Field Sampling Report

Location ID: WSAss-019M-SO

Date: 10/27/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	
Type/Construction					Mattocks			
Miscellaneous	**Well Purging Form** Yes - No							

Sample Collection: _____ hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: _____

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: _____ FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		**Analytical Parameters**				**Other Parameters**			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample:	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

TAKEN AS ONE SAMPLE
UNDER WSA55-006M-SO

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____

Name: _____
Agency/Company: _____
Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sue Boles (Please Print)
Signature: Sue Boles

Reviewed by: ERIC ELLIS (Please Print)
Signature: [illegible]
Date: 2/23/05

Field Sampling Report

Location ID: WSASS-020M-SO

Date: 12/03/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1330 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0 ppm		VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0 ppm		Propellants		Nitrate					
Water Level	FT	TAL Metals	X			QA Samples			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	WSASS-020M-DUP		NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No staining

10YR 4/3 WELL SORTED MOIST TO WET

SILTY CLAY W/TRACE SAND

Split Sample

Split Sample ID: WSASS-020M-SO

Name: JOHN JENT (CELRL-EX-ED)

Agency/Company: USACE-LOUISVILLE

Address: 600 DR MARTIN LUTHER KING JR PLAZA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: James Pannozzo (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/1/05

Location ID: F15SS-0011M-SO

Date: 10-28-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1115 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 3D

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	0.0 ppm
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO		
SVOC		TPH DRO		
Explosives	X	Chromium +6		
Propellants		Nitrate		
TAL Metals	X			
Pesticides/PCBs				
Cyanides				
TOC				
Grain Size				

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

slight oily odor, gray staining
10 YR 3/1, wet, nonplastic
silt 40%, clay 50%, sand 10%
well sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sty

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Field Sampling Report

Location ID: F15SS-002M-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1425 hrs

Sample Type: Composite (MI) Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field - Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0 ppm		VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0 ppm		Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No (NA)		
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	~~F15SS-002M-DUP~~ NA		
pH	units	TOC				Equipment Rinse ID	(NA)		
Turbidity	N.T.U.	Grain Size				Trip Blank ID	(NA)		

Sample Description

No odor, No staining
10YR 4/6, well sorted, med plasticity
moist, silty clay with trace of sand

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: F15SS-002M-SO

Name: John Jent (LEUR-BLED)

Agency/Company: USACE-Louisville

Address:
600 DR MARTIN LUTHER KING JR PLAZA
LOUISVILLE, KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: (Same as Above) - As Listed

Logged By: James Panozzo (Please Print)

Signature: James Panozzo

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature]

Date: 2/3/05

Location ID: F15SS-0037-SO-03

Date: 10-28-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1440 hrs

Sample Type: Composite - MI - Grab 30
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, gray mottle
10YR 4/3 moist, med plasticity
well sorted, silt 60%, clay 35%,
sand 5%,

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/-5

Field Sampling Report

Location ID: F15SS-004M-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1315 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes No	NA
Duplicate ID		NA
Equipment Rinse ID	TAKEN BUT CANCELLED. (ERE)	NA
Trip Blank ID	PRIOR TO EXTRACTION	NA

Sample Description

No odor, No staining
7.5YR 2.5/2, Sorted
Low plasticity, moist silt with some
clay and little sand

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)
Signature: [signature]

Reviewed by: Eric Ellis (Please Print)
Signature: [signature] Date: 2/3/05

Location ID: F15SS-0051-SO

Date: 10-28-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1325 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background: 0.0	ppm
Sample:	ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No-odor, gray mottle
10YR 4/2 moist, mod plasticity
well sorted, clay 50% silt 40%
sand 10%

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephan Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/3/05

Field Sampling Report

Location ID: F15SS-006M-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1340 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants	X	Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs	X			MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No staining
10YR 4/4, well sorted, med to high plasticity, moist silty clay

(Full Suite)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panuzzo (Please Print)

Signature:

Reviewed by: ERIC ELLIS (Please Print)

Signature:

Date: 2/3/05

Field Sampling Report

Location ID: F15SS-006D-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		(Soils) / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No				Directly into VOC jar.			

Sample Collection: 1350 hrs

Sample Type: Composite - MI - (Grab)
If MI, # of increments taken:

Location: Plotted on Map (Staked in Field) Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0 ppm		VOC	X	TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample: 0.0 ppm		Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	(NA)	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		(NA)	
pH	units	TOC				Equipment Rinse ID		(NA)	
Turbidity	N.T.U.	Grain Size				Trip Blank ID	Trip Blank	NA	

Sample Description

SAME AS F15SS-006M-SO

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)

Signature: James Panozzo

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Field Sampling Report

Location ID: F1SSS-007M-S0

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0945 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, light brown and grey mottles
10YR 4/4, well sorted, Med plasticity
moist silty clay

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Location ID: F155-008M-SO (F3)

Date: 10-28-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1035 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

Slight oil odor, gray surface and inner mottle.
10YR 4/1 wet, poorly sorted, low plasticity, clay 50%, silt 40%, sand 10%

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Field Sampling Report

Location ID: F15SS-009M-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1500 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	F15SS-009M-DUP	NA	
pH	units	TOC				Equipment Rinse ID		NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		NA	

Sample Description

No odor, No staining
10YR 4/4, sorted, low plasticity
moist sandy clay with some silt
and few gravels

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: F15SS-009M-SO

Name: John Jent (CELRL-EK-ED)

Agency/Company: USACE - Louisville

Address:
600 DR. MARTIN LUTHER KING JR PLAZA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)

Signature: [signature]

Reviewed by: Eric Ellis (Please Print)

Signature: [signature] Date: 2/3/05

Location ID: F15SS-0101M-SO

Date: 10-27-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1515 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field - Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	0.0 ppm
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	✓	Chromium +6	
Propellants		Nitrate	
TAL Metals	✓		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No-odor, no staining
10YR 3/2, moist, well sorted
low plasticity, silt 40%
Org 30%, sand 10%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Stephen Sturgeon (Please Print)
Signature: S. Flyn

Reviewed by: ERIC ELLIS (Please Print)
Signature: [illegible] Date: 2/3/05

Field Sampling Report

Location ID: F1555-01117-50

Date: 10-28-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1400 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	4	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No-odor, no staining
10YR 2/1 poorly sorted, moist
silt 40%, sand 50%, Nonplastic

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/3/05

Field Sampling Report

Location ID: F16SS-001M-S0

Date: 11/3/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1320 hrs

Sample Type: Composite (MI) Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) (Staked in Field) Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings: Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No staining
10yr 3/2 Brn SILT 20% w/ Clay Low Plasticity
Moist Poorly sorted

Collected from a dry ditch location
That had standing water.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)
Signature: [signature]

Reviewed by: Eric Ellis (Please Print)
Signature: [signature] Date: 2/3/05

Field Sampling Report

Location ID: F16SS-002M-50

Date: 11/3/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1450 hrs

Sample Type: Composite (MI) Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings: Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No staining
10yr 4/2 Brown SILT 65% w/ Clay Moist No Sorting
Low Plasticity

Collected from a SS dry ditch that had standing water.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)
Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/3/05

Field Sampling Report

Location ID: F16SS-003M-SO

Date: 11/3/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1420 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No staining
10yr 3/3 Br. SILT 65% w/ Sand 20% Low Plasticity
Poorly Sorted Moist

SS dry ditch collected from a ditch that contained water.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)

Signature: James Panozzo

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Field Sampling Report

Location ID: F16SS-004M-SO

Date: 11/3/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe SS	X	Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1345 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No staining
2.5yr 2.5/2 SRLT 65% w/sand Poorly Sorted
Damp, No Plasticity

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/3/05

F16SS-005M-SO KW

Field Sampling Report

Location ID: ~~F16SS-004M-SO~~

Date: 03NOV04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Bucket Liner	X
Type/Construction								
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1550 hrs

Sample Type: Composite/(MI) - Grab - DD
If MI, # of increments taken: 32

Location: Plotted on Map - Staked in Field - Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	0.0 ppm
Sample:	0.0 0.1 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC	X	TPH DRO	
Explosives	X	Chromium +6	
Propellants	X	Nitrate	
TAL Metals	X		
Pesticides/PCBs	X		
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

Dk Br. SILT 65% w/ Sand 25% Dry No Staining
Poorly Sorted No Plasticity 7.5yr 4/6

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Mark Dunlevy (Please Print)

Signature:

Reviewed by: ERIC ELLIS (Please Print)

Signature:

Date: 2/3/05

Field Sampling Report

Location ID: F16SS-005D-S0

Date: 03 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1555 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0.0 ~0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background:	0.0 ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

Dk. Br. SILT 65% w/ Sand 25% Dry No staining
Poorly Sorted No Plasticity 7.5yr 3/6

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Mark Dunlap (Please Print)
Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/3/05

Field Sampling Report

Location ID: F16SS-006M-SO

Date: 10/28/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0855 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, Grey mottles
10yr 4/2 SILT 60% w/ Clay 30% Moist, Poorly Sorted
Low Plasticity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/3/05

Location ID: F16SS-007M-SO

Date: 11/3/04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		plastic liner	X
Type/Construction					Mattox	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1300 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No staining
10yr 2/1 SiTf 70% w/sand, moist
No plasticity, poorly sorted

MI grid was adjacent to asphalt parking lot. Refusal between 3"-6".

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panozzo (Please Print)

Signature: James Panozzo

Reviewed by: Eric Ellis (Please Print)

Signature: [illegible]

Date: 2/3/05

1, 5

Field Sampling Report

Location ID: ATASS-001M-SO

Date: 11-8-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1015 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	ppm 0.0
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes No ~~NA~~ FRE
Duplicate ID	ATASS-001M DUP NA
Equipment Rinse ID	NA
Trip Blank ID	NA

Sample Description

No odor, no staining
10YR 3/4, moist, well sorted
non plastic sand 85% with
some clay

Split Sample

Split Sample ID: ATASS-001M-SO

Name: John Tent (CELRL-EX-FD)

Agency/Company: USACE Louisville

Address:
600 DR MARTIN LUTHER KING JR PLAZA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: ERE

Date: 2/2/05

Field Sampling Report

Location ID: ATAss 002M-50

Date: 08 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1125 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	✓	Chromium +6	
Propellants		Nitrate	
TAL Metals	✓		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID	ATASS-002M-ER	NA
Trip Blank ID		NA

ERE

Sample Description

No Odor, No Staining
10YR 4/4, moist, sorted
non plastic, sand 85% with
some clay 15%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)

Signature: Michael B. [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ATAss-003M-80

Date: 08Nov04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0920 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC	✓	TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants	✓	Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs	✓						
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID	TRIP BLANK	NA

Sample Description

No Odor, No Staining
10YR 4/1, moist, sorted,
low to med plasticity, silt 60%,
Clay 35%, sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)
Signature: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)
Signature: Eric Ellis
Date: 2/2/05

Field Sampling Report

Location ID: ATAss-003D-50

Date: 08Nov04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0920 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: _____

Location: Plotted on Map - Staked in Field
Estimated - ~~Measured~~ - Surveyed

Sample Depth: 0 - 1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC	✓	TPH GRO	
SVOC		TPH DRO	
Explosives		Chromium +6	
Propellants		Nitrate	
TAL Metals			
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID	Trip Blank	NA

Sample Description

No Odor, No Staining
Same as 003M-50

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Samalok (Please Print)
Signature: Michael [signature]

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ATAss-004M-50

Date: 08 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0955 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	ppm 0.0
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	✓	Chromium +6	
Propellants		Nitrate	
TAL Metals	✓		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

Slight Sulfur Odor, No staining
7.5 YR 3/4, moist, poorly sorted
non plastic, silt 65%, Clay 30%
sand & gravel 5%

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Samelak (Please Print)

Signature: Michael G Sl

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ATASS-005M-SD

Date: 11-8-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0900 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
	0.0	Explosives	X	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, no staining
10YR 3/2, moist, well sorted
non plastic, silt 75%, clay 20%
sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: AS455 -001M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0905 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 6"-1 Ft FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No staining
7.5YR 3/2 Brn SILT 30% w/ SAND Dry No Plasticity
Poorly sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature]

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-002M-50

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0945 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-6" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, some gray mottles
10yr 3/2 Br SAND 60% w/ Silt Damp No Plasticity
Poorly sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: Eric Ellis (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-003M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1040 hrs

Sample Depth: 0-6"-12" FT (below surface)

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Decon: Dedicated - Each Day - Each Location

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, few grey mottles
7.5yr 2.5/1 Brown SAND 65% w/ Silt Moist NO Plasticity
Poorly Sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Allari (Please Print)
Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)
Signature: [illegible]
Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-004M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1405 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC	X	TPH DRO	
Explosives	X	Chromium +6	
Propellants	X	Nitrate	
TAL Metals	X		
Pesticides/PCBs	X		
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, Grey and Orange mottles
10YR 4/2, Sorted, Low to med plasticity, clay 40%, silt 50%, sand 10%,

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: AS YSS-004D-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1420 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 1

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-6" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, grey and orange mottles
10 YR 4/2 (same as 004M/SO)

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-005M-S0

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1505 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC	~~X~~ FKE	TPH GRO		
SVOC		TPH DRO		
Explosives	X	Chromium +6	X	
Propellants		Nitrate		
TAL Metals	X			
Pesticides/PCBs				
Cyanides				
TOC				
Grain Size				

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, Some orange mottles
7.5YR 3/1 poorly sorted, moist
Non plastic, silt 60%, clay 20%,
Sand 20%

(SERVICE STATION #1)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC EWIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-005D-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1515 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 1

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1' FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID	TRIP BLANK		NA

Sample Description

No odor, some orange mottles
7.5YR 3/1 same as 005M-SO

It was raining
(SERVICE STATION #1)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC. ELLIS (Please Print)

Signature: [illegible] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS - 006M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1120 hrs

Sample Type: Composite - MI - Grab 30
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-6"-12" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

7.5 YR 4/2, no odor, some gray stains sorted, med plasticity, moist clay with little silt & sand.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-007M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1320 hrs

Sample Type: Composite (MI) - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	(Yes) No	NA
Duplicate ID	ASYSS-007M-DUP	NA
Equipment Rinse ID		(NA)
Trip Blank ID		(NA)

Sample Description

No odor, Grey and brown mottles 10YR 2/2 moist, poorly sorted, Low plasticity, silt 60%, clay 20%, sand 20%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: ASYSS-007M-SO

Name: John Jent (CELRL-EC-ED)

Agency/Company: USACE - LOUISVILLE

Address: 600 DR. MARTIN LUTHER KING JR PLACE LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: (Same as Above) - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss - 008M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0910 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 3i

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0.5-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	6.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No Staining
10yr 2/2 Br. SILT 60% w/ Sand (Med) 30% Dry No Plasticity
Poorly Sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: G. Sudhir

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: AS4ss-009M-S0

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0940 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No Staining
10yr 4/2 Br SILT 20% w/ Clay Moist/Damp No Plasticity
Poorly Sorted

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Sudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-010M-SO

Date: 11/03/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes / No							

Sample Collection: 1345 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, Some grey stain
10yr 2/2 Br. SILT 70% w/ Clay + sand Dry Non Plastic
Poorly sorted

Split Sample

Split Sample ID:
Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Sudheer Gubba (Please Print)
Signature: G. Sudh

Reviewed by: ERIC ELLIS (Please Print)
Signature: EEllis
Date: 2/2/05

Field Sampling Report

Location ID: ASMSS-011M-S0

Date: 11/03/04 SG

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1305 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC (PCP ONLY)	X	TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X	(PCP)	X
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odors, Some grey stain.
10yr 2/2 DK Br. SILT 65% w/ Clay + Sand No Plasticity
Dry Poorly Sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: S. Gubba

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS- 012M-SD

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 14:15 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0.5 -1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	X	Chromium +6	X	Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No staining
10YR 2/2, moist, poorly sorted
Low to med plasticity, clay 50%
silt 30%, sand 20%
(SERVICE STATION #2)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)
Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYss - 012D - SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1415 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 1

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0.5-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives		Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID	TRIP BLANK		NA

Sample Description

No odors, No Stain
10YR 2/2 moist
(Same as 012M-SO)
(SERVICE STATION #2)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)
Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: AS455- 012M-QA

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1500 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0.5-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	X	Chromium +6	X	Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate	X EXE				
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No Staining.
10YR 3/1 - moist, Sorted,
low to med Plasticity, clay 60%,
Silt 35%, sand 5%

(SERVICE STATION #2)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYss-- D12D-QA

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe		Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1500 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-5-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC	X	TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals							
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, No Staining
(Same as 12M-QA)

(SERVICE STATION #2)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS - 013M - SO

Date: 11/03/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0900 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 32

Location: (Plotted on Map) - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0 - 1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings: Background: 0.0	ppm	VOC		TPH GRO		Corrosivity			
		SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No Staining
10yr 2/2 DK Br. SILT >0% w/ Med Sand Dry
No Plasticity Poorly Sorted

(TAR CLEANING TANK)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-013D-80

Date: 11-03-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0900 hrs

Sample Type: Composite - MI - (Grab)
If MI, # of increments taken:

Location: (Plotted on Map) - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

10YR 2/2
NO odor, NO staining, sorted
non plastic, moist, silt with
some clay and gravel

(TAR CLEANING TANK)

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Shahram Tahersima (Please Print)

Signature: Shah

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible] Date: 2/2/05

Field Sampling Report

Location ID: AS4ss - 014M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1130 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No Staining
7.5yr 4/4 Br SILT 70% w/ Sand Dry No Plasticity
Poorly Sorted

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Sudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-015M-SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1025 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants	X	Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs	X						
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID	~~TRIP B~~	NA

Sample Description

No odor, No staining
10yr 4/2 Br. SILT 70% w/ clay 20% Low Plasticity
Moist Poorly Sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)

Signature: G. Sudheer

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss - 015D - SO

Date: 11/04/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1025 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: ~~30~~ SG

Location: Plotted on Map, Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0 - 1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
	0.0	Explosives		Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID	TRIP BLANK		NA

Sample Description

No odor, No staining
10yr 4/2 Br. SILT 70% w/ Clay 20% Low Plasticity
Moist Poorly Sorted

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)
Signature: S. Gubba

Reviewed by: ERIC ELLIS (Please Print)
Signature: [illegible]
Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-016M-S0

Date: 11/03/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks	X		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0940 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs	~~X~~ FRS			MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No Staining
10yr 3/4 Br. SILT 60% w/ Clay Orange Mottling
Damp No Plasticity No Sorting

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Sudheer Gubba (Please Print)
Signature: S. Gubba

Reviewed by: ERIC ELLIS (Please Print)
Signature: EEllis
Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-017M-SO

Date: 11-03-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	
Type/Construction					Mattocks	✓		
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1015 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID	ASYSS-017M-DUP	NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, no staining, Poorly sorted Non plastic, Moist sand and gravel with some silt and clay
7.5 YR 2.5/1

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: ASYSS-017M-SO

Name: USA CE - Louisville

Agency/Company: JOINT CENTER ED

Address: 600 DR MARTIN LUTHER KING JR PLAZA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Shahram Taherinia (Please Print)

Signature: Shah

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-018M-SO

Date: 11/03/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1125 hrs

Sample Type: Composite - (ML) - Grab
If MI, # of increments taken: 32

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0 - 1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No Staining
10yr 2/2 DK. Br SILT 65% W/ Sand 25% Dry
No Plasticity Poorly Sorted

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Gudheer Gubba (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-019M-50

Date: 10 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks	✓		
Miscellaneous	Well Purging Form ✓ Yes - No							

Sample Collection: 1630 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	✓	Chromium +6	
Propellants		Nitrate	
TAL Metals	✓		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, Some grey mottles
10YR 3/2, moist, Low Plasticity
well sorted, Clay 60%, silt 35%
Sand 5%

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Mike Samelak (Please Print)

Signature: Michael [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASY SS-020M-50

Date: Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1100 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No Odor, some grey mottles, ditch contained ~6" standing water
10YR 3/2, moist, poorly sorted
Low-med plasticity, clay 50%
silt 40%, sand & gravel 10%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)
Signature: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYss-021M-50

Date: 03 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1135 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: 0.0	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID	ASYss-021M-DUP	NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, Some Grey Mottles, ~1-2 inches of standing water in the ditch
10YR 3/2, moist, poorly sorted
low to med plasticity;
Clay 50%
Silt 40%
Sand & gravel 10%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: ASYss-021M-50

Name: John Jent
Agency/Company: USACE-Louisville
Address:
600 DR MARTIN LUTHER KING JR PLACE
LOUISVILLE, KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)
Signature: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS - 22M-SO

Date: 11/11/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0920 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, some grey mottles
10 YR 3/2, ~~wet~~, sorted,
med plasticity, clay 60%,
silt 35%, sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: ERS

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-022M-QA

Date: 11/11/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1000 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0 - 6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, Some grey mottles 10YR 4/3, wet, well sorted med plasticity, Silt 45%, Clay 50%, Sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-023M-SO

Date: 11/11/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1055 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map - Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0 - 6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	X	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, some grey & orange mottles
10YR 3/2, wet, soft,
med plasticity, clay 60%, silt 35%,
Sand 5%,
Most of it was standing water upto 8 to 10 inches.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: A5Ysd-027M-SD

Date: 11 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop - Teflon	✓	Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1155 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample:	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓			**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC	✓			Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size	✓			Trip Blank ID			NA

Sample Description

No Staining, Organic odor, ~3 ft of water standing in ditch

(SOIL TAKEN AS SEDIMENT)

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

ged By: Michael Samelak (Please Print)

ure: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)

Signature: EKEllis

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-025M-SD

Date: 11-11-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0950 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) / (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	0.0 ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

no odor, gray staining,
1/2 ditch was covered w/ ~12 in of water
10YR 4/6, wet, sorted, low plasticity
silt 40%, clay 50%, sand 10%

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print)

Signature: S Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-026M-50

Date: 03 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1610 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 22

Location: (Plotted on Map) - (Staked in Field)
Estimated - ~~Measured~~ - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	0.0 ppm
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives		Chromium +6	
Propellants		Nitrate	
TAL Metals			
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No (NA)
Duplicate ID	(NA)
(Equipment Rinse ID)	ASYss-026M-~~50~~ ER NA 11/9/04
Trip Blank ID	(NA)

Sample Description

10YR 4/2, no odor, no staining
moist, well sorted, med plasticity
Clay 60%, silt 35%, sand 5%

Sample increments were <30 because
The preselected locations were
Underwater at the time of sampling.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)
Signature: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)
Signature: [signature] Date: 2/2/05

Location ID: ASYss-027M-SO

Date: 03-Nov-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1400 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 27

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC	✓	TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	✓	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants	✓	Nitrate					
Water Level	FT	TAL Metals	✓			**QA Samples**			
Temperature	°C	Pesticides/PCBs	✓			MS/MSD	Yes / No	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	ASYss-027M-DUP	NA	
pH	units	TOC				Equipment Rinse ID		NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		NA	

Sample Description

No Odor, No staining, ~3ft of water in ditch, most of flags were submerged. 10YR 4/4, well sorted, moist Meet plasticity, clay 60%, silt 35%, Sand 5%.

Sample increments were <30 because the preselected locations were underwater at the time of sampling.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: ASYss-027M-SO

Name: John Jent (CEMR-EK-FO)

Agency/Company: USACE-Louisville

Address: 600 DR MARTIN LUTHER KING JR PLACE
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)

Signature: Michael Samelak

Reviewed by: ERIC FOWS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-027D-50

Date: 03 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 14:05 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC	✓	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives		Chromium +6		Ignitability			
Sample:	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals				**QA Samples**			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	ASYss-027D-DUP	NA	
pH	units	TOC				Equipment Rinse ID		NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID	Trip Blank	NA	

Sample Description

Sample collected from a location w/a slight sheen on the surface of the water.

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: ASYss-027D-50

Name: John Jent (CELRL-EK-ED)

Agency/Company: USACE-Louisville

Address:
600 DR MARTIN LUTHER KING JR PLAZA
LOUISVILLE, KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)

Signature: Michael Samelak

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature]

Date: 2/2/05

Location ID: ASYSS-02817-SD

Date: 11-3-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1000 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field - Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No-odor, gray mottle
10YR 3/1, moist, well sorted
Low to med plasticity, clay 40%
Silt 55%, sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Stephen Sturgeon (Please Print)

Signature: S. Sturgeon

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASY55-029M-50

Date: 11 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0930 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:	
Background:	0.0 ppm
Sample:	0.0 ppm
Water Level	FT
Temperature	°C
Sp. Conductance:	uMHOs
pH	units
Turbidity	N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	✓	Chromium +6	
Propellants		Nitrate	
TAL Metals	✓		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, Some grey Mottling, 3/4 of the ditch covered with ~6in of water
10YR 3/3, moist, sorted, med plasticity
Sand 10%
clay 50%
Silt 40%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print)

Signature: Michael [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Field Sampling Report

Location ID: ASY55-030M-50

Date: 10 Nov 04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	✓	Plastic Liner	✓
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1610 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	✓	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, Some Orange + grey mottles, approx 6" water in ditch
10YR 3/2, wet, well sorted, Low plasticity, clay 60%, silt 35%, Sand 5%

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Sawelak (Please Print)
Signature: Michael Sawelak

Reviewed by: ERIC ELLIS (Please Print)
Signature: [illegible] Date: 2/2/05

Field Sampling Report

Location ID: ASYss - 031M - 50

Date: 11/10/04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1615 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 30

Location: (Plotted on Map) - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0 - 6" FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X			QA Samples			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pH	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA

Sample Description

No odor, No staining
10YR 4/2, wet, Nonplastic, well
sorted clay 60%, silt 30%
sand 10%

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print)

Signature: Vijay

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05

Location ID: A5Yss-032M-50

Date: 03-Nov-04

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	X
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 0910 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 30

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm 0.0	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
		Explosives	✓	Chromium +6		Ignitability			
Sample:	0.0 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	✓						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No Odor, Some orange mottles, ~6" of standing water in the ditch @ time of sampling
10YR3/3, wet, sorted, low plasticity
Clay 40%, Silt 50%, Sand 10%

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Sumelak (Please Print)

Signature: Michael Sumelak

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYss-037M-SO

Date: 11-03-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1520 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 32

Location: (Plotted on Map) (Staked in Field)
Estimated - Measured - Surveyed

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

Field Parameters (at time of sample)		Analytical Parameters				Other Parameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
0.0		Explosives	X	Chromium +6		Ignitability			
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X						
Temperature	°C	Pesticides/PCBs							
Sp. Conductance:	uMHOs	Cyanides							
pH	units	TOC							
Turbidity	N.T.U.	Grain Size							

QA Samples		
MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

10YR 3/2
No odor, No staining, well sorted
Non plastic, moist silt with
some clay

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:

Agency/Company:

Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Shahram Tahersinia (Please Print)

Signature: Shahram

Reviewed by: ERIC ELLIS (Please Print)

Signature: [illegible]

Date: 2/2/05

Field Sampling Report

Location ID: ASYSS-034M-SO

Date: 11-03-04

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge			
Method	Bailer		Sample Bottle		Scoop		Trowel	
	Pump		Bacon Bomb		Bowl		Hand Auger	
					Push Probe	X	Plastic Liner	X
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1600 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: 31

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters
(at time of sample)

PID / FID Readings:		
Background:	0.0	ppm
Sample:	0.0	ppm
Water Level		FT
Temperature		°C
Sp. Conductance:		uMHOs
pH		units
Turbidity		N.T.U.

Analytical Parameters

VOC		TPH GRO	
SVOC		TPH DRO	
Explosives	X	Chromium +6	
Propellants		Nitrate	
TAL Metals	X		
Pesticides/PCBs			
Cyanides			
TOC			
Grain Size			

Other Parameters

Corrosivity			
Reactivity Sulfide/Cyanide			
Ignitability			

QA Samples

MS/MSD	Yes / No	NA
Duplicate ID		NA
Equipment Rinse ID		NA
Trip Blank ID		NA

Sample Description

No odor, No Staining
well sorted, moist, nonplastic
silt with some clay 10yr 4/6

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Logged By: Shahram Taherinia (Please Print)

Signature: [signature]

Reviewed by: ERIC ELLIS (Please Print)

Signature: [signature] Date: 2/2/05