Nevada
Environmental
Restoration
Project

DOE/NV--753

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

UNCONTROLLED

Controlled Copy No.: _____

Revision: 0

September 2001

Environmental Restoration
Division

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

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

Controlled Copy No.: _____

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Revision 0

September 2001

**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: Date: 9/14/01
Janet L. Appenzeller-Wing, Project Manager
Industrial Sites Project

Approved By: Date: 9/14/01
Runore C. Wycoff, Division Director
Nevada Environmental Restoration Project

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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 § VII.B.8.b of the Nevada Test Site Resource Conservation and Recovery Act Permit for a Hazardous Waste Management Facility No. NEV HW009, reissued November 20, 2000, Revision 4.

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 for the 2001 post-closure monitoring at CAU 90 was performed on December 27, 2000. Between July and December of 2000, small animal burrows were periodically backfilled and vegetation removed from the units. No problems were noted during the December inspection, and no further maintenance or repairs were recommended.

The second inspection for the 2001 post-closure monitoring was performed on June 18, 2001. Between January and June of 2001, several animal burrows were backfilled and small vegetation was removed from the units. No problems were noted during the June inspection, and no further maintenance or repairs were recommended.

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. There are no significant modifications or repairs that are foreseeable in the near future.

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ATTACHMENT A
INSPECTION CHECKLISTS

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

Date of Last Post-Closure Inspection: 6/29/2000

Reason for Last Post-Closure Inspection: Semi-annual

Responsible Agency: Bechtel Nevada Environmental Restoration

Program Manager: Wayne Johnson, Project Manager

Inspection Date: 12/27/2000 at 9:00

Inspector (name, title, organization): James Traynor, Associate Scientist, BN- Environmental Restoration

Assistant Inspector (name, title, organization): Dennis Gustafson, Senior Scientist, BN- Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
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		Minor vegetation was removed
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?		X	
b. Are revised as-builts available that reflect repair changes?			N/A

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	
c. Were gates locked?	X		

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

3. Waste Unit covers.

- a. Is there evidence of settling?
- b. Is there cracking?
- c. Is there evidence of erosion around the cap (wind or water)?
- d. Is there evidence of animal burrowing?
- e. Have the site markers been disturbed by man or natural processes?
- f. Do natural processes threaten the integrity of any cover or site marker?
- g. Other (including trash and debris in or around unit)?

YES	NO	EXPLANATION
	X	
	X	
	X	
X		Minor, backfilled during inspection
	X	
	X	
	X	

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: No repairs or maintenance needed. Conduct inspections on normal schedule and as needed after unusual weather conditions.

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:

James Traynor

Printed Name: James Traynor

Title: Associate Scientist

Date: 12/27/2000

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

Date of Last Post-Closure Inspection: 12/27/2000

Reason for Last Post-Closure Inspection: Semi-annual

Responsible Agency: Bechtel Nevada Environmental Restoration

Program Manager: Wayne Johnson, Project Manager

Inspection Date: 06/18/01 at 8:34

Inspector (name, title, organization): James Traynor, Associate Scientist, BN- Environmental Restoration

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?

X

b. Are revised as-builts available that reflect repair changes?

N/A

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

c. Were gates locked?

X

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

3. Waste Unit covers.

- a. Is there evidence of settling?
- b. Is there cracking?
- c. Is there evidence of erosion around the cap (wind or water)?
- d. Is there evidence of animal burrowing?
- e. Have the site markers been disturbed by man or natural processes?
- f. Do natural processes threaten the integrity of any cover or site marker?
- g. Other (including trash and debris in or around unit)?

YES	NO	EXPLANATION
☐	☒	
☐	☒	
☐	☒	
☐	☒	
☐	☒	
☐	☒	
☐	☒	

4. Photo Documentation

- a. Has a photo log been prepared?

☒	☐	
-------------------------------------	--------------------------	--

- c. Number of photos exposed (6)

D. FIELD CONCLUSIONS

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

☐	☒	
--------------------------	-------------------------------------	--

Person/Agency to whom report made:

- 2. Are more frequent inspections required?

☐	☒	
--------------------------	-------------------------------------	--

- 3. Are existing maintenance/repair actions satisfactory?

☒	☐	
-------------------------------------	--------------------------	--

- 4. Is other maintenance/repair necessary?

☐	☒	
--------------------------	-------------------------------------	--

5. Rationale for field conclusions:

There is no evidence of erosion, cracking, or any type of deterioration.

CONCLUSION: No repairs or maintenance needed. Conduct inspections on normal schedule and as needed after unusual weather conditions. No issues or concerns.

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: 06/18/2001

ATTACHMENT B

FIELD NOTES

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TITLE

Work continued from Page _____

BITCOIN Semi-Annual Inspection (6/10/01)

PROJECT NO.

BOOK NO.

59

Members: Traynor
Ted Zafrenatos (NOC)

8:30 Arrived onsite
Weather = hot & calm

Caps = good

Monuments = good

Signs = good

Fencing = good
Other = None
Photos =

#1	Looking north	From east unit
2	Looking north	From west unit
3	Looking south	From west unit
4	Looking west	From east unit
5	Looking east	From west unit
6	Looking south	From east unit

Conclusions / Recommendation =

Unit in good condition
Continue inspections as scheduled.

Work continued to Page _____

SIGNATURE

Joe Kitz

DISCLOSED TO AND UNDERSTOOD BY

DATE

6/18/2001

WITNESS

DATE

DATE

6/18/01

ATTACHMENT C
PHOTOGRAPHS

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PHOTO NUMBER	DATE	DESCRIPTION
1	12/27/2000 6/18/2001	View looking north from east unit.
2	12/27/2000 6/18/2001	View looking north from west unit.
3	12/27/2000 6/18/2001	View looking south from west unit.
4	12/27/2000 6/18/2001	View looking west from east unit.
5	12/27/2000 6/18/2001	View looking east from west unit.
6	12/27/2000 6/18/2001	View looking south from east unit.

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1

2

3

4

5

6

1

2

3

4

5

6

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