

Location ID: LL555-026M-QA

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/15/04

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
Type/Construction					Mattocks			
Miscellaneous	Well Purging Form Yes - No							

Sample Collection: 1535 hrs Sample Type: Composite - MI Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 30
 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: ppm	VOC		TPH GRO		Corrosivity					
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide					
	Explosives	X	Chromium +6		Ignitability					
Sample: ppm	Propellants		Nitrate	X	QA Samples					
Water Level: FT	TAL Metals	X		MS/MSD					Yes / No	NA
Temperature: °C	Pesticides/PCBs			Duplicate ID						NA
Sp. Conductance: uMHOs	Cyanides			Field QA <u>LL5-026M-QA</u>						NA
pH: units	TOC			Equipment Rinse ID						NA
Turbidity: N.T.U.	Grain Size			Trip Blank ID		NA				

Sample Description
No odor, no staining
12R 4/4, moist, poorly sorted
non plastic silt 65%
sand 30%
clay 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: James Panora (Please Print) Reviewed by: ERIC ELLIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/3/05

Location ID: LL533-027M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 15 Nov 04

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: 125 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity					
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide					
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability					
Sample: <u>0.0</u> ppm	Propellants		Nitrate	<input checked="" type="checkbox"/>					
Water Level	FT	TAL Metals	<input checked="" type="checkbox"/>	QA Samples					
Temperature	°C	Pesticides/PCBs					MS/MSD	Yes / No	NA
Sp. Conductance:	µMHOs	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 3/6, moist, sorted
low plasticity, silt 70%
clay 25%
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: Michael Samelaf (Please Print)

Reviewed by: ERIC EUS (Please Print)

Signature: Michael Samelaf

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

Location ID: LL555-028M-50
 Date: 11-13-04

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
Type/Construction			Push Probe	X	Plastic Liner X
Miscellaneous	Well Purging Form Yes - No		Mattocks		

Sample Collection: 0950 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity		
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate	X			
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 4/4, moist, sorted
low plasticity silt 65%
clay 30%
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) Reviewed by: ERIC EUS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/3/05

Location ID: LL555-029M5D

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-15-04

Sampling Information

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

Sample Collection: 1005 hrs Sample Type: Composite - MI - Grab 30 Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: ppm	Explosives	X	Chromium +6	Ignitability		
	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 stain
10YR 5/4, moist, poorly sorted
non plastic to low plastic clay
silt 85%
clay 30%
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)

Reviewed by: ERIC EWIS (Please Print)

Signature: [Signature]

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

Field Sampling Report

Location ID: LL555-030-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 19 Nov 04

Sampling Information

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

Sample Collection: 1045 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ 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: <u>0.0</u> ppm	VOC <input checked="" type="checkbox"/>	Corrosivity										
	SVOC	Reactivity Sulfide/Cyanide										
	Explosives	Ignitability										
Sample: <u>0.0</u> ppm	TPH GRO	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">QA Samples</th> </tr> </thead> <tbody> <tr> <td>MS/MSD</td> <td>Yes / No <u>NA</u></td> </tr> <tr> <td>Duplicate ID</td> <td><u>LL555-030-DUP</u> NA</td> </tr> <tr> <td>Equipment Rinse ID</td> <td><u>NA</u></td> </tr> <tr> <td>Trip Blank ID</td> <td><u>Trip Blank</u> NA</td> </tr> </tbody> </table>	QA Samples		MS/MSD	Yes / No <u>NA</u>	Duplicate ID	<u>LL555-030-DUP</u> NA	Equipment Rinse ID	<u>NA</u>	Trip Blank ID	<u>Trip Blank</u> NA
QA Samples												
MS/MSD	Yes / No <u>NA</u>											
Duplicate ID	<u>LL555-030-DUP</u> NA											
Equipment Rinse ID	<u>NA</u>											
Trip Blank ID	<u>Trip Blank</u> NA											
Water Level _____ FT	TPH DRO											
Temperature _____ °C	Chromium +6											
Sp. Conductance: _____ uMHOs	Propellants											
pH _____ units	Nitrate											
Turbidity _____ N.T.U.	TAL Metals											
	Pesticides/PCBs											
	Cyanides											
	TOC											
	Grain Size											

Sample Description
No Odor, No Staining
2.5 YR 4/4 MENTO FINE GRAINED POORLY
SORTED MOIST 2% SILTY (10.0%) SAND
W/ 10% GRAVEL TRACE CLAY

(DISCRETE VOL)

*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: LL555-030-50

Name: John Leitch (coll-ec-00)
 Agency/Company: USACE - Louisville
 Address: 600 DE MARTIN WITHER 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 Samolak (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: Michael Samolak Signature: [Signature] Date: 2/3/05

Location ID: LL755-001M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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 <input checked="" type="checkbox"/>
Type/Construction			Mattocks	<input checked="" type="checkbox"/>	
Miscellaneous	Well Purging Form <input checked="" type="checkbox"/> 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: 0-6" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability	
Sample: <u>0.0</u> ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	<input checked="" type="checkbox"/>		
Water Level	FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples	
Temperature	°C	Pesticides/PCBs			MS/MSD	Yes / No NA
Sp. Conductance:	µMHOs	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 to orange mottles
7.5 YR 3/3, moist, poorly sorted
non plastic silt 80%, clay 5%
sand & gravel 15%

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)

Reviewed by: ERIC EUS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SS-002M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/03/04

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: 1030 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: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity														
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide														
	Explosives	✓	Chromium +6		Ignitability														
Sample: <u>0.0</u> ppm	Propellants		Nitrate	✓	QA Samples <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>MS/MSD</td> <td>Yes / No</td> <td>NA</td> </tr> <tr> <td>Duplicate ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Equipment Rinse ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Trip Blank ID</td> <td></td> <td>NA</td> </tr> </table>			MS/MSD	Yes / No	NA	Duplicate ID		NA	Equipment Rinse ID		NA	Trip Blank ID		NA
MS/MSD	Yes / No	NA																	
Duplicate ID		NA																	
Equipment Rinse ID		NA																	
Trip Blank ID		NA																	
Water Level: <u>/</u> FT	TAL Metals	✓																	
Temperature: <u>/</u> °C	Pesticides/PCBs																		
Sp. Conductance: <u>/</u> uMHOs	Cyanides																		
pH: <u>/</u> units	TOC																		
Turbidity: <u>/</u> N.T.U.	Grain Size																		

Sample Description

No odor, no staining
7.5 YR 4/4, moist, poorly sorted
non plastic, silt 85%, sand &
gravel 10%, clay 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: Vijay Alluri (Please Print)

Reviewed by: ERIC FUS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SS - 003M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

Sampling Information

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

Sample Collection: 1100 hrs Sample Type: Composite - MI Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0 - 6" FT (below surface) Decon: Dedicated - Each Day - Each Location
Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity	
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	✓	Chromium +6	Ignitability	
Sample: <u>0.0</u> 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	<u>LL7SS-003M-DWP</u> NA
pH	units	TOC		Equipment Rinse ID	(NA)
Turbidity	N.T.U.	Grain Size		Trip Blank ID	(NAS)

Sample Description

No odor, some orange mottles
10 yR 3/8, missing sorted, non plastic
silt 85%, gel 5%, sand 10%

Split Sample

Split Sample ID: LL7SS-003M-50
 Name: John Sant (CEMIL-ER-FO)
 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: Vijay Alluri (Please Print)

Reviewed by: ERIC FUS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-004M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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				X

Sample Collection: 1135 hrs Sample Type: Composite (MI) Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	✓	Chromium +6		Ignitability	
Sample: <u>0.1</u> ppm	Propellants		Nitrate	✓		
Water Level	TAL Metals	✓			QA Samples	
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description

No odor, some orange & grey mottles
10yr 3/4, moist, poorly sorted
no plastics s. lt 60% sand & gravel
clay 10% 39%

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)

Reviewed by: ERIC ELUS (Please Print)

Signature: vijay

Signature: ERIC ELUS Date: 2/4/05

Field Sampling Report

Location ID: LL7SS-00SM 30

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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 Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-6" FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

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

Sample Description

No odor. some grey & orange mottles.
7.5 YR 3/4, moist, poorly sorted non-plastic silt 80%, sand & gravel 15%, clay 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: Vijay Alluri (Please Print) Reviewed by: ERIC ELWIS (Please Print)
 Signature: vijay Signature: ERIC ELWIS Date: 2/4/05

Location ID: LL755-005D-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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	voc bottles 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: 0-6" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives		Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate			
Water Level	FT	TAL Metals		QA Samples		
Temperature	°C	Pesticides/PCBs		MS/MSD	Yes / No	NA
Sp. Conductance:	µMHOs	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 and orange
mottles
(Same as 005M-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: Vijay Alluri (Please Print)

Reviewed by: ERIC LEWIS (Please Print)

Signature: vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-006M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

Sampling Information

Source	Groundwater / Product	Surface Water	<u>Soils</u> / 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: 1310 hrs Sample Type: Composite MI Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-6" FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity		
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate	X			
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
10 y R 3/2, moist, partially sorted
non plastic, silt 70%
Sand 25%
clay 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) Reviewed by: ERIC EWS (Please Print)
 Signature: vijay Signature: ERIC Date: 2/4/05

Field Sampling Report

Location ID: LL7ss - 007M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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		X
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1500 hrs **Sample Type:** Composite - MI Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: 31 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: ppm <div style="text-align: center; font-size: 2em;">00</div>	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: ppm <div style="text-align: center; font-size: 2em;">0.0</div>	Propellants	X	Nitrate	X		
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 3/8 moist, sorted, nonplastic
Silt 80%, sand 15%, clay 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: Vijay Alluri (Please Print)

Reviewed by: ERIC EWIS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SS-008M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/08/04

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: 1540 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate	X		
Water Level	TAL Metals	X		QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description
No odor, No staining
7.5 yr 3/2, moist, well sorted
non plastic, silt with some clay
& sand

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) Reviewed by: ERIC FUS (Please Print)
 Signature: Vijay Signature: [Signature] Date: 2/4/05

Location ID: LL 755 - 009M - 50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/03/04

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		Slide hammer X	

Sample Collection: 1620 hrs Sample Type: Composite MI - Grab
 If MI, # of increments taken: 31 Location: Plotted on Map Staked in Field
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants	X	Nitrate	X		
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	NT.U.	Grain Size		Trip Blank ID		NA

Sample Description

NO odor, some light orange & grey mottles nonplastic
7.5 YR 4/6, moist well sorted
silt 75%, clay 20%, 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: Vijay Alluri (Please Print)

Reviewed by: ERIC EWS (Please Print)

Signature: vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-010M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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: 1500 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 30 Location: Plotted on Map - Staked in Field
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.9</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: <u>0.9</u> ppm	Propellants		Nitrate	X		
Water Level	TAL Metals	X			QA Samples	
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description
No odor, No staining
10 yr 4/6, moist, sorted
low plasticity, silt 75%
sand 10%, 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: Vijay Alluri (Please Print)
 Signature: Vijay

Reviewed by: ERIC BLIS (Please Print)
 Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL 755 - 011 M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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: 1430 hrs Sample Type: Composite (MI) - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 31 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: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: ppm	Explosives	X	Chromium +6	Ignitability		
	Propellants	X	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 Ltb, marl, sand
non plastic, silt 75%
slay 20%, 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: Vijay Alluri (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: Vijay Signature: EEWS Date: 2/4/05

Field Sampling Report

Location ID: LL755-012M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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		Slide hammer	X	

Sample Collection: 1350 hrs
 Sample Type: Composite (MI) - Grab
 Location: Plotted on Map - Staked in Field
 If MI, # of Increments taken: 31
 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: <u>0.0</u> ppm Sample: <u>0.0</u> ppm	VOC	Corrosivity
	TPH GRO	Reactivity Sulfide/Cyanide
	SVOC	Ignitability
	Explosives <input checked="" type="checkbox"/>	
	Chromium +6	
	Propellants	
	Nitrate <input checked="" type="checkbox"/>	
Water Level FT	TAL Metals <input checked="" type="checkbox"/>	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

194R 2/2, moist, poorly sorted

non plastic

silt 60%

sand 35%

clay 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: Vijay Allari (Please Print)
 Reviewed by: ERIC BLIS (Please Print)
 Signature: Vijay
 Signature: ERB
 Date: 2/4/05

Field Sampling Report

Location ID: LL7SS-013M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

Sampling Information

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

Sample Collection: 1000 hrs Sample Type: Composite MI Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 32
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity	
	SVOC	✓	TPH DRO	Reactivity Sulfide/Cyanide	
Sample: <u>0.0</u> ppm	Explosives	✓	Chromium +6	Ignitability	
	Propellants	✓	Nitrate		
Water Level	TAL Metals	✓		QA Samples	
Temperature	Pesticides/PCBs	✓		MS/MSD	<u>Yes</u> / No NA
Sp. Conductance:	Cyanides			Duplicate ID	<u>LL7SS-013M-DUP</u> NA
pH	TOC			Equipment Rinse ID	NA
Turbidity	Grain Size			Trip Blank ID	NA

Sample Description

No odor, No staining
7.5 3/4, moist, well sorted,
non plastic, silt 85%, sand 15%

Split Sample

Split Sample ID: LL7SS-013M-50
 Name: John Jam (CELL-ER-FO)
 Agency/Company: USACE-LOUISVILLE
 Address: 600 DE MARTIN WITHERS KING JR Pkwy
LOUISVILLE KY

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) Reviewed by: ERIC ELUS (Please Print)
 Signature: Vijay Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755 - 013D - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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: 1000 hrs
 Sample Type: Composite - MI Grab
 Location: Plotted on Map & Staked in Field
 If MI, # of increments taken: 1
 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: <u>0.0</u> ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives		Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate			
Water Level	FT	TAL Metals		QA Samples		
Temperature	°C	Pesticides/PCBs		MS/MSD	Yes No	NA
Sp. Conductance:	µMHOs	Cyanides		Duplicate ID	<u>LL755-013D-DUP</u>	NA
pH	units	TOC		Equipment Rinse ID		NA
Turbidity	N.T.U.	Grain Size		Trip Blank ID	<u>TRIP BLANK</u>	NA

Sample Description

No odor. No staining

Sample as 015 - M

Split Sample

Split Sample ID: LL755-013D-50

Name: John J. J. (L&L - AK 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: Vijay Alluri (Please Print)
 Reviewed by: ERIC ELMS (Please Print)

Signature: Vijay
 Signature: ERIC ELMS
 Date: 2/4/05

Field Sampling Report

Location ID: LL755-014M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

Sampling Information

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

Sample Collection: 1030 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: ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
Sample: ppm	Explosives	✓	Chromium +6		Ignitability	
	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 orange mottles
10yr 3/4 moist, well sorted
non plastic, silt 75%, clay
20%, 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: Vijay Alluri (Please Print)

Reviewed by: ERIC FWS (Please Print)

Signature: vijay

Signature: ERIC Date: 2/4/05

Field Sampling Report

Location ID: LL755-015M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/03/04

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		Slide hammer X			

Sample Collection: 1640 hrs
 Sample Type: Composite MI Grab
 Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
Sample Depth: 0-1 FT (below surface)
 Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters	
PID / FID Readings: Background: ppm <div style="text-align: center; font-size: 2em;">0.0</div>	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: ppm <div style="text-align: center; font-size: 2em;">0.0</div>	Propellants	X	Nitrate	X		
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 4/6, moist, nonplastic
well sorted,
silt 80%,
clay 15%,
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: Vijay Alluri (Please Print)
 Reviewed by: FRK FMS (Please Print)
 Signature: Vijay
 Signature: [Signature]
 Date: 2/4/05

Field Sampling Report

Location ID: LL755-016M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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		Slide hammer X		

Sample Collection: 1110 hrs

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

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

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day - (Each Location)

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

Sample Description

No odor, some grey & light orange mottles
10 yr 2/6, moist, sorted
nonplastic silt 80%
clay 15%
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: Vijay Alluri (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 11/9/04

Field Sampling Report

Location ID: LL755-017M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

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: 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: 0-6" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>P.O</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: <u>0.0</u> ppm	Propellants	X	Nitrate	X		
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
7.5 3/1, moist, ~~soaked~~
8.1 7.5, non plastic
sand 20%
clay 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: Vijay Alluri (Please Print)

Reviewed by: ERIC EWIS (Please Print)

Signature: Vijay

Signature: ERIC EWIS Date: 2/4/05

Location ID: 4L755-018 M-50
 Date: 11-10-04

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
Type/Construction			Mattocks	X	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1140 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	✓	Chromium +6		Ignitability	
Sample: <u>0.0</u> 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, no staining
7.5" IR, moist, earthed
nonplastic, 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) Reviewed by: ERIC ELLIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Location ID: LL755-018M-QA
 Date: 11-10-04

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
Type/Construction			Mattocks	X	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1145 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	✓	Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate	✓		
Water Level	TAL Metals	✓		QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description
No odor, no staining
75% R 1/2, moist, sanded
non-plastic, silty 75%, clay 20%
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) Reviewed by: ERIC LEWIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-019M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

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: 1115 hrs Sample Type: Composite - (MI) Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 21 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: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: ppm	Propellants	X	Nitrate	X		
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 orange & Gray Muddling
10 YR 4/6 moist, well sorted
Low plasticity, silt 85% clay 30%
sandy

Split Sample

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

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

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 EWS (Please Print)
 Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL255-020M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10 Nov 04

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: 1005 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: ppm	VOC		TPH GRO	Corrosivity		
	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 Odor, Some grey mottling
10 yR 3/4, moist, well sorted
low plasticity, 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: Michael Samaluk (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Michael Samaluk

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SS - 021 M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

Sampling Information

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

Sample Collection: 1135 hrs

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

Location: Potted 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: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity		
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: <u>0.0</u> ppm	Propellants	X	Nitrate	X			
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
12yr 4/6, mottled, wet
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: Vijay Alluri (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LE7SS-022M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / <u>Sediments</u> / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	<input checked="" type="checkbox"/> Plastic Liner <input checked="" type="checkbox"/>
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: 1205 hrs Sample Type: Composite - MI Grab
 If MI, # of increments taken: 30 Location: Plotted on Map - Staked in Field
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: _____ ppm	VOC		TPH GRO	Corrosivity	
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability	
Sample: <u>0.0</u> ppm	Propellants		Nitrate	<input checked="" type="checkbox"/>	
Water Level _____ FT	TAL Metals	<input checked="" type="checkbox"/>		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
104R 4/4, moist, poorly sorted
Silt 75%, clay 15%, 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: Sue Hester Gubba (Please Print) Reviewed by: ERIC EUS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-023M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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: 1550 hrs

Sample Type: Composite MI - Grab

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

If MI, # of increments taken: 30

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: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity		
	SVOC	✓	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	✓	Chromium +6		Ignitability		
Sample: <u>0.0</u> 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	<u>LL755-023M-ER</u>	NA
Turbidity	N.T.U.	Grain Size			Trip Blank ID		(NA)

Sample Description

No odor, some grey and orange mottles. 10YR 4/4, moist top partly sorted, low plasticity silt 0.5', clay 30', 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)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 24/05

Field Sampling Report

Location ID: LL755-023D-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/09/04

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: 1550 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: Background: <u>0.0</u> ppm	VOC X	Corrosivity
	SVOC	Reactivity Sulfide/Cyanide
	Explosives	Ignitability
Sample: <u>0.0</u> ppm	Propellants	
	Nitrate	
Water Level <u>/</u> FT	TAL Metals	QA Samples
Temperature <u>/</u> °C	Pesticides/PCBs	MS/MSD (NA)
Sp. Conductance: <u>/</u> uMHOs	Cyanides	Duplicate ID (NA)
pH <u>/</u> units	TOC	Equipment Rinse ID <u>LL755-023D-ER</u> NA
Turbidity <u>/</u> N.T.U.	Grain Size	Trip Blank ID <u>Trip Blank</u> NA

Sample Description

No odor, some grey & orange mottles
10YR 4/4, moist, poorly sorted, low plasticity, silt 65%, clay 30%, 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: Vijay Alluri (Please Print)

Reviewed by: ERIC FUS (Please Print)

Signature: Vijay

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-024M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10 Nov 04

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 Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 50 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: <u>0.0</u> ppm	VOC	Corrosivity	
	SVOC	Reactivity Sulfide/Cyanide	
	Explosives <input checked="" type="checkbox"/>	Chromium +6	Ignitability
Sample: <u>0.0</u> ppm	Propellants	Nitrate <input checked="" type="checkbox"/>	
Water Level <u> </u> FT	TAL Metals <input checked="" type="checkbox"/>	QA Samples	
Temperature <u> </u> °C	Pesticides/PCBs	MS/MSD	Yes / No <u>NA</u>
Sp. Conductance: <u> </u> uMHOs	Cyanides	<u>Duplicate ID</u>	<u>LL755-024M-DUP</u> NA
pH <u> </u> units	TOC	Equipment Rinse ID	<u>NA</u>
Turbidity <u> </u> N.T.U.	Grain Size	Trip Blank ID	<u>NA</u>

Sample Description

No Odor, some grey blotting
10YR 4/6, moist, sorted, low
plasticity, silt 63%, clay 35%
sand 2%

Split Sample

Split Sample ID: LL755-024M-50
 Name: John Vent (CELL ELEC)
 Agency/Company: USACE - Louisville
 Address: 600 DE MARTIN WATER KING JR PARK
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: Michael Sameloff (Please Print)

Reviewed by: ERIC ELUS (Please Print)

Signature: Michael G. [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-025M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

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
Type/Construction			Mattocks	X
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: 0935 hrs Sample Type: Composite MI - Grab Location: Plotted on Map, Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity	
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6	Ignitability	
Sample: <u>0.0</u> ppm	Propellants	X	Nitrate	X	
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 stain
10 YR c/s, mostly covered
low plasticity
silt 97.5%
clay 2.0%
sand 1.5%

*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: Sudheer Gubbo (Please Print) Reviewed by: FRIC EWS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Location ID: LL75-026M-50

Date: 11/10/04

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: 0910 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 31
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: <u>0.0</u> ppm	Propellants		Nitrate	X		
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 stain.
10YR 3/2 moist, sorted
non plastic, split 70/30, (clay 25%)
shad 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: Sudheer Gubba (Please Print)
 Signature: [Signature]

Reviewed by: ERIC EWIS (Please Print)
 Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SS-027M-30

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/10/04

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: 1400 hrs Sample Type: Composite - MI Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 31 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: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: 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 104R 3/4" moist non plastic, sorted silt 80%, clay 15%, 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: Vijay Alluri (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: Vijay Signature: ERESH Date: 2/4/05

Field Sampling Report

Location ID: LL 755 - 0.28M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 09 Nov 04

Sampling Information

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

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: Background: <u>0.9</u> ppm	VOC	Corrosivity		
	SVOC	Reactivity Sulfide/Cyanide		
	Explosives <input checked="" type="checkbox"/>	Chromium +6	Ignitability	
Sample: <u>0.0</u> ppm	Propellants <input checked="" type="checkbox"/>	Nitrate <input checked="" type="checkbox"/>		
Water Level: _____ FT	TAL Metals <input checked="" type="checkbox"/>	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
7.5 YR 3/2 moist, somewhat
non plastic, silt 85%, clay 10%
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: Michael Sampel (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Michael Sampel

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL75d-029M-5D

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: ^{MS} 11/19/04 08-Nov-04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / <u>Sediments</u> / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel <input checked="" type="checkbox"/>
	Pump	Bacon Bomb	Bowl		Hand Auger
Type/Construction			Push Probe	<input checked="" type="checkbox"/>	Plastic Liner <input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks		

Sample Collection: 0930 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity Reactivity Sulfide/Cyanide Ignitability		
	SVOC		TPH DRO			
Explosives	<input checked="" type="checkbox"/>	Chromium +6				
Sample: <u>0.9</u> ppm	Propellants		Nitrate <input checked="" type="checkbox"/>			
Water Level: FT	TAL Metals <input checked="" type="checkbox"/>					
Temperature: °C	Pesticides/PCBs			QA Samples		
Sp. Conductance: µMHOs	Cyanides			MS/MSD	Yes / No	NA
pH: units	TOC <input checked="" type="checkbox"/>			Duplicate ID		NA
Turbidity: N.T.U.	Grain Size <input checked="" type="checkbox"/>			Equipment Rinse ID		NA
				Trip Blank ID		NA

Sample Description

No Odor, No staining, Rock layers @ 3'-4"
Dry ditch soil switched to sediment due to saturation
+ Vegetation @ sample point, Standing water in
ditch (~3")
104R 2/1 met, organic clay
non plastic and some silt
well sorted (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

Logged By: Michael J. Tomalak (Please Print)

Reviewed by: ERIC FLWIS (Please Print)

Signature: Michael J. Tomalak

Signature: ERIC FLWIS Date: 2/4/05

Field Sampling Report

Location ID: LL755-030M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 09 Nov 04

Sampling Information

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

Sample Collection: 1030 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: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity			
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	✓	Chromium +6		Ignitability			
Sample: <u>0.0</u> ppm	Propellants	✓	Nitrate	✓				
Water Level	TAL Metals	✓			QA Samples			
Temperature	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	Cyanides				Duplicate ID			NA
pH	TOC				Equipment Rinse ID			NA
Turbidity	Grain Size				Trip Blank ID			NA

Sample Description

MS 11/9/04
No Odor, No staining Some orange waffles
10 YR 3/3, moist, sorted
non plastic, silty 80%, clay 15%
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: Michael Samuels (Please Print)

Reviewed by: ERIC FLIS (Please Print)

Signature: Michael G. A. L.

Signature: ERIK FLIS Date: 2/4/05

Field Sampling Report

Location ID: LL755-031M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 09 Nov 04

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: 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: 0-1 FT (below surface)

Decon: Dedicated - Each Day - Each Location

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

Sample Description

No Odor, Some small orange Nodules
10 VR 4/4, max 3T, well sorted
non plastic, silt 75%, clay 20%
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: Michael Samelak (Please Print)

Reviewed by: ERIC ELMS (Please Print)

Signature: Michael Samelak

Signature: [Signature] Date: 2/4/05

Location ID: 44755-032M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-10-04

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: 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC	✓	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	✓	Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants	✓	Nitrate			
Water Level	TAL Metals	✓		QA Samples		
Temperature	Pesticides/PCBs	✓		MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description

NO odor, NO staining
104A 3/4, moist, scattered
low plasticity, silt 65%,
clay 30%, 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)

Reviewed by: ERIC AUS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-032D-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
			Push Probe	<input checked="" type="checkbox"/>	Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 0855 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: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	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, No Odor
(Same as 072 M-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 Samelak (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Michael Samelak

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755-033M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	<u>Soils / Sediments / Sludge</u>		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
Type/Construction			Push Probe	<input checked="" type="checkbox"/>	Plastic Liner <input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks		

Sample Collection: 1325 hrs Sample Type: Composite ~~- MI~~ Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC	Corrosivity
	SVOC	Reactivity Sulfide/Cyanide
Sample: <u>0.0</u> ppm	Explosives <input checked="" type="checkbox"/>	Ignitability
	Chromium +6	
Water Level	Propellants	
Temperature	Nitrate <input checked="" type="checkbox"/>	
Sp. Conductance:	TAL Metals <input checked="" type="checkbox"/>	QA Samples
pH	Pesticides/PCBs	MS/MSD Yes / No <u>NA</u>
Turbidity	Cyanides	Duplicate ID <u>LL755-033M-DUP</u> NA
	TOC	Equipment Rinse ID <u>NA</u>
	Grain Size	Trip-Blank ID <u>NA</u>

Sample Description

No Odor, Some grey staining
10 yR 4/4 moist, well sorted,
non plastic, silt 65%, clay 30%
sand 5%

Split Sample

Split Sample ID: LL755-033M-50
 Name: John Jent (EVAL-04-50)
 Agency/Company: USACE - Louisville
 Address: 600 DC MARTIN WATER KING JR PARK
LOUISVILLE KY 40262

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 Samolaj (Please Print)

Reviewed by: ERIC PAUS (Please Print)

Signature: Michael Samolaj

Signature: SKEL Date: 2/1/05

Location ID: LL755-034M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

Sampling Information

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

Sample Collection: 1405 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 50
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

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: ppm	Propellants	Nitrate				
0.0	TAL Metals			QA Samples		
Water Level FT	Pesticides/PCBs			MS/MSD	Yes / No	NA
Temperature °C	Cyanides			Duplicate ID		NA
Sp. Conductance: uMHOs	TOC			Equipment Rinse ID		NA
pH units	Grain Size			Trip-Blank ID		NA
Turbidity N.T.U.						

Sample Description

No Odor, No Staining
7.5 YR 3/2, moist, well sorted
non plastic, silt 80%, clay 20%

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) Reviewed by: ERIC EWS (Please Print)
 Signature: Michael Samelak Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7ss-035M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

Sampling Information

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

Sample Collection: 1445 hrs Sample Type: Composite MI Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day Each Location
 Estimated - Measured - Surveyed

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

Sample Description

No odor, No staining
7.5 M 2.5/3, moist, well sorted
non plastic, silt 75%, clay 25%

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)

Reviewed by: ERIC ELUS (Please Print)

Signature: Michael Samelak

Signature: [Signature] Date: 2/4/05

Location ID: LL7SS-036M-50
 Date: 11/18/04

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
	Pump	Bacon Bomb	Bowl
Type/Construction			Push Probe
Miscellaneous	Well Purging Form Yes - No		Mattocks

Sample Collection: 1415 hrs Sample Type: Composite MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	SVOC	TPH DRO		Reactivity Sulfide/Cyanide		
Sample: <u>0.0</u> ppm	Explosives <input checked="" type="checkbox"/>	Chromium +6		Ignitability		
Water Level: _____ FT	Propellants <input checked="" type="checkbox"/>	Nitrate <input checked="" type="checkbox"/>		QA Samples		
Temperature: _____ °C	TAL Metals <input checked="" type="checkbox"/>			MS/MSD <input checked="" type="checkbox"/>	Yes / No <input checked="" type="checkbox"/>	NA
Sp. Conductance: _____ uMHOs	Pesticides/PCBs			Duplicate ID		NA
pH: _____ units	Cyanides			Equipment Rinse ID		NA
Turbidity: _____ N.T.U.	TOC			Trip Blank ID		NA
	Grain Size					

Sample Description
No odor, some grey mottles
10YR 2/6, moist,
sorted, non plastic
silt 70%
clay 30%

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) Reviewed by: ERIC ELLIS (Please Print)
 Signature: Vijay Signature: [Signature] Date: 2/4/05

Location ID: LL755 - 036M-QA

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/18/04

Sampling Information

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

Sample Collection: 1445 hrs Sample Type: Composite MI Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	SVOC	TPH DRO	Reactivity Sulfide/Cyanide			
Sample: <u>0.0</u> ppm	Explosives	Chromium +6	Ignitability			
Water Level	Propellants	Nitrate	QA Samples			
Temperature	TAL Metals		MS/MSD	Yes / No	NA	
Sp. Conductance:	Pesticides/PCBs		Duplicate ID		NA	
pH	Cyanides		Equipment Rinse ID		NA	
Turbidity	TOC		Trip Blank ID		NA	
	Grain Size					

Sample Description

No odor, Dark grey mottles
10 YR 4/6, moist, sorted,
non plastic, clay 30% silt 70%

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)

Reviewed by: ERIC FUS (Please Print)

Signature: vijay

Signature: [Signature] Date: 2/4/05

Location ID: LL755-037M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-18-04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
Type/Construction			Push Probe <u>SS</u> <input checked="" type="checkbox"/>	Plastic Liner <input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks	

Sample Collection: 14.50 hrs Sample Type: Composite - MI Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: <u>0.0</u> ppm	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
	Propellants		Nitrate			
Water Level: <u>/</u> FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature: <u>/</u> °C	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance: <u>/</u> uMHOs	Cyanides			Duplicate ID		NA
pH: <u>/</u> units	TOC			Equipment Rinse ID		NA
Turbidity: <u>/</u> N.T.U.	Grain Size			Trip Blank ID		NA

Sample Description:
No odor, No staining
104R 3/4, mail, sorted,
non plastic, silt 80%, clay 15%
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: James Russo (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

038M 93

Field Sampling Report

Location ID: LL755-042M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

Sampling Information

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

Sample Collection: 1520 hrs Sample Type: Composite (MI) - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
Sample: ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate			
Water Level FT	TAL Metals	<input checked="" type="checkbox"/>		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
10 YR 4/6, moist, sorted
non plastic silt 75%, clay 20%
sand 5%

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

 QA/QC Provided: MS/MSD - Duplicates - 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) Reviewed by: ERIC EUS (Please Print)
 Signature: Michael Samelak Signature: [Signature] Date: 2/4/05

Location ID: LL755 - 039M - 50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/18/04

Sampling Information

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

Sample Collection: 1520 hrs Sample Type: Composite - MI Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30 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: <u>0.0</u> ppm	VOC	TPH GRO	Corrosivity	/
	SVOC	TPH DRO	Reactivity Sulfide/Cyanide	
Sample: <u>0.0</u> ppm	Explosives	Chromium +6	Ignitability	
	Propellants	Nitrate		
Water Level: _____ FT	TAL Metals		QA Samples	
Temperature: _____ °C	Pesticides/PCBs		MS/MSD	Yes / No <u>NA</u>
Sp. Conductance: _____ uMHOS	Cyanides		Duplicate ID	<u>NA</u>
pH: _____ units	TOC		Equipment Rinse ID	<u>NA</u>
Turbidity: _____ N.T.U.	Grain Size		Trip Blank ID	<u>NA</u>

Sample Description
No odor, some grey mottles
10YR 3/6, moist, well sorted
non plastic, silt 80%, clay 20%

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) Reviewed by: ERIC BUS (Please Print)
 Signature: Vijay Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL755 - 040M - 50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/18/04

Sampling Information

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

Sample Collection: 1550 hrs
 Sample Type: Composite - MI Grab
 Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-1 FT (below surface)
 Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC	Corrosivity		
	SVOC	Reactivity Sulfide/Cyanide		
Sample: <u>0.0</u> ppm	Explosives <input checked="" type="checkbox"/>	Ignitability		
	Propellants <input checked="" type="checkbox"/>			
Water Level	TAL Metals <input checked="" type="checkbox"/>	QA Samples		
Temperature	Pesticides/PCBs	MS/MSD	Yes / No	NA
Sp. Conductance	Cyanides	Duplicate ID		NA
pH	TOC	Equipment Rinse ID		NA
Turbidity	Grain Size	Trip Blank ID		NA

Sample Description

No odor, No staining

10yr 3/4, moist, well sorted

non plastic, silt 90%, clay 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)
 Reviewed by: ERIC FUS (Please Print)
 Signature: Vijay
 Signature: Eric
 Date: 2/4/05

Field Sampling Report

Location ID: LL755-041-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/20/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger <input checked="" type="checkbox"/>
			Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1525 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: <u>0.0</u> ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives		Chromium +6	Ignitability		
Sample: <u>0.0</u> 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, No Stainings, Hit refusal @ 8 inches
10YR 2/2, Poorly sorted, Dry
Non plastic
gravel & sand 60%
silt 40%

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)

Reviewed by: ERIC EWIS (Please Print)

Signature: Michael Samelak

Signature: SPR Date: 2/4/05

Location ID: LL755-042M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

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: 1545 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: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability	
Sample: <u>0.0</u> ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	<input checked="" type="checkbox"/>		
Water Level	FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples	
Temperature	°C	Pesticides/PCBs			MS/MSD	Yes / No NA
Sp. Conductance:	µMHOs	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 moist, well sorted
non plastic, silt 80%, clay 20%

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 Samelak

Reviewed by: ERIC EWS (Please Print)
 Signature: Eric EWS Date: 2/4/05

Location ID: WL855-001M-50
 Date: 27 Oct 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
Type/Construction			Push Probe	<input checked="" type="checkbox"/>	Plastic Liner <input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks		

Sample Collection: 1530 hrs Sample Type: Composite - MI Grab
 If MI, # of increments taken: 30 Location: Plotted on Map - Staked in Field
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: <u>0.0</u> ppm	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
	Propellants		Nitrate			
Water Level	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description
No Odor, No Staining
10 yR 3/4, moist, poly sorted
Low plasticity
silt 60%, clay 30%, sand & gravel 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 Sametale (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: Michael G. Ad Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL855-002M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 27 Oct 04

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 <input checked="" type="checkbox"/>
Type/Construction			Mattocks	<input checked="" type="checkbox"/>	
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)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity	
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide	
Sample: <u>0.0</u> ppm	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability	
	Propellants		Nitrate			
Water Level	TAL Metals	<input checked="" type="checkbox"/>			QA Samples	
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description

No Odor, no staining
10 YR 3/3, poorly sorted, non-plastic
moist, silt 75%, sand 20%
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)

Reviewed by: ERIC FUS (Please Print)

Signature: Michael Samelak

Signature: ERIC FUS Date: 12/2/05

Field Sampling Report

Location ID: LL855-003M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10/27/04

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: 1430 hrs **Sample Type:** Composite - MI Grab 30
 If MI, # of increments taken: _____
Sample Depth: 0-0.5 FT (below surface) **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: Background: <u>0.0</u> ppm Sample: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
	Propellants		Nitrate			
Water Level _____ FT Temperature _____ °C Sp. Conductance: _____ uMHOs pH _____ units Turbidity _____ N.T.U.	TAL Metals _____ X Pesticides/PCBs _____ Cyanides _____ TOC _____ 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

10y 3/4 Br. SILT 65% w/ sand / small gravel / med. 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: James Panuzzo (Please Print) Reviewed by: ERIC ELIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LLR55-004 M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10/29/04

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				X

Sample Collection: 1135 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 32 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate			
Water Level	FT	TAL Metals	X	QA Samples		
Temperature	°C	Pesticides/PCBs		MS/MSD	Yes / No	NA
Sp. Conductance:	µMHOs	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 2/1, poorly sorted, non plastic
moist, sand with some gravels & 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)

Reviewed by: ERIC FUS (Please Print)

Signature: Vijay

Signature: ERIC FUS Date: 2/4/05

Location ID: LL 855-00517-850

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-1-04

Sampling Information

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

Sample Collection: 1020 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 30 Location: Plotted on Map - Staked in Field
 Sample Depth: 0-05 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters			
PID / FID Readings:	VOC		TPH GRO		Corrosivity			
Background: <u>0.0</u> ppm	SVOC	<u>X</u>	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	<u>X</u>	Chromium +6		Ignitability			
Sample: <u>0.0</u> ppm	Propellants	<u>X</u>	Nitrate					
Water Level	TAL Metals	<u>X</u>			QA Samples			
Temperature	Pesticides/PCBs	<u>X</u>			MS/MSD	Yes <u>No</u>	NA	
Sp. Conductance:	Cyanides				Duplicate ID	<u>LL855-00517-850</u>		
pH	TOC				Equipment Rinse ID	<u>NA</u>		
Turbidity	Grain Size				Trip Blank ID	<u>Trip Blank</u> ^{FOS} NA		

Sample Description
No-odor, no staining
10yr 1/2, porous soil, non plastic, moist, sand with some gravel & clays

Split Sample
 Split Sample ID: LL855-00517-850
 Name: John Jent
 Agency/Company: USACE - Louisville
 Address: 600 DE MARTIN WHITE KNO OF Pkwy
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: [Signature]

Reviewed by: ERIC EUS (Please Print)
 Signature: [Signature] Date: 2/4/05

Location ID: LL855-005D-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 01 Nov 04

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	<input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: 1020 hrs

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

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

Sample Depth: 0-0.5 FT (below surface)

Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives		Chromium +6	Ignitability		
Sample: <u>0.0</u> ppm	Propellants		Nitrate			
Water Level	TAL Metals			QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes <u>No</u>	NA
Sp. Conductance	Cyanides			Duplicate ID	<u>LL855-005D-DUP</u> NA	
pH	TOC			Equipment Rinse ID	NA <u>NA</u>	
Turbidity	Grain Size			Trip Blank ID	<u>Trip Blank</u> NA	

Sample Description

No Odor, No staining, Sample collected from in front of a doorway. No distinguishing odors or staining in grid

2.54R 4/2

Split Sample

Split Sample ID: LL855-005D-50

Name: John Jent (SUPERV)

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: Michael Samclak (Please Print)

Reviewed by: ERIC ELUS (Please Print)

Signature: Michael Samclak

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL855-006M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10/27/04

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
Type/Construction			Mattocks	X		
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)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: <u>0.0</u> ppm	VOC		TPH GRO		Corrosivity		
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: <u>0.0</u> 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
104r314 Br. SILT 70% w/ Sand 25% Dry No Plasticity
Peely 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: James Kanorio (Please Print)

Reviewed by: ERIC ELIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Location ID: LL855-007M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 01-Nov-04

Sampling Information

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

Sample Collection: 115 hrs

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

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

Sample Depth: 0-1 FT (below surface)

Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters		Other Parameters			
PID / FID Readings: Background: <u>0.0</u> ppm	VOC	TPH GRO	Corrosivity			
	SVOC	TPH DRO				
Sample: <u>0.0</u> ppm	Explosives <input checked="" type="checkbox"/>	Chromium +6			Reactivity Sulfide/Cyanide	
	Propellants	Nitrate				
Water Level	TAL Metals <input checked="" type="checkbox"/>	QA Samples				
Temperature	Pesticides/PCBs					
Sp. Conductance:	Cyanides	MS/MSD	Yes / No	NA		
pH	TOC	Duplicate ID	NA			
Turbidity	Grain Size	Equipment Rinse ID	NA			
		Trip Blank ID	NA			

Sample Description

7.5 YR 3/16, No Odor, few stainings, sorted,
low plasticity, moist clay with some silt (35%)

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 Sandak (Please Print)

Reviewed by: ERIC EWS (Please Print)

Signature: Michael Sandak

Signature: Eric EWS

Date: 2/4/05

Location ID: LL855-008M-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 01 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
			Push Probe	<input checked="" type="checkbox"/>	Plastic Liner <input checked="" type="checkbox"/>
Type/Construction			Mattocks	<input checked="" type="checkbox"/>	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1145 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity Reactivity Sulfide/Cyanide Ignitability		
	SVOC		TPH DRO			
Sample: <u>0.0</u> ppm	Explosives	<input checked="" type="checkbox"/>	Chromium +6			
	Propellants		Nitrate			
Water Level	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description

7.5 YR 2.5/2, no odor, no staining,
poorly sorted, non plastic, moist, silty sand

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)

Reviewed by: ERK EWS (Please Print)

Signature: Michael Samelak

Signature: ERK EWS

Date: 2/4/05

Location ID: 4855-00911-50

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-1-04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
Type/Construction			Push Probe	Plastic Liner <input checked="" type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks	<input checked="" type="checkbox"/>

Sample Collection: 1450 hrs

Sample Type: Composite - MP - 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: Background: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity																	
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide																	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability																	
Sample: <u>0.0</u> ppm	Propellants		Nitrate	<table border="1"> <thead> <tr> <th colspan="3">QA Samples</th> </tr> </thead> <tbody> <tr> <td>MS/MSD</td> <td>Yes / No</td> <td>NA</td> </tr> <tr> <td>Duplicate ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Equipment Rinse ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Trip Blank ID</td> <td></td> <td>NA</td> </tr> </tbody> </table>			QA Samples			MS/MSD	Yes / No	NA	Duplicate ID		NA	Equipment Rinse ID		NA	Trip Blank ID		NA
QA Samples																					
MS/MSD	Yes / No	NA																			
Duplicate ID		NA																			
Equipment Rinse ID		NA																			
Trip Blank ID		NA																			
Water Level: _____ FT	TAL Metals	<input checked="" type="checkbox"/>																			
Temperature: _____ °C	Pesticides/PCBs																				
Sp. Conductance: _____ uMHOs	Cyanides																				
pH: _____ units	TOC																				
Turbidity: _____ N.T.U.	Grain Size																				

Sample Description

No odor, no staining
7.5 yr 2.5/2, poorly sorted, non
plastic, moist, silty sand with
trace of 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: Stephen Sturgeon (Please Print)

Reviewed by: ERIC ELIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL855-010M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 01 Nov 04

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: 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: <u>0.0</u> ppm	VOC	Corrosivity	
	SVOC	Reactivity Sulfide/Cyanide	
	Explosives <input checked="" type="checkbox"/>	Chromium +6	Ignitability
Sample: <u>0.0</u> ppm	Propellants	Nitrate	
Water Level <u>/</u> FT	TAL Metals <input checked="" type="checkbox"/>	QA Samples	
Temperature <u>/</u> °C	Pesticides/PCBs	MS/MSD	<u>(Yes)</u> / No NA
Sp. Conductance: <u>/</u> uMHOs	Cyanides	Duplicate ID	<u>LL855-010M-DUP</u> NA
pH <u>/</u> units	TOC	Equipment Rinse ID	<u>(NA)</u>
Turbidity <u>/</u> N.T.U.	Grain Size	Trip Blank ID	<u>(NA)</u>

Sample Description

7.5 YR 3/2, No odor, few grey stains,
poorly sorted, non plastic, moist, sandy silt
with little clay

Split Sample
Split Sample ID: LL855-010M-50
Name: John Jent (CERCLA-FO)
Agency/Company: USACE - Louisville
Address: 600 DR MARTIN LUTHER KING JR BLVD
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: Michael Sawelaf (Please Print)

Reviewed by: ERIC FLUS (Please Print)

Signature: Michael Sawelaf

Signature: ERIC FLUS

Date: 2/4/05

Field Sampling Report

Location ID: LL888-011M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 02-11-04

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: 0930 hrs Sample Type: Composite - (MI) - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 32
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

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

Sample Description

No odor, some black staining
sorted, med plasticity, moist
silt & clay 10% 3/3

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: Shahram Taherinia (Please Print)

Reviewed by: ERIC ELUS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL855 - 012M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 02 Nov 04

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 <input checked="" type="checkbox"/>
Type/Construction			Mattocks	<input checked="" type="checkbox"/>	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 0915 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 30 Location: Plotted on Map - Staked in Field
 Sample Depth: 0-0.5 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

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

Sample Description

No staining, No Odor
10YR 3/2, poorly sorted, low to med
plasticity, moist, 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: Michael Samelak (Please Print)

Reviewed by: ERIC BLUS (Please Print)

Signature: Michael Samelak

Signature: [Signature] Date: 2/4/05

Location ID: 44855-01317-50 *92* **Field Sampling Report**

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-2-04

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 - M Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 30
 Estimated - Measured - Surveyed
 Sample Depth: 01 FT (below surface) Decon: Dedicated - Each Day - Each Location

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

Sample Description
No-odor, no staining
10 yR 3/6, sorted, med plasticity
moist, silt 70%, 20% clay
10% sand

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) Reviewed by: FUC FUS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Location ID: LL 855-01314-QA
 Date: 11-2-04

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
Type/Construction			Push Probe	Plastic Liner
Miscellaneous	Well Purging Form Yes - No		Mattocks	

Sample Collection: 1015 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map, Staked in Field
 If MI, # of increments taken: 30
 Sample Depth: 0-1 FT (below surface) Decon: Dedicated - Each Day - Each Location Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: ppm	Explosives	X	Chromium +6	Ignitability		
	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
10 YR 3/4, sorted, low plasticity
moist silt 70%, clay 20%
clay 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) Reviewed by: ERIC EUS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: 11855-014M-50

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 01 Nov 04

Sampling Information

Table with columns: Source, Groundwater / Product, Surface Water, Soils / Sediments / Sludge. Includes rows for Method (Bailer, Pump, Sample Bottle, Bacon Bomb, Scoop, Bowl, Push Probe, Trowel, Hand Auger, Plastic Liner), Type/Construction (Mattocks), and Miscellaneous (Well Purging Form).

Sample Collection: 1525 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

Table with columns: Field Parameters (at time of sample), Analytical Parameters (VOC, SVOC, Explosives, Propellants, TAL Metals, Pesticides/PCBs, Cyanides, TOC, Grain Size), Other Parameters (Corrosivity, Reactivity Sulfide/Cyanide, Ignitability, QA Samples).

Sample Description

7.5 YR 2.5/B, Medium-Dark Brown color, Sandy silt + clay, no odor, black gravelly material found @ 4", poor sorting, low plasticity, low moisture. One location south of building had strong sulfur content odor. point was flagged.

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 Samelak

Reviewed by: Eric Fuis (Please Print)

Signature: Eric Fuis Date: 2/4/05

Field Sampling Report

Location ID: LL8SS-015M-SD

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-02-04

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: 110 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: <u>0.0</u> ppm	VOC		TPH GRO	Corrosivity Reactivity Sulfide/Cyanide Ignitability		
	SVOC	✓	TPH DRO			
	Explosives	✓	Chromium +6			
Sample: <u>0.0</u> ppm	Propellants	✓	Nitrate	QA Samples MS/MSD Yes / No NA Duplicate ID NA Equipment Rinse ID NA Trip Blank ID NA		
Water Level: _____ FT	TAL Metals	✓				
Temperature: _____ °C	Pesticides/PCBs	✓				
Sp. Conductance: _____ uMHOs	Cyanides					
pH: _____ units	TOC					
Turbidity: _____ N.T.U.	Grain Size					

Sample Description

NO odor, NO staining, sorted
MOIST med plasticity silt
and clay 2.5yr 2.5/3

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: Shahram Taherini (Please Print)

Reviewed by: ERIC FUIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL 888 - 015D - 80

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-02-04

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: 1108 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: <u>0.0</u> ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
Sample: <u>0.0</u> ppm	Explosives		Chromium +6	Ignitability		
	Propellants		Nitrate			
Water Level	TAL Metals			QA Samples		
Temperature	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance:	Cyanides			Duplicate ID		NA
pH	TOC			Equipment Rinse ID		NA
Turbidity	Grain Size			Trip Blank ID		NA

Sample Description

NO odor, NO staining
well sorted, med plasticity
MOIST silt & clay 2.5% - 2.5%

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: Shahram Taherinia (Please Print)

Reviewed by: ERIC EWS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05