

APPENDIX J

Ordnance and Explosives Avoidance Survey Report

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USA Environmental, Inc.

12 May 2010

Science Applications International Corporation
Attn: Heather Miller
8866 Commons Blvd., Suite 201
Twinsburg, OH 44087

Subject: After Action Report (AAR) for the Munitions and Explosives of Concern (MEC) Avoidance Support at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio

Dear Ms. Miller

USA Environmental, Inc. (USAE) completed the MEC Avoidance Support at RVAAP, located in Ravenna, Ohio. All operations were completed safely, on time, and within budgeted funding without any incidents or accidents. USAE provided MEC avoidance services for surface sampling and subsurface sampling for five areas of concern (AOCs): the Atlas Scrap Yard (RVAAP-50), the Landfill North of Winklepeck Burning Grounds (RVAAP-19), Load Line 6 (RVAAP-33), the NACA Test Area (RVAAP-38), and Facility-Wide Sewers (RVAAP-67).

Upon receipt of the notice to proceed from SAIC, USAE began mobilization of two UXO-qualified personnel: Mr. Chad Lawrence (UXOTIII), and Ms. Gina Nelson (UXOTII), hereafter known as the UXO Team, plus project support equipment, to the RVAAP project site on 28 March 2010. Mr. Lawrence and Ms. Nelson have both completed Naval Explosive Ordnance Disposal (USNAVSCLEOD) training, which details procedures for evaluation and disposal of MEC. They have both completed a training program prior to beginning work on site that complies with OSHA Regulations 29 CFR 1910.120e (9). All USAE employees who work on hazardous sites receive training that includes an equivalent of 40 hours of off-site and actual field experience under the direct supervision of a trained, experienced Supervisor. Managers and Supervisors receive an additional 8 hours of training on program supervision. Each employee receives 8 hours of OSHA refresher training annually.

The UXO Team arrived on-site at building 1038 at 0830 on 29 March 2010. The UXO Team coordinated with Ms. Heather Miller (SAIC Field Operations Manager and Site Safety and Health Official) for site safety and pre-operation orientation. Upon completion of the in-briefing, Mr. Lawrence provided daily and tailgate safety briefings from 29 March through 08 April 2010, prior to the field operations. Once safety briefings were complete, the UXO Team would commence the avoidance for the surface and subsurface sample collection operations and at AOCs RVAAP-50, RVAAP-19, RVAAP-33, RVAAP-38 and RVAAP-67. During the avoidance operations, the UXO Team did not encounter any MEC/UXO-related items. The team successfully completed the avoidance operations of the five AOCs listed above on 08 April 2010 and demobilized on 09 April 2010.

USAE completed all operations in accordance with the approved Work Plans and contract requirements. All site operations were completed safely, efficiently, and in accordance with the Technical Scope of Work.

Should you have any questions regarding this Letter Report or the activities completed at RVAAP, please feel free to contact me by phone at (813)343-6404, or via email (dshaw@usatampa.com).

Regards,



Donald H. M. Shaw III
Project Manager

Enclosures: Daily Operations Summaries
Daily Safety Records

ENCLOSURES
AFTER ACTION LETTER
RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO

**ENCLOSURES
DAILY OPERATIONAL REPORTS
DAILY SAFETY BRIEFINGS**

DAILY OPERATIONS SUMMARY

DATE: 3/29/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	109____	unknown
(2) Preparation	NA____	NA____
(3) Mag & Flag	NA____	NA____
(4) Geophysical	NA____	NA____
(5) Intrusive	NA____	NA____
(6) Quality Control	NA____	NA____
(7) Quality Assurance	NA____	NA____

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: Team arrived on site and was briefed by Heather Miller from SAIC. Team will possibly be needed for overtime. Team may be needed to assist in an underwater collection from watercraft in addition to the Avoidance Operations in support of Borehole and Hand Soil Sampling.

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	9			
White	588	9			

5. **Operational Remarks:** Team arrived on site and received Initial Site and Site Safety Brief. Team then moved to the Atlas Scrap Yard. Team then split, joined SAIC Geologists and performed Avoidance Operations to stake the area for Soil Sampling.

6. **Signature / Date:**


Chad R. Lawrence
UXO Technician III

Date: 3/29/2010

DAILY OPERATIONS SUMMARY

DATE: 3/30/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	69_____	unknown
(2) Preparation	NA_____	NA_____
(3) Mag & Flag	NA_____	NA_____
(4) Geophysical	21_____	NA_____
(5) Intrusive	NA_____	NA_____
(6) Quality Control	NA_____	NA_____
(7) Quality Assurance	NA_____	NA_____

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes_____	_____


2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: No special instructions given.

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	8			
White	588	9			

5. **Operational Remarks:** Team split after Safety Brief Team Member went with SAIC Geologist to perform Avoidance Operations at Atlas Scrap Yard, Landfill North of Winklepeck Burning Grounds and Underwater Test Area Load Line 6. Team Leader went with Borehole Team to perform Avoidance for Borehole/Soil Sampling Operations at Atlas Scrap Yard where 6 Boreholes were drilled to 13 feet and 15, 1 foot Samples were taken.

6. Signature / Date:


Chad R. Lawrence
UXO Technician III

Date: 3/30/2010

DAILY OPERATIONS SUMMARY

DATE: 3/31/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	47_____	unknown
(2) Preparation	NA_____	NA_____
(3) Mag & Flag	210_____	NA_____
(4) Geophysical	NA_____	NA_____
(5) Intrusive	NA_____	NA_____
(6) Quality Control	NA_____	NA_____
(7) Quality Assurance	NA_____	NA_____

b. Discrepancies: Mag & Flag consisted of selecting random Soil Sampling Sites free of anomalies.

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes_____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: Heather Miller gave notice that the Soil and Sediment Sampling would take place tomorrow. Operation will consist of the Team Leader, SAIC Geologist and Shore Safety.

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:
NA		

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:
NA			

4. Utilization

a. Daily Man-hours:

Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	10	2	9	
UXO Technician II	588	10	1	9	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	0			
White	588	17			

Operational Remarks: After Safety brief team traveled to Landfill North of Winklepeck Burning Grounds. On arrival team split with SAIC Geologists. Team Member performed Avoidance Operations for Soil Sampling. Team Leader performed Avoidance Operations for staking. At @1500hrs team switched operations to Mag & Flag MI Areas to find areas free of anomalies to collect Random Sampling.

5. Signature / Date:



Chad R. Lawrence
 UXO Tecnician III

Date: 3/31/2010

DAILY OPERATIONS SUMMARY

DATE: 4/1/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	35____	unknown
(2) Preparation	NA____	NA____
(3) Mag & Flag	60____	NA____
(4) Geophysical	NA____	NA____
(5) Intrusive	NA____	NA____
(6) Quality Control	NA____	NA____
(7) Quality Assurance	NA____	NA____

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes____	_____


2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE:

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	2			
White	588	15			

5. **Operational Remarks:** After Safety brief team moved to Landfill North of Winklepeck Road. On arrival team began Mag & Flag of area for Random Sampling. When complete team performs Random Soil Sampling of area for a total of 300 samples collected. Upon completion team split. Team Member went to Atlas Scrap Yard and Team Leader went to Load Line 6. Team Member performed Avoidance Operations to assist in staking. Team Leader performed a sweep of the Load Line 6 using the bottom drag method and then assisted with collecting a sample from the bottom of the area.

6. **Signature / Date:**



 Chad R. Lawrence
 UXO Technician III

Date: 4/1/2010

DAILY OPERATIONS SUMMARY

DATE: 4/2/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	_____	_____
(2) Preparation	NA_____	NA_____
(3) Mag & Flag	600_____	NA_____
(4) Geophysical	NA_____	NA_____
(5) Intrusive	NA_____	NA_____
(6) Quality Control	NA_____	NA_____
(7) Quality Assurance	NA_____	NA_____

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes_____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: None

4. Utilization

a. Daily Man-hours:

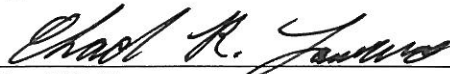
Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	10	1	9	
UXO Technician II	588	10	1	9	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	0			
White	588	14			

5. **Operational Remarks:** After Safety Brief team moved to Atlas Scrap Yard. On arrival team performed Mag & Flag and Avoidance Operations for SAIC Geological crews conducting Random Test Samplings.

6. **Signature / Date:**



Chad R. Lawrence
UXO Technician III

Date: 4/2/2010

DAILY OPERATIONS SUMMARY

DATE: 4/5/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	<u>NA</u>	<u>NA</u>
(2) Preparation	<u>NA</u>	<u>NA</u>
(3) Mag & Flag	<u>480</u>	<u>NA</u>
(4) Geophysical	<u>95</u>	<u>NA</u>
(5) Intrusive	<u>NA</u>	<u>NA</u>
(6) Quality Control	<u>NA</u>	<u>NA</u>
(7) Quality Assurance	<u>NA</u>	<u>NA</u>

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes _____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: None

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:
NA		

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:
NA			

4. Utilization

a. Daily Man-hours:

Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	10	2	8	
UXO Technician II	588	10	2	8	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	5			
White	588	9			

5. **Operational Remarks:** After Safety Brief team moved to Atlas Scrap Yard. On arrival Team Member performed Avoidance Operations, 480 Mag & Flag and 90 Sample collections for SAIC Geologist conducting Random Test Samplings. Team Leader performed Avoidance Operations for 5 Borehole Samplings for SAIC Borehole Drilling Team.

6. Signature / Date:

Chad R. Lawrence
Chad R. Lawrence
UXO Technician III

Date: 4/5/2010

DAILY OPERATIONS SUMMARY

DATE: 4/6/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	<u>NA</u>	<u>NA</u>
(2) Preparation	<u>NA</u>	<u>NA</u>
(3) Mag & Flag	<u>NA</u>	<u>NA</u>
(4) Geophysical	365	<u>NA</u>
(5) Intrusive	<u>NA</u>	<u>NA</u>
(6) Quality Control	<u>NA</u>	<u>NA</u>
(7) Quality Assurance	<u>NA</u>	<u>NA</u>

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes _____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE:

Requested by Rich Sprinzl to conduct visual inspection of substances by site and video in support of the Facility Wide Sewers RI. I informed him I could look at it and give my opinion, but that without a test kit of some kind could not positively determine that it had some sort of explosives present. He informed me that they had a kit, but that it took a lot of time.

3. UXO SUMMARY

a. UXO Located:

Type:	Quantity:	Live/Prac.:	Remarks:
NA			

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:
NA		

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:
NA			

4. Utilization

a. Daily Man-hours:

Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	10	2	8	
UXO Technician II	588	10	3	7	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	5			
White	588	2			

5. **Operational Remarks:** After Safety Brief team moved to Atlas Scrap Yard. On arrival Team Member performed Avoidance Operations and collection of 360 Random Test Samplings for SAIC Geologists. Team Leader performed Avoidance Operations for 5 Borehole Samplings for Borehole Sampling Team.

6. **Signature / Date:**

Chad R. Lawrence

Chad R. Lawrence
UXO Technician III

Date: 4/6/2010

DAILY OPERATIONS SUMMARY

DATE: 4/7/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	<u>NA</u>	<u>NA</u>
(2) Preparation	<u>NA</u>	<u>NA</u>
(3) Mag & Flag	<u>NA</u>	<u>NA</u>
(4) Geophysical	156	<u>NA</u>
(5) Intrusive	<u>NA</u>	<u>NA</u>
(6) Quality Control	<u>NA</u>	<u>NA</u>
(7) Quality Assurance	<u>NA</u>	<u>NA</u>

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes_____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE:
Requested by Rich Sprinzl to conduct visual inspection of substances in Sewer Lines by sight and video.

3. UXO SUMMARY

a. UXO Located:

Type:	Quantity:	Live/Prac.:	Remarks:
NA			

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:
NA		

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:
NA			

4. Utilization

a. Daily Man-hours:


Labor Category:	Task #	M/H Today:	M/H 0%	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	10	2	8	
UXO Technician II	588	10	4	6	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	6			
White	588	1			

5. **Operational Remarks:** After Safety Brief team moved to Atlas Scrap Yard. On arrival Team Member performed Avoidance Operations and collection of 150 Random Test Samplings for SAIC Geologists. Team Leader performed Avoidance Operations for 5 Borehole Samplings at Atlas Scrap Yard and 1 at Load Line 1 for Borehole Sampling Team. Team Leader then moved with Rich Sprinzi to perform visual inspection of substances in sewer lines at Depot Admin Area.

6. **Signature / Date:**


Chad R. Lawrence
UXO Technician III

Date: 4/7/2010

DAILY OPERATIONS SUMMARY

DATE: 4/8/2010

PAGE 1 OF 5 PAGES

SITE / LOCATION: RVAAP, OH Project Code 2020-588

1. WORK SUMMARY

a. Work Accomplished:	Number Completed	Total Remaining
(1) Survey	<u>NA</u>	<u>NA</u>
(2) Preparation	<u>NA</u>	<u>NA</u>
(3) Mag & Flag	<u>NA</u>	<u>NA</u>
(4) Geophysical	450	<u>NA</u>
(5) Intrusive	<u>NA</u>	<u>NA</u>
(6) Quality Control	<u>NA</u>	<u>NA</u>
(7) Quality Assurance	<u>NA</u>	<u>NA</u>

b. Discrepancies: _____

c. Inspection Results:	Pass	Fail
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	Yes _____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: Team Member was asked to accompany Geologist's collecting soil samples around the Atlas Scrap Yard Area. Team Leader was asked to assist collection of samples from sewer lines in the Load Line 2 and Depot Admin Area/Depot Sewage Treatment Plant.

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:
NA		

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:
NA			

4. Utilization

a. Daily Man-hours:


Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III	588	12	5	7	
UXO Technician II	588	12	4	8	
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:
MK26	588	0			
White	588	0			

5. **Operational Remarks:** After Safety Brief team split. Team Member conducted soil sample collection with SAIC Geologists in areas around Atlas Scrap Yard and later moved to the NACA site. On arrival of video crew Team Leader accompanied Mr. Sprinzl to Load Line 2 to conduct a video inspection and sample collection of possible explosives. Team Leader then was taken to the south end of Depot Admin Area just north of Depot Sewage Treatment Plant to collect samples from sewage lines. Both areas had small amounts of grey, slate, grey/green flakes. Team Leader was unable to make a positive identification but felt that the samples had a resemblance to decomposed wax like material and could not see any crystalline structure in it.

6. Signature / Date:


 Chad R. Lawrence
 UXO Technician III

Date: 4/8/2010

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