Nevada
Environmental
Restoration
Project

DOE/NV--1360

Post-Closure Report for Closed
*Resource Conservation and
Recovery Act* Corrective Action
Units, Nevada Test Site, Nevada

For Fiscal Year 2009
(October 2008–September 2009)

Controlled Copy No.: _____

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January 2010

Environmental Restoration
Project

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

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**POST-CLOSURE REPORT FOR CLOSED
RESOURCE CONSERVATION AND RECOVERY ACT
CORRECTIVE ACTION UNITS,
NEVADA TEST SITE, NEVADA**

**FOR FISCAL YEAR 2009
(OCTOBER 2008–SEPTEMBER 2009)**

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

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RESOURCE CONSERVATION AND RECOVERY ACT
CORRECTIVE ACTION UNITS,
NEVADA TEST SITE, NEVADA**

**FOR FISCAL YEAR 2009
(OCTOBER 2008–SEPTEMBER 2009)**

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TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	vii
EXECUTIVE SUMMARY	ix
1.0 SUMMARY OF INSPECTIONS, REPAIRS, AND MAINTENANCE.....	1
1.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT	1
1.1.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	1
1.1.2 Inspection, Repair, and Maintenance Activities	1
1.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL.....	1
1.2.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	1
1.2.2 Inspection, Repair, and Maintenance Activities	1
1.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY	1
1.3.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	1
1.3.2 Inspection, Repair, and Maintenance Activities	2
1.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER	3
1.4.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	3
1.4.2 Inspection, Repair, and Maintenance Activities	3
1.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES	3
1.5.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	3
1.5.2 Inspection, Repair, and Maintenance Activities	4
2.0 CORRECTIVE ACTION UNIT 110 SUBSIDENCE AND VEGETATION SURVEY RESULTS	5
2.1 SUBSIDENCE SURVEY	5
2.2 VEGETATION SURVEY.....	5
3.0 CORRECTIVE ACTION UNIT 110 SOIL MOISTURE MONITORING RESULTS	9
4.0 CONCLUSIONS AND RECOMMENDATIONS	17
4.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT.....	17
4.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL.....	17
4.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY	17
4.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER	17
4.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES	18
LIBRARY DISTRIBUTION LIST	

FIGURES

FIGURE 1. LOCATIONS OF CLOSED <i>RESOURCE CONSERVATION AND RECOVERY ACT</i> CORRECTIVE ACTION SITES.....	X
FIGURE 2. TIME DOMAIN REFLECTOMETRY LOCATIONS	10
FIGURE 3. PRECIPITATION DATA FOR METEOROLOGICAL STATION BUSTER JANGLE Y	11
FIGURE 4. EAST TDR NEST A SOIL MOISTURE CONTENT PROFILE.....	12
FIGURE 5. EAST TDR NEST B SOIL MOISTURE CONTENT PROFILE	13
FIGURE 6. WEST TDR NEST A SOIL MOISTURE CONTENT PROFILE.....	14
FIGURE 7. WEST TDR NEST B SOIL MOISTURE CONTENT PROFILE	15

TABLE OF CONTENTS (continued)

TABLES

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS 6

APPENDICES

APPENDIX A. INSPECTION CHECKLISTS
APPENDIX B. FIELD NOTES
APPENDIX C. PHOTOGRAPHS

ACRONYMS AND ABBREVIATIONS

CAU	Corrective Action Unit
FFACO	<i>Federal Facility Agreement and Consent Order</i>
ft	foot (feet)
in.	inch(es)
NDEP	Nevada Division of Environmental Protection
SM	subsidence marker
TDR	Time Domain Reflectometry

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EXECUTIVE SUMMARY

This report serves as the combined annual report for post-closure activities for the following closed Corrective Action Units (CAUs):

- CAU 90, Area 2 Bitcutter Containment
- CAU 91, Area 3 U-3fi Injection Well
- CAU 92, Area 6 Decon Pond Facility
- CAU 110, Area 3 WMD U-3ax/bl Crater
- CAU 112, Area 23 Hazardous Waste Trenches

The locations of the sites are shown in Figure 1. This report covers fiscal year 2009 (October 2008–September 2009). The post-closure requirements for these sites are described in *Resource Conservation and Recovery Act* Permit Number NEV HW0021 and summarized in each CAU-specific section in Section 1.0 of this report.

Site inspections are conducted semiannually at CAUs 90 and 91 and quarterly at CAUs 92, 110, and 112. Additional inspections are conducted at CAU 92 if precipitation occurs in excess of 0.50 inches in a 24-hour period. Inspections include an evaluation of the condition of the units and identification of any deficiencies that may compromise the integrity of the units. The condition of covers, fencing, signs, gates, and locks is documented. In addition, soil moisture monitoring and subsidence surveys are conducted at CAU 110. The results of the inspections, summary of maintenance activities, results of vegetations surveys, and analysis of monitoring data are presented in this report.

Copies of the inspection checklists are included as Appendix A. Field notes completed during each inspection are included in Appendix B. Photographs taken during the site inspections are included in Appendix C.

FIGURE 1
LOCATIONS OF CLOSED *RESOURCE CONSERVATION*
***AND RECOVERY ACT* CORRECTIVE ACTION SITES**

1.0 SUMMARY OF INSPECTIONS, REPAIRS, AND MAINTENANCE

1.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

1.1.1 *Resource Conservation and Recovery Act Permit Requirements*

Inspections are required at Corrective Action Unit (CAU) 90 twice per year and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. Any deficiencies that require maintenance other than general housekeeping issues are reported to the Nevada Division of Environmental Protection (NDEP) and remedied within 60 days of discovery.

1.1.2 *Inspection, Repair, and Maintenance Activities*

As a best management practice, the use restriction warning signs were replaced on October 13, 2008, to meet current *Federal Facility Agreement and Consent Order* (FFACO) posting guidelines. Semiannual inspections were performed on December 31, 2008, and June 17, 2009. During both semiannual inspections, the site was observed to be in excellent condition. Signs and fencing were in good condition, and there was no evidence of settling or cracking on the waste unit covers. No other issues were identified, and no maintenance or repairs were required.

1.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL

1.2.1 *Resource Conservation and Recovery Act Permit Requirements*

Inspections are required at CAU 91 twice per year and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The permit does not specify a time period in which repairs or maintenance are to be completed at CAU 91.

1.2.2 *Inspection, Repair, and Maintenance Activities*

As a best management practice, the use restriction warning signs were replaced on November 10, 2008, to meet current FFACO posting guidelines. Semiannual inspections were performed on March 17 and September 23, 2009. During both semiannual inspections, the site was observed to be in excellent condition. Signs and fencing were in good condition, and there was no evidence of settling or animal burrowing on the cover. No other issues were identified, and no maintenance or repairs were required.

1.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

1.3.1 *Resource Conservation and Recovery Act Permit Requirements*

Inspections are required quarterly at CAU 92 and in the event that precipitation occurs in excess of 0.50 inches (in.) in a 24-hour period. Inspections include an evaluation of the cover and identification of any deficiencies that may compromise the integrity of the cover. Photographs

of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The inspection checklist documents the reason for the inspection (i.e., quarterly or excess precipitation) and any changes in the condition of the cover or fenced area, including, but not limited to, trash or debris within the fenced area, erosion of the cover, vegetation growing on the cover, and animal burrows or nesting activity. The condition of the fencing, wave barrier (fiber glass slats laced through the bottom of the chain-link fencing), use restriction warning signs, entrance gate, and lock is also documented. Any evidence of small cracks or settling imperfections (less than 2 in. deep) on the cover is documented, and repairs are scheduled on an annual basis. Larger disruptions of the cover are immediately reported to NDEP and remedied within 60 days of discovery.

1.3.2 Inspection, Repair, and Maintenance Activities

As a best management practice, the use restriction warning signs were replaced on October 30, 2008, to meet current FFACO posting guidelines. During the September 2008 inspection, it was recommended to repair damaged sections of the wave barrier. In addition, vegetation was noted on the perimeter of the cover, and vegetation removal was recommended. These repairs were completed on October 30, 2008.

On December 15 and 16, 2008, 0.51 in. of precipitation were recorded, and an inspection was conducted on December 22, 2008. During the inspection, snow was noted on the cover, but no standing water was observed. The signs, fencing, and wave barriers were in good condition, and no issues were identified.

Quarterly inspections were performed on December 31, 2008, and on March 17, June 17, and September 23, 2009. During the December quarterly inspection, standing water was noted outside the southwest and northeast edges of the cover, but no standing water was observed on the cover. The signs, fencing, and wave barriers were in good condition, and no evidence of settling, cracking, or vegetation was observed on the cover. No other issues were identified, and no maintenance or repairs were required.

During the March quarterly inspection, the site was observed to be in excellent condition. The signs, fencing, and wave barriers were in good condition, and no evidence of settling, cracking, or vegetation was observed on the cover. No other issues were identified, and no maintenance or repairs were required.

During the June quarterly inspection, the site was observed to be in excellent condition. The signs, fencing, and wave barriers were in good condition, and no evidence of settling, cracking, or vegetation was observed on the cover. No other issues were identified, and no maintenance or repairs were required.

During the September quarterly inspection, the signs, fencing, and wave barriers were in good condition, and no evidence of settling or cracking was observed on the cover. Vegetation was noted on the perimeter of the cover, and vegetation removal was recommended. Vegetation removal activities were completed within 60 days of the inspection and will be reported in the next annual report. No other issues were identified.

1.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER

1.4.1 *Resource Conservation and Recovery Act Permit Requirements*

Inspections are required quarterly at CAU 110 to verify that the cover is intact. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The perimeter of the fencing is walked by the inspector, and the condition of the fencing and chicken wire, use restriction warning signs, and entrance gate and lock is documented. In addition, the seven subsidence markers (SMs) are inspected, and any changes in the condition of the cover, including, but not limited to, trash or debris within the fenced area, erosion of the cover, and animal burrows or nesting activity, are documented. Any evidence of non-critical cracks or settling imperfections (equal to or less than 6 in. deep) on the cover is documented, and repairs are scheduled on an annual basis. Cracks or settling imperfections greater than 6 in. deep that extend 3 feet (ft) or more on the cover are reported to NDEP and repaired within 60 days of discovery.

1.4.2 *Inspection, Repair, and Maintenance Activities*

As a best management practice, the use restriction warning signs were replaced on November 10, 2008, to meet current FFACO posting guidelines. Quarterly inspections were performed on December 31, 2008, and on March 17, June 17, and September 23, 2009.

During the December quarterly inspection, the site was observed to be in excellent condition. The signs and fencing were in good condition, and no evidence of settling, cracking, or animal burrowing was observed on the cover. The vegetation appeared to be in good condition. No other issues were identified, and no maintenance or repairs were required.

During the March quarterly inspection, the site was observed to be in good condition. The signs and fencing were in good condition, and no evidence of significant animal burrowing was observed on the cover. One small crack was observed that did not require follow-up actions. The vegetation appeared to be in good condition. No other issues were identified, and no maintenance or repairs were required.

During the June quarterly inspection, the site was observed to be in good condition. The signs and fencing were in good condition, and no evidence of significant animal burrowing was observed on the cover. Small cracks were observed that did not require follow-up actions. The vegetation appeared to be in good condition. No other issues were identified, and no maintenance or repairs were required.

During the September quarterly inspection, the site was observed to be in good condition. The fencing was in good condition, and no evidence of significant animal burrowing was observed on the cover. The vegetation appeared to be in good condition. Two small cracks were observed that did not require follow-up actions. One sign was down that was required to be re-hung. The sign was re-hung within 60 days of the inspection and will be reported in the next annual report. No other issues were identified.

1.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

1.5.1 *Resource Conservation and Recovery Act Permit Requirements*

Inspections are required quarterly at CAU 112 and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. The

results of the inspection are documented on an inspection checklist. The permit does not specify a time period in which repairs or maintenance are to be completed at CAU 112.

1.5.2 Inspection, Repair, and Maintenance Activities

As a best management practice, the use restriction warning signs were replaced on October 13, 2008, to meet current FFACO posting guidelines. Quarterly inspections were performed on December 22, 2008, and on March 17, June 17, and September 23, 2009.

During the December quarterly inspection, the site was observed to be in excellent condition. The signs and fencing were in good condition, and no evidence of settling, cracking, vegetation, or animal burrowing was observed on the cover. No other issues were identified, and no maintenance or repairs were required.

During the March quarterly inspection, the site was observed to be in good condition. The signs and fencing were in good condition, and no evidence of settling, cracking, or animal burrowing was observed on the cover. A minor amount of vegetation was observed that did not require follow-up actions. No other issues were identified, and no maintenance or repairs were required.

During the June quarterly inspection, the site was observed to be in good condition. The signs and fencing were in good condition, and no evidence of settling, cracking, or animal burrowing was observed on the cover. A minor amount of vegetation was observed that did not require follow-up actions. No other issues were identified, and no maintenance or repairs were required.

During the September quarterly inspection, the site was observed to be in good condition. The signs and fencing were in good condition, and no evidence of settling, cracking, or animal burrowing was observed on the cover. A minor amount of vegetation was observed that did not require follow-up actions. No other issues were identified, and no maintenance or repairs were required.

2.0 CORRECTIVE ACTION UNIT 110 SUBSIDENCE AND VEGETATION SURVEY RESULTS

2.1 SUBSIDENCE SURVEY

Seven SMs are installed on the cover of CAU 110 to determine if subsidence of the cover is occurring. The initial baseline subsidence survey was conducted on December 14, 2000. Subsequent surveys are conducted twice per year and are compared to the December 2000 baseline survey results. Subsidence surveys were completed on March 23 and September 17, 2009.

The subsidence survey results are tabulated in Table 1. No significant subsidence was observed. SM 5 shows the greatest decrease in elevation (-0.10 ft) compared to the baseline survey in 2000. Calculated subsidence values are negligible and near the resolution of the survey instruments. This indicates that subsidence is not occurring on the cover.

2.2 VEGETATION SURVEY

The CAU 110 cover was initially planted with native seed in December 2000. Surveys have been conducted annually to assess the success of the revegetation effort. The vegetation survey was completed on May 13, 2009. The plant community on the cover is characterized by a combination of native perennial shrubs and annual forbs. Weedy species are present occasionally, but when present make up on average less than 6 percent of the total cover. Even though plant cover and density have declined over the last 5 years, a viable perennial plant community persists. Even with declines in perennial plant cover and density and the absence of key components, such as perennial grasses, there does not appear to be a need for remedial revegetation. The perennial grasses and some of the shrubs may re-establish on the closure cover with favorable growing conditions.

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS

DATE	SM #1	SM #2	SM #3	SM #4	SM #5	SM #6	SM #7
	Elevation at Top of Subsidence Marker ¹						
	Subsidence Since December 2000 Baseline Survey (ft)						
December 2000 Baseline	4,021.84	4,021.28	4,019.83	4,020.99	4,021.87	4,019.25	4,020.52
	-	-	-	-	-	-	-
July 2001	4,021.83	4,021.28	4,019.83	4,020.98	4,021.86	4,019.24	4,020.51
	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.01
January 2002	4,021.84	4,021.28	4,019.83	4,020.98	4,021.86	4,019.24	4,020.51
	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
September 2002	4,021.83	4,021.27	4,019.83	4,020.98	4,021.86	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02
January 2003	4,021.83	4,021.27	4,019.83	4,020.98	4,021.86	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02
July 2003	4,021.83	4,021.27	4,019.83	4,020.97	4,021.85	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.02	-0.02	-0.01	-0.02
March 2004	4,021.82	4,021.26	4,019.82	4,020.97	4,021.83	4,019.22	4,020.49
	-0.02	-0.02	-0.01	-0.02	-0.04	-0.03	-0.03
September 2004	4,021.82	4,021.26	4,019.82	4,020.96	4,021.83	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.04	-0.02	-0.03
March 2005	4,021.82	4,021.26	4,019.82	4,020.96	4,021.82	4,019.22	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.05	-0.03	-0.03
September 2005	4,021.82	4,021.26	4,019.82	4,020.97	4,021.82	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.02	-0.05	-0.02	-0.03

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS, CONTINUED

DATE	SM #1	SM #2	SM #3	SM #4	SM #5	SM #6	SM #7
	Elevation at Top of Subsidence Marker ¹						
	Subsidence Since December 2000 Baseline Survey (ft)						
March 2006	4,021.82	4,021.26	4,019.82	4,020.96	4,021.82	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.05	-0.02	-0.03
September 2006	4,021.82	4,021.25	4,019.82	4,020.96	4,021.81	4,019.22	4,020.49
	-0.02	-0.03	-0.01	-0.03	-0.06	-0.03	-0.03
March 2007	4,021.82	4,021.25	4,019.82	4,020.96	4,021.80	4,019.22	4,020.48
	-0.02	-0.03	-0.01	-0.03	-0.07	-0.03	-0.04
September 2007	4,021.81	4,021.25	4,019.81	4,020.96	4,021.79	4,019.22	4,020.49
	-0.03	-0.03	-0.02	-0.03	-0.08	-0.03	-0.03
March 2008	4,021.81	4,021.25	4,019.81	4,020.95	4,021.79	4,019.22	4,020.48
	-0.03	-0.03	-0.02	-0.04	-0.08	-0.03	-0.04
September 2008	4,021.81	4,021.25	4,019.81	4,020.95	4,021.78	4,019.21	4,020.48
	-0.03	-0.03	-0.02	-0.04	-0.09	-0.04	-0.04
March 2009	4,021.81	4,021.24	4,019.81	4,020.95	4,021.78	4,019.21	4,020.48
	-0.03	-0.04	-0.02	-0.04	-0.09	-0.04	-0.04
September 2009	4,021.81	4,021.24	4,019.80	4,020.95	4,021.77	4,019.22	4,020.48
	-0.03	-0.04	-0.03	-0.04	-0.10	-0.03	-0.04

¹ Elevations based on North American Vertical Datum of 1929 in ft.

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3.0 CORRECTIVE ACTION UNIT 110 SOIL MOISTURE MONITORING RESULTS

The CAU 110 cover is designed to prevent infiltration into the disposal unit. The cover performance is monitored using Time Domain Reflectometry (TDR) soil water content sensors buried within the waste cover. The TDR probes are buried at depths of 1 to 8 ft below ground surface at 1-ft intervals. The TDR probes are installed at a distance of 165 ft from the edge of the cover. Arrays of eight probes are positioned at four locations across the cover. Figure 2 illustrates the locations of TDR probes on the cover. Moisture content data from the TDR probes are recorded on a daily basis and stored on a data logger. The data are transmitted via radio frequency and downloaded on a quarterly basis.

Precipitation data were collected from meteorological station Buster Jangle Y, located approximately 3 miles northwest of CAU 110. The precipitation data are presented in Figure 3. Graphs of the TDR-derived soil moisture content profiles, combined with the daily precipitation values, are presented in Figures 4 through 7.

Soil moisture results obtained to date indicate that the CAU 110 cover is functioning as designed. Shallow soil moisture content is variable and dependent on precipitation events and the ability of shallow root systems and evapotranspiration to remove moisture from the soil. The ability for these systems to remove moisture can be locally inhibited if animal burrowing and grazing on plants affects the root systems; therefore, small mammals are being trapped and relocated from the cover to limit this damage.

Soil moisture contents for the TDR nests at depth are generally between 9 and 15 percent volumetric moisture content, depending on the location of the nest. Some locations show greater annual variability in moisture content; however, each location appears to have equilibrated to a consistent state for that location.

Even though the site has continued to experience drought conditions over recent years, several significant precipitation events have occurred since the site was closed to provide data showing how the cover responds to such events. Therefore, the following compliance criterion is being proposed:

- The averaged water content of the three deepest TDR probes (6 ft, 7 ft, and 8 ft) is greater than 32 percent volumetric moisture content for a continuous 6-month period.

Using conservative assumptions for the soil properties, 32 percent volumetric moisture content equates to 80 percent saturation of the soil. If the average volumetric moisture content of the three deepest TDR probes (6 ft, 7 ft, and 8 ft) exceeds 32 percent for a continuous 6-month period, the compliance criterion has been exceeded. If this occurs, NDEP will be notified, and a path forward will be proposed. This proposed action level is illustrated on Figures 4 through 7.

FIGURE 2
TIME DOMAIN REFLECTOMETRY LOCATIONS

FIGURE 3
PRECIPITATION DATA FOR METEOROLOGICAL
STATION BUSTER JANGLE Y

FIGURE 4
EAST TDR NEST A SOIL MOISTURE CONTENT PROFILE

FIGURE 5
EAST TDR NEST B SOIL MOISTURE CONTENT PROFILE

FIGURE 6
WEST TDR NEST A SOIL MOISTURE CONTENT PROFILE

FIGURE 7
WEST TDR NEST B SOIL MOISTURE CONTENT PROFILE

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4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

Semiannual inspections were performed at CAU 90 on December 31, 2008, and June 17, 2009. During the last inspection, the unit was in good condition, and no maintenance or repairs were required. It is recommended to continue inspections twice per year to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.

4.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL

Semiannual inspections were performed at CAU 91 on March 17 and September 23, 2009. During the last inspection, the unit was in good condition, and no maintenance or repairs were required. It is recommended to continue inspections twice per year to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.

4.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

Quarterly inspections were performed at CAU 92 on December 31, 2008, and on March 17, June 17, and September 23, 2009. An inspection was performed on December 22, 2008, after precipitation events in excess of 0.50 in. occurred. During the last inspection, vegetation was noted on the perimeter of the cover, and vegetation removal was recommended. Vegetation removal activities were completed within 60 days of the inspection and will be reported in the next annual report. No other issues were identified, and no additional maintenance or repairs were required. It is recommended to continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.

4.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER

Quarterly inspections were performed at CAU 110 on December 31, 2008, and on March 17, June 17, and September 23, 2009. During the last inspection, one sign was down that was required to be re-hung. The sign was re-hung within 60 days of the inspection and will be reported in the next annual report. No other issues were identified, and no additional maintenance or repairs were required. Subsidence survey results indicate that no significant subsidence of the cover is occurring. Soil moisture results obtained to date indicate that the cover is functioning as designed.

The following actions are recommended for CAU 110:

- Continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.
- Continue subsidence surveys twice per year to determine if subsidence of the cover is occurring.
- Continue to monitor the vegetation on the cover annually to evaluate plant cover, density, and diversity.

The following compliance criterion is being proposed:

- The averaged water content of the three deepest TDR probes (6 ft, 7 ft, and 8 ft) is greater than 32 percent volumetric moisture content for a continuous 6-month period.

Using conservative assumptions for the soil properties, 32 percent volumetric moisture content equates to 80 percent saturation of the soil. If the average volumetric moisture content of the three deepest TDR probes (6 ft, 7 ft, and 8 ft) exceeds 32 percent for a continuous 6-month period, the compliance criterion has been exceeded. If this occurs, NDEP will be notified, and a path forward will be proposed.

4.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

Quarterly inspections were performed at CAU 112 on December 22, 2008, and on March 17, June 17, and September 23, 2009. During the last inspection, the unit was in good condition, and no maintenance or repairs were required. It is recommended to continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.

APPENDIX A.

INSPECTION CHECKLISTS

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CORRECTIVE ACTION UNIT 90 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

Inspection Date and Time: <i>12/31/08 10:55 AM</i>	Reason for Inspection: <i>Semi-Annual (Follow-up Inspection)</i>
Date of Last Post-Closure Inspection: <i>12/22/08</i>	Reason for Last Post-Closure Inspection: <i>Semi-Annual</i>
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <i>Glenn Richardson</i>	Title: <i>Task Manager</i>
Assistant Inspector: <i>Chris McGowin</i>	Title: <i>Field Tech Lead</i>
Organization: Environmental Restoration	

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected semi-annually with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes and photograph log attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES	NO	EXPLANATION (required if shaded box is checked)
☒	☐	
☒	☐	
☒	☐	
☒	☐	
☒	☐	
☐	☒	
☒	☐	<i>As a BMP, all 8 UR signs were replaced with signs that meet current FEACO guidance (10/13/08).</i>
☒	☐	NA
☒	☐	
☒	☐	NA
☐	☒	NA
☒	☐	

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?	0		
i. Other?			NA ✓
3. Waste unit cover (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

4. Fences, gates, and signs (West Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓

5. Waste unit cover (West Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

6. Photograph Instructions:

A total of 6 photographs are required to be taken during each inspection of CAU 90. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Three (3) of the west unit from outside the fence, one in each compass direction (i.e., N, S, E) and
- Three (3) of the east unit from outside the fence, one in each compass direction (i.e., N, S, W).

7. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	✓		
b. Has a photograph log been prepared?	✓		Log number: <i>An electronic photo log is on the ER Shared drive under CAU 90.</i>
c. How many photographs were taken?		6	
d. Other?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		✓	
Date reported: _____ Person/Agency to whom report was made: _____			
5. Field conclusions/recommendations: <i>Due to heavy snow conditions on the 12/22/08 inspection, a follow-up site inspection was performed to find the site in excellent condition. The chain-link fencing, access gate, and UR signage are intact and secured. There is no evidence of settling or cracking on the waste unit covers. No signs of vegetation or animal burrows. There are no follow-up actions warranted at this site.</i>			

F. CERTIFICATION	
I have conducted an inspection of CAU 90, Area 2 Bitcutter Containment, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.	
Chief Inspector's Signature: /s/ Glenn Richardson	Date: <i>12/31/08</i>
Printed Name: <i>Glenn Richardson</i>	Title: <i>Task Manager</i>

Attachments (check if attached):

- ☒ Field Notes
- ☐ Photos
- ☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST**CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)**Inspection Date and Time: 6/17/09 0930Reason for Inspection: Semi AnnualDate of Last Post-Closure Inspection: 12/31/08Reason for Last Post-Closure Inspection: Semi Annual

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Mike FloydTitle: Field Supervisor

Organization: Environmental Restoration

Assistant Inspector: Brian KonrodTitle: Field Coordinator

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 90 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒☐

2. Has the Post-Closure Permit application been reviewed?

☒☐

3. Has the Post-Closure Plan been reviewed?

☒☐

4. Have the site as-built plans and site base map been reviewed?

☒☐

5. Have the previous inspection reports been reviewed?

☒☐

a. Were anomalies or trends detected on previous inspections?

☐☒

b. Was maintenance performed?

☐☒

6. Have the site maintenance and repair records been reviewed?

☒☐

a. If so, has site repair resulted in a change from as-built conditions?

☐☒

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐☒

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

D. SITE INSPECTION

- The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?	0		
i. Other?			NA ✓
3. Waste unit cover (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

4. Fences, gates, and signs (West Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓

5. Waste unit cover (West Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

6. Photograph Instructions:
- A standard set of color photographs is required. Six photographs must be taken during each inspection of CAU 90:
 - Three (3) of the west unit from outside the fence, one in each compass direction (i.e., N, S, E) and
 - Three (3) of the east unit from outside the fence, one in each compass direction (i.e., N, S, W).
 - In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed.
 - Additional photographs may also be taken.
 - A photograph log entry will be made for each photograph taken.

7. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	✓		
b. Has a photograph log been prepared?	✓		
c. How many photographs were taken?		6	
d. Other?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 90: AREA 2 BITCUTTER CONTAINMENT - CAS 02-20-01: Bitcutter/PS Inj. Wells (3) (RCRA)

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are previous maintenance/repair actions satisfactory?	✓		
3. Are there any deficiencies that require a remedy other than general housekeeping (i.e., "minor") repairs?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
4. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Field conclusions/recommendations: <i>gate fencing & signs found to be in good condition, no animal burrows or signs of cracking evident. No follow up Actions required.</i>			

F. CERTIFICATION	
I have conducted an inspection of CAU 90, Area 2 Bitcutter Containment, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.	
Chief Inspector's Signature: <i>/s/ Mike Floyd</i>	Date: <i>6/17/09</i>
Printed Name: <i>Mike Floyd</i>	Title: <i>Field Supervisor</i>

Required Attachments:

1. Field Notes (if any)
2. Photos (or note File Location: S:\NTS\ER Share\ *CAU 090\2009*)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION	
I have reviewed this checklist and attachments and have verified that it is complete.	
Signature: <i>/s/ Reed Poderis</i>	Date: <i>6-18-09</i>
Printed Name: Thomas A. Thiele (or designee)	

Distribution: Original – Task Manager

CORRECTIVE ACTION UNIT 91 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST**CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes**Inspection Date and Time: 3/17/09 10:15 AMReason for Inspection: Semi-AnnualDate of Last Post-Closure Inspection: 9/23/08Reason for Last Post-Closure Inspection: Semi-Annual

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn RichardsonTitle: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Greg DoyleTitle: Sr. Scientist

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 91 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

D. SITE INSPECTION

- The site inspection is a walking inspection of the entire site (i.e., the area within 1,000 feet of U-3fi and ER-3-3), including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist. The checklist should be completed during the site inspection. Every monument, site marker, sign, monitoring well access, and erosion control marker will be inspected.*
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fence posts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓
3. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

4. Photograph Instructions:

- A standard set of ten (10) color photographs is required to be taken during each inspection of CAU 91:
 - Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four (4) of the unit from outside the fence, one in each compass direction
 - Two (2) of the ER3-3 monitoring well surface with compass directions (N and S) noted on the photograph log
- In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed.
- Additional photographs may also be taken.
- A photograph log entry will be made for each photograph taken.

5. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
✓		
✓		
10		
	✓	NA

E. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
	✓	
✓		
	✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
	✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
	✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
	✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

7. Field conclusions/recommendations:

The UR signage and chain link fencing are in excellent condition. There is no evidence of settling on the cover or animal burrowing. Overall site conditions are good. There are no issues or concerns with this site.

POST-CLOSURE INSPECTION CHECKLIST**CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes****F. CERTIFICATION**

I have conducted an inspection of CAU 91, Area 3 U-3fi Injection Well, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Glenn RichardsonDate: 3/17/09Printed Name: Glenn RichardsonTitle: Task Manager**Required Attachments:**

1. Field Notes (if any)
2. Photos (or note File Location: S:\NTS\ER Share\ Photos\CAU 091\2009)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed PoderisDate: 6-14-09Printed Name: Thomas A. Thiele (or designee)**Distribution:** Original – Task Manager

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

Inspection Date and Time: 9/23/09 9:52am	Reason for Inspection: Semi-Annual
Date of Last Post-Closure Inspection: 3/17/09	Reason for Last Post-Closure Inspection: Semi-Annual
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Glenn Ridgeway	Title: Task Manager
Assistant Inspector: Dwayne Emer	Title: Sr. Scientist
Organization: Environmental Restoration	

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 91 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	✓		
2. Has the Post-Closure Permit application been reviewed?	✓		
3. Has the Post-Closure Plan been reviewed?	✓		
4. Have the site as-built plans and site base map been reviewed?	✓		
5. Have the previous inspection reports been reviewed?	✓		
a. Were anomalies or trends detected on previous inspections?		✓	
b. Was maintenance performed?		✓	
6. Have the site maintenance and repair records been reviewed?	✓		
a. If so, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, digital storage drive, and extra batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

D. SITE INSPECTION

- *The site inspection is a walking inspection of the entire site (i.e., the area within 1,000 feet of U-3fi and ER-3-3), including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist. The checklist should be completed during the site inspection. Every monument, site marker, sign, monitoring well access, and erosion control marker will be inspected.*
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fence posts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA
3. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

4. Photograph Instructions:

- A standard set of ten (10) color photographs is required to be taken during each inspection of CAU 91:
 - Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four (4) of the unit from outside the fence, one in each compass direction
 - Two (2) of the ER3-3 monitoring well surface with compass directions (N and S) noted on the photograph log
- In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed.
- Additional photographs may also be taken.
- A photograph log entry will be made for each photograph taken.

5. Photograph Documentation:

YES NO EXPLANATION (required if shaded box is checked)

a. Have all photographs been taken as required by the photograph instructions?

✓

b. Has a photograph log been prepared?

✓

c. How many photographs were taken?

10

d. Other?

NA

E. FIELD CONCLUSIONS

YES NO EXPLANATION (required if shaded box is checked)

1. Are more frequent inspections required?

✓

2. Are existing maintenance/repair actions satisfactory?

✓

3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed?

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

4. Are there any deficiencies that require a remedy other than general housekeeping (i.e., "minor") repairs?

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

5. Will necessary repairs change the as-built condition of the unit?

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

6. Were there any indications of surface or subsurface subsidence or settling?

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

7. Field conclusions/recommendations:

Signs of fencing are in excellent condition. There is no evidence of settling on the cover. No animal burrows were noted. Overall site conditions are good. There are no issues or concerns noted at the site.

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

F. CERTIFICATION

I have conducted an inspection of CAU 91, Area 3 U-3fi Injection Well, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Glenn Richardson

Date: 9/23/09

Printed Name: Glenn Richardson

Title: Task Manager

Required Attachments:

1. Field Notes (if any)
2. Photos (or note File Location: S:\NTS\ER Share\photos\CAU 91\09-23-09 CAU 91 inspections)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed Poderis

Date: 9/29/09

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

CORRECTIVE ACTION UNIT 92 INSPECTION CHECKLISTS

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Inspection Requirements:

- (1) Quarterly, or
 (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: <i>12/22/08 0935</i>	Reason for Inspection: <i>QUARTERLY / PRECIPITATION EVENT</i>
Date of Last Post-Closure Inspection: <i>9/23/08</i>	Reason for Last Post-Closure Inspection: <i>QUARTERLY</i>
Date of Last Rain Event: <i>12/15-16/08</i>	Quantity of Rainfall in that event: <i>.51</i> inches
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <i>Mike Floro</i>	Title: <i>FTL</i>
Assistant Inspector: <i>Chris McRowan</i>	Title: <i>FTL</i>
Organization: Environmental Restoration	

A. GENERAL INSTRUCTIONS

- All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
- Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
- The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
- A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
- This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☐	☒	
b. Was maintenance performed?	☒	☒	<i>10/30/08 - (REPAIRED) (REPLACED) WAVE BARRIER, CLR SIGNS AND VCSIT+0+100 Removed</i>
If maintenance was performed, has a copy of the maintenance records been obtained?	☒	☐	<i>NA</i>
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	<i>NA</i>
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☒	<i>NA</i>

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		X	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		X	
b. Have any fenceposts been damaged or their anchoring weakened?		X	
c. Are any of the use restriction signs damaged or missing?		X	
d. Are all use restriction signs legible?	X		
e. How many use restriction signs need to be replaced?			NONE
f. Are any of the URMA signs damaged or missing?		X	
g. Are all URMA signs legible?	X		
h. How many URMA signs need to be replaced?			NONE
i. Is the gate intact and functional?	X		
j. Does the gate show evidence of tampering or damage?		X	
k. Was the gate locked?	X		
l. Does the wave barrier require repair?		X	
m. Is there standing water within or at the fenceline?		X	SNOW COVER ON THE COVER, NO EVIDENCE OF WATER
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?			
n. Other?			NA X
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		X	
b. Is there evidence of cracking?		X	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

3. Waste unit cover (continued):	YES	NO	EXPLANATION
c. Is there evidence of erosion (wind or water)?		X	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
d. Is there evidence of human intrusion onto the cover?		X	
e. Is there evidence of large animal intrusion onto the cover?		X	
f. Is there evidence of animal burrowing?		X	
g. Is vegetation growing on the cover?		X	
h. Other (including trash, debris, etc within fenced area)?		X	
4. Subsidence survey markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have any of the 5 subsidence survey markers been disturbed?		X	
b. Do natural processes threaten the integrity of any subsidence survey marker?		X	
c. Is there excessive vegetation around the subsidence survey markers?		X	
d. Other?		X	NA
5. Photograph Instructions:			
<p>A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:</p> <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and Four (4) of the unit from outside the fence, one in each compass direction. 			
6. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	X		
b. Has a photograph log been prepared?	X		Log number: <i>APhoto Log is AVAILABLE ON ER Share drive under CAU 92</i>
c. How many photographs were taken?		8	
d. Other?			NA X
E. FIELD CONCLUSIONS			
	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?	X		<i>Spill cover on CAP did not allow for proper/adequate inspection</i>
2. Are existing maintenance/repair actions satisfactory?	X		
3. Is other maintenance/repair necessary?		X	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		X	
Date reported: _____			
Person/Agency to whom report was made: _____			

Inspection Requirements:

- (1) Quarterly, or
- (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations: General Site Conditions appear to be in good condition,
However, another inspection will be needed after SNOW has melted.

PHOTOS - OUTSIDE, looking EAST, NORTH, WEST, SOUTH

INSIDE - looking EAST, NORTH, WEST, SOUTH

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Mike Floyd

Date: 12/22/08

Printed Name: M. L. Floyd

Title: FTL

Attachments (check if attached):

- ☒ Field Notes
- ☒ Photos MSF
- ☐ Maintenance records

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: <i>12/31/08 9:45AM</i>	Reason for Inspection: <i>Quarterly (Follow-up Inspection)</i>
Date of Last Post-Closure Inspection: <i>12/22/08</i>	Reason for Last Post-Closure Inspection: <i>Quarterly</i>
Date of Last Rain Event: <i>12/15-16/08</i>	Quantity of Rainfall in that event: <i>.51</i> inches
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <i>Glenn Richardson</i>	Title: <i>Task Manager</i> Organization: Environmental Restoration
Assistant Inspector: <i>Chris McGowin</i>	Title: <i>Field Tech Lead</i> Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☐	☒	
b. Was maintenance performed?	☒	☐	<i>Maintenance performed on 10/30/08 included wave barrier repair, vegetation removal, and installation of new UR signs.</i>
If maintenance was performed, has a copy of the maintenance records been obtained?	☒	☐	NA
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Are any of the use restriction signs damaged or missing?		✓	
d. Are all use restriction signs legible?	✓		
e. How many use restriction signs need to be replaced?		0	
f. Are any of the URMA signs damaged or missing?		✓	
g. Are all URMA signs legible?	✓		
h. How many URMA signs need to be replaced?		0	
i. Is the gate intact and functional?	✓		
j. Does the gate show evidence of tampering or damage?		✓	
k. Was the gate locked?	✓		
l. Does the wave barrier require repair?		✓	
m. Is there standing water within or at the fenceline?	✓		standing water was noticed on the SW and NE perimeter of the cover, but no water on the cover.
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?		0 in.	
n. Other?			NA ✓
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****3. Waste unit cover (continued):**

YES

NO

EXPLANATION

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

c. Is there evidence of erosion (wind or water)?

✓

d. Is there evidence of human intrusion onto the cover?

✓

e. Is there evidence of large animal intrusion onto the cover?

✓

f. Is there evidence of animal burrowing?

✓

g. Is vegetation growing on the cover?

✓

h. Other (including trash, debris, etc within fenced area)?

NA

✓

4. Subsidence survey markers:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have any of the 5 subsidence survey markers been disturbed?

✓

b. Do natural processes threaten the integrity of any subsidence survey marker?

✓

c. Is there excessive vegetation around the subsidence survey markers?

✓

d. Other?

NA

✓

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have all photographs been taken as required by the photograph instructions?

✓

b. Has a photograph log been prepared?

✓

Log number: *An electronic photo log is available on the ER shared drive under CAU 92.*

c. How many photographs were taken?

8

d. Other?

NA

✓

E. FIELD CONCLUSIONS

YES

NO

EXPLANATION (required if shaded box is checked)

1. Are more frequent inspections required?

✓

2. Are existing maintenance/repair actions satisfactory?

✓

3. Is other maintenance/repair necessary?

✓

4. Is there an imminent hazard to the integrity of the site? (Immediate report required)

✓

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

- (1) Quarterly, or
- (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations: *Due to the amount of snow on the waste unit cover during the 12/22/08 inspection, a follow-up site inspection was performed to find overall site conditions well maintained. There is no evidence of settling or cracking on the cover. The UR signage and rad signs are visible and the wave barriers are in great conditions. No evidence of vegetation and the site was well secured. There are no issues or concerns.*

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: */s/ Glenn Richardson*Date: *12/31/08*Printed Name: *Glenn Richardson*Title: *Task Manager*

Attachments (check if attached):

- ☒ Field Notes
- ☐ Photos
- ☐ Maintenance records

Inspection Requirements:

- (1) Quarterly, or
 (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: <i>3/17/09 12:00 PM</i>	Reason for Inspection: <i>Quarterly</i>
Date of Last Post-Closure Inspection: <i>12/31/08</i>	Reason for Last Post-Closure Inspection: <i>Quarterly</i>
Date of Last Rain Event: <i>12/17/08</i>	Quantity of Rainfall in that event: <i>Approx. 5</i> inches <i>of snow</i>
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <i>Glenn Richardson</i>	Title: <i>Task Manager</i> Organization: Environmental Restoration
Assistant Inspector: <i>Steve Bunker</i>	Title: <i>ER Safety</i> Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☐	☒	
b. Was maintenance performed?	☐	☒	
If maintenance was performed, are copies of all maintenance records in the project file?	☐	☐	NA ☒
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA ☒

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****D. SITE INSPECTION**

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?	☒	☐	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?	☒	☐	
b. Have any fence posts been damaged or their anchoring weakened?	☒	☐	
c. Are any of the use restriction signs damaged or missing?	☒	☐	
d. Are all use restriction signs legible?	☐	☒	
e. How many use restriction signs need to be replaced?	0		
f. Are any of the URMA signs damaged or missing?	☒	☐	
g. Are all URMA signs legible?	☐	☒	
h. How many URMA signs need to be replaced?	0		
i. Is the gate intact and functional?	☐	☒	
j. Does the gate show evidence of tampering or damage?	☒	☐	
k. Was the gate locked?	☐	☒	
l. Does the wave barrier require repair?	☒	☐	
m. Is there standing water within or at the fence line?	☒	☐	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?	N/A		
n. Other?	☒	NA	
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?	☒	☐	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

3. Waste unit cover (continued):	YES	NO	EXPLANATION	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
b. Is there evidence of cracking?		✓		
c. Is there evidence of erosion (wind or water)?		✓		
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?		✓		
f. Is there evidence of animal burrowing?		✓		
g. Is vegetation growing on the cover?		✓		
h. Other (including trash, debris, etc within fenced area)?		✓	NA	
4. Subsidence survey markers:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have any of the five (5) subsidence survey markers been disturbed?		✓		
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c. Is there excessive vegetation around the subsidence survey markers?		✓		
d. Other?		✓	NA	
5. Photograph Instructions:				
<ul style="list-style-type: none"> A standard set of color photographs is required. Eight photographs must be taken during each inspection of CAU 92: <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W). In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. Additional photographs may also be taken. A photograph log entry will be made for each photograph taken. 				
6. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have all photographs been taken as required by the photograph instructions?	✓			
b. Has a photograph log been prepared?	✓			
c. How many photographs were taken?	8			
d. Other?		✓	NA	
E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)	
1. Are more frequent inspections required?		✓		
2. Are existing maintenance/repair actions satisfactory?	✓			
3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes small – less than 2 inches deep – cracks or settling imperfections of the cover)? [minor repairs]		✓	If "yes", describe in Field conclusions/recommendations and the Task Manager must complete the "Follow-up Actions" (not part of checklist)	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 2 inches deep) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: <i>The chain-link fence, UR signage, and wave barriers were in excellent condition. No evidence of settling or cracking on the soil cover. Also, there is no evidence of vegetation growth or animal burrowing on the soil cover. The surface monuments are in good condition. There are no issues or concerns at this site.</i>			

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: */s/ Glenn Richardson*

Date: *3/17/09*

Printed Name: *Glenn Richardson*

Title: *Task Manager*

Required Attachments:

1. Field Notes

2. Photos (or note File Location: S:\NTS\ER Share\ *Photos\ CAU 092\ 2009*)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: */s/ Reed Poderis*

Date: *6-14-09*

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: 6/17/09 1100

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 3/17/09

Reason for Last Post-Closure Inspection: Quarterly

Date of Last Rain Event:

Quantity of Rainfall in that event: inches

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Mike Floyd

Title: Field Supervisor

Organization: Environmental Restoration

Assistant Inspector: Brian Konrad

Title: Field Coordinator

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

If maintenance was performed, are copies of all maintenance records in the project file?

NA ✓

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA ✓

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****D. SITE INSPECTION**

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fence posts been damaged or their anchoring weakened?		✓	
c. Are any of the use restriction signs damaged or missing?		✓	
d. Are all use restriction signs legible?	✓		
e. How many use restriction signs need to be replaced?		0	
f. Are any of the URMA signs damaged or missing?		✓	
g. Are all URMA signs legible?	✓		
h. How many URMA signs need to be replaced?		0	
i. Is the gate intact and functional?	✓		
j. Does the gate show evidence of tampering or damage?		✓	
k. Was the gate locked?	✓		
l. Does the wave barrier require repair?		✓	
m. Is there standing water within or at the fenceline?		✓	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?			
n. Other?			NA ✓
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****3. Waste unit cover (continued):**

YES

NO

EXPLANATION

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

b. Is there evidence of cracking?

☒☒

c. Is there evidence of erosion (wind or water)?

☒☒

d. Is there evidence of human intrusion onto the cover?

☒☒

e. Is there evidence of large animal intrusion onto the cover?

☒☒

f. Is there evidence of animal burrowing?

☒☒

g. Is vegetation growing on the cover?

☒☒

h. Other (including trash, debris, etc within fenced area)?

☒☒

NA

4. Subsidence survey markers:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have any of the five (5) subsidence survey markers been disturbed?

☒☒

b. Do natural processes threaten the integrity of any subsidence survey marker?

☒☒

c. Is there excessive vegetation around the subsidence survey markers?

☒☒

d. Other?

☒☒

NA

5. Photograph Instructions:

- A standard set of color photographs is required. Eight photographs must be taken during each inspection of CAU 92:
 - Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W).
- In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed.
- Additional photographs may also be taken.
- A photograph log entry will be made for each photograph taken.

6. Photograph Documentation:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have all photographs been taken as required by the photograph instructions?

☒☒

b. Has a photograph log been prepared?

☒☒

c. How many photographs were taken?

☒☒

d. Other?

☒☒

NA

E. FIELD CONCLUSIONS

YES

NO

EXPLANATION (required if shaded box is checked)

1. Are more frequent inspections required?

☒☒

2. Are existing maintenance/repair actions satisfactory?

☒☒

3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes small - less than 2 inches deep - cracks or settling imperfections of the cover)? [minor repairs]

☒☒

If "yes", describe in Field conclusions/recommendations and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****E. FIELD CONCLUSIONS (continued)**

YES

NO

EXPLANATION (required if shaded box is checked)

4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 2 inches deep) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

5. Will necessary repairs change the as-built condition of the unit?

✓

If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

6. Field conclusions/recommendations:

fence, gate, signs & wave barrier
in good condition. No evidence of settling or cracking
observed. No vegetation on cover. Monuments in good
condition. No issues.

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Mike Floyd

Date:

6/17/09

Printed Name:

Mike Floyd

Title:

Field Supervisor

Required Attachments:

1. Field Notes

2. Photos (or note File Location: S:\NTS\ER Share\CAU 092\2009)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager**G. VERIFICATION**

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed Poderis

Date:

6/18/09

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: 9/23/09 12:00

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 6/17/09

Reason for Last Post-Closure Inspection: Quarterly

Date of Last Rain Event: 8/4/08

Quantity of Rainfall in that event: 0.73 inches

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn Richardson

Title: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Dorey Emer

Title: Sr Scientist

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

If maintenance was performed, are copies of all maintenance records in the project file?

NA

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****D. SITE INSPECTION**

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fence posts been damaged or their anchoring weakened?		✓	
c. Are any of the use restriction signs damaged or missing?		✓	
d. Are all use restriction signs legible?	✓		
e. How many use restriction signs need to be replaced?		0	
f. Are any of the URMA signs damaged or missing?		✓	
g. Are all URMA signs legible?	✓		
h. How many URMA signs need to be replaced?		0	
i. Is the gate intact and functional?	✓		
j. Does the gate show evidence of tampering or damage?		✓	
k. Was the gate locked?	✓		
l. Does the wave barrier require repair?		✓	
m. Is there standing water within or at the fenceline?		✓	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?			
n. Other?			NA
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

3. Waste unit cover (continued):	YES	NO	EXPLANATION	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
b. Is there evidence of cracking?		✓		
c. Is there evidence of erosion (wind or water)?		✓		
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?		✓		
f. Is there evidence of animal burrowing?		✓		
g. Is vegetation growing on the cover?	✓		along Margie of Cover NW & S	
h. Other (including trash, debris, etc within fenced area)?		✓	NA	
4. Subsidence survey markers:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have any of the five (5) subsidence survey markers been disturbed?		✓		
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c. Is there excessive vegetation around the subsidence survey markers?		✓		
d. Other?			NA	
5. Photograph Instructions:				
<ul style="list-style-type: none"> A standard set of color photographs is required. Eight photographs must be taken during each inspection of CAU 92: <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W). In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. Additional photographs may also be taken. A photograph log entry will be made for each photograph taken. 				
6. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have all photographs been taken as required by the photograph instructions?	✓			
b. Has a photograph log been prepared?	✓			
c. How many photographs were taken?	12		8 R x T, 4 Out 4 in 4 Veg 4 Veg	
d. Other?			NA	
E. FIELD CONCLUSIONS				
	YES	NO	EXPLANATION (required if shaded box is checked)	
1. Are more frequent inspections required?		✓		
2. Are existing maintenance/repair actions satisfactory?	✓			
3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes small - less than 2 inches deep - cracks or settling imperfections of the cover)? [minor repairs]	✓		If "yes", describe in Field conclusions/recommendations and the Task Manager must complete the "Follow-up Actions" (not part of checklist)	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 2 inches deep) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]		☒	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		☒	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: <u>Fence, Gate, Signage, & Levee Barrier are in good condition.</u> <u>No Evidence of Settling or Cracking of Cover.</u> <u>Vegetation growth noted along the Northwest, North, and South Margins of the Cover that will Require Removal.</u>			

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Glenn RichardsonDate: 9/23/09Printed Name: Glenn RichardsonTitle: Task Manager**Required Attachments:**

1. Field Notes

2. Photos (or note File Location: S:\NTS\ER Share\photos\CAU 09\0609\06-05-09 CAU 92 inspection)**Distribution:** Original – Industrial Sites Project Manager

Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed PoderisDate: 9/29/09Printed Name: Thomas A. Thiele (or designee)**Distribution:** Original – Task Manager

CORRECTIVE ACTION UNIT 110 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

Inspection Date and Time: <u>12/31/08</u> <u>10:10AM</u>	Reason for Inspection: <u>Quarterly (Follow-up Inspection)</u>
Date of Last Post-Closure Inspection: <u>12/22/08</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Glenn Richardson</u>	Title: <u>Task Manager</u> Organization: Environmental Restoration
Assistant Inspector: <u>Chris McGowin</u>	Title: <u>Field Tech Lead</u> Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes and photograph log attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	✓		
2. Has the Post-Closure Permit application been reviewed?	✓		
3. Has the Post-Closure Plan been reviewed?	✓		
4. Have the site as-built plans and site base map been reviewed?	✓		
5. Have the previous inspection reports been reviewed?	✓		
a. Were anomalies or trends detected on previous inspections?		✓	
b. Was maintenance performed?	✓		<u>AS a BMP, all UR signs were replaced with signs that meet our current EFACO guidance (11/10/08).</u>
If maintenance was performed, has a copy of the maintenance records been obtained?	✓		
6. Have the site maintenance and repair records been reviewed?	✓		
a. If so, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Is there damage to or a break in the chicken wire fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Is the gate intact and functional?	✓		
e. Does the gate show evidence of tampering or damage?		✓	
f. Was the gate locked?	✓		
g. Are any of the use restriction signs damaged or missing?		✓	
h. Are all use restriction signs legible?	✓		
i. How many use restriction signs need to be replaced?	0		
j. Other?		NA	✓
3. Waste unit cover (Western portion, "ax"):	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?	✓	NA	✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

	YES	NO	EXPLANATION
4. Waste unit cover (Eastern portion, "bx"):			Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA
5. Subsidence survey markers and TDR Probes:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have any of the 7 subsidence survey markers been disturbed?		✓	
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓	
c. Is there excessive vegetation around the subsidence survey markers?		✓	
d. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓	
e. Other?			NA ✓
6. Photograph Instructions:			
<p>A total of 8 photographs are required to be taken during each inspection of CAU 110. Additional photographs may also be taken. The required photographs shall be taken as follows:</p> <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and Four (4) of the unit from outside the fence, one in each compass direction. 			
7. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	✓		
b. Has a photograph log been prepared?	✓		Log number: <i>An electronic photo log is available on the ER shared drive under CAU110.</i>
c. How many photographs were taken?		8	
d. Other?			NA ✓
E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
4. Is there an imminent hazard to the integrity of the unit? (Immediate report required)		✓	
Person/Agency to whom report was made:			
5. Field conclusions/recommendations: <i>Due to the amount of snow on the landfill cover during the 12/22/08 inspection, a follow-up site inspection was performed to find the snow had melted off and the landfill cover in excellent condition. There was no evidence of settling or cracks on the cover surface. The UR signs were intact and legible. No evidence of animal burrows. Vegetation appeared to be in good condition. There are no follow-up actions required at this site.</i>			
F. CERTIFICATION			
I have conducted an inspection of CAU 110, Area 3 WMD U-3ax/bl Crater, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.			
Chief Inspector's Signature:	/s/ Glenn Richardson		Date: <i>12/31/08</i>
Printed Name: <i>Glenn Richardson</i>			Title: <i>Task Manager</i>

Attachments (check if attached):

- ☒ Field Notes
- ☐ Photos
- ☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

Inspection Date and Time: 3/17/09 10:45AM

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 12/31/08

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn Richardson

Title: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Greg Doyle

Title: Sr. Scientist

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 91 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

✓

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

D. SITE INSPECTION

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Is there damage to or a break in the chicken wire fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Is the gate intact and functional?	✓		
e. Does the gate show evidence of tampering or damage?		✓	
f. Was the gate locked?	✓		
g. Are any of the use restriction signs damaged or missing?		✓	
h. Are all use restriction signs legible?	✓		
i. How many use restriction signs need to be replaced?	0		
3. Waste unit cover (Western portion, "ax"):	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?	✓		Evidence of small animal burrows on the west portion of the vegetative cover, but does not warrant a corrective action.
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

				EXPLANATION
4. Waste unit cover (Eastern portion, "bl"):	YES	NO		Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓		
b. Is there evidence of cracking?	✓			A small crack was noted, but was not determined significant enough to warrant a follow-up action.
c. Is there evidence of erosion (wind or water)?		✓		
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?		✓		
f. Is there evidence of animal burrowing?	✓			There was small evidence of animal burrows, but they did not require a follow-up action.
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓		
h. Other (including trash, debris, etc within fenced area)?		✓	NA	
5. Subsidence survey markers and TDR Probes:	YES	NO		EXPLANATION (required if shaded box is checked)
a. Have any of the seven (7) subsidence survey markers been disturbed?		✓		
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c. Is there excessive vegetation around the subsidence survey markers?		✓		
d. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓		
e. Other?		✓	NA	
6. Photograph Instructions:				
<ul style="list-style-type: none"> A standard set of eight (8) color photographs is required to be taken during each inspection of CAU 110: <ul style="list-style-type: none"> - Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) - Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W). In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. Additional photographs may also be taken. A photograph log entry will be made for each photograph taken. 				
7. Photograph Documentation:	YES	NO		EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	✓			
b. Has a photograph log been prepared?	✓			
c. How many photographs were taken?	8			
d. Other?		✓	NA	
E. FIELD CONCLUSIONS	YES	NO		EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓		
2. Are existing maintenance/repair actions satisfactory?	✓			

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover)? [minor repairs]		☒	If "yes", describe in Field conclusions/recommendations
4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 6 inches deep and 3 feet long) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]		☒	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		☒	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: <i>The UR signage, fencing, and surface monuments were in excellent condition. The vegetation on the cover appears to be in good condition. A small crack was noticed on the cover near the East TDR unit, but was not significant to warrant a follow-up corrective action. This area will continue to be monitored during the next quarterly inspection period. Also, there was no evidence of significant animal burrowing. Overall site conditions are good with no follow-up corrective actions.</i>			

F. CERTIFICATION

I have conducted an inspection of CAU 110, Area 3 WMD U-3ax/bl Crater, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: /s/ Glenn Richardson

Date: 3/17/09

Printed Name: Glenn Richardson

Title: Task Manager

Required Attachments:

- Field Notes
- Photos (or note File Location: S:\NTS\ER Share\ Photos\CAU 110\ 2009)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed Poderis

Date: 6-14-09

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

Inspection Date and Time: 6/17/09 1004

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 3/17/09

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Mike Floyd Title: Field Supervisor Organization: Environmental Restoration

Assistant Inspector: Brian Kottal Title: Field Coordinator Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 91 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

✓

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

D. SITE INSPECTION

- The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Is there damage to or a break in the chicken wire fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Is the gate intact and functional?	✓		
e. Does the gate show evidence of tampering or damage?		✓	
f. Was the gate locked?	✓		
g. Are any of the use restriction signs damaged or missing?		✓	
h. Are all use restriction signs legible?	✓		
i. How many use restriction signs need to be replaced?		0	
3. Waste unit cover (Western portion, "ax"):	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?	✓		Evidence of small animal burrows, but does not require corrective action.
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

4. Waste unit cover (Eastern portion, "bl"):		YES	NO	EXPLANATION	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a.	Is there evidence of settling?		✓		
b.	Is there evidence of cracking?	✓	✓	Small cracks observed on East & North East side of cover. No CA required.	
c.	Is there evidence of erosion (wind or water)?		✓		
d.	Is there evidence of human intrusion onto the cover?		✓		
e.	Is there evidence of large animal intrusion onto the cover?		✓		
f.	Is there evidence of animal burrowing?	✓		Evidence of small animal burrows, but does not require corrective action.	
g.	Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓		
h. Other (including trash, debris, etc within fenced area)?				NA	✓
5. Subsidence survey markers and TDR Probes:		YES	NO	EXPLANATION (required if shaded box is checked)	
a.	Have any of the seven (7) subsidence survey markers been disturbed?		✓		
b.	Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c.	Is there excessive vegetation around the subsidence survey markers?		✓		
d.	Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓		
e. Other?				NA	✓
6. Photograph Instructions:					
<ul style="list-style-type: none"> A standard set of eight (8) color photographs is required to be taken during each inspection of CAU 110: <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W). In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. Additional photographs may also be taken. A photograph log entry will be made for each photograph taken. 					
7. Photograph Documentation:		YES	NO	EXPLANATION (required if shaded box is checked)	
a.	Have all photographs been taken as required by the photograph instructions?	✓			
b.	Has a photograph log been prepared?	✓			
c.	How many photographs were taken?	8			
d. Other?				NA	✓
E. FIELD CONCLUSIONS		YES	NO	EXPLANATION (required if shaded box is checked)	
1. Are more frequent inspections required?			✓		
2. Are existing maintenance/repair actions satisfactory?		✓			

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover)? [minor repairs]		✓	If "yes", describe in Field conclusions/recommendations
4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 6 inches deep and 3 feet long) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: <i>Fencing, gate, UK signs and monuments were in good condition. Vegetation on cover in good condition. Small cracks were observed on the ^{NE} East and Northeast edge of cover, but were not significant to warrant Follow up action. Area will continue to be monitored during next inspection. No significant evidence of animal burrowing. Overall site conditions are good.</i>			

F. CERTIFICATION

I have conducted an inspection of CAU 110, Area 3 WMD U-3ax/bl Crater, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: */s/ Mike Floyd*

Date: *6/17/09*

Printed Name: *M. E. Floyd*

Title: *Field Supervisor*

Required Attachments:

- Field Notes
- Photos (or note File Location: *S:\NTS\ER Share\CAU 110\2009*)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: */s/ Reed Poderis*

Date: *6/18/09*

Printed Name: *Thomas A. Thiele (or designee)*

Distribution: Original – Task Manager

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

Inspection Date and Time: <u>9/23/09 11:08</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>6/17/09</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Glen Richardson</u>	Title: <u>Task Manager</u>
Assistant Inspector: <u>Dudley Evers</u>	Title: <u>Sr. Scientist</u>
Organization: Environmental Restoration	

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 91 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	✓		
2. Has the Post-Closure Permit application been reviewed?	✓		
3. Has the Post-Closure Plan been reviewed?	✓		
4. Have the site as-built plans and site base map been reviewed?	✓		
5. Have the previous inspection reports been reviewed?	✓		
a. Were anomalies or trends detected on previous inspections?	✓		<u>small cracks noted, Animal Burrow</u>
b. Was maintenance performed?		✓	<u>animal not required</u>
6. Have the site maintenance and repair records been reviewed?	✓		
a. If so, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	✓		NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, digital storage drive, and extra batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

D. SITE INSPECTION

- The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Is there damage to or a break in the chicken wire fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Is the gate intact and functional?	✓		
e. Does the gate show evidence of tampering or damage?		✓	
f. Was the gate locked?	✓		1 Sign down on N.E. Corner
g. Are any of the use restriction signs damaged or missing?	✓		
h. Are all use restriction signs legible?	✓		
i. How many use restriction signs need to be replaced?	1		Rehang Sign
3. Waste unit cover (Western portion, "ax"):	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?	✓		minor burrows no correction taken
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

	YES	NO	EXPLANATION	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
4. Waste unit cover (Eastern portion, "bl"):				
a. Is there evidence of settling?		✓		
b. Is there evidence of cracking?	✓			1 in fracture with soil piping minor
c. Is there evidence of erosion (wind or water)?		✓		1 in crack along E. Boundary with soil piping
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?	✓			1 larger but unused burrow along N side - see photo
f. Is there evidence of animal burrowing?	✓			Small animal burrows - no action required
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓		
h. Other (including trash, debris, etc within fenced area)?		✓	NA	
5. Subsidence survey markers and TDR Probes:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have any of the seven (7) subsidence survey markers been disturbed?		✓		
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c. Is there excessive vegetation around the subsidence survey markers?		✓		
d. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓		
e. Other?			NA	
6. Photograph Instructions:				
<ul style="list-style-type: none"> A standard set of eight (8) color photographs is required to be taken during each inspection of CAU 110: <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) Four (4) of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W). In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. Additional photographs may also be taken. A photograph log entry will be made for each photograph taken. 				
7. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have all photographs been taken as required by the photograph instructions?	✓			
b. Has a photograph log been prepared?	✓			
c. How many photographs were taken?	15		2 photo 1 in fracture, 1 survey pt 2 photo 3 in fracture, 1 2000 sign	
d. Other?			NA	
E. FIELD CONCLUSIONS				
1. Are more frequent inspections required?		✓		
2. Are existing maintenance/repair actions satisfactory?	✓			

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

E. FIELD CONCLUSIONS (continued)	YES	NO	EXPLANATION (required if shaded box is checked)
3. Are general housekeeping (i.e., "minor") maintenance/repair actions needed (includes cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover)? [minor repairs]	☒		If "yes", describe in Field conclusions/recommendations
4. Are there any deficiencies that require a remedy other than general housekeeping or small (less than 6 inches deep and 3 feet long) cracks or settling imperfections of the cover? [i.e., more than "minor repairs"]	☒		If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?	☒		If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: <i>Perce, gate, monuments & TOR equipment in good shape. Vegetation is in good condition. Small animal burrows were noted but follow up not required. 1 larger animal burrow noted on North Side but is unused. 2 fractures noted. One in fracture on the Southeast side with minor soil piping. 2) a 3m linear fracture along eastern margin with soil piping - neither showed subsidence. Recommend: Site visit by G. Doyle for engineering evaluation. Need to Rehang Sign NE corner</i>			
F. CERTIFICATION			
I have conducted an inspection of CAU 110, Area 3 WMD U-3ax/bl Crater, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.			
Chief Inspector's Signature:	/s/ Glenn Richardson		Date: <i>9/23/09</i>
Printed Name: <i>Glenn Richardson</i>			Title: <i>Task Manager</i>

Required Attachments:

1. Field Notes
2. Photos (or note File Location: *S:\NTS\ER Share\Photos\CAU 110\09-23-09 CAU 110 inspection*)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION	
I have reviewed this checklist and attachments and have verified that it is complete.	
Signature: /s/ Reed Poderis	Date: <i>9/24/09</i>
Printed Name: <i>Thomas A. Thiele (or designee)</i>	

Distribution: Original – Task Manager

CORRECTIVE ACTION UNIT 112 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

Inspection Date and Time: 12/22/08 1300

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 9/23/08

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: M. L. Floyd

Title: FTL

Organization: Environmental Restoration

Assistant Inspector: Chris McGowan

Title: FTL

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
5. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

X

NO

2. Has the Post-Closure Permit application been reviewed?

X

NO

3. Has the Post-Closure Plan been reviewed?

X

NO

4. Have the site as-built plans and site base map been reviewed?

X

NO

5. Have the previous inspection reports been reviewed?

X

NO

a. Were anomalies or trends detected on previous inspections?

X

NO

b. Was maintenance performed?

X

NO

If maintenance was performed, has a copy of the maintenance records been obtained?

X

NO

NA

6. Have the site maintenance and repair records been reviewed?

X

NO

a. If so, has site repair resulted in a change from as-built conditions?

X

NO

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

X

NO

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

a. Camera, film, and batteries

e. Radio, pager, etc.

b. Keys to locks

f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans

c. Clipboard

g. Other miscellaneous support equipment

d. Tape measure

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)
D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		X		
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Is there damage to or a break in the fence?		X		
b. Have any fenceposts been damaged or their anchoring weakened?		X		
c. Is the gate intact and functional?	X			
d. Does the gate show evidence of tampering or damage?		X		
e. Was the gate locked?	X			
f. Are any of the use restriction signs damaged or missing?		X		
g. Are all use restriction signs legible?	X			
h. How many use restriction signs need to be replaced?	0			
i. Other?			NA	X
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have landfill monuments been disturbed?		X		
b. Do natural processes threaten the integrity of any landfill monuments?		X		
c. Is there excessive vegetation around the landfill monuments?		X		
d. Other?			NA	X
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Is there evidence of settling?		X		
b. Is there evidence of cracking?		X		
c. Is there evidence of erosion (wind or water)?		X		
d. Is there evidence of human intrusion onto the cover?		X		
e. Is there evidence of large animal intrusion onto the cover?		X		
f. Is there evidence of animal burrowing?		X		
g. Is vegetation growing on the cover?		X		
h. Other (including trash, debris, etc within fenced area)?			NA	X

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Photograph Documentation (optional):	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		X	Photos Not Required
If yes, how many photos were taken?		0	
If yes, has a photographic log been prepared?		X	Log number: N/A

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		X	
2. Are existing maintenance/repair actions satisfactory?	X		
3. Is other maintenance/repair necessary?		X	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		X	

Date reported: _____

Person/Agency to whom report was made: _____

5. Field conclusions/recommendations: Sign Gate Force Monuments were Found to be in good condition, No issues or concerns.

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: /s/ Mike FloydDate: 12/22/08Printed Name: M. G. FloydTitle: FTL

Attachments (check if attached):

- ☒ Field Notes
☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)**Inspection Date and Time: 3/17/09 12:48 PMReason for Inspection: QuarterlyDate of Last Post-Closure Inspection: 12/31/08Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn RichardsonTitle: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Steve BunkerTitle: ER Safety

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☐	☒	
b. Was maintenance performed?	☐	☒	
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA ☒

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

D. SITE INSPECTION

- The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist. The checklist should be completed during the site inspection.*
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?		✓	
b. Do natural processes threaten the integrity of any landfill monuments?		✓	
c. Is there excessive vegetation around the landfill monuments?		✓	
d. Other?			NA ✓
4. Neutron Access Pads:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have neutron access pads been disturbed?		✓	
b. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		✓	
c. Other?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	small amount of vegetation is beginning to sprout on the side slopes of the cover, but does not warrant a follow-up action.
h. Is there any obvious damage to the cover or plastic liner?		✓	
i. Other (including trash, debris, etc within fenced area)?		✓	NA

6. Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs at the site. These will be used to plan maintenance/repair activities and are not intended for use in the post-closure annual report.
- Anomalous features or new features (such as changes in adjacent area land use) should be photographed.
- Other photographs are optional.
- A photograph log entry will be made for each photograph taken.

7. Photograph Documentation:	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		✓	Photos are not required.
If yes, how many photos were taken?		-	N/A
If yes, has a photographic log been prepared?		✓	

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	If yes, describe below
4. Is there obvious damage to the cover or plastic liner?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

6. Field conclusions/recommendations: The UR fencing, signage, and aboveground monuments are in good condition. There is no evidence of intrusion on the cover. A small amount of vegetation is beginning to sprout along the side slope of the riprap cover, but nothing is significant that would warrant a follow-up

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)****E. FIELD CONCLUSIONS (continued)**6. Field conclusions/recommendations (continued): corrective action**F. CERTIFICATION**

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: /s/ Glenn RichardsonDate: 3/17/09Printed Name: Glenn RichardsonTitle: Task Manager**Required Attachments:**

1. Field Notes (if any)
2. Photos (or note File Location: S:\NTS\ER Share\ Photos\CAU 112\2009)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed PoderisDate: 6-14-09Printed Name: Thomas A. Thiele (or designee)**Distribution:** Original – Task Manager

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)**Inspection Date and Time: 6/17/09 1250Reason for Inspection: QuarterlyDate of Last Post-Closure Inspection: 3/17/09Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Mike FloydTitle: Field Supervisor

Organization: Environmental Restoration

Assistant Inspector: Brian KonradTitle: Field Coordinator

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

✓

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- Camera, digital storage drive, and extra batteries
- Keys to locks
- Clipboard
- Tape measure
- Radio, pager, etc.
- Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

D. SITE INSPECTION

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?	☐	☒	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?	☐	☒	
b. Have any fenceposts been damaged or their anchoring weakened?	☐	☒	
c. Is the gate intact and functional?	☒	☐	
d. Does the gate show evidence of tampering or damage?	☐	☒	
e. Was the gate locked?	☒	☐	
f. Are any of the use restriction signs damaged or missing?	☐	☒	
g. Are all use restriction signs legible?	☒	☐	
h. How many use restriction signs need to be replaced?		☐	
i. Other?	☐	☐	NA ☒
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?	☐	☒	
b. Do natural processes threaten the integrity of any landfill monuments?	☐	☒	
c. Is there excessive vegetation around the landfill monuments?	☐	☒	
d. Other?	☐	☐	NA ☒
4. Neutron Access Pads:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have neutron access pads been disturbed?	☐	☒	
b. Are well covers for neutron access tubes broken, lost, or otherwise damaged?	☐	☒	
c. Other?	☐	☐	NA ☒

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?	✓	✗	Minimal amount
h. Is there any obvious damage to the cover or plastic liner?		✓	
i. Other (including trash, debris, etc within fenced area)?			NA ✓

6. Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs at the site. These will be used to plan maintenance/repair activities and are not intended for use in the post-closure annual report.
- Anomalous features or new features (such as changes in adjacent area land use) should be photographed.
- Other photographs are optional.
- A photograph log entry will be made for each photograph taken.

7. Photograph Documentation:	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		✓	none required
If yes, how many photos were taken?	0		
If yes, has a photographic log been prepared?		✓	

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	If yes, describe below
4. Is there obvious damage to the cover or plastic liner?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)

6. Field conclusions/recommendations: fence, gate & signs in good condition, monuments intact, small amount of vegetation on cover.

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)****E. FIELD CONCLUSIONS (continued)**

6. Field conclusions/recommendations (continued):

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature **/s/ Mike Floyd**

Date:

6/17/09

Printed Name:

Mike Floyd

Title:

Field Supervisor**Required Attachments:**

1. Field Notes (if any)

2. Photos (or note File Location: S:\NTS\ER Share\ **CAU112\2009**)**Distribution:** Original – Industrial Sites Project Manager
Copy – Task Manager**G. VERIFICATION**

I have reviewed this checklist and attachments and have verified that it is complete.

Signature:

/s/ Reed Poderis

Date:

6/17/09

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

Inspection Date and Time: 9/23/09 12:35

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 6/17/09

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn Richardson

Title: TASK MANAGER

Organization: Environmental Restoration

Assistant Inspector: Dudley Eriev

Title: Sr. Scientist

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- Complete all checklist items.
- If a SHADED BOX is checked, provide detailed information regarding what was found and/or appropriate references to other documents that have the information (e.g., Maintenance Order Form for CAU 92 dated 2/15/2008).
- All documentation must be legible and clear.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

NA

2. Has the Post-Closure Permit application been reviewed?

✓

NA

3. Has the Post-Closure Plan been reviewed?

✓

NA

4. Have the site as-built plans and site base map been reviewed?

✓

NA

5. Have the previous inspection reports been reviewed?

✓

NA

a. Were anomalies or trends detected on previous inspections?

NA

✓

b. Was maintenance performed?

NA

✓

6. Have the site maintenance and repair records been reviewed?

✓

NA

a. If so, has site repair resulted in a change from as-built conditions?

NA

✓

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

✓

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, digital storage drive, and extra batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

D. SITE INSPECTION

- *The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.* The checklist should be completed during the site inspection.
- If a shaded box is checked, add detailed comments to document the results of the site inspection. Information provided should be of sufficient detail to enable reconstruction of observations regarding field conditions. Information can take the form of written narrative, sketches, measurements, and annotated site maps, all of which should be placed on additional attachments (if needed) and cross-reference appropriately. Attach the additional pages and number all pages upon completion of the inspection. The completed checklist is part of the field record of the inspection.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes, and additional field notes are not required if the checklist and associated attachments adequately describe site conditions.

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		☒	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		☒	
b. Have any fenceposts been damaged or their anchoring weakened?		☒	
c. Is the gate intact and functional?	☒		
d. Does the gate show evidence of tampering or damage?		☒	
e. Was the gate locked?	☒		
f. Are any of the use restriction signs damaged or missing?		☒	
g. Are all use restriction signs legible?	☒		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ☒
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?		☒	
b. Do natural processes threaten the integrity of any landfill monuments?		☒	
c. Is there excessive vegetation around the landfill monuments?		☒	
d. Other?			NA ☒
4. Neutron Access Pads:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have neutron access pads been disturbed?		☒	
b. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		☒	
c. Other?			NA ☒

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?	✓		Minor Veg growth - sporadic
h. Is there any obvious damage to the cover or plastic liner?		✓	
i. Other (including trash, debris, etc within fenced area)?			NA

6. Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs at the site. These will be used to plan maintenance/repair activities and are not intended for use in the post-closure annual report.
- Anomalous features or new features (such as changes in adjacent area land use) should be photographed.
- Other photographs are optional.
- A photograph log entry will be made for each photograph taken.

7. Photograph Documentation:	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		✓	Not Required
If yes, how many photos were taken?	—		
If yes, has a photographic log been prepared?		✓	

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	If yes, describe below
4. Is there obvious damage to the cover or plastic liner?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
5. Will necessary repairs change the as-built condition of the unit?		✓	If "yes", describe below and the Task Manager must complete the "Follow-up Actions" (not part of checklist)
6. Field conclusions/recommendations: Gate Fencing & Signs in good Condition. Monuments & Covers intact. Small amount of Vegetation on Cover.			

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

E. FIELD CONCLUSIONS (continued)

6. Field conclusions/recommendations (continued):

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: /s/ Glenn Richardson

Date: 9/23/09

Printed Name: Glenn Richardson

Title: Task Manager

Required Attachments:

1. Field Notes (if any)
2. Photos (or note File Location: S:\NTS\ER Share_____)

Distribution: Original – Industrial Sites Project Manager
Copy – Task Manager

G. VERIFICATION

I have reviewed this checklist and attachments and have verified that it is complete.

Signature: /s/ Reed Poderis

Date: 9/24/09

Printed Name: Thomas A. Thiele (or designee)

Distribution: Original – Task Manager

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APPENDIX B.

FIELD NOTES

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DECEMBER 22, 2008

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Work continued from Page _____

BOOK NO.

12/22/08

RCRA Post Closure Inspections

Personnel, Mike Floyd - ETL, Chris McGowan - ETL, Steve Muans - RCT.

VISITORS - NONE

SCOPE - PERFORM PCM SITE INSPECTIONS AT THE FOLLOWING LOCATIONS,

CAU 90, 92, 110, 112

WEATHER - LOW 40°, CALM, OVERCAST.

0935 - ARRIVE ON LOCATION CAU 92, COLLECT 8 PHOTOS, FENCE + SIGNS, GATE WERE FOUND TO BE IN GOOD CONDITION AS WELL AS WAVE BARRIER, THERE IS APPROX 1"-4" ON AND AROUND THE LOCATION. RECOMMEND ANOTHER INSPECTION BE PERFORMED AFTER SNOW HAS MELTED OFF.

0955 - LEAVE LOCATION

1012 - ARRIVE AT LOCATION CAU 110, FENCE, SIGNS, GATE, WERE FOUND TO BE IN GOOD CONDITION, HOWEVER THERE IS APPROX 1"-4" OF SNOW ON THE COVER, RECOMMEND THAT ANOTHER INSPECTION BE DONE WHEN SNOW HAS MELTED. COLLECTED 8 PHOTOS. OUTSIDE, EAST, NORTH, WEST, SOUTH.

INSIDE SNOW SURVEY POINT ^{MSG} EAST, NORTH, WEST, SOUTH.

1050 - LEAVE LOCATION CAU 110.

1105 - ARRIVE ON LOCATION CAU 90, THERE IS APPROX 1/2" - 2" OF SNOW ON GROUND, RECOMMEND ANOTHER INSPECTION WHEN SNOW MELTS. GATES, FENCES + SIGNS WERE FOUND TO BE IN GOOD CONDITION. COLLECT 6 PHOTOS.

EAST UNIT - Looking North, South, West

WEST UNIT - " North, East, South.

1125 - LEAVE LOCATION CAU 90.

1300 - ARRIVE AT LOCATION CAU 112. SIGNS, GATE + FENCE WERE FOUND TO BE IN GOOD CONDITION, NO ISSUES OR CONCERNS CONTINUE REGULAR SCHEDULED INSPECTIONS.

1330 - LEAVE LOCATION CAU 112.

Work continued to Page _____

SIGNATURE

/s/ Mike Floyd

DATE

12/22/08

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DECEMBER 31, 2008

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Follow-up RCRA Post Closure Inspections - 12/31/08

Personnel: Glenn Richardson - NSTec Task Mgr.

Equipment: Camera

Chris McGowin - NSTec Field Tech Lead

PPE: Standard Level D
(no hard hats required)

Greg Doyle - NSTec Engineering Geologist

Steve Munns - RCT (Lead)

Scope: Due to heavy snow conditions during the 12/22/08 RCRA site inspections, a follow-up site inspection is necessary to inspect the landfill covers for CAUs 90, 92, and 110.

9:15AM - Leaving Mercury (Dorm B) in route to Area 2 Bitcutter. However, in route a decision was made to change the sequence and inspect CAU 92 first, then CAU 110, and ending the inspections with CAU 90.

9:45AM - Arrived @ CAU 92 - Decon Pond

Conducted a brief tailgate safety mtg. to discuss cold stress hazards and slips/trips/fall hazards.

Performed the inspection outside of the fenced area to find the UR and radiological signage in good condition. We measured the depth gauge in the NE corner to find no readings above "0." No evidence of snow on the waste unit cover. Prior to entry inside the fenced area ^{we} were greeted by an RCT. Inside the fenced area, we noticed standing water (from melted snow) along the SW and NE perimeter of the cover, but did not see standing water on the actual cover surface. The wave barriers were in excellent condition and there was no evidence of subsidence or settling on the cover. The chainlink fencing was intact and the site was well secured. The RCT provided a ^{UR} cursory survey as we exited the internal fenced area. Required photos were taken.

Overall site conditions were great with no follow-up actions required.

10:10 AM - Arrived @ CAU 110 - ^{Area 3} U3ax/bl.

Performed a site inspection to find no snow cover ~~on~~ the waste unit. The landfill cover was in excellent condition with no evidence of subsidence cracks or settling-imperfections. The vegetation looked good and there were no animal burrows of significant size or volume. Required photos were taken of the site. The UR fencing and new signage was in excellent condition. There are no issues or concerns at this site that would warrant a follow-up action. The RCT provided a cursory survey as we exited the URMA.

10:55 AM - Arrived @ CAU 90 - Bitcutter (Area 2).

Performed a site inspection to find all snow had melted on the surface covers. The UR signage and chain link fencing are in excellent condition. There is no evidence of depressions, settling, or animal burrows on the cover. Overall site conditions for the east and west unit are great. There are no concerns or issues at this site. Required photos were taken at this site.

11:29 AM - End of Inspections - Heading back to Mercury.

Glenn Richardson

MARCH 17, 2009

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RCRA Post Closure Inspections - 3/17/09

Personnel: K. Cabbie - NNSA
 T. Zaferatos - NDEP
 D. Nicodemus - NDEP

Visitors

Equipment: Camera

PPE: Standard Level D
 (No Hard Hats Required)

G. Richardson - NSTec Task Manager

Greg Doyle - NSTec Engineering Geologist

Steve Bunker - NSTec ER Safety

Scope: Perform quarterly PCM site inspections for the following

CAUs: ¹¹² 92, 110, 112

Perform semiannual PCM site inspection for CAU 91

Weather Condition: Sunny, Cool, Low-Mid 60s

* Special Note: RCTs are no longer required (per ER policy) to accompany project personnel and visitors for RCRA PCM inspections. Only an awareness rad briefing is necessary for ER project personnel escorting visitors.

9:35 AM - Arrived @ CAU 166 to observe breached top seal and container (No Issues)

10:15 AM - Arrived @ CAU 91 - U3fi Injection Well (Area 3)

10:20 AM Conducted a tailgate safety briefing to discuss common OSHA hazards and potential biological hazards. Radiological and vehicle hazards were also discussed.

Performed the site inspection to confirm the chain link fencing, use restriction signage, and aboveground monument to be in excellent condition. There was no evidence of human or animal intrusion on the soil cover surface. Also, there was no vegetative growth on the cover. Required photo documentation was taken. There are no issues or concerns at this site.

10:45AM - Arrived @ CAU 110 - USax/61 (Area 3)

Performed site inspection to find overall good site conditions. The vegetation on the cover appears to be maturing at a rapid rate. The UR fencing, signage, and surface monuments are in excellent condition. There was evidence of minor animal burrowing, but it was discussed and determined to not warrant a follow-up corrective action. Noticed a small crack near the East TDR unit on the SE edge of the cover, but it did not meet the criteria for warranting a follow-up corrective action. Photo documentation was taken at the site. Observations noted will be assessed during the next inspection period in June 2009.

11:38AM - Arrived @ CAU 139 to observe the engineer designed landfill cover. An operator and teamster were onsite removing spoil pile material stockpiled near the soil cover. NNSA questioned why work was ongoing. NNSA thought the work activities at CAU 139 were complete. NNSA's question will be addressed by ER mgmt and/or project TM.

12:00 PM - Arrived @ CAU 92 - Decon Pond (Area 6)

The chain link fencing, UR signage, and wave barriers are in great condition. There no evidence of settling, erosion, or depressions on the waste unit cover. No evidence of vegetation growth. The surface monuments and brass markers are in excellent condition. Photo documentation was taken and the depth gauge on the NE corner showed a reading of "zero". There were no issues or concerns at this site.

12:48 PM - Arrived @ CAU 112 - Haz. Waste Trenches (Area 23)

The UR fencing, signage, and aboveground monuments are in excellent condition. Noticed some small vegetation sprouting on the slopes of the rip-rap cover, but was not significant for follow-up action.

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 Made in USA

SIGNATURE

/s/ Glenn Richardson

Work continued to Page

DATE

3/17/09

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JUNE 17, 2009

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6/17/09 RCRA INSPECTIONS
CAU 90, 92, 110, 112

NRCC

Mike Floyd - FS

5 BRIAN KONRAD - FC

Scope - PERFORM RCRA INSPECTIONS + Collect Photos

Safety - General Safety Rules Apply - Level "D" PPE, Heat Stress,
Slip trip fall, Snakes + critters.

EQUIP - NONE

10 Weather - Overcast, Calm, WARM (80-90°)

0845 - DEPART A-23 TO A-2

0935 - ARRIVE AT CAU 90, Gates were locked and found to
Be in good condition, Fences in good condition, Signs
in good condition, Continue normal INSPECTIONS.

15 Collect 6 Photos ^{MOF} ~~LS~~ West Location / EAST Location

1 Looking North	1 Looking South
1 Looking East	1 Looking West
1 Looking South	1 Looking North

Site was found to Be in good condition NO ISSUES OR
CONCERNS.

20

~~0950~~ 0950 - Leave CAU 90, Head for CAU 110.

1005 - ARRIVE AT CAU 110, Photos Collected OUTSIDE

INSIDE

Looking E

Looking E

" N

" N

" W

" W

" S

" S

25

Fence, Gate (locked) Signs + Vegetation were All found to Be in
Good Condition. There are some small cracks on N.E. Curbside

SIGNATURE /s/ Mike Floyd

DATE

6/17/09

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6/17/09 RCRH Cont.

1005 CONT. NO ACTION REQUIRED AT THIS TIME, RECOMMEND
REGULAR INSPECTIONS, CAU 110 WAS FOUND TO BE IN GOOD
CONDITION, NO ISSUES OR CONCERNS.

5 1035 - LEAVE CAU 110, HEAD FOR CAU 92.

1100 - ARRIVE AT CAU 92, COLLECT PHOTOS

OUTSIDE - LOOKING EAST, NORTH, WEST, SOUTH

INSIDE LOOKING EAST, NORTH, WEST, SOUTH.

CAU 92 GATE (LOCKED), FENCE, SIGNS, WAVE BARRIER ALL WERE

10 FOUND TO BE IN GOOD CONDITION, NO ISSUES OR CONCERNS.

CONTINUE REGULAR INSPECTIONS.

1115 - LEAVE CAU 92, HEAD FOR AREA 23.

1145 - ARRIVE BACK AT DAM B, BREAK FOR LUNCH

1230 - HEAD FOR CAU 112.

15 1235 - ARRIVE AT CAU 112. GATE, SIGNS, AND GENERAL SITE CONDITIONS
WERE FOUND TO BE IN GOOD CONDITION. NO ISSUES OR
CONCERNS. NO PHOTOS REQUIRED.

452

SEPTEMBER 23, 2009

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RCRA Post Closure Inspections - 9/23/09

Personnel: K. Cabbie (NNSA)

Ted Zaferatos (NDEP)

G. Richardson (NSTec-TM), Dudley Emer (NSTec - Sr. Scientist)

Scope: Perform quarterly PCM site inspections for CAUs: 92, 110, and 112
Perform semiannual PCM site inspections for CAU 91

Weather: Sunny, Breezy, Mid-High 70s

Equipment: Camera, Measuring Ruler

PPE: Standard Level D (No Hard Hats Required)

9:50 AM - Leaving Mercury (Dorm B) in route to Area 3 U3fi Injection Well. (CAU 91)

10:30 AM - Arrived @ CAU 91 - Area 3 U3fi Injection Well.

We conducted a tailgate safety briefing to discuss common OSHA hazards such as slips/trips/falls, biological hazards, and dehydration/heat stress conditions. A site inspection was performed to confirm the signage and chain link fencing were in excellent condition. There was no evidence of animal burrowing. Also, there was no evidence of vegetation growth within the fenced area or around the concrete monument pad. Required photo documentation was taken. There were no issues or concerns at this site. Leaving CAU 91 @ 10:52 AM.

11:08 AM - Arrived @ CAU 110 - Area 3 WMD U-3ax/b1

Performed inspection of the UR signage, fencing, and vegetative cover. Prior to accessing the site, a brief radiological discussion occurred to highlight potential radiological hazards. The site appeared to be well secured. The vegetation on the cover was full and seemed to be

SIGNATURE

/s/ Glenn Richardson

DATE

9/23/09

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DATE

at a mature level of growth. The fencing was in good condition. The signage was also in good condition, but we noticed one sign was down on the northeast corner of the site. Sign maintenance will be necessary within 60 days. Noticed a small crack along the southeast edge of the vegetative cover that extended approx. 3ft. A photo was taken to support discussions with the client to determine if a follow up action is necessary. Internal discussions will also occur with engineering representative if further evaluation is necessary. There was some small animal burrows on the cover, but not significant ^{quantities} ~~quantity~~ to warrant a follow-up action. The surface monuments and survey markers were in excellent condition. Required photo documentation was taken before leaving U3ax/61 @ 11:40 AM.

12:00 PM - Arrived @ CAU 92 - Area 6 Decon Pond

The site inspection confirmed the UR and radiological signage were in excellent condition. The chain-link fencing was well secured and in great condition. The wave barriers were well-maintained with no evidence of damage. Also, there was no evidence of subsidence or settling on the waste unit cover. However, vegetation was noticed on the southwest, south, and northeast edge of the cover. Vegetation removal is necessary within 60 days. Photos were taken to document this follow-up action in addition to the required photos. Leaving CAU 92 @ 12:10 PM.

12:35 PM - Arrived @ CAU 112 - Area 23 Hazardous Waste Trenches

Performed a drive around inspection to confirm the UR signage and fencing are in good condition. There was no evidence of new vegetation on the cover. The front gate was locked and site secured. Also, the aboveground concrete monuments and berm of rip-rap were in good condition. There are no issues or concerns at this site. No follow-up actions are necessary. End of inspections @ 12:40 PM.

/s/ Glenn Richardson

Work continued to Page 205

APPENDIX C.

PHOTOGRAPHS

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PHOTOGRAPH LOG

CORRECTIVE ACTION UNIT	DATE	PHOTOGRAPH NUMBER	DESCRIPTION
90	12/31/2008	1	West Unit Facing North
		2	West Unit Facing East
		3	West Unit Facing South
		4	East Unit Facing South
		5	East Unit Facing West
		6	East Unit Facing North
	06/17/2009	7	West Unit Facing North
		8	West Unit Facing East
		9	West Unit Facing South
		10	East Unit Facing South
		11	East Unit Facing West
		12	East Unit Facing North
91	03/17/2009	13	Inside Facing North
		14	Inside Facing East
		15	Inside Facing South
		16	Inside Facing West
		17	Surface Monument Facing North
		18	Surface Monitoring Well Facing South
		19	Outside Facing North
		20	Outside Facing East
		21	Outside Facing South
		22	Outside Facing West
	09/23/2009	23	Inside Facing North
		24	Inside Facing East
		25	Inside Facing South
		26	Inside Facing West
		27	Surface Monument Facing North
		28	Surface Monitoring Well Facing South
		29	Outside Facing North
		30	Outside Facing East
		31	Outside Facing South
		32	Outside Facing West

PHOTOGRAPH LOG, CONTINUED

CORRECTIVE ACTION UNIT	DATE	PHOTOGRAPH NUMBER	DESCRIPTION
92	12/31/2008	33	Inside Facing North
		34	Inside Facing East
		35	Inside Facing South
		36	Inside Facing West
		37	Outside Facing North
		38	Outside Facing East
		39	Outside Facing South
		40	Outside Facing West
	03/17/2009	41	Inside Facing North
		42	Inside Facing East
		43	Inside Facing South
		44	Inside Facing West
		45	Outside Facing North
		46	Outside Facing East
		47	Outside Facing South
		48	Outside Facing West
	06/17/2009	49	Inside Facing North
		50	Inside Facing East
		51	Inside Facing South
		52	Inside Facing West
		53	Outside Facing North
		54	Outside Facing East
		55	Outside Facing South
		56	Outside Facing West
	09/23/2009	57	Inside Facing North
		58	Inside Facing East
		59	Inside Facing South
		60	Inside Facing West
		61	Outside Facing North
		62	Outside Facing East
		63	Outside Facing South
		64	Outside Facing West

PHOTOGRAPH LOG, CONTINUED

CORRECTIVE ACTION UNIT	DATE	PHOTOGRAPH NUMBER	DESCRIPTION
110	12/31/2008	65	Inside Facing North
		66	Inside Facing East
		67	Inside Facing South
		68	Inside Facing West
		69	Outside Facing North
		70	Outside Facing East
		71	Outside Facing South
		72	Outside Facing West
	03/17/2009	73	Inside Facing North
		74	Inside Facing East
		75	Inside Facing South
		76	Inside Facing West
		77	Outside Facing North
		78	Outside Facing East
		79	Outside Facing South
		80	Outside Facing West
	06/17/2009	81	Inside Facing North
		82	Inside Facing East
		83	Inside Facing South
		84	Inside Facing West
		85	Outside Facing North
		86	Outside Facing East
		87	Outside Facing South
		88	Outside Facing West
	09/23/2009	89	Inside Facing North
		90	Inside Facing East
		91	Inside Facing South
		92	Inside Facing West
		93	Outside Facing North
		94	Outside Facing East
		95	Outside Facing South
		96	Outside Facing West

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Photograph 1: CAU 90, West Unit Facing North, 12/31/2008

Photograph 2: CAU 90, West Unit Facing East, 12/31/2008

Photograph 3: CAU 90, West Unit Facing South, 12/31/2008

Photograph 4: CAU 90, East Unit Facing South, 12/31/2008

Photograph 5: CAU 90, East Unit Facing West, 12/31/2008

Photograph 6: CAU 90, East Unit Facing North, 12/31/2008

Photograph 7: CAU 90, West Unit Facing North, 06/17/2009

Photograph 8: CAU 90, West Unit Facing East, 06/17/2009

Photograph 9: CAU 90, West Unit Facing South, 06/17/2009

Photograph 10: CAU 90, East Unit Facing South, 06/17/2009

Photograph 11: CAU 90, East Unit Facing West, 06/17/2009

Photograph 12: CAU 90, East Unit Facing North, 06/17/2009

Photograph 13: CAU 91, Inside Facing North, 03/17/2009

Photograph 14: CAU 91, Inside Facing East, 03/17/2009

Photograph 15: CAU 91, Inside Facing South, 03/17/2009

Photograph 16: CAU 91, Inside Facing West, 03/17/2009

Photograph 17: CAU 91, Surface Monument Facing North, 03/17/2009

Photograph 18: CAU 91, Surface Monitoring Well Facing South, 03/17/2009

Photograph 19: CAU 91, Outside Facing North, 03/17/2009

Photograph 20: CAU 91, Outside Facing East, 03/17/2009

Photograph 21: CAU 91, Outside Facing South, 03/17/2009

Photograph 22: CAU 91, Outside Facing West, 03/17/2009

Photograph 23: CAU 91, Inside Facing North, 09/23/2009

Photograph 24: CAU 91, Inside Facing East, 09/23/2009

Photograph 25: CAU 91, Inside Facing South, 09/23/2009

Photograph 26: CAU 91, Inside Facing West, 09/23/2009

Photograph 27: CAU 91, Surface Monument Facing North, 09/23/2009

Photograph 28: CAU 91, Surface Monitoring Well Facing South, 09/23/2009

Photograph 29: CAU 91, Outside Facing North, 09/23/2009

Photograph 30: CAU 91, Outside Facing East, 09/23/2009

Photograph 31: CAU 91, Outside Facing South, 09/23/2009

Photograph 32: CAU 91, Outside Facing West, 09/23/2009

Photograph 33: CAU 92, Inside Facing North, 12/31/2008

Photograph 34: CAU 92, Inside Facing East, 12/31/2008

Photograph 35: CAU 92, Inside Facing South, 12/31/2008

Photograph 36: CAU 92, Inside Facing West, 12/31/2008

Photograph 37: CAU 92, Outside Facing North, 12/31/2008

Photograph 38: CAU 92, Outside Facing East, 12/31/2008

Photograph 39: CAU 92, Outside Facing South, 12/31/2008

Photograph 40: CAU 92, Outside Facing West, 12/31/2008

Photograph 41: CAU 92, Inside Facing North, 03/17/2009

Photograph 42: CAU 92, Inside Facing East, 03/17/2009

Photograph 43: CAU 92, Inside Facing South, 03/17/2009

Photograph 44: CAU 92, Inside Facing West, 03/17/2009

Photograph 45: CAU 92, Outside Facing North, 03/17/2009

Photograph 46: CAU 92, Outside Facing East, 03/17/2009

Photograph 47: CAU 92, Outside Facing South, 03/17/2009

Photograph 48: CAU 92, Outside Facing West, 03/17/2009

Photograph 49: CAU 92, Inside Facing North, 06/17/2009

Photograph 50: CAU 92, Inside Facing East, 06/17/2009

Photograph 51: CAU 92, Inside Facing South, 06/17/2009

Photograph 52: CAU 92, Inside Facing West, 06/17/2009

Photograph 53: CAU 92, Outside Facing North, 06/17/2009

Photograph 54: CAU 92, Outside Facing East, 06/17/2009

Photograph 55: CAU 92, Outside Facing South, 06/17/2009

Photograph 56: CAU 92, Outside Facing West, 06/17/2009

Photograph 57: CAU 92, Inside Facing North, 09/23/2009

Photograph 58: CAU 92, Inside Facing East, 09/23/2009

Photograph 59: CAU 92, Inside Facing South, 09/23/2009

Photograph 60: CAU 92, Inside Facing West, 09/23/2009

Photograph 61: CAU 92, Outside Facing North, 09/23/2009

Photograph 62: CAU 92, Outside Facing East, 09/23/2009

Photograph 63: CAU 92, Outside Facing South, 09/23/2009

Photograph 64: CAU 92, Outside Facing West, 09/23/2009

Photograph 65: CAU 110, Inside Facing North, 12/31/2008

Photograph 66: CAU 110, Inside Facing East, 12/31/2008

Photograph 67: CAU 110, Inside Facing South, 12/31/2008

Photograph 68: CAU 110, Inside Facing West, 12/31/2008

Photograph 69: CAU 110, Outside Facing North, 12/31/2008

Photograph 70: CAU 110, Outside Facing East, 12/31/2008

Photograph 71: CAU 110, Outside Facing South, 12/31/2008

Photograph 72: CAU 110, Outside Facing West, 12/31/2008

Photograph 73: CAU 110, Inside Facing North, 03/17/2009

Photograph 74: CAU 110, Inside Facing East, 03/17/2009

Photograph 75: CAU 110, Inside Facing South, 03/17/2009

Photograph 76: CAU 110, Inside Facing West, 03/17/2009

Photograph 77: CAU 110, Outside Facing North, 03/17/2009

Photograph 78: CAU 110, Outside Facing East, 03/17/2009

Photograph 79: CAU 110, Outside Facing South, 03/17/2009

Photograph 80: CAU 110, Outside Facing West, 03/17/2009

Photograph 81: CAU 110, Inside Facing North, 06/17/2009

Photograph 82: CAU 110, Inside Facing East, 06/17/2009

Photograph 83: CAU 110, Inside Facing South, 06/17/2009

Photograph 84: CAU 110, Inside Facing West, 06/17/2009

Photograph 85: CAU 110, Outside Facing North, 06/17/2009

Photograph 86: CAU 110, Outside Facing East, 06/17/2009

Photograph 87: CAU 110, Outside Facing South, 06/17/2009

Photograph 88: CAU 110, Outside Facing West, 06/17/2009

Photograph 89: CAU 110, Inside Facing North, 09/23/2009

Photograph 90: CAU 110, Inside Facing East, 09/23/2009

Photograph 91: CAU 110, Inside Facing South, 09/23/2009

Photograph 92: CAU 110, Inside Facing West, 09/23/2009

Photograph 93: CAU 110, Outside Facing North, 09/23/2009

Photograph 94: CAU 110, Outside Facing East, 09/23/2009

Photograph 95: CAU 110, Outside Facing South, 09/23/2009

Photograph 96: CAU 110, Outside Facing West, 09/23/2009

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