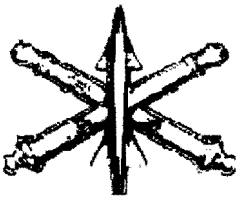
FINAL

RESPONSE ACTION COMPLETION REPORT
OPEN BURN/OPEN DETONATION AREA A-1
CASTNER RANGE, FORT BLISS, TEXAS

Prepared for

FORT BLISS



U.S. Army Corps of Engineers
Tulsa District
1645 South 101st Avenue
Tulsa, Oklahoma 74128

Prepared by

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TERC No. DACA56-94-D-0020, Task Order No. 0062
Shaw Project No. 783981

January 2008

Executive Summary	Page 1 of 2	
	Solid Waste Registration ID No.63003	Report Date: January 2008

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Response Action Completion Report

Cover Page

Regulatory ID number (Solid waste registration number, VCP ID number, etc) 63003
check one: X Initial RACR submittal for this on-site property ___ Subsequent RACR submittal
Report date: January 2008 TNRCC Region No.: 6

TNRCC Program (check one)
X Corrective Action (Mail Code 127) ___ Superfund PRP Lead (Mail Code 143)
___ Voluntary Cleanup Program (Mail Code 221) ___ Municipal Solid Waste Permits (Mail Code 124)

On-Site Property Information
On-Site Property Name: Fort Bliss Open Burn/Open Detonation (OB/OD) Area A-1, Castner Range
Physical Address:
Street no. ___ Pre dir: ___ Street name: ___ Street type: ___ Post dir: ___
City: El Paso County: El Paso County Code: 71 Zip: ___
Nearest street intersection or location description: 1 mile west of intersection of Martin Luther King Drive and Hwy 54 South

Latitude: Degrees, Minutes, Seconds OR ~~Decimal Degrees~~ (circle one) North 31° 55' 21.53236"
Longitude: Degrees, Minutes, Seconds OR ~~Decimal Degrees~~ (circle one) West 106° 27' 46.58436"

Off-Site Affected Property Information
Off-Site Affected Property Name: ___
Physical Address:
Street no. ___ Pre dir: ___ Street name: ___ Street type: ___ Post dir: ___
City: ___ County: ___ County Code: ___ Zip: ___

X Check if there are no off-site properties affected

Contact Person Information and Acknowledgement
Person (or company) Name: Fort Bliss
Contact Person: Ron Baca/Silvia Waggoner/Kelly Blough Title: Installation Restoration Program Manager/Chief of Compliance/ Industrial Storm Water Compliance Cleanup
Mailing Address: Building 622, 1733 Pleasanton Road
City: Fort Bliss State: TX Zip: 79916-6816 E-mail address ron.baca@us.army.mil
Phone: 915-568-7979 Fax: 915-568-2548

By my signature below, I acknowledge the requirement of §350.2(a) that no person shall submit information to the executive director or to parties who are required to be provided information under this chapter which they know or reasonably should have known to be false or intentionally misleading, or fail to submit available information which is critical to the understanding of the matter at hand or to the basis of critical decisions which reasonably would have been influenced by that information. Violation of this rule may subject a person to the imposition of civil, criminal, or administrative penalties.

Signature of Person ___ Name, print: ___ Date: ___

Executive Summary

Solid Waste Registration ID No.63003	Report Date: January 2008

Check the reports/forms submitted:

Remedy Standard A

X Self-Implementation Notice Submittal date: October 4, 2006

___ Response Action Plan - Approval date: _____

Remedy Standard B

___ Response Action Plan - Approval date: _____

List all media (surface soil, subsurface soil, groundwater, sediment, surface water, air) that contained or contains a PCLE zone and specify the response action taken for each media. Indicate the type of removal, decontamination, physical control, or institutional control action that was used in the response action. If a media with a PCLE zone was not addressed in the response action, provide an explanation below.

Media	COCs[1]	Removal	Decontamination	Physical Control	Institutional Control	Modified Response Objective[2]		
						PMZ	WCU	TI
Soil	Pesticides	Excavation						

Is there a media that contains a PCLE zone that was not addressed in the response action? ___ yes X no

If yes, provide justification for not addressing the PCLE zone in the response action.

Current land use of the on-site affected property: ___ Residential X Commercial/industrial

Projected future land use of the on-site property (if known): X Residential ___ Commercial/industrial

Explain why you believe the response action to be complete.

The response action is complete because the source material has been removed. Following completion of the response action, confirmation samples verified that no pesticide concentrations exceeded the critical PCL.

[1] Specify either a specific COC or, if the response action is the same for all COCs in one type, specify the type of COC (for example, VOCs, SVOCs, metals).

[2] If a modified groundwater response objective was used, check the type(s) of modifications.

Chronology

Fort Bliss Open Burn/Open Detonation Area A-1
Castner Range, Fort Bliss, Texas

2007
Shaw Environmental & Infrastructure, Inc. (Shaw) completed a Response Action for Open Burn/Open Detonation (OB/OD) Area A-1 from July 9 to July 19, 2007. Soils containing pesticide were removed. Pesticide analysis confirmed that concentrations remaining in the soil do not exceed the critical PCL.

2006
A meeting was held with Allan Posnick, TCEQ on September 9, 2006, to discuss the path forward to complete a response action for OB/OD Area A-1. The discussion centered on using the Tier 1 residential PCL, limiting the excavations to sidewalls that are hot, and confirmation sampling. Shaw will prepare a Response Action Completion Report (RACR) to close the site under Remedy Standard A.

Shaw mobilized to OB/OD Area A-1 in April 2006 to delineate and collect additional samples from soils adjacent to locations where concentrations of pesticides exceeded the applicable PCL in the confirmation sampling of February 2006.

Shaw mobilized to OB/OD Area A-1 in February 2006 to perform excavation activities at five locations. Confirmation samples were collected from each of the excavations. Results indicated that concentrations of pesticides remained above the Tier 1 residential PCL.

2005
In a letter dated July 8, 2005, TCEQ indicated the investigation of OB/OD Area A-1 had been completed in accordance with 30 Texas Administrative Code 350.51. However, an additional response action was necessary to address pesticide concentrations exceeding the Tier 1 residential PCL in several locations at OB/OD Area A-1.

2003
A *Final Affected Property Assessment Report, Open Burn/Open Detonation Area A-1 (FTBL-073), Castner Range, Fort Bliss, Texas* (Shaw, 2003) was completed and submitted to TCEQ in January.

2002
Field sampling investigation activities were performed in February 2002 at OB/OD Area A-1 to delineate the nature and extent of constituents present in the soils. The sampling results indicated that four sample locations exceeded the Tier 1 PCLs.

Checklist for Report Completeness	Solid Waste Registration ID No. 63003	Report Date: January 2008

Checklist for Report Completeness

Use this checklist to determine the portions of the form that must be submitted for this report. Answer all questions by checking Yes or No. If the answer is Yes include that portion of the report. If the answer is No, do not complete or submit that portion of the report. All form contents that are marked "Required" must be submitted. Form contents marked with an asterisk (*) are not included in the blank form and are to be provided by the person.

				Report Contents
		Required	**Cover Page**	X
		Required	**Executive Summary**	X
		Required	**Checklist for Report Completeness**	X
		Required	**Worksheet 1.0** Confirmation of Response Action Objectives	X
		Required	**Attachment 1A*** Maps and Cross Sections	X
		Required	**Attachment 1B*** Graphs	X
		Required	**Attachment 1C*** Response Action Diagrams	X
No X	Was a plume management zone used as part of the response action?	☐ Yes →	**Worksheet 2.0** Plume Management Zone	☐
			Attachment 2A* Map of Plume Management Zone	☐
No X	Was an area of technical impracticability approved for use as part of the response action?	☐ Yes →	**Worksheet 3.0** Technical Impracticability	☐
			Attachment 3A* Map of Technical Impracticability Area	☐
No X	Were institutional controls used or required as part of the response action?	☐ Yes →	**Worksheet 4.0** Institutional Controls	☐
		Required	**Worksheet 5.0** Performance Measures and Problems	X
No X	Did the response action require any operation and maintenance activities?	☐ Yes →	**Worksheet 6.0** Operation and Maintenance	☐
No X	Has there been any change to the plans for post-response action care from that submitted in the RAP?	☐ Yes →	**Worksheet 7.0** Post-Response Action Care	☐
No ☐	Was any information for this report obtained from outside sources?	X Yes →	**Appendix 1*** References	X
No X	Was an ESA and/or Compensatory Restoration used as part of the response action?	☐ Yes →	**Appendix 2*** ESA and Compensatory Restoration	☐
No X	Were institutional controls or landowner concurrence required in the response action?	☐ Yes →	**Appendix 3*** Institutional Controls and Landowner Concurrence	☐

Checklist for Report Completeness

Solid Waste Registration ID No. 63003	Report Date: January 2008

			Report Contents	
No ☐	Is there data or boring/monitor well information not previously submitted?	X Yes	**Appendix 4*** Data Tables, Boring Logs, and Well Completions	X
No ☐	Did sampling procedures differ from those described in the RAP?	X Yes	**Appendix 5*** Sampling Procedures	X
No ☐	Has any sampling been conducted for which the analytical results were not previously submitted?	X Yes →	**Appendix 6*** Laboratory Data Packages	X
No X	Were statistics or geostatistics used in the response action?	☐ Yes →	**Appendix 7*** Statistical Methodology	☐
No ☐	Were any wastes generated that were not reported through STEERS?	X Yes	**Appendix 8*** Waste Disposition	X

Confirmation of Response Action Objectives	RACR Worksheet 1.0	Page 1 of 3
	Solid Waste Registration ID No. 63003	Report Date: January 2008

Use this worksheet to describe the attainment of the response action objectives in each media.

Response Action Objectives

What was the selected remedy standard for this affected property? X A ___ B

List the environmental media to which this applies Soil
Repeat this section for each medium that had a different response action objective.

Provide a detailed description of the response action. Describe the removal actions, decontamination actions, treatment system(s), physical or institutional control actions, and any actions for ecological considerations (ecological services analysis and compensatory restoration plans) that were conducted in each media and indicate if there were any differences between the actions taken and the actions proposed in the SIN or RAP.

Shaw Environmental, Inc. (Shaw) was contracted by the U.S. Army Corps of Engineers (USACE), Tulsa District, to perform a response action at the Open Burn/Open Detonation (OB/OD) Area A-1, Castner Range, Fort Bliss, Texas near U.S. Highway 54 for pesticides in soil at hot spot locations.

The OB/OD Area A-1 was used as a detonation area. Field sampling investigation activities were performed in February 2002 at the Area A-1 site to delineate the nature and extent of constituents present in the soils. The sampling results indicated that four sample locations (SS-C7, SS-C9, SS-C15, and SS-C17) exceeded Texas Commission on Environmental Quality (TCEQ) residential Tier 1 protective concentration levels (PCLs) as specified by the Texas Risk Reduction Program (30 Texas Administrative Code [TAC] 350) for two pesticides, and three sample locations (SS-C7, SS-C9, and SS-C15) exceeded industrial Tier 1 PCLs for two pesticides. Alpha-BHC and 4,4'-DDE were detected at concentrations exceeding the PCLs at these locations.

An Affected Property Assessment Report (APAR) was completed and submitted to TCEQ in January 2003. In a letter dated July 8, 2005, TCEQ indicated the investigation has been completed in accordance with 30 Texas Administrative Code (TAC) 350.51. However, additional response action was necessary to address the concentrations exceeding the PCL for pesticides 4,4'-DDE and alpha-BHC in several hot spot soil locations at OB/OD Area A-1. **Attachment 1A** shows the affected property as defined by the APAR.

In February 2006, Shaw performed excavation activities at five locations at Area A-1. Samples were collected from the floor bottom and wall of each excavation. Results from the confirmation sampling indicated that concentrations of aldrin and/or alpha-BHC remained above the Tier 1 residential PCL in eight sample locations. Aldrin was identified as a new constituent of concern (COC) in response to the February 2006 sampling. Additional sampling in these locations was required to further delineate the remaining pesticide soil. Approximately 40 cubic yards of soil were removed, properly manifested, transported, and disposed as non-hazardous waste.

Shaw mobilized to the site on April 10, 2006, to collect additional samples from soils adjacent to locations where pesticide concentrations exceeded the applicable PCL in the confirmation sampling. Results from the delineation sampling indicated that concentrations of aldrin, alpha-BHC and/or 4,4-DDE remained above the Tier 1 residential PCL in 12 sample locations as shown in **Attachment 1B**.

A SIN (Self Implementation Notice) was sent to the TCEQ on October 4, 2006, for advance notice of upcoming field activities. No field activities occurred in late 2006 or early 2007 due to unusually heavy rains in the area that limited site access.

Field activities began during the week of July 9, 2007, and ended July 19, 2007. Field activities commenced with excavation of the four pesticide hot spot soil locations. The depth of each excavation was approximately 1 - 2 feet in depth, including the walls. Samples were collected from the bottom and designated walls. Shaw collected a total of eight confirmation soil samples from four pesticide hot spot soil excavation locations. The

samples were analyzed for aldrin, alpha-BHC, and 4,4-DDE. One quality control sample was collected. The samples were collected from within the affected property area (see **Attachment 1C** and Table 1, **Appendix 4**).

Sample depths for the confirmation soil samples were 0-6 inches into the floor and designated walls. Samples were collected using disposable hand trowels. Sampling locations were marked with either a wooden stake or pin flag, photographed, and logged into a field notebook.

Soil samples were placed in appropriate sample jars. Each container was labeled with the project name, location, sample identification number, sample depth, date and time sampled, and analytical parameters. A chain-of-custody form accompanied the samples.

Approximately 40 cubic yards of soil were removed from the four hot spot locations, and properly manifested, transported and disposed as non-hazardous waste. Due to the extensive and uncharacteristic rains in the area, a unexploded ordnance (UXO) technician was utilized for this project to aid in avoidance of any potential UXO.

Describe how the response action achieved the property-specific response objectives for the PCLE zone in each media in the context of the response objectives set forth in §350.32 or §350.33, as applicable. Explain how the response action was appropriate based on the hydrogeologic and COC characteristics. Describe any unprotective conditions that continued or resulted from the remedial actions and the actions taken to mitigate unprotective conditions.

All soils containing pesticide concentrations above the critical PCL were removed. No unprotected conditions remain. **Attachment 1C** shows the COC concentration in the confirmation samples. The analytical results shown on Table 1, **Appendix 4**, as well.

If different from the information provided in the RAP, explain how the COCs were handled, treated, disposed, or transferred to another media and document that the response action did not result in any additional exposure conditions due to response action activities.

All soils were disposed at the Camino Real landfill in Sunland Park, New Mexico. See **Appendix 8** for disposal documentation.

Explain how the response action achieved the objectives within the reasonable time frame.

NA

Were physical controls used as part of the response action? ___ Yes _X_ No
If yes, describe the type and purpose of the physical control and discuss how the physical control has proved effective.

Soil Response Action Objectives

When using removal and/or decontamination with controls or controls only, demonstrate that the physical control or combination of measures reliably contained COCs within and/or derived from the surface soil and subsurface soil PCLE zone materials over time.

NA – no controls used.

Explain how the removal or decontamination action reduced the concentration of COCs to the critical surface soil and subsurface soil PCL throughout the soil PCLE zone and prevented COC concentrations above the critical soil PCLs from migrating beyond the original boundary of the soil PCLE zone.

The COCs were solely present in surface soils which were removed by excavation.

Groundwater Response Action Objectives

Name of groundwater-bearing unit to which this information applies Hueco Bolson
Repeat this section for each groundwater-bearing unit for which a different response action was conducted.
Groundwater classification 1 2 3 NA*

*Note: Please see Attachment to APAR Worksheet 5.0 Assessment of Vertical Extent of COC Concentrations in Surface and Subsurface Soil, *Final APAR OB/OD Area A-1, Castner Range, Fort Bliss, Texas* (Shaw, 2003) for discussion on ground water classification.

Was a modified groundwater response action used for any part of the groundwater PCLE zone (§350.33(f)(2), (3), or (4))? ___ Yes _X_ No
If yes, complete the appropriate portions of this report.

Explain how the removal or decontamination actions reduced the concentration of COCs to the critical groundwater PCL throughout the groundwater PCLE zone and prevented COC concentrations above the critical groundwater PCL from migrating beyond the original boundary of the groundwater PCLE zone. If COC concentrations above the critical groundwater PCL ever migrated beyond the original boundary of the groundwater PCLE zone, explain the actions taken to address the increase in the PCLE zone.

Vertical soil delineation (see note above) indicated that there was no vertical migration of COCs. Therefore, there is no groundwater PCLE zone at the site. The soil to groundwater pathway is incomplete.

Explain how the response action prevented COCs from migrating to air at concentrations above the PCLs for air if the groundwater-to-air PCLs ($^{Air}GW_{Inh-V}$) were exceeded.

No PCLs were exceeded for groundwater-to-air.

Explain how the response action prevented COCs from migrating to surface water at concentrations above the PCLs for groundwater discharges to surface water if surface water was a factor.

No surface water is present at the site.

Explain how the response action prevented human and ecological receptor exposure to the groundwater PCLE zone.

There is no groundwater PCLE zone at the site.

Waste Management

Describe the volume and final disposition or reuse location of waste or environmental media that was removed from the affected property during the response action, if not previously reported under STEERS. Provide copies of all manifests, other documentation of disposition, and landowner consent for reuse of soil in Appendix 8.

Approximately 40 cubic yards of soil was removed from the affected property. Final disposition of the waste was at the Camino Real landfill in Sunland Park, New Mexico. See **Appendix 8** for waste documentation.

LEGEND:

- FBCR-10-1995 △ FOUND CONTROL MONUMENT
- DOWNGRADIENT SLOPE
- FLOW DIRECTION
- AFFECTED PROPERTY BOUNDARY
- PCLE ZONE
- C-24 ⊕ SAMPLE LOCATION, SOIL SAMPLES COLLECTED IN FEBRUARY, 2002

NOTE:
FBCR = FORT BLISS CASTNER RANGE
OEW = ORDNANCE EXPLOSIVE WASTE

NEW SAMPLE LOCATIONS:
C-26: NEAR C-7, IN PIT
C-27: NEAR C-7, IN PIT
C-28: BETWEEN C-7 AND C-9
C-29: NEAR C-9, IN DEMO AREA
C-30: BETWEEN SS-1 AND C-15

SCALE
0 150 300 FEET

SOURCE:
BROCK & BUSTILLOS, INC.
CASTNER RANGE SURVEY, FORT BLISS, EL PASO, TEXAS, 2002
FINAL REPORT ENVIRONMENTAL SITE ASSESSMENT FOR FORT BLISS
OB/OD PIT A-1 MALCOLM PIRNIE, INC. HOUSTON, TEXAS, 2000

U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

ATTACHMENT 1A
AFFECTED PROPERTY MAP
OB/OD AREA A-1
CASTNER RANGE, FORT BLISS, TEXAS

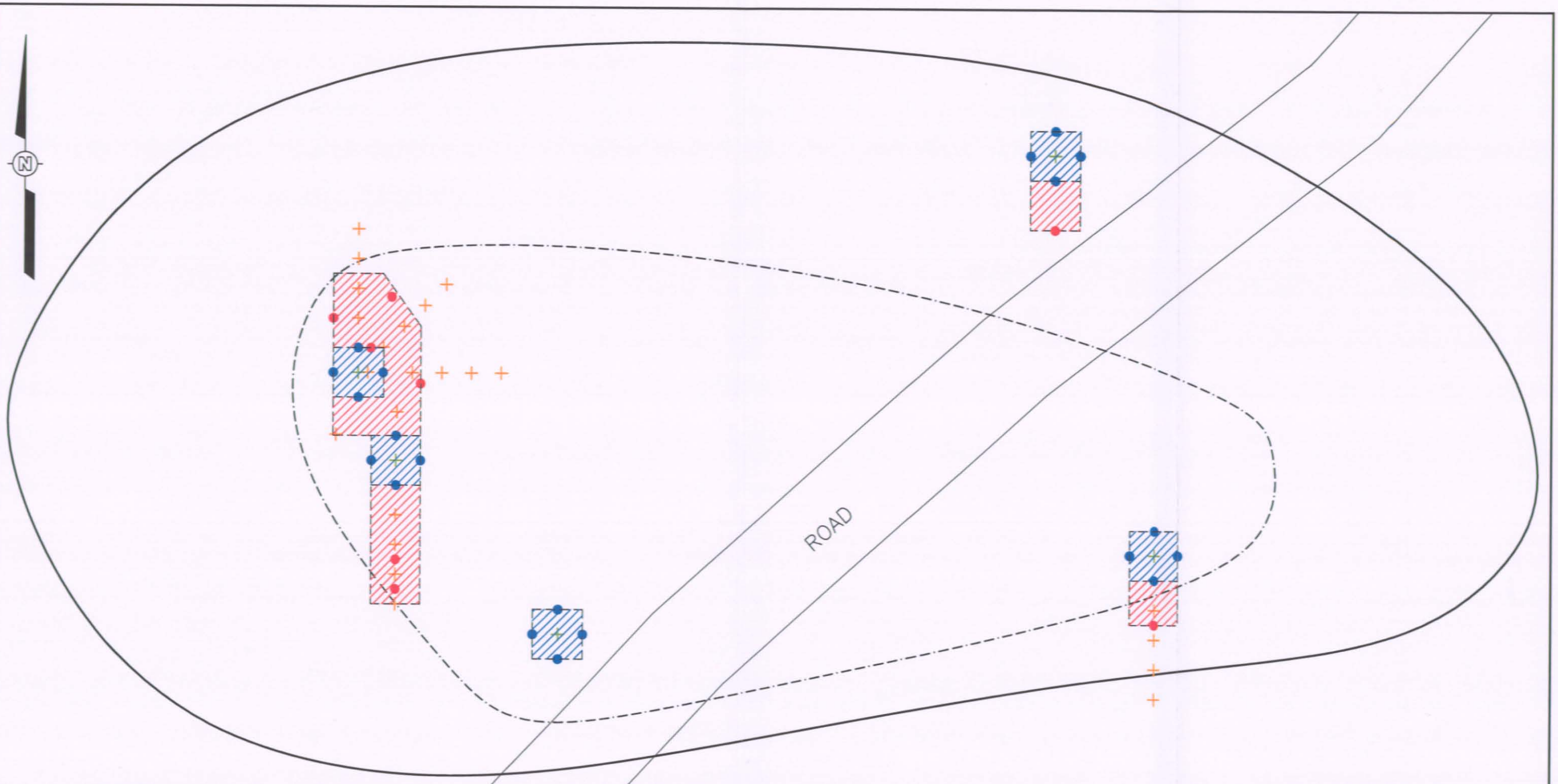
DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
L. JONES 8/13/07	N. OLSON 10/29/07	K. HADASH 10/29/07	783981-B52

OFFICE	X-REF	IMAGE
HOUSTON, TX	---	---

PLOT DATE: 6/08/04
FORMAT REVISION 3/25/99

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	HOUSTON, TX	L. JONES 8/13/07	N. OLSON 10/29/07	K. HADASH 10/29/07	783981-B53

PLOT DATE: 3/24/06
FORMAT REVISION 3/25/99



NOTE:

AFFECTED PROPERTY BOUNDARY AND PCLE ZONE ARE FROM THE FINAL APAR OB/OD AREA A-1, CASTNER RANGE, FORT BLISS, TEXAS (IT CORP., JAN. 2003)

LEGEND:

- AFFECTED PROPERTY BOUNDARY
- PCLE ZONE
- EXISTING EXCAVATION BOUNDARY
- FEBRUARY, 2002 ASSESSMENT SAMPLE
- FEBRUARY, 2006 CONFIRMATION SAMPLE
- APRIL 2006, DELINEATION SAMPLE
- JULY, 2007 CONFIRMATION SAMPLE
- FEBRUARY, 2006 EXCAVATION EXTENT
- JULY, 2007 EXCAVATION EXTENT

SCALE
0 10 20 FEET

Shaw

U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

ATTACHMENT 1B

RESPONSE ACTION TIME LINE
OB/OD AREA A-1
CASTNER RANGE, FORT BLISS, TEXAS

C-26NW1		
COC	PCL	RESULT
Aldrin	0.05	0.0054
Alpha-BHC	0.25	0.0028
4,4-DDE	10	U

C-26N3-01		
COC	PCL	RESULT
Aldrin	0.05	0.0004
Alpha-BHC	0.25	0.0093
4,4-DDE	10	0.0034

C-26WW		
COC	PCL	RESULT
Aldrin	0.05	0.0027
Alpha-BHC	0.25	0.0152
4,4-DDE	10	U

C-26FL3-01		
COC	PCL	RESULT
Aldrin	0.05	0.0036
Alpha-BHC	0.25	0.0144
4,4-DDE	10	0.0013

C-27NW		
COC	PCL	RESULT
Aldrin	0.05	0.0285
Alpha-BHC	0.25	0.0472
4,4-DDE	10	U

C-26E1		
COC	PCL	RESULT
Aldrin	0.05	0.0309
Alpha-BHC	0.25	0.0217
4,4-DDE	10	0.0099

C-27WW		
COC	PCL	RESULT
Aldrin	0.05	0.0027
Alpha-BHC	0.25	0.0152
4,4-DDE	10	U

C-26SE3		
COC	PCL	RESULT
Aldrin	0.05	0.0278
Alpha-BHC	0.25	0.0497
4,4-DDE	10	0.005

C-27S3-01		
COC	PCL	RESULT
Aldrin	0.05	0.00042
Alpha-BHC	0.25	0.0014
4,4-DDE	10	U

C-27EW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0047
4,4-DDE	10	U

C-27S4-01		
COC	PCL	RESULT
Aldrin	0.05	0.00045
Alpha-BHC	0.25	0.00042
4,4-DDE	10	0.0014

C-30NW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0063
4,4-DDE	10	U

C-30WW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.00064
4,4-DDE	10	U

C-30EW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	U
4,4-DDE	10	U

C-30SW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0117
4,4-DDE	10	U

C-30FL		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0019
4,4-DDE	10	U

C-28NW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0089
4,4-DDE	10	U

C-28FL		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0143
4,4-DDE	10	U

C-28WW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0019
4,4-DDE	10	U

C-28EW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.079
4,4-DDE	10	U

C-28S1		
COC	PCL	RESULT
Aldrin	0.05	0.00041
Alpha-BHC	0.25	0.0151
4,4-DDE	10	0.0135

C-29NW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0064
4,4-DDE	10	U

C-29WW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.02
4,4-DDE	10	U

C-29EW		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.0168
4,4-DDE	10	U

C-29FL		
COC	PCL	RESULT
Aldrin	0.05	U
Alpha-BHC	0.25	0.142
4,4-DDE	10	U

C-29S3		
COC	PCL	RESULT
Aldrin	0.05	0.0005
Alpha-BHC	0.25	0.00069
4,4-DDE	10	0.002

ROAD

SCALE
0 10 20 FEET

LEGEND:

- SAMPLE LOCATION
- LIMITS OF EXCAVATION

NOTES:
ALL VALUES ARE IN mg/kg

U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

ATTACHMENT 1C
POST-RESPONSE ACTION

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
D. DAY 3/24/06	N. OLSON 10/29/07	K. HADASH 10/29/07	783981-B54

OFFICE	X-REF	IMAGE
HOUSTON, TX	---	---

DATE: 10/20/06
REVISION 3/25/99

Performance Measures

List and describe the performance measures for each environmental medium containing a PCLE zone that were used to determine if reasonable progress is being made by the response action in a timely manner. Provide documentation that these performance measures were met. Attach additional information if necessary.

All soil with pesticide concentrations exceeding the Tier 1 residential PCL was removed. Confirmation samples shown as **Attachment 1C** and Table 1, **Appendix 4**, confirmed the removal.

Problems

Complete the table for the response action. When the response action consisted of several components or multiple actions, complete one table for each major component or action.

Response Action Name/Designation: No problems were encountered.

List the problems that were encountered during the response action, describe the impact of each problem, and the response to the problem.

Description of the Problem	Impact	Did this cause a response action failure?		Corrective Response
		Yes	No	

Appendices

Appendix 1 Reference

Appendix 4 COC Data Table

Appendix 5 Sampling Procedures

Appendix 6 Laboratory Data Packages (on compact disk)

Appendix 8 Waste Disposition

Appendix 1

Reference

Shaw Environmental and Infrastructure, Inc. (Shaw) 2003, Final Affected Property Assessment Report, Open Burn/Open Detonation Area A-1, Castner Range, Fort Bliss, Texas, January.

Appendix 4

COC Data Table

Appendix 4, Table 1
Soil Sample Analytical Data

COC DATA TABLE

Sample Location			FTBL-073-SS-C-26FL3				FTBL-073-SS-C-26N3				FTBL-073-SS-C-27S3				FTBL-073-SS-C-27S4				FTBL-073-SS-C-28S1				FTBL-073-SS-C-29S3				FTBL-073-SS-C26SE3			
Sample Identification			FTBL-073-SS-C-26FL3-01				FTBL-073-SS-C-26N3-01				FTBL-073-SS-C-27S3-01				FTBL-073-SS-C-27S4-01				FTBL-073-SS-C-28S1				FTBL-073-SS-C-29S3				FTBL073-SS-C26SE3			
Sample Date			7/16/2007				7/16/2007				7/16/2007				7/16/2007				7/16/2007				7/16/2007				7/13/2007			
Parameter	Units	Residential Assessment Level	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL
Aldrin	ug/kg	50	3.6		1.7	0.40	0.43	U	1.8	0.43	0.42	U	1.8	0.42	0.45	U	1.9	0.45	0.41	U	1.7	0.41	0.5	U	2.1	0.50	27.8		17	4.2
alpha-BHC	ug/kg	250	14.4		1.7	0.37	9.3		1.8	0.39	1.4	J	1.8	0.39	0.42	J	1.9	0.41	15.1		1.7	0.38	0.69	J	2.1	0.46	49.7		17	3.8
4,4'-DDE	ug/kg	10,000	1.3	U	3.3	1.3	3.4	J	3.6	1.4	1.3	U	3.5	1.3	1.4	U	3.7	1.4	13.5		3.5	1.3	2.0	J	4.2	1.6	5.0		3.5	1.3

Sample Location			FTBL-073SS-C-26NW1				FTB-073-SS-C26E1				FTB-073-SS-C30-EW				FTB-073-SS-C-30-FL				FTB-073-SS-C-30-NW				FTB-073-SS-C-30-SW				FTB-073-SS-C-30-WW			
Sample Identification			FTBL073SS-C-26NW1				FTB073-SB-C26E1-01				FTB073-SS-C30-EW SOIL, C30 E WALL				FTB073-SS-C30-FL SOIL, C30 FLOOR				FTB073-SS-C30-NW SOIL, C30 N WALL				FTB073-SS-C30-SW SOIL, C30 S WALL				FTB073-SS-C30-WW SOIL, C30 W WALL			
Sample Date			7/13/2007				4/11/2006				2/15/2006				2/15/2006				2/15/2006				2/15/2006				2/15/2006			
Parameter	Units	Residential Assessment Level	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL
Aldrin	ug/kg	50	5.4		1.7	0.41	30.9		3.5	0.84	0.4	U	1.7	0.40	0.41	U	1.7	0.41	0.42	U	1.7	0.42	0.4	U	1.7	0.40	0.41	U	1.7	0.41
alpha-BHC	ug/kg	250	2.8		1.7	0.37	21.7		3.5	0.77	0.37	U	1.7	0.37	1.9		1.7	0.37	6.3		1.7	0.38	11.7		1.7	0.37	0.64	J	1.7	0.37
4,4'-DDE	ug/kg	10,000	1.3	U	3.4	1.3	9.9		7.0	2.7	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.5	1.3	1.3	U	3.3	1.3	1.3	U	3.4	1.3

Notes are presented on the last page of table.

Appendix 4, Table 1
Soil Sample Analytical Data

COC DATA TABLE *(Continued)*

Sample Location			FTB-073-SS-C-29-EW				FTB-073-SS-C-29-FL				FTB-073-SS-C-29-NW				FTB-073-SS-C-29-WW				FTB-073-SS-C-28-EW				FTB-073-SS-C-28-FL			
Sample Identification			FTB073-SS-C29-EW SOIL,C29 E WALL				FTB073-SS-C29-FL SOIL,C29 FLOOR				FTB073-SS-C29-NW SOIL,C29 N WALL				FTB073-SS-C29-WW SOIL,C29 W WALL				FTB073-SS-C28-EW SOIL, C28 E WALL				FTB073-SS-C28-FL SOIL, C28 FLOOR			
Sample Date			2/15/2006				2/15/2006				2/15/2006				2/15/2006				2/15/2006				2/15/2006			
Parameter	Units	Residential Assessment Level	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL
Aldrin	ug/kg	50	0.41	U	1.7	0.41	0.41	U	1.7	0.41	0.41	U	1.7	0.41	0.41	U	1.7	0.41	0.42	U	1.7	0.42	0.42	U	1.7	0.42
alpha-BHC	ug/kg	250	16.8		1.7	0.38	142		17	3.7	6.4		1.7	0.38	20.0		1.7	0.38	79.0		8.7	1.9	14.3		1.7	0.38
4,4'-DDE	ug/kg	10,000	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.5	1.3	1.3	U	3.5	1.3

Sample Location			FTB-073-SS-C-28-NW				FTB-073-SS-C-28-WW				FTB-O73-SS-C-27-EW				FTB-O73-SS-C-27-NW				FTB-O73-SS-C-27-WW				FTB-O73-SS-C-26-WW			
Sample Identification			FTB073-SS-C28-NW SOIL, C28 N WALL				FTB073-SS-C28-WW SOIL, C28 W WALL				FTBO73-SS-C27-EW SOIL, C27 E WALL				FTBO73-SS-C27-NW SOIL, C27 N WALL				FTBO73-SS-C27-WW SOIL, C27 W WALL				FTBO73-SS-C26-WW SOIL,C26 W WALL			
Sample Date			2/15/2006				2/15/2006				2/14/2006				2/14/2006				2/14/2006				2/14/2006			
Parameter	Units	Residential Assessment Level	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL	Result	Qual	MQL	SQL
Aldrin	ug/kg	50	0.42	U	1.8	0.42	0.43	U	1.8	0.43	0.41	U	1.7	0.41	28.5		17	4.1	2.7		1.7	0.41	11.5		1.7	0.41
alpha-BHC	ug/kg	250	8.9		1.8	0.39	1.9		1.8	0.39	4.7		1.7	0.38	47.2		17	3.8	15.2		1.7	0.38	68.1		17	3.8
4,4'-DDE	ug/kg	10,000	1.3	U	3.5	1.3	1.4	U	3.6	1.4	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.4	1.3	1.3	U	3.4	1.3

Notes and Abbreviations

MQL method quantitation limit
QUAL qualifier
SQL sample quantitation limit
U not detected above the SQL
ug/kg micrograms per kilogram

Appendix 5

Sampling Procedures

Appendix 5

Sampling Procedures

Sampling activities were performed in accordance with the procedures documented in the *Final Sampling and Analysis Plan, Open Burn/Open Detonation Area A-1 (FTBL-073), Castner Range, Fort Bliss, Texas* (IT Corp./OHM Remediation Corp., 2002).

Field activities commenced with excavation. The depth of each excavation was approximately 1-2 feet for each of the four pesticide hot spot soil locations.

Samples were collected from the bottom and designated wall of each excavation. Shaw collected a total of eight confirmation samples plus one quality control sample. Sample depths for the confirmation soil samples were 0-6 inches into the floor and designated walls.

Samples were collected using disposable hand trowels. The sampling locations were marked with a pin flag, photographed and logged into a filed notebook.

Soil samples were placed in appropriate sample jars. Each container was labeled with the project name, location, sample identification, sample depth, date and time sampled, and analytical parameters, and placed in a cooler paced with bagged ice. A chain-of-custody form accompanied the samples.

Appendix 6

Laboratory Data Packages
(on compact disk)

Appendix 8

Waste Disposition

Camino Real
ENVIRONMENTAL CENTER, INC.

SPECIAL WASTE PERMIT APPLICATION

Approval No. _____
Facility _____

Generator: name FORT BLISS
address DIRECTORATE OF ENVIRONMENT, BUILDING 622, TAYLOR ROAD, FT. BLISS, TX 79916
Waste description: SOIL CONTAINING NON-HAZARDOUS PETRO-DF

Quantity: 40-50 YARDS > Frequency of disposal: ☐ One-time ☒ Monthly ☐ Other: _____
Process generating waste: EXCAVATION OF FORMER DISPOSAL AREA
Point of waste generation (*include zip code*): WEST OF INTERSECTION OF MARTIN LUTHER KING DR AND HWY 54 SOUTH, EL PASO, TEXAS
Generator Representative/Contact: * Company Name: *
Phone: / Fax: /
Transporter: LUCHEM CO. INC Phone: 505/524-0164 Fax 505/524-0108

PHYSICAL CHARACTERISTICS AND DOCUMENTATION

Physical state:	☒ Solid	☐ Semi-solid	☐ Dusty	☐ Sludge	☐ Color: _____
Analytical results:	☐ TPH (PCS)	☒ Volatiles	☐ TOX	☒ TCLP: _____	
	☐ BTEX	☒ Pesticides	☐ PCB	☐ Other: _____	
Sample source:	☐ Pile	☒ In-ground	☐ Pit bottom	☐ Other: _____	
Additional information:	☐ MSDS	☐ Process knowledge		☒ Other: ANALYTICAL DATA	

NON-HAZARDOUS DETERMINATION

Under 40 CFR Part 261, is this a Listed or Characteristic waste? ☐ Yes ☒ No
Is waste classified as a state-only or provincial hazardous waste? ☐ Yes ☒ No
Is waste covered or restricted from landfilling by any permit? ☐ Yes ☒ No
Basis for non-hazardous determination: ANALYTICAL DATA

WASTE CERTIFICATION STATEMENT

I hereby certify that all information contained herein is true and correct, and the material described is properly identified, classified, packaged, labeled, and prepared as indicated. I certify this waste is not hazardous as defined by the U.S. EPA or the state or province of origin. I certify this waste does not contain any regulated radioactive materials. I certify that all samples used for this analysis are representative of the materials described herein. I will notify the company if there is a change in the composition of, or process generating this waste stream.

* ISMAEL DELGADO
Name (print) — *Authorized representative's signature*

* ENV. ENGINEER
Title / Company — 8/21/07 *Date*

P. O. Box 580 • Sunland Park, New Mexico 88063
Tel: 505 589-9440 • Fax: 589-2427 • www.creci.com

CAMINO REAL LANDFILL

P.O. Box 580 Sunland Park, N.M. 88063 (505) 589-9440

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

No. 48197

NON HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. TXA213720101	MANIFEST DOCUMENT NO. FB 402 B	2. Page 1 of 1

3. Generator's Name and Mailing Address
FORT BLISS DIRECTORATE OF ENVIRONMENT
BLDG. # 622 TAYLOR ROAD
FORT BLISS, TEXAS 79916

4. Generator's Phone ( )

5. Transporter 1 Company Name: RINCHEM CO. INC.
6. Address: 6133 EDITH BLVD N.E. ALBUQUERQUE N. M. 87107

7. Transporter 2 Company Name
8. Address

9. Designated Facility Name and Site Address
CAMINO REAL LANDFILL
1000 CAMINO REAL BLVD.
SUNLAND PARK N. MEX 88063

10. US EPA ID Number: N/R

11A HM	11. US DOT Description (Including Proper Shipping Name, Non Hazard Class, and ID Number)	12. Containers: No.	Type	13. Total Quantity	14. Unit Wt/Vol
	a. SOIL CONTAMINATED W/ PESTICIDES NON-RCRA NON DOT REGULATED	001	CM	20	Y
	b.				
	c.				
	d.				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
ISMAEL DELGADO		07	12	07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year
OSCAR LARGO		07	17	07

18. Transporter 2 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space
004397

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19. — Date

Printed/Typed Name	Signature	Month	Day	Year
Francisco Cobos		7	17	07

White - Original Green - Transporter I Canary - Transporter II Pink - TSD Facility Gold-Rod - Generator's first copy

CAMINO REAL LANDFILL

P.O. Box 580 Sunland Park, N.M. 88063 (505) 589-9440

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

№ 48199

NON HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	MANIFEST DOCUMENT NO.	2. Page 1 of 1
	TX4213720101	FB 402-A	

3. Generator's Name and Mailing Address

FORT BLISS DIRECTORATE OF ENVIRONMENT
BLDG. # 622 TAYLOR ROAD
FORT BLISS, TEXAS 79916

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	Address
KINCHEM CO. INC.		6133 EDITH BLVD N.E. ALBUQUERQUE N. M. 87107

7. Transporter 2 Company Name	8. US EPA ID Number	Address

9. Designated Facility Name and Site Address	10. US EPA ID Number
CAMINO REAL LANDFILL 1000 CAMINO REAL BLVD. SUNLAND PARK N. MEX 88063	NM R

11A HM	11. US DOT Description (Including Proper Shipping Name, Non Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.
	a. SOIL CONTAMINATED W/ PESTICIDES NON-RCRA NON DOT REGULATED				
	b.				
	c.				
	d.				

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
ISMAEL DELGADO		07	12	07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year
OMAR VARGAS		07	16	07

18. Transporter 2 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

003987

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19. — Date

Printed/Typed Name	Signature	Month	Day	Year
		7	16	07

White - Original Green - Transporter I Canary - Transporter II Pink - TSD Facility Gold-Rod - Generator's first copy