Post-Closure Inspection Report for Corrective Action Unit 424: Area 3 Landfill Complex Tonopah Test Range, Nevada Calendar Year 2000

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Revision: 0

June 2001
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POST-CLOSURE INSPECTION REPORT FOR
CORRECTIVE ACTION UNIT 424:
AREA 3 LANDFILL COMPLEX
TONOPAH TEST RANGE, NEVADA
CALENDAR YEAR 2000

Prepared for
U. S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
Work Performed Under Contract No.
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UNCONTROLLED

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Revision: 0
June 2001
POST-CLOSURE INSPECTION REPORT FOR CORRECTIVE ACTION UNIT 424: AREA 3 LANDFILL COMPLEX TONOPAH TEST RANGE, NEVADA CALENDAR YEAR 2000

Approved by: 
Janet L. Appenzeller-Wing, Project Manager Industrial Sites Project

Date: 6/21/01

Approved by: Runore C. Wycoff, Division Director Environmental Restoration Project

Date: 6/21/01
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DRAFT DISTRIBUTION LIST
1.0 INTRODUCTION

Corrective Action Unit (CAU) 424, the Area 3 Landfill Complex at Tonopah Test Range, consists of eight landfill sites, Corrective Action Sites (CASS), seven of which are landfill cells that were closed previously by capping. (The eighth CAS, A3-7, was not used as a landfill site and was closed without taking any corrective action.) Figure 1 shows the locations of the landfill cells. CAU 424 closure activities included removing small volumes of soil containing petroleum hydrocarbons, repairing cell covers that were cracked or had subsided, and installing above-grade and at-grade monuments marking the corners of the landfill cells. Post-closure monitoring requirements for CAU 424 are detailed in Section 5.0, Post-Closure Inspection Plan contained, in the Closure Report for Corrective Action Unit 424: Area 3 Landfill Complex, Tonopah Test Range, Nevada, report number DOE/NV--283. The Closure Report (CR) was approved by the Nevada Division of Environmental Protection (NDEP) in July 1999. The CR includes compaction and permeability results of soils that cap the seven landfill cells.

Post-closure monitoring consists of the following:

- Site inspections done twice a year to evaluate the condition of the unit.
- Verification that the site is secure.
- Notice of any subsidence or deficiencies that may compromise the integrity of the unit.
- Remedy of any deficiencies within 90 days of discovery.
- Preparation and submittal of an annual report.

Site inspections were conducted on June 20, 2000, and November 20, 2000. The inspections were performed after the NDEP approval of the CR.

This report includes copies of the inspection checklist and photographs, and recommendations and conclusions. The Post-Closure Inspection Checklists are found in Attachment A, a copy of the field notes is found in Attachment B, and copies of the inspection photographs are found in Attachment C.

2.0 INSPECTION RESULTS

The following observations were made during the 2000 site inspections of the seven individual landfill units (CASs) that comprise CAU 424.

2.1 June 20, 2000 Inspection

The first inspection of CAU 424 was done on June 20, 2000. None of the landfill units were fenced at closure and are accessible to native wildlife.
Landfill A3-1 (CAS 03-08-001-A301)  Landfill A3-1 is located at the north end of the CAU and is the largest of the landfill cells. All seven above-grade concrete monuments and the landfill cover were examined. All monuments, attached signs, and survey pins capping the monuments were legible and in good condition. There was no evidence of cover subsidence, cracking, erosion, or animal burrows. Vegetation was present on the cover, but sparse compared to surrounding undisturbed areas. The landfill A3-1 cover and monuments were in excellent overall condition.

Landfill A3-2 (CAS 03-08-002-A302)  Landfill A3-2 is located due south of landfill A3-1. Four above-grade monuments and the landfill cover were examined. All monuments, attached signs, and survey pins capping the monuments were legible and in good condition. There was no evidence of subsidence, cracking, or erosion of the landfill cover. No animal burrows were present on the cover or around the base of the monuments. Vegetation was present and healthy but sparse compared to the surrounding undisturbed area. The cover and monuments were in overall excellent condition.

Landfill A3-3 (CAS 03-08-002-A303)  Landfill A3-3 straddles the western fence line of the Sandia Area 3 Compound, with parts of the landfill outside the fence and parts inside the fence. Three above-grade monuments marking the western edge of the landfill located outside the fence were examined. The three monuments, attached signs, and brass survey pins were legible and in good condition. Three at-grade brass marker pins demarcating the eastern edge of landfill (installed during closure activities) were located just inside the Area 3 fence line. All were easily located, clearly visible, and legible. The area outside the fence was covered by sparse vegetation. The area inside the fence is heavily trafficked and, hence, bare of vegetation.

The third waste cell, a small area (approximately 3 by 3 meters [10 by 10 feet]), located just east of the dirt access road to the Bechtel Nevada Field Office (Building 03-78) was inspected. The three at-grade brass marker marker pins were not located. Recent grading of the access road covered these pins with soil. During a later inspection a metal detector will be used to verify that these three pins are present. The cover was in excellent shape with no signs of cracking, subsidence, or erosion. This area was not vegetated due to frequent vehicle traffic.

Landfill A3-4 (CAS 03-08-002-A304)  Landfill A3-4 is located just south of Dykes Drive at the south end of the CAU. All five above-grade monuments and one at-grade brass marker pin were located. All monuments, the marker, attached signs, and survey pins were legible and in good condition. The cover was in excellent shape with no signs of cracking, subsidence, or erosion.

Landfill A3-5 (CAS 03-08-002-A305)  Landfill A3-5 is located west of Moody Ave. inside a fenced area south of the Air Force First-Aid Station. All four above-grade monuments with attached warning signs and brass survey pins were located. All monuments, attached signs and survey pins were legible and in good condition. The area was vegetated with Russian Thistle and sparse grasses. (See photograph 11.) The cover was in excellent condition with no evidence of subsidence, cracking, or erosion.
Landfill A3-6 (CAS 03-08-002-A306) Landfill A3-6 is located immediately west of and outside the fence line for the Area 3 Compound. All four above-grade monuments with attached warning signs and brass survey pins were located. All monuments, signs, and pins were in excellent condition. The area is sparsely vegetated with native species (see photographs 12 and 26). No evidence of cover subsidence or erosion was observed. The overall condition of the cover was excellent.

Landfill A3-8 (CAS 03-08-002-A308) Landfill A3-8 is located southwest of the Area 3 Compound in the area of storage box cars (see photographs 13 and 14). This unit was closed by placing four at-grade brass marker pins at the corners of the unit. The southwest at-grade marker was located and was in excellent condition. The inspection was unable to locate the other three markers due to regrading of the dirt access road running through the area. The markers have been buried with soil from the regrading work. The area is not vegetated due to heavy traffic. There was no evidence of subsidence or erosion to the cover. The overall condition of the landfill cover is excellent.

2.2 November 20, 2000 Inspection

The second inspection of CUA 424 was done on November 20, 2000.

Landfill A3-1 (CAS 03-08-001-A301) All seven above-grade monuments were located. All monuments, attached warning signs, and stamped brass survey pins were in excellent condition. Minor animal burrows were present at the base of five monuments. Burrows were backfilled and tamped by hand using a shovel. Vegetation is sparse compared to surrounding undisturbed areas, but appears healthy (see photographs 15, and 16). No evidence of subsidence, cracking, or erosion of the landfill cover was observed. The overall condition of the landfill cover is excellent.

Landfill A3-2 (CAS 03-08-002-A302) All four above-grade monuments were located. All monuments, attached warning signs, and stamped brass survey pins were in excellent condition (see photograph 17). Minor animal burrows were found at the base of two of the monuments and were backfilled and tamped by hand using a shovel. Sparse vegetation is present on the cover. No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of cover is excellent.

Landfill A3-3 (CAS 03-08-002-A303) All three above-grade monuments and three at-grade brass marker pins (photograph 19) marking the west cells of the landfill were located. All monuments, marker pins, attached warning signs, and stamped brass survey pins were in excellent condition. Vegetation outside the Area 3 fence appeared healthy and well established, while that on the inside of the fence was sparse due to traffic (see photographs 18, 20, and 22). The three at-grade brass marker pins placed for the small cell east of the access road were not located. These markers have been covered with soil from recent road maintenance activities. The center of photograph 21 shows the condition of the approximate location of this cell. The overall condition of the landfill cover is excellent.
Landfill A3-4 (CAS 03-08-002-A304) All five above-grade monuments and one at-grade brass marker pin were located. All monuments, marker pins, attached warning signs, and stamped brass survey pins were in excellent condition. Vegetation is sparse compared to adjacent undisturbed areas, but healthy (see photographs 23 and 24). No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of Landfill A3-5 cover is excellent.

Landfill A3-5 (CAS 03-08-002-A305) All four above-grade monuments were located (photograph 25). All monuments, attached warning signs, and brass survey pins were in excellent condition. Minor animal burrows were found at the base of the northeast and southeast monuments. All burrows were backfilled and tamped by hand using a shovel. The cover area is vegetated primarily by Russian Thistle. No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of the landfill cover is excellent.

Landfill A3-6 (CAS 03-08-002-A306) All four above-grade monuments were located (photograph 26). All monuments, attached warning signs, and survey pins were in excellent condition. Minor animal burrows were found at the base of the southeast and northwest monuments. The burrows were backfilled and tamped by hand using a shovel. Vegetation on the landfill is healthy and well established. No signs of cover subsidence, cracking, or erosion were observed. The overall condition of the landfill cover is excellent.

Landfill A3-8 (CAS 03-08-002-A308) One of four at-grade brass marking pins was located at the southeast corner of the landfill. The three remaining at-grade marker pins were not visually located. They are in an area of high traffic use and have been covered with soil from recent road maintenance activities (see photograph 27 and 28). The overall condition of the landfill cover is excellent with no evidence of subsidence, cracking, or erosion.

3.0 RECOMMENDATIONS AND CONCLUSIONS

The condition of the seven landfill units is excellent. All monuments (except for three at-grade in Landfill A3-3 and three in Landfill A3-8) were located and were in excellent condition. All warning signs and survey pins are legible and in good condition. Runoff is being properly diverted away from the landfill units and there is no evidence of drainage or erosion to any of the landfill units. Small animal burrows present on the landfill covers should continue to be backfilled during future inspections. During the 2001 inspections a Schoenstadt metal detector should be used to locate and inspect all at-grade markers for landfill cells A3-3 and A3-8. No significant modifications or repairs to landfill units are needed at this time.
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ATTACHMENT A

INSPECTION CHECKLISTS
## AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

<table>
<thead>
<tr>
<th>Date of Last Inspection:</th>
<th>Reason for Last Inspection: Bi-Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Agency: Doe/No.</td>
<td>Project Manager: Wayne Johnson Biare</td>
</tr>
<tr>
<td>Inspection Date: 6/20/22</td>
<td></td>
</tr>
<tr>
<td>Inspector (name, title, organization): Kevin B. Campbell, Geologist/Hydrologist, Bechtel Nevada</td>
<td></td>
</tr>
<tr>
<td>Assistant Inspector (name, title, organization): Clare Blackburn, Engineer, Waste House</td>
<td></td>
</tr>
</tbody>
</table>

### A. GENERAL INSTRUCTIONS
1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX, must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color 35mm photographs (or equivalent) is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photo log entry will be made for each photograph taken.
5. This unit will be inspected biannually with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes and photo log attached, and recommendations and conclusions.

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

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Site as-built plans and site base map reviewed.
2. Previous inspection reports reviewed.
   a. Were anomalies or trends detected on previous inspections? ✓
   b. Was maintenance performed? ✓
3. Site maintenance and repair records reviewed.
   a. Has site repair resulted in a change from as-built conditions? N/A
   b. Are revised as-builts available that reflect repair changes? N/A

### C. SITE INSPECTION (To be completed during inspection)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Adjacent off-site features within watershed areas.
   a. Have there been any changes in use of adjacent area? ✓
   b. Are any new roads or trails? ✓
   c. Has there been a change in the position of nearby washes? ✓
   d. Has there been lateral excursion or erosion/deposition of nearby washes? ✓
   e. Are there new drainage channels? ✓
   f. Change in surrounding vegetation? ✓
2. Security fence, signs.
   a. Displacement of fences, site markers, boundary markers, or monuments? ✓
   b. Have any signs been damaged or removed? ✓ All signs on concrete mount
   (Number of signs replaced: 3)
   c. Were gates locked? N/A no gates at A3
### AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

#### 3. Waste Unit cover.

<table>
<thead>
<tr>
<th>a. Is there evidence of settling?</th>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Is there cracking?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Is there evidence of erosion around the cap (wind or water)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Is there evidence of animal burrowing?</td>
<td></td>
<td></td>
<td>Some burrowing at K2-4. All site markers in position.</td>
</tr>
<tr>
<td>e. Have the site markers been disturbed by man or natural processes?</td>
<td></td>
<td></td>
<td>Could not locate 3 surface mounted monuments at A-8. Only 4 of 9 were visible. Also could not locate 3 subsurface monuments for eastern A3.</td>
</tr>
<tr>
<td>f. Is the vegetation on the cover?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Do natural processes threaten to integrity of any cover or site marker?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Other?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4. Photo Documentation

<table>
<thead>
<tr>
<th>a. Has a photo log been prepared?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Number of photos exposed (1k)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### D. FIELD CONCLUSIONS

1. Is there an imminent hazard to the integrity of the unit? (Immediate report required)
   - YES

Person/Agency to whom report made:

2. Are more frequent inspections required?
   - YES

3. Are existing maintenance/repair actions satisfactory?
   - NO

4. Is other maintenance/repair necessary?
   - NO

5. Is current status/condition of vegetative cover satisfactory?
   - NO

6. Rationale for field conclusions:
   - Observations show all of the seven landfill cells are in good repair/shape. Only minor burrowing at A3-Unit 4 were observed. No maintenance was performed or is necessary at this time.

#### E. CERTIFICATION

I have conducted an inspection of the Area 3 Landfill Complex, CAU 424, at the TTR in accordance with the Post-Closure Inspection Plan (see Closure Report) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

Chief Inspector's Signature: [Signature]

Printed Name: Kevin B. Campbell

Title: Geologist/Hydrologist

Date: 6/20/00
### AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

<table>
<thead>
<tr>
<th>Date of Last Inspection:</th>
<th>6/20/00</th>
<th>Reason for Last Inspection: GR Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Agency:</td>
<td>DOE/NV</td>
<td>Project Manager: W. Johnson DN/ER</td>
</tr>
<tr>
<td>Inspection Date:</td>
<td>11/20/00</td>
<td>Inspector (name, title, organization): Dan Johanson, Scientist, DN/ER</td>
</tr>
<tr>
<td>Assistant Inspector:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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4. A standard set of color 35mm photographs (or equivalent) is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photo log entry will be made for each photograph taken.
5. This unit will be inspected biannually with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes and photo log attached, and recommendations and conclusions.

#### B. PREPARATION (To be completed prior to site visit) YES NO EXPLANATION

<table>
<thead>
<tr>
<th>Item</th>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site as-built plans and site base map reviewed.</td>
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<td></td>
</tr>
<tr>
<td>Previous inspection reports reviewed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Were anomalies or trends detected on previous inspections?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Was maintenance performed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site maintenance and repair records reviewed.</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Has site repair resulted in a change from as-built conditions?</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Are revised as-builds available that reflect repair changes?</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### C. SITE INSPECTION (To be completed during inspection) YES NO EXPLANATION

<table>
<thead>
<tr>
<th>Item</th>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjacent off-site features within watershed areas.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>a. Have there been any changes in use of adjacent area?</td>
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<tr>
<td>b. Are there any new roads or trails?</td>
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<tr>
<td>c. Has there been a change in the position of nearby washes?</td>
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<tr>
<td>d. Has there been lateral excursion or erosion/deposition of nearby washes?</td>
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<td></td>
</tr>
<tr>
<td>e. Are there new drainage channels?</td>
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<tr>
<td>f. Change in surrounding vegetation?</td>
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<td></td>
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<tr>
<td>Security fence, signs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Displacement of fences, site markers, boundary markers, or monuments?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>b. Have any signs been damaged or removed? (Number of signs replaced: 0)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>c. Were gates locked?</td>
<td>N/A</td>
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</tbody>
</table>
### AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

**3. Waste Unit cover.**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
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<tr>
<td>b.</td>
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<tr>
<td>c.</td>
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<td>d.</td>
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<td>e.</td>
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<td>f.</td>
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<tr>
<td>g.</td>
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</tr>
<tr>
<td>h.</td>
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</tbody>
</table>

**4. Photo Documentation**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td>Has a photo log been prepared?</td>
</tr>
<tr>
<td>c.</td>
<td>Number of photos exposed (15)</td>
</tr>
</tbody>
</table>

**D. FIELD CONCLUSIONS**

1. Is there an imminent hazard to the integrity of the unit? *(Immediate report required)*
   - Yes
   - No

2. Are more frequent inspections required?
   - Yes
   - No

3. Are existing maintenance/repair actions satisfactory?
   - Yes
   - No

4. Is other maintenance/repair necessary?
   - Yes
   - No

5. Is current status/condition of vegetative cover satisfactory?
   - Yes
   - No

6. Rationale for field conclusions: Observations show Area 3 Landfills are in good condition, no maintenance necessary.

**E. CERTIFICATION**

I have conducted an inspection of the Area 3 Landfill Complex, CAU 424, at the TTR in accordance with the Post-Closure Inspection Plan (see Closure Report) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

**Chief Inspector's Signature:**

**Printed Name:**

**Title:** Scientist

**Date:** 11/20/00
ATTACHMENT B

FIELD NOTES
08:20 Arrive at cell A3-4 Site York Site with Chan Blackburn, Area 3 TK.

Vegetation covering entire site very healthy. Looks to be primarily one species.

- Evidence of horses being here on site.
- No fence or signs present, open to traffic.
- Located 4 above-grade survey monuments and 1 at-grade survey monument located. All signs attached to the above-grade monuments clearly legible and in good shape.
- No evidence of subsidence found and area looks good.
- 3 photos of site taken.

9:00 Arrive at A3-8 Site, Boxcar yard, Area 3 TK.

- Located that the 4 at-surface grass pins. Unable to locate the 2 northern pins on the SE pin.
- Sparse vegetation due to active traffic through area.
- Ground surface looks good with no subsidence.
- Road shows sign of being recently graded; new fresh soil picked up at road edge. This may be why I was unable to locate 3 of the 4 survey markers.
- Took 2 photos of area.
Post-Closure Inspections - Area 3 Landfill Complex CAN 424

Thursday June 22, 2000
Clear, Warm

09:28 Arrive at A3-6 Area 3 TIR
- Located 4 above-grade monuments
- Attached signs & survey pins all in good shape; all legible
- No evidence of surface subsidence
- Area covered with healthy mix of grass & brush. Vegetation appears to match surrounding undisturbed areas.
1 photo taken

09:30 Arrive at A3-2
- Located 4 above-grade monuments
- All monuments, attached signs, survey pins in good shape and legible
- Healthy vegetation typical of surrounding area present.
1 photo taken

09:35 Arrive at A3-1 Area 3 TIR
- Located 7 above-grade survey monuments. All are in excellent condition. All signs and survey pins are in excellent condition and are legible
- Vegetation appears healthy and consists of a mix of grasses and low shrubs.
- No evidence of cover subsidence

Kris

Work continued to Page 10
10:00 Arrived at A3-5
- Located 4 above-grade monuments. Attached signs and survey pins in excellent condition.
- No significant animal burrowing.
- Area covered with Russian thistle (tumble weed) and small grasses.
- No evidence of subsidence.
- 1 photo taken.

11:18 Arrived at A3-7
- No action was taken to close this CR other than administrative closure.
- Active vegetation appears healthy.
- No signs or monuments present.

Work continued to Page 14.
TITLE PROJECT NO. 
BOOK NO. 

TTR POST-CLOSURE INSPECTIONS, CONTINUED

MONDAY NOVEMBER 20, 2000

CLEAR, CALM, COOL (SO)

1245 INSPECTION OF A3-3 LANDFILL AREA 3 TTR

UNABLE TO LOCATE 3 SURFACE MARKERS IDENTIFYING THE EASTERN MOST LANDFILL CELL. LIKELY COVERED UP DURING ROAD GRADING OPERATIONS.

LOCATED 3 AT-GRADE SURVEY PINS FOR THE WEST LANDFILL CELLS. ALL ARE IN EXCELLENT CONDITION.

LOCATED 3 ABOVE-GRADE SURVEY MONUMENTS FOR THE WEST LANDFILL CELLS. ALL ARE IN EXCELLENT CONDITION. SIGNS ARE PRESENT AND IN EXCELLENT CONDITION.

VEGETATION OUTSIDE FENCE IS THICK AND HEALTHY - MAINLY CONSISTS OF TREES AND SHRUBS. VEGETATION INSIDE FENCE IS SPARSE - CONSISTING OF LOW SHRUBS AND LITTLE GRASS.

1240 COMPLETED A3-3 LANDFILL INSPECTION.
TTR POST-CLOSURE INSPECTIONS - CONTINUED

MONDAY, NOVEMBER 20, 2000

CLEAR CAREN, 1000FT

1345 INSPECTION OF A3-6 LANDFILL, AREA 3 TTR.

LOCATED ALL 4 ABOVE-GRADE SURVEY MONUMENTS. ALL ARE IN EXCELLENT CONDITION INCLUDING PINS AND SIGNS.

MINOR ANIMAL BURROWS NOTED AROUND THE BASE OF THE NW AND SE MONUMENTS. HOWEVER THERE IS NO IMPACT TO THE UNIT.

VEGETATION IS HEALTHY AND CONSISTS OF MAINLY GRASSES AND LOW SHRUBS.

1355 COMPLETED A3-6 LANDFILL INSPECTION
TTR POST-CLOSURE INSPECTIONS - CONTINUED

MONDAY, NOVEMBER 20, 2000
CLEAR, CALM, COOL (50°)

1400 INSPECTION OF A3-5 LANDFILL, AREA 3, TTR.

LOCATED ALL ABOVE-GROUND SURVEY MONUMENTS. ALL ARE IN EXCELLENT CONDITION INCLUDING PINS AND SIGNS.

MINOR BURROWING AT THE BASE OF THE NE AND SE MONUMENTS. THERE IS NO IMPACT TO THE UNIT.

VEGETATION IS HEALTHY AND DENSE AND CONSISTS MOSTLY OF SHRUBS. TUMBLEWEEDS WITH SPARSE GRASSES.

1915 COMPLETED A3-5 LANDFILL INSPECTION.

DATE 11/20/2000

WORK CONTINUED TO PAGE 32

[Signature]

DATE 11/20/2000

[Signature]

DATE 11/20/2000

[Signature]

DATE 11/20/2000
TTR POST-CLOSURE INSPECTIONS - CONTINUED

MONDAY NOVEMBER 20, 2000

CLEAR, CALM, COOL (58°)

1430 INSPECTION OF A3-1 LANDFILL, AREA 3 TTR

LOCATED 7 ABOVE-GROUND SURVEY MONUMENTS. ALL ARE IN EXCELLENT CONDITION INCLUDING PINS AND SIGNS EXCEPT FOR THE EAST CENTRAL MONUMENT WHERE THE PIN CONTAINS NO INFORMATION.

ALL MONUMENTS EXCEPT THE 2 NORTH HAVE MINOR TO SIGNIFICANT GROWING.

VEGETATION IS HEALTHY AND CONSISTS OF MAINLY GRASSES WITH SOME LOW SHRUBS.

NO SUBSIDENCE OF PIT COVER NOTED.

1530 COMPLETED POST INSPECTION OF A3-2 LANDFILL, AREA 3 TTR

LOCATED 4 ABOVE-GROUND SURVEY MONUMENTS. ALL ARE IN EXCELLENT CONDITION INCLUDING PINS AND SIGNS. NE AND SW MONUMENTS ARE MINOR TO SIGNIFICANT GROWING.

VEGETATION IS HEALTHY CONSISTING OF LOW SHRUBS AND GRASSES.

1600 COMPLETED A3-1, A3-2 LANDFILL INSPECTIONS

SCIENTIFIC WINDROW PRODUCTIONS

DATE 11/20/00

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE
THE POST-CLOSURE INSPECTIONS - CONTINUED

MONDAY, NOVEMBER 20, 2000
CLEAR, CALM, COOL (52°)

1510 INSPECTION OF A3-8 LANDFILL AREA: TTR

Located the SW survey monument at-grade survey pin. It is in excellent condition and usable. Unable to locate the remaining 3 at-grade survey markers. They are located in active traffic/traffic areas and have likely been covered up.

Sparse green vegetation throughout the area.

1530 completed A3-8 landfill inspection.
777 PORT CLOSURE INSPECTIONS - CONTINUED

MONDAY NOVEMBER 20, 2000

CLEAR, CALM, COOL (50°)

1540 INSPECTION OF A3-4 LANDFILL AREA 3 TTR.

LOCATED 5 ABOVE-GROUND AND 1 AT-GROUND SURVEY MONUMENTS. ALL ARE IN EXCELLENT CONDITION INCLUDING SIGNS.

HEALTHY VEGETATION (GRASSES) COVERING ENTIRE AREA.

1600 COMPLETED A3-4 LANDFILL INSPECTION

SIGNATURE: [Signature]

CLOSED TO AND UNDERSTOOD BY: [Signature]

DATE: 11/20/00

WITNESS: [Signature]

DATE: [Signature]
ATTACHMENT C

PHOTOGRAPH LOG AND PHOTOGRAPHS
## PHOTOGRAPH LOG

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<tr>
<td>1</td>
<td>6/20/2000</td>
<td>View of Landfill A3-1 looking northeast from the southwest.</td>
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<tr>
<td>2</td>
<td>6/20/2000</td>
<td>View of Landfill A3-1 looking east-northeast from the south.</td>
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<tr>
<td>3</td>
<td>6/20/2000</td>
<td>View of Landfill A3-2 looking south from the north.</td>
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<tr>
<td>4</td>
<td>6/20/2000</td>
<td>View of Landfill A3-3 inside Area 3 fence looking north from south.</td>
</tr>
<tr>
<td>5</td>
<td>6/20/2000</td>
<td>View of Landfill A3-3 surface mount monument inside Area 3 fence.</td>
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<tr>
<td>6</td>
<td>6/20/2000</td>
<td>View of Landfill A3-3 looking south from the north inside fence.</td>
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<td>7</td>
<td>6/20/2000</td>
<td>View of small part of Landfill A3-3 east of dirt road. Monuments are at grade.</td>
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<tr>
<td>8</td>
<td>6/20/2000</td>
<td>View of Landfill A3-3 outside Area 3 fence looking north from south.</td>
</tr>
<tr>
<td>9</td>
<td>6/20/2000</td>
<td>View of Landfill A3-4 looking south from northwest corner along road.</td>
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<tr>
<td>10</td>
<td>6/20/2000</td>
<td>View of Landfill A3-4 looking southwest from northeast.</td>
</tr>
<tr>
<td>12</td>
<td>6/20/2000</td>
<td>View of Landfill A3-6 looking north from south.</td>
</tr>
<tr>
<td>15</td>
<td>11/20/2000</td>
<td>View of Landfill A3-1 looking north.</td>
</tr>
<tr>
<td>16</td>
<td>11/20/2000</td>
<td>View of Landfill A3-1 looking northeast.</td>
</tr>
<tr>
<td>18</td>
<td>11/20/2000</td>
<td>View of Landfill A3-3 looking north from inside the Area 3 fence.</td>
</tr>
<tr>
<td>20</td>
<td>11/20/2000</td>
<td>View of Landfill A3-3 looking south from inside the Area 3 fence.</td>
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<td>21</td>
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<td>View of eastern cell of Landfill A3-3 located in the center of photo.</td>
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<td>22</td>
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<td>View of Landfill A3-3 looking north from outside the Area 3 fence.</td>
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