

Nevada
Environmental Management
Operations Activity

DOE/NV--1530



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

For Fiscal Year 2014
(October 2013–September 2014)

Controlled Copy No.: _____

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January 2015



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

**FOR FISCAL YEAR 2014
(OCTOBER 2013–SEPTEMBER 2014)**

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

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NEVADA NATIONAL SECURITY SITE, NEVADA**

**FOR FISCAL YEAR 2014
(OCTOBER 2013–SEPTEMBER 2014)**

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ACRONYMS AND ABBREVIATIONS

CAU	Corrective Action Unit
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 111, Area 5 WMD Retired Mixed Waste Pits
- CAU 112, Area 23 Hazardous Waste Trenches

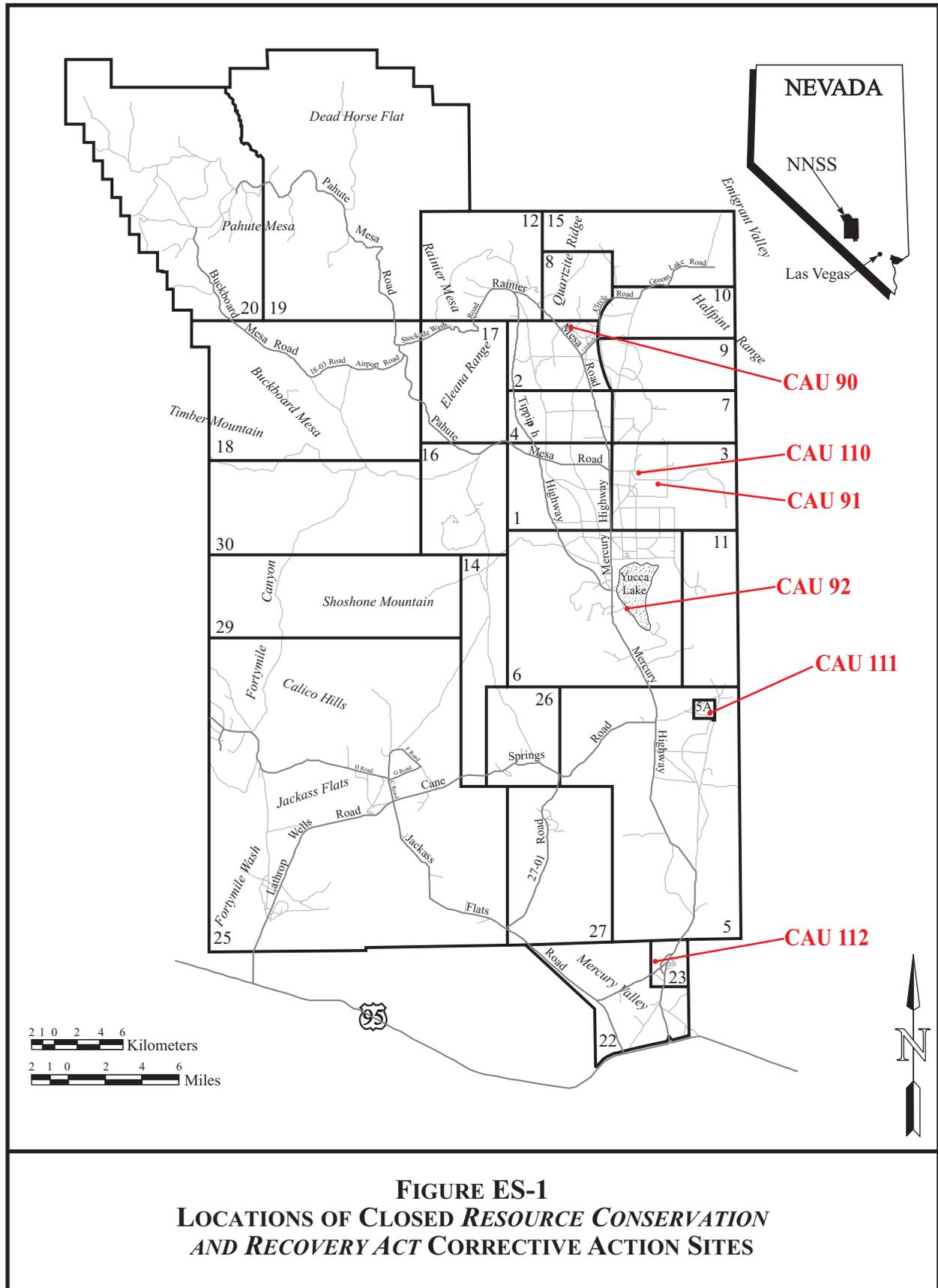
The locations of the sites are shown in Figure 1. This report covers fiscal year 2014 (October 2013–September 2014). The post-closure requirements for these sites are described in *Resource Conservation and Recovery Act* Permit Number NEV HW0101 and summarized in each CAU-specific section in Section 1.0 of this report. The results of the inspections, a summary of maintenance activities, and an evaluation of monitoring data are presented in this report.

Site inspections are conducted semiannually at CAUs 90 and 91 and quarterly at CAUs 92, 110, 111, and 112. Additional inspections are conducted at CAU 92 if precipitation occurs in excess of 0.50 inches (in.) in a 24-hour period and at CAU 111 if precipitation occurs in excess of 1.0 in. in a 24-hour period. Inspections include an evaluation of the condition of the units, including covers, fences, signs, gates, and locks.

In addition to visual inspections, soil moisture monitoring, vegetation evaluations, and subsidence surveys are conducted at CAU 110. At CAU 111, soil moisture monitoring, vegetation evaluations, subsidence surveys, direct radiation monitoring, air monitoring, radon flux monitoring, and groundwater monitoring are conducted.

The results of the vegetation surveys and an analysis of the soil moisture monitoring data at CAU 110 are presented in this report. Results of additional monitoring at CAU 111 are documented annually in the *Nevada National Security Site Waste Management Monitoring Report Area 3 and Area 5 Radioactive Waste Management Sites* and in the *Nevada National Security Site Data Report: Groundwater Monitoring Program Area 5 Radioactive Waste Management Site*, which will be prepared in approximately June 2015.

All required inspections, maintenance, and monitoring were conducted in accordance with the post-closure requirements of the permit. It is recommended to continue inspections and monitoring as scheduled.



1.0 INSPECTIONS, REPAIRS, AND MAINTENANCE

1.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

1.1.1 Post-Closure Requirements

Semiannual inspections are required to evaluate the condition of the unit. Photographs are taken, and the results of the inspections are documented on a checklist. Deficiencies 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 Inspections, Repairs, and Maintenance

The first semiannual inspection was performed on December 16, 2013. The gate and locks required maintenance, small animal burrows were present, and vegetation was present on the covers. No other issues were observed. Maintenance was completed on January 22, 2014.

The second semiannual inspection was performed on June 18, 2014. Minor vegetation was present that did not require removal. No maintenance or repairs were required.

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

1.2.1 Post-Closure Requirements

Semiannual inspections are required to evaluate the condition of the unit. Photographs are taken, and the results of the inspections are documented on a checklist. The permit does not specify a time limit for repairs at Corrective Action Unit (CAU) 91.

1.2.2 Inspections, Repairs, and Maintenance

Vegetation observed in September 2013 was removed on October 15, 2013. The first semiannual inspection was performed on March 11, 2014. The red "WARNING" text on one sign was faded, and vegetation was present on the cover. No other issues were observed. Maintenance was completed on April 12, 2014.

The second semiannual inspection was performed on September 25, 2014. The red "WARNING" text on one sign was faded. A new "WARNING" sticker was placed on the sign during the inspection. No other issues were observed.

1.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

1.3.1 Post-Closure Requirements

Inspections are required quarterly and when precipitation occurs in excess of 0.50 inches (in.) in a 24-hour period. Photographs are taken, and the results of the inspection are documented on a checklist. The 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 fence, warning signs, gate, and lock is documented. Small cracks or settling imperfections (less than 2 in. deep) are documented, and repairs are scheduled on an annual basis. Larger disruptions are immediately reported to NDEP and remedied within 60 days of discovery.

1.3.2 Inspections, Repairs, and Maintenance

Vegetation observed in September 2013 was removed on October 17, 2013. On October 9, 2013, 0.6 in. of precipitation was recorded. An inspection was conducted on October 10, 2013. A small amount of standing water that did not require corrective action was observed along the fence. No maintenance or repairs were required.

The first quarterly inspection was performed on December 16, 2013. A small amount of standing water that did not require corrective action was observed along the fence. Two areas of minor erosion were observed under the west fence. No other issues were observed. Erosion repair was completed on January 22, 2014.

On February 28, 2014, 0.77 in. of precipitation was recorded. An inspection was conducted on March 3, 2014. This inspection was for both the precipitation event and the second quarterly inspection. No issues were observed. No maintenance or repairs were required.

The third quarterly inspection was performed on June 17, 2014. No issues were observed. No maintenance or repairs were required.

On August 4, 2014, 2.63 in. of precipitation was recorded. An inspection was conducted on August 5, 2014. A small amount of standing water that did not require corrective action was observed along the fence. No maintenance or repairs were required.

The fourth quarterly inspection was performed on September 25, 2014. No issues were observed. No maintenance or repairs were required.

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

1.4.1 Post-Closure Requirements

Quarterly inspections are required to evaluate the condition of the cover. Photographs are taken, and the results of the inspections are documented on a checklist. The conditions of the fence, use restriction warning signs, entrance gate, and lock are documented. 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. Non-critical cracks or settling imperfections (equal to or less than 6 in. deep) on the cover are 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 are reported to NDEP and repaired within 60 days of discovery.

1.4.2 Inspections, Repairs, and Maintenance

Subsidence and erosion that were observed in September 2013 were repaired on October 16, 2013. The first quarterly inspection was performed on December 16, 2013. The red “WARNING” text on two signs was faded. New “WARNING” stickers were placed on the signs during the inspection. No other issues were observed.

The second quarterly inspection was performed on March 11, 2014. Minor animal burrows and a small area of subsidence were observed that did not require corrective action. It was recommended to continue to monitor the animal burrows and subsidence during future inspections. No maintenance or repairs were required.

The third quarterly inspection was performed on June 17, 2014. The red “WARNING” text on one sign was faded. A new “WARNING” sticker was placed on the sign during the inspection.

One area of subsidence was observed that required repair. No other issues were observed. Subsidence repair was completed on August 12, 2014.

The fourth quarterly inspection was performed on September 25, 2014. The red “WARNING” text on two signs was faded. New “WARNING” stickers were placed on the signs during the inspection. Minor animal burrows and one small crack were observed that did not require corrective action. It was recommended to continue to monitor the animal burrows and crack during future inspections. No other issues were observed.

1.5 CORRECTIVE ACTION UNIT 111, AREA 5 WMD RETIRED MIXED WASTE PITS

1.5.1 Post-Closure Requirements

Quarterly inspections are required to verify that the use restriction warning signs are in place and readable and that the use restriction has been maintained. Photographs are taken, and the results of the inspections are documented on a checklist. The covers are inspected for cracks, animal burrows, or other evidence of subsidence or erosion. In addition, non-scheduled inspections are conducted if precipitation occurs in excess of 1.0 in. in a 24-hour period to verify the continued integrity of the covers and document any ponding or erosion. Maintenance or repair requirements are reported to NDEP and completed within 60 days of discovery.

1.5.2 Inspections, Repairs, and Maintenance

Erosion, fractures, and subsidence areas that were observed in September 2013 were repaired on October 10, 2013. The first quarterly inspection was performed on December 16, 2013. Minor animal burrows were observed that did not require corrective action. Three areas of subsidence were observed on the west cover. Erosion rills were present on the south slope of the south cover. No other issues were observed. Repairs of subsidence and erosion were completed on January 27, 2014.

The second quarterly inspection was performed on March 11, 2014. Minor animal burrows and two small cracks were observed that did not require corrective action. It was recommended to continue to monitor the animal burrows and cracks during future inspections. No maintenance or repairs were required.

The third quarterly inspection was performed on June 17, 2014. Minor animal burrows were observed that did not require corrective action. Five areas of cracking and subsidence were observed on the west cover. No other issues were observed. Subsidence repair was completed on July 8, 2014.

On August 4, 2014, 1.47 in. of precipitation was recorded. An inspection was conducted on August 5, 2014. Erosion rills were present on cover slopes. No other issues were observed. Erosion repair was completed on September 16, 2014.

The fourth quarterly inspection was performed on September 23, 2014. Minor animal burrows were observed that did not require corrective action. Four areas of subsidence were observed on the west cover. No other issues were observed. Subsidence repair was completed within 60 days and will be reported in the next annual report.

1.6 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

1.6.1 Post-Closure Requirements

Quarterly inspections are required to evaluate the condition of the unit. The results of the inspections are documented on a checklist. The permit does not specify a time limit for repairs at CAU 112.

1.6.2 Inspections, Repairs, and Maintenance

The first quarterly inspection was performed on December 16, 2013. No issues were observed. No maintenance or repairs were required.

The second quarterly inspection was performed on March 11, 2014. Vegetation was present that required removal. No other issues were observed. The vegetation was removed on April 9, 2014.

The third quarterly inspection was performed on June 17, 2014. Minor vegetation was present that did not require corrective action. No other issues were observed. No maintenance or repairs were required.

The fourth quarterly inspection was performed on September 25, 2014. Minor vegetation and litter was present that did not require corrective action. No other issues were observed. No maintenance or repairs were required.

2.0 SUBSIDENCE SURVEYS AND VEGETATION SURVEYS

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

2.1.1 Subsidence Survey

Seven SMs are installed on the cover of CAU 110. The baseline survey was conducted on December 14, 2000. Subsidence surveys are performed once every other year (biennially). A subsidence survey was completed on March 10, 2014, and the results are tabulated in Table 1. No significant subsidence has been observed. The next survey will be conducted in approximately March 2016.

2.1.2 Vegetation Survey

Revegetation of the CAU 110 cover was completed in December 2000. Quantitative vegetation monitoring was conducted annually from 2001 through 2013 to document the condition of the plant community and identify remedial actions that may be necessary. The vegetation on the CAU 110 cover is well established and there are no concerns. In correspondence dated January 28, 2014, NDEP approved the recommendation to perform subjective evaluations annually and to perform detailed quantitative vegetation monitoring every 5 years. The annual subjective evaluations will include site visits to observe the overall status of the plant community and identify concerns, and the detailed vegetation monitoring will include quantitative determination of plant cover and density. If concerns are noted during the annual subjective evaluations, a more detailed evaluation will be conducted and corrective measures taken as necessary.

A subjective evaluation of the vegetation at CAU 110 was performed in May 2014. The plant community continues to show signs of stability and resilience to the adverse growing conditions that have persisted over the last several years. Shrub species were observed to show signs of growth and were in flower and setting seed during the evaluation. There were no signs of stress for any of the plants observed. Small mammal activity on the cover was observed to be low.

An annual subjective evaluation of the plant community will continue, and the next detailed quantitative vegetation survey will be conducted in the spring of 2018.

2.2 CORRECTIVE ACTION UNIT 111, AREA 5 WMD RETIRED MIXED WASTE PITS

2.2.1 Subsidence Survey

There are 52 SMs at CAU 111. The baseline survey was conducted on January 19, 2012. Subsidence surveys are required annually. A subsidence survey was completed on January 21, 2014. The results are tabulated in Table 2. No significant subsidence has been observed.

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS

SM	Elevation at Top of Subsidence Marker ¹		Subsidence Since December 2000 Baseline Survey
	Baseline Survey – December 2000	March 2014	
SM #1	4,021.84	4,021.79	-0.05
SM #2	4,021.28	4,021.22	-0.06
SM #3	4,019.83	4,019.78	-0.05
SM #4	4,020.99	4,020.93	-0.06
SM #5	4,021.87	4,021.73	-0.14
SM #6	4,019.25	4,019.20	-0.05
SM #7	4,020.52	4,020.46	-0.06

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

TABLE 2. CORRECTIVE ACTION UNIT 111 SUBSIDENCE SURVEY RESULTS

SM	Elevation at Top of Subsidence Marker ¹		Subsidence Since January 2012 Baseline Survey
	Baseline Survey – January 2012	January 2014	
P03-1	3,206.56	3,206.55	-0.01
P03-2	3,205.82	3,205.76	-0.06
T04-2	3,202.74	3,202.70	-0.04
T07-3	3,199.31	3,199.28	-0.03
T09-1	3,201.08	3,201.08	0.00
T08-1	3,198.06	3,198.04	-0.02
T06-1	3,199.49	3,199.51	0.02
T05-1	3,200.57	3,200.59	0.02
T02-1	3,201.61	3,201.62	0.01
T04-5	3,202.75	3,202.76	0.01
T02-2	3,201.54	3,201.58	0.04
T02-5	3,188.02	3,188.03	0.01
T04-6	3,191.69	3,191.67	-0.02
T03-3	3,192.59	3,192.57	-0.02
P01-1	3,191.52	3,191.48	-0.04
P01-2	3,187.86	3,187.78	-0.08
T01-4	3,185.75	3,185.69	-0.06
P07-2	3,190.26	3,190.21	-0.05
P07-1	3,192.37	3,192.26	-0.11
P09-3	3,194.49	3,194.46	-0.03
P09-2	3,194.60	3,194.56	-0.04
P06-1	3,195.06	3,195.01	-0.05
P11-2	3,189.20	3,189.14	-0.06
P11-3	3,186.61	3,186.56	-0.05
P11-4	3,182.18	3,182.15	-0.03
P05-4	3,182.92	3,182.87	-0.05
P05-3	3,187.91	3,187.87	-0.04
CW1-1	3,197.01	3,196.99	-0.02
CW1-2	3,197.17	3,197.17	0.00

SM	Elevation at Top of Subsidence Marker ¹		Subsidence Since January 2012 Baseline Survey
	Baseline Survey – January 2012	January 2014	
T06-3	3,191.70	3,191.68	-0.02
T07-5	3,191.65	3,191.61	-0.04
T01-1	3,201.63	3,201.58	-0.05
T03-1	3,200.69	3,200.64	-0.05
T07-2	3,199.40	3,199.38	-0.02
T03-2	3,200.64	3,200.60	-0.04
T01-2	3,201.51	3,201.49	-0.02
T04-4	3,202.71	3,202.68	-0.03
T05-2	3,200.65	3,200.70	0.05
T06-2	3,199.55	3,199.58	0.03
T08-2	3,196.71	3,196.73	0.02
P06-2	3,192.78	3,192.74	-0.04
T01-3	3,185.80	3,185.74	-0.06
T04-7	3,188.07	3,188.06	-0.01
T02-4	3,191.59	3,191.56	-0.03
P02-1	3,194.13	3,194.00	-0.13
P02-2	3,191.11	3,191.03	-0.08
T06-4	3,188.24	3,188.26	0.02
T07-6	3,187.82	3,187.83	0.01
P04-4	3,185.91	3,185.75	-0.16
P04-3	3,190.20	3,190.15	-0.05
P04-2	3,194.30	3,194.27	-0.03
P05-2	3,191.58	3,191.53	-0.05

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

2.2.2 Vegetation Survey

Revegetation of the CAU 111 cover was completed in December 2011. Surveys to assess the success of the revegetation effort are required annually. The objective of vegetation monitoring during the first few years is to determine if seeds have germinated and seedlings are becoming established on the site. The first vegetation survey was completed in May 2013. Due to low germination success and high rates of plant mortality, it was concluded that the covers required remedial revegetation.

In October 2013, four test plots were seeded on the northern section of the north cover to evaluate two methods of seeding and two rates of mulch application. Two test plots were broadcast seeded with a rangeland seeder, and each was hydromulched at a different rate. The remaining two test plots were hydroseeded, and each was hydromulched at a different rate.

The viability of the seed was certified by the vendor based on seed testing that occurred in September 2012, and the seed mix was verified to have an acceptable level of viability based on samples collected in October 2013 that were sent to the Montana State Seed Testing Laboratory and analyzed for seed germination and viability.

Supplemental irrigation was periodically applied to the test plots from November through June, as needed, to augment natural precipitation. Seedlings began to emerge on the test plots in March 2014. Quantitative vegetation monitoring was completed June 9–11, 2014. A total of

200 1-square meter quadrats were sampled, and plant density by species was estimated. Ten quadrats were placed along each of twenty 50-meter long transects. Five transects were located within each of the four treatment areas.

Based on the results of June 2014 vegetation monitoring, a viable plant community has not been established on the test plots. The average density of seeded species on the test plots (4.4 plants per square meter) was substantially higher than after the original seeding (0.1 plants per square meter). However, plant density was significantly lower than other sites successfully vegetated on the Nevada National Security Site. At CAU 110, plant density was 65 plants per square meter the first year after seeding and 37 plants per square meter a year later.

The composition of seeded plants on the test plots was also a concern. Half of the seeded species were perennial grasses, which are not drought tolerant. It was also evident that small grazing mammals, especially rabbits, were present on the site. The presence of rabbits was noted at 90 percent of the quadrats within the broadcast seeded area, which was the area with the highest seedling density. Many young seedlings of Indian ricegrass and Nevada jointfir had been grazed to ground level or showed signs of moderate grazing. The heavily grazed plants were difficult to see and many heavily grazed plants may have died, which suggests that future efforts should address protection from grazing animals, mainly rabbits.

Halogeton and Russian thistle, two invasive weedy species, were abundant on the test plots despite the efforts made to deter the production of invasive plants, which included disking the areas where high densities of halogeton were evident before seeding.

Some lessons were learned regarding seeding method and mulch application; however, a preferred method for successful revegetation of all of the remaining covers in the 92-Acre Area could not be recommended with confidence. Additional test plots on the southern section of the north cover were proposed to evaluate the effects of supplemental irrigation and a no-mulch alternative.

Broadcast seeding was performed in October 2014 using the highest quality seed available at a rate that was 20 to 30 percent higher to compensate for the reduction in seed viability and germination experienced this year. The site was prepared with a drag harrow, and a rabbit fence will be installed around the base of the cover. Half of the seeded area was hydromulched at the standard rate, and the remaining half was left un-mulched. Supplemental irrigation will be used on half of the seeded area and on a mulched area and an un-mulched area. The remaining areas will not be irrigated. This may lead to less abundance of invasive species, which tend to thrive more when supplemental irrigation is used. These test plots will be monitored to acquire additional data that may lead to successful establishment of vegetation on the remaining covers in the 92-Acre Area.

3.0 CORRECTIVE ACTION UNIT 110 SOIL MOISTURE MONITORING

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 1 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 2. Graphs of the TDR-derived soil moisture content profiles, combined with the daily precipitation values, are presented in Figures 3 through 6.

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 of these systems to remove moisture can be locally inhibited if animal burrowing and grazing on plants affects the root systems; therefore, animal burrows are routinely backfilled and small mammals are occasionally 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.

In the post-closure report for fiscal year 2009, the following compliance criterion was proposed and accepted by NDEP:

- 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.

The action level is illustrated in Figures 3 through 6. The action level was not exceeded.

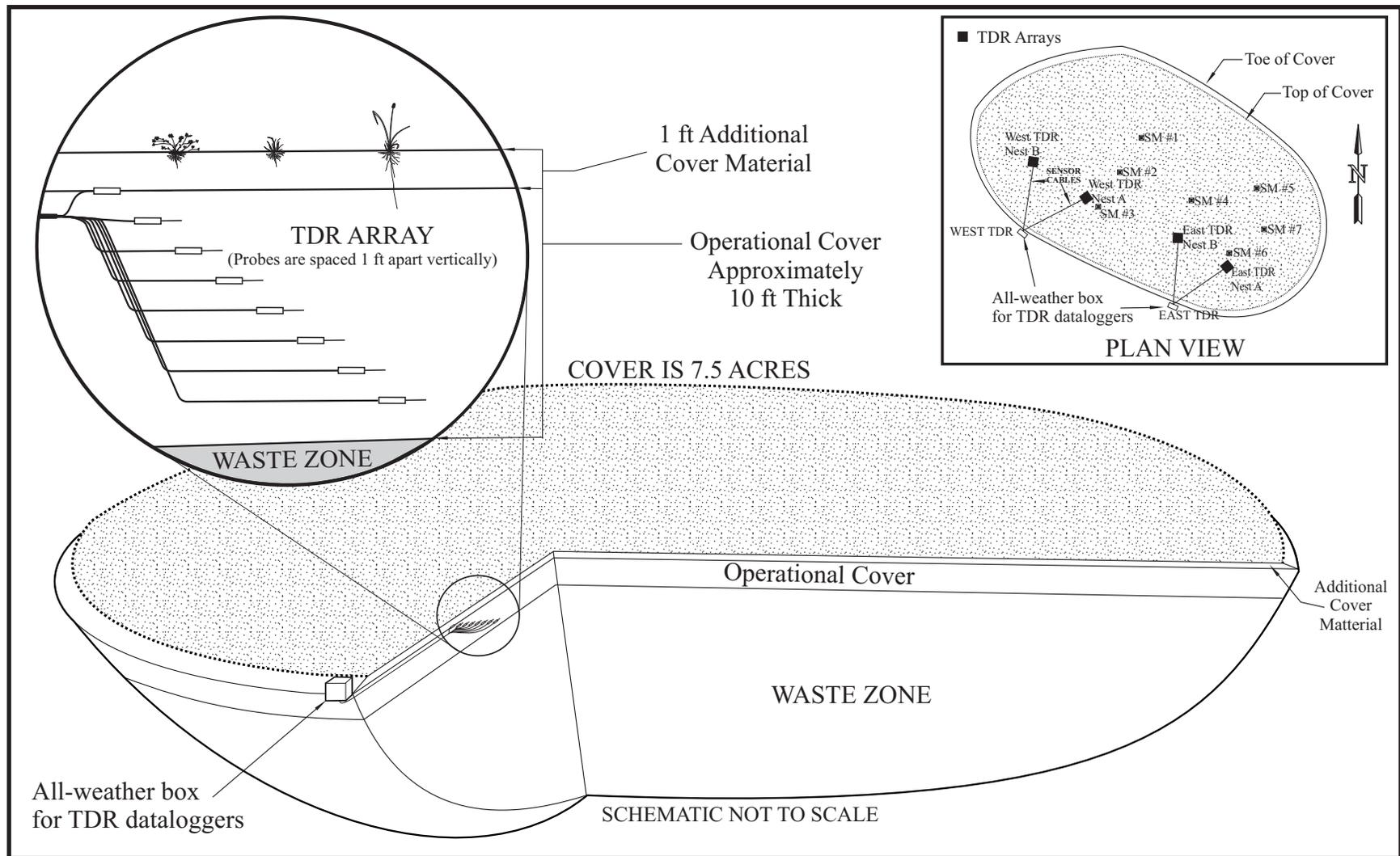


FIGURE 1
CORRECTIVE ACTION UNIT 110 TIME DOMAIN REFLECTOMETRY LOCATIONS

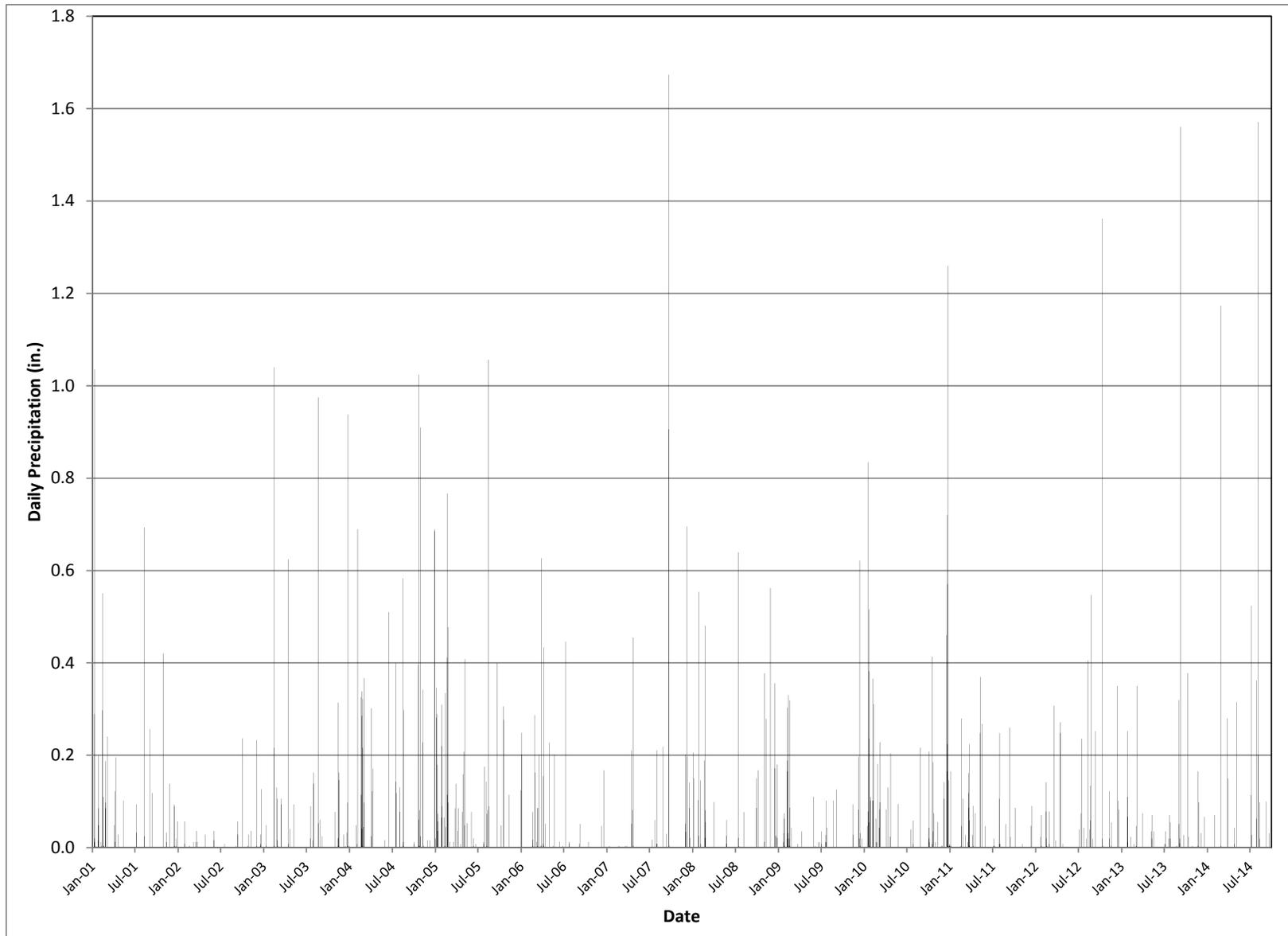


FIGURE 2. PRECIPITATION DATA FOR METEOROLOGICAL STATION BUSTER JANGLE Y

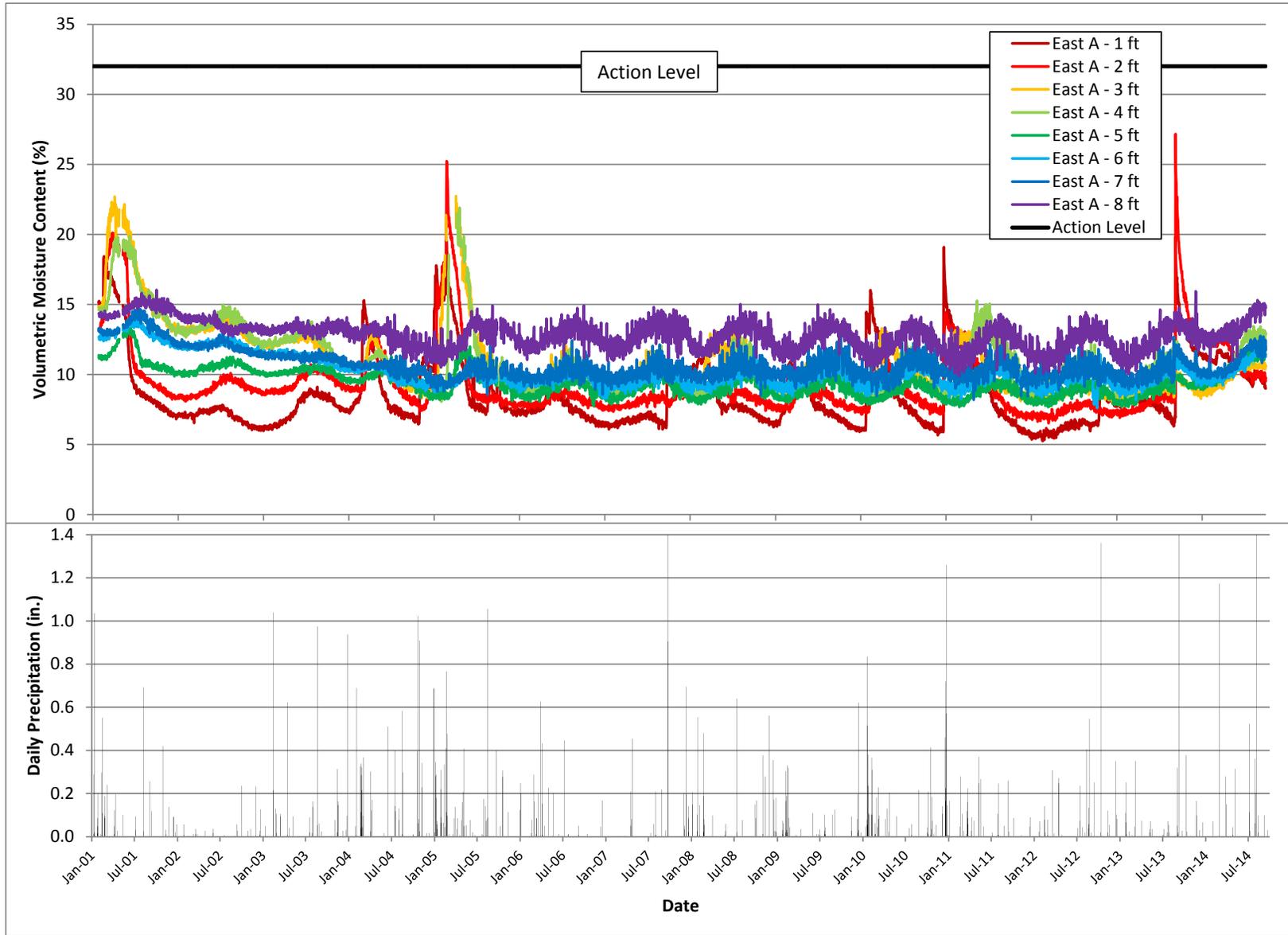


FIGURE 3. EAST TDR NEST A SOIL MOISTURE CONTENT PROFILE

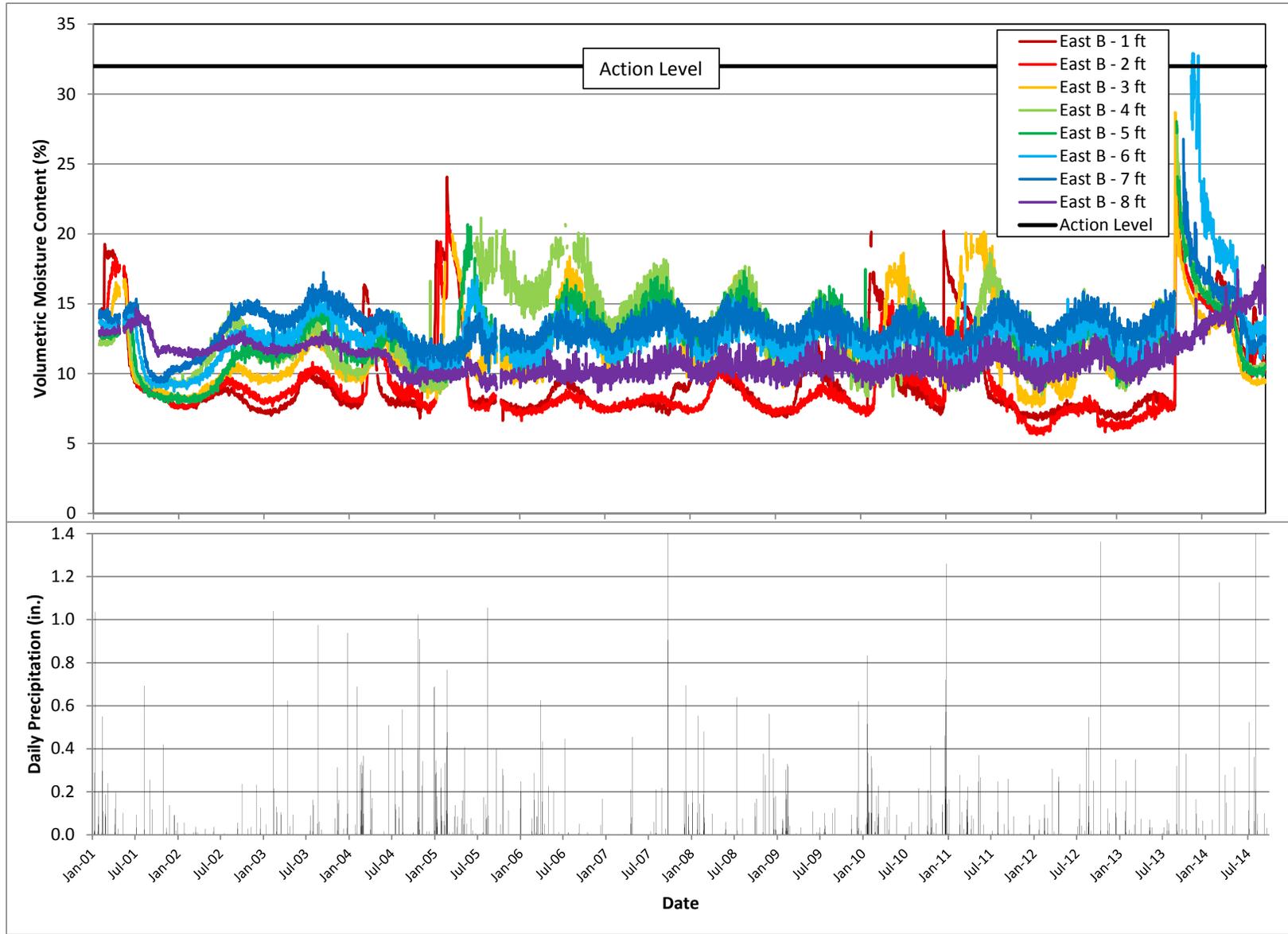


FIGURE 4. EAST TDR NEST B SOIL MOISTURE CONTENT PROFILE

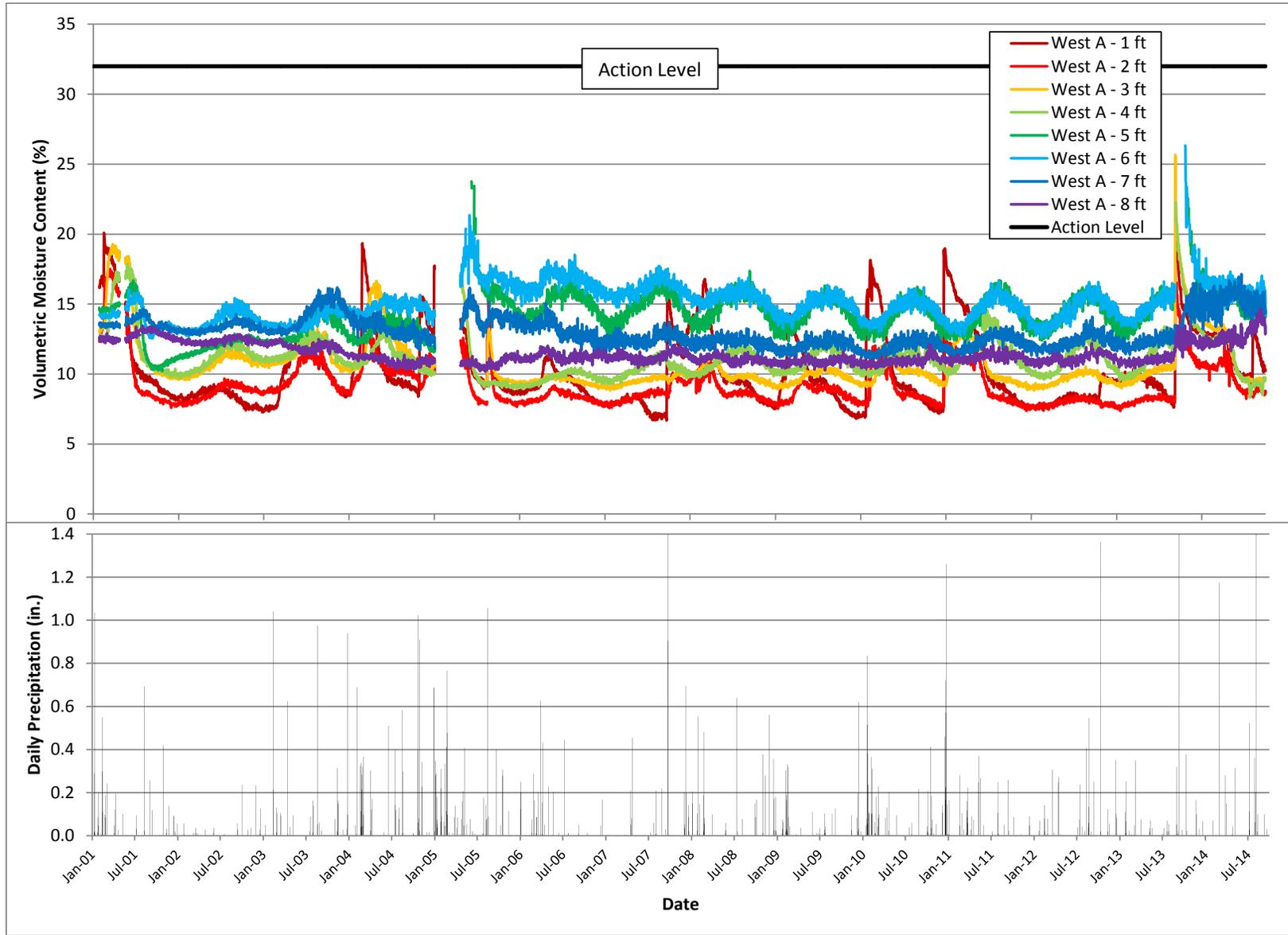


FIGURE 5. WEST TDR NEST A SOIL MOISTURE CONTENT PROFILE

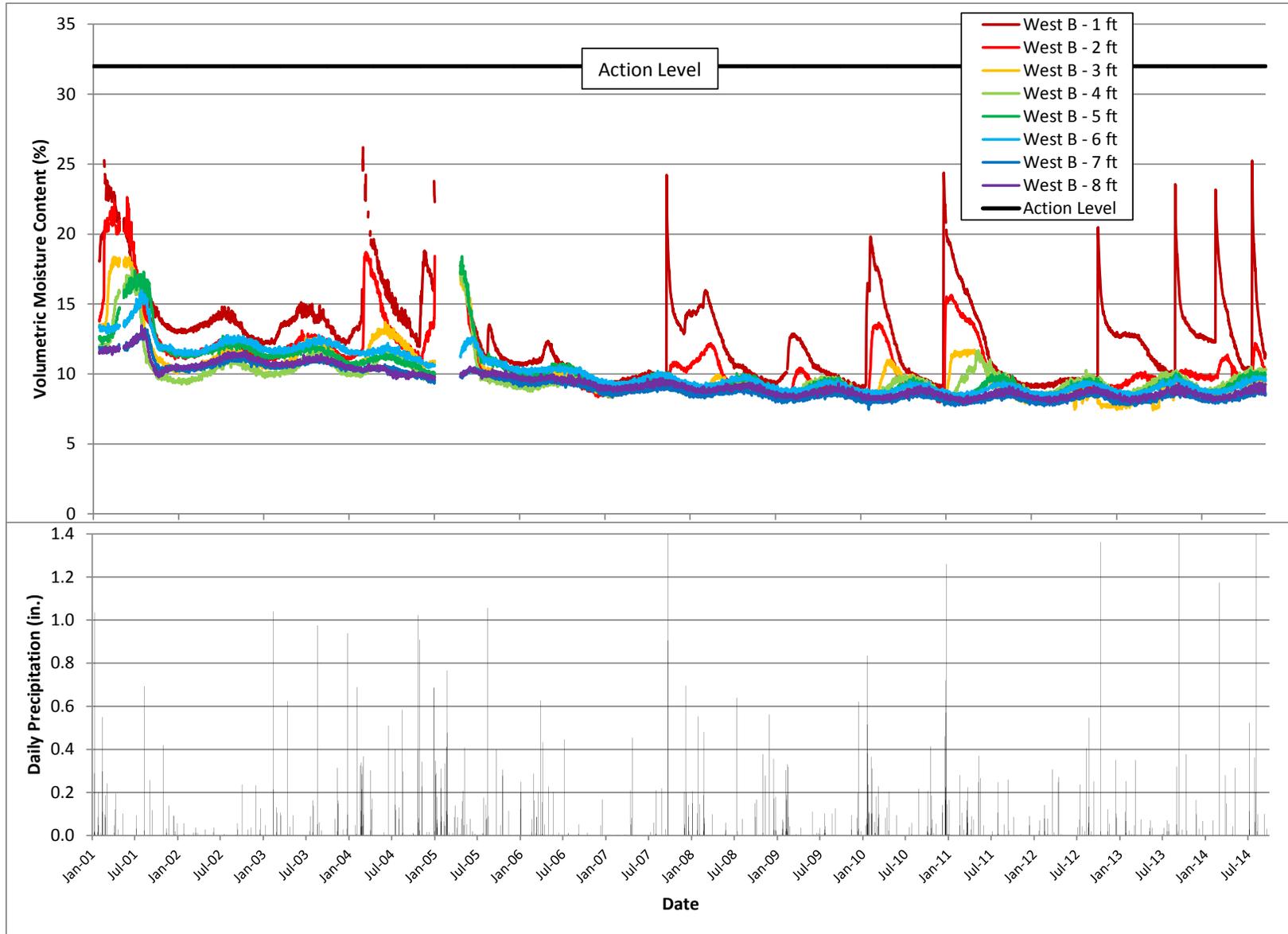


FIGURE 6. WEST TDR NEST B SOIL MOISTURE CONTENT PROFILE

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4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

Semiannual inspections were performed as required. It is recommended to continue semiannual inspections.

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

Semiannual inspections were performed as required. It is recommended to continue semiannual inspections.

4.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

Quarterly inspections were performed as required and after precipitation events in excess of 0.50 in. It is recommended to continue inspections quarterly and after precipitation events.

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

Quarterly inspections were performed as required. Soil moisture results indicate that the cover is functioning as designed, and the action level was not exceeded. It is recommended to continue quarterly inspections, soil moisture monitoring, biennial subsidence surveys, annual subjective vegetation evaluations, and detailed quantitative vegetation monitoring every 5 years.

4.5 CORRECTIVE ACTION UNIT 111, AREA 5 WMD RETIRED MIXED WASTE PITS

Quarterly inspections were performed as required and after precipitation events in excess of 1.0 in. During the last inspection, four areas of subsidence were observed on the west cover. The subsidence areas were repaired within 60 days and will be reported in the next annual report. No additional maintenance or repairs were required. It is recommended to continue inspections quarterly and after precipitation events.

In October 2013, four test plots were seeded on the northern section of the north cover. Quantitative vegetation monitoring completed in June 2014 revealed that a viable plant community has not been established on the test plots. Additional test plots were seeded on the southern section of the north cover in October 2014 and will be monitored to acquire additional data that may lead to successful establishment of vegetation on the remaining covers.

Results of additional monitoring at CAU 111 are documented annually in the *Nevada National Security Site Waste Management Monitoring Report Area 3 and Area 5 Radioactive Waste Management Sites* and in the *Nevada National Security Site Data Report: Groundwater Monitoring Program Area 5 Radioactive Waste Management Site*. These monitoring activities will continue as scheduled.

4.6 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

Quarterly inspections were performed as scheduled. It is recommended to continue quarterly inspections.

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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), AND CAS 02-20-03, WASTEWATER PIT**

Inspection Date: <u>12/16/13</u>	Reason for Inspection: <u>Semi-Annual</u>
Date of Last Post-Closure Inspection: <u>6/12/13</u>	Reason for Last Post-Closure Inspection: <u>Semi-Annual</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca Rung</u>	Title: <u>PM</u>
Assistant Inspector: <u>Brian Koupad</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA ✓
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA ✓

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?	✓		Gate needs to be adjusted to facilitate full closure
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?		0	
f. How many use restriction signs are down or loose and need to be re-hung?		0	
g. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 90, AREA 2 BITCUTTER CONTAINMENT –
CAS 02-20-01, BITCUTTER/PS INJ. WELLS (3) (RCRA), AND CAS 02-20-03, WASTEWATER PIT**

e. Is there evidence of animal burrowing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Some burrows on east enclosure cover
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	vegetation on both covers
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Three of the west unit from outside the fence, one in each compass direction (i.e., N, S, E)
 - Three of the east unit from outside the fence, one in each compass direction (i.e., N, S, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have the required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 4. Below
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Deficiencies requiring a remedy other than general housekeeping issues shall be remedied within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *gate on eastern enclosure requires adjustment and padlocks need lubrication. Vegetation on both covers needs to be removed. Animal burrows on east cover to be filled. Rest of the site is in good condition.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 12/16/13

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 12/17/13

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

**CAU 90, AREA 2 BITCUTTER CONTAINMENT -
CAS 02-20-01, BITCUTTER/PS INJ. WELLS (3) (RCRA), AND CAS 02-20-03, WASTEWATER PIT**

Inspection Date: 6/18/14 Reason for Inspection: Semi Annual

Date of Last Post-Closure Inspection: 12/16/13 Reason for Last Post-Closure Inspection: Semi Annual

Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada

Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Rebecca King Title: Project Manager

Assistant Inspector: Brian Konrad Title: Manager

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)	
1. Were anomalies or trends detected on previous inspections?		✓		
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>vegetation removal + gate repair, burrow filling</u>	
a. If yes, has repair resulted in a change from as-built conditions?		✓		NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓		NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 90, AREA 2 BITCUTTER CONTAINMENT –
CAS 02-20-01, BITCUTTER/PS INJ. WELLS (3) (RCRA), AND CAS 02-20-03, WASTEWATER PIT**

e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	minor
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Three of the west unit from outside the fence, one in each compass direction (i.e., N, S, E)
 - Three of the east unit from outside the fence, one in each compass direction (i.e., N, S, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have the required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Deficiencies requiring a remedy other than general housekeeping issues shall be remedied within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *Minor vegetation on covers - no action required. Signs, fences, markers + covers all in good condition.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 6/18/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 7/17/14

Printed Name: Reed Poderis

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, U-3FI WASTE DISPOSAL UNIT (RCRA)

Inspection Date: <u>3/11/14</u>	Reason for Inspection: <u>Semi Annual</u>
Date of Last Post-Closure Inspection: <u>9/17/13</u>	Reason for Last Post-Closure Inspection: <u>Semi Annual</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- *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.*
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>year 2013 3/11/14</u> <u>year 2013 various and vegetation</u> <u>faded text replaced</u>
a. If yes, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?			NA ✓

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?	✓		
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?		✓	<u>1 faded text to replace</u>
e. How many damaged or missing use restriction signs need to be replaced?		0	
f. How many use restriction signs are down or loose and need to be re-hung?		0	
g. Is there damage to the monument or monitoring well?		✓	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 91, AREA 3 U-3FI INJECTION WELL – CAS 03-20-03, U-3FI WASTE DISPOSAL UNIT (RCRA)

c. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	see D.2
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction
 - Two of the monitoring well surface (N and S)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have the required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS

	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Field Conclusions and Repair or Maintenance Recommendations:

Herbicide will be applied to weeds growing inside fence. Movements, pads, fence + gate in good condition. Faded text on one UPR sign requires replacing. Rest of site in good condition.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 3/11/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 3/26/14

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

CAU 91, AREA 3 U-3FI INJECTION WELL – CAS 03-20-03, U-3FI WASTE DISPOSAL UNIT (RCRA)

Inspection Date: 9/25/14	Reason for Inspection: Semi Annual
Date of Last Post-Closure Inspection: 3/11/14	Reason for Last Post-Closure Inspection: Semi Annual
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: RAKuis	Title: Project Manager
Assistant Inspector: Reed Poderis	Title: MGR

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		herbicide application
a. If yes, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		one faded text replaced in field
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to the monument or monitoring well?		✓	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 91, AREA 3 U-3FI INJECTION WELL – CAS 03-20-03, U-3FI WASTE DISPOSAL UNIT (RCRA)

e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction
 - Two of the monitoring well surface (N and S)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have the required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS

	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Field Conclusions and Repair or Maintenance Recommendations:

Site is in good condition. Faded text was replaced on one UR sign during inspection. No other issues

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 9/25/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 11/4/14

Printed Name: *Reed J. Poderis*

CORRECTIVE ACTION UNIT 92 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: 10/10/13	Reason for Inspection: rain event
If this inspection is for a rain event, date of event: 10/09/13	Quantity of Rainfall: 0.6 inches
Date of Last Post-Closure Inspection: 9/18/13	Reason for Last Post-Closure Inspection: Quarterly Inspection
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Brian Konrad	Title: Senior Technical Staff
Assistant Inspector: None	Title:

A. GENERAL INSTRUCTIONS

- *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.*
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Vegetation on cover
2. Were maintenance or repair activities performed since the last inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. If yes, has repair resulted in a change from as-built conditions?	<input type="checkbox"/>	<input type="checkbox"/>	NA <input checked="" type="checkbox"/>
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?	<input type="checkbox"/>	<input type="checkbox"/>	NA <input checked="" type="checkbox"/>

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Is there damage to or a break in the fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have any fenceposts been damaged or their anchoring weakened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Are all use restriction signs legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. How many damaged or missing use restriction signs need to be replaced?	<input type="checkbox"/>	<input type="checkbox"/>	0
f. How many use restriction signs are down or loose and need to be re-hung?	<input type="checkbox"/>	<input type="checkbox"/>	0
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Is there damage to any of the subsidence survey markers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i. Is there standing water within the fenced area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	not on cover
j. Is there trash or other debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		X	
c. Is there evidence of human intrusion onto the site?		X	
d. Is there evidence of large animal intrusion onto the site?		X	
e. Is there evidence of animal burrowing?		X	
f. Is there vegetation growing on the cover?	✓		<i>noted in previous inspection.</i>
g. Is there standing water on the cover?		X	
h. Are there any other issues not specifically described in this checklist?		X	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓	✓	<i>couldnt access inside fence</i>

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?		X	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.		X	
3. Is there an imminent hazard to the integrity of the landfill cover?		X	

4. Field Conclusions/Recommendations:
No issues.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Brian K. Konrad

Date: *10/10/13*

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY -- CAS 06-05-02, DECONTAMINATION POND (RCRA)

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis

Date: 10/17/2013

Printed Name: Thomas A. Thiele (or designee)

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POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: 12/16/13	Reason for Inspection: Quarterly
If this inspection is for a rain event, date of event:	Quantity of Rainfall: inches
Date of Last Post-Closure Inspection: 10/10/13	Reason for Last Post-Closure Inspection: Precipitation
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Rebecca King	Title: PM
Assistant Inspector: Brian Konrad	Title: FO

A. GENERAL INSTRUCTIONS

- 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.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Were maintenance or repair activities performed since the last inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	weed removal
a. If yes, has repair resulted in a change from as-built conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Is there damage to or a break in the fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have any fenceposts been damaged or their anchoring weakened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Are all use restriction signs legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. How many damaged or missing use restriction signs need to be replaced?	<input type="checkbox"/>	0	
f. How many use restriction signs are down or loose and need to be re-hung?	<input type="checkbox"/>	0	
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Is there damage to any of the subsidence survey markers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i. Is there standing water within the fenced area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	not on cover
j. Is there trash or other debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

b. Is there evidence of erosion (wind or water)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2 area of minor erosion under west fence to repair
c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there standing water on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	see section 4
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (i.e., are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *Two areas of minor water erosion under west fence to repair. Remainder of the site is in good condition.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 12/16/13

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 12/17/13

Printed Name: *Reed J Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: 3/3/14	Reason for Inspection: Precipitation and Quarterly
If this inspection is for a rain event, date of event: 2/28/14	Quantity of Rainfall: 0.77 inches
Date of Last Post-Closure Inspection: 12/14/13	Reason for Last Post-Closure Inspection: Quarterly
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Rebecca King	Title: PM
Assistant Inspector: Brian Konrad	Title: FO

A. GENERAL INSTRUCTIONS

- 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.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Were maintenance or repair activities performed since the last inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	erosion repair
a. If yes, has repair resulted in a change from as-built conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Is there damage to or a break in the fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have any fenceposts been damaged or their anchoring weakened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Are all use restriction signs legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. How many damaged or missing use restriction signs need to be replaced?	<input type="checkbox"/>	0	
f. How many use restriction signs are down or loose and need to be re-hung?	<input type="checkbox"/>	0	
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Is there damage to any of the subsidence survey markers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i. Is there standing water within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
j. Is there trash or other debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

b. Is there evidence of erosion (wind or water)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there standing water on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <i>RAK</i>	<i>3/3/14</i> <i>none required</i>

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (i.e., are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations:
No issues - no standing water.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: *3/3/14*

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: *3/5/14*

Printed Name: *Reed J. Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: <u>6/17/14</u>	Reason for Inspection: <u>Quarterly</u>
If this inspection is for a rain event, date of event:	Quantity of Rainfall: _____ inches
Date of Last Post-Closure Inspection: <u>3/3/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly + Precip</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed. J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Baran Konrad</u>	Title: <u>Field Super</u>

A. GENERAL INSTRUCTIONS

- 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.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there standing water within the fenced area?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

b. Is there evidence of erosion (wind or water)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there standing water on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (i.e., are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *Fencing, signs, markers and cover are all in good condition. No issues.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 6/17/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 7/17/14

Printed Name: *Reed Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: <u>8/4⁵/14</u> <u>RAK 8/5/14</u>	Reason for Inspection: <u>Precipitation</u>
If this inspection is for a rain event, date of event: <u>8/4/14</u>	Quantity of Rainfall: <u>2.63</u> inches
Date of Last Post-Closure Inspection: <u>6/17/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed. J. Podcris, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Brian Kowal</u>	Title: <u>Field Super</u>

A. GENERAL INSTRUCTIONS

- 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.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there standing water within the fenced area?	✓		<u>only in areas off the cover</u>
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

b. Is there evidence of erosion (wind or water)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there standing water on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (i.e., are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *Standing water in some areas between the fence and the cover. The remainder of the site is in good condition. No action required.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: */s/:* Rebecca A. King Date: *8/5/14*

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: */s/:* Reed J. Poderis Date: *8/5/14*

Printed Name: *Reed Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

Inspection Date: <u>9/25/14</u>	Reason for Inspection: <u>Quarterly</u>
If this inspection is for a rain event, date of event:	Quantity of Rainfall: _____ inches
Date of Last Post-Closure Inspection: <u>8/5/14</u>	Reason for Last Post-Closure Inspection: <u>Precipitation</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed. J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>RA Kreis</u>	Title: <u>PM</u>
Assistant Inspector: <u>Reed Poderis</u>	Title: <u>Mgr</u>

A. GENERAL INSTRUCTIONS

- *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.*
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)			
	YES	NO	EXPLANATION (required if shaded box is checked)
1. Adjacent Offsite Features:			
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:			
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there standing water within the fenced area?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:			
a. Is there evidence of settling or cracking?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92, AREA 6 DECON POND FACILITY – CAS 06-05-02, DECONTAMINATION POND (RCRA)

b. Is there evidence of erosion (wind or water)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there standing water on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	due to high wind warning inspection was conducted from vehicle

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling less than 2 inches deep on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (i.e., are there cracks greater than 2 inches deep on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 2 inches deep on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *The site is in good condition. Inspection was performed during a high wind warning. Inside of fencing was not accessed. Observations are from outside the fence. No issues noted.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 9/25/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 11/4/14

Printed Name: *Reed J. Poderis*

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: <u>12/16/13</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>9/17/13</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Brian Kowal</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- *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.*
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>subsidence repair / gate repair</u>
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		<u>Replaced faded 'warning' text on 2 UR signs.</u>
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

- | | | |
|---|--------------------------|-------------------------------------|
| b. Is there evidence of erosion (wind or water)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Is there evidence of human intrusion onto the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Is there evidence of large animal intrusion onto the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Is there evidence of animal burrowing? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Is there a change in the vegetation growing on the cover? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Are there any other issues not specifically described in this checklist? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 6 inches deep and 3 feet long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 6 inches deep and 3 feet long on the cover shall be completed within 60 days of discovery.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

4. Field Conclusions/Recommendations: *Site, cover, fencing and vegetation in good condition, as are survey markers and TDR nests. Faded 'warning' text was replaced on 2 UR signs.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 12/16/13

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 12/17/13

Printed Name: *Reed J. Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

Inspection Date: <u>3/11/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>12/16/13</u> ^{RAR} <u>3/11/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- *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.*
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA	✓
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA	✓

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:			
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:			
a. Is there evidence of settling or cracking?	✓		

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		minor - monitor only
f. Is there a change in the vegetation growing on the cover?		✓	
g. Are there any other issues not specifically described in this checklist?		✓	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover) required?	✓		
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 6 inches deep and 3 feet long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 6 inches deep and 3 feet long on the cover shall be completed within 60 days of discovery.		✓	
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: *Signs, fences, TDP nests, survey markers all in good condition. One small area of subsidence on east end that does not meet the 6 inches deep and 3 feet long Requirement for Repair within 60 days. Continue to monitor + repair before end of FY. Rest of cover in good condition.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 3/11/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: RJP 3/11/14 /s/: Reed J. Poderis Date: 3/26/14

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

Inspection Date: <u>6/17/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>3/11/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Baran Konrad</u>	Title: <u>Field Super</u>

- A. GENERAL INSTRUCTIONS**
- *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.*
 - All documentation must be legible and clear. Complete all checklist items.
 - 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)			
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:			
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?		✓	<u>1 warning text replaced in field</u>
e. How many damaged or missing use restriction signs need to be replaced?		0	
f. How many use restriction signs are down or loose and need to be re-hung?		0	
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:			
a. Is there evidence of settling or cracking?		✓	<u>see D.4</u>

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		
f. Is there a change in the vegetation growing on the cover?		✓	
g. Are there any other issues not specifically described in this checklist?		✓	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover) required?		✓	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 6 inches deep and 3 feet long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 6 inches deep and 3 feet long on the cover shall be completed within 60 days of discovery.	✓		see D.4
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: *One area of subsidence on east end of the cover that requires repair. Fences, signs, TDR nests, vegetation and rest of cover all look good.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King	Date: 6/17/14
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F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis	Date: 7/17/14
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Printed Name: *Reed Poderis*

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

Inspection Date: <u>9/25/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>6/17/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>RA King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Reed Poderis</u>	Title: <u>Mgr</u>

- A. GENERAL INSTRUCTIONS**
- 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.
 - All documentation must be legible and clear. Complete all checklist items.
 - 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>subsidence repair</u>
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)			
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:			
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		<u>faded text replaced on 2 signs</u>
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Do any Underground Radioactive Material Area signs need to be replaced or re-hung?		✓	
h. Is there damage to any of the subsidence survey markers?		✓	
i. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓	
j. Is there trash or other debris within the fenced area?		✓	
3. Waste Unit Cover:			
a. Is there evidence of settling or cracking?	✓		<u>one small crack to monitor on east end of cover</u>

POST-CLOSURE INSPECTION CHECKLIST

CAU 110, AREA 3 WMD U-3AX/BL CRATER – CAS 03-23-04, U-3AXBL SUBSIDENCE CRATER

b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓	.	<i>minor - no action needed</i>
f. Is there a change in the vegetation growing on the cover?		✓	
g. Are there any other issues not specifically described in this checklist?		✓	

Photograph Instructions:

- The following photographs must be taken during each inspection:
 - Four from the center of the unit, one in each compass direction (i.e., N, S, E, W)
 - Four of the unit from outside the fence, one in each compass direction (i.e., N, S, E, W)
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 6 inches deep that extend less than 3 feet on the cover) required?		✓	<i>See D. 4</i>
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 6 inches deep and 3 feet long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 6 inches deep and 3 feet long on the cover shall be completed within 60 days of discovery.		✓	<i>RAK 9/25/14</i>
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: *Site is in good condition. Faded text on 2 signs replaced during inspection. One small area of minor fracture to monitor (no action needed at this time). Minor animal burrowing does not require action.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 9/25/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 11/4/14

Printed Name: Reed J. Poderis

CORRECTIVE ACTION UNIT 111 INSPECTION CHECKLISTS

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POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

Inspection Date: 12/16/13	Reason for Inspection: Quarterly
If this inspection is for a rain event, date of event:	Quantity of Rainfall: inches
Date of Last Post-Closure Inspection: 9/17/13	Reason for Last Post-Closure Inspection: Quarterly
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Rebecca King	Title: PM
Assistant Inspector: Brian Kourad	Title: FO

- A. GENERAL INSTRUCTIONS**
- 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. Complete this checklist during the site inspection.
 - All documentation must be legible and clear. Complete all checklist items.
 - 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		subsidence repair
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are all use restriction signs legible?	✓		
b. How many damaged or missing use restriction signs need to be replaced?	0		
c. How many use restriction signs are down or loose and need to be re-hung?	0		
d. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	✓		2 areas of subsidence on the west cover.
b. Is there evidence of erosion (wind or water)?	✓		erosion kills on south slope of south cover
c. Is there evidence of human intrusion onto the site?	✓		although reseeding of N-N cover is incident
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		minor - no action required
f. Is there a change in the vegetation growing on the cover?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

g. Is there trash or debris on the cover?		✓
h. Are there any other issues not specifically described in this checklist?		✓

Photograph Instructions:

- A standard set of photographs is needed for the post-closure report. Photos are required to be taken from the approximate location where photos were taken the previous year (as found in the previous year's post-closure report).
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?	✓		See 4. below
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 15 centimeters deep and 1 meter long on the cover shall be completed within 60 days of discovery. Damaged or missing UR warning signs will be repaired or replaced within 60 days of discovery.	✓		See 4. below
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: *Three areas of subsidence requiring repair discovered on west cover. Minor erosion rills on south side of south cover. Re-seeding and hydro mulching activity noted on north-north cover. Minor animal burrowing on all cover to monitor - no action required at this time. Signs, survey markers, monuments and remainder of covers in good condition. See attached map for locate ^{RJK 12/16/13} location of erosion rills and subsidences.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 12/16/13

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 12/17/13

Printed Name: *Reed J. Poderis*

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POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

Inspection Date: <u>2/11/14</u>	Reason for Inspection: <u>Quarterly</u>
If this inspection is for a rain event, date of event:	Quantity of Rainfall: <u> </u> inches
Date of Last Post-Closure Inspection: <u>12/16/13</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Pm</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- *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.* Complete this checklist during the site inspection.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>Subsidence Repair</u>
a. If yes, has repair resulted in a change from as-built conditions?			NA ✓
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?			NA ✓

C. SITE INSPECTION (To be completed during the site visit)			
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are all use restriction signs legible?	✓		
b. How many damaged or missing use restriction signs need to be replaced?		0	
c. How many use restriction signs are down or loose and need to be re-hung?		0	
d. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	✓		<u>minor - see D.4</u>
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		<u>see D.4</u>
f. Is there a change in the vegetation growing on the cover?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

g. Is there trash or debris on the cover?		✓
h. Are there any other issues not specifically described in this checklist?		✓

Photograph Instructions:

- A standard set of photographs is needed for the post-closure report. Photos are required to be taken from the approximate location where photos were taken the previous year (as found in the previous year's post-closure report).
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?	✓		See D.4
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 15 centimeters deep and 1 meter long on the cover shall be completed within 60 days of discovery. Damaged or missing UR warning signs will be repaired or replaced within 60 days of discovery.		✓	
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: 2 linear crack found on west cover - not 15cm deep + 1 meter in length. Continue to monitor and repair before end of FY. Signs, monuments, covers all in good condition. North north cover Reseeding going as expected. No repairs this quarter.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 3/11/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 3/26/14

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

Inspection Date: <u>6/17/14</u>	Reason for Inspection: <u>Quarterly</u>
If this inspection is for a rain event, date of event:	Quantity of Rainfall: _____ inches
Date of Last Post-Closure Inspection: <u>3/11/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>Field Ops</u>

A. GENERAL INSTRUCTIONS

- 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. Complete this checklist during the site inspection.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA	✓
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA	✓

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are all use restriction signs legible?	✓		
b. How many damaged or missing use restriction signs need to be replaced?	0		
c. How many use restriction signs are down or loose and need to be re-hung?	0		
d. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	✓		<u>See D.4</u>
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		<u>some burrowing, no action needed</u>
f. Is there a change in the vegetation growing on the cover?	✓		<u>north-north has reseded plants all cover have annuals</u>

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

g. Is there trash or debris on the cover?		✓	
h. Are there any other issues not specifically described in this checklist?		✓	

Photograph Instructions:

- A standard set of photographs is needed for the post-closure report. Photos are required to be taken from the approximate location where photos were taken the previous year (as found in the previous year's post-closure report).
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all required photographs of the site been taken?	✓		

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?		✓	
2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 15 centimeters deep and 1 meter long on the cover shall be completed within 60 days of discovery. Damaged or missing UR warning signs will be repaired or replaced within 60 days of discovery.	✓		See D.4
3. Is there an imminent hazard to the integrity of the landfill cover?		✓	

4. Field Conclusions/Recommendations: Five areas of cracking and subsidence on west cover will require repair. North-north cover has receded plants and all covers have annual weeds. Signs, monuments and the ^{RAK 6/17/14} ~~Remo~~ covers are in good condition, except for west cover areas of cracking and subsidence.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 6/17/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 7/17/14

Printed Name: Reed Poderis

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

Inspection Date: <u>8/4th/14 RAK 8/5/14</u>	Reason for Inspection: <u>Precipitation</u>
If this inspection is for a rain event, date of event: <u>8/4/14</u>	Quantity of Rainfall: <u>1.47</u> inches
Date of Last Post-Closure Inspection: <u>6/17/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>Field Super.</u>

A. GENERAL INSTRUCTIONS

- 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. Complete this checklist during the site inspection.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓	✓	<u>Subsidence Repair</u>
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are all use restriction signs legible?	✓		
b. How many damaged or missing use restriction signs need to be replaced?		0	
c. How many use restriction signs are down or loose and need to be re-hung?		0	
d. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?	✓		<u>erosion rills down slopes</u>
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?		✓	
f. Is there a change in the vegetation growing on the cover?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

g. Is there trash or debris on the cover? YES NO

h. Are there any other issues not specifically described in this checklist? YES NO

Photograph Instructions:

- A standard set of photographs is needed for the post-closure report. Photos are required to be taken from the approximate location where photos were taken the previous year (as found in the previous year's post-closure report).
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	

a. Have all required photographs of the site been taken?

D. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	

1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?

2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 15 centimeters deep and 1 meter long on the cover shall be completed within 60 days of discovery. Damaged or missing UR warning signs will be repaired or replaced within 60 days of discovery.

3. Is there an imminent hazard to the integrity of the landfill cover?

4. Field Conclusions/Recommendations: *EROSION RILLS ON MOST COVER SLOPES THAT WILL REQUIRE REPAIR. THE REST OF THE SITE IS IN GOOD CONDITION.*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King

Date: 8/5/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis

Date: 8/5/14

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

Inspection Date: <u>9/23/14</u>	Reason for Inspection: <u>Quarterly</u>
If this inspection is for a rain event, date of event: ^{RAE} <u>9/25/14</u> <u>8/5/14</u>	Quantity of Rainfall: _____ inches
Date of Last Post-Closure Inspection: <u>8/5/14</u>	Reason for Last Post-Closure Inspection: <u>Precipitation</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>RA Kreis</u>	Title: <u>PM</u>
Assistant Inspector: <u>Reed Poderis</u>	Title: <u>Mgr</u>

A. GENERAL INSTRUCTIONS

- 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. Complete this checklist during the site inspection.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

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

	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>erosion wall repair</u>
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA ✓

C. SITE INSPECTION (To be completed during the site visit)

	YES	NO	EXPLANATION (required if shaded box is checked)
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are all use restriction signs legible?	✓		
b. How many damaged or missing use restriction signs need to be replaced?		0	
c. How many use restriction signs are down or loose and need to be re-hung?		0	
d. Is there damage to any of the monuments?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?	✓	RISK <u>9/23/14</u>	<u>4 areas of subsidence - west cover</u>
b. Is there evidence of erosion (wind or water)?		✓	
c. Is there evidence of human intrusion onto the site?		✓	
d. Is there evidence of large animal intrusion onto the site?		✓	
e. Is there evidence of animal burrowing?	✓		<u>minors - no action</u>
f. Is there a change in the vegetation growing on the cover?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 111, AREA 5 WMD RETIRED MIXED WASTE PITS – CAS 05-21-01, MIXED WASTE PITS

g. Is there trash or debris on the cover? YES NO

h. Are there any other issues not specifically described in this checklist? YES NO

Photograph Instructions:

- A standard set of photographs is needed for the post-closure report. Photos are required to be taken from the approximate location where photos were taken the previous year (as found in the previous year's post-closure report).
- Photographs should also be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Photographs will be filed electronically.

4. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	

a. Have all required photographs of the site been taken?

D. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	

1. Is general housekeeping or minor repair (including cracks or settling imperfections less than 15 centimeters deep that extend less than 1 meter on the cover) required?

2. Are there deficiencies that require a remedy other than general housekeeping or minor repair? (For example, are there cracks greater than 15 centimeters deep and 1 meter long on the cover?) Maintenance or repairs of cracks or settling imperfections greater than 15 centimeters deep and 1 meter long on the cover shall be completed within 60 days of discovery. Damaged or missing UR warning signs will be repaired or replaced within 60 days of discovery.

3. Is there an imminent hazard to the integrity of the landfill cover?

4. Field Conclusions/Recommendations: *Site is in good condition except for 4 subsidences on the west cover that require repair*

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King

Date: 9/23/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis

Date: 11/9/14

Printed Name: *Reed J. Poderis*

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: 12/16/13	Reason for Inspection: Quarterly
Date of Last Post-Closure Inspection: 9/18/13	Reason for Last Post-Closure Inspection: Quarterly
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Podcris, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Rebecca King	Title: PM
Assistant Inspector: Brian Konrad	Title: FO

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to any of the monuments?		✓	
h. Have neutron access pads been disturbed?		✓	
i. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Other photographs are optional.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. Have photographs of the site been taken?			

D. FIELD CONCLUSIONS

	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Field Conclusions and Repair or Maintenance Recommendations:

Site, creek, signs, fence, gate pads and monuments in good condition. No issues.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 12/16/13

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 12/17/13

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

Inspection Date: <u>3/11/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>12/16/13</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Brian Koupal</u>	Title: <u>FO</u>

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA	✓
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA	✓

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to any of the monuments?		✓	
h. Have neutron access pads been disturbed?		✓	
i. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	see D.2
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Other photographs are optional.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION
a. Have photographs of the site been taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D. FIELD CONCLUSIONS

1. Is there an imminent hazard to the integrity of the landfill cover?	YES	NO	EXPLANATION (required if shaded box is checked)
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Field Conclusions and Repair or Maintenance Recommendations:

Site, fencing, signs, monuments and covers in good condition. Minimal vegetation in clumps on the cover that will be removed.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 3/11/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 3/26/14

Printed Name: Reed J. Poderis

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

Inspection Date: <u>6/17/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>3/11/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Rebecca King</u>	Title: <u>Project Manager</u>
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>Field Supervisor</u>

A. GENERAL INSTRUCTIONS

- 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.
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?	✓		<u>vegetation removal</u>
a. If yes, has repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		✓	NA

C. SITE INSPECTION (To be completed during the site visit)			
1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to any of the monuments?		✓	
h. Have neutron access pads been disturbed?		✓	
i. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	none
g. Is there trash or debris within the fenced area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Are there any other issues not specifically described in this checklist?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Other photographs are optional.
- Photographs will be filed electronically.

4. Photograph Documentation:	YES	NO	EXPLANATION
a. Have photographs of the site been taken?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

D. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Is there an imminent hazard to the integrity of the landfill cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Field Conclusions and Repair or Maintenance Recommendations:

Monuments, fences & gate and signs all in good condition. Some small areas of minor vegetation on the ~~cover~~^{AK 6/17/14} cover. No action required.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King Date: 6/19/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis Date: 7/17/14

Printed Name: Reed Poderis

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

Inspection Date: <u>9/25/14</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>6/17/14</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Responsible Entity: NSTec Environmental Restoration, Nevada National Security Site, Mercury, Nevada	
Responsible Facility Owner: Reed J. Poderis, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>RA King</u>	Title: <u>PM</u>
Assistant Inspector: <u>Reed Poderis</u>	Title: <u>Mgr</u>

A. GENERAL INSTRUCTIONS

- *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.*
- All documentation must be legible and clear. Complete all checklist items.
- 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. 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.

B. PREPARATION (To be completed prior to the site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Were anomalies or trends detected on previous inspections?		✓	
2. Were maintenance or repair activities performed since the last inspection?		✓	
a. If yes, has repair resulted in a change from as-built conditions?		NA ✓	
b. If yes (to 2a), are revised as-built plans available that reflect repair changes?		NA ✓	

C. SITE INSPECTION (To be completed during the site visit)

1. Adjacent Offsite Features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or offsite features that could potentially affect the site?		✓	
2. Site Markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to the gate or gate lock?		✓	
b. Is there damage to or a break in the fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Are all use restriction signs legible?	✓		
e. How many damaged or missing use restriction signs need to be replaced?	0		
f. How many use restriction signs are down or loose and need to be re-hung?	0		
g. Is there damage to any of the monuments?		✓	
h. Have neutron access pads been disturbed?		✓	
i. Are well covers for neutron access tubes broken, lost, or otherwise damaged?		✓	
3. Waste Unit Covers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling or cracking?		✓	
b. Is there evidence of erosion (wind or water)?		✓	

POST-CLOSURE INSPECTION CHECKLIST

**CAU 112, AREA 23 HAZARDOUS WASTE TRENCHES –
CAS 23-21-02, AREA 23 HAZ. WASTE TRENCHES (RCRA)**

c. Is there evidence of human intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of large animal intrusion onto the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	minor - no action required
g. Is there trash or debris within the fenced area?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAK 9/25/14 windy - trash blowing in from landfill - no action
h. Are there any other issues not specifically described in this checklist?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Photograph Instructions:

- Photographs should be taken to document maintenance/repair needs, anomalous features, or new features (such as changes in adjacent area land use). These will be used to plan maintenance/repair activities and are not intended for use in the annual post-closure report.
- Other photographs are optional.
- Photographs will be filed electronically.

4. Photograph Documentation:

YES	NO	EXPLANATION
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a. Have photographs of the site been taken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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D. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
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1. Is there an imminent hazard to the integrity of the landfill cover?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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2. Field Conclusions and Repair or Maintenance Recommendations:

Site is in good condition. Minor weed blown trash & weed patches. No action required.

E. CERTIFICATION: I have conducted this inspection in accordance with the post-closure requirements as recorded on this checklist and attachments.

Chief Inspector's Signature: /s/: Rebecca A. King

Date: 9/25/14

F. VERIFICATION: I have reviewed this checklist and attachments and have verified that they are complete.

Signature: /s/: Reed J. Poderis

Date: 11/4/14

Printed Name: Reed J Poderis

APPENDIX B

PHOTOGRAPHS

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PHOTOGRAPH LOG

CAU	DATE	PHOTO NUMBER	DESCRIPTION
90	12/16/2013	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
	06/18/2014	7	West Unit Facing North
		8	West Unit Facing East
		9	West Unit Facing South
		10	East Unit Facing South – PHOTO NOT AVAILABLE
		11	East Unit Facing West
		12	East Unit Facing North
91	03/11/2014	13	Inside Facing North
		14	Inside Facing East – PHOTO NOT AVAILABLE
		15	Inside Facing South
		16	Inside Facing West – PHOTO NOT AVAILABLE
		17	Outside Facing North
		18	Outside Facing East
		19	Outside Facing South
		20	Outside Facing West
	09/25/2014	21	Inside Facing North
		22	Inside Facing East
		23	Inside Facing South
		24	Inside Facing West
		25	Outside Facing North
		26	Outside Facing East
		27	Outside Facing South
		28	Outside Facing West
92	12/16/2013	29	Inside Facing North
		30	Inside Facing East
		31	Inside Facing South
		32	Inside Facing West
		33	Outside Facing North
		34	Outside Facing East
		35	Outside Facing South
		36	Outside Facing West
	03/03/2014	37	Outside Facing North
		38	Outside Facing East
		39	Outside Facing South
		40	Outside Facing West

PHOTOGRAPH LOG

CAU	DATE	PHOTO NUMBER	DESCRIPTION
92	06/17/2014	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
	09/25/2014	49	Outside Facing North
		50	Outside Facing East
		51	Outside Facing South
		52	Outside Facing West
110	12/16/2013	53	Inside Facing North
		54	Inside Facing East
		55	Inside Facing South
		56	Inside Facing West
		57	Outside Facing North
		58	Outside Facing East
		59	Outside Facing South
		60	Outside Facing West
	03/11/2014	61	Inside Facing North
		62	Inside Facing East
		63	Inside Facing South
		64	Inside Facing West
		65	Outside Facing North
		66	Outside Facing East
		67	Outside Facing South
		68	Outside Facing West
	06/17/2014	69	Inside Facing North
		70	Inside Facing East – PHOTO NOT AVAILABLE
		71	Inside Facing South
		72	Inside Facing West
73		Outside Facing North	
74		Outside Facing East	
75		Outside Facing South	
76		Outside Facing West	
09/25/2014	77	Inside Facing North	
	78	Inside Facing East	
	79	Inside Facing South	
	80	Inside Facing West	

PHOTOGRAPH LOG

CAU	DATE	PHOTO NUMBER	DESCRIPTION
110	09/25/2014	81	Outside Facing North
		82	Outside Facing East
		83	Outside Facing South
		84	Outside Facing West
111	12/16/2013	85	Lower North Cover Facing North
		86	Lower North Cover Facing East
		87	South Cover Facing East
		88	Upper North Cover Facing East
		89	Upper North Cover Facing South
		90	West Cover Facing North
		91	South Cover Facing North
		92	South Cover Facing Northwest
	93	Arizona Crossing Facing West	
	03/11/2014	94	Lower North Cover Facing North
		95	Lower North Cover Facing East
		96	South Cover Facing East
		97	Upper North Cover Facing East
		98	Upper North Cover Facing South
		99	West Cover Facing North
		100	South Cover Facing North
		101	South Cover Facing Northwest
	102	Arizona Crossing Facing West	
	06/17/2014	103	Lower North Cover Facing North
		104	Lower North Cover Facing East
105		South Cover Facing East	
106		Upper North Cover Facing East	
107		Upper North Cover Facing South	
108		West Cover Facing North	
109		South Cover Facing North – PHOTO NOT AVAILABLE	
110		South Cover Facing Northwest	
111		Arizona Crossing Facing West	
09/23/2014	112	Lower North Cover Facing North	
	113	Lower North Cover Facing East	
	114	South Cover Facing East	
	115	Upper North Cover Facing East	
	116	Upper North Cover Facing South	
	117	West Cover Facing North	
	118	South Cover Facing North	
	119	South Cover Facing Northwest	
120	Arizona Crossing Facing West		

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Photograph 1: CAU 90, West Unit Facing North, 12/16/2013



Photograph 2: CAU 90, West Unit Facing East, 12/16/2013



Photograph 3: CAU 90, West Unit Facing South, 12/16/2013



Photograph 4: CAU 90, East Unit Facing South, 12/16/2013



Photograph 5: CAU 90, East Unit Facing West, 12/16/2013



Photograph 6: CAU 90, East Unit Facing North, 12/16/2013



Photograph 7: CAU 90, West Unit Facing North, 06/18/2014



Photograph 8: CAU 90, West Unit Facing East, 06/18/2014



Photograph 9: CAU 90, West Unit Facing South, 06/18/2014

PHOTO NOT AVAILABLE

Photograph 10: CAU 90, East Unit Facing South, 06/18/2014



Photograph 11: CAU 90, East Unit Facing West, 06/18/2014



Photograph 12: CAU 90, East Unit Facing North, 06/18/2014



Photograph 13: CAU 91, Inside Facing North, 03/11/2014

PHOTO NOT AVAILABLE

Photograph 14: CAU 91, Inside Facing East, 03/11/2014



Photograph 15: CAU 91, Inside Facing South, 03/11/2014

PHOTO NOT AVAILABLE

Photograph 16: CAU 91, Inside Facing West, 03/11/2014



Photograph 17: CAU 91, Outside Facing North, 03/11/2014



Photograph 18: CAU 91, Outside Facing East, 03/11/2014



Photograph 19: CAU 91, Outside Facing South, 03/11/2014



Photograph 20: CAU 91, Outside Facing West, 03/11/2014



Photograph 21: CAU 91, Inside Facing North, 09/25/2014



Photograph 22: CAU 91, Inside Facing East, 09/25/2014



Photograph 23: CAU 91, Inside Facing South, 09/25/2014



Photograph 24: CAU 91, Inside Facing West, 09/25/2014



Photograph 25: CAU 91, Outside Facing North, 09/25/2014



Photograph 26: CAU 91, Outside Facing East, 09/25/2014



Photograph 27: CAU 91, Outside Facing South, 09/25/2014



Photograph 28: CAU 91, Outside Facing West, 09/25/2014



Photograph 29: CAU 92, Inside Facing North, 12/16/2013



Photograph 30: CAU 92, Inside Facing East, 12/16/2013



Photograph 31: CAU 92, Inside Facing South, 12/16/2013



Photograph 32: CAU 92, Inside Facing West, 12/16/2013



Photograph 33: CAU 92, Outside Facing North, 12/16/2013



Photograph 34: CAU 92, Outside Facing East, 12/16/2013



Photograph 35: CAU 92, Outside Facing South, 12/16/2013



Photograph 36: CAU 92, Outside Facing West, 12/16/2013



Photograph 37: CAU 92, Outside Facing North, 03/03/2014



Photograph 38: CAU 92, Outside Facing East, 03/03/2014



Photograph 39: CAU 92, Outside Facing South, 03/03/2014



Photograph 40: CAU 92, Outside Facing West, 03/03/2014



Photograph 41: CAU 92, Inside Facing North, 06/17/2014



Photograph 42: CAU 92, Inside Facing East, 06/17/2014



Photograph 43: CAU 92, Inside Facing South, 06/17/2014



Photograph 44: CAU 92, Inside Facing West, 06/17/2014



Photograph 45: CAU 92, Outside Facing North, 06/17/2014



Photograph 46: CAU 92, Outside Facing East, 06/17/2014



Photograph 47: CAU 92, Outside Facing South, 06/17/2014



Photograph 48: CAU 92, Outside Facing West, 06/17/2014



Photograph 49: CAU 92, Outside Facing North, 09/25/2014



Photograph 50: CAU 92, Outside Facing East, 09/25/2014



Photograph 51: CAU 92, Outside Facing South, 09/25/2014



Photograph 52: CAU 92, Outside Facing West, 09/25/2014



Photograph 53: CAU 110, Inside Facing North, 12/16/2013



Photograph 54: CAU 110, Inside Facing East, 12/16/2013



Photograph 55: CAU 110, Inside Facing South, 12/16/2013



Photograph 56: CAU 110, Inside Facing West, 12/16/2013



Photograph 57: CAU 110, Outside Facing North, 12/16/2013



Photograph 58: CAU 110, Outside Facing East, 12/16/2013



Photograph 59: CAU 110, Outside Facing South, 12/16/2013



Photograph 60: CAU 110, Outside Facing West, 12/16/2013



Photograph 61: CAU 110, Inside Facing North, 03/11/2014



Photograph 62: CAU 110, Inside Facing East, 03/11/2014



Photograph 63: CAU 110, Inside Facing South, 03/11/2014



Photograph 64: CAU 110, Inside Facing West, 03/11/2014



Photograph 65: CAU 110, Outside Facing North, 03/11/2014



Photograph 66: CAU 110, Outside Facing East, 03/11/2014



Photograph 67: CAU 110, Outside Facing South, 03/11/2014



Photograph 68: CAU 110, Outside Facing West, 03/11/2014



Photograph 69: CAU 110, Inside Facing North, 06/17/2014

PHOTO NOT AVAILABLE

Photograph 70: CAU 110, Inside Facing East, 06/17/2014



Photograph 71: CAU 110, Inside Facing South, 06/17/2014



Photograph 72: CAU 110, Inside Facing West, 06/17/2014



Photograph 73: CAU 110, Outside Facing North, 06/17/2014



Photograph 74: CAU 110, Outside Facing East, 06/17/2014



Photograph 75: CAU 110, Outside Facing South, 06/17/2014



Photograph 76: CAU 110, Outside Facing West, 06/17/2014



Photograph 77: CAU 110, Inside Facing North, 09/25/2014



Photograph 78: CAU 110, Inside Facing East, 09/25/2014



Photograph 79: CAU 110, Inside Facing South, 09/25/2014



Photograph 80: CAU 110, Inside Facing West, 09/25/2014



Photograph 81: CAU 110, Outside Facing North, 09/25/2014



Photograph 82: CAU 110, Outside Facing East, 09/25/2014



Photograph 83: CAU 110, Outside Facing South, 09/25/2014



Photograph 84: CAU 110, Outside Facing West, 09/25/2014



Photograph 85: CAU 111, Lower North Cover Facing North, 12/16/2013



Photograph 86: CAU 111, Lower North Cover Facing East, 12/16/2013



Photograph 87: CAU 111, South Cover Facing East, 12/16/2013



Photograph 88: CAU 111, Upper North Cover Facing East, 12/16/2013



Photograph 89: CAU 111, Upper North Cover Facing South, 12/16/2013



Photograph 90: CAU 111, West Cover Facing North, 12/16/2013



Photograph 91: CAU 111, South Cover Facing North, 12/16/2013



Photograph 92: CAU 111, South Cover Facing Northwest, 12/16/2013



Photograph 93: CAU 111, Arizona Crossing Facing West, 12/16/2013



Photograph 94: CAU 111, Lower North Cover Facing North, 03/11/2014



Photograph 95: CAU 111, Lower North Cover Facing East, 03/11/2014



Photograph 96: CAU 111, South Cover Facing East, 03/11/2014



Photograph 97: CAU 111, Upper North Cover Facing East, 03/11/2014



Photograph 98: CAU 111, Upper North Cover Facing South, 03/11/2014



Photograph 99: CAU 111, West Cover Facing North, 03/11/2014



Photograph 100: CAU 111, South Cover Facing North, 03/11/2014



Photograph 101: CAU 111, South Cover Facing Northwest, 03/11/2014



Photograph 102: CAU 111, Arizona Crossing Facing West, 03/11/2014



Photograph 103: CAU 111, Lower North Cover Facing North, 06/17/2014



Photograph 104: CAU 111, Lower North Cover Facing East, 06/17/2014



Photograph 105: CAU 111, South Cover Facing East, 06/17/2014



Photograph 106: CAU 111, Upper North Cover Facing East, 06/17/2014



Photograph 107: CAU 111, Upper North Cover Facing South, 06/17/2014



Photograph 108: CAU 111, West Cover Facing North, 06/17/2014

PHOTO NOT AVAILABLE

Photograph 109: CAU 111, South Cover Facing North, 06/17/2014



Photograph 110: CAU 111, South Cover Facing Northwest, 06/17/2014



Photograph 111: CAU 111, Arizona Crossing Facing West, 06/17/2014



Photograph 112: CAU 111, Lower North Cover Facing North, 09/23/2014



Photograph 113: CAU 111, Lower North Cover Facing East, 09/23/2014



Photograph 114: CAU 111, South Cover Facing East, 09/23/2014



Photograph 115: CAU 111, Upper North Cover Facing East, 09/23/2014



Photograph 116: CAU 111, Upper North Cover Facing South, 09/23/2014



Photograph 117: CAU 111, West Cover Facing North, 09/23/2014



Photograph 118: CAU 111, South Cover Facing North, 9/23/2014



Photograph 119: CAU 111, South Cover Facing Northwest, 09/23/2014



Photograph 120: CAU 111, Arizona Crossing Facing West, 09/23/2014

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