



HAFB 2004

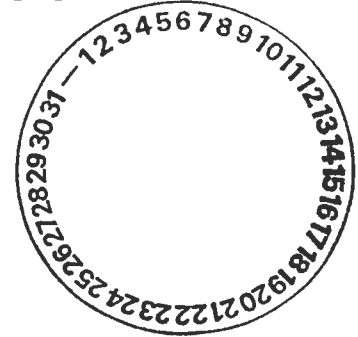
DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

30 MAR 2004

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT

Attn: Ms. Sandra Martin
Hazardous Waste Bureau
2905 Rodeo Park Drive, East Bldg 1
Santa Fe NM 87505-6303



FROM: 49 CES/CD
550 Tabosa Ave
Holloman AFB, NM 88330-8458

SUBJECT: Submittal of Second Quarter 2003 Monitoring Report, 20,000-Pound Open Detonation Unit (ODU) and Quality Assurance/Quality Control Report

1. Attached is the Second Quarter 2003 20,000-pound ODU Monitoring Report and the Second Quarter 2003 Monitoring Report Quality Assurance/Quality Control (Atchs 1 and 2, respectively).
2. The monitoring reports contain the results of soil sampling following the detonation events of 25 June 03. These results were compared to decision criteria specified in Attachment J of the Operating Permit. Results from these analyses show that the ODU operations are effective.
3. If you have any questions, please contact Ms. Susan Van Horn or Mr. Darvin St. John at (505) 572-3931.

A. DAVID BUDAK
Deputy Base Civil Engineer

Attachments:

1. Second Quarter 2003 Monitoring Report 20,000-Pound Open Detonation Unit
2. Second Quarter 2003 Monitoring Report Quality Assurance/Quality Control Results

cc w/Atchs:

Mr. Cornelius Amindyas
New Mexico Environment Department
Hazardous waste Bureau
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Albuquerque, New Mexico 87109

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*Headquarters, Air Combat Command
Langley Air Force Base,
Virginia*

Final

*Second Quarter 2003 Monitoring Report
20,000-Pound Open Detonation Unit*

*Holloman Air Force Base,
New Mexico*

January 2004



*49 CES/CEV
Holloman Air Force Base,
New Mexico*

**FINAL
SECOND QUARTER 2003 MONITORING REPORT
20,000-POUND OPEN DETONATION UNIT**

Prepared for:

Holloman Air Force Base
49 CES/CEV
550 Tabosa Avenue
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Prepared by:

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Under Contract No. DACW45-94-D-0003

Delivery Order 40, Work Authorization Directive 1

U.S. Army Corps of Engineers
Omaha District
Omaha, Nebraska

January 2004

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LIST OF ACRONYMS

AFB	Air Force Base
DQO	data quality objective
EOD	explosive ordnance disposal
EPA	United States Environmental Protection Agency
HMX	octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
mg/kg	milligrams per kilogram
NCP	National Contingency Plan
OD	Open Detonation
QA	quality assurance
QC	quality control
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
USAF	United States Air Force
UTL	upper tolerance limit
Work Plan	Final Work Plan Addendum

1.0 INTRODUCTION

During the second quarter of 2003, Holloman Air Force Base (AFB) performed the 20th quarterly sampling event at the 20,000-Pound Open Detonation (OD) Unit in accordance with Attachment J of the operating permit Sampling and Analysis Plan (USAF, 1996). Twelve locations were sampled for metals and explosive compounds and the analytical results were compared to the decision criteria outlined on page 33 of Attachment J of the operating permit. No sample results exceeded the decision criteria, and therefore, no changes to operations at the 20,000-Pound OD Unit are recommended. The following report summarizes the field operations, analytical results, potential risk, and conclusions from the 20th quarterly sampling event.

2.0 FIELD OPERATIONS

The second quarter 2003 detonation event occurred on June 24, and sampling was conducted on June 25, 2003. A total of 12 soil samples and 1 field duplicate were collected from 3 different strata within the boundaries of the 20,000-Pound OD Unit. Field and quality assurance/quality control (QA/QC) samples were obtained following the procedures outlined in the Final Work Plan Addendum for the 20,000-Pound Open Detonation Unit (Work Plan) (Foster Wheeler, 1999). Samples were analyzed for metals and explosive compounds as specified in the Work Plan.

During the field operations, the dimensions of each stratum were measured and recorded, and a grid was developed based on these measurements. Random sampling locations were determined following the guidelines established in the Work Plan. Sample locations are listed in Table 2-1.

Samples were labeled according to the following number sequence: OD-SO-s-x, where:

OD = open detonation

SO = soil

s = stratum (A, B, or C)

x = sequential sample number within each stratum (01, 02, 03, 04)

Table 2-1. Second Quarter 2003 Sample Locations

Stratum: A			
Number of Samples: 4			
Number of Potential			
Sampling Locations (n): 16			
Scale Factor (n-1): 15			
Sample Number	Random Number	Scaled Random Number	Grid-to-Node Sample
1	0.511	7.7	A8
2	0.236	3.5	A4
3	0.144	2.2	A2
4	0.594	8.9	A9

Stratum: B			
Number of Samples: 4			
Number of Potential			
Sampling Locations (n): 20			
Scale Factor (n-1): 19			
Sample Number	Random Number	Scaled Random Number	Grid-to-Node Sample
1	0.049	0.9	B1
2	0.976	18.5	B19
3	0.933	17.7	B18
4	0.882	16.8	B17

Stratum: C			
Number of Samples: 4			
Number of Potential			
Sampling Locations (n): 24			
Scale Factor (n-1): 23			
Sample Number	Random Number	Scaled Random Number	Grid-to-Node Sample
1	0.911	20.9	C21
2	0.688	15.8	C16
3	0.084	1.9	C2
4	0.881	20.3	C20

The area sampled was based on wind data recorded at the time of the March 11 and June 24, 2003 detonations. The assumption was made that any small particles from the detonation events would settle downwind of the detonation location. Figure 2-1 illustrates the strata layout and the



LEGEND



Sample Locations



Open Detonation Unit



Streets and Roads



Installation Boundary

**20,000-Pound Open Detonation Unit
June 25, 2003 Sampling Event
Holloman Air Force Base, New Mexico**

**Figure 2-1
Sample Locations**



Foster Wheeler Environmental Corporation