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

Controlled Copy No.

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December 2002

Environmental Restoration Division

National Nuclear Security Administration Nevada Operations Office

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## 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.



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

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Date:  $\frac{12/16/02}{}$ 

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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<sup>3</sup> 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

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# **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<sup>3</sup> cubic yard(s)

W west

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# **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 (m³) (70 cubic yards [yd³]) 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 m³ (210 yd³) 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

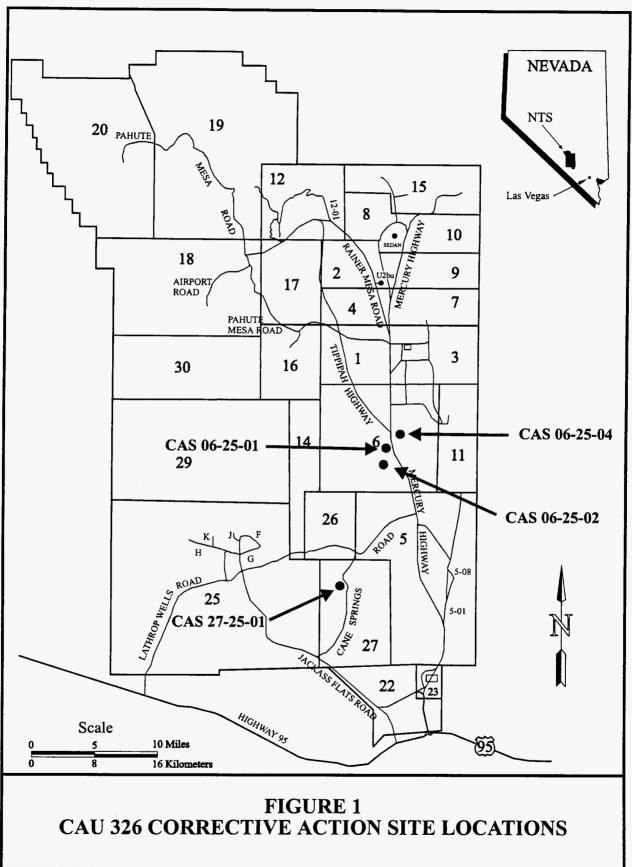
The closure strategy for CAU 326 was specified in the NDEP-approved SAFER Plan for CAU 326 (DOE/NV, 2001). The implemented closure strategy consisted of the following activities.

#### 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.

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• 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

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- 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:

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

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## 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 <u>Field Management Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada</u>, (BN, 2001a).
- Preparation of the <u>Site-Specific Health and Safety Plan for Closure Activities at Corrective Action Unit 326: Nevada Test Site, Nevada</u>, (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

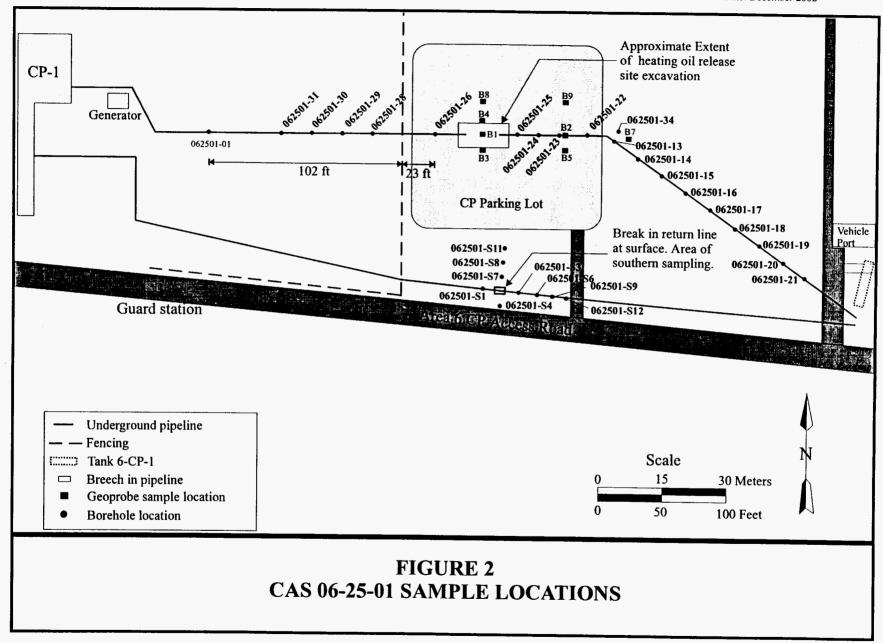
Closure activities were performed in two phases. Phase I closure activities were conducted in January and February of 2002 and consisted of pressure testing the pipeline and collecting soil samples for TPH field screening along the pipeline. Phase II closure activities were conducted in June of 2002 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

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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

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

SAMPLE ID	LOCATION	SDG <sup>a</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS <sup>f</sup> (mg/kg <sup>g</sup> )
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 <sup>h</sup> _
062501-13	E. pipeline segment	V1429	_ 2	> 2,000 <sup>i</sup>	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		44	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

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SAMPLE ID	LOCATION	SDG <sup>a</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS <sup>t</sup> (mg/kg <sup>g</sup> )
062501-27L	N. stepout of # 25		4	1,860	NS
062501-28	W. pipeline segment		2	5	NS
062501-28L	W. pipeline segment		4	11	NS NS
062501-29	W. pipeline segment		2	2	NS
062501-29L	W. pipeline segment		44	0	NS
062501-30	W. pipeline segment		22	00	NS
062501-30L	W. pipeline segment		4	0	NS
062501-31	W. pipeline segment		2	0	NS
062501-32	N. stepout of # 24		22	645	NS
062501-32L	N. stepout of # 24		44	> 2,000	NS
062501-32L2	N. stepout of # 24	<u> </u>	6	438	NS 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	<u> </u>	4	0	NS
062501-33L2	S. stepout of # 24	ļ	66	> 2,000	NS
062501-33L3	S. stepout of # 24		77	> 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	<u> </u>	4	6	NS

<sup>&</sup>lt;sup>a</sup> SDG - Sample Delivery Group number

b bgs - below ground surface

<sup>°</sup> ft - feet

<sup>&</sup>lt;sup>d</sup> TPH - Total Petroleum Hydrocarbons

<sup>\*</sup> ppm - parts per million

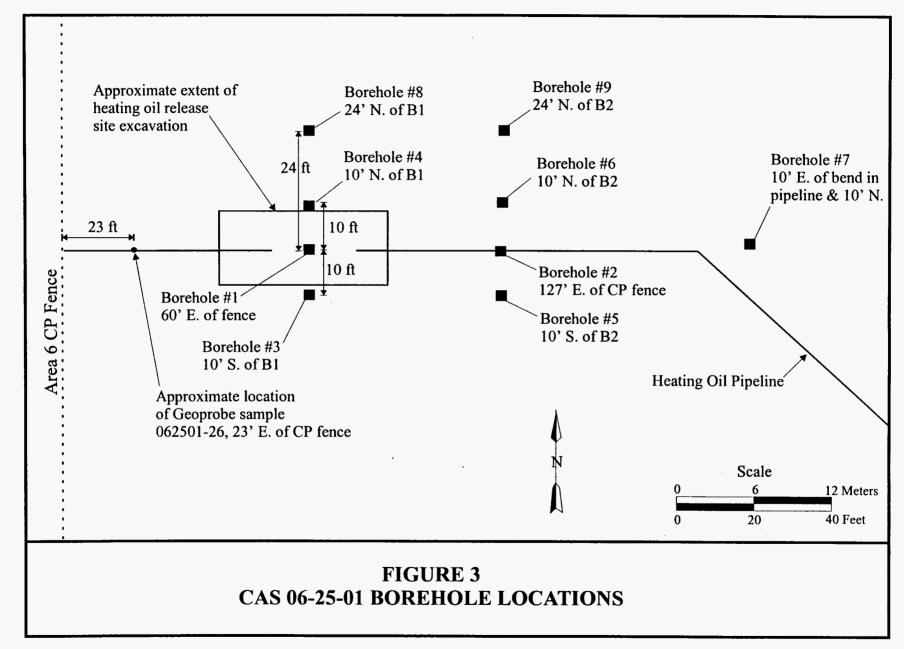
† TPH Laboratory analysis by Method 8015 Modified, U.S. Environmental Protection Agency (EPA) 1996.

g mg/kg - milligrams per kilogram NS - Not Sampled

h > 2,000 indicates a TPH concentration out of calibration range, i.e., greater than the high calibration end point.

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

SAMPLE IDENTIFICATION	SDG <sup>a</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS' (mg/kg <sup>g</sup> )		
BOREHOLE NUMBER B1						
326-B1-05		5	> 3000 <sup>h</sup>	NS <sup>i</sup>		
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 B	2					
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	NDi		
326-B2-50	V1622	_50	237	ND		
326-B2-55		55	258	NS		
BOREHOLE NUMBER B	3					
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		

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SAMPLE IDENTIFICATION	SDG <sup>a</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS <sup>f</sup> (mg/kg <sup>g</sup> )
<b>BOREHOLE NUMBER 4</b>				
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 B	5			
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 7k				
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

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SAMPLE IDENTIFICATION	SDG <sup>2</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS <sup>f</sup> (mg/kg <sup>g</sup> )
326-B7-70		70	96	NS
326-B7-75	V1640	75	5	ND
326-B7-80		80	13	NS
326-B7-85		85	16	NS
326-B7-90		90	18	NS
326-B7-95		95	20	NS
<b>BOREHOLE NUMBER 8</b>				
326-B8-05		5	15	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	<u>.</u>			
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	28	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

<sup>&</sup>lt;sup>a</sup> SDG - Sample Delivery Group number

b bgs - below ground surface

c ft - feet

<sup>&</sup>lt;sup>d</sup> TPH - Total Petroleum Hydrocarbons

<sup>°</sup> ppm - parts per million ° 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

ND - Not Detected

<sup>&</sup>lt;sup>k</sup> Borehole Number 6 was not drilled based on elevated TPH field screening results for Borehole 4.

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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 m³ (2.2 yd³) 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 m³ (6 yd³) 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.

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#### 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

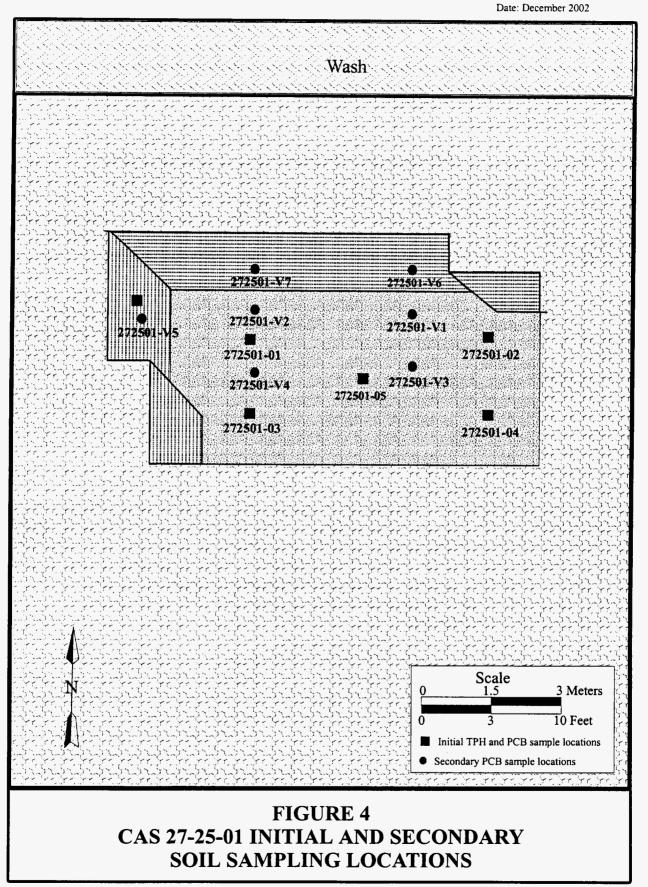
During site characterization activities conducted in 1994, TPH and PCBs were found to be present in soil at levels greater than regulatory limits (DOE/NV, 2001). As a result the site was partially remediated in August 1994 by removing approximately 53.5 m<sup>3</sup> (70 yd<sup>3</sup>) of soil and disposing 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.

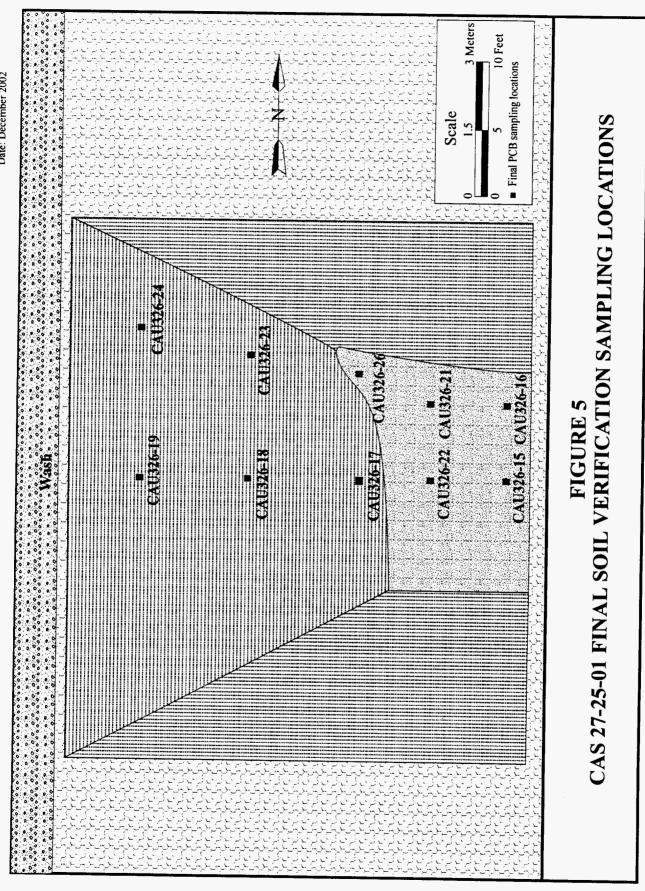
In January 2002, approximately 15.3 m³ (20 yd³) of soil that had sloughed into the existing excavation was removed from the site and five soil samples were collected from the bottom of the excavation (Figure 4). The samples were field screened for TPH using a PetroFlag® test kit, and submitted to an 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 m³ (30 yd³) 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 m³ (110 yd³) 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

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

SAMPLE IDENTIFICATION	SAMPLE DELIVERY GROUP (SDG)	TOTAL PETROLEUM HYDROCARBONS <sup>2</sup> (mg/kg) <sup>b</sup>	POLYCHLORINATED BIPHENYLS <sup>c</sup> (mg/kg)
NDEP <sup>d</sup> Action Level		100	-
TSCA Action Level		-	1.0
	First Exc	eavation January 2002	
272501-01	V1408	54	7.90
272501-02	66	NDf	0.71
272501-03	66	28	0.04
272501-04	66	ND	0.08
272501-05	46	35	0.54
	Second E	xcavation March 2002	
272501-V01	V1503	NS <sup>g</sup>	0.25
272501-V02	66	NS	0.23
272501-V03	66	NS	33.00
272501-V04	66	NS	0.35
272501-V05	66	NS	ND
272501-V06	"	NS	5.80
272501-V07	66	NS	0.43
272501-V08 (Equip. rinsate)	44	NS	ND
272501-V09 (Dup of V08)	46	NS	18.00
	Third E	xcavation June 2002	
CAU326-V15	V1624	NS	ND
CAU326-V16	46	NS	0.19
CAU326-V17	46	NS	ND
CAU326-V18	46	NS	ND
CAU326-V19	- 66	NS	ND
CAU326-V21	46	NS	ND
CAU326-V22	66	NS	0.37
CAU326-V23	66	NS	ND
CAU326-V24	66	NS	ND
CAU326-V25 (Dup of V15)	44	NS	0.05
CAU326-V26	"	NS	ND

<sup>&</sup>lt;sup>a</sup>Total Petroleum Hydrocarbon analysis by Method 8015 Modified (EPA, 1996).

bmg/kg - milligrams per kilogram

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).

<sup>&</sup>lt;sup>d</sup>NDEP - Nevada Division of Environmental Protection. TPH regulatory limit set in Nevada Administrative Code, 445A.2272 (NAC, 2002a).

<sup>\*</sup>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).

<sup>&</sup>lt;sup>f</sup>ND - Not detected for the laboratory reporting limits

<sup>&</sup>lt;sup>g</sup>NS - Not Sampled.

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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.

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

SAMPLE ID	LOCATION	SDG <sup>2</sup>	SAMPLE DEPTH bgs <sup>b</sup> (ft <sup>c</sup> )	TPH <sup>d</sup> FIELD SCREENING RESULTS (ppm <sup>e</sup> )	TPH LABORATORY RESULTS <sup>f</sup> (mg/kg <sup>g</sup> )
Pipeline2	Surface grab from break	V1429	0	> 2,000h	11,000
062501-S1	10 ft west of break	V1535	2	27	ND <sup>1</sup>
062501-S1L	10 ft west of break		4	0	NS <sup>J</sup>
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 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

<sup>&</sup>lt;sup>a</sup> SDG - Sample Delivery Group number

b bgs - below ground surface

c ft - feet

<sup>&</sup>lt;sup>d</sup> TPH - Total Petroleum Hydrocarbons

e ppm - parts per million

<sup>&</sup>lt;sup>f</sup> 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.

<sup>&</sup>lt;sup>1</sup> ND - Not detected at the laboratory reporting limit.

<sup>&</sup>lt;sup>j</sup> 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 m³ (45 yd³) 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<sup>3</sup> (210 yd<sup>3</sup>) 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 m³ (350 yd³) 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

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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 DOOs.

#### 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.

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#### 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

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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.

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#### 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

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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.

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#### 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. <u>Field Management Plan for Corrective Action Unit 326</u>: <u>Areas 6 and 27 Release Sites, Nevada Test Site, Nevada</u>, Las Vegas, NV.
- Bechtel Nevada, 2001b. <u>Site-Specific Health and Safety Plan for Corrective Action Unit 326:</u>
  <u>Areas 6 and 27 Release Sites, Nevada Test Site, Nevada</u>, 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.
- Federal Facility Agreement and Consent Order of 1996 (as amended). Agreed to by the State of Nevada, U.S. Department of Energy, and U.S. Department of Defense.
- Laczniak, R. J., Cole, J. C., Sawyer, D. A, and Trudeau, D. A., 1996, <u>Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada Test Site, Nye County, Nevada</u>, U.S. Geological Survey Water-Resources Investigation Report 96-4109. Denver, CO.
- NAC, see Nevada Administrative Code.
- Nevada Administrative Code. 2002a. Section 445A.2272, "Contamination of Soil: Establishment of Action Levels." Carson City, NV.
- Nevada Administrative Code. 2002b. Section 445A.227, "Contamination of Soil: Order by Director for Corrective Action; Factors to be Considered in Determining Whether Corrective Action is Required." Carson City, NV.
- U.S. Department of Energy, Nevada Operations Office, 2001. <u>Streamlined Approach for Environmental Restoration Plan for Corrective Action Unit 326: Areas 6 and 27 Release Sites, Nevada Test Site, Nevada;</u> Revision 0, DOE/NV--751, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 2002. <u>Nevada Environmental</u>
  <u>Restoration Project, Industrial Sites Quality Assurance Project Plan, Nevada Test Site, Nevada, DOE/NV--372-Rev. 3, Las Vegas, NV.</u>
- U.S. Environmental Protection Agency. 1996. <u>Test Methods for Evaluating Solid Waste</u>, <u>Physical/Chemical Methods</u>, EPA Publication SW-846, Third Edition. Washington, D.C.
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U.S. Geological Survey. 2002. Department of Energy Cooperative Studies in Nevada. Accessed on November 25, 2002. <a href="http://nevada.usgs.gov/doe\_nv/wateruse/ww-4.asp">http://nevada.usgs.gov/doe\_nv/wateruse/ww-4.asp</a>

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# 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):
- 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.

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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

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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.

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#### 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.
- <u>CAS 27-25-01</u>, <u>Petroleum Release Site Maintenance</u>: 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.

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#### 2.2 Alternate Models

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

- <u>CAS 06-25-01, CP-1 Heating Oil Release</u>: The alternate model for this site provides for additional releases from the piping. Preferential pathways would be the same as for the primary model.
- <u>CAS 06-25-02</u>, <u>UST Release</u>: 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.
- <u>CAS 06-25-04</u>, <u>Petroleum Release Site</u>: An alternate model is not necessary for this site. This site has been clean closed.
- <u>CAS 27-25-01, Petroleum Release Site Maintenance</u>: 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

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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).

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

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b. <u>Check Pipeline for Proper Closure</u>: 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

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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. <u>Survey for Use Restriction</u>: 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. <u>Backfill excavation</u>: Mark excavation location and backfill excavation.

Revision: 1
Date: December 2002

d. <u>Survey for Use Restriction</u>: 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)
  - <u>CAS 06-25-01, CP-1 Heating Oil Release</u>: 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.
  - <u>CAS 06-25-02</u>, <u>UST Release</u>: 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.
  - <u>CAS 27-25-01, Petroleum Release Site Maintenance</u>: 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).

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Date: December 2002

#### 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.

Section: Appendix A

Date: December 2002

#### 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.

Section: Appendix A Revision: 1

Date: December 2002

#### REFERENCES

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

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

Section: Appendix A Revision: 1 Date: December 2002

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Section: Appendix B Revision: 1

Date: December 2002

# APPENDIX B VERIFICATION SAMPLE ANALYTICAL RESULTS

Section: Appendix B Revision: 1 Date: December 2002

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Section: Appendix B
Revision: 0
Date: December 2002

## 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 SDG V1408: First Excavation Sample No. SDG V1503: Second Excavation Sample No. SDG V1624: Verification Sample No.	272501-V01272501-V09
CAS 06-25-01  SDG V1429: Pipeline Sample No SDG V1432: Pipeline Sample No SDG V1535: Southern Pipeline Sample No. SDG V1625: Borehole Sample No.	062501-22062501-26 062501-S1062501-S11
SDG V1623: Borehole Sample No.  SDG V1635: Borehole Sample No.  SDG V1635: Borehole Sample No.  SDG V1640: Borehole Sample No.	

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Date: December 2002

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Section: Appendix B Revision: 0

Date: December 2002

### SAMPLE DELIVERY GROUP

V1408

Section: Appendix B
Revision: 0

Date: December 2002

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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

Judith L. Stone

Senior Project Manager

Enclosure:

<b>Bechtel</b>	<i>Nevada</i>

#### ANALYTICAL SERVICES LABORATORY **SERVICES REQUEST & CHAIN OF CUSTODY RECORD**

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Page		of	 <u></u>

	DDA IECT/	CLIENT INCORN	ATION							TINEO	MATIC	M					CAMPI	E INFORMATION	
PROJECT/ CLIENT INFORMATION						Send Report to: Mike Krist											Sample INFORMATION  Sampling Site: Area 27 5 to Main tena / c/ J  The samples submitted contain (check):		
Project: くAU 326 BN Org#: さりで Charge No.: ケードウラ G マ こう ASL Prog.:				Send Rep	Phone: 7756 Fax: 7														
5 HY96 6 2 27														UTJ	1304		( ) Hazardous ( ) Radioactive ( ) Unknown		
Project Manager: Ways Johnson				Turnaround: A Standard - 30 days Non-rad, 60 Days Rad, Other:							co	contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure							
Phone: Fax: 771/ M/S: NTJ306 Final					6 Final repo	inal report format: ( ) Standard ( ) NTS-WAC ( ) Other:											compliance with applicable regulations and allow for the safe handling of the sample materials.		
		LAB USE ONL	Y							ANAL	YSES	& ME	THOD				SAMPI	LE RECEIPT INFORMATION	
Rad S	GD:	Non-Rad	SDG:	1140	E										ļ	- 1	Are all sample con Comments:	tainers received intact X) Yes ( ) No	
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Will the	ese analyses be perfo	ormed under a signe	ed SOW?	()YES (	) NO	1.0	pay												
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	272561-05		1/23/2	11:07	10:/	X	/											"	
3	272501-0		1/23/02	11:09	soil	X	X											11	
4	272501-	05	1/23/00	11.11	sci/	$\lambda$	X										RUNI A D	UPLICATE ANALYSIS	
5	LAST	ITEN															•	IPLE 272501-Q5	
6																	for both	TPH and PCB.	
7																	per	KKK 100 1/24/02	
8																	(See At	tached email)	
9			<u> 1</u>																
Trans	er of samples submitt	ted for analyses								Co	mplete i	or sam	ples sh	ipped to	an OFF-	SITE Sub	contract Laboratory	LIONVILLE	
		Received by	ved by (Signature/Organization)				Re	Relinquished (BN Representative Signature)					re)	DATE / TIME	Received (Courier & Tracking Info.)				
King Kngg SN 1/0/4 HIT Min		Mula	wolking			C	CD Caxtorreda						1-24-02/1300	FEDEX#-791761866467					
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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

### **CASE NARRATIVE**



#### **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.

Iain Daniels

Laboratory Manager

Lionville Laboratory Incorporated

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The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data.



#### **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 1 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.

# ODRO DATA SUMMARY / SAMPLE QC

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RFW Batch Number: 02011853

Report Date: 02/01/02 10:34

RFW Batch Number: 0201L853	2011853	Client: BE	Client: BECHTEL NEVADA V1408	עדרט פ	Work Order: 60052001001	Report Date: 1001 Page: 1	Report Date: 02/01/02 10: <del>28</del> 001 Page: 1
	Cust ID: 272501-	272501-01	272501-02	272501-03	272501-04		BLK
Sample Information	RFW#: Matrix: D.F.: Units:	001 SOIL 1.00 mg/kg	002 SOIL 1.00 mg/kg	003 SOIL 1.00 mg/kg	004 SOIL 1.00 mg/kg	005 SOIL 1.00 mg/kg	02LE0091-MB1 SOIL 1.00 mg/kg
Diesel Range Organics	p-Terphenyl	\$ 66	119 %	114 %		102 <b>\$</b>	95 % 102 % 115 % ======fl
Motor Oil	0,	36 18	12.4 U 12.4 U	14	12.6 U 12.6 U	17	12.0 U 12.0 U
	Cust ID:	BLK BS	BLK BSD				
Sample Information	RFW#: Matrix: D.F.: Units:	RFW#:       02LE0091-MB1         trix:       SOIL         D.F.:       1.00         nits:       mg/kg	02LE0091-MB1 SOIL 1.00 mg/kg				
p-Terphenyl 105 % 115 %	p-Terphenyl	105 %	115 %				
Diesel Range Organics	8	68 %	75 %			. T T = = = = = = = = = = = = = = = = =	T1=========

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

75 NS

68 NS

Motor Oil

20/12 m

## SAMPLE DATA FOR EACH SAMPLE

SOIL

Sample wt/vol:  $\underline{25.2}$  (g/mL)  $\underline{G}$ 

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

  2  252001001	72501-01
Lab Sample ID:	0201L853-001
Lab File ID:	BLKOOPPB
Date Received:	01/25/02
Date Analyzed:	01/31/02

CLIENT SAMPLE NO.

Level: (low/med) LOW

Matrix:

Client: BECHTEL NEVADA V1408

% Moisture: not dec. \_\_\_6

Date Analy

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) mg/kg

1	68334-30-5Diesel Range Organics	36		
	00-00-0000Motor Oil	18	1	

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:  $\underline{25.3}$  (g/mL)  $\underline{G}$ 

Lab File ID: <u>BLKOOPPB</u>

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) mq/kg

68334-30-5-----Diesel Range Organics\_\_\_ U 12.4 00-00-0000-----Motor Oil\_\_\_ 12.4 U

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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:  $\underline{25.1}$  (g/mL)  $\underline{G}$ 

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) mg/kg\_

68334-30-5-----Diesel Range Organics 14 00-00-0000-----Motor Oil\_\_\_\_\_ 14

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2/250	1-04		

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:

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) mg/kg

68334-30-5-----Diesel Range Organics 12.6 00-00-0000-----Motor Oil\_ 12.6

U U

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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: BLKOOPPB

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) mg/kg

68334-30-5----Diesel Range Organics\_\_\_\_ 17 00-00-0000-----Motor Oil\_\_\_\_\_ 18

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## **CASE NARRATIVE**



### **Analytical Report**

Client: BECHTEL NEVADA V1408

**W.O** #: 60052-001-001-0001-00

LVL#: 0201L853

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.

- 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.

Iain Daniels/

Laboratory Manager

Lionville Laboratory Incorporated

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2/12/02 Date

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data.



### **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).
- 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

Report Date: 02/08/02 14:53

Cust ID: 272501-01   272501-02   272501-03   272501-04   272501-05   272501-05   272501-05				GAS KANGE	OKOMITCD		Report Date.	02/00/02 14.5.
Sample RFW#: 001 002 003 004 005 005 REP Information Matrix: SOIL SOIL SOIL SOIL SOIL SOIL  D.F.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	RFW Batch Number: 020	1L853	Client: BEC	HTEL NEVADA V1	408 Work (	Order: 6005200	1001 Page: 1	_
Information		Cust ID:	272501-01	272501-02	272501-03	272501-04	272501-05	272501-05
Information	Sample	RFW#:	001	002	003	004	005	005 REP
D.F.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	_	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units: UG/KG MED		D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
Level: MED				UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Gasoline Range Organics (GRO) 3200 U 3200 U 3100 U 3000 U 3300 U 3000 U					·			
Cust ID: TBLKCI	I	fluorobenzene		· <del>-</del> · ·	* -			. •
Sample RFW#: 02LVJ206-MB1 02LVJ206-MB1 02LVJ206-MB1 Information 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 Organi	cs (GRO)						3300 U
Information 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 %  ===================================		Cust ID:	TBLKCI	TBLKCI BS	TBLKCI BSD			
Information 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 %  ===================================	Sample	RFW#:	02LVJ206-MB1	02LVJ206-MB1	02LVJ206-MB1			
Units: UG/KG UG/KG UG/KG Level: MED MED MED  Fluorobenzene 89 % 91 % 95 %  ===================================		Matrix:	SOIL	SOIL	SOIL			
Level: MED MED MED  Fluorobenzene 89 % 91 % 95 %  ===========fl=======fl=======fl=======fl======		D.F.:	1.00	1.00	1.00			
Level: MED MED MED  Fluorobenzene 89 % 91 % 95 %  ===========fl=======fl=======fl=======fl======		Units:	UG/KG	UG/KG	UG/KG			
=========fl======fl======fl======fl======	•	Level:		MED	MED			
	I	Fluorobenzene						
		:=====================================	3000 U	£ 94 \$	.=======f1 90 %	=======f1	=======f1	======================================

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

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## SAMPLE DATA FOR EACH SAMPLE

CLIENT SAMPLE NO.

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

Client: BECHTEL NEVADA V1408

Matrix:

SOIL

Lab Sample ID: 0201L853-001

Sample wt/vol:

<u>9.84</u> (g/mL) <u>G</u>

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

86290-81-5-----Gasoline Range Organics (GRO)

(ug/L or ug/Kg) UG/KG

3200

CLIENT SAMPLE NO.

GC VOLATILES SHEET

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:

BLKOOPPB\_

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

86290-81-5----Gasoline Range Organics (GRO)\_ 3200 U

272501-03

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

Client: BECHTEL NEVADA V1408

Matrix:

SOIL

Lab Sample ID: 0201L853-003

CLIENT SAMPLE NO.

Sample wt/vol:

10.4 (g/mL) G

Lab File ID:

BLKOOPPB

Date Received: 01/25/02

Level: (low/med) MED

% Moisture: not dec. \_\_\_6

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.

COMPOUND

86290-81-5-----Gasoline Range Organics (GRO)

(ug/L or ug/Kg) UG/KG

CONCENTRATION UNITS:

3100

U

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

86290-81-5----Gasoline Range Organics (GRO) 3000 U

272501-05		

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

Client: BECHTEL NEVADA V1408

Matrix:

SOIL

Lab Sample ID: 0201L853-005

CLIENT SAMPLE NO.

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

86290-81-5-----Gasoline Range Organics (GRO)

3300

U

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

Date Received: 01/25/02

Level: (low/med) MED

% Moisture: not dec. \_\_\_\_\_\_7

Date Analyzed: 02/06/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

86290-81-5----Gasoline Range Organics (GRO)

3300

U

## **CASE NARRATIVE**



**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.

Iain Daniels

Laboratory Manager

Lionville Laboratory Incorporated

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

Date

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data.



### 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.
- 1 = 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

Report Date: 02/13/02 15:13 RFW Batch Number: 0201L853 Client: BECHTEL NEVADA V1408 Work Order: 60052001001 Page: 1 272501-01 Cust ID: 272501-02 272501-03 272501-04 272501-05 **PBLKGH** Sample RFW#: 001 002 003 004 005 02LE0092-MB1 Information 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 Tetrachloro-m-xylene 욯 D 용 욯 Surrogate: 95 98 ¥ D 95 욯 D 윰 97 ¥ 103 뫔 D 윰 Decachlorobiphenyl D 101 ¥ 35 U 180 U 170 U 35 U 33 U Aroclor-1016 3500 U 71 U U 71 U 360 U 67 Aroclor-1221 7000 U 340 U 170 U 35 U 35 U 180 U 33 U Aroclor-1232 3500 U Aroclor-1242 3500 U 170 U 35 U 35 U 180 U 33 U 78 540 33 U 710 42 Aroclor-1248 7900 170 U 35 U 35 U 180 U 33 U Aroclor-1254 3500 U 35 U 35 U 180 U 33 U Aroclor-1260 3500 U 170 U **PBLKGO** PBLKGO BS PBLKGO BSD Cust ID: PBLKGH BS PBLKGH BSD 02LE0092-MB1 02LE0136-MB1 02LE0136-MB1 02LE0136-MB1 RFW#: 02LE0092-MB1 Sample SOIL SOIL SOIL Information Matrix: SOIL SOIL 1.00 D.F.: 1.00 1.00 1.00 1.00 UG/KG UG/KG UG/KG UG/KG Units: UG/KG 욯 92 90 용 90 ક્ર Tetrachloro-m-xylene 100 욯 75 ¥ Surrogate: 93 욯 92 ¥ 93 Decachlorobiphenvl 욯 78 ¥ 104 33 U U 33 U 33 U 33 U 33 Aroclor-1016 67 U 67 U 67 U 67 U Aroclor-1221 67 U 33 U 33 U 33 U 33 U Aroclor-1232 33 U U 33 U 33 U 33 U 33 Aroclor-1242 33 U 33 U 33 U 33 U 33 U Aroclor-1248 ક્ર 61 33 U 83 윰 82 79

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

33 U

33 U

33 U

Aroclor-1254

Aroclor-1260

Hege ales la

33 U

33 U

## SAMPLE DATA FOR EACH SAMPLE

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

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) <u>UG/KG</u>

	<u> </u>		_ [
12674-11-2Aroclor-1016	3500	שׁ	Ì
11104-28-2Aroclor-1221	7000	ָט (	į
11141-16-5Aroclor-1232	3500	טן	i
53469-21-9Aroclor-1242	3500	ĺυ	ì
12672-29-6Aroclor-1248	7900	j	i
11097-69-1Aroclor-1254	3500	iυ	i
11096-82-5Aroclor-1260	3500	טו	i
	İ	1	i

FORM 1 PEST

CLIENT SAMPLE NO.

| |272501-02 |

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

Client: BECHTEL NEVADA V1408

Matrix: <u>SOIL</u> Lab Sample ID: <u>0201L853-002</u>

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. <u>5</u> dec. Date Extracted: <u>01/29/02</u>

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

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG

12674-11-2Aroclor-1016	170	ប់
11104-28-2Aroclor-1221	340	וֹ טוֹ
11141-16-5Aroclor-1232	170	י ט
53469-21-9Aroclor-1242	170	וֹ טוֹ
12672-29-6Aroclor-1248	710	i i
11097-69-1Aroclor-1254	170	י ט
11096-82-5Aroclor-1260	170	ju j
		iii

76×10/

FORM 1 PEST

CLIENT SAMPLE NO.

272501-03

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

Client: <u>BECHTEL NEVADA V1408</u>

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:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG

		1
12674-11-2Aroclor-1016	35	ĺυ
11104-28-2Aroclor-1221	71	İυ
11141-16-5Aroclor-1232	35	υ
53469-21-9Aroclor-1242	35	Ìυ
12672-29-6Aroclor-1248	42	į
11097-69-1Aroclor-1254	35	ט
11096-82-5Aroclor-1260	35	เบ
		i

FORM 1 PEST

CLIENT SAMPLE NO.

272501-04		

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

Client: <u>BECHTEL NEVADA V1408</u>

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG

			I
12674-11-2Aroclor-1016	35	U	İ
11104-28-2Aroclor-1221		שׁ	İ
11141-16-5Aroclor-1232	35	ט	İ
53469-21-9Aroclor-1242	35	įυ	İ
12672-29-6Aroclor-1248		İ	İ
11097-69-1Aroclor-1254	35	ĺυ	i
11096-82-5Aroclor-1260	35	ĺυ	i
	i	i	i

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FORM 1 PEST

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) <u>G</u> 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

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG

		1
12674-11-2Aroclor-1016	180	ĺυ
11104-28-2Aroclor-1221	360	jυ
11141-16-5Aroclor-1232	180	יט
53469-21-9Aroclor-1242	180	iυ
12672-29-6Aroclor-1248	540	ì
11097-69-1Aroclor-1254	180	υ
11096-82-5Aroclor-1260	180	lπ
		i

FORM 1 PEST

## **TIER I REVIEW**

## **GENERAL INFORMATION**

1. Project Name and/or Sample Delivery Group (SDG): 1/4/05

2. Date Samples taken: 1/23/02 (AU 326

SAMPLE NUMBER	DATE RECEIVED	DATE ANALYZED
272501-01	1/25/02	THE ANALYTER  TRY OCCUPANT REFERENCE SINGLE
272501-22		Visite soul dielec soul
272501-03		1/24/000 ep PRO 2/6/02 prep
272501-04		1/3/1/2 and 1/5/02 mg/
272501-05	$\vee$	isticate of PCB 1:25/0cp. ep
and the second s		

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 \(\bigsigma\) Yes \(\bigsigma\) No \(\bigsigma\) If 'yes,' has it been reviewed for significant problems? Yes \(\bigsigma\) No \(\bigsigma\) NA
Comments: Coll cooler arrived too weem. No other problem 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 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 $\square$ 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	1	)						
Comments:											
Were digestions done	within the hold time	e limit? X Yes	□No								
Were analyses run wi	thin the hold time li	mit? Mary Yes 🗆 1	No								
	Were analyses run within the hold time limit? Yes \(\bigcap\) No  A. PCB reported as: \(\bigcap\) mg/L or \(\bigcap\) ug/L (liquids) \(\bigcap\) ug/kg (solids) Other:										
B. Hits above detection If 'yes,' explain:	on level found in LB	8, RBS, FB, RB, or	other QA	samples?	Yes No						
C. Did laboratory repo	ort indicate any prob	olems? 🗖 Yes 🗗	No								

# 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	4	Y				
Total TPH EPA Method 8015M or 8015B	NA	Liquids - 40 days Soils - 40 days Oil - 40 days	2	Y				
Comments:								
Was TPH digestion	n done within the hol	d time limit? 🛭	Yes 🗆	No				
Were analyses run	within the hold time	limit? Yes	□ No					
A. TPH reported as	s: 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 i	report indicate any pr n:	roblems? 🗖 Yes	No					

#### **SUMMARY**

Laboratory log-in report check for completeness and errors Yes No									
Are all field forms are present and complete? Yes \(\subseteq\) No									
Does the report forms inventory include all CLP or CLP-like forms? A 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 cou	nt/type consistent wi	th the COC? 🍎 Y	es 🗆 No						
Were the results repo	orted for both the fiel	d and laboratory (	QC samples?	Yes 🗆 No					
Is the analysis count/	type consistent with	the COC? Yes	s □ No						
Was the correct samp	ole matrix used for ea	ach sample? X	es 🗆 No						
Certificates of Analy		`		No 🔯 N/A					
Condition-upon-rece	ipt variance form inc	eluded? 🗖 Yes 🏻	□ No 🗗 N/A	,					
Did the deliverable n	neet the overall object	ctives of the projec	ct? Yes [	□No					
Are all signatures in Explanation for a		Yes 🗖 No On i	Data pkg.? 🔏	Yes 🗆 No					

# SUMMARY (cont.)

18. Overall Comments:

19. Reviewed by:	Date: 6/20/02	Signature	Hores
20. Task Manager or TPO		Date:	Signature

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0

Date: December 2002

# **SAMPLE DELIVERY GROUP**

V1503

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0 Date: December 2002

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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.

Stan Van Wagenen

Laboratory Manager 7

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

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

272501-V01

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-001A

_	<b>-</b>	<b></b>	Reporting					
<u>Parameter</u>	Result	Unit	Limit	$\underline{\mathbf{DF}}$	Method	Prep Date	Analyzed	<u>Analyst</u>
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	l	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: Tetrachioro-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

S - Spike Recovery outside accepted recovery limits

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

**MATRIX:** 

30033 SOIL

CLIENT ID:

272501-V02

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-002A

<u>Parameter</u>	Resu	ılt <u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

272501-V03

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-003A

Parameter	Result	Unit		Reporting <u>Limit</u>	<u>DF</u>	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

Bechtel Nevada

**PROJECT ID:** 

V1503

PROJECT #:

MATRIX:

30033 SOIL

CLIENT ID:

272501-V04

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-004A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	<u>Analyst</u>
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: Decachlorobinhenyl	75.5	%REC	45-149	1	SW8082	03/29/02	04/02/02	IRW-I V

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

272501-V05

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-005A

			Reporting					
<u>Parameter</u>	Result	Unit	<u>Limit</u>	$\overline{\mathbf{DF}}$	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

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

**MATRIX:** 

SOIL

CLIENT ID:

272501-V06

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-006A

<u>Parameter</u>	Resu	lt Unit	Reporting <u>Limit</u>	<u>DF</u>	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

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

MATRIX:

30033

SOIL

CLIENT ID:

272501-V07

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-007A

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	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
Arocior 1248	430	μg/Kg	20	l	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

S - Spike Recovery outside accepted recovery limits

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

**MATRIX:** 

SOIL

CLIENT ID:

272501-V09

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-008A

Parameter	Result	<u>Unit</u>		Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	<u>Analyst</u>
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: Decachiorobiphenyl	120	%REC		45-149	10	SW8082	03/29/02	04/02/02	JRW-LV

Bechtel Nevada

PROJECT ID:

V1503

PROJECT #:

30033

MATRIX:

**AQUEOUS** 

CLIENT ID:

272501-V08

**DATE SAMPLED:** 3/26/02

**NEL SAMPLE ID:** L0203380-009A

Parameter	Resu	ılt <u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	μ <b>g</b> /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	μ <b>g</b> /L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1242	ND	μ <b>g</b> /L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1248	ND	μ <b>g</b> /L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1254	ND	μ <b>g</b> /L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Aroclor 1260	ND	μ <b>g</b> /L	1.0	1	SW8082	04/01/02	04/04/02	JRW-LV
Surr: Tetrachioro-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



**CLIENT:** 

Bechtel Nevada

Work Order:

L0203380

Project:

V1503

#### ANALYTICAL QC SUMMARY REPORT

8082\_s

Test Method: SW8082

Sample ID: MB-214	SampType: MBLK	TestCoo	ie: 8082_s	Units: µg/Kg		Prep Da	ite: 3/29/02		Run ID: L_I	ECD-1_02040	)2B
	Batch ID: 214	TestN	lo: SW8082			Analysis Da	ate: 4/2/02		SeqNo: 137	780	
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	TestCoo	ie: 8082_s	Units: µg/Kg		Prep Da	nte: 3/29/02	<del></del>	Run ID: L_	ECD-1_02040	)2B
	Batch ID: 214	TestN	lo: SW8082			Analysis Da	ate: 4/2/02		SeqNo: 137	779	
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	TestCoo	le: 8082_S	Units: µg/Kg		Prep Da	ite: 3/29/02		Run ID: L	ECD-1_02040	 )2B
	Batch ID: 214	TestN	lo: SW8082			Analysis Da	ate: 4/2/02		SeqNo: 137	781	
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

C - Unspiked sample >5 times the amount spiked

B - Analyte detected in the associated Method Blank

JI - MS or MSD outside accepance limits. LCS acceptable.

R - RPD outside accepted recovery limits

Page 1 of 3

J - This concentration is considered an estimate due to LCS failure.

Date: 05-Apr-02

Bechtel Nevada

Work Order:

L0203380

Project:

V1503

ANALYTICAL QC SUMMARY REPORT

8082\_s

Test Method: SW8082

Sample ID: LCSD-214	SampType: LCSD	TestCod	e: 8082_S	Units: µg/Kg		Prep Dat	te: 3/29/02		Run ID: L_1	ECD-1_02040	)2B
	Batch ID: 214	TestN	o: <b>SW8082</b>			Analysis Da	te: 4/2/02		SeqNo: 137	81	
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: <b>L0203380-001AMS</b>	SampType: MS	TestCod	e: 8082_S	Units: µg/Kg		Prep Dat	te: 3/29/02		Run ID: L_1	ECD-1_02040	D2B
	Batch ID: 214	TestN	o: SW8082			Analysis Da	te: 4/2/02		SeqNo: 143	06	
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	TestCod	le: 8082_S	Units: µg/Kg		Prep Dat	te: 3/29/02		Run ID: L_I	ECD-1_02040	)2B
	Batch ID: 214	TestN	o: <b>SW8082</b>			Analysis Da	te: 4/2/02		SeqNo: 143	07	
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

C - Unspiked sample >5 times the amount spiked

B - Analyte detected in the associated Method Blank

JI - MS or MSD outside accepance limits. LCS acceptable.

R - RPD outside accepted recovery limits

Page 2 of 3

J - This concentration is considered an estimate due to LCS failure.

Date: 05-Apr-02

Bechtel Nevada

Work Order:

L0203380

Project:

V1503

ANALYTICAL QC SUMMARY REPORT

8082\_w

Test Method: SW8082

Sample ID: MB-218	SampType: MBLK	TestCoo	ie: 8082_w	Units: µg/L		Prep Dat	te: 4/1/02		Run ID: L_I	ECD-1_02040	14B
	Batch ID: 218	TestN	lo: SW8082			Analysis Dat	te: 4/4/02		SeqNo: 143	38	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0						· · · · · · · · · · · · · · · · · · ·	M ,/		
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	TestCod	ie: 8082_w	Units: µg/L		Prep Dat	e: 4/1/02		Run 1D: L_I	ECD-1_02040	94B
	Batch ID: 218	TestN	lo: <b>SW8082</b>			Analysis Dat	te: 4/4/02		SeqNo: 143	37	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Vai	%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	TestCoo	le: 8082_W	Units: µg/L		Prep Dat	e: 4/1/02		Run ID: L_I	ECD-1_02040	)4B
	Batch ID: 218	TestN	o: <b>SW8082</b>			Analysis Dat	te: 4/4/02		SeqNo: 143	39	
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

C - Unspiked sample >5 times the amount spiked

B - Analyte detected in the associated Method Blank

JI - MS or MSD outside accepance limits. LCS acceptable.

R - RPD outside accepted recovery limits

Page 3 of 3

J - This concentration is considered an estimate due to LCS failure.

Date: 05-Apr-02

**Bechtel Nevada** 

#### ANALYTICAL SERVICES LABORATORY

SERVICES REQUEST & CHAIN OF CUSTODY RECORD

LOLU3380

	<del></del>														Page (otc		
PROJECT/ CLIENT INFORMATION	_		. 1	. <u>R</u>	EPOR	<u> INFO</u>	RMATI	<u>ON</u>							INFORMATION		
Project: CAU 326 BN Org#: A435 Charge No.: ASL Prog.:	Send Rep	port to:	M.	Ke	15	ru	Z ic						Sa	mpling Sile: CAU	326 Area 27		
Charge No.: 5 HOTBZ23 ASL Prog.:	701-1	295	-73	94 7	)のナー。 ax:	245	-776	1	M/S:	73 3	06		The	e samples submitted	contain (check);		
Project Manager: Jeff Smith	Turnarou	nd: PK	Standa	rd - 30 c	lays No	on-rad,	60 Day	s Rad,	Other:					) Hazardous ( nlamination, If known	) Radioactive ( S Unknown , attach a brief narrative summary		
Phone: Levy LMC									Final b	y:			ide	ntifying contaminants	. This information will ensure		
Phone: 295-7175   Fax: 195-7761   M/S: 107536	E Final repo	ort form	al: (4)	Standar	d ( ) b	ITS-WA	AC ()	Other:					cor	compliance with applicable regulations and allow for the safe handling of the sample materials.			
LAB USE ONLY						ANAL	YSES	& ME	THOD						E RECEIPT INFORMATION		
Rad SGD: Non-Rad SDG: V 15	ひる												<u> </u>	Are all sample cont	ainers received intact (XYes ( ) No		
Rad Packet: Non-Rad Packet:														Comments:			
Client Services Representative:		3												Do the labels agree Comments:	with this form? (\)Yes ( )No		
Will these analyses be performed under a signed SOW? ( ) YES	( ) NO	ي		1 1			l						ľ	l			
If so, do analyses entered here agree with the SOW? ( ) YES	( ) NO ( ) N/A	8	18	] }				}				]		Was a Material Clea	arance Tag submitted? ( Yes ( ) No		
If not, identify the variation CSR initials indicating review and approval:		18	5	}	ĺ		·		•	•			1	Comments:			
	T	1, 1	[g	<b>!</b> [	ĵ							[ .					
T ID / DESCRIPTION SAMPLING	MATRIX	12	1				]								COMMENTS		
E ID/DESCRIPTION DATE TIME	MAINA		生.	1 1									i	(Preserv	ative, size/volume, MS/MSD, s, rad matrix code, count time, etc.)		
0 272501- VOI 3/2402 13:33	Soil	×													wide mouth jar		
1 272501-102 1/26/02 13:4	Soil	$\times$								,							
2 272501 - VO3 4240: 13:49	5011	$\times$								7	7			17	<b>Ø</b> -		
3 272501-104 3/26/02/13 50	Sil	×			Ċ	stor	y 5	eal Ir	tact	(Y	N	No	欧	Pemp	-117/11		
4 272501 -VO5 1/26/02 13.53	5.11	X						Cor	तगार	TW1	भा पर	CHIVE	o (	<del>fordi</del>	LEURLY		
5 272501 - VO6 3/26/02 14:10	Seil	X															
6 272501 - VO7 3/26/c: 14/5	501/	$\times$															
7 272501 - VC9 4260313.4	501	$\times$															
8 Jack	<u> </u>													Suns	les free of Rab		
9 Jen		<u> </u>											<u> </u>		The year		
Transfer of samples submitted for analyses						Co	mplete	for sam	ples sh	ipped t	o an Ol	FF-SITE	Subo	contract Laboratory	NEL		
Sampled/Relinquished (Signature/Organization) DATE / TIME	Received by	<u> </u>			n)	Re	linquist	ed (BN	Repre	sentativ	e Signa	alure)		DATE / TIME	Received (Courier & Tracking Info.)		
Mystrail 5 max 1.13 V 3127/12 7:47	Colla	Hay	red	<u> </u>		17	DC	3.C. Y	24.0	da					BN COLRIER		
	ļ					Re	linquist							DATE TIME	Received Ist lier Subcontractor Rep)		
	ļ						VL	4	(1)	ux	u	<u> </u>		7/27/02/50			
	<b> </b>					Re	linquist	ed (1st	tier Su	bcontra	ctor Re	ep)			Received (2nd tier Subcontractor Rep)		
Distribution: Original - To be retained by laboratory performing final	analysis																

Copy 3 - To be retained by laboratory performing final analysis
Copy 2 - To be retained by Analytical Services Laboratory
Copy 3 - To be retained by Sampler

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# **Bechtel Nevada**

# ANALYTICAL SERVICES LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 🔏 of 🤱

	<del></del>											_	<del></del>	
Project: CAUBLE BN Org#: A 435	_		M.	V . 7	REPOR	TINFO	RMAT	ON						SAMPLE INFORMATION
	Send Rep	ort to:	1,61	KE K	CFU	. 2.			NA/C:					mpling Site: CAU326 Area 25
Charge No.: 5409 BZ23 ASL Prog.:	Phone:	295-	739	9E	703	<u>r-5</u>	95-	774	W/S.	175	300	<u> </u>		e samples submitted contain (check); ) Hazardous ( ) Radioactive ( Unknown
Project Manager: Je F Sm. th	Turnarou	nd: 💢 🕻	Standa Rush F	rd - 30 Prelimin	days N ary by:	on-rad,	60 Day	s Rad,	Other. Final b	y:				ntamination. If known, attach a brief narrative summary entifying contaminants. This information will ensure
Phone:	Final repo	ort forma	at: (>)	Standa	rd ( ) I	NTS-W	AC ()	Other:_						mpliance with applicable regulations and allow for the safe ndling of the sample materials.
LAB USE ONLY				-		ANA	LYSES	& ME	THOD	)				SAMPLE RECEIPT INFORMATION
Rad SGD: Non-Rad SDG: V15C	<u> </u>													Are all sample containers received intact (Yes ( ) No Comments:
Rad Packet: Non-Rad Packet:							l							
Client Services Representative:		280												Do the labels agree with this form? Yes ( ) No Comments:
Will these analyses be performed under a signed SOW? ( ) YES ( )	NO	8	_		ŀ		1						1	
If so, do analyses entered here agree with the SOW? ( ) YES ( ) If not, identify the variation		B	: 3.1											Was a Material Clearance Tag submitted? Yes ( ) No Comments:
CSR initials indicating review and approval: Date:			E E			1	]	]		1	Ì	]	]	
SAMPLING		2	-		l		ł		ļ			İ	1	COMMENTS
T E ID / DESCRIPTION DATE TIME	MATRIX		₽₩											(Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0 272501-VO8 1/201:214!	1.guid	X												1-L glass bootle
1 272501- NO8 Styn 14:	1. noist	X	M											1-125ml mas home "1K
2	7													Sumples free of Rad
3 /e,														
4										A				20 -41
5									$\sqrt{}$	N	No	) E	X	" KITHE
6 . C				Ç	geli	त्रर १	िट्र	adair adair		or re	C01/0	d 7	(1)	LWI.
7														4
8														
9														
ransfer of samples submitted for analyses						Co	omplete	for sam	ples st	nipped (	o an O	FF-SITE	Subo	contract Laboratory NEZ
	Received by				on)	R	linquis	ned (BN	Repre	sentativ	re Sign	ature)		DATE / TIME Received (Courier & Tracking Info.)
Mornel Runse 1 B.D 312762 7:47	CA Cax	Hom	wig	4			DC	with	Mil	da				3/27/02/130 BNCOVERIER
						Re	elinquisl				g Info.	)		DATE / TIME Received (1st tier Subcontractor Rep)
						Re	linquis	ned (1st	tier Su	bcontra	ctor R	ep)		DATE / TIME Received (2nd tier Subcontractor Rep)
						$\bot$								

CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0

Date: December 2002

# SAMPLE DELIVERY GROUP

V1624

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0 Date: December 2002

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#### 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.

Laboratory Manager

Certifications:

Reno Las Vegas AZ0520

Arizona California

AZ0518

1707 2002

Idaho

Certified Certified

Montana

Certified Certified

Nevada

NV033 NV052

New Mexico

Certified Certified

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
T at affecter	<u>Ittsuii</u>	<u>CIII</u>	All III	<u>D1</u>	Method	1 rep Date	Milaryzeu	Allaivat
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.Кg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1248	ND	μg/Κg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1254	ND	μg/Κg	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

S - Spike Recovery outside accepted recovery limits

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			=-	SW8082		06/21/02	JRW-LV
AIOCIDI 1010	ND	μg/Kg	20	1	3 W 8082	06/20/02	00/21/02	JK M -L V
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
Arocior 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

Date: 26-Jun-02

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1624

PROJECT #: MATRIX:

30033

SOLID

CLIENT ID:

CAU326-V17

DATE SAMPLED: 6/12/02

**NEL SAMPLE ID:** L0206245-003A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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/Κg	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

S - Spike Recovery outside accepted recovery limits

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	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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/Κg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1260	ND	μg/Κg	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

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	<u>DF</u>	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

S - Spike Recovery outside accepted recovery limits

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	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	μ <b>g</b> /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/Κg	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1624

PROJECT #:

30033

MATRIX:

**SOLID** 

CLIENT ID:

CAU326-V21

**DATE SAMPLED:** 6/13/02

**NEL SAMPLE ID:** L0206245-007A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Aroclor 1016	ND	μg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1221	ND	με′Κε	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1232	ND	μ <b>g/Kg</b>	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: Tetrachioro-m-xylene	92.5	%REC	48-136	1	SW8082	06/20/02	06/21/02	JRW-LV

S - Spike Recovery outside accepted recovery limits

**CLIENT:** 

Bechtel Nevada

83.0 %REC

PROJECT ID:

Surr: Tetrachioro-m-xylene

V1624

PROJECT #:

30033

**MATRIX:** 

**SOLID** 

**CLIENT ID:** 

CAU326-V22

06/20/02

06/21/02

DATE SAMPLED: 6.13/02

**NEL SAMPLE ID:** L0206245-008A

SW8082

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Arocior 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
Arocior 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

48-136

Date: 26-Jun-02

JRW-LV

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1624

PROJECT #:

30033

MATRIX:

SOLID

CLIENT ID:

CAU326-V23

**DATE SAMPLED:** 6/13/02

**NEL SAMPLE ID:** L0206245-009A

NEL SAMPLE ID: LU200243

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	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/Κg	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	$\mu g/Kg$	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/Κg	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

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 <u>Limit</u>	<u>DF</u>	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

Date: 26-Jun-02

S - Spike Recovery outside accepted recovery limits

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	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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
Aroctor 1232	ND	µg/Kg	20	1	SW8082	06/20/02	06/21/02	JRW-LV
Aroclor 1242	ND	µg/Kg	20	t	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

# NEL Laboratories, Las Vegas

**CLIENT:** 

Bechtel Nevada

Work Order:

L0206245

Project:

V1624

# ANALYTICAL QC SUMMARY REPORT

BatchID: 494

Date: 26-Jun-02

Sample ID: 020620PCBS-MB	SampType: MBLK	TestCod	e: 8082_S	Units: µg/Kg		Prep Da	te: 6/20/02		Run ID: L_EC	D-1_02062	I A
	Batch ID: 494	TestN	o: SW8082		Analysis Date: 6/21/02		SeqNo: 40761				
Analyte	Result	PQL.	SPK value	SPK Ref Val	%RFC	LowLimit	HighLimit	RPD Ref Val	%RPD R	PDLimit	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	TestN	o: SW8082		Analysis Date: 6/21/02			SeqNo: 40762			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD R	RPDLímit	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	TestCod	e: 8082_S	Units: µg/Kg		Prep Da	te: 6/20/02		Run ID: L_EC	D-1_02062	I A
	Batch ID: 494	TestN	o: <b>SW8082</b>		Analysis Date: 6/21/02			SeqNo: 40774			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD F	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

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

Page 1 of 2

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 Da	te: 6/20/02		Run ID: L_ECD-1_020621A		
	Batch ID: 494	TestNo: SW8082				Analysis Da	te: 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	()	

Kegntal	Novad?
	<b>****</b>

# SER. LES KLYUESI AND CHAIN OF CUSIODY KECOKD LC DU +5 Page 1 of 2

PROJECT	PROJECT / CLIENT INFORMATION				REPORT & TURNAROUND INFORMATION						SAMPLE INFORMATION					
Project: CAU 32	۱ 6	BNO	0rg#: A435	Send Rep					_	Samp	ling Site	CPA .	326	Acre	2) (	
Charge Number:	HU9DZ	 		<b>I</b>	29.5-7				NTS 30	The s	amples s lazardo:	submitted us - (list) ive - (list	contain (	check); ?      /  <	1 por	)
		<u> </u>	<u> </u>	Turnarou	nd: 🙀 Sta	andard - 14	days III, 2	28 days Non-rad Env, 45 d	lays Rad Env	<u> </u>	Radioact	ive - (list	)	Cl.=		
Project Manager: Jeff	Smith			!	( ) Rt			7 14 (non-Pad	•	conta	( ) Unknown contamination. If known, identify contaminants. This information will ensure compliance					
Phone:	Fax:	M/S:	UTS 306	1 2 7 14 (non-Rad Env) 1 7 14 28 (Radiological Env)							with applicable regulations and allow for the safe handling of the sample materials.					
			MANAGEMEN		RMATION	!		8.1 Pay Item, Analysis, Method								
SDG:	(IH) V	11624	(Non-	Rad Env	)			(Rad Env)	X							
Samples submitted are	associated wit	th a signed	Project SOW.	- ₩	YES ()	NO		(Mageny)	<u> </u>			<del> </del>	<u> </u>		<del> </del>	
Analyses entered here		SOW.	181	ES ()	NO ()	N/A	/, X	(2V)	83							
If not, identify the vari					v		(0)	V	5			ĺ			l	
Subcontract Lab(s) us	sed for this wor	rk:/ <u>/</u> /	156		······································		1		I :							
ID/DESCRIPTION	SAN DATE	APLING TIME	MATRIX	CON #	TAINER Est. Vol	4 .	C IS [MSD	Pres - Analysis eg. HCl - VOCs	PCB							
CAU 326 - V15			So;/	1	250ml	+		NA-PCB's	×							1
CAU 326 - V16		2 11:52	S.1					NA-PCB's	X							
CAU 326-V17		2 14:40						NA-PCB;	X							
CAU 326-V18		02 14:4						NA-PCB's	X					*		
CAU 326-V19		2 14:5						NA-PCB's	X						<u> </u>	
CAU 326-V2	5 6/17/0	2 11:55	Se:/					NA-PCBS	X						<u> </u>	
CAU 326- VZ1	1 6/13/0	2 7.3/	SOI					NR PCG	X							
CAU326-VZ	2 6/17/0	2 7:35	57/					NA-PCB	X							
(AU326-VZ)	3 6/13/	1 7:39	roil					NA. Pels	X							
(AU)26- V24		07 8:05	soil		V			NA PCS	X							
CUSTODY TRANSFI																
Sampled/Retinquished (prin		nature .	37		ATE / TIME			ved by (print)		ignature				-1.	/ TIME	
Kraiz Knapp CACASTANDOA	$\frac{\chi}{\Lambda}$	mais.			13/02 - 1			(ASTANE)A	(	1 Ca	Have	eda		1/13/0	× 6.14	14
(1) (ASTANEUA)	2 7 1 1		ruede	6/	7-02013	CD		1 COURIER	_ +	\		-14	3	1/17/0	26 13	۵
	Courcil E	12					In	up Cockett		ange	MCC	4/8		10/17/	121	145
·							-	<u> </u>								
(0.4/00)																

LU204245

<b>Bechtel</b>	<u>Nevada</u>

# **ANALYTICAL LABORATORY**

Decillei	NEVaua		SE	RVICES R	EQUE	EST & C	CHA	IN O	F CU	STODY RE	CORI	D				Page	e_2_o	f_2
	CTICLIENT INFOR					PORT & TU				TION			SA	MPLE IN	FORMAT	TION		
Project: (AU)	76	BN Org #	.4435	Send Report to:	mi	Ke K	121	7/5				Sampling	Site: <	4438	46 /	427		
Charge Number: 5				Phone: 7	3 <i>9 6</i>	Fax:	77	761		M/S: NTJ 30	6	The samp	oles subm ' <b>dous</b> (lis	itted con	tain (ched	427 cki:(<1	000)	)
Project Manager:		. /		Turnaround:	Standard	l - 14 days II	-l, 28 da	ys Non	-rad Env	, 45 Days Rad Env, (IH)		☐ Radio	active (li	st)	n.		<i>r</i>	
Project Manager: 🔾			175 306		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	2	7	14 (non-Rad Env)	If known, identify contaminants.  This information will ensure compliance with applicable regulations							
Phone:	Fax:		I/S:	<u> </u>			1 <u> </u>	7 📙	14 📙	28 (Radiological Env)	l	allow for the					regulations	3 and
		SAMPLE	MANAGE	MENT INFORMATIO	<u> N</u>						8.1	Р	ay Itei	m, Ana	alysis,	Metho	d	
SDG:	(IH)	V16	24	(Non-Rad	Env)				(Rad I	Env)	X							
Samples submitted					Yes [					( )	<del>                                     </del>	$\dagger$		<del>                                     </del>	<del> </del>	+		<del> </del>
Analyses entered he			•	'		□No □	N/A		( , '	1,54/	}							
If not, identify the va	-			,					//(	)\ <i>V</i> /	13							
Subcontract Lab(s)			MER				-		· W		103.2			İ	1		'	İ
			PLING		CON	TAINER	T	QC		Pres - Analysis	ES			İ	1			
ID/DESCRII	PTION	DATE	TIME	MATRIX	#	Est. Vol	MD	мѕ	MSD	eg. HCI - VOCs	N. Contraction							
(AU326-1	126	6/13/00	8:09	Je'/	I	25 Um/				NA. FCB	X							
LAST	ITEM			<u> </u>														
	,							<u> </u>										
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						L	<u></u>											
					1													
CUSTODY TRANS	FER	<u> </u>	.L			<u></u>		<u> </u>			<u> </u>							<del></del>
Sampled/Relinquish	ed (print)		Sign	nature	L D	ate/Time	R	eceive	ed by (r	orint)	$\bot$		Signat	ure		7	ate/Tim	
Kraig Kng	ap	K		Kigg	6/13/	62-1429		DCA	15TAL	EDA	C	1 Car	auei	Line		13/02	N 143	24
CD CASIARIO	TDH	CAC	astre	ude		·02 e 130	25 6	BM	Col	ILIER	[					6/13/02	@ 130	<i>"</i> ひ
					1													
				<del></del>	ļ — —		_			<del></del>								
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CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0

Date: December 2002

## **SAMPLE DELIVERY GROUP**

V1429

CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0

Date: December 2002

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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.

Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520

AZ0518

California

1707

Idaho

2002 Certified Certified

Montana

Certified Certified

Nevada

NV033 NV052

New Mexico

Certified Certified

US Army Corps of Engineers

Certified

CLIENT:

Bechtel Nevada

**ROJECT ID:** 

V1429

'ROJECT#:

30033

ATRIX:

SOIL

CLIENT ID:

062501-01

DATE SAMPLED: 2/11/02

**NEL SAMPLE ID:** L0202135-001A

Parameter	Result	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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)	<b>5</b> 1	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

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 <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

'ROJECT ID:

V1429

ROJECT #:

30033

1ATRIX:

i .

SOIL

CLIENT ID:

062501-03

DATE SAMPLED: 2/11/02

**NEL SAMPLE ID:** L0202135-003A

<u> arameter</u>	Result	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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	l	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

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	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1429

PROJECT #:

30033

ATRIX:

SOIL

CLIENT ID:

Pipeline 2

DATE SAMPLED: 2/11/02

**NEL SAMPLE ID:** L0202135-005A

<sup>3</sup> arameter	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	8900	mg/Kg	100	5	SW8015	02/15/02	02/20/02	PXC-LV
Cil 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

MENT:

Bechtel Nevada

**BOJECT ID:** 

V1429

NOJECT #:

30033

ATRIX:

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SOIL

CLIENT ID:

062501-13

**DATE SAMPLED: 2/11/02** 

**NEL SAMPLE ID:** L0202135-006A

Parameter	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	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

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 <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (12-C22)	11	mg/Kg	10	I	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

CLIENT:

Bechtel Nevada

ROJECT ID:

V1429

ROJECT #:

30033

ATRIX:

SOIL

CLIENT ID:

062501-04 DUP

DATE SAMPLED: 2/11/02

**NEL SAMPLE ID: L0202135-008A** 

<u>Parameter</u>	Result	Units	Reporting <u>Limit</u>	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	<b>5</b> 5	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

#### ... La Coracones, Las Vegas

CLIENT: Bechtel Nevada

Work Order: L0202135 Project: V1429

#### ANALYTICAL QC SUMMARY REPORT

Date: 27-Feb-02

TestCode: 8015ffp\_s

Sample ID: MB-98	SampType: MBLK	TestCod	e: 8015ffp_s	Units: mg/Kg		Prep Date:	2/15/02		Run ID: L_F	TD-1_020220	)B
Client ID: ZZZZZ	Batch ID: 98	TestNo	o: SW8015M			Analysis Date	2/20/02		SeqNo: 2250	)	
Analyte	· Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit F	lighLimit	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	TestCod	e: 8015ffp_s	Units: mg/Kg	<del></del>	Prep Date	2/15/02		Run 1D: L_F	ID-1_020220	)B
Client ID: ZZZZZ	Batch ID: 98	TestN	o: SW8015M			Analysis Date	2/20/02		SeqNo: 2249	9	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	lighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
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: 1.CSD-98	SampType: LCSD	TestCod	e: 8015FFP_S	Units: mg/Kg		Prep Date	: 2/15/02		Run ID: L_F	ID-1_02022	0B
Client ID: ZZZZZ	Batch ID: 98	TestN	o: <b>SW8015M</b>			Analysis Date	: 2/20/02		SeqNo: 226	9	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
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	TestCod	e: 8015FFP_S	Units: mg/Kg		Prep Date	: 2/15/02		Run ID: L_F	FID-1_02022	0В
Client ID: 062501-01	Batch ID: 98	TestN	o: <b>SW8015M</b>			Analysis Date	2/20/02		SeqNo: 226	7	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	lighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
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	TestCod	e: 8015FFP_S	Units: mg/Kg	<del></del>	Prep Date	: 2/15/02		Run ID: L_I	FID-1_02022	0B
Client ID: 062501-01	Batch ID: 98	TestN	o: <b>SW8015M</b>			Analysis Date	: 2/20/02		SeqNo: 226	8	
		DOL	CDV malus	SPK Ref Val	%REC	LowLimit	Highl imit	RPD Ref Val	%RPD	RPDLimit	Qua
Analyte	Result	PQL	SPK value	SEK KEI VAI	MICEC	LOWLINII	ingni.			ra benin	Qu.

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

# ANALYTICAL QC SUMMARY REPORT

Bechtel Nevada L0202135 V1429

Work Order:

Project:

CLIENT:

TestCode: 8015ffp\_s

Sample ID:	Sample ID: L0202135-001AMSD SampType: MSD	SampType: MSD	TestCod	11	Units: mg/Kg		Prep Date	Prep Date: 2/15/02	•	Run ID: L_F	Run ID: L_FID-1_020220B	<b>m</b>
Client ID: 062501-01	062501-01	Batch ID: 98	TestN	TestNo: SW8015M			Analysis Date: 2/20/02	: 2/20/02		SeqNo: 2268	<b>~</b>	
Analyte		Result	PQL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Surr: n-O	Surr: n-Octacosane	. 2.838	0.010	3.336	0	85.1	55	130	0	0	0	

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits ND - Not Detected at the Reporting Limit

Qualifiers:

Page 2 of 2

B - Analyte detected in the associated Method Blank

Becntel Nevada

#### ANALYTICAL SERVICES LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

PROJECT/ CLIENT INFORMATION	<del></del>												
	ļ.,	. "	, , /KE			RMATIC						Į.	SAMPLE INFORMATION
Project: (AU 326 BN Org#: 2/56 Charge No.: 5위성도용국고 ASL Prog.:			7 F8			<u>(2/(</u>	<del> 1</del>	M/S:					mpling Site: A6 06-25-01
5 # 9 9 6 2 2 3	うちょ			_ ~		-77	( /	/	v/7.	5 20	6		s samples submitted contain (check); Hazardous ( ) Radioactive Unknown
Project Manager: Wayne Johnson	Turnaround:	Standa ( ) Rush F	rd - 30 da Prelimina	ays Nor ry by: _	ı-rad,	60 Days	B Rad, (	Other:_ inal by	/:				stamination. If known, attach a brief narrative summary ntifying contaminants. This information will ensure
Project Manager: Wayne Johnson  Phone: 175-0573   Fax: 275-776   M/S: WTJJC	6 Final report for	ormat:	Standard	( ) NT	S-WA	4C ( ) (	Other:_						npliance with applicable regulations and allow for the safe adding of the sample materials.
LAB USE ONLY				A	NAL	YSES	& MET	HOD					SAMPLE RECEIPT INFORMATION
Rad SGD: Non-Rad SDG: VI4	9												Are all sample containers received intact (X) Yes ( ) No Comments:
Rad Packet: Non-Rad Packet:		2 3	],							}			
Client Services Representative:		524	i je										Do the labels agree with this form? (XYes () No Comments:
Will these analyses be performed under a signed SOW? () YES If so, do analyses entered here agree with the SOW? () YES	) NO	/ É	1.01										Man a Mahadad Classes - Too a beside do Vivi
If not, identify the variation		7 2	195										Was a Material Clearance Tag submitted? (1) Yes (1) No Comments:
Date.		# 12	2							ŀ			
T T SAMPLING SAMPLING DATE TIME	MATRIX	J. J.	Cotte										COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.)
0 062501-01 1/11/0:16:16	sei/	X								<del>                                     </del>		_	Example cher wide month glass sor
1 06 501-02 2/11/03 10:28	sei/	7											"
2 062501-03 2/11/02 10:30	50://	7			•							<u> </u>	"
3 062101-011 41/0110:32	50://	7										0	Bun diplicate si'well as sample
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6 06 2501-13L ZIIIOZ 13.55		7 0116	ody <sup>E</sup>	seal	nd'	1010	hen	ece;	1677				11
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CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0 Date: December 2002

## SAMPLE DELIVERY GROUP

V1432

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0

Date: December 2002

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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: 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.

Van Wagenen

Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520

California

AZ0518

Idaho

1707

2002 Certified Certified

Montana

Certified Certified

Nevada

NV033

NV052

New Mexico

Certified Certified

US Army Corps of Engineers

Certified

CLIENT:

Bechtel Nevada

'ROJECT ID:

V1432

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-22

DATE SAMPLED: 2/12/02

**NEL SAMPLE ID:** L0202134-001A

Parameter	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	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

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	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

"ROJECT ID:

V1432

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-23L

DATE SAMPLED: 2/12/02

NEL SAMPLE ID: L0202134-004A

<u>Parameter</u>	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	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

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	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

'ROJECT ID:

V1432

'ROJECT #:

30033

1ATRIX:

SOIL

CLIENT ID:

062501-25

DATE SAMPLED: 2/12/02

**NEL SAMPLE ID:** L0202134-007A

Parameter	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1432

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-26

DATE SAMPLED: 2/12/02

**NEL SAMPLE ID:** L0202134-010A

Parameter	Result	<u>Units</u>	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1432

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-24 DUP

DATE SAMPLED: 2/12/02

**NEL SAMPLE ID:** L0202134-012A

Parameter	Result	Units	Reporting <u>Limit</u>	<u>DF</u>	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

#### INLL Laubraturies, Las Vegas

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_I	FID-1_020220	В
Client ID: ZZZZZ	Batch ID: 98	TestNo	: SW8015M			Analysis Date:	2/20/02		SeqNo: 225	0	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit 1	lighLimit	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_I	FID-1_020220	В
Client ID: ZZZZZ	Batch ID: 98	TestNo	: SW8015M			Analysis Date	2/20/02		SeqNo: 224	9	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit F	lighLimit	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_I	FID-1_020220	)B
Client ID: ZZZZZ	Batch ID: 98	TestNo	: SW8015M			Analysis Date	2/20/02		SeqNo: 226	<b>i9</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit F	lighLimit	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_I	FID-1_020220	)B
Client ID: ZZZZZ	Batch ID: 98	TestNo	: SW8015M			Analysis Date	2/20/02		SeqNo: 226	57	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit 1	lighLimit	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_020220	0B
Client ID: ZZZZZ	Batch ID: 98	TestNo	: SW8015M			Analysis Date	: 2/20/02		SeqNo: 226	68	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	lighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
, that y to											

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 1D:	L0202135-001AMSD	SampType: MSD	TestCode: 8015FFP_S Units: mg/k				Prep Da	te: 2/15/02		Run ID: L_FID-1_020220B				
Client 1D:	ZZZZZ	Batch ID: 98	TestN	o: <b>SW8015M</b>			Analysis Da	ite: 2/20/02		SeqNo: 2268				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Surr: n-Oc	ctacosane	. 2.838	0.010	3.336	0	85.1	55	130	0	0	0			

Bechtel Nevada

# ANÁLYTICAL SERVICES LABORATORY **SERVICES REQUEST & CHAIN OF CUSTODY RECORD**

	PROJECT/ CLIENT INFORM	REPORT INFORMATION											T	SAMPLE INFORMATION								
Project: CAU326 BN Org#: 2/56 Send Repo							end Report to: Mike Kruzik										Sampling Site: 196 06-25-01					
Charge No.: 5HO9BZ23 ASL Prog.: Phone: 295-							295-7596 Fax: 7761 MS: NTS 306								The samples submitted contain (check);  ( ) Hazardous ( ) Radioactive							
Projec	t Manager: Usung To	lason		Turnarour	urnaround: PrStandard - 30 days Non-rad, 80 Days Rad, Other: ( ) Rush Preliminary by: Final by:											contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure						
Phon	at Managér: Usyne To B: Fáx: 7761	M/	S:		nal report format: ( ) Standard ( ) NTS-WAC ( ) Other:											com	compliance with applicable regulations and allow for the safe					
	195-0573 7761 LABUSE ON		rs 301							YSES						nan	handling of the sample materials.  SAMPLE RECEIPT INFORMATION					
Rad S	<del></del>	asDG: ∛	1432		7					1								alners received intact (		1		
Radi	Packet: Non-Rad	d Packet:			510	3	4	)									Continents.					
Client	Services Representative:				80	12 4	, m	1527		ŀ							Do the labels agree Comments:	with this form?	Yes ( ) No	ľ		
Will t	hese analyses be performed under a sign	ned SOW?	( ) YES (	) NO	_	N.	. 5	1.														
	do analyses entered here agree with the identify the variation	sow?	( ) YES (	) NO ( ) N/A	10 ta	TEN: 10.54	200	2,									Was a Material Cle Comments:	arance Tag submitted? (	Yes ()N	0		
	initials indicating review and approval:		Date:		1-	2,	2	1			ļ											
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2	1062501-23	2/12/02	10:50	Soil	X.				<u> </u>	`							· · · · · · · · · · · · · · · · · · ·					
3	062501-23L	2)12/6	10:50	soil	X.				<u> </u>		<u> </u>	/	7		,	_	12"			1		
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9	062501-26	2/12/03	12:15	501)	又,		<u> </u>		<u> </u>	<u> </u>	<u> </u>						4		J			
Transfer of samples submitted for analyses							Complete for samples shipped to an OFF-SITI								E Subo	<del></del>	<del>,</del>		1			
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000 177

# **Bechtel Nevada**

# ANALYTICAL SERVICÉS LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 2 of 2

PROJECT/ CLIENT INFORMATION REPORT INFORMATION SAMPLE INFORMATION																						
	PROJECT/ CLIENT	REPORT INFORMATION											SAMPLE INFORMATION									
Project: CAU 326 BN Org#: 2156 Send Repo							end Report to: W.Ke. Kruz.c.  hone: 7396 Fax: 7761 M/S: 15396  umaround: 1 Rush Preliminary by: Final by:											Sampling Site: <u>P6</u> 06-25-01				
Charge No.: 5 H Ø 9 B Z Q J ASL Prog.: Phone: 295						- 7	396	'	<b>ax</b> : )	76	(		₩3: 	175	300	5	The samples submitted contain (check); ( ) Hazardous ( ) Radloactive Unknown					
Project M	anagér: ( \	Tel			Tumarour	Nd: DX	tandar	d - 30	days No	n-rad, (	0 Days	Rad,	Other:_				con	tamination. If known	, attach a brief narrative summary			
Phone:	anager: Dayne 15-0573 Fax: 7	Jona	IM	<u>S:</u>														Identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe				
<u> </u>	5-0573 7	761	1	TS 306	Final repo	nal report format: ( ) Standard ( ) NTS-WAC ( ) Other:												handling of the sample materials.				
		USE ONLY	<u> </u>			ANALYSES & METHOD												SAMPLE RECEIPT INFORMATION  Are all sample containers received intact (X) Yes ( ) No				
Rad SGD		Non-Rad	SDG:	457		≼												Are all sample cont Comments:	amers received intact (Y) Yes ( ) No			
Rad Paci	ket:	Non-Rad F	Packet:			15																
Client Se	rvices Representative:					80	129											Do the labels agree Comments:	with this form? Yes ( ) No			
	e analyses be performed un					15.	#S'0)															
	analyses entered here agree entify the variation	e with the S	OMS	()YES (	) NO ( ) N/A	10	Ó											Was a Material Cle Comments:	arance Tag submitted? (XYes ( ) No			
1	als indicating review and ap	proval:		Date:		H	1787															
II			SAMF	PLING		1	ľ												COMMENTS			
E	ID / DESCRIPTION		DATE		MATRIX	1	Best											(Preser	vative, size/volume, MS/MSD.			
0	012501 2	//		ļ	5 . 1		-	6	10	-e	11-	D				-	-		ls, rad matrix code, count time, etc.)			
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Transfer of samples submitted for analyses							Complete for samples shipped to an OFF-SIT								FF-SITI	E Sub	contract Laboratory	NEI				
Sampled/Relinquished (Signature/Organization) DATE / TIME Received by					(Signa	ture/Or	ganizat	ion)	Re	inquisl	ned (BN	Repre	sentativ	e Sign	ature)		DATE / TIME	Received (Courier & Tracking Info.)				
Mohel homes 14:38 Cour			ب	La	امد	·	$\mathcal{L}$			iada					2/13/02/0/300	BN COUPLER						
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	Original To be satisface													<u> </u>								

**CLOSURE REPORT - CAU 326** 

Section: Appendix B Revision: 0

Date: December 2002

## **SAMPLE DELIVERY GROUP**

V1535

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0

Date: December 2002

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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.

Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520

AZ0518

California

1707

2002

Idaho

Certified Certified

Montana Nevada

Certified Certified

New Mexico

NV033 NV052 Certified Certified

US Army Corps of Engineers

Certified

CLIENT:

Bechtel Nevada

V1535

PROJECT ID: PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-S1

**DATE SAMPLED:** 4/17/02

**NEL SAMPLE ID:** L0204298-001A

<u>Parameter</u>	Res	ult Unit	Reporting <u>Limit</u>	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	i	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1535

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-S4

DATE SAMPLED: 4/17/02

**NEL SAMPLE ID:** L0204298-002A

Parameter	Result	Unit		Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1535

PROJECT #: MATRIX:

30033 SOIL CLIENT ID:

062501-S6

DATE SAMPLED: 4/17/02

**NEL SAMPLE ID:** L0204298-003A

Parameter	Result	Unit	Reporting Limit	<u>DF</u>	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

Date: 29-Apr-02

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1535

PROJECT #:

30033

CLIENT ID:

062501-S5

DATE SAMPLED: 4/17/02

**NEL SAMPLE ID:** L0204298-004A

**MATRIX:** SOIL

			Reporting					
<u>Parameter</u>	Result	<u>Unit</u>	Limit	$\overline{\mathbf{DF}}$	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1535

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-S8

DATE SAMPLED: 4/17/02

**NEL SAMPLE ID:** L0204298-005A

			Reporting					
Parameter	Result	<u>Unit</u>	<u>Limit</u>	$\overline{\mathbf{DF}}$	Method	Prep Date	Analyzed	<b>Analyst</b>
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

**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	Resu	ılt Unit	Reporting Limit	<u>DF</u>	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	ı	SW8015Ext	04/22/02	04/24/02	PXC-LV

**CLIENT:** 

Bechtel Nevada

PROJECT ID:

V1535

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

062501-S7

**DATE SAMPLED: 4/17/02** 

**NEL SAMPLE ID:** L0204298-007A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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	i	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

S - Spike Recovery outside accepted recovery limits

**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	Res	ult Unit	Reporting <u>Limit</u>	<u>DF</u>	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

Date: 29-Apr-02

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

**CLIENT:** 

Bechtel Nevada

Work Order:

L0204298

Project:

V1535

#### ANALYTICAL QC SUMMARY REPORT

8015ffp\_s

Test Method: SW8015Ext

Sample ID: MB-302	SampType: MBLK	TestCod	e: 8015ffp_s	Units: mg/Kg		Prep Date	: 4/22/02		Run ID: L_FID-1_02042	24B
	Batch ID: 302	TestNe	o: SW8015M			Analysis Date	: 4/24/02		SeqNo: 21972	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit 1	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	TestCod	e: 8015ffp_s	Units: mg/Kg		Prep Date	: 4/22/02		Run ID: L_FID-1_02042	24B
	Batch ID: 302	TestNo	o: SW8015M			Analysis Date	: 4/24/02		SeqNo: 21971	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD RPDLimit	Qua
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	TestCod	e: 8015FFP_S	Units: mg/Kg		Prep Date	: 4/22/02		Run ID: L_FID-1_02042	24B
	Batch ID: 302	TestNo	o: SW8015M			Analysis Date	: 4/24/02		SeqNo: 21976	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit 1	HighLimit	RPD Ref Val	%RPD RPDLimit	Qua
Diesel Range Organics (C12-C22)	128	10	166.8	0	76.8	54	91	117	9.00 25	

Qualifiers:

ND - Not Detected at the Reporting Limit

C - Unspiked sample >5 times the amount spiked

B - Analyte detected in the associated Method Blank

JI - MS or MSD outside accepance limits. LCS acceptable.

R - RPD outside accepted recovery limits

Page 1 of 2

J - This concentration is considered an estimate due to LCS failure.

Date: 29-Apr-02

CLIENT: Bechtel Nevada

Work Order: L0204298

work Order: L0204298
Project: V1535

8015ffp\_w

Test Method: SW8015Ext

ANALYTICAL QC SUMMARY REPORT

							t cat intermed.		S W SUIDEXI
Sample ID: MB-303	SampType: MBI K	Tonto	200,000						
	Sampi Spc. MBCK	lest ode:	rest ode: 801511p_w	Units: mg/L		Prep Date: 4/23/02	/23/02		Run ID: 1 Fith 1 650 150
	Batch ID: 303	TestNo:	TestNo: SW8015N1			Analysis Date: 4/23/02	/23/02		SeaNo: 20677
Analyte	Result	PQL	SPK value	SPK Rcf Val	%REC	%REC LowLimit HighLimit		PPD Bef Vel	
Gasoline Range Organics (C8-C12)	GN.					٥		INCL VAL	%KPD RPDLimit Qual
(713 63) 639: -8		05.0							
Diesel Range Organics (C12-C22)	ON	0.50							
Oil Range Organics (C22-C34)	<u>SN</u>	0.50							
Total TPH	GN	0.50							-
Surr: n-Octacosane	0.075	0.010	0.1	•	75	28	120	c	
Comple ID: 1 CC 303									0
Sample ID: LCS-503	SampType: LCS	TestCode: 8015ffp_w	1015ffp_w	Units: mg/L		Prcp Date: 4/23/02	23/02		Dim ID. 1 Fills
	Batch ID: 303	TestNo: S	TestNo: SW8015M			Analysis Date: 4/23/02	23/02		SeqNo: 20676
Analyte	Result	S JÒd	SPK value	SPK Rcf Val	%REC	%REC LowLimit Highlimit	imit PP	RPD Pof Val	
Diesel Range Organics (C12-C22)	1000	0.0				٥		IPA IONI O	%KPD RPDLinnit Qual
Surr: n-Octacosane	0.074	0.00	0.1	0 0	79.3	53 83	91	0	0
Sample ID: 1 CCD 303	1.00								0
Campion D. L. Calledon	Samp Lype: LCSD	TestCode: 8015FFP_W	015FFP_W	Units: mg/L		Prep Date: 4/23/02	3/02		Run ID: 1_FID-1_020423C
	Datell ID. 303	lestNo: S	SW8015M			Analysis Date: 4/23/02	3/02		SeqNo: 20678
Analyte	Result	PQL SI	SPK value	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	
Diesel Range Organics (C12-C22)	A 15A	3.0						in in in	war to kriot innt Qual
Surr: n-Octacosane	0.074	0.010	0.1	0 0	83.1	53	91 120	3.967	4.61 25

Qualifiers:

ND - Not Detected at the Reporting Limit

C - Unspiked sample >5 times the amount spiked

R - RPD outside accepted recovery limits

J - This concentration is considered an estimate due to LCS failure.

JI - MS or MSD outside accepance limits. LCS acceptable.

B - Analyte detected in the associated Method Blank

Page 2 of 2 **Date:** 29-Apr-02 1/25 (RYTIL') 10,09,218

## **Bechtel Nevada**

## ANALYTICAL SERVICES LABORATORY

SI	RVICES REQUES	ST & CHA	AIN OF C	CORD	Page L of Z			
PROJECT/ CLIENT INFORMATION		REPORT INF					SAMPL	E INFORMATION
Project: CAU 326 BN Org#: A 435	Send Report to: Wike	e Kruz	ìc	1700		Sa	mpling Site:	
Project: CAU 326  BN Org#: A 435  Charge No.:  SHC9B223  ASL Prog.:	Phone: 5-7396	13. 776	. 1	M/S: V7 S	306	; Th	e samples submitted ) Hazardous      (	contain (check); ( ) Radioactive ( ) Unknown
Project Manager: Jeff Smith Phone: Fax: M/S:	Turnaround: Standard ( ) Rush Pre	- 30 days Non-ra liminary by:	d, 60 Days Rad,	Other: Final by:				n, attach a brief narrative summary s. This information will ensure
Phone: Fax: M/S: M/S: UTS 30 6	Final report format: ( ) Sta	andard ( ) NTS-I	WAC ( ) Other:				mpliance with applicandling of the sample	able regulations and allow for the safe materials.
LAB USE ONLY		ANA	ALYSES & ME	THOD			SAMPI	LE RECEIPT INFORMATION
Rad SGD: Non-Rad SDG: V   53	5 2						Are all sample con Comments:	tainers received intact (X Yes ( ) No
Rad Packet: Non-Rad Packet:	7) 5/4e/4							
Client Services Representative:							Do the labels agreed Comments:	e with this form? (XYes ( ) No
Will these analyses be performed under a signed SOW? ( ) YES ( If so, do analyses entered here agree with the SOW? ( ) YES ( If not, identify the variation  CSR initials indicating review and approval:							Was a Material Cle Comments:	parance Tag submitted? ( ) No
I SAMPLING E ID / DESCRIPTION DATE TIME	MATRIX + d				:		(Preser special analys	COMMENTS vative, size/volume, MS/MSD, ls, rad matrix code, count time, etc.)
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1 062501 - 54 4/1/102 10:29							Sample	s Corpan No Rad
2 062501-56 4/16/02 11:10	Scil X							
3 062501-55 4/1602 10:55	So:1 X							
4 062501 -58 4/11/02/12:50	Seil X						28	
5 062501-S11 7/16/02 3:55			1.17	V 3	1000	147	h	
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			Relinquished (1s	t tier Subcon	tractor Re	ep)	DATE / TIME	Received (2nd tier Subcontractor Rep)
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Bechtel Neva	<u>ida</u>	SE	RVICE			L SERV						'RE	COR	?D		P	age_Zof_Z
PROJECT/ CLIENT	INFORMATION					REPORT			ON					T	SAMPLE	INFORMATION	
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LAB	USE ONLY			9		ΑΑ	NAL	YSES	& ME	THOD					SAMPL	E RECEIPT INFO	RMATION
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Rad Packet:	Non-Rad Packet:			£ 4.			i					}					
Client Services Representative:				1/6/1			i					<u> </u>			Do the labels agree Comments:	with this form?	(X) Yes () No
Will these analyses be performed un if so, do analyses entered here agree if not, identify the variation CSR initials indicating review and ap	with the SOW?	()YES (		Gas   Diege 1 10;			i								Was a Material Cle Comments:	arance Tag submit	ted? O Yes ( ) No
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							Re	elinquis	hed (1	st tier Su	bcontr	actor R	ep)		DATE / TIME	Received (2nd tie	er 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

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0

Date: December 2002

## **SAMPLE DELIVERY GROUP**

V1625

CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0

Date: December 2002

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#### 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.

Wagenen Laboratory Manager

Certifications:

Las Vegas Reno

Arizona

AZ0520

AZ0518

California

Idaho

1707

2002

Certified Certified

Montana Nevada

Certified Certified

New Mexico

NV033 NV052 Certified Certified

CLIENT:

Bechtel Nevada

PROJECT ID:

V1625

PROJECT #: MATRIX:

30033

SOLID

CLIENT ID:

326-B1-10

DATE SAMPLED: 6/13/02

**NEL SAMPLE ID:** L0206246-001A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

Date: 26-Jun-02

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

**CLIENT:** 

Bechtel Nevada

PROJECT ID:

V1625

PROJECT #:

30033

MATRIX:

**SOLID** 

CLIENT ID:

326-B1-45

DATE SAMPLED: 6/13/02

**NEL SAMPLE ID: L0206246-002A** 

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	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

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Charge Number: 5H09BZ		·	Phone: 702-29	5-75	516 Fax:	2-29	5-75	61	M/S: N 1530	6	The sam	ples subn rdous (lis	nitted con	tain (che	ck);		
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CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0 Date: December 2002

# SAMPLE DELIVERY GROUP

V1622

CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0

Date: December 2002

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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.

Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520

AZ0518

California

1707

2002

Idaho

Montana

Certified Certified Certified Certified

Nevada

NV033

NV052

New Mexico

Certified Certified

Albuquerque

Boise

Las Vegas

Phoenix

Reno

Sacramento

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

<u>Parameter</u>	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1622

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-OB2-5

DATE SAMPLED: 6/12/02

NEL SAMPLE ID: L0206211-002A

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Gasoline Range Organics (C8-C12)	40	mg/Kg	ro	ł	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	ì	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

Date: 24-Jun-02

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1622

PROJECT #:

30033

**MATRIX**:

SOIL

CLIENT ID:

326-B2-45

DATE SAMPLED: 6/12/02

**NEL SAMPLE ID:** L0206211-003A

			Reporting					
<u>Parameter</u>	Result	Unit	Limit	$\overline{\mathbf{DF}}$	Method	Prep Date	<b>Analyzed</b>	<u>Analyst</u>
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	l	SW8015Ext	06/17/02	06/19/02	PXC-LV
Oil Range Organics (C22-C34)	ND	mg/Kg	50	ł	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1622

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-OB2-45

DATE SAMPLED: 6/12/02

NEL SAMPLE ID: L0206211-004A

Parameter	Result	<u>Unit</u>	Reporting Limit	<u>DF</u>	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

Date: 24-Jun-02

CLIENT:

Bechtel Nevada

PROJECT ID:

V1622

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-B2-50

DATE SAMPLED: 6/12/02

**NEL SAMPLE ID:** L0206211-005A

<u>Parameter</u>	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

Date: 24-Jun-02

CLIENT:

Bechtel Nevada

Work Order:

L0206211

Project:

V1622

ANALYTICAL QC SUMMARY REPORT

BatchID: 488

Sample ID: 020617TPHS-MB	SampType: MBLK		2: 8015FFP_S	Units: mg/Kg		Prep Date	e: 6/17/02		Run ID: L_FI SeqNo: 3853		В
	Batch ID: 488	Testivo	): 21/4012IM			Allalysis Dat	E. 0/1//02		Seq140. 3833.	,	
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 Dat	e: 6/17/02		Run ID: L_FI	D-1_020617	В
	Batch ID: 488	TestNo	o: SW8015M			Analysis Dat	e: 6/17/02		SeqNo: 3853	1	
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	<u> </u>	Prep Dat	e: 6/17/02		Run ID: L_FI	D-1_020617	В
	Batch ID: 488	TestNo	: SW8015M			Analysis Dat	e: 6/17/02		SeqNo: 3853	2	
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	e: 6/17/02	<u></u>	Run ID: L_FI	D-1_020617	'B
	Batch 1D: 488	TestNo	SW8015M			Analysis Dat	e: 6/19/02		SeqNo: 3993	2	
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

Page 1 of 2

CLIENT:

Bechtel Nevada

Work Order:

L0206211

Project:

V1622

ANALYTICAL QC SUMMARY REPORT

BatchID: 488

Sample ID: L0206211-005A	SampType: MSD	TestCod	le: 8015FFP_S	Units: mg/Kg		Prep Da	te: 6/17/02		Run ID: L_FID-1_020617B				
	Batch ID: 488	TestN	o: SW8015M		Analysis Date: 6/19/02				SeqNo: 399	33			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quaf		
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			

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## **Bechtel Nevada**

#### ANALYTICAL LABORATORY SERVICES REQUEST & CHAIN OF CUSTODY RECORD

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impling Site: CAU 326 the samples submitted contain (check); Hazardous (list) - Radioactive (list) - Unknown contamination. known, identify contaminants. his information will ensure compliance with applicable regulations and low for the safe handling of the sample materials.  Pay Item, Analysis, Method														
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PROJECTICLIENT INFO	DMATION		<u> </u>						OUT OF THE				T			3e/_c	)'_ <u>'</u> _		
		. Asin	REPORT & TURNAROUND INFORMATION  Send Report to: Michael Kruzic  Phone: 702-295-7346 Fax: 702-295-7761 M/S: The samples submitted contain (cl										TION						
Project: CAU 326	BN Org #	#: # 4.35	Phone:	: /VI	Chae   Fax:	_K <sub>1</sub>	Cuzio		I M/S:		Sampling The sar	ng Site: <u>(</u> nples sub	AU 3	26	ok):				
Charge Number: 5HO9BZ2			102-20	15 -734 18120dae	6 7	02-24	95-77	<sup>7</sup> 61	1075301		Ha₂	ardous (/	ist)	maiii (ciie					
Project Manager: Jeffry L.S	mith	- <del> </del>	Turnaround:	Rush P	reliminary by	/:	ays Noi	1-rao En	iv, 45 Days Rad Env, (IH)	1	_⊠(Unk	lioactive nown co	ntaminatio						
702-245-7775 Phone: Fax: 702-245		NS: N133			L.	J1 L	J2 [	7	]14 (non-Rad Env) ]28 (Radiological Env)		This info	n, identify mation will the safe had	ensure con	npliance wit	h applicabl	le regulation	s and		
			MENT INFORMATI											ndling of the sample materials. Im, Analysis, Method					
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Samples submitted are associated	with a sig	ned Proje		Yes [				- `	,	10.01	<del> </del>	<del>                                     </del>	<del> </del>	-	<del> </del>	<del> </del>			
Analyses entered here agree with t	the SOW		<b>[</b> 21	Yes [	∃No □	N/A				Ū	1	1	}				1		
If not, identify the variation:										//2		ĺ	ŀ						
Subcontract Lab(s) used for this wo	ork:	EL						-		Dice//C:1			1						
	SAMF	LING		CON	ITAINER		QC	 1	Pres - Analysis	±	!		1						
ID/DESCRIPTION	DATE	TIME	MATRIX	#	Est. Vol	MD	MS	MSD	eg. HCI - VOCs	<u>c</u>	l		ļ						
326-82-5	6/11/02	13.00	Soil	1	250mL	MA	11/4	NA	MA	×		<b>†</b>		1					
326-0B2-5	6/11/02	13:00	50:1	1	1	_				×		1							
326 - B2 - 45	6/12/02	9:39	30;	1						×				<b></b>					
326-0B2-45	6/12/02	9:39	Suil	1				7		×									
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CLOSURE REPORT - CAU 326

Section: Appendix B Revision: 0 Date: December 2002

# **SAMPLE DELIVERY GROUP** V1635

CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0

Date: December 2002

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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.

Stan Van Wagenen Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520

California

AZ0518

1707

2002

Idaho

Certified Certified

Montana

Certified Certified

Nevada

NV033

NV052

New Mexico

Certified Certified

CLIENT:

Bechtel Nevada

PROJECT ID:

V1635

PROJECT #:
MATRIX:

30033

SOLID

CLIENT ID:

326-B3-45

**DATE SAMPLED:** 6/18/02

**NEL SAMPLE ID:** L0206374-001A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

**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	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

Date: 15-Jul-02

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1635

PROJECT #:

30033

MATRIX:

SOLID

CLIENT ID:

326-B5-50

DATE SAMPLED: 6/19/02

**NEL SAMPLE ID:** L0206374-003A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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	i	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	I	SW8015Ext	07/01/02	07/06/02	PXC-LV

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Bechtel Nevada		S	ERVICES R		VALYTICA EST & (				RY <b>USTODY RE</b>	CORL	)				Pag	e(_of	f <u>/</u>	
PROJECTICLIENT INFORMATION				RE	EPORT & TU	IRNAR	OUND	INFORM	IATION		SAMPLE INFORMATION							
Project: <au 326<="" td=""><td>BN Org #</td><td>#: A43°</td><td>Send Report to</td><td>E M.</td><td>Ke K.</td><td>u7;</td><td>ح,</td><td></td><td>MS;UTS 306</td><td></td><td>Sampling</td><td></td><td></td><td></td><td></td><td>s lor</td><td></td></au>	BN Org #	#: A43°	Send Report to	E M.	Ke K.	u7;	ح,		MS;UTS 306		Sampling					s lor		
Charge Number: 5 Hog R 2	33		Phone:	-295-	139 Fax:	2-29	15-21	761	MS:UTS 306		Sampling Site: CHOBACCR Bos for The samples submitted contain (check);  Hazardous (list) -							
Project Manager: Jeffrey C.	Suit	7	Turneround:	Standard	d - 14 days II reliminary by	H, 28 da	ays Nor	ı-rad Env	v, 45 Days Rad Env, (IH) 14 (non-Rad Env)		∐ Radi	ioactive (	(list)	nn				
Project Manager: Jeffrey C. 762-295-7775 362-295- Phone: Fax:	781	1/76 30	7		Ä	7	14 (non-Rad Env)		If known, Identify contaminants.  This information will ensure compliance with applicable regulations and									
Phone: Fax:								/14 LJ	]28 (Radiological Énv)		allow for the	he safe har	ndling of the	sample m	aterials.	regulations	and	
			EMENT INFORMATK								F	Pay Ite	m, An	alysis,	Metho	d		
SDG:(IH)	116	<u> 135 </u>	(Non-Rad	d Env)				_(Rad	Env)	10.21								
Samples submitted are associated	with a sig	ned Proje	ect SOW 💆	Ýes I	□No						<del>                                     </del>	<b>†</b>	<del>                                     </del>	<del>                                     </del>	<del> </del>	-		
Analyses entered here agree with the			(XI	Yes [	□No □	JN/A				1/6								
If not, identify the variation:								_		ر في								
Subcontract Lab(s) used for this wo	rk:	NE	<u></u>							74-D'ex/6.								
ID (DECORPORTION)	l .	PLING		ł	NTAINER		QC		Pres - Analysis	1 t	į							
ID/DESCRIPTION	<del>                                     </del>	TIME		#	Est. Vol		MS	MSD	eg. HCI - VÓCs	1								
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326-B3-50	6/1510c	16:30	Siil	1	725 m	ζ				X								
326-B5-50.	6/19/02	10:23	Sout		250					X								
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				<del>                                     </del>	<del>                                     </del>				<del> </del>	<del>  </del>		-	-	-				
		-		<del> </del>	<del>                                     </del>		<b> </b>	<del> </del>				-	-	<del> </del>			-	
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CUSTODY TRANSFER				<del> </del> -	<u> </u>		<u> </u>	لـــــا				L	<u> </u>	Щ				
Sampled/Relinquished (print)					Date/Time Received by (print)						Signature Date/Time						e	
Inchael Kruzie	Ma	truel	Kun	6/20	yor 8.3	10 0	MEH	PEL	56/090	M. 1721					6/20/02/ 530			
MICHAELL ELOUP	In	87pl	<u></u>	6/20/	62/025	53 C	,VC	ASTA	WED IL	CA Cantamedo					6/2010261253			
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															<del>                                     </del>			

## 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: 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.

Stan Van Wagenen

Laboratory Manager

Certifications:

Arizona

California

Idaho

Montana

Nevada

New Mexico

Reno

Las Vegas

AZ0520

AZ0518

1707

2002

Certified Certified

Certified Certified

NV033

NV052

Certified Certified

#### NEL Laboratories, Las Vegas

**CLIENT:** 

Bechtel Nevada

Work Order:

L0206374

Project:

V1635

Date: 17-Jul-02

### ANALYTICAL QC SUMMARY REPORT

BatchID: 521

Sample ID: 020626TPHS-MB	SampType: MBLK	TestCod	TestCode: 8015FFP_S Units: mg/K			Prep Da	te: 6/28/02		Run 1D: <b>L_FID-1_020627B</b>			
	Batch ID: 521	TestNo: SW8015M				Analysis Da	te: 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			Units: mg/Kg	Prep Da	te: 6/28/02		Run ID: L_FID-1_020627B				
	Batch ID: 521	TestN		Analysis Da	te: 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	TestCod	e: 8015FFP_S	Units: mg/Kg		Prep Da	te: 6/28/02		Run ID: L_FID-1_020627B			
	Batch ID: 521	TestN		Analysis Da	te: 6/27/02		SeqNo: 41784					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Analyte Diesel Range Organics (C12-C22)	Result	PQL 10	SPK value	SPK Ref Val	%REC 77.8	LowLimit 54	HighLimit 91	RPD Ref Val	%RPD	RPDLimit 25	Qual	

**CLIENT:** 

Bechtel Nevada

Work Order:

L0206374

Project:

V1635

# ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: 020701TPHS-MB	SampType: MBLK					Prep Da			Run ID: L_F	_	2A
	Batch ID: 549	Testino	: SW8015M			Analysis Da	te: 7/2/UZ		SeqNo: 441	24	
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 Da	te: 7/1/02		Run ID: L_F	TD-1_020702	2A
	Batch ID: 549	TestNo	: SW8015M			Analysis Da	te: 7/5/02		SeqNo: 441	22	
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 Da	te: 7/1/02		Run ID: L_F	FID-1_020702	2A
	Batch ID: 549	TestNo	: SW8015M			Analysis Da	te: 7/5/02		SeqNo: 441	23	
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 Da	te: 7/1/02		Run ID: L_F	TD-1_020702	2A
	Batch ID: 549	TestNo	: SW8015M			Analysis Da	te: <b>7/6/02</b>		SeqNo: 472	98	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPI)	RPDLimit	Qual
				<del></del>							
Diesel Range Organics (C12-C22)	144.7	20	166.5	0	86.9	54	91	0	0		

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:

L0206374

Project:

V1635

# ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: L0206374-003A	SampType: MSD	TestCod	le: 8015FFP_S	Units: mg/Kg		Prep Da	te: 7/1/02	Run ID: L_FID-1_020702A			
	Batch ID: 549	TestN	o: 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

CLOSURE REPORT - CAU 326 Section: Appendix B
Revision: 0

Date: December 2002

# **SAMPLE DELIVERY GROUP**

V1640

CLOSURE REPORT - CAU 326

Section: Appendix B
Revision: 0
Date: December 2002

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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.

Van Wagenen Laboratory Manager

Certifications:

Arizona

California

Idaho

Montana Nevada

New Mexico

Reno

Las Vegas

AZ0520 AZ0518

1707 2002

Certified Certified

Certified Certified

NV033 NV052

Certified Certified

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	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	Method	Prep Date	Analyzed	Analyst
Diesel Range Organics (C12-C22)	ND	mg/Kg	10	ì	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

CLIENT:

Bechtel Nevada

PROJECT ID:

V1640

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-B7-12

DATE SAMPLED: 6/20/02

**NEL SAMPLE ID:** L0207008-002A

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	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

**CLIENT:** 

Bechtel Nevada

PROJECT ID:

V1640

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-B7-75

DATE SAMPLED: 6/20/02

**NEL SAMPLE ID:** L0207008-003A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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

S - Spike Recovery outside accepted recovery limits

CLIENT:

Bechtel Nevada

PROJECT ID:

V1640

PROJECT #:

30033

MATRIX:

·SOIL

CLIENT ID:

326-B8-20

DATE SAMPLED: 6/25/02

**NEL SAMPLE ID:** L0207008-004A

Parameter	Result	Unit	Reporting <u>Limit</u>	<u>DF</u>	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

Date: 10-Jul-02

S - Spike Recovery outside accepted recovery limits

**CLIENT:** 

Bechtel Nevada

PROJECT ID:

V1640

PROJECT #:

30033

MATRIX:

SOIL

CLIENT ID:

326-B9-30

DATE SAMPLED: 6/26/02

**NEL SAMPLE ID:** L0207008-005A

Parameter	Result	<u>Unit</u>	Reporting <u>Limit</u>	<u>DF</u>	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	ì	SW8015Ext	07/01/02	07/06/02	PXC-LV

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1/7

Quote 200 (BOA)

Bechtel Nevada		SI	ERVICES RI		ALYTICA E <b>ST &amp; C</b>				RY <b>ISTODY RE</b> (	CORE	)				Page	∍of	f
PROJECTICLIENT INFOR					PORT & TUI				ATION					FORMATI	ION		
Project: CAU 326	BN Org #:	A435	Send Report to:	Mic	hael	Kri	,(7.°C		- 1,2		Sampling	g Site:	CAU.	326			
Charge Number: 5 H 09 B ≥ 23	,		Phone: 7c2-295-7:	396	7c Z -	295.	-776	5(	M/\$: ル3:306		Haza	rdous (list	st)	ntain (check	();		
Project Manager: Jeff Sun	+4		Turnaround:	Standard Rush Pr	- 14 days IH reliminary by	1, <u>28 da</u>	ys Non-	rad Env.	v, 45 Days Red Env, (IH) 14 (non-Red Env)		Unkn	oactive (ii: nown cont	tamination	n.			
701 295- 7175 Fax: 7:22 295		I/S:				1	2	7   1  14   1	14 (non-Rad Env) 28 (Radiological Env)	1	If known, This inform	, identify co nation will er	contaminar ensure comp	ints.	h applicable :	regulations	and
			MENT INFORMATIO	<u>N</u>							P	'ay ite	m, Ana	alysis,	Metho	d	
SDG:(IH)	V16	40	(Non-Rad	Env)				(Rad	Env)	10.21							
Samples submitted are associated v				Yes [					,	10.5		<del></del>		<b></b> -			
Analyses entered here agree with th					□ No □	N/A				1.0				1			
If not, identify the variation:										selle				1			
Subcontract Lab(s) used for this wo	ork:		NEL							PH-Desello				'			
	SAMP	1			TAINER		QC	1 1	Pres - Analysis	H-,							
ID/DESCRIPTION	DATE	TIME	MATRIX	#	Est. Voi	MD	MS	MSD	eg. HCI - VOCs	4							
326-87-10	6-20-62	0945	Soil	1	250ml	N/4	U4	N14		×							
326-137-12	6 20.00	1950	50.1					5		×							
326-137-75	6 20 oz	15:31	Soil					$\mathbb{Z}_{-}$		×							
326-B8-20	25.02	15.75	Soil							$\times$							
326-39-30	6-26-62	11:40	Soil		V		V			X							
Cec.																	
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CUSTODY TRANSFER Sampled/Relinquished (print)		Sigr	nature		ate/Time			ed by (p				Signat			D	ate/Time	ie
Michael Kruze	Man	luct 1	Kn-	6-27-cz/0931 CD CASTANEDA						C	1 Cau	Hau	ede	ę	6/27/	03 ps 0°	73/
CD CASTANGLA	CD (	Party	uu da	we do Molloseison BLI COURIER -						>				7/01/0	20130	UD	
ML PERKES	201-	LK	aker	ker 7/01/0201545 Spencer Price							Spen	en li	erie		7/16	UZ 6:0	45

#### 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.

Van Wagenen

Laboratory Manager

Certifications:

Reno

Las Vegas

Arizona

AZ0520 AZ0518

California

1707 2002

Idaho

Certified Certified

Montana

Certified Certified

Nevada New Mexico NV033 NV052

Certified Certified

# NEL Laboratories, Las Vegas

CLIENT:

Bechtel Nevada

Work Order:

L0207008

Project:

V1640

Date: 17-Jul-02

# ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: 020701TPHS-MB	SampType: MBLK Batch ID: 549		e: 8015FFP_S o: SW8015M	Units: mg/Kg		Prep Da Analysis Da	ate: 7/1/02 ate: 7/2/02		Run ID: L_I SeqNo: 441	FID-1_020702 24	2A
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	TestCod	e: <b>8015FFP_</b> S	Units: mg/Kg		Prep Da	ate: 7/1/02		Run ID: L_I	FID-1_020702	2A
	Batch ID: 549	TestNo	o: SW8015M			Analysis Da	ate: 7/5/02		SeqNo: 441	22	
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	TestCod	e: <b>8015FFP_</b> S	Units: mg/Kg		Prep Da	ate: 7/1/02		Run ID: L_I	FID-1_02070	2A
	Batch ID: 549	TestNe	o: SW8015M			Analysis Da	ate: 7/5/02		SeqNo: 441	23	
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: <b>L0206374-003A</b>	SampType: MS	TestCod	e: <b>8015FFP_</b> S	Units: mg/Kg		Prep Da	ate: 7/1/02		Run ID: L_I	FID-1_02070:	 2A
	Batch ID: 549	TestNo	o: <b>SW8015M</b>			Analysis Da	ate: 7/6/02		SeqNo: 472	.98	
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		

CLIENT:

Bechtel Nevada

Work Order:

L0207008

Project:

V1640

# ANALYTICAL QC SUMMARY REPORT

BatchID: 549

Sample ID: <b>L0206374-003A</b>	SampType: MSD	TestCod	le: 8015FFP_S	Units: mg/Kg		Prep Da	te: 7/1/02		Run ID: L_I	TID-1_020702	2A
	Batch ID: 549	TestN	o: <b>SW8015M</b>		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

CLOSURE REPORT - CAU 326

Section: Appendix C Revision: 1

Date: December 2002

# APPENDIX C USE RESTRICTION DOCUMENTATION

CLOSURE REPORT - CAU 326

Section: Appendix C Revision: 1 Date: December 2002

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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: <u>CAS 06-25-01</u>: <u>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.</u>

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 4,087,837.182 m N, 584,324.988 m E S. Point 2: 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 <u>08/14/2002</u> Survey Method (GPS, etc.) <u>Transit Survey</u> Datum <u>NAD 1927</u>

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.

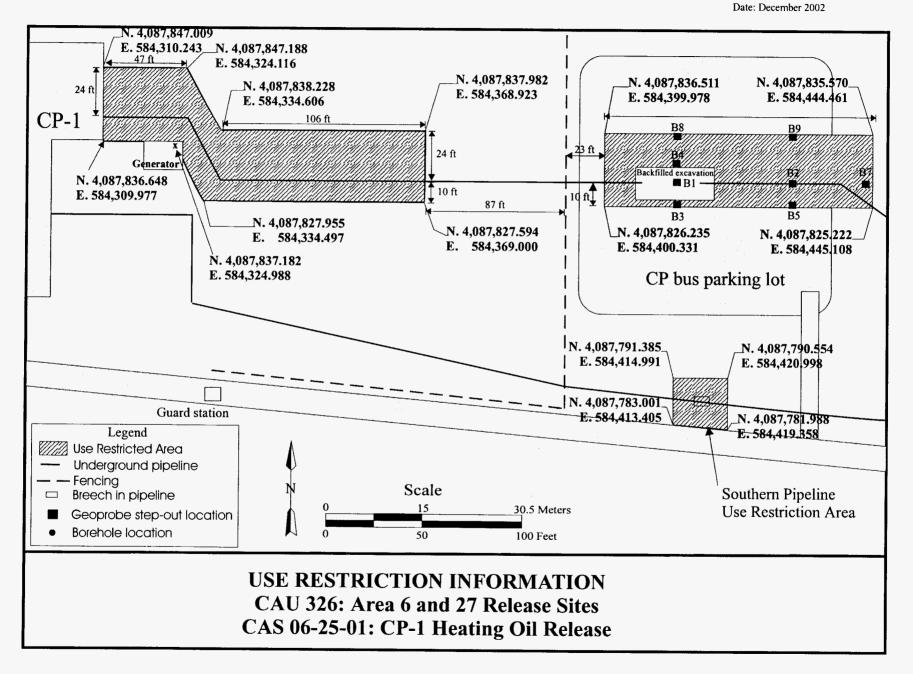
Comments: Petroleum hydrocarbons (heating oil) are present in the soil at the locations in the above surveyed locations and where identified in the associated drawing. Advance approval must be obtained from NNSA/NV Industrial Sites group (phone number 295-0461) prior to any subsurface activities at these 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: Sabine Cutio Date: 12/19/62

Attachments: Site diagram showing survey locations and coordinates.

Section: Appendix C

Revision: 1



## **CAU** Use Restriction Information

CAU Number/Description: CAU 326: Area 6 and 27 Release Sites, Nevada Test Site, Nevada

Applicable CAS Numbers/Descriptions: <u>CAS 06-25-02</u>: <u>UST Release / Fuel spill associated</u> with filling underground storage tank, <u>Tank 6-DAF-5 located west of Building 500 at the Area 6 DAF facility.</u>

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.

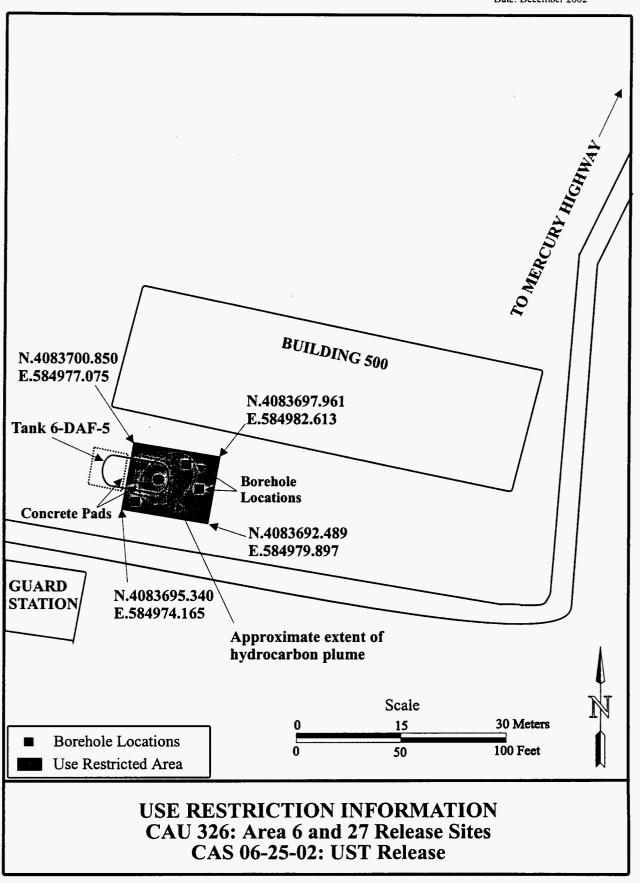
Comments: Petroleum hydrocarbons (heating oil) are present in the soil at the locations in the above surveyed locations and where identified in the associated drawing. Advance approval must be obtained from NNSA/NV Industrial Sites group (phone number 295-0461) prior to any subsurface activities at these 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: Salim Curts Date: 12/19/02

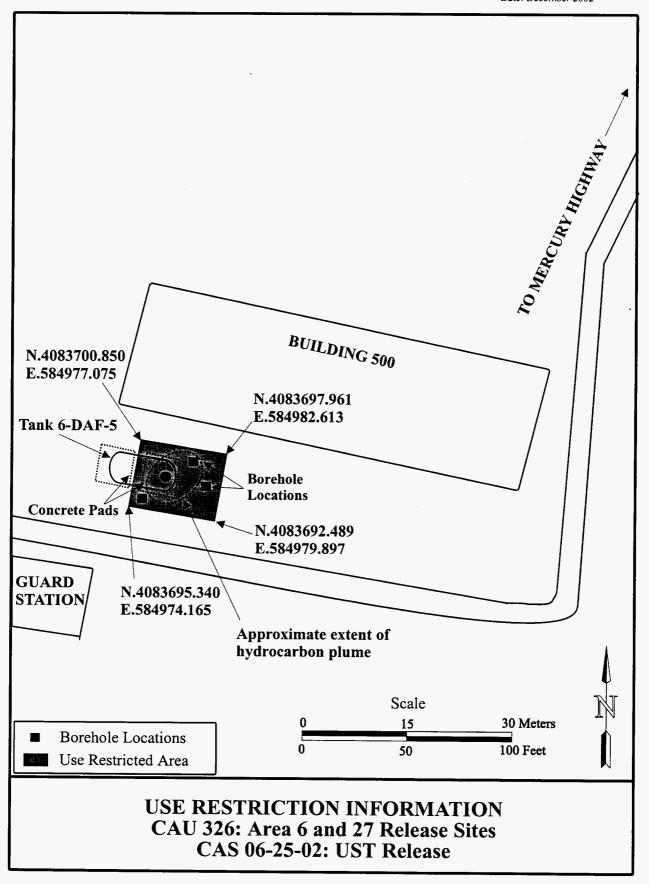
Attachments: Site diagram showing survey locations and coordinates.

Section: Appendix C Revision: 0

Date: December 2002



Section: Appendix C Revision: 0 Date: December 2002



CLOSURE REPORT - CAU 326

Section: Appendix D Revision: 1

Date: December 2002

# APPENDIX D WASTE DISPOSITION DOCUMENTATION

CLOSURE REPORT - CAU 326

Section: Appendix D Revision: 1

Date: December 2002

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Action Edit Block Field Record Query Window Help

#### SOLID WASTE TRACKING SYSTEM

Landfiil ID	Date Of Receipt	waste Catego		EM c	r Routine or Clean-up	<u>Weight</u> Pounds	Origin Area No.	<u>OfWaste</u> Building No.	
AREA 6	14-AUG-2002		FFACO-ONSITE	EM	CLEAN-UP	20000	06	CAU 326	Comments
AREA 9	27-MAR-2002		NTS	EM	CLEAN-UP	27000	27	CAU 326	Comments
REA 9	27-MAR-2002	T	NTS	EM	CLEAN-UP	30000	27	CAU 326	Comments
									Commercia
									Comments
									Connects
1									Comments
									Comments
									Commercis
1					T - [				Comments

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Count \*3

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Action Edit Block Field Record Query Window Help

#### SOLID WASTE TRACKING SYSTEM

							Origin :	<u>OfWaste</u>	
Landfill	Date Of	VVaste		EM of	r Routine or	<u>Weight</u>	Area	Building	
ID	Receipt	Catego	ory Type Of Waste	DP	Clean-up	Pounds	No.	No.	
AREA 6	02-JUL-2002	T	FFACO-ONSITE	EM	CLEAN-UP	4500	06	CAU326	Comments
AREA 9	17-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	43000	27	CAU326	Comments
V AREA 9	17-JUN-2002	I	FFACO-ONSITE	EM	CLEAN-UP	45000	27	CAU326	Comments
AREA 9	17-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	44000	27	CAU326	Comments
AREA 9	17-JUN-2002		FFACO-ONSITE	ЕМ	CLEAN-UP	44000	27	CAU326	Comments
AREA 9	14-JUN-2002		FFACO-ONSITE	Ем	CLEAN-UP	25000	27	CAU326	Comments
V AREA 9	13-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	42000	27	CAU326	Comments
AREA 9	13-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	39000	27	CAU326	Comments
AREA 9	13-JUN-2002		FFACO-ONSITE	Ем	CLEAN-UP	38000	27	CAU326	Comments
AREA 9	13-JUN-2002	T	FFACO-ONSITE	EM	CLEAN-UP	41000	27	CAU326	Comments

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Action Edit Block Field Record Query Window Help

#### SOLID WASTE TRACKING SYSTEM

							Origin (	Of Waste			
Landfill	Date Of	Vvaste		EM or	Routine or	Weight	Area	Building			
ID	Receipt	Catego	ry Type Of Waste	DP	Clean-up	Pounds	No.	No.			
AREAO	13-JUN-2002		FFACO-ONSITE	EM_	CLEAN UP	38000	27	CAU326	Comments	See	previous page
AREA 9	13-JUN-2002		FFACO-ONSITE	EM	CLEAN UP	41000	27	CAU326	Comments		•
AREA 9	12-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	32000	27	CAU326	Comments		
AREA 9	12-JUN-2002		FFACO-ONSITE	ЕМ	CLEAN-UP	39000	27	CAU326	Comments		
JAREA 9	12-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	36000	27	CAU326	Comments		
AREA 9	12-JUN-2002		FFACO-ONSITE	ЕМ	CLEAN-UP	38000	27	CAU326	Comments	i	
AREA 9	12-JUN-2002		FFACO-ONSITE	EM	CLEAN-UP	34000	27	CAU326	Comments		
AREA 9	26-MAR-2002		FFACO-ONSITE	ЕМ	CLEAN-UP	32000	27	CAU326	Comments		
AREA 9	26-MAR-2002		FFACO-ONSITE	ЕМ	CLEAN-UP	29000	27	CAU326	Comments		
AREA 23	07-FEB-2002	1	NTS	EM	CLEAN-UP	9500	27	CAU326	Comments		

If you  $\underline{Save}$  data, a report on records that have been changed today will be printed to your details printer when you  $\underline{Exit}$ .

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Count \*18

recurd Invalia	LANI	DFILL I	DAILY A	CCESS RI	EGISTE	ER 🖔	1> 2/11/02- Personalster		
DATE: 2-7-02	(check on	e)	a 9 - U10c	Area	6 Hydrocai	bon #	Area 23 Landlill		
WASTE GENERATOR Name, Phone II	. WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Last Name, Initials		
B.NC,	A-27	C	7	19,500	9:30	9:45	3y. ()		
BN XN	A.35 NLV			·					
ISN AZ	A35 RSL	NP	2	500	930	945	mall,		
BN 931110 =	A-23	1010	11738	Bickford D					
BN	A-24-1A1ROll	C	est	1400	3.45	4:00	Smith B		
BN	A-6 & A-23	ρ	11739	. 12.00	15:30	16:05	Jones, J.		
				<u> </u>					
				·			1.		
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO									
INSPECTION INFORMATION									
Site Conditions:			ı Load Insp		licket Nu	mber:			
Do berms/walls need repair?	No Yes		ohibited waste						
Does cover need repair /	7. D.		•	waste(s) identifie					
	No □Yes No □Yes			(prohibited in Uper NAC 444.58		ea 6 Landiilis	5).		
•	No ☐Yes		ardous waste B waste regula	•					
	No ☐Yes		ste containing	• •					
	No Yes		Ste containing CA-regulated	nee nquius					
Corrective Actions Needed:	1140 [1162	=	•	"no added radioa	ctivity" per	the POC rec	wirement.		
	. 1		•	(prohibited in U1					
				**			wed in U10c provided less than 50		
		cub	ic yards/week	are disposed)					
Corrective Actions Taken: Ideas	ription name data)	Corrective	Actions Take	n: (description, n	ame, date,	wno notified	);		
Corrective Actions Taken: (desc	ription, name, date):				•				
INSPECTED BY		L	<del></del>						
INSPECTED BY (date/time):	1/2-2-02	INSPECT	TED BY (dat	oftime):	c [1]	1/11/10 5 12	blue 1110		

NO.	327
110	

BN-0518 (00/00)

# Bechtel Nevada NTS Landfill Load Verification

	(Wa	iste definitions are	available on	page 2)		•
SWO USE (Circ	ele One Area)	AREA //	23	6	9	LANDFILL
For waste charac	cterization, approva	l, andlor assistan	ce, contact S	olid Waste Ope	ration (SV	(O) at 5-7898.
(7) Waste Ganerator: Enviror Location / Origin: Area 27	nis form is for rollor mental Restoration.	Don Cox	ERATOR IN	FORMATION ite disposal of		Number: <u>5-5576</u>
		Carlotte and the second little of the second little				
Waste Category: (chack of Waste Type: (check one)	NTS Non-Putresciple	Commercial Putraecible Asbestos Contr	aining Material	FFACO-onsi		WAC Exception Historic DOE/NV
Pollution Prevention Cat	egoly: (check one)	Environmental	menagement	Defense Pro	jecis	namente sparre (na kanadase est est es est san e aust ha l'au ban aven a tra
Pollution Prevention Cat	egory: (check one)	☑ Clean-Up	· · · · · · · · · · · · · · · · · · ·	Routing		
Method of Characterizati	on: (check one)	Sampling & Ar	alysis	Process Kno	wiedes	Contents
Prohibited Waste at all three NTS landfills:	Radioactive waste;	RCRA waste; Hazare harps, bloody diothing	ious waste; Free	iliquida, PCBs abo	VE TSCA reg	ulatory laveled, and Medical
Additional Prohibited We nt the Area 9 U10c Landf	rste Sewage Sjudga; A	- · · · · · · · · · · · · · · · · · · ·	•	weste); and Friable	eciapdap (	
NOTE: Waste disposed at the	Chack all allo	WASTE CONTENTATION WASTE WASTE CONTENTATION WASTES THE ANALYSIS OF THE PROPERTY AND THE WASTE WA	it are contain: e into contact wi	ed within this is th persoleum hydro	earbans or co	oplants such as:
Acceptable waste at any		Paper		altered geologic		Empty containers
☐ Asphalt ☐ Metz		☐ Soil	· '	coluding tires)	, .	Demolition debris
Plastic Wire	Cable	Cloth [		non-Asbestosfo	(חי)	Cement & concrete
Manufactured Items: (a	wamp coolers, furnitu	ire, rugs, carpet, ele		•		
Additional waste accepts  Aspestos: Frieble		rcury Landfill; 🔲	Office waste	Food Waste	داد و المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد المواد	Cercasses
Additional waste accepts  Non-friable esbestos  Light ballasts (contact) Hydrocarbons (contact)	☐ Drained : SWO) ☐ Drained f	c Landfili: automobiles and mi uel filters (gas & die	•			and/oll/water separators and and Above Ground
Additional waste accepte	ed at the Area 6 Hydi	rocarbon Landfill:	····	······		<u> </u>
Septic Bludge Rag	_	juel filters (gas & di	esel)	Crushed	non-terne p	lated oll filters
Plants		om sand/oll/water a		•	low 50 parts	•
		RED: WASTE GE	NERATOR S	and the second second		
The above mentioned wa knowledge, does not con	itain radiological ma	iterials.	!			ie for Waste Disposal
To the best of my knowle site. I have verified this to prohibited and allowable	hrough the waste ch waste Items.			This comprocess	zner/load is e knowledge and ziner/load is / ation based o	
Print Name: Donald H. C	0 7 1	7	BIAN	<u></u>	0 (	BN-0846 (08/99)
Signature:		<b>/</b>				
Note: Food waste, office transporter in require a redicionalical	ash and/or animal car I clearance.	casses are conside	ered not to cont	tain edded fadios	ectivity, and	therefore do not
SWO USE ONLY				-		$\gamma$ .
l ced Weight (not from s	cole or betimeth).	9,500 s	Sonature of C	ertifier:	72/	\

	LANDFILL DAILY AUCESS REGISTER										
326-02-	(check on	e) 🔽 Are	a 9 - U10c	Area	6 Hydroca	rbon	Area 23 Landill	<del></del>			
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Bullding	WASTE CODE	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME	DRIVER / Last Name, Initials				
BN	67-3	(P)	10	22.000	11:45	Intex	Heart lossie	V			
A-23 BN	23	C	//	12000	1:30	1:45	TOUADAY C	/			
ER. DomCox	4.27 SMY CAUSE		12	32,000	1:40	2:10	KACZAY K.	V			
21/	1-23	<u>#</u>	/3	15,500	1.45	2500	14011 8	V			
B/17	A.3.	C	14	25,00	14.5	200	1/.C.				
13,14	H-23	C	15	35,202	2:15	2:30	H1-1121215/-	V			
BIN	A.S	C	10	27,500	230	2:40	V. C.V.	V			
RIN	A.3	C	17	15,000	320	335	J.COZ -	V			
ER DON COX	A-27 SMY CAU326	C	18	29,000	3:35	3:55	KACZAY R	J			
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO											
INSPECTION INFORMATION											
Site Conditions:	Site Conditions: Random Load Inspection: Ticket Number:										
Do berms/walls need repair?	]No ☐Yes	☐ No pro	ohibited waste	was found	•						
Does cover need repair /		Yes, t	he prohibited	waste(s) identifie	d below we	ere found.					
evidence of settling?	No Yes	Puti	rescible waste	(prohibited in U1	Oc and Are	ea 6 Landfills	s).				
Does fence néed repair?	No □Yes	. Haz	ardous waste	per NAC 444.58	0						
Does road(s) need repair?	No ☐Yes :	PCE	3 waste regula	ated by TSCA	•						
Has litter accumulated? .	]No ☐Yes :	· Was	ste containing	free liquids							
Has water accumulated?	No ☐Yes		A-regulated	·	•		•				
Corrective Actions Needed:		☐Was	ste failing the '	"no added radioa	ctivity" per	the POC req	ulrement.				
		-		prohibited in U10							
	<b>{</b>					-	ved in U10c provided less than 50	0			
	]]	cub	ic yards/week	are disposed)		-	·				
		Corrective	Actions Take	n: (description, n	ame, date,	who notified	):				
Corrective Actions Taken: (desc	Corrective Actions Taken: (description, name, date):										
		İ		•		•					
	•										
			**								
INSPECTED BY		L						J			
frate/time):		INSPECT	ED BY (date	e/time):	,						

# Bechtel Nevada

# NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circl	e One Area)	AREA	23	6 (9)	LANDFILL				
For waste charact	erization, approval,	and/or assistar	nce, contact Solid	Waste Operation (SV	VO) at 5-7898.				
(Th Waste Generator: Environn	is form is for rolloff	s, dump trucks,	NERATOR INFO and other onsite	disposal of materials.)	Number: 5-5576				
Location / Origin: Area 27, S				Thore	14d111ber. <u>3-3370</u>				
Waste Category: (check on		Commercial	X	Industrial and factor	· · · · · · · · · · · · · · · · · · ·				
	X NTS	Putrescible		FFACO-onsite	WAC Exception				
(check one)	Non-Putrescible	Asbestos Con	taining Material	FFACO-offsite	Historic DOE/NV				
Pollution Prevention Cated	gory: (check one)		il management	Defense Projects					
Pollution Prevention Cates		X Clean-Up		Routine					
Method of Characterization		Sampling & A	nalysis 🗶	Process Knowledge	Contents				
Prohibited Waste at all three NTS landfills:	Prohibited Waste Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical								
Additional Prohibited Was at the Area 9 U10c Landfill	Additional Prohibited Waste Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:								
REQUIRED: WASTE CONTENTS ALLOWABLE WASTES Check all allowable wastes that are contained within this load:  NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.									
Acceptable waste at any N		Paper		phaltic petroleum hydrocart red geologic materials	Empty containers				
☐ Asphalt ☐ Metal		K Soil	Rubber (exclud		Demolition debris				
☑ Plastic ☐ Wire	☐ Cable	Cloth	· ·	n-Asbestosform)	Cement & concrete				
<u>^</u>	ramp coolers, furnitur	e, rugs, carpet, el		·	_				
☐ 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 (con	tact SWO if regula	ated load) Quantit	ty:					
Additional waste accepted	at the Area 9 U10c	Landfill:							
☐ Non-friable asbestos	☐ Drained a	utomobiles and m	ilitary vehicles	Solid fractions from s	sand/oil/water separators				
Light ballasts (contact S)	WO) 🔲 Drained fu	el filters (gas & di	esel) [	Deconned Undergrou	und and Above Ground				
☐ Hydrocarbons (contact S	SWO)		[	Tanks					
Additional waste accepted	at the Area 6 Hydro	carbon Landfill:							
☐ Septic sludge ☐ Rags	Drained fu	el filters (gas & di	esel)	Crushed non-terne p	lated oil filters				
Plants	☐ Sludge fro	m sand/oil/water s	separators [	PCBs below 50 parts	s per million				
			NERATOR SIGN	NATURE					
Initials: (If initials	ed, no radiological clea	arance is necessar							
The above mentioned was knowledge, does not conta			ulieu wasi 👢 🗀	iation Survey Release I Initials This container/load is fr					
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.  This containerfload is free of external radioactive contamination.  This containerfload is exempt from survey due to process knowledge and origin.  This containerfload is free of external radioactive contamination.  This containerfload is free of external radioactive contamination.  This containerfload is free of external radioactive contamination.  Signature:  Signature:  Signature:  This containerfload is free of external radioactive contamination.  Signature:  Signature:  Signature:  This containerfload is free of external radioactive contamination.  This containerfload is free of external radioactive contamination.									
Print Name: Donald H. Co	× l		<b>L</b> _	· · · · · ·	BN-0846 (09/99)				
Signature:	2/4/02/02								
	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 sc	ale or estimate):	29,000	Signature of Certi	ifier:	will				

BN-0918 (09/00)



# Bechtel Nevada NTS Landfill Load Verification

	(Wa	ste definitions ar	e available on	page 2	(2)	<u> </u>			
SWO USE (Cire	cle One Area)	AREA	23	6	9	)	LANDFILL		
For waste chara	cterization, approva	l, and/or assistar	nce, contact S	olid W	aste Operatio	on (SWO)	at 5-7898.		
\ ste Generator: Enviro	This form is for rollogous numental Restoration, I	Don Cox	NERATOR IN and other ons	IFORN site dis	posal of mate		ber: <u>5-5576</u>		
Location / Origin: Area 27	, Site Maintenance Ya	ard, CAU 326							
V ste Category: (check		Commercial		X ir	ndustrial	, , , , , , , , , , , , , , , , , , , ,			
V`ste Type: (check one)		☐ Putrescible ☐ Asbestos Con	taining Material		FACO-onsite 6/ FACO-offsite	<i> 26/0<sup>-2</sup>-</i> [ ]	WAC Exception Historic DOE/NV		
P lution Prevention Cat	tegory: (check one)	X Environmenta	al management		efense Projects				
P ution Prevention Cat	tegory: (check one)	🔀 Clean-Up		F	Routine				
Method of Characterizat		Sampling & A			rocess Knowledg		Contents		
Pi hibited Waste at II three NTS landfills:	Radioactive waste;	RCRA waste; Hazar	dous waste; Free	e liquids	PCBs above TS	CA regulato	ry levels-, and Medical		
Additional Prohibited Wa	at II three NTS landfills: wastes (needles, sharps, bloody clothing).  Additional Prohibited Waste Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:								
		WASTE CONTI wable wastes the							
NOTE: Waste disposed at the	ne Area 6 Hydrocarbon L e, lead); jet fuel; diesel fu	andfill must have con	ne into contact wi	ith petro	leum hydrocarbo	ns or coolan	ts such as:		
Ac eptable waste at any		Paper			geologic mater		Empty containers		
☐ Asphalt ☐ Met	al 🔲 Wood	X Soil	Rubber (ex	ccluding	tires)	ā	Demolition debris		
ズ Plastic ☐ Wire	e 🔲 Cable	Cloth	Insulation	(non-A	sbestosform)		Cement & concrete		
/anufactured items: (	swamp coolers, furnito	ire, rugs, carpet, e	lectronic compo	onents,	PPE, etc.)				
Additional waste accept	ed at the Area 23 Me	rcury Landfill: 🗌	Office waste	☐ Fo	od Waste 🔲 A	Animal Card	asses		
sbestos: Friable	☐ Non-Friable (co	ntact SWO if regul	ated load) Qu	antity:					
d tional waste accept	ed at the Area 9 U10	c Landfill:		_	•				
	<del></del>	automobiles and m	•				oil/water separators		
ight ballasts (contact	<del>_</del>	uel filters (gas & d	iesel)			derground a	and Above Ground		
☐ydrocarbons (contact	. <u></u>				Tanks	· · · · · · · · · · · · · · · · · · ·			
dditional waste accepte	_			_					
_l ∋ptic sludge L_l Rag	_	fuel filters (gas & d	•		Crushed non-t				
riants		om sand/oil/water	<del></del>	ICNA:	PCBs below 5	o parts per	million		
it s: (If initi	תבשטור aled, no radiological cl	RED: WASTE GE earance is necessar		IGNA	IUKE				
ne above mentioned was	aste was generated on tain radiological ma	outside of a Contr terials.	rolled Wası	Radiat	itials This container/ic		Waste Disposal		
te. I have verified this t	best of my knowledge, the waste described above contains only to the line of t								
nt Name: Donald H. C	Cox /			SIGRA!			BN-0846 (09/99)		
in re:	dy Cux	Da	te:26MAR.	<u>o</u> z_					
te: Food waste, office t require a radiologica		rcasses are consid	lered not to con	itain ad	ded radioactivit	ty, and ther	efore do not		
V( 'JSE ONLY ad Weight (net from s	scale (r estimate)	32,000	Signature of 0	Certifie	· Kott	to Ka	nda		
			- 3			- / · / · / · ·	27/		

Prehtr' Nerryda	CANDILL DAIL AUCESS REGISTER Kugjanle										
DATE: 3-27-02	(check one		a 9 - U10c		6 Hydrocai		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				
Bhi.	A.23		· fr	22000	9:00	930	HAGER 145918				
Fir'	19-23	C	2	17000	9:05	9:15	TOLLADAY, C				
1311	1.23	- Q	3	18,000	9:10	9:20	14011 13				
15 1/	A-23	2	( t) Hope	10 th Goo	9:280	9:50	Lucas K 11,000 ths				
BW,	A-23,	<u>C</u>	5	32,600	920	9/35	12- E (854/25/02				
Birt	(A. 2-3)TK		6.	15,000	11:00	11:15	71-6				
BW	14.27 Kills	C	'7	30,000	11:15	11:30	Smith BL.				
E.R DON COX	A27 SMY CAU326	C	8	2700	11:20	11:45	KACZOY K				
13/1 1-23 0 9 17500 12/55 1/05 1/0/11 19											
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO											
INSPECTION INFORMATION											
Random Load Inspection: Ticket Number:											
Do berms/walls need repair?	No Yes	☐ No pro	ohibited waste	was found	•						
Does cover need repair /		Yes, t	he prohibited	waste(s) Identifie	d below we	ere found.					
evidence of settling?	No Yes	Put	rescible waste	(prohibited in U	10c and Are	ea 6 Landfills	s).				
Does fence need repair?	No ☐Yes	. Haz	ardous waste	per NAC 444.58	0						
Does road(s) need repair?	No ☐Yes	PC	3 waste regula	ated by TSCA	•						
	No □Yes	· Was	ste containing	free liquids							
las water accumulated?	No ☐Yes	□TSC	CA-regulated	·			·				
Corrective Actions Needed:		Was	ste failing the	"no added radioa	ctivity" per	the POC req	uirement.				
		Fria	ble asbestos	(prohibited in U10	Oc and Are	a 6 Landfills)					
					H (prohibite	d in 23, allov	wed in U10c provided less than 50				
		cub Corrective	ic yards/week Actions Take	are disposed) n: (description, n	ame, date.	who notified	):				
Corrective Actions Taken: (description, name, date, who notified):											
Solvestive / Ichichis Talkerii. (2000)	inplient, trainer, date.		ŕ								
NSPECTED BY		INSPECT	FD BV (dat	e/time):							

## NTS Landfill Load Varification

(Waste definitions are available on page 2)								
SWO USE (Circle One Area	) AREA	23	•	<b>6</b>	LANDFILL			
For waste characterization, approve	al, andlor assista	ance, contact S	olid V	Vaste Operation (SW	O) at 5-7898.			
REQUIR (This form is for rollo Waste Generator: Environmental Restoration, Location / Origin: Area 27, Site Maintenance Y	Don Cox			sposal of materials.)	lumber: <u>5-5576</u>			
Waste Category: (check one)	Commercia	= <u></u>	X	Industrial				
Waste Type: X NTS	Putrescible	····	_=	FFACO-onsite	WAC Exception			
(check one) Non-Putrescible	Asbestos Co	ontaining Material		FFACO-offsite	☐ Historic DOE/NV			
Pollution Prevention Category: (check one)	X Environmen	ntal management		Defense Projects	- <u></u>			
Pollution Prevention Category: (check one)	X Clean-Up		ī	Routine				
Method of Characterization: (check one)	Sampling &	Analysis	X	Process Knowledge	Contents			
					latory levels-, and Medical			
	sharps, bloody cloth	ing).						
	: WASTE CON							
Check all all  NOTE: Waste disposed at the Area 6 Hydrocarbon I gasoline (no benzene, lead); jet fuel; diesel fi	owable wastes t Landfill must have c uel; lubricants and h	ome into contact w	ith petr	oleum hydrocarbons or coo	plants such as: on; and ethylene glycol.			
Acceptable waste at any NTS landfill:	☐ Paper			d geologic materials	☐ Empty containers			
☐ Asphalt ☐ Metal ☐ Wood	X Soil	Rubber (ex	xcludir	ng tires)	☐ Demolition debris			
₩ Plastic	Cloth	Insulation	(non-/	Asbestosform)	☐ Cement & concrete			
Manufactured items: (swamp coolers, furnit	ture, rugs, carpet,	electronic compo	onents	, PPE, etc.)				
Additional waste accepted at the Area 23 Mo	Additional waste accepted at the Area 23 Mercury Landfill: Office waste Food Waste Animal Carcasses							
☐ Asbestos: ☐ Friable ☐ Non-Friable (co	ontact SWO if reg	ulated load) Qเ	uantity:					
Additional waste accepted at the Area 9 U10	c Landfill:							
☐ Non-friable asbestos ☐ Drained	automobiles and	military vehicles		Solid fractions from sa	and/oil/water separators			
Light ballasts (contact SWO) Drained	fuel filters (gas &	diesel)		Deconned Undergrou	nd and Above Ground			
Hydrocarbons (contact SWO)				Tanks				
Additional waste accepted at the Area 6 Hye	drocarbon Landf	ill:						
Septic sludge Rags Drained	fuel filters (gas &	diesel)		Crushed non-terne pl	ated oil filters			
☐ Plants ☐ Sludge	from sand/oil/wate	er separators	X	PCBs below 50 parts	per million			
REQUI	RED: WASTE	GENERATOR S	SIGNA	ATURE				
Initials: (If initialed, no radiological of	learance is necess							
The above mentioned waste was generated knowledge, does not contain radiological m	naterials.	ntrolled Wast		_i contamination.	ee of external radioactive			
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.  This containerfload is exempt from survey due to process knowledge and origin.  This containerfload is five of radioactive containination based on radioactive containination based on radioanalysis.  SIGNATURE:  DATE: 3-26-51								
Print Name: Donald H. Cox					\$N+0846 (09/99)			
Signature: David A. Cury		Date: 26 MAR						
Note: Food waste, office trash and/or animal c require a radiological clearance.	arcasses are cons	sidered not to co	ntain a	edded radioactivity, and	therefore do not			
SWO USE ONLY	2.0			Ma'/	10			
Load Weight (net from scale or estimate):	30,000	Signature of	Certif	ier: Wayno	any			



# Pachtol Novada NTS Landfill Load Verification

beciitei Nevaua			ons are availab					
SWO USE (Circle Or	ne Area) A	REA	23	-21	<u>;</u> (	6	(9)	LANDFILL
For waste characterizati	on, approval, a	nd/or as	ssistance, con	tact So	lid \	Waste Op	peration (	SWO) at 5-7898.
Waste Generator: Environmental	n is for rolloffs, Restoration, Dor	dump tr					f materia	<i>ls.)</i> ne Number: <u>5-5576</u>
Location / Origin: Area 27, Site Ma	aintenance Yard				[Z]			
Waste Category: (check one)		Comm			X	Industrial FFACO-on		☐ WAC Exception
Waste Type:	-Putrescible [	=	cible tos Containing Ma	aterial		FFACO-of		Historic DOE/NV
Pollution Prevention Category: (			onmental manage		౼	Defense F		
Pollution Prevention Category: (		<b>X</b> Clean			౼	Routine		<del></del>
Method of Characterization: (che		=	ling & Analysis	······	X	Process K	nowledge	Contents
Prohibited Waste Rad	lioactive waste; R0	CRA waste	; Hazardous was	te; Free I	liquid			regulatory levels-, and Medical
Additional Prohibited Waste Set at the Area 9 U10c Landfill:		nal carcas	ses-, Wet garbage					s 
		able was Ifill must h	stes that are co	ontaine	d w	rithin this troleum hyd	load: Irocarbons	
Acceptable waste at any NTS lar		Paper					c materials	
☐ Asphalt ☐ Metal	☐ Wood 🗵	Soil				ing tires)		☐ Demolition debris
Plastic  Wire  Manufactured items: (swamp of	Cable Coolers, furniture	Cloth				Asbestos	-	☐ Cement & concrete
Additional waste accepted at the	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				,		/		
☐ Non-friable asbestos			and military ve	hicles		Solid fr	actions fro	m sand/oil/water separators
Light ballasts (contact SWO)	☐ Drained fue	l filters (g	jas & diesel)			Deconr	ned Under	ground and Above Ground
☐ Hydrocarbons (contact SWO)						Tanks		
Additional waste accepted at the	_					_		
Septic sludge Rags			as & diesel)					ne plated oil filters
Plants			/water separato		<u> </u>		below 50 p	parts per million
Initials: (If initialed, no	REQUIRE. radiological clear		TE GENERAT ecessary.)	ror si —	IGN.	ATURE	<b></b>	
The above mentioned waste was knowledge, does not contain rac			Controlled Wa			Initials	·	ase for Waste Disposal  Is free of external radioactive
To the best of my knowledge, th site. I have verified this through prohibited and allowable waste i	the waste char-				00	This con process This con	itaner/load i knowledge itainer/load	s exempt from survey due to
Print Name: Donald H. Cox				s	BIGNA	ATURE:	rain C	DATE 3-26-32 BN-0846 (09/99)
Signature: Dald V	Cux	<u> </u>	Date: 26 M	AR.C	<u> </u>			
Note: Food waste, office trash and require a radiological clearar	l/or animal carca	sses are	considered not	to conta	ain a	added radi	oactivity, a	and therefore do not
SWO USE ONLY Load Weight (net from scale or	estimate) 2	7,000	) Signatur	re of Ce	ertifi	ier: K	ith,	Kang -
3 11 (1121110111011011011011011011011011011011					J. 5111	7 /		PH 0018 (00:00)

LAMPIL DAMY AUCLUS FLAIS. ER OF 6/10 CANA							
DATE: 6/12/02	e) Area 9 - U10c Area 6 Hydrocarbon			6 Hydrocarbon	Area 23 Landfill		
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME TIME IN OUT	DRIVER Last Name, Initials	
BN	A · 12	C		2800	845 900	JONES S	
BAMIKE KRUZIC	A-27 MY/EX	7	(2)	532,000	08:32 8:49		
BIN	A-12	C	3	28460	9:15 9:40	HAVISE OV	
B.N.	4.12	0	4	10,000	10:10 10.23	Lucas Kil	
BN	A.12	C	5	14000	1020 1039	Johns, S	
B:N	A-12		6	23,600	10:30 10:45	- ZIAUNISE /	
25.1	17-12,	(1)	'2	10,000	10:30 10:42	Tourspay a	
MIKE KRUZIC	A 27/MyEX		ß	F51. 34 000	10-22 10:30	Kyczay K	
15/1	A-12		9	19500	11:10 11:25	1 64c98 X	
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO							
INSPECTION INFORMATION Site Conditions: Random Load Inspection: Ticket Number:							
Site Conditions:  Do berms/walls need repair?  No Yes  Random Load Inspection:  No prohibited waste was found							
Does cover need repair / Yes, the prohibited waste(s) Identified below were found.							
evidence of settling?	Putrescible waste (prohibited in U10c and Area 6 Landfills).						
Does fence need repair? No Yes Hazardous waste per NAC 444.580						•	
Does road(s) need repair? No Yes PCB waste regulated by TSCA							
Has litter accumulated? ' No Yes Waste containing free liquids							
Has water accumulated? No Yes TSCA-regulated						·	
Corrective Actions Needed:			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):						
Corrective Actions Taken: (descr							
INSPECTED BY (date/time):		INSPECTED BY (data/time):					

LANDFILL DAILY ACCESS REGISTER Area 23 Landfill Area 9 - U10c Area 6 Hydrocarbon (check one) DATE: DRIVER Last Name, Initials WASTE ORIGIN Area, Building WASTE CODE NET WEIGHT TIME WASTE GENERATOR Name, Phone # TICKET NUMBER TIME 130 10 26,420 1-7 24210 RN 11 MICE へいつむひ KAUZIL 1235 1687 1:30 C-22 261 1.45 1-2 :20 2000 JANSS \*Waste Codes: ASB - Asbestos: C - Construction: H - Hydrocarbon: P - Putrescible: NP - Non-Putrescible: S - Sewage Sludge: F - FFACO INSPECTION INFORMATION Ticket Number: **Random Load Inspection: Site Conditions:** No prohibited waste was found Do berms/walls need repair? Yes, the prohibited waste(s) identified below were found. Does cover need repair / Putrescible waste (prohibited in U10c and Area 6 Landfills). No evidence of settling? l lYes Hazardous waste per NAC 444.580 Does fence need repair? Yes PCB waste regulated by TSCA Yes Does road(s) need repair? Waste containing free liquids Has litter accumulated? Yes TSCA-regulated Yes Has water accumulated? Waste failing the "no added radioactivity" per the POC requirement. **Corrective Actions Needed:** 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 vards/week are disposed) Corrective Actions Taken: (description, name, date, who notified): Corrective Actions Taken: (description, name, date): **INSPECTED BY INSPECTED BY (date/time):** (date/time):

. **3**.

DN-0917 (12/99)

LANDFILL DAILY ACCESS REGISTER									
-NAIE: 10/12/02	(check on	e)   Are	ea 9 - U10c	Area	6 Hydroca	rbon	Area 23 Landfill		
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Last Name, Jaltlals		
13 N	A-12	0	28	10,000	130	1:45	Lucas K,		
BN	A-12		20	1620	13:45	14.00	BICKFORD V		
BN	A-12		21	4,440	2:15	2:30	TOLLADAY, C		
M, Ke KRUZIC	A.27		22	F.ST. 3 4.000	2:00	2:10	KACRAYK		
BN	A12	0	23	4.5140	220	235	JONES! S		
Mike Kruzic	A27MY/Ex	$\Box$	24	651.38,000	3:35	3:44	KACZNYK		
	/			·			77.		
				·					
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO									
INSPECTION INFORMATION									
Site Conditions:	7		<u>ı Load Ins</u> r	· · · · · · · · · · · · · · · · · · ·	licket Nu	mber:			
Do berms/walls need repair?	]No []Yes		ohibited waste						
Does cover need repair / evidence of settling?	]No □Yes		•	waste(s) identifie (prohibited in U			A		
i	No ☐Yes			per NAC 444.58		a o Lanuillis	<i>)</i> -		
	No ☐Yes		B waste regula	•		,			
	No ☐Yes		ste containing						
Has water accumulated?	No ☐Yes	☐ TSCA-regulated							
Corrective Actions Needed:		☐ Wa	ste failing the	"no added radioa	ctivity" per	the POC req	uirement.		
1		Friable asbestos (prohibited in U1Oc and Area 6 Landfills)							
					-l (prohibite	d in 23, allov	ved in U10c provided less than 50		
				are disposed) n: (description, n	ame date.	who notified	•		
Corrective Actions Taken: (desc	ription, name, date):			···· (accompliant)	unio, dato,	mio nomod			
	in proof, flame, date).								
	.								
INSPECTED BY		L	<del></del>						
(date/time):		INSPECT	FD BY (date	e/time)·					

Bechtel N			Load Ver			<u></u>		
SWO USE (	Circle One Area)	AREA	23		6	9)	LA	NDFILL
For waste o	characterization, approva	l, and/or assis	stance, contact S	Solid	Waste O	peration (SI	NO) at 5	-7898.
Waste Generator: N	(This form is for rollot	fs, dump truc	GENERATOR II ks, and other on (IAV 33	site d		f materials.,	) Number:	5-7396
	heck one) ( (17/27	Commerc		X	Industrial	05/1/2	1/07	
Waste Type: (check one)	NTS  Non-Putrescible	Putrescible			FFACO-on	site		WAC Exception Historic DOE/NV
Pollution Preventio	n Category: (check one)	<b>✗</b> Environm	ental management		Defense P	rojects		
Pollution Preventio	n Category: (check one)	X Clean-Up			Routine			
Method of Characte	erization: (check one)	X Sampling	& Analysis		Process Ki	nowledge		Contents
Prohibited Waste at all three NTS land Additional Prohibite at the Area 9 U10c I	dfills: wastes (needles, si ed Waste Sewage Sludge, A	harps, bloody clo	<b>.</b>	·		·	gulatory le	vels-, and Medical
	REQUIRED: Check all allo	wable wastes	NTENTS ALLOV that are contain	ed w	ithin this	load:		
	d at the Area 6 Hydrocarbon La enzene, lead); jet fuel; diesel fu							
Acceptable waste a	t any NTS landfill:	☐ Paper	Rocks / ur	alter	ed geologic	materials	☐ Em	pty containers
Asphalt	Metal Wood	🔀 Soil	Rubber (e	xclud	ing tires)		☐ De	molition debris
Plastic	☑ Wire ☐ Cable	☐ Cloth	Insulation	(non-	-Asbestosf	om)	☐ Ce	ment & concrete
	ms: (swamp coolers, furnitu	re, rugs, carpe	t, electronic comp	onent	s, PPE, etc	c.)		
Additional waste ad	cepted at the Area 23 Me	rcury Landfill:	Office waste		Food Wast	e 🗌 Anima	Carcass	es
Asbestos: Fr	riable 🔲 Non-Friable (cor	ntact SWO if re	gulated load) Qu	antity	y:			

Additional waste accepted at the	e 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)	<i>;</i>		Tanks
Additional waste accepted at the	e 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 SI	GNA	TURE
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 mate site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Signature:

Radiation Survey Release for Waste Disposal **RCT Initials** 

This container/load is free of external radioactive contamination.

This container/load is exempt from survey due to process knowledge and origin.
This container/load is free of radioactive container/load is free of radioanalysis.

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 of estimate)

Signature of Certifier:

# Rechtel Nevada NTS Landfill Load Verification

	(Was	ste definiti	ons are available on	pag	⇒ 2)	
SWO USE (Circle O	ne Area)	AREA	23		6 (9)	LANDFILL
For waste characterizat	ion, approval,	and/or as	ssistance, contact S	Solid	Waste Operation (S	WO) at 5-7898.
(This form .Vaste Generator: Mike Kruzic				site c	lisposal of materials	s.) e Number: <u>5-7396</u>
Location / Origin: Area 27 Mainte	nance Yard / E	xcavation	CAU 329	<u> </u>		
Vaste Category: (check one)	\$ 117/02	Comm	nercial	X	Industrial district	1/2
Waste Type:	S	Putreso	cible		FFACO-onsite	WAC Exception
(check one) Nor	n-Putrescible	Asbest	tos Containing Material		FFACO-offsite	Historic DOE/NV
ollution Prevention Category:	(check one)	X Enviro	onmental management		Defense Projects	
Pollution Prevention Category:	(check one)	X Clean	-Up		Routine	
Pethod of Characterization: (che	eck one)	X Samp	ling & Analysis		Process Knowledge	Contents
at all three NTS landfills: was Additional Prohibited Waste Se the Area 9 U10c Landfill:	stes (needles, sha	arps, bloody nimal carcas	clothing). ses-, Wet garbage (food	waste	e); and Friable asbestos	egulatory levels-, and Medical
			CONTENTS ALLOV tes that are contain			
OTE: Waste disposed at the Area 6						
gasoline (no benzene, lead); ju Acceptable waste at any NTS la		Paper			haltic petroleum hydroca ed geologic materials	Empty containers
Acceptable waste at any N 15 ia		Soil	Rubber (e:		-	Demolition debris
Plastic Wire	☐ Cable [	Cloth			-Asbestosform)	Cement & concrete
☐ Manufactured items: (swamp of			<del></del>	•	•	
*dditional waste accepted at the			<del></del>			al Carcasses
Asbestos: Friable No					<del></del>	
Additional waste accepted at the	<del> </del>					
Non-friable asbestos	_	¥	and military vehicles	Ε	Solid fractions from	sand/oil/water separators
Light ballasts (contact SWO)			as & diesel)	Ī		round and Above Ground
Hydrocarbons (contact SWO)		,,,	,,	ř	Tanks	
ditional waste accepted at the	e Area 6 Hydro	ocarbon L	andfill:			
_] Septic sludge ☐ Rags			gas & diesel)		Crushed non-terne	plated oil filters
Plants	_		/water separators	Ī	PCBs below 50 pa	•
			TE GENERATOR	SIGN		
.itials: (If initialed, no	radiological cle					
The above mentioned waste wa owledge, does not contain ra			Controlled Waste N	lanag		vey Release for Waste Dis
To the best of my knowledge, the tension of the last of the tension of the tensio	the waste cha				RCT Initials  This contamin This contamin This contamin	ainer/load is free of external radi ation. aner/load is exempt from survey mowledge and origin.
Print Name: Michael	Kouzis Kunt			6-	SIGNATURE:	ainer/load is free of radioactive ation based on radioanalysis.  DATE: 6 BNO
Note: Food waste, office trash and require a radiological cleara		casses are	considered not to co	ntain	added radioactivity, ar	nd therefore do not
SWO USE ONLY					V 0	

Load Weight (net from scale of estimate): 39,000 Signature of Certifier:

# **Bechtel Nevada**

# NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area)		23	6	9	LANDFILL
For waste characterization, approva	l, andlor assista	nce, contact S	Solid Wa	ste Operation (S	WO) at 5-7898.
(This form is for rollof	ED: WASTE GE fs, dump trucks,	NERATOR IN and other on:	NFORM/ site disp	osal of materials	.) Number: 5-7396
Naste Generator: Mike Kruzic  Location / Origin: Area 27 Maintenance Yard / I	xcavation	CAU 32	6		- 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000
Waste Category: (check one) ( (1.117/62	Commercial	· .	X Inc	lustrial	
Waste Type:	Putrescible		FF.	ACO-onsite	WAC Exception
check one) Non-Putrescible	Asbestos Cor	taining Material	FF.	ACO-offsite	Historic DOE/NV
Pollution Prevention Category: (check one)	X Environment	al management	☐ De	fense Projects	
Pollution Prevention Category: (check one)	X Clean-Up		Ro	outine	
Method of Characterization: (check one)	X Sampling & A			cess Knowledge	Contents
at all three NTS landfills: wastes (needles, si	narps, bloody clothir	g).			egulatory levels-, and Medical
Additional Prohibited Waste Sewage Sludge; A at the Area 9 U10c Landfill:	ساسرها مبادر استدر امراد را				
Check all allo	WASTE CONT wable wastes the andfill must have con	<i>at are contain</i> ne into contact w	ied withi ith petrole	<i>in this load:</i> oum hydrocarbons or	coolants such as:
gasoline (no benzene, lead); jet fuel; diesel fu	el; lubricants and hy	draulics; kerosen	e; asphalt	ic petroleum nyarocz	roon; and ethylene glycol.
Acceptable waste at any NTS landfill:	☐ Paper			geologic materials	☐ Empty containers ☐ Demolition debris
	Soil	Rubber (e	_	•	Cement & concrete
Plastic Wire Cable	Cloth		•	bestosform)	Cement & concrete
Manufactured items: (swamp coolers, furnitu				d Waste Anim	al Carcasses
Additional waste accepted at the Area 23 Me  Asbestos: Friable Non-Friable (con				O Waste L. Minn	
		aled load) Q	deriuty.		
Additional waste accepted at the Area 9 U10	automobiles and r	nilitary vehicles	. п	Solid fractions from	sand/oil/water separators
	uel filters (gas & c				ound and Above Ground
☐ Light ballasts (contact SWO) ☐ Drained f☐ Hydrocarbons (contact SWO)	i inters (gas a c	110001)	=	Tanks	
Additional waste accepted at the Area 6 Hyd	rocarbon l andfil	 l:			
	fuel filters (gas &			Crushed non-terne	plated oil filters
	rom sand/oil/water			PCBs below 50 pa	1
	RED: WASTE G				
Initials: (If initialed, no radiological co					
The above mentioned waste was generated			Manage		,
ne above mentioned waste was generated knowledge, does not contain radiological m	aterials.			Radiation Sun	vey Release for Waste Di
To the best of my knowledge, the waste des		stains only the	se mati	RCT Initials	
site. I have verified this through the waste co	haracterization π	ethod identifi	ed abov	contamin	ainer/load is free of external rad ation.
prohibited and allowable waste items.				This conf	aneriload is exempt from surve mowiedge and origin,
1. 1 1 1				This contamic	ainer/load is free of radioactive ration based on radioanalysis.
Print Name: Michael Kruza				SIGNATURE:	DATE:
Signature: Muhail Hunt		ate: <u>6///</u>	102	45 0×11)=	Mibricle and
Note: Food waste, office trash and/or animal ca	areassas are cons	idered not to co	ontain ad	ded radioactivity, a	na inereiore do not
require a radiological clearance.	arcasses are cons				
require a radiological clearance.  SWO USE ONLY	2 /	Signature of		11.7	1 12

Bechtel Neva			l Load Ve			
SWO USE (Cire	cle One Area	) AREA	23		6 9 /	LANDFILL
For waste chara	cterization, approva	al, andlor ass	sistance, contact	Solid	Waste Operation (SV	VO) at 5-7898.
(7) Waste Generator: Mike K Location / Origin: Area 27	This form is for rollo ruzic	ffs, dump tru	CRU 32	nsite d	lisposal of materials.)	Number: <u>5-7396</u>
Waste Category: (check		Comme	rcial	X	Industrial me 1 /2 /2	7
Waste Type:	X NTS	Putrescit	ole	<u> </u>	FFACO-onsite	WAC Exception
(check one)	Non-Putrescible	Asbesto	Containing Materia		FFACO-offsite	Historic DOE/NV
Pollution Prevention Cat	egory: (check one)	X Environ	mental management		Defense Projects	
Pollution Prevention Cat	egory: (check one)	X Clean-L	lp		Routine	
Method of Characterizati	on: (check one)	X Samplin	g & Analysis		Process Knowledge	Contents
Prohibited Waste at all three NTS landfills: Additional Prohibited Wa at the Area 9 U10c Landf	wastes (needles, saste Sewage Sludge; /	sharps, bloody c	lothing).		_	ulatory levels-, and Medical
Acceptable waste at any Asphalt	NTS landfill:	Paper Soil Cloth	Rocks / u	naltere excludi	haltic petroleum hydrocart ed geologic materials ing tires) -Asbestosform)	☐ Empty containers ☐ Demolition debris ☐ Cement & concrete
☐ Manufactured items: (s		_		•	•	
Additional waste accept	Non-Friable (co	ontact SWO if r			· -	Carcasses
Additional waste acceptor  Non-friable asbestos	<del></del>		nd militant vehicle		7 Calid fractions from a	
Light ballasts (contact Hydrocarbons (contact	SWO) 🔲 Drained	fuel filters (gas	nd military vehicle s & diesel)	י ב		and/oil/water separators und and Above Ground
Additional waste accept	ed at the Area 6 Hyd	Irocarbon Lar	dfill:			
Septic sludge Rag	s Drained	fuel filters (gas	s & diesel)		Crushed non-teme p	lated oil filters
Plants	☐ Sludge f	rom sand/oil/w	rater separators		PCBs below 50 part	s per million
nitials: (If initi	REQUIA aled, no radiological c		E GENERATOR essary.)	SIGN	ATURE	
The above mentioned wa knowledge, does not co			Controlled Waste	Manag		y Release for Waste Di
To the best of my knowle site. I have verified this t prohibited and allowable	through the waste c				RCT Initials This contain contain	ner/load is free of external rad

Print Name: Signature:

This container/load is free of radioactive contamigration based on radioanalysis.

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):

Signature of Certifier:

KECurel Inolalia	L/	DFILL [	ZIIZY A	DCIUS II.	DGIL.E	EF.	35 471/02 (20 1/1/10)
DATE: 6-13-02	(check one	e) 🛮 Are	a 9 - U10c	Area	6 Hydroca	rbon	Area 23 Landfill
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Bullding	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Last Name, Initials
13.N.	A-25	$\Box$	I	31,260	9:30	9:45	72 - E V
Mike KAUZIC	A27 MY/EX		2	851.42,000	9:15	9:30	KACRAY K
BN	11/2	$\mathcal{C}$	3	78,000	10120	10140	Clean DV
13, N.	A-17	<u>C</u>	TU	16,000	10:30	10:45	D-E
MIKE KRUZIC	AZT MY/Ex		5	65.39 avo	10:50	11:05	KACTOYK
BA	11-12	C	(2	6,000	11:00	11:15	TOLLANY, C.
BN	9-12		37	4649	11:00	11:16	Whight Ry
Mike Keuzic	127 MY/Ex		8	38,000	12:56	1:08	KARAYK
B/U	14.12	C	4	21,716	13130	13550	Gless 1)
*Waste Codes: ASB - Asbe	stos; C - Construction;					ible; S - Sev	vage Sludge; F - FFACO
01-0-111	·			VFORMATIO			
Site Conditions:	, , , , , , , , , , , , , , , , , , ,		Load Inst		Ticket Nu	mber:	
Do berms/walls need repair? Does cover need repair /	JNo ∐Yes	<b>=</b> ·	phibited waste	e was tound waste(s) identifie	d bolow we	ero found	
	]No □Yes			e (prohibited in U			
	No ☐Yes			per NAC 444.58		sa o Langinis	<b>9</b> -
· · · · · · · · · · · · · · · · · · ·	No ☐Yes	_		ated by TSCA			
	No Yes		ste containing			þ	
<b>;</b> =	No Yes	·	A-regulated	•	•		
Corrective Actions Needed:		Was	ste failing the	"no added radioa	ctivity" per	the POC req	uirement.
		Fria	ble asbestos	(prohibited in U19	Oc and Are	a 6 Landfills)	
	·	☐Hyd	rocarbon soil	al >100 ppm TPI	-l (prohibite	d in 23, allov	ved in U10c provided less than 50
	11			are disposed)	•		
<u> </u>	]	Corrective	Actions Take	n: (description, n	ame, date,	who notified	):
Corrective Actions Taken: (desc	ription, name, date):						
	11	j		•			ļ
		j					Ì
INSPECTED BY		Mohra					
(date/time):		INSPECT	ED BY (dat	e/time):			

Bechtel Nevada LANDFILL DAILY ACCESS REGISTER										
DATE: 6-13-05	(check one	e) []Afe	á 9 - U10c	Area	6 Hydroca	rbon	Area 23 Landfill			
WASTE GÉNERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Last Name, Initials			
BN	41.11		10	マスペタ	15.32	137	Wright IAV			
Mike Kruzic	A27 814/EX		//	Est. 4/000	2:37	2:48	Kacray K			
	·			·						
				:						
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO										
INSPECTION INFORMATION										
Site Conditions:			<u>ı Load İns</u> ı		Γicket Nu	ımber:				
Do berms/walls need repair?	No Yes		ohibited wast							
Does cover need repair /	7.u.		•	waste(s) identifie e (prohibited in U			.,			
	No ∐Yes No ∐Yes			e (pronibiled in O e per NAC 444.58		ea o Lanums	97.			
	No ☐Yes			lated by TSCA						
	No ☐Yes		ste containing	•						
-	No ☐Yes		CA-regulated		•		•			
Corrective Actions Needed:		☐Wa	ste failing the	"no added radioa	activity" per	the POC rec	juirement.			
		Fria	able asbestos	(prohibited in U1	Oc and Are	a 6 Landfills				
	Ì				H (prohibite	ed in 23, allov	ved in U10c provided less than 50			
				k are disposed) en: (description, r	name, date.	who notified	):			
Corrective Actions Taken: (des	crintion name date):	0011001111	y totiono tan	(40000)						
Corrective Actions Taken, Ides	cription, name, date).			•						
			• '							
INSPECTED BY		L								
	1 1 -	INS TO	TE TYK	tim ,	17	1 2				

			¥		0	/
Bechtel Ne			Load Ver			
SWO USE (C	ircle One Area	) AREA	23	(	5 (9)	LANDFILL
For waste cha	aracterization, approv	al, andlor assi	stance, contact S	Solid V	Vaste Operation (SI	NO) at 5-7898.
Waste Generator: Mike	(This form is for rollo e Kruzic	offs, dump truc		site di	sposal of materials.	) Number: <u>5-7396</u>
· · · · · · · · · · · · · · · · · · ·	27 Maintenance Yard /			77		
Waste Category: (che		Commer			Industrial OS	
Waste Type: (check one)	X NTS	Putrescibi	-	$\equiv$	FFACO-onsite	WAC Exception
	Non-Putrescible		Containing Material	_=	FFACO-offsite	Historic DOE/NV
Pollution Prevention (			ental management		Defense Projects	
Pollution Prevention (		Clean-Up	<del></del>	<del></del>	Routine	
Method of Characteriz Prohibited Waste			& Analysis		Process Knowledge	Contents  Quiatory levels-, and Medical
Additional Prohibited at the Area 9 U10c La	<del></del>					
	Check all alle	: WAS I E CO! owable wastes	NTENTS ALLOV that are contain	VABL. ed wil	E WASTES thin this load:	
NOTE: Waste disposed a gasoline (no benz	t the Area 6 Hydrocarbon L ene, lead); jet fuel; diesel fo	andfill must have	come into contact w	ith petro	oleum hydrocarbons or o	oolants such as: bon; and ethylene glycol.
Acceptable waste at a	ny NTS landfill:	Paper	Rocks / ur	altered	d geologic materials	☐ Empty containers
	letal Uwood	<b>⊠</b> Soil	Rubber (e	xcludin	g tires)	Demolition debris
	Vire Cable	☐ Cloth		•	sbestosform)	☐ Cement & concrete
	: (swamp coolers, furnit					
	pted at the Area 23 Me				· —	Carcasses
Asbestos: Friat	<del></del>		gulated load) Qu	antity:		
	pted at the Area 9 U10	3				
Non-friable asbesto			d military vehicles			sand/oil/water separators
	ct SWO)	fuel filters (gas	& diesel)			und and Above Ground
Hydrocarbons (cont	<del> </del>				Tanks	
	pted at the Area 6 Hyd					
Septic sludge	_	fuel filters (gas	•		Crushed non-terne p	plated oil filters
☐ Plants	<del></del>	rom sand/oil/wa			PCBs below 50 part	s per million
Initiala.			GENERATOR S	SIGNA	TURE	
The above mentioned	nitialed, no radiological c waste was generated contain radiological m	outside of a Co		lanage		y Release for Waste Di
	wledge, the waste des is through the waste c				RCT Initials	ner/load is free of external radion

prohibited and allowable waste items.

Print Name: Date: 6/1/102 Signature:

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** 

OOO Signature of Certifier: Load Weight (net from scale or estimate):

This contanerload is exempt from survey due to process knowledge and origin.

This container/load is free of radioactive contain ration based on radioanalysis.

# **Bechtel Nevada** NTS Landfill Load Verification

Dountor Hoyada	(Was	ste definitions	are available or	page 2)		
SWO USE (Circle C	)ne Area)	AREA	23	6	9)	LANDFILL
For waste characteriza	ation, approval	, and/or assis	tance, contact S	Solid Wa	ste Operation (S	WO) at 5-7898.
(This fo Waste Generator: <u>Mike Kruzic</u>			GENERATOR II ks, and other on		osal of materials.	) Number: <u>5-7396</u>
Location / Origin: Area 27 Main	tenance Yard / E	xcavation	CAV 3	76_		
Waste Category: (check one)	Mr 11.76 7	Commerc	ial	X Ind	ustrial and the	7/12
Waste Type:	<b>TS</b> (71.7	Putrescible	:	FFA	.CO-onsite	WAC Exception
	on-Putrescible	Asbestos C	Containing Material	☐ FFA	CO-offsite	☐ Historic DOE/NV
Pollution Prevention Category	: (check one)	X Environme	ental management	Def	ense Projects	
Pollution Prevention Category	: (check one)	X Clean-Up		Ro	utine	
Method of Characterization: (c	heck one)	X Sampling	& Analysis	☐ Pro	cess Knowledge	Contents
Prohibited Waste R	adioactive waste;	RCRA waste; Ha	zardous waste; Fre	e liquids, P	CBs above TSCA re	gulatory levels-, and Medical
at all three NTS landfills: w	astes (needles, sh	arps, bloody clot	ning).			
Additional Prohibited Waste S at the Area 9 U10c Landfill:	ewage Sludge; Ar	nimal carcasses-	, Wet garbage (food	l waste); ar	d Friable asbestos	
at the Arta 5 G TOO Landini.	REQUIRED:	WASTE CON	TENTS ALLO	VABLE I	WASTES	•
	Check all allow	vable wastes	that are contain	ned withir	n this load:	
NOTE: Waste disposed at the Area gasoline (no benzene, lead);	6 Hydrocarbon La iet fuel: diesel fue	ndfill must have It: lubricants and	come into contact w hydraulics; kerosen	rith petrolet ie: asphalti	im hydrocarbons or o c petroleum hydrocai	coolants such as: bon; and ethylene glycol.
Acceptable waste at any NTS i		Paper			eologic materials	☐ Empty containers
☐ Asphalt ☐ Metal		X Soil	Rubber (e	-		☐ Demolition debris
☐ Plastic ☐ Wire	Cable	Cloth	_		estosform)	Cement & concrete
Manufactured items: (swamp			<del></del>	•	•	
Additional waste accepted at t						l Carcasses
			gulated load) Q			
Additional waste accepted at t			<u> </u>			
Non-friable asbestos			d military vehicles	. 🗆 s	olid fractions from	sand/oil/water separators
Light ballasts (contact SWO)	_	uel filters (gas &	<del>-</del>			ound and Above Ground
Hydrocarbons (contact SWO			- d.255.,	_	anks	
Additional waste accepted at t		ocarbon Land				
Septic sludge Rags	_ ·	uel filters (gas			crushed non-terne	plated oil filters
<u> </u>		om sand/oil/wa		=	PCBs below 50 par	•
Plants			GENERATOR .			D per miner.
Initials: (If initialed, n	אבעטות o radiological cle			SIGNAT		
	•					
The above mentioned waste w knowledge, does not contain i	'as generated o radiological ma	utside of a Co terials.	ontrolled waste i	vianage	5 " " 6	D-lenes for Monte [
_					Radiation Surve	ey Release for Waste I
To the best of my knowledge, site. I have verified this throug	the waste desc	ribed above c	ontains only tho method identifi	se mati ed abov	This conta	iner/load is free of external r
prohibited and allowable wast	e items.	ai actei izauoii	Method identific		Contamina This conta	ner/load is exempt from sur
,					process ki	nowledge and origin. Iner/load is free of radioacth tion based on radioanalysis.
Print Name: Michael	Kruzic				contamica	tion based on radioanalysis.
100,	01 -		Date: 6/1/	102	SIGNATURE:	IM bride
Signature:	pull			<del></del>		
Note: Food waste, office trash a require a radiological clea	nd/or animal car rance.	rcasses are co	nsidered not to co	ntain add	ed radioactivity, an	d therefore do not
SWO USE ONLY		20			V 4	1
Load Weight (net from scale	of estimate)	37,000	Signature of	Certifier	pell	1 Jacques
Load Troight (not nom coale					1-9	BN-0918 (09/00

OTTO OOL (CITCLE	One Area) AREA	23	6	<u>(9)</u>	LANDFILL
For waste characteriz	ation, approval, andlor a	assistance, contact Sc	olid Waste	e Operation (S	WO) at 5-7898.
Waste Generator: Mike Kruzic	orm is for rolloffs, dump t		te dispos	al of materials.	) Number: <u>5-7396</u>
ocation / Origin: Area 27 Mair					
Waste Category: (check one)		mercial	X Indus		1-102
Waste Type:		scible stos Containing Material		O-onsite 🍞 💲 💆 O-offsite	
Pollution Prevention Category	: (check one) X Envir	ronmental management	Defer	ise Projects	
Pollution Prevention Category	: (check one) X Clear	n-Up	Routi	ne	
Method of Characterization: (c	check one) X Samp	pling & Analysis	Proce	ss Knowledge	Contents
	Radioactive waste; RCRA wasterastes (needles, sharps, blood		liquids, PCI	Bs above TSCA re	gulatory levels-, and Medical
Additional Prohibited Waste Sat the Area 9 U10c Landfill:		<b>,</b>	/aste); and	Friable asbestos	
NOTE: Waste disposed at the Area gasoline (no benzene, lead)	REQUIRED: WASTE ( Check all allowable was 6 Hydrocarbon Landfill must h ; jet fuel; diesel fuel; lubricants	stes that are containe have come into contact with	d within to	his load: hydrocarbons or	coolants such as:
Acceptable waste at any NTS				logic materials	☐ Empty containers
Asphalt Metal	Wood X Soil	Rubber (exc	cluding tire	es)	Demolition debris
☐ Plastic ☐ Wire	Cable Cloth	Insulation (	non-Asbes	stosform)	Cement & concrete
Manufactured items: (swamp	o coolers, furniture, rugs, ca	arpet, electronic compor	ents, PPF	etc \	
				-, 610.7	
Additional waste accepted at	-	ifill: Office waste	Food V		l Carcasses
Additional waste accepted at the Asbestos: Friable	-	ifill: Office waste	Food V		l Carcasses
Asbestos: Friable Additional waste accepted at	Non-Friable (contact SWO the Area 9 U10c Landfill:	Ifill: Office waste if regulated load) Qua	Food V	Vaste	
Asbestos: Friable Additional waste accepted at Non-friable asbestos	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles	ifiii: Office waste if regulated load) Qua s and military vehicles	Food V	Vaste Anima	sand/oil/water separators
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO)	Non-Friable (contact SWO the Area 9 U10c Landfill: Drained automobiles Drained fuel filters (c	ifiii: Office waste if regulated load) Qua s and military vehicles	Food Vantity: Soli	Vaste Anima d fractions from	
Asbestos: Friable Additional waste accepted at the Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO)	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles  Drained fuel filters (contact SWO)	ifiii:  Office waste if regulated load) Quass and military vehicles gas & diesel)	Food V	Vaste Anima d fractions from	sand/oil/water separators
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a	Non-Friable (contact SWO the Area 9 U10c Landfill: Drained automobiles Drained fuel filters (contact) the Area 6 Hydrocarbon L	ifiii: Office waste if regulated load) Quas and military vehicles gas & diesel)	Food Vintity: Soli	Vaste Anima d fractions from conned Undergro	sand/oil/water separators ound and Above Ground
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO) the Area 6 Hydrocarbon L Drained fuel filters (contact SWO)	Ifili: Office waste if regulated load) Quas and military vehicles gas & diesel)  andfili: gas & diesel)	Food Vintity: Soli	Vaste Anima d fractions from conned Undergro	sand/oil/water separators ound and Above Ground plated oil filters
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact) The Area 6 Hydrocarbon L Drained fuel filters (contact) Sludge from sand/oi	ifiii:  Office waste if regulated load) Quas and military vehicles gas & diesel)  andfill: gas & diesel)	Food Vantity: Soli	Vaste Anima of fractions from conned Undergro ks ushed non-terne Bs below 50 par	sand/oil/water separators ound and Above Ground plated oil filters
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact) The Area 6 Hydrocarbon L Drained fuel filters (contact) Sludge from sand/oi REQUIRED: WAS	ifiii: Office waste if regulated load) Qua s and military vehicles gas & diesel)  andfili: gas & diesel) ii/water separators STE GENERATOR SI	Food Vantity: Soli	Vaste Anima of fractions from conned Undergro ks ushed non-terne Bs below 50 par	sand/oil/water separators ound and Above Ground plated oil filters
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants (If initialed, not	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO the Area 6 Hydrocarbon L Drained fuel filters (contact Sudge from sand/oi REQUIRED: WAS to radiological clearance is not	ifiii: Office waste if regulated load) Qua s and military vehicles gas & diesel)  andfill: gas & diesel) il/water separators STE GENERATOR Si necessary.)	Food Vantity: Soli	Vaste Anima of fractions from conned Undergro ks ushed non-terne Bs below 50 par	sand/oil/water separators ound and Above Ground plated oil filters
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants (If initialed, in The above mentioned waste w	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO The Area 6 Hydrocarbon L Drained fuel filters (contact SWO Sludge from sand/oi REQUIRED: WAS The radiological clearance is not as generated outside of a series.	ifiii: Office waste if regulated load) Qua s and military vehicles gas & diesel)  andfill: gas & diesel) il/water separators STE GENERATOR Si necessary.)	Food Vantity: Soli	Vaste Anima of fractions from conned Undergro ks ushed non-terne Bs below 50 par	sand/oil/water separators ound and Above Ground plated oil filters
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants (If initialed, not not above mentioned waste waste wastewedge, does not contain in the above mentioned waste wastewedge, does not contain its second contain in the above mentioned waste wastewedge, does not contain its second con	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO) the Area 6 Hydrocarbon L Drained fuel filters (contact SWO) Sludge from sand/oi REQUIRED: WAS no radiological clearance is not as generated outside of cradiological materials.	ifili: Office waste if regulated load) Quas and military vehicles gas & diesel)  andfili: gas & diesel)  il/water separators  STE GENERATOR SI necessary.)  a Controlled Waste Ma	Food Vantity: Solice Tan Crue GNATUF	Vaste Anima  Id fractions from conned Undergro ks  Ished non-terne Bs below 50 par  RE	sand/oil/water separators ound and Above Ground plated oil filters
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Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants (If initialed, not he above mentioned waste with the waste of my knowledge, site. I have verified this through	the Area 9 U10c Landfill:  Drained automobiles  Drained fuel filters (go)  The Area 6 Hydrocarbon L  Drained fuel filters (go)  The Area 6 Hydrocarbon L  Sludge from sand/oi  REQUIRED: WAS  To radiological clearance is no radiological materials.  The waste described about the waste characteriza	ifili: Office waste if regulated load) Quas and military vehicles gas & diesel)  andfill: gas & diesel)  il/water separators  STE GENERATOR SINECESSARY.)  a Controlled Waste Manual Controlled Waste	Food Vantity:  Soli Dec Tan Cru PC GNATUF	Vaste Anima  d fractions from conned Undergro ks  shed non-terne Bs below 50 par  RE  Radiation Surve RCT Initials This conta process kr  This conta	sand/oil/water separators ound and Above Ground  plated oil filters ts per million  ey Release for Waste Di liner/load is free of external raction. Incerload is exempt from surve newledge and origin. Inter/load is free of radioactive tion based on radioanalysis.
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants (If initialed, in The above mentioned waste with the waste of the best of my knowledge, site. I have verified this through or or hibited and allowable waste waste or or hibited and allowable waste waste or or hibited and allowable waste waste or or hibited and allowable waste waste waste or or hibited and allowable wast	the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (g Drained fuel filters (g Drained fuel filters (g Drained fuel filters (g Drained fuel filters (g Drained fuel filters (g Sludge from sand/oi REQUIRED: WAS TO radiological clearance is no radiological materials.  The waste described about the waste described about the waste characterizate items.	ifili: Office waste if regulated load) Quas and military vehicles gas & diesel)  andfill: gas & diesel)  il/water separators  STE GENERATOR SINECESSARY.)  a Controlled Waste Manual Controlled Waste	Food Vantity: Soli Tan Cru PC GNATUF	Vaste Anima  d fractions from conned Undergro ks  shed non-terne Bs below 50 par  RE  Radiation Surve RCT Initials This conta process kr  This conta	sand/oil/water separators bund and Above Ground  plated oil filters ts per million  Ey Release for Waste Di  Iner/load is free of external raction.  ner/load is exempt from surve nowledge and origin.  Iner/load is free of radioactive
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants  The above mentioned waste waste waste waste accepted at a septic sludge, does not contain a knowledge, does not contain a specified this through or ohibited and allowable waste print Name:	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO)  The Area 6 Hydrocarbon Landfillers (contact SWO)  The Area 6 Hydrocarbon Landfillers (contact SWO)  REQUIRED: WAS no radiological clearance is not a series of the waste described about the waste described about the waste characterizate items.	ifili: Office waste if regulated load) Quas and military vehicles gas & diesel)  andfill: gas & diesel)  il/water separators  STE GENERATOR Since Controlled Waste Management of the controlled waste Management of the controlled waste ition method identified Date:	Food Ventity:  Solidation  Tan  Cru PC  GNATUF  Inage  maturabov	Vaste Anima  Id fractions from conned Undergro ks  Ished non-terne Bs below 50 par  RE  Radiation Surve RCT Initials This conta contamina This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr	sand/oil/water separators bund and Above Ground  plated oil filters ts per million  ey Release for Waste Di liner/load is free of external raction.  ner/load is exempt from surve newledge and origin.  iner/load is free of radioactive tion based on radioanalysis.  DATE: BH
Asbestos: Friable Additional waste accepted at a Non-friable asbestos Light ballasts (contact SWO) Hydrocarbons (contact SWO) Additional waste accepted at a Septic sludge Rags Plants  The above mentioned waste with above mentioned waste with nowledge, does not contain a site. I have verified this through or ohibited and allowable waste Print Name: Accepted the Signature: Mote: Food waste, office trash a	Non-Friable (contact SWO the Area 9 U10c Landfill:  Drained automobiles Drained fuel filters (contact SWO)  The Area 6 Hydrocarbon Landfillers (contact SWO)  The Area 6 Hydrocarbon Landfillers (contact SWO)  REQUIRED: WAS no radiological clearance is not a series of the waste described about the waste described about the waste characterizate items.	ifili: Office waste if regulated load) Quasis and military vehicles gas & diesel)  andfili: gas & diesel)  il/water separators  STE GENERATOR Sincessary.)  a Controlled Waste Manue contains only those stion method identified the considered not to contains only the contains only those stion method identified the considered not to contains only the contains only the conta	Food Ventity:  Solidation  Tan  Cru PC  GNATUF  Inage  maturabov	Vaste Anima  Id fractions from conned Undergro ks  Ished non-terne Bs below 50 par  RE  Radiation Surve RCT Initials This conta contamina This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr This conta process kr	sand/oil/water separators bund and Above Ground  plated oil filters ts per million  ey Release for Waste Di liner/load is free of external raction.  ner/load is exempt from surve newledge and origin.  iner/load is free of radioactive tion based on radioanalysis.  DATE: BH

# Doobtel He

### NTS Landfill Las - Varification

Bechtel Nevada N			Load ver s are available or			
SWO USE (Circle One A	rea) A	AREA	23	6	9	LANDFILL
For waste characterization, ap	proval,	and/or assi	stance, contact S	Solid W	aste Operation (SV	VO) at 5-7898.
RE (This form is for Waste Generator: Mike Kruzic	QUIREI r rolloffs,	: WASTE dump truc		site dis	posal of materials.)	Number: <u>5-7396</u>
Location / Origin: Area 27 Maintenance	Yard / Ex	cavation	(NO 32	6		
Waste Category: (check one) んく //-	112	☐ Commer	cial		ndustrial AS 6/17/	82 <u> </u>
Waste Type:	′ [	Putrescibl	e	Ø F	FACO-onsité	WAC Exception
(check one) Non-Putres	cible	Asbestos	Containing Material		FACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check	one)	X Environm	nental management		Defense Projects	
Pollution Prevention Category: (check	one)	X Clean-Up	)	F	Routine	
Method of Characterization: (check one	)	X Sampling	& Analysis	P	rocess Knowledge	Contents
Prohibited Waste Radioactive	waste; R	CRA waste; H	azardous waste; Fre	e liquids	, PCBs above TSCA reg	ulatory levels-, and Medical
at all three NTS landfills: wastes (nee Additional Prohibited Waste Sewage Si at the Area 9 U10c Landfill:		ps, bloody clo		waste);	and Friable asbestos	
			NTENTS ALLOW			
NOTE: Waste disposed at the Area 6 Hydroca	erbon Land	ffill must have	s that are contair come into contact w	rith petro	leum hydrocarbons or co	polants such as:
gasoline (no benzene, lead); jet fuel; d	iesel fuel;	lubricants and	d hydraulics; keroser	e; aspha	iltic petroleum hydrocart	on; and ethylene glycol.
Acceptable waste at any NTS landfill:		Paper	Rocks / ur	naltered	geologic materials	Empty containers
Asphalt Metal W	ood 🔀	Soil	Rubber (e	xcluding	g tires)	Demolition debris
☐ Plastic ☐ Wire ☐ Ca	ble 🗀	Cloth	Insulation	(non-A	sbestosform)	☐ Cement & concrete
	furniture	, rugs, carpe	et, electronic comp	onents,	PPE, etc.)	ļ
Additional waste accepted at the Area	23 Merci	ury Landfill:	: Office waste	☐ Fo	ood Waste  Animal	Carcasses
☐ Asbestos: ☐ Friable ☐ Non-Friable	ole (conta	act SWO if re	egulated load) Qu	uantity:		
Additional waste accepted at the Area	9 U10c L	.andfill:				
-		1	nd military vehicles		Solid fractions from s	sand/oil/water separators
Light ballasts (contact SWO)	ained fue	l filters (gas	& diesel)		Deconned Undergro	und and Above Ground
Hydrocarbons (contact SWO)			•		Tanks	
Additional waste accepted at the Area	6 Hydro	carbon Lan	dfill:		<u></u>	
		el filters (gas			Crushed non-terne p	lated oil filters
			ater separators	$\overline{\Box}$	PCBs below 50 part	1
			GENERATOR	SIGNA		э рог типион
Initials: (If initialed, no radiolog				310117	TORL	
<u></u> •	_					
The above mentioned waste was gene knowledge, does not contain radiologi	rated ou ical mate	tside of a C vrials	ontrolled Waste I	vanage		
-					DOT Initials	y Release for Waste Dis
To the best of my knowledge, the was	te descri	bed above	contains only the	se mate	RCT Initials This contain	ner/load is free of external rad
site. I have verified this through the wa prohibited and allowable waste items.	aste chai	racterizatioi	n metnoa laentini	a abov	contaminat	ion.
Promuned and anomable maste items.						nerfload is exempt from survey owiedge and origin.
Milal V	:				contaminat	ner/load is free of radioactive lon based on radioanalysis.
Print Name: Mchael Rou	-		011.		SIGNATURE:	MI DE DATE:
Signature: Mulicil frug	1		Date: 6/1/	10Z	4504/100	Mibride BA
Note: Food waste, office trash and/or an require a radiological clearance.	imal carc	asses are co	onsidered not to co	ntain ad	dded radioactivity, and	therefore do not
SWO USE ONLY		111			K -	16
Load Weight (net from scale of estim	ate):	41,00	$\underline{\mathscr{O}}$ Signature of	Certifie	er:/\dl	1 reggs
					0	8/4-0918 (09/00)

Kellin Manalla	LAII	DFII	DY	JCLJ3 F.	GIE.	ER	1115 6/110 2 - Mais	U -
DATE: 10-14-02	(check or	ne) 🗆 Are	a 9 - U10c	Area	6 Hydrocai	bon	Area 23 Landfill	
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Løst Name, initials	=
1310	A-27	C	1.	25.000	8:00	8:15	HAGER	T
BN	A-12	<u> </u>	2	8,500	9:45	10.16).	14005 K.	
<u> </u>	A-12_	C	7	1580	10:00	10.95	LAMANNA	T
By .	11-12	1	2/	13460	7/030	10:45	アペレカシカリ、C.	
BN.	A-12	C	5	1778	1115	1120	Wright, M	T
BN	A-12	0	6	10,500	11:20	11:35	hydrs. R.	T
BN	A-12	(	7	16 40	1175	1150	Latte fred to	1.
BN,	17-12	C	8	1,780	1:00	1:15	TOLLADAY	/
BN	4-17		9	2107	1:10	1:25	Wright Bo	1
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F FFACO								
Site Conditions	,			VFORMATIC		<del></del>		
Site Conditions:  Do berms/walls need repair?	No TYes		<u> Load Insp</u>		icket Nu	mber:		
Does cover need repair /	140 [] 165		ohibited waste he prohibited	e was lound waste(s) identifie	d helow we	re found		
· · · · · · · · · · · · · · · · · · ·	No □Yes		•	e (prohibited in U1			9.	
	No ☐Yes			per NAC 444.58			<i>,</i> -	
Does road(s) need repair?	No ☐Yes :	PCE	3 waste regula	ated by TSCA				
Has litter accumulated?	No ☐Yes :	· Was	ste containing	free liquids				
Has water accumulated?	No ☐Yes	TSC	CA-regulated		•		•	
Corrective Actions Needed:		☐ Was	ste failing the	"no added radioa	clivity" per	lhe POC req	uirement.	
		Fria	ble asbestos	(prohibited in U10	Oc and Area	a 6 Landfills)		
		☐Hyd	rocarbon soil	at >100 ppm TPF	d (prohibite	d in 23, allow	ved in U10c provided less than 50	
		cub	ic yards/week	are disposed)				
		Corrective	Actions Take	n: (description, na	ame, date,	who notified)	<u>:</u>	
Corrective Actions Taken: (desc	ription, name, date):							
				•				
			. *					
Monrotto		<u> </u>	<del></del>			··.		
INSPECTED BY (date/time):		INSPECT	ED BY (dat	e/time):				

# Bechtel Nevada NTS Landfill Load Verification () HAGER

	<b>Ⅎ</b> (Was	te definitions	are available or	page 2)	<i></i>			
SWO USE (Circle	One Area)	AREA	23	6	9	L/	ANDFILL	1
For waste character	ization, approval,	and/or assist	ance, contact S	Solid Wa	ste Operation (	(SWO) at	5-7898.	1
<i>(This</i> Waste Generator: <u>Mike Kruzi</u>	form is for rolloffs			site disp	osal of materia	<i>ls.)</i> ne Numbei	r: <u>5-73</u> 96	
Location / Origin: Area 27 Ma	intenance Yard / E	xcavation	MAY 32C					
Waste Category: (check one)	201667/12	Commerci	al	X Ind	ustrial	1.1.7		
Waste Type: (check one)	Non-Putrescible	Putrescible Asbestos C	ontaining Material	=	ACO-onsite/> ⟨-/// ACO-offsite		WAC Exception Historic DOE/NV	
Pollution Prevention Catego	ry: (check one)	X Environme	ntal management	☐ Dei	fense Projects			
Pollution Prevention Catego	ry: (check one)	X Clean-Up		Ro	utine			
Method of Characterization:	(check one)	X Sampling 8	k Analysis	Pro	cess Knowledge		Contents	1
Prohibited Waste at all three NTS landfills:	Radioactive waste; R wastes (needles, sha			e liquids, F	CBs above TSCA	regulatory le	evels-, and Medical	
Additional Prohibited Waste at the Area 9 U10c Landfill:	Sewage Sludge; Ani	imal carcasses-,	Wet garbage (food	waste); ar	nd Friable asbesto	\$		
NOTE: Waste disposed at the Ar	Check all allow ea 6 Hydrocarbon Lar	vable wastes indfill must have c	ome into contact w	ned within	n this load: um hydrocarbons (	or coolants s	uch as:	
gasoline (no benzene, lea Acceptable waste at any NT		Paper			eologic materials		mpty containers	1
_ ` _ `		Soil	Rubber (e	_	-	=	emolition debris	
= = = = = = = = = = = = = = = = = = = =			_	_			ement & concrete	
☐ Plastic ☐ Wire	∐ Cable L	_ Cloth	_	•	estosform)		ment a whatete	ı
Manufactured items: (swar								ł
Additional waste accepted a	-	•			d waste ∐ Anir	nai Carcas	Ses	
	J Non-Friable (cont		ulated load) Q	uantity:				1
Additional waste accepted a	_			<del>-</del>				
	☐ Drained at	utomobiles and	military vehicles				water separators	
Light ballasts (contact SW	O)   Drained fu	el filters (gas &	diesel)		Deconned Under	ground and	Above Ground	
☐ Hydrocarbons (contact SW	<i>(</i> 0)				anks			1
Additional waste accepted a	t the Area 6 Hydro	carbon Landf	7H:					
Septic sludge Rags	☐ Drained fu	el filters (gas &	diesel)		Crushed non-terr	ne plated oi	l filters	
Plants	☐ Sludge fro	m sand/oil/wate	er separators	□ F	PCBs below 50 p	oarts per m	illion	j
	REQUIR	ED: WASTE	GENERATOR	SIGNAT	URE			1
Initials: (If initialed	, no radiological clea							
The above mentioned waste	was gaparated a	uteide of a Co	ntrolled Waste I	Manage				l
knowledge, does not contain			na onea masic i	nanage	Padiation Su	nov Pole	ase for Waste D	ier
•					RCT Initials	vey neie	ise for traste b	13}
To the best of my knowledg site. I have verified this thro	e, the waste descr ugh the waste cha	ribed above co aracterization i	ntains only trio method identific	se mau ed abov			is free of external ra	ıdlo
prohibited and allowable wa	ste items.				This co	ntaner/load i	s exempt from surv	ey (
						knowledge		0
Print Name: Michae	1 Kouzie				contam	tration base	Is free of radioactiv d on radioanalysis.	
Signature: University	Thurt		Date: 6/1/	102	SIGNATURE:	MA	ride DATE	1084
Note: Food waste, office trash require a radiological cl	n and/or animal card earance.	casses are con	sidered not to co	ntain add	ed radioactivity.	and therefo	ore do not	
SWO USE ONLY		<del>-</del>			mal	1-		1
Load Weight (net from scal	le or estimate).	25.000	_ Signature of	Certifier	/// arm	2 his	No	
Load Weight (het from Scal	ie og estimatej. <u>"</u>	- / ; 000	_ Signature Of	Joi tillor.				1

(66/21) (160·NO	151.1	>	<u> </u>			00,6	
30-	110/	Bener	(emily):	ED BY (date	ТЭЭЧЕЙ	17 2 D Jours	(date/time):
		<del></del>					
				•			
			•			ription, name, date):	Corrective Actions Taken: (desc
	vho notilied):	ıme, date, v	ı: (description, na				
in U10c provided less than 50	ı ili sə' gilowed	i (bronibirec	ar > tou ppm דרר ar > toupposed)	c yards/week ocarbon son a	nbym [] cubi		
03 godf pool bobinera offill at			Of U ni bəlididərq				
Jueur			no added radioa				Corrective Actions Needed:
}		•		A-regulated	No TYes	Has water accumulated?	
			•	te containing	F	S9Y ON	Has litter accumulated?
	•	,		, waste regula	<del></del>	. εθλ <b>Ο Ο</b> Ο	Does road(s) need repair?
	·/emininal o		per MAC 444.58		S9V \ \	Does fence need repair?	
			oeilitnebl (s)etzsw FU ni betididotq)		Səy 🗌 Ves	Does cover need repair / evidence of settling?	
	pano, c.	iom motod b		elbiled waste Prolibiled o		S9A ON	Does sover used repair?
	uper:	icket Mur		dsul peo7		· · · · · · · · · · · · · · · · · · ·	Site Conditions:
			<b>DITAMRO7I</b>		<del></del>	<u>'</u>	
e Sludge; F - FFACO	ole; S - Sewag	ioseriu9-no	rescible; <b>NP</b> - No	thon; P - Put	H - Hydroca	los; C. Construction;	*Waste Codes: ASB - Asbes
Jon 15, 2	3501	0501	0000	Ь	0	e1.4	NS
1 21-VA	1 51:91	05:01	1800	8	3	-21-6	N. A.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 350 31	2101	1618	_		-71-0	NI .
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1011/	<i>5001</i>	98 h E	.0	7	CI-H	811
2 3 BKS (47731	91321	Qa',q/	2.2.7	24		· 7:1-4	_N.F
5,33,40	- 00:01	ppp	000/6	<u>・</u> ナ	$\Box$	61- A	EN .
1 yersey	64.15	26.3	000 Eh	٤	<u>つ</u>	79/ hW Let	1 Mille (LRU 21 E
( ) ) ) ) ) )	08:16	56/6	0007	<i>t'</i>	()	(1)	7N47/N/8
- 3 2IJJAH		05:8	00016	I	3	21-4	'ル'8
DAIVEA Lasi Vame, initials	TIME	BMIT VI	NET WEIGHT (lbs)	TICKET NUMBER	CODE.	WASTE ORIGIN Area, Bullding	MASTE GÉNERATOR Name, Phone #
Area 23 Landill	uoc	в Нудгосат	вэтА 🗌	501U - 6 £	:91A (E	среск опе	DATE: 6-17.02
Jally J. Olxilly	H.	פונב.	TOTTO	. J(	j '40	17	હાંછેતેનની મિમાઉસપ

LANDFILL DAILY ACCESS REGISTER									
NATE: 6-17-02	(check on	e) [[]Are	a 9 - U10c	· Area	6 Hydrocar	bon	Area 23 Landfill		
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME OUT	DRIVER Last Name, Initials		
BN	A-12	C	10	2,960	1055	11:10	TOURDAY, C	V	
SN	4-12		10	3380	1100	1110	Wright R	<i>\</i>	
Mike Kavaic	A27 MY/EX		12	15,000	11:00	11:10		V,	
BN	A-12_		13	891	1115	1130	LAMANNA, M	·	
	4-12.	<u>C</u>	14	1360	1120	1135	JONES, S'	V	
- BN-	A-12	-	15	3,680	1145	12:0	EN	V	
BN	A12	C	15	2740	1145	120	Tolladay, C	7	
BN	A-12	C	16	4,080	1250	1305	Wright, R	<b>✓</b>	
Mike Kruzic	1727 MY/EX	<u> </u>	17	44,000	1:00	1:15	KALTAYK	/	
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO									
INSPECTION INFORMATION  Site Conditions: Random Load Inspection: Ticket Number:									
Site Conditions:	TAL				icket Nu	mber:			
Do berms/walls need repair?	No Yes	·	ohibited waste	e was tound waste(s) identifie	d bolow wa	ro found			
, , , , , , , , , , , , , , , , , , ,	]No □Yes		•	e (prohibited in U			^1		
	No ☐Yes	F		per NAC 444.58		a v Lanunik	o).		
' <u></u>	No ☐Yes			ated by TSCA					
· · · · · · · · · · · · · · · · · · ·	No ☐Yes	_	ste containing	• •			•		
· · · · · · · · · · · · · · · · · · ·	No ☐Yes		CA-regulated						
Corrective Actions Needed:			•	"no added radioa	ctivity" per	the POC rec	quirement.		
			_	(prohibited in U10	• •		•		
		<del></del>		•			, wed in U10c provided less thar	1 50	
		cub	ic yards/week	are disposed)			·		
<u> </u>		Corrective	Actions Take	n: (description, n	ame, date,	who notified	):		
Corrective Actions Taken: (desc	cription, name, date):					•			
				•			•		
INSPECTED BY		INSPECT	TED BY (dat	e/time)·					

BN-0917 (12/99)



# LANDFILL DAILY ACCESS REGISTER

DATE: 6-17-02	(check on	e) 🔲 Are	a 9 - U10c	Area	6 Hydrocai	bon	Area 23 Landfill		
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Bullding	WASTE CODE:	TICKET NUMBER	NET WEIGHT	TIME	TIME OUT	DRIVER Last Name, Initials		
BN	A 🌑	Ċ	18	3760	1305	1326	JONES 5		
BN	A-12	C	19	2,320	13:15	13:30	TOWADAY, C		
BW.	A - b)	()	30	3500	13.50	1405	JONES. 2		
BN.	A-12	<u></u>	21	3/24	205	2/5	Wright, K.		
BN	A-12		22	2,920	2:15	2:30	TOLLADAY, C V		
BN	A-12	$\Box$	23	1451	220	275	LAMANNA, M		
M. Ke KRUZIC	A27 MY/EX	C	24	Est. 44,000	2:35	2:50	KACRAY K		
BN	Au	C	25	1775	14.55	13:10	JONES, S		
BN	A-12	C	26	5,080	3:15	3:30			
*Waste Codes: ASB - Asbe	*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO								
INSPECTION INFORMATION									
Site Conditions:	•	Randon	ı Load Insp	ection:	Ticket Nu	mber:			
Do berms/walls need repair?									
Does cover need repair /		Yes, t	he prohibited	waste(s) identifie	ed below we	re found.			
evidence of settling?	No □Yes	Puti	rescible waste	(prohibited in U	10c and Are	ea 6 Landfills	s).		
Does fence need repair?	No □Yes	. Haz	ardous waste	per NAC 444.58	30				
Does road(s) need repair?	No Yes	PCI	3 waste regula	ated by TSCA					
Has litter accumulated?	No ☐Yes :	∵ ∐Was	ste containing	free liquids			•		
Has water accumulated?	ĪNo □Yes	TSC	CA-regulated		•		•		
Corrective Actions Needed:		☐ Was	ste failing the	"no added radioa	activity" per	the POC req	uirement.		
		Fria	ble asbestos (	(prohibited in U1	Oc and Are	a 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 Take	n: (description, n	ame, date,	who notified	):		
Corrective Actions Taken: (desc	ription, name, date):								
				•					
	·								
INSPECTED BY					•				
(COTO/IUMO)		TAIL OF CALL	LED DA (424)	- /8 š sss - 1 s					

## Pochtol Negada NTS Landfill Load Verification

	Waste definitions are ava		1011	
SWO USE (Circle One Are	a) AREA 2	3 6	(9)	LANDFILL
For waste characterization, appro	val, and/or assistance, o	contact Solid Wa	ste Operation (SV	VO) at 5-7898.
REQU (This form is for rol Waste Generator: Mike Kruzic	IRED: WASTE GENER lloffs, dump trucks, and	other onsite disp	osal of materials.)	Number: <u>5-7396</u>
Location / Origin: Area 27 Maintenance Yard	i / Excavation	1AU326		
Waste Category: (check one)	☐ Commercial	. 🗶 Ind	lustrial AC 6/18	2/12
Waste Type:	Putrescible	FFA	ACO-onsite	WAC Exception
(check one) Non-Putrescible	Asbestos Containing	Material FF	ACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)	Environmental man	agement De	fense Projects	
Pollution Prevention Category: (check one)	Clean-Up	☐ Ro	utine	
Method of Characterization: (check one)	Sampling & Analysi	s Pro	cess Knowledge	☐ Contents
	ste; RCRA waste; Hazardous	waste; Free liquids, P	CBs above TSCA reg	ulatory levels-, and Medical
Additional Prohibited Waste Sewage Sludge at the Area 9 U10c Landfill:	s, sharps, bloody clothing). s; Animal carcasses-, Wet gart	page (food waste); ar	nd Friable asbestos	
	D: WASTE CONTENTS			
Check all a  NOTE: Waste disposed at the Area 6 Hydrocarbor gasoline (no benzene, lead); jet fuel; diesel		contact with petrole	um hydrocarbons or co	
Acceptable waste at any NTS landfill:		Rocks / unaltered g		Empty containers
☐ Asphalt ☐ Metal ☐ Wood	ĭ Soil ☐ F	Rubber (excluding t	ires)	☐ Demolition debris
☐ Plastic ☐ Wire ☐ Cable		nsulation (non-Asb	•	Cement & concrete
☐ Manufactured items: (swamp coolers, furr		•		
Additional waste accepted at the Area 23 M				Carcasses
Asbestos: Friable Non-Friable (	contact SWO if regulated le	oad) Quantity: _		
Additional waste accepted at the Area 9 U	10c Landfill:			
☐ Non-friable asbestos ☐ Draine	ed automobiles and military	vehicles S	olid fractions from s	and/oil/water separators
<del></del> .	d fuel filters (gas & diesel)		econned Undergrou	und and Above Ground
☐ Hydrocarbons (contact SWO)	4.		anks	l
Additional waste accepted at the Area 6 Hy	vdrocarbon Landfill:			
Septic sludge Rags Draine		Пi	Crushed non-terne p	lated oil filters
	e from sand/oil/water separ		CBs below 50 parts	1
	JIRED: WASTE GENER			
Initials: (If initialed, no radiological		CATON GIGNAT	J. (L	
		l Manta Managa		
The above mentioned waste was generate knowledge, does not contain radiological in		vvaste wanage	- · · · · · · · · · · · · · · · · · · ·	. Dalaana far Masta Dia
• 1			RCT Initials	y Release for Waste Dis
To the best of my knowledge, the waste de site. I have verified this through the waste	escribed above contains characterization method	only those mate lidentified abov	This contain	per/load is free of external radio
prohibited and allowable waste items.			Contaminati This contam	er/load is exempt from survey
A			process kno	owiedge and origin. ner/load is free of radioactive
Print Name: Michael Kruz	<u>``</u>		contaminati	ion based on radioanalysis.
Signature: Signature: Muchail Phones	Date:	6/11/02	SIGNATURE:	Mibride BNOB
Note: Food waste, office trash and/or animal require a radiological clearance.	carcasses are considered	not to contain add	ed radioactivity, and	therefore do not
			11-1	7
SWO USE ONLY	437000	ature of Certifier:	Kuthk	QUA OI
Load Weight (net from scale or estimate)	Sign	ature of Certifier:	/ / / /	

BN-0918 (09/00)



# **Bechtel Nevada** NTS Landfill Load Verification

(M	Vaste definitions are available on	page 2)	
SWO USE (Circle One Area	a) AREA 23	6 (9)	LANDFILL
For waste characterization, approv	val, andlor assistance, contact S	Solid Waste Operation (S	SWO) at 5-7898.
	RED: WASTE GENERATOR IN offs, dump trucks, and other ons	site disposal of materials	s.) e Number: 5-7396
Lucation / Origin: Area 27 Maintenance Yard	/Excavation CRU326	· · · · · · · · · · · · · · · · · · ·	
Waste Category: (check one)	Commercial	X Industrial	8/12
aste Type: NTS Nop2	Putrescible	FFACO-onsite	☐ WAC Exception
check one) Non-Putrescible	Asbestos Containing Material	FFACO-offsite	Historic DOE/NV
Collution Prevention Category: (check one)	✗ Environmental management	Defense Projects	
ollution Prevention Category: (check one)		Routine	
Method of Characterization: (check one)	X Sampling & Analysis	Process Knowledge	Contents
	te; RCRA waste; Hazardous waste; Free sharps, bloody clothing).  Animal carcasses-, Wet garbage (food	·	
	D: WASTE CONTENTS ALLOW llowable wastes that are contain	ed within this load:	condants such as
gasoline (no benzene, lead); jet fuel; diesel			
Acceptable waste at any NTS landfill:		naltered geologic materials	Empty containers
Asphalt Metal Wood	Soil Rubber (e.	xcluding tires)	Demolition debris
Plastic Wire Cable		(non-Asbestosform)	Cement & concrete
Manufactured items: (swamp coolers, furn			
Additional waste accepted at the Area 23 N	. · ·		al Carcasses
	contact SWO if regulated load) Qu	Jantity:	
Additional waste accepted at the Area 9 U1	4		
	d automobiles and military vehicles		n sand/oil/water separators
<u>—                                     </u>	d fuel filters (gas & diesel)	Tanks	round and Above Ground
Hydrocarbons (contact SWO)	desember I and Elli	ranks	
Additional waste accepted at the Area 6 Hy		☐ Crushed non-terne	nloted oil filters
	d fuel filters (gas & diesel)		
- <del>المساوح المساوح المساوك المساوك المساوك المساوك المساوك المساوك المساوك المساوك المساوك المساوك المساوك المساوك</del>	from sand/oil/water separators	PCBs below 50 pa	arts per million
REQU Initials: (If initialed, no radiological	IIRED: WASTE GENERATOR ( clearance is necessary.)	SIGNATURE	
	• • •		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
The above mentioned waste was generated knowledge, does not contain radiological r			on Pologo for Monto Dis-
To the best of my knowledge, the waste de site. I have verified this through the waste prohibited and allowable waste items.	escribed above contains only tho	se mate RCT Initials This contamination This contamination process	aneriload is exempt from survey ( knowledge and origin.
Print Name: Michael Kouz	, <u>-</u>	contamic	tainer/load is free of radioactive ration based on radioanalysis.  DATE: 6
In D	2/11	SIGNATURE:	AM. hy'alo
Signature: Signature: Signature:	Date: 6////	SIGNATURE: V	Mitricle MOS
100,01 -		102 95001/2	
Signature: Lighted Fruit  Note: Food waste, office trash and/or animal		ntain added radioactivity, a	

# Bechtel Nevada NTS Landfill Load Verification

	(Wa	aste definition:	s are available on	page 2)		
SWO USE (Ci	rcle One Area)	AREA	23	6	(9)	LANDFILL
For waste char	acterization, approva	al, andlor assi	stance, contact S	Solid Waste	Operation (S)	NO) at 5-7898.
Waste Generator: Mike	(This form is for rollo	ED: WASTE ffs, dump truc	GENERATOR II ks, and other on	IFORMAT site dispos	al of materials.,	) Number: <u>5-7396</u>
Location / Origin: Area 2		Excavation	CAU326			
Waste Category: (check	·	Commerc	cial	🗶 Indus	trial (1) (6/)	18/0 =
Waste Type: (check one)	NTS K2W 7/po/o 2  Non-Putrescible	Putrescible Asbestos	e Containing Material	=	O-onsite O-offsite	WAC Exception Historic DOE/NV
Pollution Prevention C	ategory: (check one)	X Environm	ental management	Defen	se Projects	
Pollution Prevention C	<u></u>	X Clean-Up	)	Routi	ne	
Method of Characteriza			& Analysis	Proce	ss Knowledge	Contents
Prohibited Waste at all three NTS landfill	Radioactive waste	; RCRA waste; H	azardous waste; Fre	e liquids, PCI	3s above TSCA re	gulatory levels-, and Medica
Additional Prohibited V at the Area 9 U10c Lan	dfill: REQUIRED	· WASTE CO	NTENTS ALLOY	VABLE W	ASTES	
NOTE: Waste disposed at	Check all allo	owable wastes	that are contain	ied Within t ith petmleum	TIIS IOAD: hydrocarbons or r	coolants such as:
NOTE: Waste disposed at gasoline (no benze	ne, lead); jet fuel; diesel fu	el; lubricants and	hydraulics; kerosen	e; asphaltic p	etroleum hydrocai	rbon; and ethylene glycol.
Acceptable waste at ar	ny NTS landfill:	Paper	Rocks / ur	naltered geo	logic materials	Empty containers
Asphalt M	etal	<b>✗</b> Soil	Rubber (e	xcluding tire	es)	Demolition debris
☐ Plastic ☐ W	fire 🔲 Cable	☐ Cloth	Insulation	(non-Asbes	stosform)	Cement & concrete
Manufactured items:	(swamp coolers, furnit	ure, rugs, carpe	et, electronic comp	onents, PPI	E, etc.)	
Additional waste acce	pted at the Area 23 Me	ercury Landfill	: Office waste	Food \	Waste 🗌 Anima	il Carcasses
Asbestos: Friab	le Non-Friable (co	ontact SWO if re	egulated load) Q	uantity:		
Additional waste acce	oted at the Area 9 U10	c Landfill:				
☐ Non-friable asbestos	Drained	automobiles ar	nd military vehicles			sand/oil/water separators
Light ballasts (conta	ct SWO) 🔲 Drained	fuel filters (gas	& diesel)	☐ De	conned Undergro	ound and Above Ground
☐ Hydrocarbons (conta	act SWO)	ž ·		Tar	nks	
Additional waste acce	pted at the Area 6 Hyd	irocarbon Lan	dfill:			
☐ Septic sludge ☐ R	ags 🔲 Drained	fuel filters (gas	& diesel)	☐ Crt	ushed non-terne	plated oil filters
Plants	☐ Sludge	from sand/oil/w	ater separators	☐ PC	Bs below 50 par	rts per million
	REQUI	RED: WASTE	GENERATOR	SIGNATU	RE	
Initials: (If in	itialed, no radiological d	elearance is nec	essary.)			
The above mentioned knowledge, does not d	waste was generated contain radiological m	outside of a C naterials.	Controlled Waste	Manage	Radiation Surv	ey Release for Waste
To the best of my kno site. I have verified thi prohibited and allowa	's through the waste o	scribed above characterizatio	contains only the n method identifi	ed abov	contamina	ainer/load is free of external ation. ation. aner/load is exempt from au mowledge and origin.
Print Name:	hael Kouz	<u>`</u>			This contamient contamient signature:	ainerfload is free of radioacti ation based on radioanalysis
Signature:Note: Food waste, office	had fruit	onroaceae are c	Date: 6///	Ontain added	d radioactivity, an	
require a radiolog	e trash and/or animal o gical clearance.	al Casses are C	Ondidered flot to de		1./.	
SWO USE ONLY		1 44 10	<u>∂</u> Signature of	Certifier:	Keith	Kaeson
Load Weight (net from	n scale or estimate):		- Signature 0		-/	700000000000000000000000000000000000000

## NTS Landfill Load Verification

Asphalt   Metal   Wood   Soil   Rubber (excluding tires)   Demolition debris   Plastic   Wire   Cable   Cloth   Insulation (non-Asbestosform)   Cement & concret   Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)   dditional waste accepted at the Area 23 Mercury Landfill:   Office waste   Food Waste   Animal Carcasses   Asbestos:   Friable   Non-Friable (contact SWO if regulated load)   Quantity:   Golditional waste accepted at the Area 9 U10c Landfill:   Non-friable asbestos   Drained automobiles and military vehicles   Solid fractions from sand/oil/water separator   Light ballasts (contact SWO)   Drained fuel filters (gas & diesel)   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks   Grushed non-teme plated oil filters   Septic sludge   Rags   Drained fuel filters (gas & diesel)   Crushed non-teme plated oil filters   Plants   Sludge from sand/oil/water separators   PCBs below 50 parts per million   REQUIRED: WASTE GENERATOR SIGNATURE   Initiales, no radiological materials.   To the best of my knowledge, the waste described above contains only those matisfite. I have verified this through the waste characterization method identified above prohibited and allowable waste items.   Print Name:   Aichae   Kauzic   Signature:   Aichae   Kauzic   Drained Institution based on radioanalysis   Signature:   Aichae   Kauzic   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution based on radioanalysis   Drained Institution   Drained Institution   Drained Institution   Drained Institution   Drained I	Decillei Nevaua			re available on p		2)		·
This form is for rolloifs, dump trucks, and other onsite disposal of materials.)  Waste Generator: Mike Kruzic	3WO USE (Circle Or	ne Area)	AREA	23	6	S(	9	LANDFILL
Waste Generator: Mike Kruzic   Chief to mis for rolloffs, dump trucks, and other onsite disposal of materials.)   Waste Generator: Mike Kruzic   Chief to mise for rolloffs, dump trucks, and other onsite disposal of materials.)   Waste Gategory: (check one)   Commercial   Mindustrial   Chief to mise for materials.)   Waste Type:   Miss   Waste Category: (check one)   Commercial   Mindustrial   FRACO-offsite   Historic DOE/NV     Pollution Prevention Category: (check one)   Environmental management   Defense Projects   Historic DOE/NV     Pollution Prevention Category: (check one)   Colean-Up   Routine   Routine   Misser   Rock one   Colean-Up   Routine   Rock one   Colean-Up   Routine   Rock one   Colean-Up   Routine   Rock one   Colean-Up   Routine   Rock one   Colean-Up   Routine   Rock one   Rock one   Colean-Up   Routine   Rock one   Rock one   Colean-Up   Routine   Rock on	For waste characterizati	ion, approval,	and/or assista	ance, contact Sc	lid V	Vaste Ope	ration (SW	O) at 5-7898.
Waste Category: (check one)   Commercial   Industrial   MAC Exception neck one)   Non-Purassoble   Privascible   FFACO-onsite   MAC Exception neck one)   Non-Purassoble   Asbestos Containing Material   FFACO-onsite   Historic DOE/NV oblibition Prevention Category: (check one)   Ciean-Up   Routine   Routine   Process Knowledge   Contents   Prohibited Waste   Redisective weste: RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels - and Medical waste (needies, sharps, bloody ciching).  Iditional Prohibited Waste   Redisective waste: RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels - and Medical waste (needies, sharps, bloody ciching).  Iditional Prohibited Waste   Redisective waste: RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels - and Medical waste (needies, sharps, bloody ciching).  Iditional Prohibited Waste   Redisective waste: RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels - and Medical waste of the New State of the New State of Prohibited Waste   Reduling the New State of the New State of Prohibited Waste   Reduling the New State of the New State of Prohibited Waste   Reduling the New State of the New State of Prohibited Waste   Reduling the New State of the New State of Prohibited Waste   Reduling the New State of the New State of Prohibited Waste   Reduling the New State of Prohibited Waste   Reduling the New State of Prohibited Waste   Reduling the New State of Prohibited Waste   Reduling the New State   R		REQUIRE n is for rolloffs	D: WASTE GI s, dump trucks	, and other onsi	te di	MATION sposal of n		lumber: <u>5-7396</u>
Putrescible   Putrescible   Putrescible   Price   Putrescible   Pric	cation / Origin: Area 27 Mainter	nance Yard / E	xcavation	(40 320				
Non-Putrascible   Asbestos Containing Material   FFACO-offsite   Historic DOE/NV		=(: :	=	<u>!</u>	=		136/	<del></del>
Pollution Prevention Category: (check one)	Take Type.	"KKW"	_		<b>=</b>		J J	二 1
Tilution Prevention Category: (check one)					=		<del></del>	HISTORIC DOE/NV
thod of Characterization: (check one)				ital management	=-		ects	
Redicactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical all three NTS landfills:  Redicactive waste (needles, sharps, bloody clothing).  REQUIRED: WASTE Sewage Studge; Animal carcasses—Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:  REQUIRED: WASTE CONTENTS ALLOWABLE WASTES Check all allowable wastes that are contained within this load:  TE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, leads); let five; ideast fuel; butherians and hydrautics; kenosene; asphabitic petroleum hydrocarbons 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 & concret  Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)  dditional waste accepted at the Area 23 Mercury Landfill: Office waste Food Waste Animal Carcasses  Asbestos: Friable Non-Friable (contact SWO) if regulated load) Quantity:  dditional waste accepted at the Area 9 U10c Landfill:  Non-friable asbestos Drained fuel filters (gas & diesel) Deconned Underground and Above Ground Hydrocarbons (contact SWO) Drained fuel filters (gas & diesel) Deconned Underground and Above Ground Hydrocarbons (contact SWO) Trained fuel filters (gas & diesel) Plants  Septic studge Rags Drained fuel filters (gas & diesel) Crushed non-terne plated oil filters  Plants Septic studge Rags Drained fuel filters (gas & diesel) Crushed non-terne plated oil filters  Septic studge Rags Drained fuel filters (gas & diesel) Crushed non-terne plated oil filters  PCBs below 50 parts per million  REQUIRED: WASTE GENERATOR SIGNATURE  Initials: (If initialed, no radiological invaerials.  To the best of my knowledge, the waste described above contains only those man initial containeriload is		·	<del></del>	A .1 -1	=-			Contacto
All three NTS landfills: wastes (needles, sharps, bloody dothing).  Iditional Prohibited Waste: Sewage Sludge; Animal carcasses—, Wet garbage (food waste); and Friable asbestos in the Area 9 U10c Landfill:    REQUIRED: WASTE CONTENTS ALLOWABLE WASTES Check all allowable wastes that are contained within this load:   The Area 9 U10c Landfills:   Paper   Rocks / unable wastes that perceivem hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; diesel fuel; diesel fuel; lubricants asphalitic petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; die								
Check all allowable wastes that are contained within this load:  TE: 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; ubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.  Acceptable waste at any NTS landfill:    Paper	iditional Prohibited Waste Sev	,	, ,	<del>-</del>	vaste)	; and Friable	asbestos	
DTE: 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	Į	REQUIRED: 1	WASTE CONT	TENTS ALLOW	ABL d wit	E WASTE	S ad:	• •
Asphalt	OTE: Waste disposed at the Area 6	Hydrocarbon Lai	ndfill must have co	ome into contact wit	h petr	oleum hydrod	carbons or co	olants such as: on; and ethylene glycol.
Plastic   Wire   Cable   Cloth   Insulation (non-Asbestosform)   Cement & concret   Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)   dditional waste accepted at the Area 23 Mercury Landfill:   Office waste   Food Waste   Animal Carcasses   Asbestos:   Friable   Non-Friable (contact SWO if regulated load)   Quantity:   dditional waste accepted at the Area 9 U10c Landfill:   Office waste   Food Waste   Animal Carcasses   Asbestos:   Friable   Non-friable (contact SWO if regulated load)   Quantity:   dditional waste accepted at the Area 9 U10c Landfill:   Solid fractions from sand/oil/water separator   Light ballasts (contact SWO)   Drained fuel filters (gas & diesel)   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks   Deconned Underground and Above Ground   Tanks   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks   Deconned Underground and Above Ground   Tanks   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks   Deconned Underground and Above Ground   Tanks   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks   Deconned Underground and Above Ground   Tanks   Deconned Underground and Above Ground   PCBs below 50 parts per million   PCBs below 50 parts per million   REQUIRED: WASTE GENERATOR SIGNATURE   PCBs below 50 parts per million   REQUIRED: WASTE GENERATOR SIGNATURE   Radiation Survey Release for Waste   RCT Initials   This containerfload is free of external   Contamination   This containerfload is free of radioactivity. In the containerfload   Information   Contamination   This containerfload   Information   Contamination   Contam	Acceptable waste at any NTS la	ndfill:	Paper	Rocks / una	ltere	d geologic n	naterials	Empty containers
Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)   dditional waste accepted at the Area 23 Mercury Landfill:   Office waste   Food Waste   Animal Carcasses     Asbestos:   Friable   Non-Friable (contact SWO if regulated load)   Quantity:     dditional waste accepted at the Area 9 U10c Landfill:     Non-friable asbestos   Drained automobiles and military vehicles   Solid fractions from sand/oil/water separator     Light ballasts (contact SWO)   Drained fuel filters (gas & diesel)   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks     dditional waste accepted at the Area 6 Hydrocarbon Landfill:   Crushed non-teme plated oil filters     Septic sludge   Rags   Drained fuel filters (gas & diesel)   Crushed non-teme 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 materials   This containerfload is free of external contamination.     This containerfload is free of external contamination.     This containerfload is free of external contamination.     This containerfload is free of external contamination.     This containerfload is exempt from sure process knowledge and origin,     This containerfload is free of radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioaction based on radioactivity, and therefore do not	Asphalt Metal	☐ Wood ☐	X Soil	Rubber (ex	cludir	ig tires)		Demolition debris
Asbestos:   Friable   Non-Friable (contact SWO if regulated load)   Quantity:	<del></del>		<del>_</del>				•	Cement & concrete
Asbestos: Friable Non-Friable (contact SWO if regulated load) Quantity:    dditional waste accepted at the Area 9 U10c Landfill:     Non-friable asbestos								
Mon-friable asbestos					_		Animal (	Carcasses
Non-friable asbestos   Drained automobiles and military vehicles   Solid fractions from sand/oil/water separator   Light ballasts (contact SWO)   Drained fuel filters (gas & diesel)   Deconned Underground and Above Ground   Hydrocarbons (contact SWO)   Tanks		<del></del>		ulated load) Qua	intity:			
Light ballasts (contact SWO)	_		1	militaru vahialas		Colid from	tions from sr	and/oil/water separators
Hydrocarbons (contact SWO)				-	_	_		1
Additional waste accepted at the Area 6 Hydrocarbon Landfill:   Septic sludge   Rags   Drained fuel filters (gas & diesel)   Crushed non-terme plated oil filters     Plants   Sludge from sand/oil/water separators   PCBs below 50 parts per million     REQUIRED: WASTE GENERATOR SIGNATURE     Initials:	<del>_</del> _	Drained to	iei iiileis (gas α	diesei)			a Officergrou	ild alld Above Glodilo
Septic sludge   Rags   Drained fuel filters (gas & diesel)   Crushed non-terme 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     Anowledge, does not contain radiological materials.     To the best of my knowledge, the waste described above contains only those materials     This containerfload is free of external     Contamination     This containerfload is free of external     Contamination     This containerfload is free of radioactic contamination     This containerflo	<del></del>	e Area 6 Hydr	ocarbon I andfi	· · · · · · · · · · · · · · · · · · ·		, ranks		
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 materials.  To the best of my knowledge, the waste described above contains only those materials.  This containerfload is free of external containerfload is free of external contamination.  This containerfload is free of external contamination.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.  This containerfload is free of radioactivity.					Г	Crushed	non-teme pl	ated oil filters
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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 maturals.  This container/load is free of external containing and origin.  Print Name:		<del></del>			IGN			
Radiation Survey Release for Waste RCT Initials  To the best of my knowledge, the waste described above contains only those maturable. I have verified this through the waste characterization method identified above prohibited and allowable waste items.  Print Name: Achael Kouzic  Signature: Date: 6///02  Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not	nitials: (If initialed, no					.,		·
This container/load is free of external contamination.  This container/load is free of external contamination.  This container/load is exempt from sur process knowledge and origin.  This container/load is exempt from sur process knowledge and origin.  This container/load is free of radioactic contamination based on radioactic contamination based on radioactic contamination based on radioactic contamination based on radioactic contamination based on radioactic contamination based on radioactic contamination based on radioactic contamination.  This container/load is free of external contamination.  This container/load is free of external contamination.  This container/load is free of external contamination.  This container/load is free of external contamination.  This container/load is exempt from sur process knowledge and origin.  This container/load is exempt from sur process knowledge and origin.  This container/load is free of external contamination.  This container/load is free of external container/load is exempt from sur process knowledge and origin.  This container/load is exempt from sur process knowledge and origin.  This container/load is exempt from sur process knowledge and origin.  This container/load is free of external container/load is exempt from sur process knowledge and origin.  This container/load is exempt from sur process knowledge and origin.  This container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free of external container/load is free		~		ntrolled Waste M	anag	Radiat		Release for Waste Dis
Signature: Date: 6/1/102 Signature: Date: 6/1/	site. I have verified this through	the waste ch				" # ===	This contain contain This contame	on. er/load is exempt from survey
Signature:	Print Name: Michael	Kruzic	-		_	SIGNAT	l contamication	er/load is free of radioactive on based on radioanalysis.
Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not	Signature: Links	Theres		Date: 6/1/10	22			
	Note: Food waste, office trash and				tain a	dded radio	activity, and	therefore do not
SWO USE ONLY	SWO USE ONLY					1	/	1/

Load Weight (net from scale of estimate): 49,000 Signature of Certifier:

Pecific Verana	LANDFILL DAILY ACCESS REGISTER (\$\sigma \sigma \langle \sigma \lan									
DATE: 7/2/02	(check on	e) 🗌 Are	a 9 - U10c	Area	6 Hydroca	rbon	Area 23 Landfill			
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME	TIME	DRIVER Last Name, Initials			
BINI.	A- 6	H.C.	T	4,50		<del> </del>	HARRIS E			
*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO										
INSPECTION INFORMATION										
Site Conditions:			Load Insp	<del></del>	licket Nu	ımber:				
Do berms/walls need repair?	√No ☐Yes		hibited waste							
Does cover need repair / evidence of settling?	∄No □Yes	i — —	•	waste(s) identifie						
	No ☐Yes	<del></del>		(prohibited in Uper NAC 444.58		ea 6 Landiill	s). -			
•	No ☐Yes	L —		ited by TSCA			•			
	No ☐Yes	· —	te containing							
	No ☐Yes	TSC	A-regulated							
Corrective Actions Needed:		Was	te failing the	"no added radioa	ctivity" per	the POC rec	quirement.			
		<del></del>		(prohibited in U1						
					H (prohibite	ed in 23, allo	wed in U10c provided less than 50			
		cubic yards/week are disposed) Corrective Actions Taken: (description, name, date, who notified):								
Corrective Actions Taken: (desc	cription, name, date):									
	19:30						₹ * * * * * * * * * * * * * * * * * * *			
INSPECTED BY (date/time):	Perell	INSPECT	ED BY (date	e/time):						
7-2-02	2						BN-0917 (12/5			

# DEPINEI MENSOS

# NIS 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, conta	ct Solid	Waste	Operation (S	WO) at 5-7898.
REQUIRED: WASTE GENERATOR (This form is for rolloffs, dump trucks, and other Waste Generator: Mike Kruzic/Kevin Campbell Au 326	onsite o	RMATIO disposa	l of materials.	.) e Number: <u>5-6087</u>
Location / Origin: Area 6 CP bus parking lot (6 drums of soil)	[Q]			
Waste Category: (check one) ☐ Commercial  Waste Type: ☐ Putrescible	X			
Waste Type: ☐ Non-Putrescible ☐ Asbestos Containing Mater	=	FFACO		WAC Exception Historic DOE/NV
Pollution Prevention Category: (check one)			e Projects	
Pollution Prevention Category: (check one) X Clean-Up	一百	Routine		
Method of Characterization: (check one) Sampling & Analysis	一百	Process	s Knowledge	Contents
Prohibited Waste Radioactive waste; RCRA waste; Hazardous waste; at all three NTS landfills: wastes (needles, sharps, bloody clothing).	Free liqui	ds, PCBs	above TSCA re	gulatory levels-, and Medical
Additional Prohibited Waste Sewage Sludge; Animal carcasses-, Wet garbage (fat the Area 9 U10c Landfill:				
REQUIRED: WASTE CONTENTS ALL Check all allowable wastes that are cont	OWAB ained w	LE WA: vithin thi	STES is load:	
NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contar gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kero	ct with pe	troleum h	ydrocarbons or o	coolants such as:
			ogic materials	Empty containers
☐ Asphalt ☐ Metal ☐ Wood ☒ Soil ☐ Rubber	(exclud	ing tires)	)	☐ Demolition debris
Plastic Wire Cable Cloth Insulat	ion (non	-Asbesto	osform)	Cement & concrete
Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic co	mponent	s, PPE,	etc.)	
Additional waste accepted at the Area 23 Mercury Landfill: Office was	ste 🗌	Food Wa	aste 🔲 Anima	l Carcasses
Asbestos: Friable Non-Friable (contact SWO if regulated load)	Quantity	y:		
Additional waste accepted at the Area 9 U10c Landfill:	_	<b>-</b>		·
☐ Non-friable asbestos ☐ Drained automobiles and military vehic	ies L			sand/oil/water separators
Light ballasts (contact SWO) Drained fuel filters (gas & diesel)	L	_	_	ound and Above Ground
Hydrocarbons (contact SWO)	L	_ Tanks	3	
Additional waste accepted at the Area 6 Hydrocarbon Landfill:  Septic sludge Rags Drained fuel filters (gas & diesel)	r	7 (2)	had non tarna	plated oil filters
☐ Plants ☐ Sludge from sand/oil/water separators	<u>ر</u>	_	s below 50 part	
REQUIRED: WASTE GENERATO	R SIGN			is per minion
Initials: KBC (If initialed, no radiological clearance is necessary.)	N SIGN	ATONE	•	
The above mentioned waste was generated outside of a Controlled Wast knowledge, does not contain radiological materials.	e Manag	gement i	Area (CWMA)	and to the best of my
To the best of my knowledge, the waste described above contains only to site. I have verified this through the waste characterization method identify prohibited and allowable waste items.		T Initials This conti	container/load is famination.	e for Waste Disposal
Print Name: EUSENE HAVE: 8 Here Nelson Signature: July Date: July	SIG	This	ens knowledge su	free of radioactive
Note: Food waste, office trash and/or animal carcasses are considered not to require a radiological clearance.	contain	added ra	adioactivity, and	d therefore do not
SWO USE ONLY  oad Weight (net from scale or estimate): 4500 Signature	of Certif	fier: F	/	1.
Toda Troight (not nom socie of commune).				BN-0918 (09/00)

_IDATE: X/19/02	fcheck on	e)   Are	a º - 1/10c	: I HATER	ն Hydroca։	rbon	1 TArea 23 Landini
WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT	TIME	TIME	DRIVER Last Name, Initials
15N-	A-6	H.C.	#	20 m	245	3:00	HAMISE
							0.0 / //-
							(1) 8/15/02
		·					
		• •					
•							
		-					
*Waste Codes: ASB - Asbe	stos; C - Construction;	H - Hydroca	arbon; P - Pul	rescible; NP - N	on-Putresc	ible; S - Sev	wage Sludge; F - FFACO
	•	INSPE	ECTION IN	VFORMATIO	NC		·
Site Conditions:	7.	Randon	Load Insp	ection:	Ticket Nu	mber:	
Do berms/walls need repair? No Yes No prohibited waste was found							
Does cover need repair/	. /	Yes, t	he prohibited	waste(s) identifie	ed below we	ere found.	
evidence of settling?	No □Yes	Put	rescible waste	(prohibited in U	10c and Ar	ea 6 Landlills	s).
Does fence need repair?	INo □Yes	. Haz	ardous waste	per NAC 444.58	30		
Does road(s) need repair?	YNo □Yes :	PC	3 waste regula	ated by TSCA	• •		
Has litter accumulated?	Yo □Yes :	. □Was	ste containing	free liquids			
	No Yes	□TSC	A-regulated		•		•
Corrective Actions Needed:			•	"no added radioa	activity" per	the POC rec	guirement.
		_	•	(prohibited in U1			
		☐Hyd	rocarbon soil	 at >100 ppm TP1	H (prohibite	ed in 23, allo	wed in U10c provided less than 50
				are disposed) n: (description, n	ama dala	who notified	N• .
Corrective Actions Tales (days		Corrective	Actions Take	n: (description, n	lame, date,	wno nomed	7.
Corrective Actions Taken: (desc	cription, name, date):	11		•			
				•			
1				•			
INSPECTED BY (date/time):	well 8-14-02	INSPECT	ED BY (dat	e/time):			
<i>C.</i> ,	7,00						. BN-0917 (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, approva	l, and/or assistanc	e, contact Sc	lid Was	te Operation (	'SWO) at 5-7898.
(This form is for rollof Waste Generator: <u>Don Cox, Solid Waste Opera</u>	tions			sal of materia	ls.) ne Number: <u>5-4780</u>
Location / Origin: Area 6, CAU 326 / Parking lot			[37] · ·		51767
Waste Category: (check one)	Commercial			istrial ()	8//S/0 ≥
Waste Type: X NTS (check one) Non-Putrescible	Putrescible  Asbestos Conta	ining Material		CO-onsité CO-offsite	Historic DOE/NV
Pollution Prevention Category: (check one)	Environmental			ense Projects	C. Historic DOCHV
Pollution Prevention Category: (check one)	X Clean-Up		Rou		
Method of Characterization: (check one)	Sampling & An	alysis	X Proc	ess Knowledge	Contents
Prohibited Waste Radioactive waste;	RCRA waste; Hazardo	ous waste; Free			regulatory levels-, and Medic
at all three NTS landfills: wastes (needles, si Additional Prohibited Waste Sewage Sludge; A at the Area 9 U10c Landfill:	narps, bloody clothing)	•	vaste); an	d Friable asbesto	s
1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	WASTE CONTE				
NOTE: Waste disposed at the Area 6 Hydrocarbon La gasoline (no benzene, lead); jet fuel; diesel fu		into contact wit	h petroleu	m hydrocarbons	
Acceptable waste at any NTS landfill:	Paper [	Rocks / una	ltered ge	ologic material	s Empty containers
☐ Asphalt ☐ Metal ☐ Wood	Soil [	Rubber (ex	cluding ti	res)	Demolition debris
☐ Plastic ☐ Wire ☐ Cable	Cloth	Insulation (	non-Asb	estosform)	Cement & concre
☐ Manufactured items: (swamp coolers, furnitu					
Additional waste accepted at the Area 23 Me  Asbestos: Friable Non-Friable (con	-			WasteAni	mal Carcasses
Additional waste accepted at the Area 9 U10	Landfill:				
☐ Non-friable asbestos ☐ Drained	automobiles and mil	itary vehicles	☐ s	olid fractions fro	m sand/oil/water separator
Light ballasts (contact SWO) Drained f	uel filters (gas & die	sel)		econned Under	ground and Above Ground
☐ Hydrocarbons (contact SWO)			☐ Ta	inks	
Additional waste accepted at the Area 6 Hyd	rocarbon Landfill:	<u>5011</u>	_		
Septic sludge Rags Drained	fuel filters (gas & die	sel)	□ c	rushed non-terr	ne plated oil filters
☐ Plants ☐ Sludge fr	om sand/oil/water s	eparators	☐ P	CBs below 50	parts per million
REQUIF	RED: WASTE GEI earance is necessary		IGNATU	IRE	
The above mentioned waste was generated of knowledge, does not contain radiological ma		lled Waste Ma	anageme	ent Area (CWM	A) and to the best of my
To the best of my knowledge, the waste desc site. I have verified this through the waste ch prohibited and allowable waste items.	cribed above conta paracterization met	ins only those hod identified	e materia l above a	als that are allo and a review of	owed for disposal at this f the above-mentioned
Print Name: OX	Z Date	izAu6		"Radiologica	e, place BN-0646, I Release Sticker" site use only.
Note: Food waste, office trash and/or animal ca require a radiological clearance.				d radioactivity,	and therefore do not
				<del></del>	
SWO USE ONLY	30 000	ignature of C	ontific	7	<u> </u>
Load Weight (net from scale or estimate):	IL, OUL S	ignature of C	emmer:_	1 my	

Section: Appendix E Revision: 1

Date: December 2002

## **APPENDIX E**

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION CORRESPONDENCE

Section: Appendix E
Revision: 1
Date: December 2002

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PETER G. MURROS. Director

ALLEN BIAGGI, Administrator

(775) 687-4670 TDD 687-4678

Administration
Water Pollution Control
Facsimile 687-5856

Mining Regulation and Reclamation Facsimile 684-5259

STA' INFO WM EACH
KI 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



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,

Paul J. Liebendorfer, P.E.

Chief

Bureau of Federal Facilities

PJL/SRJ/js

cc: Dave Bedsun, DSWA

Jhon Carilli, WMD/DOE (faxed to 295-1153)

Runore Wycoff, ERD/DOE Mike McKinnon, NDEP/LV Karen Beckley, NDEP/CC Clem Goewert, NDEP/LV

Section: Appendix F Revision: 1

Date: December 2002

## **APPENDIX F**

# NEVADA ENVIRONMENTAL RESTORATION PROJECT DOCUMENT REVIEW SHEET

Section: Appendix F Revision: 1

Date: December 2002

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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. <u>Ted Zaferatos / NDEP / (702) 486-2856</u> 9. Reviewer's Signature \_\_\_\_\_

10. Comment	11.	12.	13.	14.
Number/ Location	Type <sup>a</sup>	Comment	Comment Response	Accept
1. pg. ix last bullet item	М	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	М	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	М	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

<sup>&</sup>lt;sup>a</sup>Comment Types: M = Mandatory, S = Suggested.

10.	11.	12.	13.	14.
Comment Number/ Location	Typeª	Comment	Comment Response	Accept
4. pg. 18 Table 3	М	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/NV751) 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

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