone Number: 5-5576

Location / Origin: Area 27, Site Maintenance Yard, CAU 326

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☒ NTS ☐ Putrescible ■ FFACO-onsite 6/26/02 ☐ WAC Exception ☐ 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

☐ Coolants ☐ 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 Wast... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only t... ...te. I have verified this through the waste characterization method Ident... prohibited and allowable waste items.

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: /s/ Signature on file DATE: 3-26-02

BN-0848 (09/00)

Print Name: Donald H. Cox

Signature: /s/ Donald Cox Date: 26 MAR 02

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)) 32,000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

Bechtel Nevada

LANDFILL DAILY ACCESS REGISTER

KW 3/27/02

DATE: 3-27-02 (check one) ☑ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-23		1	22000	9:00	9:30	Hager, Jessie
BN	A-23	C	2	17000	9:05	9:15	Tolladay, C
BN	A-23	C	3	18,000	9:10	9:20	Hall, B
BN	A-23	C	(4)	~~19,000~~ [illegible]	9:20	9:30	Lucas R 11,000 lbs KW 3/28/02
BN	A-23	C	5	32,600	9:20	9:35	[illegible] E
BN	(A-23) TK ok KW 3/28/02	(C)	6	15,000	11:00	11:15	[illegible] E
BN	A-27	C	7	30,000	11:15	11:30	Smith, B L.
E-R Don Cox	A27 SMY CAU 326	C	8	27,000	11:20	11:45	Kaczay, K
BN	A-23	C	9	12,500	12:55	1:05	Hall, B

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** ____________

☐ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

(7)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration, Don Cox Phone Number: 5-5576

Location / Origin: Area 27, Site Maintenance Yard, CAU 326

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	
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	☐ Rubber (excluding tires)	☐ Empty containers	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Demolition debris	☐ 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 Wast knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only t site. I have verified this through the waste characterization method iden prohibited and allowable waste items.

Radiation Survey Release for Waste Disposal

RCT Initials

☐ This containerload is free of external radioactive contamination.

☒ This containerload is exempt from survey due to process knowledge and origin.

☐ This containerload is free of radioactive contamination based on radioanalysis.

SIGNATURE: /s/ Signature on file DATE: 3-21-02

BN-0848 (09/99)

Print Name: Donald H. Cox

Signature: /s/ Donald Cox Date: 26MAR02

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): 30,000 Signature of Certifier: /s/ Signature on file

BN-0818 (09/00)

8

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration, Don Cox Phone Number: 5-5576

Location / Origin: Area 27, Site Maintenance Yard, CAU 326

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	
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	☐ Paper	☐ Rocks / unaltered geologic materials	☐ Empty containers
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Rubber (excluding tires)	☐ Insulation (non-Asbestosform)	☐ Demolition debris
☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)						☐ Cement & concrete

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 Was knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only t site. I have verified this through the waste characterization method ident prohibited and allowable waste items.

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: /s/ Signature on file DATE: 3-27-02

BN-0848 (5/99)

Print Name: Donald H. Cox

Signature: /s/ Donald Cox Date: 26MAR02

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): 27,000 Signature of Certifier: /s/ Signature on file

BN-0915 (09/00)

Bechtel Nevada

LANDFILL DAILY ACCESS REGISTER

DATE: 6/12/02 (check one) ☒ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-12	C	1	Est. 2800	845	900	JONES S ✓
~~BN~~ Mike Kauzic	A-27 MyEx	C	2	Est. 32,000	08:32	8:48	KAUZAY K ✓
B.N	A-12	C	3	28960	9:15	9:40	HARRIS E ✓
B.N.	A-12	C	4	10,000	10:10	10:25	LUCAS R ✓
BN	A-12	C	5	14000	1020	1035	JONES S ✓
B.N	A-12	C	6	23,600	10:30	10:45	HARRIS E ✓
B.N	A-12	C	7	10,000	10:30	10:45	JONES S ✓
Mike Kauzic	A-27/MyEx	C	8	Est. 34,000	10-22	10:38	KAUZAY K ✓
B.N	A-12	C	9	9,500	11:10	11:25	LUCAS R ✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** _____

☐ **No** prohibited waste was found

☐ **Yes**, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

DATE: 6/12/02 (check one) ☒ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-12	C	10	26,420	11:15	11:30	[illegible] E ✓
BN	A-12	C	11	24,210	11:25	11:40	JONES, S ✓
BN	A-12	C	12	10,000	11:32	11:45	TOLLADAY, C ✓
BN	A-12	C	13	16,000	11:55	12:10	[illegible] ✓
MIKE KAUZLA	A-27	C	14	Est. 36,000	11:56	12:10	KACZAY K ✓
BN	A-12	C	15	12,000	12:35	12:50	JONES, S ✓
BN	A-12	C	16	10,000	1:15	1:30	TOLLADAY, C ✓
BN	A-12	C	17	22,360	1:30	1:45	HARRIS E ✓
BN	A-12	C	18	12000	1:20	135	JONES, S ✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** _____

☐ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

BN-0017 (12/99)

LANDFILL DAILY ACCESS REGISTER

DATE: 6/12/02 (check one) ☒ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-12	C	19	10,000	1:30	1:45	LUCAS K, ✓
BN	A-12	C	20	1640	13:45	14:00	BICKFORD ✓
BN	A-12	C	21	4,440	2:15	2:30	TOLLADAY, C ✓
MIKE KRUZIC	A27	C	22	Est. 34,000	2:00	2:10	KACZAY K ✓
BN	A-12	C	23	4640	2:20	2:35	JONES, S ✓
MIKE KRUZIC	A27 M4/EX	C	24	Est. 38,000	3:35	3:44	KACZAY K ✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** _____

☐ **No** prohibited waste was found

☐ **Yes**, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

(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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

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

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 Manage... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat... site. I have verified this through the waste characterization method identified abov... prohibited and allowable waste items.

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: McBride DATE: 6-11-02

Print Name: Michael Kruzic

Signature: ______ Date: 6/11/02

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)): 65 32,000 Signature of Certifier: ______

BN-0918 (09/00)

(8)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) MK 6/12/02 ☐ Commercial ☒ Industrial 6/11/02

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

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 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 Manage owledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat te. I have verified this through the waste characterization method identified abov ohibited and allowable waste items.

Print Name: Michael Kruzic MK 6/12/02

Signature: _____ Date: 6/11/02

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: as per Dog McBride DATE: 6-11-02

BN-0948 (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): 39,000 Signature of Certifier: _____

BN-0918 (09/00)

(17)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

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	
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 ☐ Paper ☐ Rocks / unaltered geologic materials ☐ Rubber (excluding tires) ☐ Insulation (non-Asbestosform) ☐ Empty containers ☐ Demolition debris ☐ Cement & concrete

☐ Plastic ☐ Wire ☐ Cable ☐ Cloth

☐ 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 Tanks

☐ Hydrocarbons (contact SWO)

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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: _____ Date: 6/11/02

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: as per D. McBride DATE: 6-11-02

SN-0848 (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): 36,800 Signature of Certifier: _____

SN-0918 (09/00)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

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

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 Manage[ment Area 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 mat[erials ...] site. I have verified this through the waste characterization method identified abov[e ...] prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: ____________ Date: 6/11/02

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: 6-11-02

BN-0846 (08/00)

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)): 34,000 Signature of Certifier: ______

BN-0918 (09/00)

Nevada

LANDFILL DAILY ACCESS REGISTER

DATE: 6-13-02 (check one) ☑ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials	
B.N.	A-25	C	I	34260	9:30	9:45	[illegible]	✓
Mike Kauzic	A27 M4/E4	C	2	Est. 42,000	9:15	9:30	Kauzic K	✓
BN	A-12	C	3	28,[illegible]	[illegible]	[illegible]	[illegible]	✓
B.N.	A-17	C	IV	16,000	10:30	10:45	[illegible]	✓
Mike Kauzic	A27 M4/E4	C	5	Est. 39,000	10:50	11:05	Kauzic K	✓
BN	A-12	C	6	6,000	11:00	11:15	[illegible]	✓
BN	A-17	C	~~37~~	4649	11:00	11:16	Wright K.	✓
Mike Kauzic	A27 M4/E4	C	8	38,000	12:56	1:08	Kauzic K	✓
BN	A-12	C	9	24,700	13:50	13:50	[illegible]	✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: Ticket Number: _____

☐ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

BN-0917 (12/99)

Bechtel Nevada

LANDFILL DAILY ACCESS REGISTER

DATE: 6-13-02 (check one) [x] Area 9 - U10c [ ] Area 6 Hydrocarbon [ ] Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	4-11	C	10	7209	1:32	1:55	Wright, M ✓
Mike Kovzic	A27 MY/Ex	C	11	Est. 41,000	2:37	2:48	Kachay K ✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? [ ] No [ ] Yes

Does cover need repair / evidence of settling? [ ] No [ ] Yes

Does fence need repair? [ ] No [ ] Yes

Does road(s) need repair? [ ] No [ ] Yes

Has litter accumulated? [ ] No [ ] Yes

Has water accumulated? [ ] No [ ] Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY

[illegible]e/U[illegible]

Random Load Inspection: **Ticket Number:** ____________

[ ] **No prohibited waste was found**

[ ] **Yes, the prohibited waste(s) identified below were found.**

- [ ] Putrescible waste (prohibited in U10c and Area 6 Landfills).
- [ ] Hazardous waste per NAC 444.580
- [ ] PCB waste regulated by TSCA
- [ ] Waste containing free liquids
- [ ] TSCA-regulated
- [ ] Waste failing the "no added radioactivity" per the POC requirement.
- [ ] Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- [ ] Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INS[illegible]TE[illegible] tim[illegible]

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 327

Waste Category: (check one)	05/17/02	☐ Commercial	☒ Industrial 05/17/02	
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		
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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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: /s/ Signature on file DATE: 6-11-02

as Rep. for M. Kruzic

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): 42,000 Signature of Certifier: /s/ Signature on file

(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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

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	
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 Tanks
☐ Hydrocarbons (contact SWO)		

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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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: /s/ Signature on file DATE: 6-11-02

as per D. McBride

BN-0848 (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): 39,000 Signature of Certifier: /s/ Signature on file

BN-0818 (09/00)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

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		
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	☐ 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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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: /s/ Signature on file DATE: 6-11-02

per D. McBride

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): 38.00 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

(11)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) 05/17/02	☐	Commercial	☒	Industrial 05/17/02
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
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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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 /s/ Signature on file DATE: 6-11-0

per D. McBride

SWO USE ONLY

Load Weight (net from scale or estimate): 41,000 Signature of Certifier: /s/ Signature on file

NNSA-0918 (09/00)

LANDFILL DAILY ACCESS REGISTER

DATE: 6-14-02 (check one) ☑ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-27	C	1	25.000	8:00	8:15	HAGER
BN	A-12	C	2	8520	9:45	10:00	Lucas R.
BN	A-12	C	3	1580	10:00	10:05	LAMONNA
BN	A-12	C	4	~~13460~~	10:30	10:45	TOLLADAY, C.
BN	A-12	C	5	7778	11:05	11:20	Wright, M
BN	A-12	C	6	10,500	11:30	11:35	Lucas, R.
BN	A-12	C	7	16.4c	11:35	11:52	[illegible]
BN	A-12	C	8	1,780	1:00	1:15	TOLLADAY
BN	A-12		9	2407	1:10	1:25	Wright R.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** _____

☐ **No** prohibited waste was found

☐ **Yes**, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

BN-0317 (12/99)

Bechtel Nevada

NTS Landfill Load Verification

(1) HAGER

(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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation Bldg: 326

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☒ ~~NTS~~ BS 6/11/02	☐ Putrescible	☐ FFACO-onsite BS 6/11/02	☐ WAC Exception
	☐ 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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not 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: /s/ Signature on file DATE: 6-11-02

as per Doug McBride

BN-0846 (09/99)

SWO USE ONLY

Load Weight (net from scale or estimate): 25,000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

Nevada

LANDFILL DAILY ACCESS REGISTER

DATE: 6-17-02 (check one) ☑ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A-12	C	1	26,000	8:50	8:45	HARRIS E ✓
BN / LANL	A-12	C	2	4,000	9:25	9:30	ROSE C.E. ✓
Mike Kruzic	A-27 M4 / Ex	C	3	43,000	9:26	9:47	KACZMY K ✓
BN	A-12	C	4	9,000	944	10:00	JONES, S ✓
BN	A-12	C	5	5,000	10:00	10:15	[illegible] ✓
BN	A-12	C	6	3426	1008	1020	Wright, K. ✓
BN	A-12	C	7	3191	10:[illegible]	10:25	[illegible] ✓
BN.	A-12	C	8	18,000	10:30	10:45	Harris ✓
BN	A-12	C	9	6000	1030	1045	JONES, S ✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair?	☑ No	☐ Yes
Does cover need repair / evidence of settling?	☑ No	☐ Yes
Does fence need repair?	☐ No	☑ Yes
Does road(s) need repair?	☐ No	☐ Yes
Has litter accumulated?	☑ No	☐ Yes
Has water accumulated?	☑ No	☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time): /s/ Signature on file 9:00

Random Load Inspection: Ticket Number: 2

☑ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time): /s/ Signature on file 6/17-02 9:15

BN-0317 (12/99)

LANDFILL DAILY ACCESS REGISTER

DATE: 6-12-02 (check one) ☒ Area 9 - U10c ☐ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials	
BN	A-12	C	10	2,960	1055	11:10	TOLLADAY, C	✓
BN	A-12	C	10	3380	1100	11:10	Wright, R	✓
Mike Kravic	A27 MY/Ex	C	12	Est. 45,000	11:00	11:10		✓
BN	A-12	C	13	891	1115	1130	LAMANNA, M	✓
BN	A-12	C	14	1360	1120	1135	JONES, S	✓
~~BN~~	~~A-12~~	~~C~~	~~15~~	~~3,680~~	~~1145~~	~~12no~~	~~EN~~	✓
BN	A-12	C	15	2740	1145	120	Tolladay, C	✓
BN	A-12	C	16	4,080	1250	1305	Wright, R	✓
Mike Kravic	A27 MY/Ex	C	17	Est. 44,000	1:00	1:15	KRAVAY K	✓

*Waste Codes: **ASB** - Asbestos; **C** - Construction; **H** - Hydrocarbon; **P** - Putrescible; **NP** - Non-Putrescible; **S** - Sewage Sludge; **F** - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☐ No ☐ Yes

Does road(s) need repair? ☐ No ☐ Yes

Has litter accumulated? ☐ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: **Ticket Number:** _____

☐ **No** prohibited waste was found

☐ **Yes**, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

DATE: 6-17-02 (check one) ☐ Area 9 - U10c ☒ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials	
BN	A [redacted]	C	18	3760	1305	1320	JONES, S	✓
BN	A-12	C	19	2,320	13:15	13:30	TOLLADAY, C	✓
BN	A-12	C	20	3520	1350	1405	JONES, S	✓
BN	A-12	C	21	3124	2:05	2:15	Wright, R.	✓
BN	A-12	C	22	2,920	2:15	2:30	TOLLADAY, C	✓
BN	A12	C	23	1451	220	235	LAMANNA, M	✓
M.K. KRUZIC	A27 M4/E4	C	24	Est. 44,000	2:35	2:50	KACZAY K	✓
BN	A-12	C	25	1775	12:55	13:10	JONES, S	✓
BN	A-12	C	26	5,080	3:15	3:30	TOLLADAY, C	✓

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair / evidence of settling? ☐ No ☐ Yes

Does fence need repair? ☒ No ☐ Yes

Does road(s) need repair? ☒ No ☐ Yes

Has litter accumulated? ☒ No ☐ Yes

Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time):

Random Load Inspection: Ticket Number: _____

☒ No prohibited waste was found

☐ Yes, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☒ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☒ NTS ☐ Putrescible ■ FFACO-onsite (CAC 6/18/02) ☐ WAC Exception ☐ 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 Manage[ment] ... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat[erials] ... site. I have verified this through the waste characterization method identified abov[e] ... prohibited and allowable waste items.

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: /s/ Signature on file DATE: 6-11-02

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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)): 43000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

12

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) ☐ Commercial ☒ Industrial GS 6/18/02

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

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 Tanks

☐ Hydrocarbons (contact SWO)

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 Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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: /s/ Signature on file DATE: 6-11-02

as per the G. McBride

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): 45,000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

(17)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) ☐ Commercial ☒ Industrial 6/18/02

Waste Type: (check one) ☒ ~~NTS~~ 7/10/02 ☐ Putrescible ☒ FFACO-onsite ☐ WAC Exception ☐ 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 Manage[ment] ... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat[erials] ... site. I have verified this through the waste characterization method identified abov[e] ... prohibited and allowable waste items.

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: /s/ Signature on file DATE: 6-11-02

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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)): 44,000 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

(27)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic Phone Number: 5-7396

Location / Origin: Area 27 Maintenance Yard / Excavation CAU 326

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☒ NTS 7/? /02 ☐ Putrescible ☒ FFACO-onsite 6/18/02 ☐ WAC Exception ☐ 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 Manage[ment] ... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat[erials] ... site. I have verified this through the waste characterization method identified abov[e] ... prohibited and allowable waste items.

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: /s/ Signature on file DATE: 6-11-02

Print Name: Michael Kruzic

Signature: /s/ Signature on file Date: 6/11/02

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)): 44,000 Signature of Certifier: /s/ Signature on file

BN-0518 (09/00)

Reviewed! Nevada

LANDFILL DAILY ACCESS REGISTER

CJS 7/3/02 KSW 8/12/02

DATE: 7/2/02 (check one) ☐ Area 9 - U10c ☑ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BINGHAM	A-6	H.C.	I	4,500	2:30	2:45	HARRIS G ✓

*Waste Codes: **ASB** - Asbestos; **C** - Construction; **H** - Hydrocarbon; **P** - Putrescible; **NP** - Non-Putrescible; **S** - Sewage Sludge; **F** - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☑ No ☐ Yes

Does cover need repair / evidence of settling? ☑ No ☐ Yes

Does fence need repair? ☑ No ☐ Yes

Does road(s) need repair? ☑ No ☐ Yes

Has litter accumulated? ☑ No ☐ Yes

Has water accumulated? ☑ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

2:30

INSPECTED BY (date/time): /s/ Signature on file 7-2-02

Random Load Inspection: **Ticket Number:** _____

☐ **No** prohibited waste was found

☐ **Yes**, the prohibited waste(s) identified below were found.

- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
- ☐ Hazardous waste per NAC 444.580
- ☐ PCB waste regulated by TSCA
- ☐ Waste containing free liquids
- ☐ TSCA-regulated
- ☐ Waste failing the "no added radioactivity" per the POC requirement.
- ☐ Friable asbestos (prohibited in U1Oc and Area 6 Landfills)
- ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

BN-0917 (12/01)

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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Kruzic/Kevin Campbell CAU326 Phone Number: 5-6087

Location / Origin: Area 6 CP bus parking lot (6 drums of soil)

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☒ NTS KEW	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ 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:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete

☐ Paper ☐ Rocks / unaltered geologic materials ☐ Empty containers

☐ 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 Tanks
☒ Hydrocarbons (contact SWO)		

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: KBC *(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 the site. I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: Eugene Hayes / Fred Nelson

Signature: /s/ Signature on file Date: 7/6/02

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: /s/ Signature on file DATE: 7/6/02

BN-0946 (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): 4500 Signature of Certifier: /s/ Signature on file

BN-0918 (09/00)

DATE: 8/14/02 (check one) [ ] Area 9 - U10c [✓] Area 6 Hydrocarbon [ ] Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN.	A-6	H.C.	1	20,000	2:45	3:00	Harris E
							JS 8/15/02

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? [✓] No [ ] Yes

Does cover need repair / evidence of settling? [✓] No [ ] Yes

Does fence need repair? [✓] No [ ] Yes

Does road(s) need repair? [✓] No [ ] Yes

Has litter accumulated? [✓] No [ ] Yes

Has water accumulated? [✓] No [ ] Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time): /s/ Signature on file 8-14-02 3:20

Random Load Inspection: **Ticket Number:** ____________

[ ] No prohibited waste was found

[ ] Yes, the prohibited waste(s) identified below were found.

- [ ] Putrescible waste (prohibited in U10c and Area 6 Landfills).
- [ ] Hazardous waste per NAC 444.580
- [ ] PCB waste regulated by TSCA
- [ ] Waste containing free liquids
- [ ] TSCA-regulated
- [ ] Waste failing the "no added radioactivity" per the POC requirement.
- [ ] Friable asbestos (prohibited in U10c and Area 6 Landfills)
- [ ] Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

BN-0517 (12/9

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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 rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Don Cox, Solid Waste Operations Phone Number: 5-4780

Location / Origin: Area 6, CAU 326 / Parking lot behind Fire Station

Waste Category: (check one)		☐ Commercial	☒ Industrial DJS 8/15/02	
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	
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: SOIL

☐ 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: DJC *(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 above and a review of the above-mentioned prohibited and allowable waste items.

Print Name: DON FOX

Signature: /s/ Signature on file Date: 12AUG.02

If applicable, place BN-0646, "Radiological Release Sticker" here. Onsite use only.

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): 20 cy Signature of Certifier: /s/ Signature on file

BN-0918 (0.

APPENDIX E

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION CORRESPONDENCE

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PETER G. MORROS, Director
ALLEN BIAGGI, *Administrator*
(775) 687-4670
TDD 687-4678
Administration
Water Pollution Control
Facsimile 687-5856
Mining Regulation and Reclamation
Facsimile 684-5259

STATE
KI

ACTION
INFO Wm ERD
MGR
AMBFS
AMTS
AMNS
AMEM

Water Quality Planning
Facsimile 687-6396

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
333 W. Nye Lane, Room 138
Carson City, Nevada 89706-0851

COPY

April 9, 1999

Frank Di Sanza
Waste Management Division
U.S. Department of Energy
Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

RE: Status of Recently Removed Underground Storage Tanks

Dear Mr. Di Sanza:

The Department of Energy (DOE) has recently requested confirmation that the Nevada Division of Environmental Protection (NDEP) has received closure documentation concerning underground storage tanks (USTs) removed during 1998. A list of thirteen tanks in question (given below) was conveyed to NDEP during a telephone conversation. This letter serves to confirm what documentation has been received and to inform DOE of the closure status of each of these tanks.

A search of the State's underground storage tank database was initiated. The following table reflects the closure information submitted on the Underground Storage Tank Notification Forms (USEPA Form 7530).

Tank #	Tank Status	Closure Date	Disposition of Tank
6-162-3	Permanently out of use	3/10/98	Removed from ground
6-619-1	Permanently out of use	8/25/98	Removed from ground
6-619-2	Permanently out of use	9/8/98	Removed from ground
6-619-4	Permanently out of use	3/4/98	Removed from ground
6-619-5	Permanently out of use	3/4/98	Removed from ground
6-619-6	Permanently out of use	3/4/98	Removed from ground
6-CP-1B	Permanently out of use	11/12/98	Closed in place

23-650-1	Permanently out of use	3/25/98	Removed from ground
23-725-1	Permanently out of use	3/23/98	Removed from ground
23-751-2	Permanently out of use	3/23/98	Removed from ground
23-751-3	Permanently out of use	3/23/98	Removed from ground
23-751-4	Permanently out of use	3/23/98	Removed from ground
27-5120-1	Permanently out of use	3/24/98	Removed from ground

With respect to tank status, these tanks are considered "closed" and NDEP requires no further information.

As you may know, upon tank removal state regulations require that soil samples be collected to test for the presence of Total Petroleum Hydrocarbons. Results of the sampling are normally submitted in a closure report, which also documents details of the removal process. If contamination at a level above the state action level of 100 milligrams per kilogram is detected at a former UST site, a site investigation is initiated and related documentation is submitted by the responsible party to NDEP. A review of files containing former UST site information and closure reports was undertaken to determine the status of each.

Tank #	Sampling Results and Site Status	Date of Sampling	Date of Report
6-162-3	No contamination above action level detected No further action required	03/10/98	05/07/98
6-619-1	No contamination above action level detected No further action required	08/25/98	11/10/98
6-619-2	No contamination above action level detected No further action required	09/09/98	11/10/98
6-619-4	No contamination above action level detected No further action required	03/04/98	06/09/98
6-619-5	No contamination above action level detected No further action required	03/04/98	06/09/98
6-619-6	No contamination above action level detected No further action required	03/04/98	06/09/98

6-CP-1B	No contamination above action level detected ***SEE NOTE BELOW***	11/16/98	12/10/98
23-650-1	No contamination above action level detected No further action required	03/25/98	05/07/98
23-725-1	No contamination above action level detected No further action required	03/23/98	05/07/98
23-751-2	No contamination above action level detected No further action required	03/23/98	05/07/98
23-751-3	No contamination above action level detected No further action required	03/23/98	05/07/98
23-751-4	No contamination above action level detected No further action required	03/23/98	05/07/98
27-5120-1	No contamination above action level detected No further action required	03/24/98	05/07/98

Closure reports for all thirteen former UST sites indicate that no contamination above the state action level was detected during the required sampling. The closure report for 6-CP-1B, which was closed in place, indicates that two soil samples were collected using a hollow stem auger from below the ends of the tank. However the map shows borehole locations to the side of the tank. Please confirm that the boreholes were angle-drilled and samples collected from beneath the tank. Additionally, confirmation that a land use restriction has been instituted, which makes note of the fact that a closed-in-place UST exists at this site, is required by NDEP prior to final concurrence of site closure.

With the exception of 6-CP-1B, the NDEP requires no further action on these sites at this time. Should any subsequent information suggest that one of these tanks may have leaked and contaminated soil or groundwater, an investigation may be initiated.

If you have any questions regarding tank closure issues, please contact Sigurd Jaunarajs of my staff at (775) 687-4670, extension 3030, or if you want to inquire about site closure, please contact Clem Goewert of my staff at (702) 486-2865.

Sincerely,

/s/ Paul Liebendorfer

Paul J. Liebendorfer, P.E.
Chief
Bureau of Federal Facilities

PJL/SRJ/js

cc: Dave Bedsun, DSWA
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APPENDIX F

NEVADA ENVIRONMENTAL RESTORATION PROJECT DOCUMENT REVIEW SHEET

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NEVADA ENVIRONMENTAL RESTORATION PROJECT
DOCUMENT REVIEW SHEET

1. Document Title/Number Closure Report for Corrective Action Unit 326: Area 6 and 27 Release Sites, Nevada Test Site, Nevada
2. Document Date October 2002
3. Revision Number 0
4. Originator/Organization Bechtel Nevada
5. Responsible NNSA/NV ERP Project Mgr. Janet Appenzeller-Wing
6. Date Comments Due November 13, 2002
7. Review Criteria Federal Facility Agreement and Consent Order
8. Reviewer/Organization/Phone No. Ted Zaferatos / NDEP / (702) 486-2856
9. Reviewer's Signature _____

10. Comment Number/ Location	11. Type[a]	12. Comment	13. Comment Response	14. Accept
1. pg. ix last bullet item	M	This paragraph calls for clean closure and use restrictions. According to statements made in Sections 1 through 5 of the CR, CAS 27-25-01 was clean closed and did not have use restrictions imposed. Clarification of this item is required. (Also note, the Table of Contents (TOC) reference to this page is incorrect. The TOC refers to page xi instead of to page ix).	CAS 27-25-01 was clean closed by removal of all contaminated soil. No land use restrictions were implemented at this site. The last sentence of the last bullet item on page ix has been corrected to state that the CAS was clean close. The TOC has been changed to give the correct page number for the Executive Summary.	Yes
2. pg. 7 and 14, Section 2.1.2.2	M	Some words appear to be missing in the last paragraph on page 7 and continuing through the top of page 14. The information being conveyed by the last sentence in the top of paragraph, as well as the third sentence of the second paragraph and the third sentence of the third paragraph on page 14, is unclear. Clarify the meanings of these sentences.	Text describing the location, depth, TPH field screening results, and samples collected from Borehole #2 has been added. Text meaning has been clarified.	Yes
3. pg. 8 Table 1	M	The TPH Laboratory Result (mg/kg) is shown in the table as 105 for Sample ID 062501-25, whereas the laboratory data in Appendix A shows the result was actually 9,000. Verify closure conclusions once the item is corrected.	The TPH value reported in Table 1 for Sample 062501-25 has been corrected to 9,000 mg/kg. The closure conclusions and actions are still valid.	Yes

[a]Comment Types: M = Mandatory, S = Suggested.

10. Comment Number/ Location	11. Type[a]	12. Comment	13. Comment Response	14. Accept
4. pg. 18 Table 3	M	Comparison of data listed in this table with the laboratory data reports in Appendix A, leads to the belief that several numbers were incorrectly inserted in the table. The Total Petroleum Hydrocarbons (mg/kg) for Sample Identification Numbers 272501-04 and 272501-05 appear reversed in the table. Additionally, the Polychlorinated Biphenyls (mg/kg) value for Sample Identification 272501-02 was inserted as 0.07 whereas the Appendix A data sheets show the correct number as 0.71. The Polychlorinated Biphenyls value for CAU326-V25 (Dup of V15) was inserted as 0.50 whereas the Appendix A data sheets show the correct number as 0.05.	All values reported in Table 3 have been checked against analytical results reported in Appendix A, and corrected if necessary. The TPH values for samples 272501-04 and 272501-05 have been corrected. The PCB values for samples 272501-02, 272501-04, 272501-V01, and CAU 326-V25 have been corrected.	Yes
5. Appendix B	M	NDEP is unable to check the survey coordinates listed for the Land Use Restriction sites in the appendix. The coordinates do not appear to correlate to information received in past documents. Additionally, there appears to be a typographical error on CAS 06-25-01 N. Point 2, either on page 1 of 2, or on the accompanying figure. Page 1 shows one coordinate as 584,334.006 m E whereas the figure shows that the coordinate as E 584,334.606.	The survey coordinates and datum have been rechecked. Also, coordinates have been checked and verified by the FFACO Support Staff at International Technology Corporation. The typo has been corrected. Note: The Data Quality Objectives for CAU 326 have been included in this document as Appendix A. The Use Restriction information is now included in Appendix C of this document.	Yes
6. Data Quality Objectives (DQOs)	M	The DQOs were correctly referenced and assessed in the body of the document. Include the DQO document, as developed in the SAFER, as an appendix to the CR as required in the Standardized Outline for Closure Reports (July 17, 2001).	The DQOs as they appeared in the CAU 326 SAFER plan (NNSA/NV document number DOE/NV--751) are now included in the revision 1 of the CAU 326 Closure Report as Appendix A. References to Appendices A through E in Rev. 0 have been changed throughout the document to account for the addition of the DQOs as Appendix A.	Yes

[a]Comment Types: M = Mandatory, S = Suggested.

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