Nevada
Environmental
Restoration
Project

DOE/NV--841

Area 2 Bitcutter and
Post-Shot Injection Wells
Corrective Action Unit 90
Post-Closure Inspection
Annual Report

UNCONTROLLED

Controlled Copy No.:

Revision: 0

September 2002

Environmental Restoration
Division

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

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ERRATA SHEET

The first paragraph on Page 1 of Final Area 2, Bitcutter and Post-Shot Injection Wells, Corrective Action Unit (CAU) 90, Post-Closure Inspection Annual Report, Nevada Test Site, Nevada, for the period October 2001 through October 2002, Revision 0, September 2002, should have read:

Area 2 Bitcutter and Post-Shot Containment Wells Corrective Action Unit (CAU) 90 Post-Closure Monitoring requirements are described in Section VII.B.8.b of the Nevada Test Site Resource Conservation and Recovery Act Permit for a Hazardous Waste Management Facility No. NEV HW009, re-issued in November 2000.

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**AREA 2 BITCUTTER AND
POST-SHOT INJECTION WELLS
CORRECTIVE ACTION UNIT 90
POST-CLOSURE INSPECTION
ANNUAL REPORT**

Controlled Copy No. 1

UNCONTROLLED

Revision 0

September 2002

**Prepared for the U.S. Department of Energy, National Nuclear Security Administration
Nevada Operations Office
under contract No. DE-AC08-96NV11718**

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**AREA 2 BITCUTTER AND
POST-SHOT INJECTION WELLS
CORRECTIVE ACTION UNIT 90
POST-CLOSURE INSPECTION
ANNUAL REPORT**

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

Date: 7/4/02

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

Date: 9-5-02

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INTRODUCTION

Area 2 Bitcutter and Post-Shot Containment Wells Corrective Action Unit (CAU) 90 Post-Closure Monitoring requirements are described in Section VII.B.8.b of the Nevada Test Site Resource Conservation and Recovery Act Permit for a Hazardous Waste Management Facility No. NEV HW009, Revision 4, reissued on November 20, 2000.

Post-closure care consists of the following:

- Semiannual inspections of the unit using an inspection checklist.
- Photographic documentation.
- Field note documentation.
- Preparation and submittal of an annual report.

The report includes copies of the inspection checklist, 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 a copy of the inspection photographs is found in Attachment C.

RESULTS OF THE INSPECTIONS

The first inspection at CAU 90 for the 2002 post-closure monitoring period was performed on December 17, 2001. Between July and December of 2001, small animal burrows were periodically backfilled. Two animal burrows were backfilled, and vegetation was noted growing on the soil covers during the December inspection.

The second inspection at CAU 90 for the 2002 post-closure monitoring period was performed on June 25, 2002. Between January and June of 2002, several animal burrows were backfilled and vegetation was removed from the covers. One animal burrow was backfilled, and a loose sign was observed during the June inspection.

RECOMMENDATIONS AND CONCLUSIONS

The overland runoff is being properly diverted around the site. There is no evidence of drainage or erosion through the site. Inspectors should continue to backfill small animal burrows and remove vegetation from the unit. The loose sign observed during the June inspection should be repaired by September 2002. There are no significant modifications or repairs foreseeable in the near future.

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ATTACHMENT A
INSPECTION CHECKLISTS

AREA 2, BITCUTTER & POSTSHOT INJECTION WELLS, POST-CLOSURE INSPECTION CHECKLIST

3. Waste Unit covers.	YES	NO	EXPLANATION
a. Is there evidence of settling?		X	
b. Is there cracking?		X	
c. Is there evidence of erosion around the cap (wind or water)?		X	
d. Is there evidence of animal burrowing?	X		2 burrows backfilled during inspection
e. Have the site markers been disturbed by man or natural processes?		X	
f. Do natural processes threaten the integrity of any cover or site marker?		X	
g. Other (including trash and debris in or around unit)?	X		Minor vegetation

4. Photo Documentation

a. Has a photo log been prepared?

X

c. Number of photos exposed (6)

D. FIELD CONCLUSIONS

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

X

Person/Agency to whom report made:

2. Are more frequent inspections required?

X

3. Are existing maintenance/repair actions satisfactory?

X

4. Is other maintenance/repair necessary?

X

5. Rationale for field conclusions: There is no evidence of erosion, cracking, or any type of deterioration.

CONCLUSION: Conduct inspections on normal schedule and as needed after unusual weather conditions. Vegetation should be removed.

E. CERTIFICATION

I have conducted an inspection of the Area 2 Bitcutter & Postshot Shop Containment Injection Wells, Corrective Action Unit 90, at the NTS in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

Chief Inspector's Signature:

Printed Name: James Traynor

Title: Associate Scientist

Date: 12/17/01

AREA 2, BITCUTTER & POSTSHOT INJECTION WELLS, POST-CLOSURE INSPECTION CHECKLIST

Page 1 of 3

Inspection Start Date and Time: 6/25/02 at 1010		Reason for Inspection: Semi-annual
Responsible Agency: Bechtel Nevada Remediation Projects		
Address: Nevada Test Site, Mercury, Nevada		
Responsible Agency Official: Jeff Smith, Project Manager		
Date of Last Post-Closure Inspection: 12/17/01		Reason for Last Post-Closure Inspection: Semi-annual
Chief Inspector:	Jim Traynor	Associate Scientist Environmental Restoration
	Name	Title Organization
Assistant Inspector:		
	Name	Title Organization

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.
3. 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.
4. 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.
5. A standard set of color 35mm photographs 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.
6. 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
1. Site as-built plans and site base map reviewed.	X		
2. Previous inspection reports reviewed.	X		
a. Were anomalies or trends detected on previous inspections?		X	
b. Was maintenance performed?		X	
3. Site maintenance and repair records reviewed.		X	No major repairs have been done
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

AREA 2, BITCUTTER & POSTSHOT INJECTION WELLS, POST-CLOSURE INSPECTION
CHECKLIST

Page 2 of 3

C. SITE INSPECTION (To be completed during inspection)	YES	NO	EXPLANATION
1. Adjacent off-site features within watershed areas.			
a. Have there been any changes in use of adjacent area?		X	
b. Are there any new roads or trails?		X	
c. Has there been a change in the position of nearby washes?		X	
d. Has there been lateral excursion or erosion/deposition of nearby washes?		X	
e. Are there new drainage channels?		X	
f. Change in surrounding vegetation?		X	
2. Security fence, signs.			
a. Displacement of fences, site markers, boundary markers, or monuments?		X	
b. Have any signs been damaged or removed? (Number of signs replaced: _____)	X		1 sign on eastern unit is loose
c. Were gates locked?	X		
3. Waste Unit covers.			
a. Is there evidence of settling?		X	
b. Is there cracking?		X	
c. Is there evidence of erosion around the cap (wind or water)?		X	
d. Is there evidence of animal burrowing?	X		1 burrow backfilled during inspection
e. Have the site markers been disturbed by man or natural processes?		X	
f. Do natural processes threaten to integrity of any cover or site marker?		X	
g. Other (including trash and debris in or around unit)?		X	
4. Photo Documentation			
a. Has a photo log been prepared?	X		
b. Number of photos exposed (_____)			

AREA 2, BITCUTTER & POSTSHOT INJECTION WELLS, POST-CLOSURE INSPECTION
CHECKLIST

Page 3 of 3

D. FIELD CONCLUSIONS

YES

NO

EXPLANATION

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

X

Person/Agency to whom report made:

2. Are more frequent inspections required?

X

3. Are existing maintenance/repair actions satisfactory?

X

4. Is other maintenance/repair necessary?

X

Repair sign

5. Field conclusions/recommendations:

All observations indicate continued integrity of the cover. Sign should be repaired by September.

E. CERTIFICATION

I have conducted an inspection of the Area 2 Bitcutter & Postshot Shop Containment Injection Wells, Corrective Action Unit 90, at the NTS in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

Chief Inspector's Signature:

Printed Name: Jim Traynor

Title: Associate Scientist

Date: 6/25/02

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ATTACHMENT B

FIELD NOTES

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12/17/01

Members: Jim Traynor

10⁰⁰ Arrived on site

Weather: cold & windy

Caps: some animal burrows (removed/backfilled during inspection) Some vegetation

Monuments: good

Signs: good

Fencing: good

Other: none

Photos #1	Looking north from east unit	6	✓
2	Looking north from west unit	7	✓
3	Looking south from west unit	8	✓
4	Looking west from east unit	9	✓
5	Looking east from west unit	10	✓
6	Looking south from east unit		

Conclusions/Recommendations: Remove vegetation.
Continue inspections as planned.

12/17/01

6/25/02

1st Arrived onsite.

Weather: hot & breezy

Members: J. Tr

Glen Richardson

Nate Peterson

Melissa Gable

Ted Zoratos (N)

Adjacent off-site: No change.

Covers: 1 animal burrow (back-filled during inspection)

Access roads, fences, gates, & signs: 1 sign loose at eastern limit

Photos:

1	Looking N from E limit
2	Looking N from W limit
3	Looking S from W limit
4	Looking W from E limit
5	Looking E from W limit
6	Looking S from E limit

Conclusions/Recommendations: Repair sign by September inspection. Continue insp. as scheduled.

6/25/02

ATTACHMENT C
PHOTOGRAPHS

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PHOTO NUMBER	DATE	DESCRIPTION
1	12/17/2001 6/25/2002	View looking north from east unit.
2	12/17/2001 6/25/2002	View looking north from west unit.
3	12/17/2001 6/25/2002	View looking south from west unit.
4	12/17/2001 6/25/2002	View looking west from east unit.
5	12/17/2001 6/25/2002	View looking east from west unit.
6	12/17/2001 6/25/2002	View looking south from east unit.

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2

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3

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9

5

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